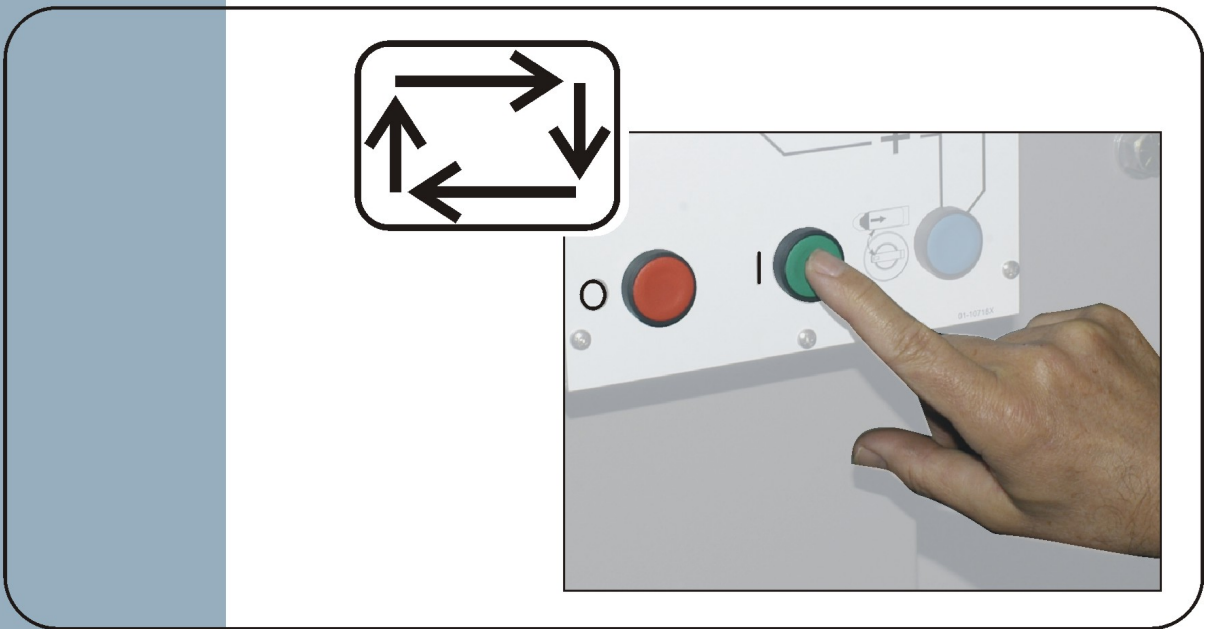


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# Drynet





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English

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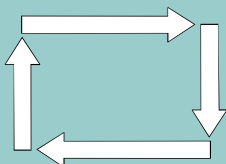


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## Operator Guide—

# Drynet Dryer/Shuttle Controller



**Read the  
separate  
safety  
manual  
before  
installing,  
operating,  
or servicing**

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

**Applicable Milnor® products by model number:**

50040SA1	5040TG2L	5040TG2R	5040TS2L	5040TS2R	5050TG2L	5050TG2R
5050TS1L	5050TS1R	6458TG1L	6458TG1R	6458TS1L	6458TS1R	6464TG1L
6464TG1R	7272TG1L	7272TG1R	7272TS1L	7272TS1R	CTLDRSPC	



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# Chapter 1

## Controls

BIVUUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20080722 Lang: ENG01 Applic: PDU YDS

### 1.1. Controls on Shuttles Including Those in a DryNet Network

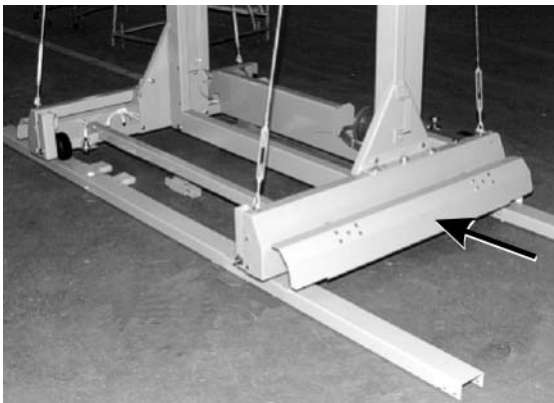
This document describes the physical controls provided with the various shuttle models as well as a few DryNet operating functions which serve in place of physical controls when the shuttle is part of a DryNet (Dryer/Shuttle Controller) network. The shuttle will have only those controls needed for the type of movements it can perform. Certain controls are always located on the shuttle itself. Generally, on shuttles that traverse a rail, the manual operation controls are located on the free-standing shuttle control box, while on shuttles that do not traverse, they are on the shuttle itself. If the shuttle is part of a DryNet network, certain physical controls are located at the DryNet Console. This is also where machine functions are available via the DryNet software.

#### 1.1.1. Machine-mounted Controls

These include one or more emergency stop switches as described in [Section 1.2.1.1 “Emergency Stop Switch \(locking push button\)”](#) and the other controls described under this section.

- 1.1.1.1. **Emergency Stop Kick Plates**—Shuttles are provided with hinged kick plates ([Figure 1](#)) on both sides of the machine in the traversing directions. When a kick plate pivots sufficiently, this actuates a switch that stops the machine by dropping out the three-wire circuit.

**Figure 1: Shuttle Kick Plate**



- 1.1.1.2. **Motor Disconnect Switch**—This switch (SHMD) affects three-phase power for the shuttle motors, as follows:

**0 OFF**—Three-phase power is not available. The shuttle will not move under power.

**1 ON** —Three-phase power is available. **The machine may immediately begin moving.**

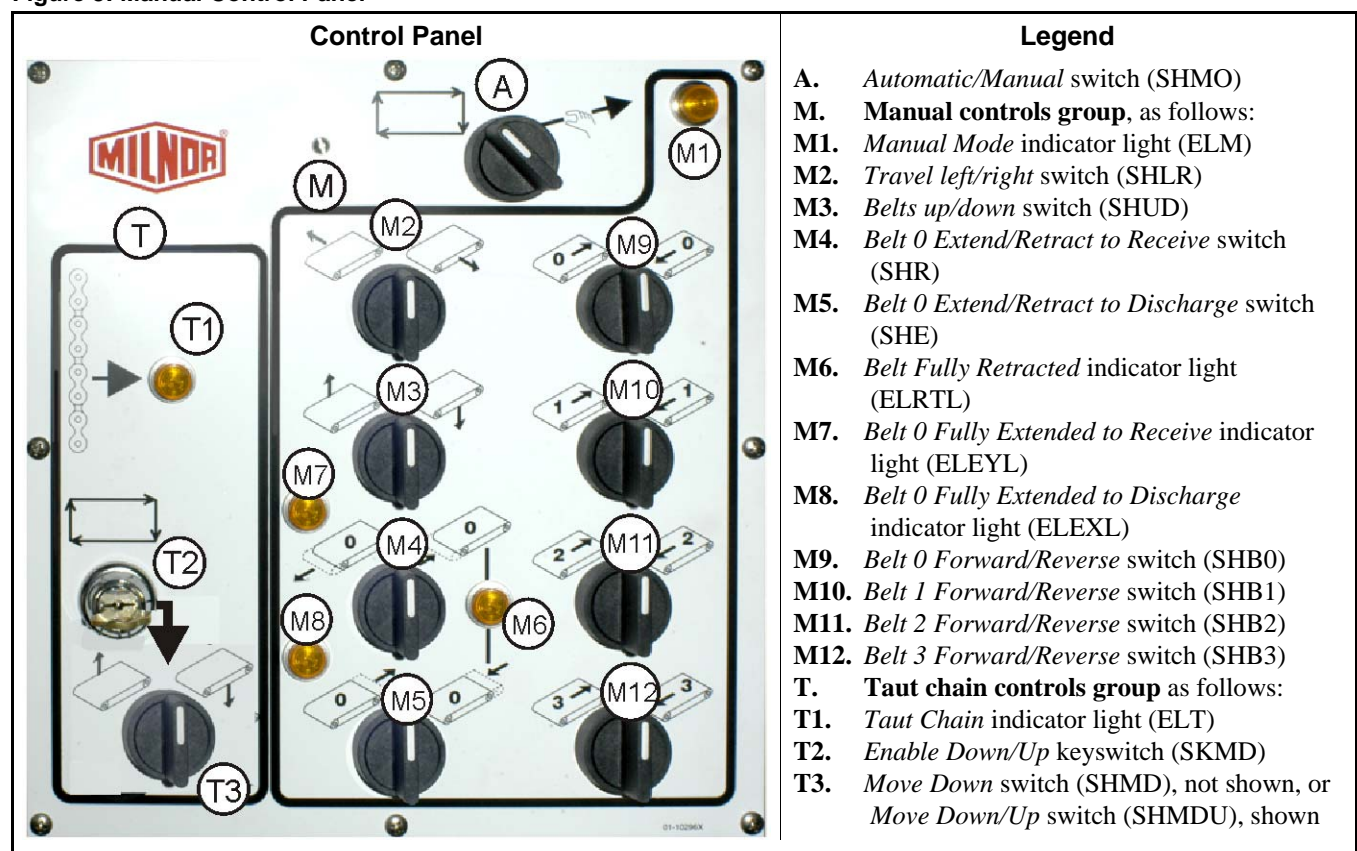
Figure 2: Motor Disconnect Switch



### 1.1.2. Manual Operation Controls

Figure 3 illustrates the control panel used on shuttles for cakes and loose goods. Only those controls corresponding to the shuttle's motion capability are provided on a given shuttle.

Figure 3: Manual Control Panel













1.1.2.1. **Automatic/Manual switch (A)**—This switch (SHMO) determines what controls machine movement, as follows:

—The machine is controlled by the switches in the manual controls group.

—The machine moves under automatic control. **The machine may immediately begin moving.**

### 1.1.2.2. Manual Controls Group (M)

- 1.1.2.2.1. **Manual Mode indicator light (M1)**—The *Manual Mode* indicator light (ELM) illuminates when manual mode is enabled, indicating that the manual control switches are active.
- 1.1.2.2.2. **Travel left/right switch (M2)**—Holding this center-off switch (SHLR) in one of the momentary positions causes the shuttle to traverse the rail, as follows:
- —(momentary counter-clockwise) The shuttle moves left along the rail, relative to the flow of goods.
  - —(momentary clockwise) The shuttle moves right along the rail.
- 1.1.2.2.3. **Belts up/down switch (M3)**—Holding this center-off switch (SHUD) in one of the momentary positions causes the bed(s) to move as follows:
- —(momentary counter-clockwise) The hoist runs and the bed(s) rise.
  - —(momentary clockwise) The hoist runs and the bed(s) descend.
- 1.1.2.2.4. **Belt 0 Extend/Retract to Receive switch (M4)**—Holding this center-off switch (SHR) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with receiving a load:
- —(momentary counter-clockwise) The bed extends toward the device it will receive the goods from.
  - —(momentary clockwise) The belt retracts from the receive position.
- 1.1.2.2.5. **Belt 0 Extend/Retract to Discharge switch (M5)**—Holding this center-off switch (SHE) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with discharging a load:
- —(momentary counter-clockwise) The bed extends toward the device it will discharge the goods to.
  - —(momentary clockwise) The belt retracts from the discharge position.
- 1.1.2.2.6. **Belt Fully Retracted indicator light (M6)**—This light (ELRTL) illuminates when the Belt 0 (topmost) bed is fully retracted, indicating that the shuttle can traverse safely.
- 1.1.2.2.7. **Belt 0 Fully Extended to Receive indicator light (M7)**—This light (ELEYL) illuminates when the Belt 0 (topmost) bed is fully extended to receive a load from another device.
- 1.1.2.2.8. **Belt 0 Fully Extended to Discharge indicator light (M8)**—This light (ELEXL) illuminates when the Belt 0 (topmost) bed is fully extended to discharge a load to another device.
- 1.1.2.2.9. **Belt [0-3] Forward/Reverse switch (M9 through M12)**—Holding this center-off switch (SHB0) in one of the momentary positions causes the selected belt to run as follows:
- —(momentary counter-clockwise) The selected belt runs forward, toward the device which normally receives goods from the belt.
  - —(momentary clockwise) The selected belt runs in reverse, toward the device which normally discharges goods to the belt.

### 1.1.2.3. Taut Chain Recovery Controls (T)

#### Supplement 1

#### About Taut Chain Conditions

From the standpoint of the type of hoist, shuttles fall into three categories:

**top-mounted hoist motor**—This shuttle type has a hoist motor that is rigidly mounted to the top frame member. The hoist motor drives a roller chain with one free end. This type is susceptible to the taut chain condition that occurs if the controller does not sense the topmost position when the bed is rising, causing it to reach its upper mechanical limit.

**side-mounted hoist motor (low clearance shuttle)**—This type uses a hoist motor reducer that is rigidly mounted near the top of a side frame member. The hoist motor drives a roller chain that forms a loop and connects to the bed assembly both above and below. This type is susceptible to the same condition as above and the condition that occurs if the controller does not sense the bottom-most position when the bed is descending, causing it to reach its lower mechanical limit.



**CAUTION** 1: **Risk of damage**—Forcing the bed assembly against a mechanical stop by improper use of the taut chain or other manual controls may cause shuttle components to bend or break, or the hoist motor to burn out.


- Ensure that you do not hold a control in a direction the bed assembly cannot move.


**Demag hoist (light frame shuttle)**—This type uses a Demag brand hoist suspended from the top frame member that drives an anchor chain. This type is not susceptible to the taut chain condition.

These controls function with all except shuttles that use the Demag hoist.


1.1.2.3.1. **Taut Chain indicator light (T1)**—This light (ELT) illuminates to indicate that a taut chain error has occurred.

1.1.2.3.2. **Enable Up/Down keyswitch (T2)**—This keyswitch (SKMD) determines what controls vertical movement of the shuttle bed(s), as follows:

—The bed(s) can be manually lowered with the *Move Down* switch or manually lowered or raised with the *Move Down/Up* switch, whichever is provided.

—Shuttle movements are controlled automatically.

1.1.2.3.3. **Move Down switch or Move Down/Up switch (T3)**—If armed as described in [Section 1.1.2.3.2](#), the counter-clockwise-off, *Move Down* switch (SHMD) provided on shuttles with a top-mounted hoist motor, or the center-off, *Move Down/Up* switch (SHMDU) provided on shuttles with a side-mounted hoist motor, causes the hoist to move as follows:

—(momentary clockwise) The bed(s) descend while this position is held.

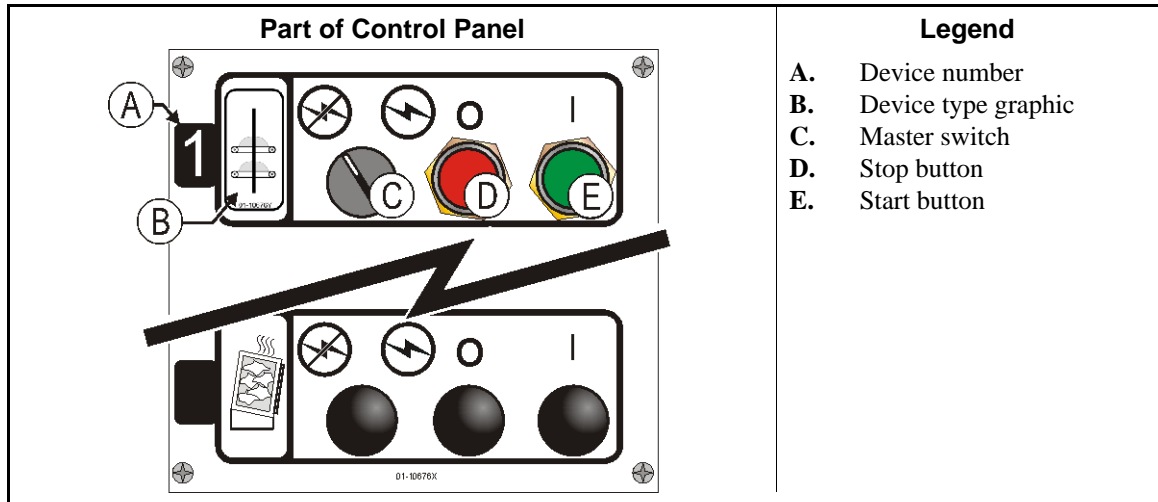
**Note 1:** Older models use a *Move Down* button. The bed(s) descend while this button is held.

—(momentary counter-clockwise, if provided) The bed(s) rise while this position is held.

### 1.1.3. Controls on the Dryer/Shuttle Controller (DryNet) Console

In normal operation, the shuttle, along with all other machines in the DryNet network are individually powered on and off at this location. Shuttles that are not part of a DryNet network will have corresponding controls mounted on the shuttle itself, or the free-standing shuttle control box.

Figure 4: DryNet-mounted Controls



1.1.3.1. **Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⚡—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

1.1.3.2. **Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

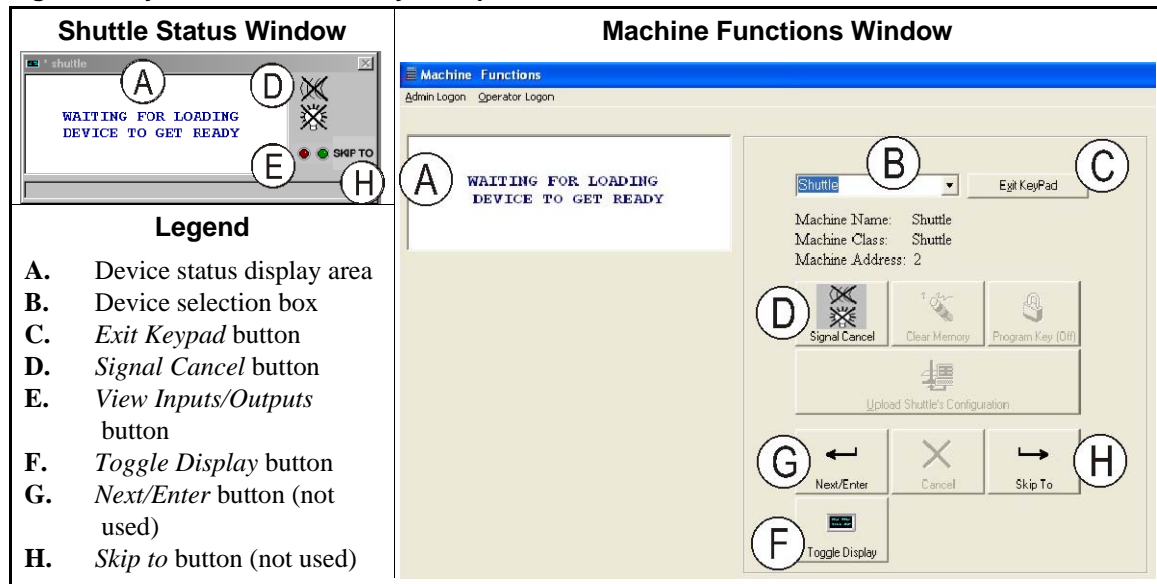
1.1.3.3. **Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

#### 1.1.4. Shuttle Machine Functions Available to the Operator on DryNet

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 5](#) and explained below.



Figure 5: DryNet Windows Used by the Operator



- 1.1.4.1. **Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.1.4.2](#).
- 1.1.4.2. **Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.
- 1.1.4.3. **Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.
- 1.1.4.4. **Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the operator signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.
- 1.1.4.5. **View Inputs/Outputs button (E)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.
- 1.1.4.6. **Toggle Display button (F)**—For use by service personnel. Click this button repeatedly to toggle through various displays on the Shuttle Status window. These displays show cake information, inputs, outputs, counting horizontal targets as the shuttle traverses the rail, and counting vertical targets as the shuttle bed(s) elevate and descend.

— End of BIVUU001 —

BIPDGT01 (Published) Book specs- Dates: 20080722 / 20080722 / 20080722 Lang: ENG01 Applic: PDU YDS

## 1.2. Controls on Dryers, Conditioners, and Shakers Including Those in a DryNet Network

This document describes the physical controls provided with dryers, conditioners, and shakers as well as a few DryNet operating functions which serve in place of physical controls when the machine is part of a DryNet (Dryer/Shuttle Controller) network. The physical controls include manual intervention controls and status lights mounted on the machine, and power controls

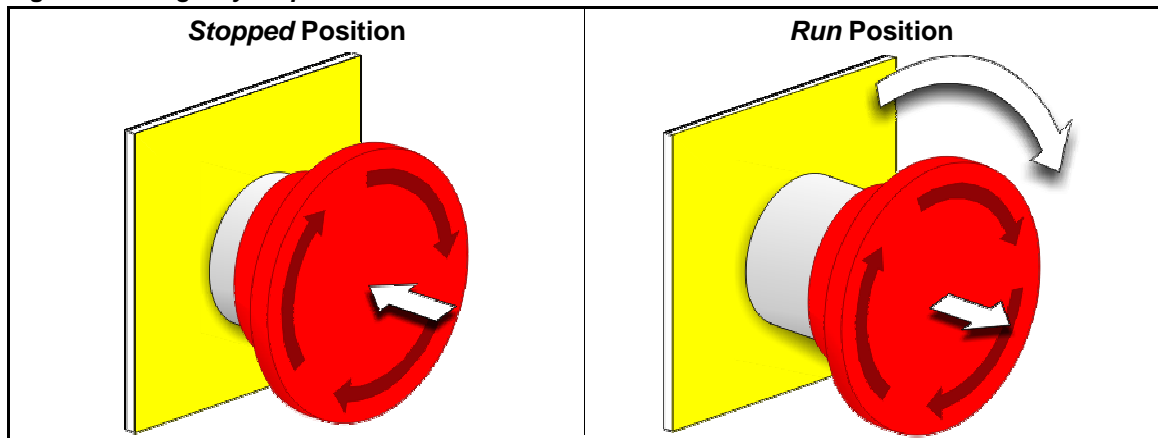
mounted on the DryNet console or other remote-mounted electric box. Drynet operating functions are performed at the DryNet console.

### 1.2.1. Machine-mounted Controls

Controls mounted on the machine include one or more emergency stop switches and the controls necessary to manually unload the dryer (Figure 7).

- 1.2.1.1. **Emergency Stop Switch (locking push button)** [Document BIVUU002]—One or more *emergency stop* switches (Figure 6) are provided on the device. When pressed, any emergency stop switch removes power from the machine controls, stops the machine and locks in the depressed (switch actuated, machine stopped) position. When safe to do so, turn the button clockwise to unlock the switch. To resume operation, perform the device's normal startup procedure.

Figure 6: *Emergency Stop Switch*



**Notice 2:** Press the *emergency stop* switch immediately in an emergency situation. This disables the 3-wire circuit while maintaining power to the microprocessor controller.

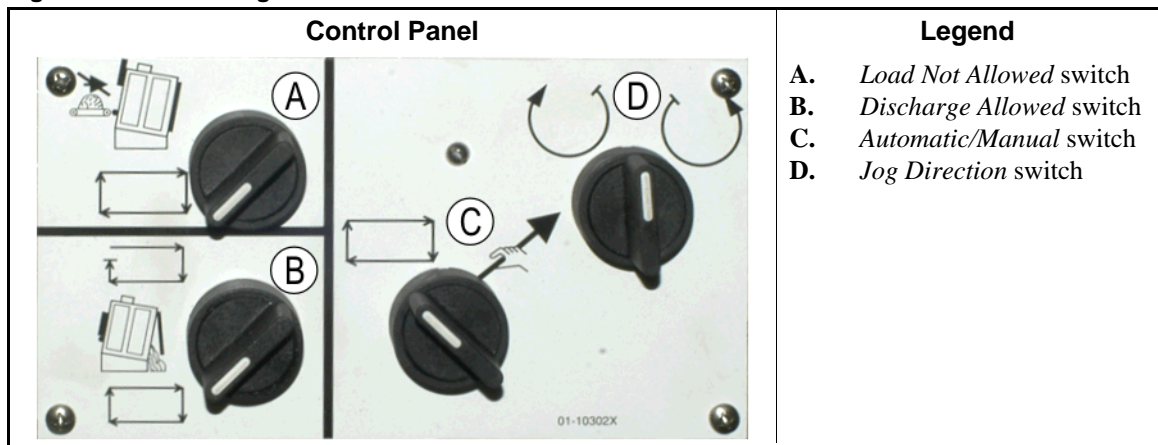
#### Display or Action

#### Explanation

- ⊙ This symbol represents the emergency stop switch in Milnor® documents other than electrical wiring diagrams.

### 1.2.1.2. Door and Jog Controls

Figure 7: Door and Jog Controls



- 1.2.1.2.1. **Load Not Allowed switch (A)**—This switch determines whether the machine will request (accept) a new load automatically, as follows:
- The machine will not request a load.
  - The machine will request a new load after discharging the current load (required for normal, automatic operation).
- 1.2.1.2.2. **Discharge Allowed switch (B)** —This switch determines how the machine will discharge, as follows:
- The machine automatically discharges each load when the dry code is finished, without regard for the ready status of the receiving device. For example, if a cart is supposed to be in position, but it is not, the goods will discharge onto the floor.
  - This position prevents the machine from discharging unless it receives a signal from the Miltrac™ controller to discharge. Hence, this position has two uses: 1) It is required for normal operation if the machine is unloaded via Miltrac, and 2) it may be used to prevent automatic discharge if the machine is not unloaded via Miltrac.
  - If the machine is ready to discharge, turning the switch to this momentary position briefly will initiate the discharge process.
- 1.2.1.2.3. **Automatic/Manual Rotation switch (C)**—This switch determines what controls basket rotation, as follows:
- Automatic operation is suspended, the discharge door opens and basket rotation is controlled by the *Jog Direction* switch.
  - The basket rotates automatically.
- 1.2.1.2.4. **Jog Direction switch (D)**—Used for unloading. When rotation is set to manual, this center-off switch causes the basket to rotate as follows, except as explained in [Note 2](#):
- (momentary, clockwise) rotates the basket clockwise (when viewing the machine from the front) while the switch is held.
  - (momentary, counter-clockwise) rotates the basket counterclockwise while the switch is held.

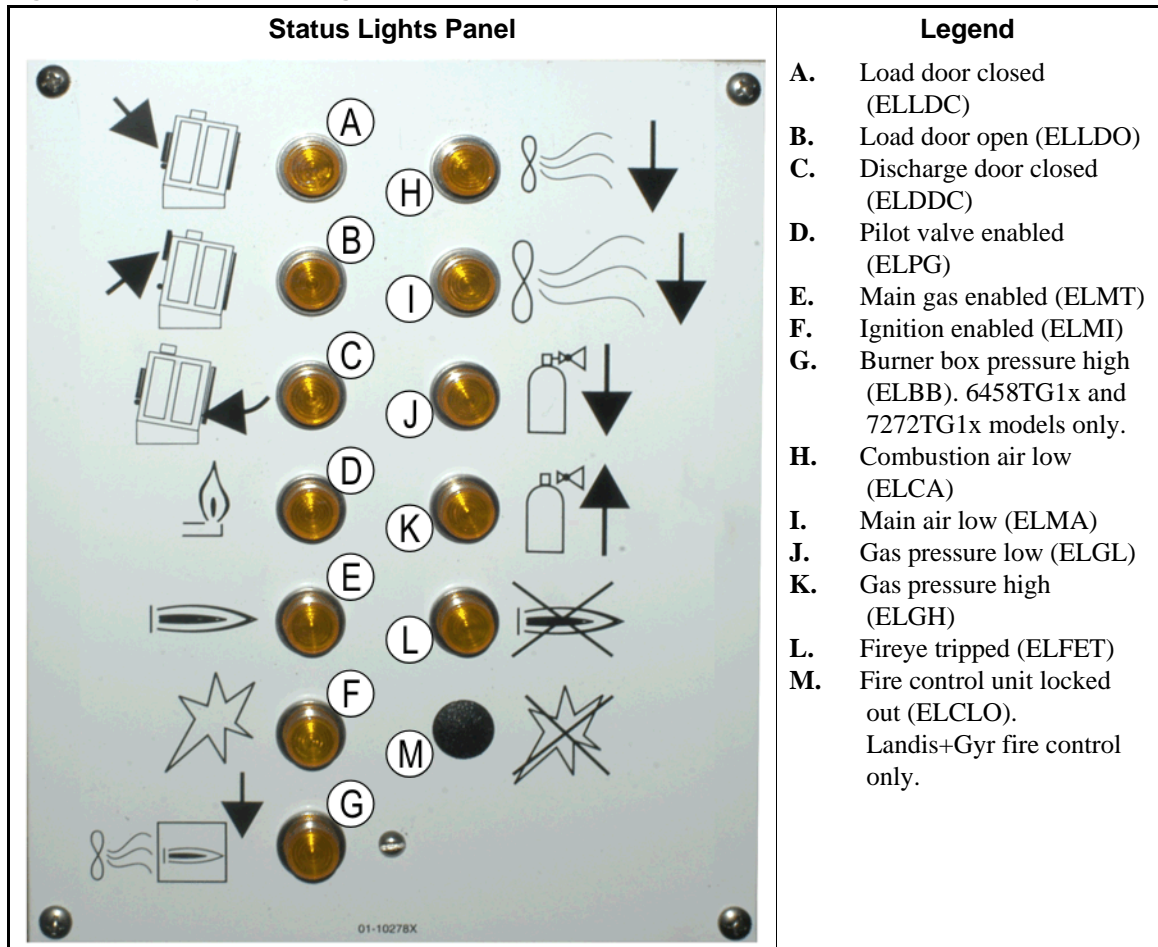
**Note 2:** 6458Txxx and 7244Txxx models can have blowers either on the left or the right. Machines with lefthand blowers function exactly as stated above. Those with righthand blowers function opposite that

stated above. For example, holding the switch at the clockwise position will cause the basket to rotate counter-clockwise when viewed from the front of the machine. This is the direction the basket turns during automatic unloading, to help prevent plastering of the goods.

### 1.2.2. Machine-mounted Status Lights—Gas Dryers

Gas-fired dryers have several amber status lights on the front panel used to monitor the dryer doors and heating system. Some of these lights are operated by the machine controller and some are operated by the fire control unit (Fireye® or Landis+Gyr). When an error condition causes a light to either illuminate or extinguish, an error message is displayed. For lights operated by the fire control unit, the error message will say “CHECK ERROR LIGHTS.”

Figure 8: Gas Dryer Status Lights



**1.2.2.1. Load Door Closed (A)**—This light (ELLDC) indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.

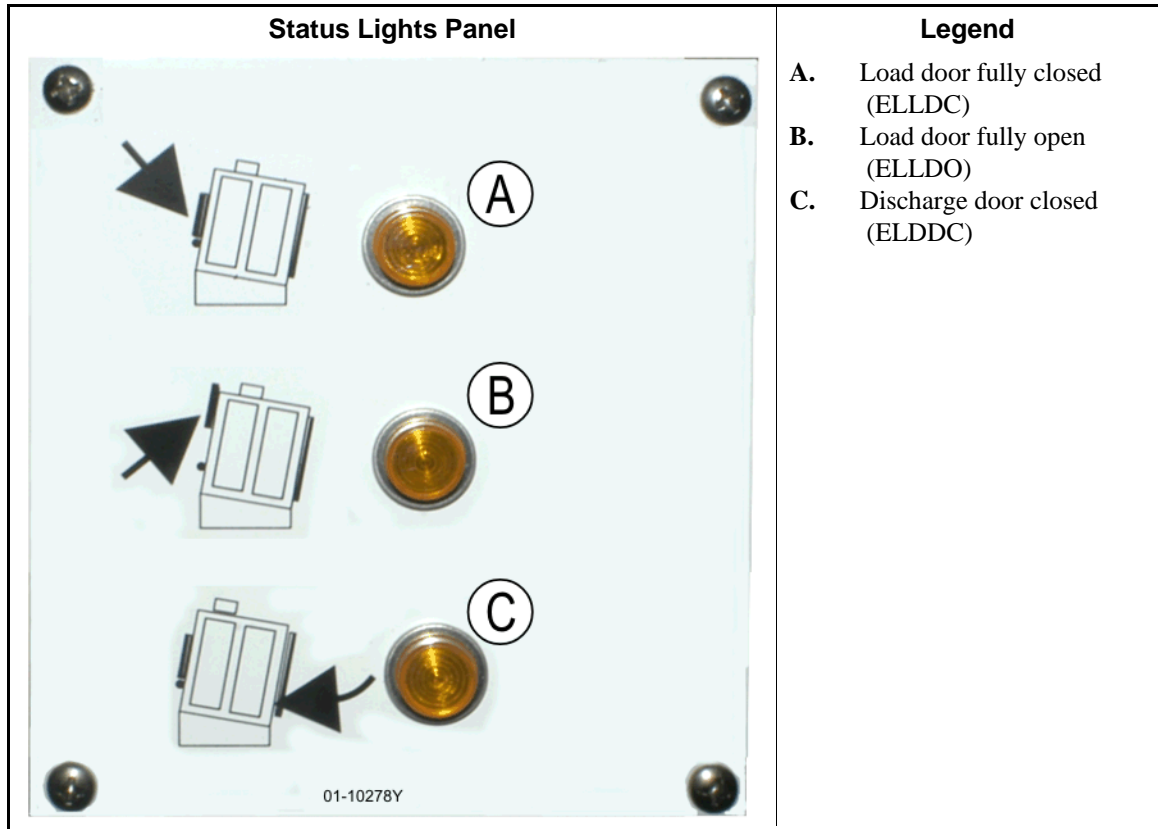
**1.2.2.2. Load Door Open (B)**—This light (ELLDO) indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.

- 1.2.2.3. Discharge Door Closed (C)**—This light (ELDDC) indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.
- 1.2.2.4. Pilot Valve Enabled (D)**—This light (ELPG) indicates that the flame control unit has energized the pilot valve.
- 1.2.2.5. Main Gas Enabled (E)**—This light (ELMT) indicates that the flame control unit has energized the modulating gas valve and the main gas valve.
- 1.2.2.6. Ignition Enabled (F)**—This light (ELMI) indicates that the flame control unit is attempting to ignite the flame.
- 1.2.2.7. Burner Box Pressure High (G)**—This light (ELBB) indicates that the permissible burner box pressure has been exceeded. This is an error condition.
- 1.2.2.8. Combustion Air Low (H)**—This light (ELCA) indicates that combustion air flow delivered to the dryer is too low for proper operation.
- 1.2.2.9. Main Air Low (I)**—This light (ELMA) indicates that main air flow delivered to the dryer is too low for proper operation.
- 1.2.2.10. Gas Pressure Low (J)**—This light (ELGL) indicates that the gas pressure delivered to the dryer is too low for proper operation, or the gas regulator is damaged.
- 1.2.2.11. Gas Pressure High (K)**—This light (ELGH) indicates that the gas pressure delivered to the dryer is too high for proper operation, or the gas regulator is damaged.
- 1.2.2.12. Fireye Tripped (L)**—If the machine is equipped with a Fireye fire control unit, this light (ELFET) indicates that the flame rod signaled the flame control unit that neither the pilot nor the burner is lit.
- This light is sometimes provided when the machine is equipped with a Landis & Gyr fire control unit. If so, it has the same meaning as the *Fire Controller Locked Out* status light below.
- 1.2.2.13. Fire Controller Locked Out (M)**—If the machine is equipped with a Landis+Gyr fire control unit, this light (ELCLO) indicates that the microprocessor requested fire, but the flame control unit was disabled because one of the conditions required by the safety reset circuit was not satisfied.

### 1.2.3. Machine-mounted Status Lights—Steam and Thermal Oil Dryers and Conditioners and All Shakers

Dryers and conditioners heated by steam or thermal oil, as well as all shakers (non-heated units) have three amber status lights on the front panel to monitor the doors.

Figure 9: Steam Dryer Status Lights



**1.2.3.1. Load Door Closed**—This light indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.

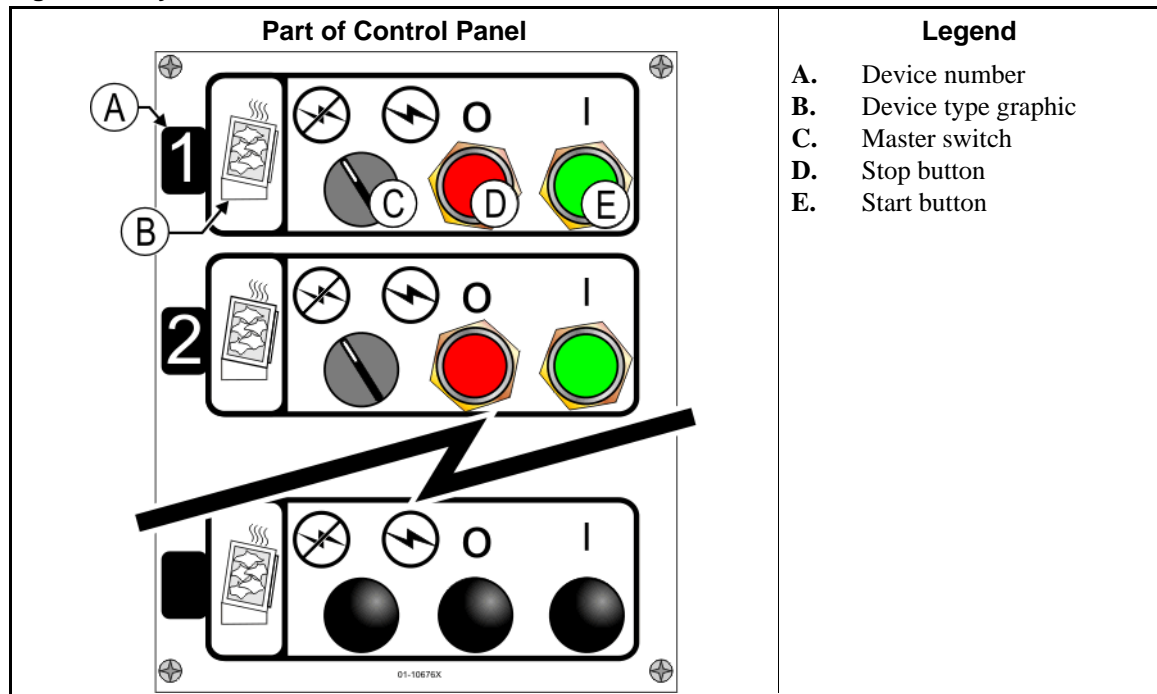
**1.2.3.2. Load Door Open**—This light indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.

**1.2.3.3. Discharge Door Closed**—This light indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.

**1.2.4. Controls Mounted on the Dryer-Shuttle Controller (DryNet) Console**

In normal operation, all machines in the DryNet network are individually powered on and off at this location. On machines that are not part of a DryNet network, corresponding controls are mounted on a separate dryer control box.

Figure 10: Drynet-mounted Controls



**1.2.4.1. Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

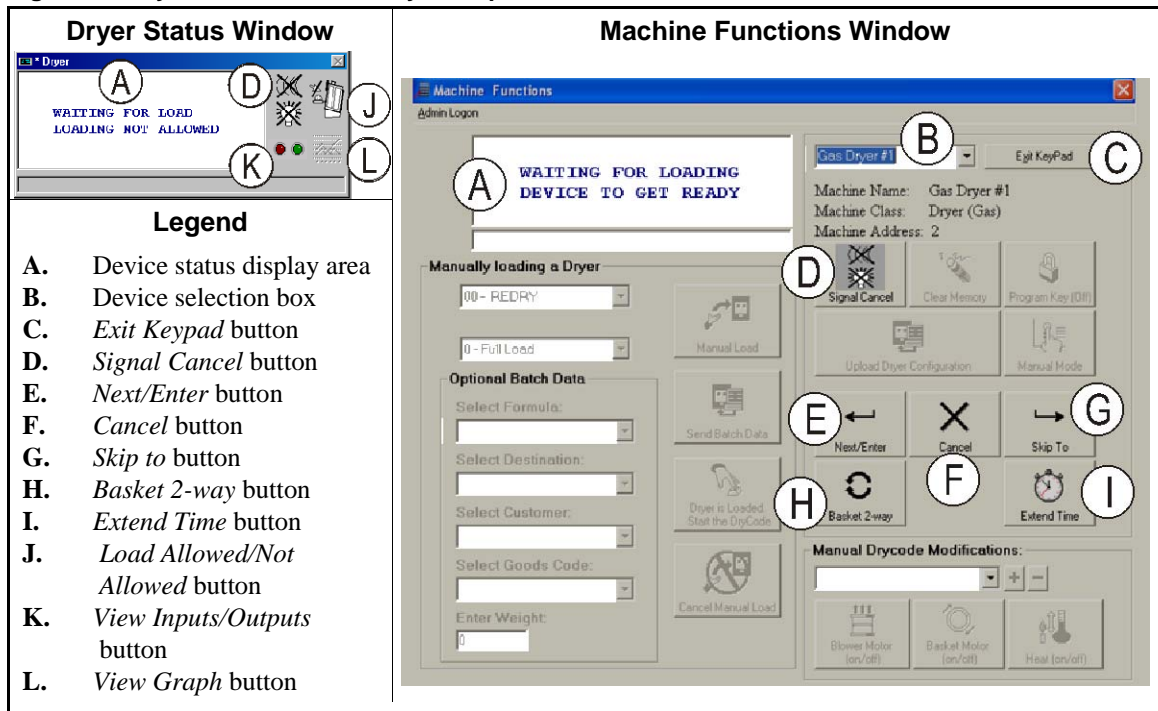
**1.2.4.2. Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**1.2.4.3. Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

### 1.2.5. Machine Functions Available to the Operator on DryNet

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 11](#) and explained below.

Figure 11: DryNet Windows Used by the Operator



- 1.2.5.1. **Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.2.5.2](#).
- 1.2.5.2. **Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.
- 1.2.5.3. **Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.
- 1.2.5.4. **Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.
- 1.2.5.5. **Next/Enter button (E)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- 1.2.5.6. **Cancel button (F)**—Click the mouse on this button to cancel the current drycode step.
- 1.2.5.7. **Skip to button (G)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- 1.2.5.8. **Basket 2-way button (H)**—Click the mouse on this button to toggle basket rotation between one-way and two-way.



- 1.2.5.9. **Extend Time button (I)**—Click the mouse on this button to add one minute to the time of the current step. Each additional click adds another minute.
- 1.2.5.10. **Load Allowed/Not Allowed button (J)**—Performs the same function as the *Load Not Allowed* switch on the machine. Click this button to take the selected machine “off-line” (Not Allowed) or return it on-line (Load Allowed). While off-line, the machine will not request a load and the shuttle will not deliver cakes to this machine.
- 1.2.5.11. **View Inputs/Outputs button (K)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.
- 1.2.5.12. **View Graph button (L)**—Click this button to display the *Temperature Profile* window for this machine, which shows a real-time graph of temperature and related information for the selected machine.

— End of BIPDGT01 —

# Chapter 2

## Normal Machine Operation

BIPDUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20080722 Lang: ENG01 Applic: PDU YDS

### 2.1. Dryer Operating Instructions for Plant Personnel

#### 2.1.1. Start Here for Safety

This document is meant to remind you, the person operating this dryer, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.
















**DANGER 3: Multiple Hazards**—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

**DANGER 4: Electrocution and Electrical Burn Hazards**—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not unlock or open electric box doors.

## 2.1.2. Check Switch Settings

Display or Action	Explanation
	Verify that the <i>Run/Program</i> keyswitch is at  .
	All emergency stop buttons must be unlatched and in the <i>ready</i> position to allow machine operation.
	Verify that the master switch is at  .
	Verify that the <i>Load Not Allowed</i> switch is at  to allow automatic loading.
	Verify that the <i>Discharge Allowed</i> switch is at  to allow automatic discharging of processed goods.
	Verify that the <i>Local/Remote</i> switch is set to  to allow network communication.
	Verify that the <i>Automatic/Manual</i> switch is at  to allow automatic operation.

## 2.1.3. Loading the Machine

A Milnor system controller automatically operates this machine and other machines in the system. If all switches are positioned as described in [Section 2.1.2](#), the machine will accept, process, and discharge a load without manual intervention.

At start-up, the machine asks the operator if the machine is loaded. If the machine is not loaded, normal automatic operation begins. If the machine contains a load, the machine controller or Mildata computer will prompt the operator for the data associated with the load. When the operator enters and confirms all necessary batch data, begins operating in automatic mode.

## 2.1.4. What Does the Display Tell Me?



### 2.1.4.1. Drycode and Step Information for Gas-fired Dryers

Display or Action	Explanation
<div style="border: 1px solid black; padding: 2px;">                     WAITING FOR LOAD                      *****                 </div>	Dryer is idle.
<div style="border: 1px solid black; padding: 2px;">                     LOADING                      -----                 </div>	Dryer is loading.
<div style="border: 1px solid black; padding: 2px;">                     04F TIF TOF 031 AIR                      S01 425D185 012 000                 </div>	<p><i>04F</i> indicates that the dryer is running drycode 04 for a full load; <i>04P</i> would represent a partial load.</p> <p><i>S01</i> is the current step number of the selected drycode.</p> <p><i>TIF</i> appears above the inlet temperature in degrees Fahrenheit (425 in this example). <i>TIC</i> appears when the dryer is configured for Celsius.</p> <p><i>TOF</i> appears above the outlet temperature in degrees Fahrenheit (185 in this example). <i>TOC</i> appears when the dryer is configured for Celsius.</p> <p><i>D</i> between the inlet and outlet temperatures represents <i>Desired</i> temperature. The display alternates to also show the <i>Actual</i> temperatures when <i>A</i> replaces <i>D</i>.</p> <p><i>031</i> represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).</p> <p><i>012</i> represents the time remaining in this step (1 minute and 30 seconds in this example).</p> <p><i>AIR</i> appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the modulating valve position below <i>VP</i>.</p>

### 2.1.4.2. Drycode and Step Information for Steam Dryers

Display or Action	Explanation
WAITING FOR LOAD *****	Dryer is idle.
LOADING -----	Dryer is loading.
04F TIF TOF 031 AIR S01 ---D--- 012 000	<p>04F indicates that the dryer is running drycode 04 for a full load; 04P would represent a partial load.</p> <p>S01 is the current step number of the selected drycode.</p> <p>Desired temperatures are not set on steam dryers. Actual temperatures are shown on the bottom line of the display, below TIF (TIC) and TOF (TOC)</p> <p>031 represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).</p> <p>012 represents the time remaining in this step (1 minute and 30 seconds in this example).</p> <p>AIR appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the steam ratio below SR.</p>

### 2.1.5. Unloading the Machine

In automatic mode, the machine will discharge at the end of each dry cycle. To discharge the goods manually, set the *Discharge Allowed* switch to . Use  to jog the basket.

When the dryer is waiting to discharge or is discharging, the display alternates *WAITING TO DISCHARGE* or *DISCHARGING* with the batch data of the load being discharged.

Display or Action	Explanation
FM DC DS CC GC WDT 15 04 02 12 11 123	<p>FM appears above the wash formula number for the load.</p> <p>DC appears above the drycode number for the load.</p> <p>DS appears above the destination for the load.</p> <p>CC appears above the customer code for the load.</p> <p>GC appears above the goods code for the load.</p> <p>WDT appears above the elapsed time spent waiting to discharge.</p>

— End of BIPDU001 —

# Chapter 3

## Signals and Errors

BICSUT01 (Published) Book specs- Dates: 20080722 / 20080722 / 20080722 Lang: ENG01 Applic: PDU YDS

### 3.1. Shuttle Error Messages

Most shuttle error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. Maintenance assistance is needed in either of the following two circumstances:

- When the machine requires servicing to resolve the error.
- When an error must be resolved from inside the shuttle operating area with power on.

**shuttle operating area**—the area within which the shuttle moves during automatic operation and which must be guarded, as explained in ANSI Standard Z8.1-2006 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements.” Personnel who enter the shuttle operating area, whether to resolve an error, or for any other reason, must be properly trained in shuttle safety and abide by the published facility safety precautions.



**WARNING 5: Strike and Crush Hazards**—A shuttle moves unpredictably during automatic operation. Anyone within the operating area of the shuttle can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.
- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, shuttle errors are of five types: time limit errors, level encoder counting errors, position errors, transfer errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

#### 3.1.1. About “THREE WIRE DISABLED PUSH START TO GO”

This message appears and the operator alarm sounds at startup until the *Start* button (ⓘ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. Although the errors described in this document do not, by themselves, disable the three-wire circuit, a few may coincide with events that do disable the three wire circuit. For example, if the shuttle traverses far enough to close an oops switch at the end of the rail and trigger a RAIL LIMIT error (see [Section 3.1.5](#)), the shuttle

foot guard may also hit an object and depress, opening the three wire circuit. In such a case, the THREE WIRE DISABLED message, not the RAIL LIMIT message will appear, requiring the shuttle to be physically moved far enough away from the object to release the foot guard.


### 3.1.2. Resuming Automatic Operation After Error Correction

The shuttle will initialize as a normal part of recovering from most of the errors described in this document. During this process it will usually traverse to its home station and/or move the elevating bed to the lowest level. If the shuttle contains goods, it may also prompt for cake data. In this event, the operator must be able to accurately enter or confirm the batch codes for the goods on each position of the shuttle.

### 3.1.3. Time Limit Errors

A time limit error occurs if a shuttle action is not completed within the specified time. It is likely that a temporary condition interfered with shuttle movement. If the specified time is configurable, there is a slight chance that the time value must be adjusted (see the shuttle configuration instructions in the reference manual). Time limit errors stop shuttle motion so that personnel can check for an interfering condition. These errors are as follows:

Display or Action	Explanation
ERROR - CHECK CHAIN PRESS SIGNAL CANCEL	While initializing, the shuttle bed failed to move to its maximum and minimum positions within the time specified in the “time to reach bottom-top” configure decision.
ERROR - NO CAKE PRESS SIGNAL CANCEL	During discharge, the discharge-end photo eye was not blocked within the time specified in the “clear belt time” configure decision.
ERR - NOT COUNTING PRESS SIGNAL CANCEL	More than 45 seconds elapsed between station targets while the shuttle was moving left or right.
ERROR- WAIT TOO LONG PRESS SIGNAL CANCEL	The receiving device did not acknowledge the machine's discharge within the time specified in the “allied load completed delay” configure decision.
TOO LONG TO DISCH. PRESS SIGNAL CANCEL	The belt is moving and the discharge-end photo eye is still blocked 30 seconds after the time specified in the “clear belt time” configure decision expires.
2 LONG COUNT LVL PRESS SIGNAL CANCEL	More than 30 seconds elapsed between level targets while the shuttle elevating bed was moving up or down.

Identify and correct any condition that may have prevented the action from occurring, then press the *Signal Cancel* button () to initialize the shuttle and resume automatic operation. If error recurs, call maintenance personnel.

### 3.1.4. Level Encoder Counting Errors

The controller for some shuttle models tracks the position of the elevating bed with an encoder that counts targets at each vertical level as the bed passes the target. An error occurs if the level encoder loses count. These errors stop shuttle motion so that the shuttle can be re-initialized. This category of error includes the following:

Display or Action	Explanation
CNTS EXCEEDED MAX PRESS SIGNAL CANCEL	The count exceeded the maximum value specified in the “number of receive levels” or the “number of discharge levels” configure decision, whichever applies.
CNTS FELL BELOW 0 PRESS SIGNAL CANCEL	The count is at, or about to fall below zero.
SAW SLACK CHAIN PRESS SIGNAL CANCEL	A slack chain condition occurred while the bed was moving down, but before reaching the desired count.

The condition that caused the encoder error is likely to be momentary and will probably not recur. Press the *Signal Cancel* button (✖) to initialize the shuttle and resume automatic operation. If the error recurs, call maintenance personnel.

### 3.1.5. Position Errors

This type of error indicates that the controller detects the shuttle or a shuttle component is in the wrong place. Shuttle motion stops so that it can be determined if manual intervention is needed. Manual intervention may involve removing goods that are blocking a photoeye, or repositioning the shuttle using the manual controls.



**CAUTION [6]: Risk of damage**—The manual controls override the photo eyes which normally prevent the shuttle from running a cake into an object, or onto the floor.




- Use care and consider the consequences before moving the shuttle manually.



The pertinent manual controls for each error are listed in the error description. This category of error includes the following:

Display or Action	Explanation
CAKE MUST BE MANUALLY UNLOADED	Applies to shuttles configured not to elevate the second belt to discharge. A cake is on belt 1 but not on belt 0. Pertinent manual controls: <i>Belt 1 Forward/Reverse</i> switch. With belt 1 aligned for discharge, hold switch at <i>Forward</i> (↗) until cake is discharged.
ERROR-NOT RETRACTED PRESS SIGNAL CANCEL	The shuttle desired to traverse, elevate, or descend, but the shuttle bed is not fully retracted. Pertinent manual controls: <i>Belt 0 Extend/Retract to Receive</i> switch (↔), <i>Belt 0 Extend/Retract to Discharge</i> switch (↔), <i>Belt Fully Retracted</i> light. Operate the appropriate switch to illuminate the light.
ERROR - RAIL LIMIT PRESS SIGNAL CANCEL	The shuttle traversed too far right or left, actuated the oops switch, and remained there longer than five seconds. Pertinent manual control: <i>Travel Left/Right</i> switch (↔).
ERROR - SLACK CHAIN PRESS SIGNAL CANCEL	The shuttle bed either descended onto its lower mechanical stop or met an obstruction while descending. Pertinent manual controls: <i>Enable Down/Up</i> key switch, <i>Move Down</i> switch (↓) or <i>Move Down/Up</i> switch (↓/↑), as applicable.
ERROR - TAUT CHAIN PRESS SIGNAL CANCEL	The shuttle bed either struck its upper mechanical stop or met another obstruction while rising. Pertinent manual controls: <i>Enable Down/Up</i> key switch, <i>Move Down</i> switch (↓) or <i>Move Down/Up</i> switch (↓/↑), as applicable, and <i>Taut Chain</i> light. Set the key switch for manual operation and operate the switch. In a taut chain condition, the light is illuminated and goes out when the condition is eliminated.
EXTENDING TOO FAR ADJUST BELT MANUALLY	The shuttle bed went beyond its fully extended position. Pertinent manual controls: <i>Belt 0 Extend/Retract to Discharge</i> switch (↔), <i>Belt 0 Fully Extended to Discharge</i> light. Operate the switch to illuminate the light.
RETRACTING TOO FAR ADJUST BELT MANUALLY	The shuttle bed went beyond its fully retracted position. Pertinent manual controls: <i>Belt 0 Extend/Retract to Receive</i> switch (↔), <i>Belt 0 Extend/Retract to Discharge</i> switch (↔), <i>Belt Fully Retracted</i> light. Operate the appropriate switch until the light illuminates.

Correct a position error as follows:





<b>Display or Action</b>	<b>Explanation</b>
	Set the <i>Automatic/Manual</i> switch to <i>Manual</i> .
<p>Use the appropriate manual controls (explained above) to position the shuttle properly. In the case of a chain error, you will need access to the key-operated <i>Enable Down/Up</i> switch. If the shuttle will not respond, call maintenance personnel. If you are able to re-position the shuttle:</p>	
	Return the <i>Automatic/Manual</i> switch to <i>Automatic</i> .
<div style="border: 1px solid black; padding: 2px; width: fit-content;">                     BARE MANUAL-PRESS                      SKIPTO TO EXIT                 </div>	This message appears when returning to automatic mode after using the manual controls.
	Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization.

### 3.1.6. Transfer Errors

An error of this type occurs if, for example, a piece of goods separates from a pressed cake and blocks a photo eye. These errors include the following:

<b>Display or Action</b>	<b>Explanation</b>
<div style="border: 1px solid black; padding: 2px; width: fit-content;">                     ERROR - EYE ERROR 1                      PRESS SIGNAL CANCEL                 </div>	Either the load-end or discharge-end photo eye is blocked on a multi-cake belt when the shuttle desires to move, indicating that a cake may be protruding off of the belt, risking damage. EYE ERROR 2 is similar. Each error applies to specific models.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">                     ERROR - EYE ERROR 3                      PRESS SIGNAL CANCEL                 </div>	The discharge-end photo eye on a multi-cake belt did not block and clear as many times, during discharge, as the controller believes there are cakes; that is, the controller counted too few cakes. This can occur if goods straddle two cakes making them indistinguishable to the controller.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">                     ERROR - EYE ERROR 4                      PRESS SIGNAL CANCEL                 </div>	The discharge-end photo eye on a multi-cake belt blocks during loading, indicating that cake(s) following the first cake, may be missing. When a multi-cake belt is loaded, the last cake should clear the load-end photo eye and stop the belt before the first cake blocks the discharge-end photo-eye. This error can occur if loosely compacted cakes spread apart and take up too much room on the belt.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">                     ERROR - EYE ERROR 5                      PRESS SIGNAL CANCEL                 </div>	The load-end and discharge-end photo eyes are both blocked when the shuttle desires to traverse or lower the bed, indicating that a cake may protrude from the belt, risking damage.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">                     ERROR - EYE ERROR 6                      PRESS SIGNAL CANCEL                 </div>	The overshoot photoeye is blocked when the shuttle desires to traverse or raise/lower the bed, indicating that a cake may protrude from the belt, risking damage.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">                     ERROR - XFER ABORTED                      PRESS SIGNAL CANCEL                 </div>	The Miltrac controller cancelled the transfer in progress. For example, one of the photo eye errors described above occurs after the transfer process starts, but before communication with Miltrac is completed.

Observing published safety precautions, clear an improperly blocked photoeye by physically removing the goods or by manually running the belt to move the goods, as follows:

Display or Action	Explanation
	 Set the <i>Automatic/Manual</i> switch to <i>Manual</i> .
	 Use the appropriate <i>Belt x Forward/Reverse</i> switch (up to four vertically stacked belts, numbered 0 through 3, from bottom to top) to run that belt and complete or correct the transfer.
	 Return the <i>Automatic/Manual</i> switch to <i>Automatic</i> .
<div style="border: 1px solid black; padding: 2px; width: fit-content;">BARE MANUAL-PRESS SKIPTO TO EXIT</div>	This message appears when returning to automatic mode after using the manual controls.
	Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization and resume automatic operation.

### 3.1.7. Errors That Should Be Reported to Management or Maintenance Personnel

The following errors have consequences that should be resolved by management personnel. Addressing the consequences resolves the error.

Display or Action	Explanation
<div style="border: 1px solid black; padding: 2px; width: fit-content;">CHECK I/O BOARD x PRESS SIGNAL CANCEL</div>	The controller detects a failed or missing control circuit board. If this error occurred immediately after configure values were programmed, it is probably the result of specifying an optional feature that is not actually present on the machine. If it occurred after adding hardware for an optional feature, it indicates that this feature has not yet been specified in configuration. Otherwise, it probably indicates that a board or related circuitry has failed.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">CLEAR MEMORY NOW PRESS 4 + 5 + 6</div>	Field-programmable data became corrupt. Configure values must be re-programmed as explained in the part of the reference manual on programming.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">ERROR - TOO MANY DIR PRESS SIGNAL CANCEL</div>	The right and left direction inputs from an allied loading device were actuated at the same time. This is a control circuitry malfunction requiring electrical troubleshooting.
<div style="border: 1px solid black; padding: 2px; width: fit-content;">PROGRAM 0 MENU OK TURN KEY TO RUN</div>	The <b>Run/Program</b> key has been left in the machine and the switch is in the <i>Program</i> position. This key should be removed and placed in a secure location accessible only to management personnel.

— End of BICSUT01 —

## 3.2. Dryer Error Messages

Most dryer error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. If the dryer is automatically loaded by a shuttle conveyor, do not enter the shuttle operating area to resolve an error unless properly trained in shuttle safety. Abide by the published facility safety precautions.



**WARNING 7: Strike and Crush Hazards**—The shuttle conveyor that serves a line of automatically-loaded dryers moves unpredictably during automatic operation. As it traverses, it passes, almost touching the front of each dryer. Anyone at or near the front of a dryer can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.
- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, dryer errors are of four types: overheat errors, load door advisories, other automatic operation errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### 3.2.1. About the “THREE WIRE DISABLED” Message

This message appears and the operator alarm sounds at startup until the *Start* button (①) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. A few errors described in this document may coincide with events that disable the three-wire circuit. When this occurs, the THREE WIRE DISABLED message, and not the error message, will typically appear on the display. However, two important special cases are explained in [Section 3.2.2 “Overheat Errors”](#).

### 3.2.2. Overheat Errors

An overheat error occurs if the controller detects an outlet temperature exceeding the permissible value. Although an overheat error can have numerous causes, the controller assumes there is a fire in the basket and takes the following actions:

- opens the three wire circuit, which:
  - » shuts off the heat source (e.g., closes the gas valve)
  - » shuts off the main air flow
  - » stops basket rotation

- actuates the internal sprinkler, which sprays water into the basket

**Display or Action**

```
OUTLET TEMP EXCEEDED
240dF -POWER DOWN-
```

**Explanation**

A redundant safety feature on the dryer will trigger this error if outlet temperature exceeds 240° Fahrenheit (116° Celsius). This event will not occur as a result of an actual temperature rise unless the THREE WIRE DISABLED condition, explained below, fails, perhaps due to a component failure. This error is triggered in software, based on the outlet temperature input. Hence, this error may occur erroneously, due to an electrical component failure such as a failed A/D board. Although the three wire circuit opens when this event occurs, this error message will take precedence over the THREE WIRE DISABLED message.

```
THREE WIRE DISABLED
*****
```

This message may be the result of the outlet temperature exceeding 225° Fahrenheit (107° Celsius), but it may also have other causes. Whenever this message appears during operation (after the *Start* button is pressed), **immediately check to see if the sprinkler mechanism (mounted on the side of the discharge shroud) is actuated** and if so, resolve this message as an overheat error. This error is triggered by either of two temperature safety switches (Fenwal switches) mounted in the outlet duct.

Resolve an overheat error as follows:

**Display or Action**



**Explanation**

1. If the OUTLET TEMP EXCEEDED 240dF error occurred, turn the dryer *Master* switch off, then back on. This is required to reset the Desires Sprinkler output relay. Otherwise it will not be possible to shut off the sprinkler.
2. If there is no evidence of fire, **pull down the red handle on the sprinkler mechanism until the handle locks in place**, to stop the flow of water into the basket, but continue to observe for evidence of fire and be prepared to re-activate the sprinkler.



Press the dryer *Start* button. If outlet temperature has not cooled below 214° Fahrenheit (101° Celsius), the three wire circuit will not energize. Wait until the dryer has cooled sufficiently.

Once the three wire circuit is energized, use the manual controls to discharge any fire-damaged goods. Use all necessary fire safety precautions when doing so. If a basket fire did occur, the dryer will need to be inspected for damage before returning it to service. Otherwise, with the dryer *Automatic/Manual* switch set to *Automatic*, the dryer should resume automatic operation. If no fire occurred but the error recurs, this indicates a malfunctioning component. Call maintenance personnel.

### 3.2.3. Load Door Advisories

These messages occur with no accompanying operator alarm if the load door does not open or close within 15 seconds after being commanded to do so. Processing will not proceed until the

action occurs, but will resume without any intervention once the appropriate load door input is made.

**Display or Action**

**Explanation**

LOAD DOOR NOT OPEN

The load door did not open within the specified time. The door may not have moved to the needed position due to a mechanical problem such as low air pressure. This error could also occur erroneously as a result of a problem such as a failed proximity switch.

LOAD DOOR OPEN

The load door did not close within the specified time. This is most likely due to a piece of goods blocking the door, but it could also be for a similar reason as LOAD DOOR NOT OPEN.

DISCHARGE DOOR OPEN


The discharge door did not close within the specified time, when commanded to do so at loading. This could also be for a similar reason as LOAD DOOR NOT OPEN.

If the condition does not self-correct within a short time, investigate, and correct any condition interfering with load door operation. This will require personnel with the appropriate qualifications and authority, and compliance with published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

### 3.2.4. Other Automatic Operation Errors

The errors in this category are accompanied by the operator signal. Dryer operation stops so that it can be determined if intervention is needed.

Display or Action	Explanation
CHECK ERROR LIGHTS	This error only applies to gas and propane dryers. Numerous conditions must be satisfied before the Fireye or Landis & Gyr brand (as specified) flame control system will ignite the burner or permit it to remain lit. This error indicates that not all conditions are satisfied. The machine controller does not monitor these condition individually, but several conditions are represented by lights on the dryer status (error) light panel. When illuminated, certain lights indicate that a particular condition is satisfied while others indicate an un-met, or error condition. Refer to the description of dryer controls for an explanation of each status light.
DISCHARGE DOOR NOT CLOSED AFTER DISCH.	The discharge door did not close fully after discharge. This may be due to goods blocking the door, to a mechanical problem such as low air pressure, or to an electrical problem such as a failed proximity switch.
ROTATION FAILURE	The basket stopped rotating for more than 8 seconds during a dry cycle. If the basket is actually not rotating properly, some possible causes include goods caught in the basket seals, condensation on the basket support rollers causing the basket to slip, and a malfunctioning inverter. The error can also be caused by a problem that prevents the controller from detecting basket rotation, such as a mis-aligned proximity switch, or a burned out capacitor in the motion sensing circuit.
*TRANSFER ABORTED* CLEAR SHUTTLE FIRST	The Miltrac controller cancelled the transfer in progress. For example, a piece of goods blocked the discharge-end photo eye on the shuttle. Hence this error usually means that the shuttle is stopped in front of this dryer and both devices have errors. The shuttle error must be addressed first. Refer to the instructions on shuttle error messages.

Press the *Signal Cancel* button () to silence the operator alarm. If the error self-corrected, automatic operation should resume. If not, investigate and correct the problem. This will require personnel with the appropriate qualifications and authority and compliance with the published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

### 3.2.5. Messages That Should Be Reported to Management or Maintenance Personnel

The following errors have consequences that should be resolved by management or maintenance personnel. Addressing the consequences resolves the error.

Display or Action	Explanation
<pre>ERROR IN MEMORY TURN KEY TO PROGRAM</pre>	<p>Field-programmable data (configuration and/or drycodes) became corrupt (unreliable). The correct data must be downloaded or re-programmed, as explained in the part of the reference manual on programming.</p>
<pre>ILLEGAL DRYCODE xxx SEE MANUAL</pre>	<p>The dryer controller received a request to run a drycode that is not currently programmed; that is, the drycode is not local. The drycode number, along with other batch codes, originated in the Mentor or Mildata computer. It is the responsibility of the person who associates the post-wash codes with the wash formula to ensure that the assigned codes are valid. If goods are permitted to be processed in the dryer using an invalid (illegal) drycode, the dryer will simply discharge the goods wet. The operator may be able to resolve this immediate problem by cancelling the operator signal (<math>\times</math>) then invoking another suitable drycode; however, management personnel will need to ensure that either the specified drycode is programmed in (or downloaded to) the dryer or that a valid drycode number is associated with the wash formula in Mentor programming.</p>
<pre>INVALID PASSWORD</pre>	<p>This message does not apply to dryers in a DryNet (Dryer/Shuttle Controller) network. If the dryer is configured to require a password for manual intervention and the operator does not have one, this will need to be obtained from management personnel.</p>
<pre>name BOARD FAILED PRESS SIGNAL CANCEL</pre>	<p>The named peripheral board is not communicating with the microprocessor. This will require electrical troubleshooting.</p>

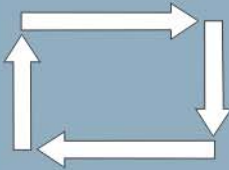
— End of BIPDUT01 —



Nederlands

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## Gebruikershandleiding [Operator Guide]—

### Drynet/shuttle besturing [Drynet Dryer/Shuttle Controller]

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50040SA1	5040TG2L	5040TG2R	5040TS2L	5040TS2R	5050TG2L	5050TG2R
5050TS1L	5050TS1R	6458TG1L	6458TG1R	6458TS1L	6458TS1R	6464TG1L
6464TG1R	7272TG1L	7272TG1R	7272TS1L	7272TS1R	CTLDRSPC	

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# Hoofdstuk 1

## Besturing

# Chapter 1

## Controls

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### 1.1. Besturing op shuttles inclusief degene in een drynet netwerk

Dit document beschrijft de besturing uitgevoerd met verschillende shuttle modellen en ook enkele drynet functies welke in plaats van besturing wanneer de shuttle deel uitmaakt van een drynet (droger/shuttle besturing )netwerk. De shuttle heeft alleen de besturing nodig voor de type bewegingen nodig zijn. Sommige besturing is zijn altijd aanwezig op de shuttle zelf. Algemeen op shuttles dat op een rails rijden de handmatige besturing is gonteerd in een aparte kast. terwijl op shuttles die niet rijden deze gemonteerd zijn op de shuttle zelf. Als de shuttle een onderdeel is van een drynet netwerk sommige besturing is op de drynet besturingkast gemonteerd. Dit is ook waar de machine functies aanwezig zijn via drynet.

#### 1.1.1. Machine gemonteerde besturing

Deze zijn inclusief 1 of meerdere noodstop schakelaars als beschreven in [Sectie 1.2.1.1 “Noodstop schakelaar \(vergendel drukknop\)”](#) en andere besturing beschreven onder deze sectie.

### Controls on Shuttles Including Those in a DryNet Network

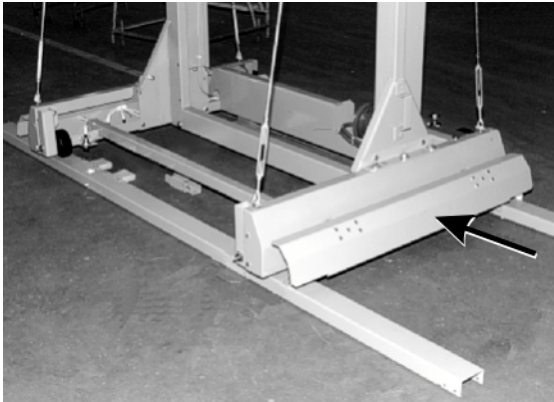
This document describes the physical controls provided with the various shuttle models as well as a few DryNet operating functions which serve in place of physical controls when the shuttle is part of a DryNet (Dryer/Shuttle Controller) network. The shuttle will have only those controls needed for the type of movements it can perform. Certain controls are always located on the shuttle itself. Generally, on shuttles that traverse a rail, the manual operation controls are located on the free-standing shuttle control box, while on shuttles that do not traverse, they are on the shuttle itself. If the shuttle is part of a DryNet network, certain physical controls are located at the DryNet Console. This is also where machine functions are available via the DryNet software.

#### Machine-mounted Controls

These include one or more emergency stop switches as described in [Section 1.2.1.1 “Emergency Stop Switch \(locking push button\)”](#) and the other controls described under this section.

- 1.1.1.1. Noodstop schop platen**—Shuttles zijn uitgevoerd met scharnierende knikplaten (Afbeelding 1) op beide zijden van de machine in de rij richting. Wanneer een knikplaat voldoende beweegt, activeert deze een schakelaar welke direct de machine stopt en het 3-wire systeem uitschakeld.

**Afbeelding [Figure] 1: Shuttle schop plaat [Shuttle Kick Plate]**



**Emergency Stop Kick Plates**—Shuttles are provided with hinged kick plates (Figure 1) on both sides of the machine in the traversing directions. When a kick plate pivots sufficiently, this actuates a switch that stops the machine by dropping out the three-wire circuit.

- 1.1.1.2. Motor hoofdschakelaar**—Deze schakelaar (SHMD) heeft invloed op het 3-fase stroom toevoer naar de shuttle motor als volgt:
- 0 Uit**—3 fase stroom is aanwezig, de shuttle kan niet rijden/heffen zonder stroom.
  - 1 Aan**—3-fase stroom is aanwezig. **De machine kan direct gaan bewegen**

**Afbeelding [Figure] 2: Motor uitgeschakelt Schakelaar [Motor Disconnect Switch]**



**Motor Disconnect Switch**—This switch (SHMD) affects three-phase power for the shuttle motors, as follows:

- 0 OFF**—Three-phase power is not available. The shuttle will not move under power.
- 1 ON**—Three-phase power is available. **The machine may immediately begin moving.**

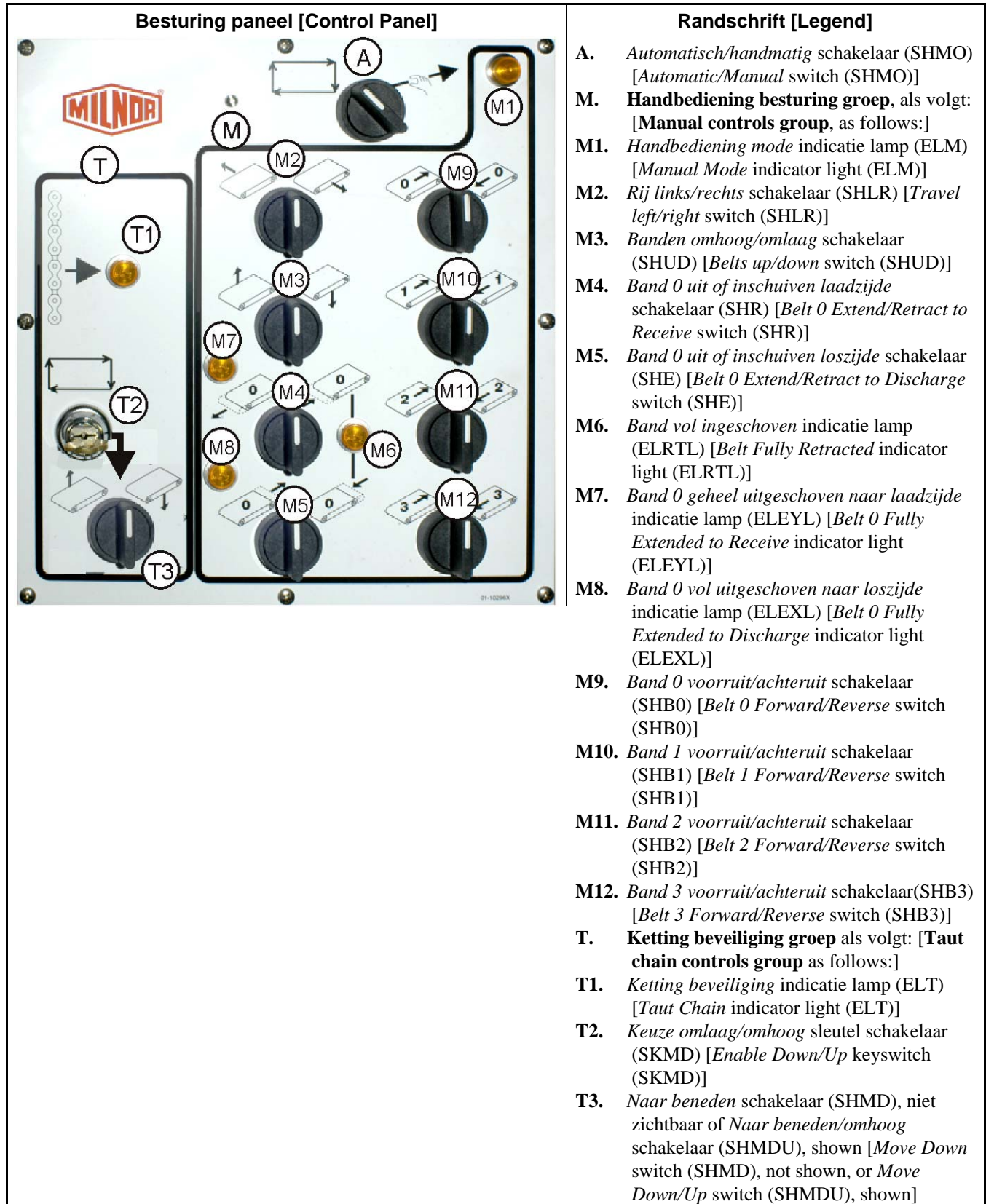
- 1.1.2. Handbediening besturing**  
Afbeelding 3 illustreert het besturing paneel wat gebruikt word op shuttles for posten en los wasgoed. Enkelt deze besturing correspondeert met de shuttle beweging mogelijkheid op de

**Manual Operation Controls**  
Figure 3 illustrates the control panel used on shuttles for cakes and loose goods. Only those controls corresponding to the shuttle's motion capability are provided on a given



geïnstalleerde shuttle.

shuttle.

Afbeelding [Figure] 3: Handbediening besturing paneel [Manual Control Panel]





**1.1.2.1. Automatisch/handmatig schakelaar (A)**—Deze schakelaar (SHMO) betekent wat de machine beweging doet als volgt:

- —De machine wordt gecontroleerd door de schakelaars in de Handbediening besturing groep
- —De machine beweegt onder automatische besturing. **De machine kan direct gaan werken en of bewegen.**



**1.1.2.2. Handbediening besturing groep (M)**

**1.1.2.2.1. Handmatige modes indicatielamp (M1)**—De indicatie lamp (ELM) licht op wanneer de handmatige modes is ingeschakeld. Betekend dat de handbediening schakelaars actief zijn.



**1.1.2.2.2. Rijd links/rechts schakelaar (M2)**—Hou de deze schakelaar (SHLR) in een van de moment posities dan gaat de shuttle over de rail rijden als volgt:

- —(Indrukken naar links) de shuttle beweegt naar links op de rail in de richting van de goederen flow.
- —(indrukken naar rechts) de shuttle rijdt naar rechts op de rail.



**1.1.2.2.3. Banden omhoog/omlaag schakelaar (M3)**—Hou deze schakelaar in 1 van de moment posities beweegt de band(en) als volgt:

- —(Indrukken naar links) de takel werkt en de band (en) gaat omhoog.
- —(indrukken naar rechts) de tekkel werkt en de band(en) gaat omlaag.

**1.1.2.2.4. Band 0 schuift uit of in naar de laadzijde schakelaar (M4)**—Hou deze schakelaar in 1 van de moment posities gaat de band 0 (bovenste) band als volgt in samenwerking met het ontvangen van een lading:

- —(indrukken naar links) de band schuift uit naar de positie van de machine waarvan de lading komt.
- —indrukken naar rechts de band schuift in vanaf de laadzijde positie.



**Automatic/Manual switch (A)**—This switch (SHMO) determines what controls machine movement, as follows:

- —The machine is controlled by the switches in the manual controls group.
- —The machine moves under automatic control. **The machine may immediately begin moving.**



**Manual Controls Group (M)**

**Manual Mode indicator light (M1)**—The *Manual Mode* indicator light (ELM) illuminates when manual mode is enabled, indicating that the manual control switches are active.



**Travel left/right switch (M2)**—Holding this center-off switch (SHLR) in one of the momentary positions causes the shuttle to traverse the rail, as follows:

- —(momentary counter-clockwise) The shuttle moves left along the rail, relative to the flow of goods.
- —(momentary clockwise) The shuttle moves right along the rail.


**Belts up/down switch (M3)**—Holding this center-off switch (SHUD) in one of the momentary positions causes the bed(s) to move as follows:


- —(momentary counter-clockwise) The hoist runs and the bed(s) rise.
- —(momentary clockwise) The hoist runs and the bed(s) descend.

**Belt 0 Extend/Retract to Receive switch (M4)**—Holding this center-off switch (SHR) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with receiving a load:

- —(momentary counter-clockwise) The bed extends toward the device it will receive the goods from.
- —(momentary clockwise) The belt retracts from the receive position.

- 1.1.2.2.5. **Band 0 schuift uit/schuift in naar lospositie. schakelaar (M5)**—Hou de schakelaar (SHE) in 1 van de moment posities gaat de band 0(bovenste) band beweegt als volgt in samenwerking met het lossen van een lading:

—(indrukken naar links) de band schuift uit naar de machine waar de goederen naar gelost worden.


—(indrukken naar rechts)de band schuift in vanaf de los positie.


- 1.1.2.2.6. **Band volledig ingeschoven indicatie lamp (M6)**—Deze lamp (ELRTL) licht op wanneer band 0 (bovenste) band volledig is ingeschoven,geeft aan dat de shuttle veilig kan gaan rijden.

- 1.1.2.2.7. **Band 0 volledig uitgeschoven om te ontvangen indicatie lamp (M7)**—Deze lamp (ELEYL) licht op als band 0 (bovenste) band volledig is uitgeschoven om een lading te ontvangen van een andere machine.

- 1.1.2.2.8. **Band 0 volledig uitgeschoven naar loszijde indicatie lamp (M8)**—Deze lamp licht op als band 0 (bovenste) band volledig uitgeschoven is om een lading te lossen op een andere machine.

- 1.1.2.2.9. **Band [0-3] vooruit/achteruit schakelaar (M9 tot M12)**—Hou deze schakelaar in 1 van de moment posities gaat de geselecteerde band werken als volgt:

—(indrukken naar links) de geselecteerde band draait vooruit naar de machine welke normaal de lading ontvangt van de band.

—indrukken naar links de geselecteerde band draait achteruit naar de machine welke normaal de goederen lost op de band.


### 1.1.2.3. **Ketting beveiliging besturing (T)**


#### Supplement 1

#### **Over ketting (slap)beveiliging condities**

Vanuit het stantpunt van het type takel.shuttles vallen in drie catagories:

**Belt 0 Extend/Retract to Discharge switch (M5)**—Holding this center-off switch (SHE) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with discharging a load:

—(momentary counter-clockwise) The bed extends toward the device it will discharge the goods to.


—(momentary clockwise) The belt retracts from the discharge position.


**Belt Fully Retracted indicator light (M6)**—This light (ELRTL) illuminates when the Belt 0 (topmost) bed is fully retracted, indicating that the shuttle can traverse safely.

**Belt 0 Fully Extended to Receive indicator light (M7)**—This light (ELEYL) illuminates when the Belt 0 (topmost) bed is fully extended to receive a load from another device.

**Belt 0 Fully Extended to Discharge indicator light (M8)**—This light (ELEXL) illuminates when the Belt 0 (topmost) bed is fully extended to discharge a load to another device.

**Belt [0-3] Forward/Reverse switch (M9 through M12)**—Holding this center-off switch (SHB0) in one of the momentary positions causes the selected belt to run as follows:

—(momentary counter-clockwise) The selected belt runs forward, toward the device which normally receives goods from the belt.

—(momentary clockwise) The selected belt runs in reverse, toward the device which normally discharges goods to the belt.

### **Taut Chain Recovery Controls (T)**

#### Supplement 1

#### **About Taut Chain Conditions**

From the standpoint of the type of hoist, shuttles fall into three categories:



**Bovenste takel motor**—Dit shuttle type heeft een takelmotor welke vast is gemonteerd aan het top frame balk. De takel motor drijft een kettingwiel met 1 vrije zijde. Dit type is belangrijk voor de ketting veiligheidsconditie dat opkomt als de besturing niet de bovenste positie ziet als de band omhoog gaat. Hierdoor wordt de bovenste mechanische limiet bereikt.

**Zij-gemonteerde takel motors (Lage shuttles)**—Dit type gebruikt een takelmotor verdragingskast welke vast gemonteerd is vlakbij de bovenzijde van een zij frame balk. De takelmotor drijft een kettingwiel aan dat via een lus aan de band constructie boven en onder vast zit. Dit type is belangrijk voor de zelfde conditie als boven en deze conditie ontstaat als de besturing niet de onderste positie ziet wanneer de band omlaag gestuurd wordt, en de mechanische limiet bereikt.



**WARRSCHUWING [1]: Risico op schade**—Forseren van de band constructie tegen de mechanische stop is niet toegestaan als de ketting slap staat, of via andere handmatige bediening kan de shuttle onderdelen zoals de rem verbuigen. Of de takelmotor verbranden.

- Ben er zeker van dat u niet iets bedient in de richting van de band constructie beweegt.

**Demag takel (licht frame shuttle)**—Dit type gebruikt een demag type takel vanuit de top frame balk dat een ketting aandrijft. Dit type is niet in werking tot deze ketting beveiliging conditie.

**top-mounted hoist motor**—This shuttle type has a hoist motor that is rigidly mounted to the top frame member. The hoist motor drives a roller chain with one free end. This type is susceptible to the taut chain condition that occurs if the controller does not sense the topmost position when the bed is rising, causing it to reach its upper mechanical limit.

**side-mounted hoist motor (low clearance shuttle)**—This type uses a hoist motor reducer that is rigidly mounted near the top of a side frame member. The hoist motor drives a roller chain that forms a loop and connects to the bed assembly both above and below. This type is susceptible to the same condition as above and the condition that occurs if the controller does not sense the bottom-most position when the bed is descending, causing it to reach its lower mechanical limit.

**CAUTION [1]: Risk of damage**—Forcing the bed assembly against a mechanical stop by improper use of the taut chain or other manual controls may cause shuttle components to bend or break, or the hoist motor to burn out.

- Ensure that you do not hold a control in a direction the bed assembly cannot move.

**Demag hoist (light frame shuttle)**—This type uses a Demag brand hoist suspended from the top frame member that drives an anchor chain. This type is not susceptible to the taut chain condition.

1.1.2.3.1. **Ketting slap beveiliging indicatie lamp (T1)**—Dezelamp (ELT) licht op om weer te geven dat de ketting beveiliging ingekomen is.

1.1.2.3.2. **Zet omhoog/omlaag aan sleutel schakelaar (T2)**—Dezesleutel schakelaar (SKMD) zet de besturing voor de verticale beweging in van de shuttle band(en) als volgt:

- ☞—De band (en) kunnen handmatig met de *Naar beneden* schakelaar of handmatig

**Taut Chain indicator light (T1)**—This light (ELT) illuminates to indicate that a taut chain error has occurred.

**Enable Up/Down keyswitch (T2)**—This keyswitch (SKMD) determines what controls vertical movement of the shuttle bed(s), as follows:

- ☞—The bed(s) can be manually lowered with the *Move Down* switch or manually

omlaag of omhoog met de *Naar omlaag/omhoog* schakelaar, afhankelijk welke gemonteerd is.

☐—Shuttle bewegingen worden automatisch bestuurd

- 1.1.2.3.3. **Naar beneden schakelaar of Naar omlaag/omhoog schakelaar (T3)**—Wanneer bedient als beschreven in [Sectie 1.1.2.3.2](#), de linksom *Naar beneden* schakelaar (SHMD) aanwezig op shuttles met een top gemonteerde takelmotor, of *Naar omlaag/omhoog* schakelaar (SHMDU) aanwezig op shuttles met een zij-takelmotor gemonteerd, gaat de takel als volgt bewegen:

⤵—(kort rechtsom) de band (en) gaan omlaag wanneer deze positie wordt vast gehouden.

**Notitie 1:** Oudere modellen gebruiken een *Naar beneden* drukknop, de band (en) gaan omlaag als deze drukknop ingedrukt is.

⤴—(kort linksom mits aanwezig) de band (en) gaan omhoog als deze positie wordt vast gehouden.

### 1.1.3. **Besturing op de droger/shuttle (drynet) paneel**

Bij normaal bedrijf de shuttle samen met andere machines in het drynet netwerk zijn apart aan een uit te schakelen op deze lokatie. Shuttles dat geen deel uitmaken van het drynet netwerk hebben besturing gemonteerd op de shuttle zelf, of een vrij staande schakelkast.

lowered or raised with the *Move Down/Up* switch, whichever is provided.

☐—Shuttle movements are controlled automatically.

**Move Down switch or Move Down/Up switch (T3)**—If armed as described in [Section 1.1.2.3.2](#), the counter-clockwise-off, *Move Down* switch (SHMD) provided on shuttles with a top-mounted hoist motor, or the center-off, *Move Down/Up* switch (SHMDU) provided on shuttles with a side-mounted hoist motor, causes the hoist to move as follows:

⤵—(momentary clockwise) The bed(s) descend while this position is held.

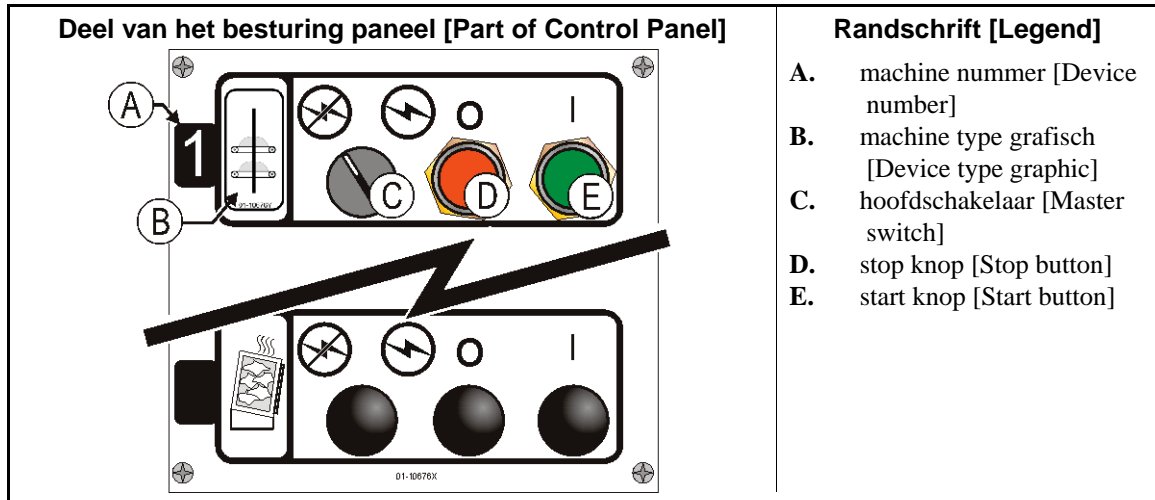
**Note 1:** Older models use a *Move Down* button. The bed(s) descend while this button is held.

⤴—(momentary counter-clockwise, if provided) The bed(s) rise while this position is held.

### **Controls on the Dryer/Shuttle Controller (DryNet) Console**

In normal operation, the shuttle, along with all other machines in the DryNet network are individually powered on and off at this location. Shuttles that are not part of a DryNet network will have corresponding controls mounted on the shuttle itself, or the free-standing shuttle control box.

Afbeelding [Figure] 4: Drynet gemonteerde besturing [DryNet-mounted Controls]



**1.1.3.1. Hoofdschakelaar (C)**—De bestuurd de stuurstroom circuit spanning naar de machine en de DC spanning voor de microprocessor en zijn componenten als volgt:

- ⊕—Het stuurstroom circuit is ingeschakelt, werking toegestaan.
- ⊗—Het stuurstroom circuit is uitgeschakelt, gestopt, werking niet toegestaan.

**1.1.3.2. Stop knop (D)**—Indrukken van deze drukknop stopt de machine onmiddellijk door het 3-wire circuit uit te schakelen. De noodstop drukknop heeft de zelfde functie.

**1.1.3.3. Start knop (E)**—Indrukken van deze knop start de machine als alle veiligheid condities zijn gemaakt. Wanneer de machine is gestart kan deze automatisch of handmatig werken.

**1.1.4. Shuttle machine functies aanwezig voor de operator in drynet**

Gedurende normaal bedrijf het drynet beeldscherm laat in het *Machine status* klein elke machine zien (droger en shuttle in het drynet netwerk. als u klikt op het machine beeld zelf zelf laat het de navolgende *Machine functies* beeld zien. Beide beelden hebben knoppen aanwezig voor de operator. Sommige knoppen zijn aanwezig alleen voor

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

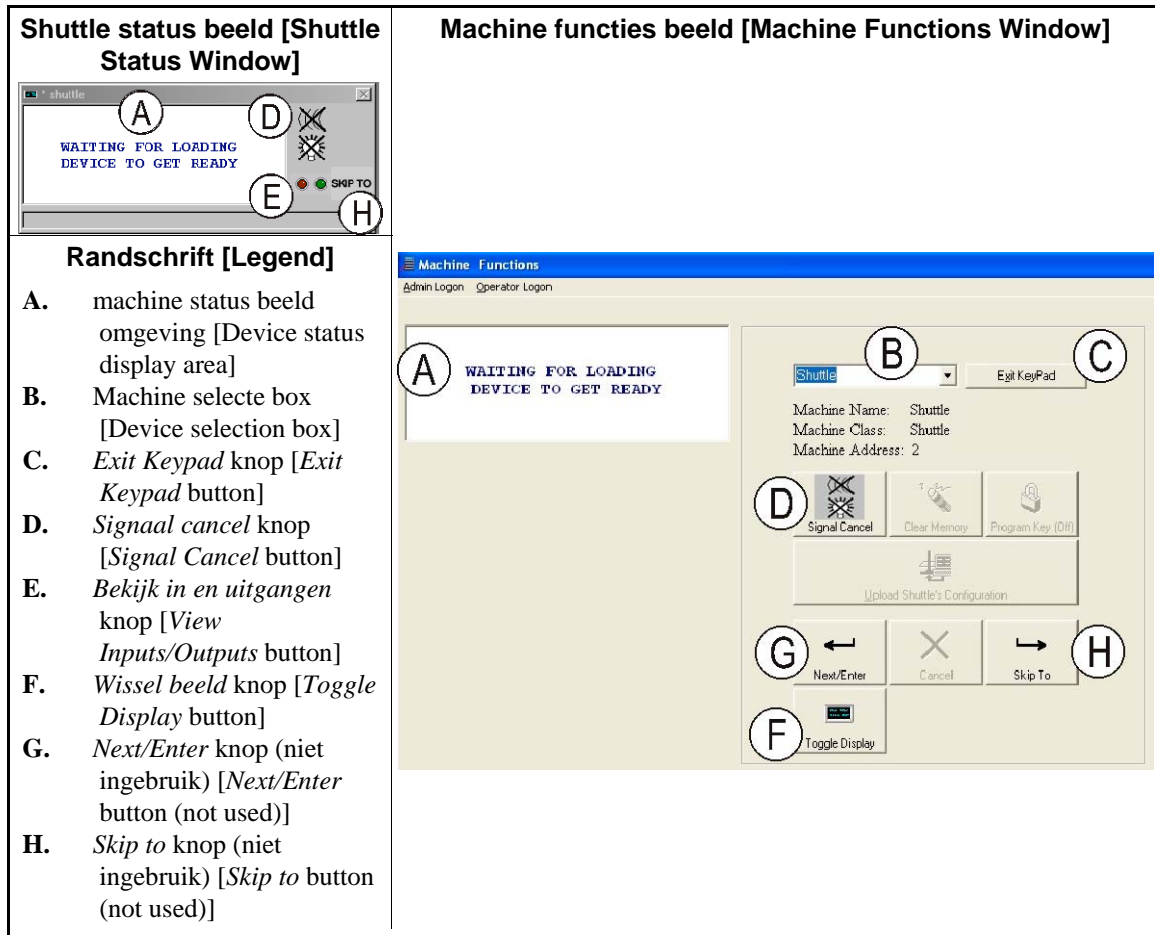
**Shuttle Machine Functions Available to the Operator on DryNet**

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both

medewerkers welke toegang hebben in het systeem. klik op een knop met de muis om de functie aan te zetten. deze beelden en knoppen worden getoond in [Afbelding 5](#) en uitgelegt hier onder.

windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 5](#) and explained below.

**Afbelding [Figure] 5: Drynet beelden gebruikt door de operator [DryNet Windows Used by the Operator]**



**1.1.4.1. Machine status beeld (A)**—De besturing gebruikt dit deel om berichten weer te geven, relevant voor de actieve machine

**Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.1.4.2](#).

**1.1.4.2. Machine selectie box (B)**—Klik met de muis op het deel aan de rechterzijde aan het einde van deze box in de lijst van alle machines bestuurd door het droger/shuttle besturing. Klik op 1 van deze machines in de lijst om deze actief te maken.

**Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.

- 1.1.4.3. Exit Keypad knop (C)**—Klik met de muis op deze knop om terug te gaan het machine beeld waar alle machines getoond worden.
- 1.1.4.4. Signal Cancel knop (D)**—Als een fout het operator signaal (zwaailamp en of claxon )klik op deze knop om het signaal af te schakelen.Als het signaal begon toen er een actief programma was gekozen,het signaal gaat automatisch uit wanneer het programma gestart is.
- 1.1.4.5. Bekijk in-en uitgangen knop (E)**—Klik op deze knop om het *Droger I/O* beeld weer te geven welke de aan/uit status van elke microprocessor ingang en uitgang laat zien voor de geselecteerde machine.
- 1.1.4.6. Wissel beeld knop (F)**—Voor gebruik door service personeel.klik deze knop meerdere malen om de verschillende beelden om de shuttle status op te roepen. Deze beelden tonen de post informatie,ingangen,uitgangen,telling horizontale targets en hoe de shuttle rijdt in de rails.en tlet de vertikale targets van de band (en) omhoog en omlaag.

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**Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.

**Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the operator signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.

**View Inputs/Outputs button (E)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.

**Toggle Display button (F)**—For use by service personnel. Click this button repeatedly to toggle through various displays on the Shuttle Status window. These displays show cake information, inputs, outputs, counting horizontal targets as the shuttle traverses the rail, and counting vertical targets as the shuttle bed(s) elevate and descend.

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## 1.2. Besturing op voldrogers,voordrogers en shakers inclusief die in een Drynet Network

Dit document beschrijft de aanwezige besturing in voldrogers,voordrogers en shakers ook een paar Drynet werk functies welke in plaats van de aanwezige besturing als de droger een deel van een Drynet (droger/shuttle besturing) netwerk is. De aanwezige besturing hebben handbediening mogelijkheden en status lampen gemonteerd op de machine. Motorschakelaars besturing gemonteerd op de drynet paneel of andere externe gemonteerde besturing kasten. Drynet machine functies zijn zichtbaar op de Drynet besturingkast.

## Controls on Dryers, Conditioners, and Shakers Including Those in a DryNet Network

This document describes the physical controls provided with dryers, conditioners, and shakers as well as a few DryNet operating functions which serve in place of physical controls when the machine is part of a DryNet (Dryer/Shuttle Controller) network. The physical controls include manual intervention controls and status lights mounted on the machine, and power controls mounted on the DryNet console or other remote-mounted electric box. Drynet operating functions are performed at the DryNet console.

**1.2.1. Op machine gemonteerde besturing**

Besturing gemonteerd op de machine heft 1 of meerdere Noodstop schakelaars en handbediening besturing om de droger handmatig te lossen(Afbeelding 7).

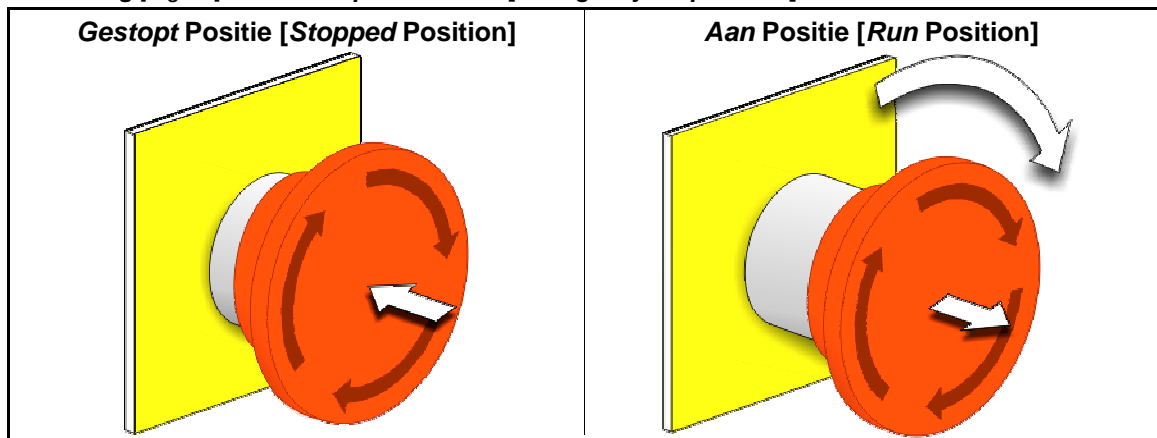
**Machine-mounted Controls**

Controls mounted on the machine include one or more emergency stop switches and the controls necessary to manually unload the dryer (Figure 7).

**1.2.1.1. Noodstop schakelaar (vergrendel drukknop) [Document BIVUU002]**—1 of meer van deze *Noodstop* schakelaars (Afbeelding 6) zijn aanwezig op de machine.Wanneer ingedrukt een moodstop schakelaar schakelt de spanning van de besturing uit,en stopt de machine en vergrendeld de ingedrukte noodstop schakelaar(schakelaar ingedrukt machine stopt)positie.Wanneer alles veilig is kan de noodstop rechtsom gedraait worden om de schakelaar te ontgrendelen. Om verder te gaan volg de normale start procedure.

**Emergency Stop Switch (locking push button)**—One or more *emergency stop* switches (Figure 6) are provided on the device. When pressed, any emergency stop switch removes power from the machine controls, stops the machine and locks in the depressed (switch actuated, machine stopped) position. When safe to do so, turn the button clockwise to unlock the switch. To resume operation, perform the device's normal startup procedure.

**Afbeelding [Figure] 6: Noodstop Schakelaar [Emergency Stop Switch]**



**Aandscht [2]:** Druk de schakelaar onmiddellijk in een nood situatie. Dit schakelt het 3-wire circuit uit terwijl de spanning wel op de microprocessor besturing.

**Notice [2]:** Press the *emergency stop* switch immediately in an emergency situation. This disables the 3-wire circuit while maintaining power to the microprocessor controller.

**Weergave of handeling [Display or Action]**

**Uitleg**

**Explanation**



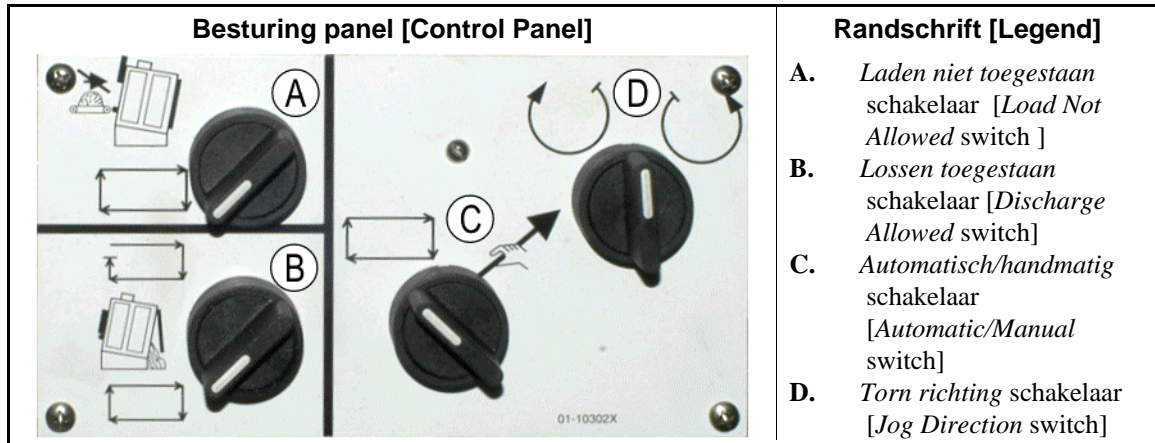
Dit simbool refereert een noodstop schakelaar in documenten andere dan elektrische schema's.

This symbol represents the emergency stop switch in Milnor® documents other than electrical wiring diagrams.

**1.2.1.2. Deur en torn besturing**

**Door and Jog Controls**

Afbeelding [Figure] 7: Deur en torn besturing [Door and Jog Controls]



1.2.1.2.1. **Laden niet toegestaan schakelaar (A)**—Deze schakelaar regelt of de machine vraagt (accepteert) een nieuwe lading automatisch als volgt:

- De machine vraagt niet om een lading
- De machine wil een nieuwe lading na het lossen van de huidige lading (gevraagd voor normaal automatisch bedrijf).

**Load Not Allowed switch (A)**—This switch determines whether the machine will request (accept) a new load automatically, as follows:

- The machine will not request a load.
- The machine will request a new load after discharging the current load (required for normal, automatic operation).

1.2.1.2.2. **Lossen toegestaan schakelaar (B)**—Deze schakelaar vraagt hoe de machine wil lossen als volgt:

- De machine lost automatisch elke lading wanneer de droogcode gereed is zonder dat de ontvangst unit gereed is. Als voorbeeld, als een waskar in positie hoort te zijn maar is dat niet, de goederen lossen op de vloer.
- Deze positie zorgt er voor dat de machine niet lost mits het een signaal ontvangt van de Miltrac™ besturing om te lossen. Deze positie heeft 2 betekenissen: 1) het is nodig voor normaal bedrijf als de machine gaat lossen via Miltrac, en 2) het kan nodig zijn om te voorkomen om automatisch te lossen als de machine niet via Miltrac lost.
- Als de machine klaar is om te lossen, draai de schakelaar kort naar de positie daardoor wordt het lossen gestart.

**Discharge Allowed switch (B)** —This switch determines how the machine will discharge, as follows:

- The machine automatically discharges each load when the dry code is finished, without regard for the ready status of the receiving device. For example, if a cart is supposed to be in position, but it is not, the goods will discharge onto the floor.
- This position prevents the machine from discharging unless it receives a signal from the Miltrac™ controller to discharge. Hence, this position has two uses: 1) It is required for normal operation if the machine is unloaded via Miltrac, and 2) it may be used to prevent automatic discharge if the machine is not unloaded via Miltrac.
- If the machine is ready to discharge, turning the switch to this momentary position briefly will initiate the discharge process.

1.2.1.2.3. **Automatisch/handmatig rotatie schakelaar (C)**—Deze schakelaar schakelt

**Automatic/Manual Rotation switch (C)**—This switch determines what controls

het trommel draaien als volgt:

☞—Automatisch bedrijf is afgebroken ,de losdeur opent en trommel draaien is gecontroleerd door de *Torn richting* schakelaar.

☞—De trommel draait automatisch.

- 1.2.1.2.4. **Torn richting schakelaar (D)**—Gebruikt voor lossen. Wanneer draaien op handmatig wordt gezet,de midden stand-uit schakelaar. Daardoor gaat de trommel draaien als volgt,alleen als uitgelegd in [Notitie 2](#):

☞— (Nu)draait de trommel rechtsom (gezien vanuit de voorzijde van de machine)als de schakelaar ingedrukt wordt.

☞—(Nu), de trommel draait linksom (gezien vanaf de voorzijde van de machine)als de schakelaar wordt ingedrukt.

**Notitie 2:** 6458Txxx and 7244Txxx modellen kunnen ventilators hebben die links of rechts op de machine gemonteerd zitten. Machines met ventilatoren aan de linkerzijde functioneren exact als boven beschreven. Rechts gemonteerde ventilatoren functioneren andersom als boven beschreven. Als voorbeeld, als de schakelaar in de rechtsom positie staat draait de trommel linksom gezien vanaf de voorzijde van de machine. Dit is de richting dat de trommel draait in automatisch bedrijf tijdens het lossen. Om te vermijden dat de goederen tegen de trommelwand blijven plakken.

## 1.2.2. **Status lampen op de machine —Gas drogers**

Gasverwarmde drogers hebben verschillende status lampen op de voorzijde van de droger om de status van de droger deuren en verwarming systeem te kunnen monitoren.Sommige van deze lampen worden bedient door de machine besturing

basket rotation, as follows:

☞—Automatic operation is suspended, the discharge door opens and basket rotation is controlled by the *Jog Direction* switch.

☞—The basket rotates automatically.

**Jog Direction switch (D)**—Used for unloading. When rotation is set to manual, this center-off switch causes the basket to rotate as follows, except as explained in [Note 2](#):

☞—(momentary, clockwise) rotates the basket clockwise (when viewing the machine from the front) while the switch is held.

☞—(momentary, counter-clockwise) rotates the basket counterclockwise while the switch is held.

**Note 2:** 6458Txxx and 7244Txxx models can have blowers either on the left or the right. Machines with lefthand blowers function exactly as stated above. Those with righthand blowers function opposite that stated above. For example, holding the switch at the clockwise position will cause the basket to rotate counter-clockwise when viewed from the front of the machine. This is the direction the basket turns during automatic unloading, to help prevent plastering of the goods.

## **Machine-mounted Status Lights—Gas Dryers**

Gas-fired dryers have several amber status lights on the front panel used to monitor the dryer doors and heating system. Some of these lights are operated by the machine controller and some are operated by the fire control unit (Fireye® or Landis+Gyr). When an error condition causes a light to either illuminate or extinguish, an error message is displayed. For lights operated by the fire control unit, the error message will say “CHECK ERROR LIGHTS.”



Afbeelding [Figure] 8: Gas droger status lampen [Gas Dryer Status Lights]

Status lampen paneel [Status Lights Panel]	Randschrift [Legend]
	<p><b>A.</b> laaddeur gesloten (ELLDC) [Load door closed (ELLDC)]</p> <p><b>B.</b> Laaddeur open (ELLDO) [Load door open (ELLDO)]</p> <p><b>C.</b> Losdeur gesloten (ELDDC) [Discharge door closed (ELDDC)]</p> <p><b>D.</b> Startgas klep aan (ELPG) [Pilot valve enabled (ELPG)]</p> <p><b>E.</b> Hoofdgas aan (ELMT) [Main gas enabled (ELMT)]</p> <p><b>F.</b> onsteking aan (ELMI) [Ignition enabled (ELMI)]</p> <p><b>G.</b> <b>Brander kast druk te hoog (ELBB).</b> Alleen 6458TG1x en 7272TG1x modellen. [Burner box pressure high (ELBB). 6458TG1x and 7272TG1x models only.]</p> <p><b>H.</b> Branderkast lucht te laag (ELCA) [Combustion air low (ELCA)]</p> <p><b>I.</b> hoofd lucht te laag (ELMA) [Main air low (ELMA)]</p> <p><b>J.</b> Gas druk te laag (ELGL) [Gas pressure low (ELGL)]</p> <p><b>K.</b> Gas druk te hoog (ELGH) [Gas pressure high (ELGH)]</p> <p><b>L.</b> Brander automaat tript (ELFET) [Fireeye tripped (ELFET)]</p> <p><b>M.</b> <b>Brander automaat schakelt uit (ELCLO).</b> Alleen Landis+Gyr brander automaat. [Fire control unit locked out (ELCLO). Landis+Gyr fire control only.]</p>

- 1.2.2.1. Laaddeur gesloten (A)**—Deze lamp (ELLDC) geeft aan dat de laaddeur volledig gesloten is. Als de laaddeur niet binnen 15 seconden is gesloten nadat de droger het signaal *Geladen* heeft ontvangen de *Laaddeur open* melding word getoond.
- 1.2.2.2. Laaddeur open (B)**—Deze lamp (ELLDO) geeft aan dat de laaddeur volledig open is. Als de laaddeur niet binnen 15 seconden open is nadat de droger het signaal “Open laaddeur” heeft ontvangen de *Laaddeur niet open* melding word getoond.
- 1.2.2.3. Losdeur gesloten (C)**—Deze (ELDDC) lamp geeft aan dat de losdeur volledig gesloten is, dit houd de laaddeur tegen om open te gaan om te laden. Maar het geeft niet het belade signaal van het laad device om te beginnen met laden en de melding *Losdeur open* komt op.
- 1.2.2.4. Startgas klep aan (D)**—Deze lamp geeft aan dat de brander automaat de startgas klep aan gezet heeft.
- 1.2.2.5. Hoofd gas aan (E)**—Deze lamp (ELMT) geeft aan dat de brander automaat hoofdgas modulerende klep en hoofd gas klep heeft ingeschakeld.
- 1.2.2.6. Ontsteking aan (F)**—Deze lamp (ELMI) geeft aan dat de brander automaat de ontsteking heeft ingeschakeld.
- 1.2.2.7. Branderkast druk te hoog (G)**—Deze lamp (ELBB) geeft aan dat de toegestane branderkast druk te hoog is. dit is een storing conditie.
- 1.2.2.8. Brander lucht te laag (H)**—Deze lamp (ELCA) geeft aan dat de brander lucht luchtstroom naar de droger te laag is voor een juiste werking.
- 1.2.2.9. Hoofd lucht stroom te laag (I)**—Deze lamp (ELMA) geeft aan dat de hoofd lucht stroom naar de droger te laag is voor een juiste werking.

**Load Door Closed (A)**—This light (ELLDC) indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.

**Load Door Open (B)**—This light (ELLDO) indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.

**Discharge Door Closed (C)**—This light (ELDDC) indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.

**Pilot Valve Enabled (D)**—This light (ELPG) indicates that the flame control unit has energized the pilot valve.

**Main Gas Enabled (E)**—This light (ELMT) indicates that the flame control unit has energized the modulating gas valve and the main gas valve.

**Ignition Enabled (F)**—This light (ELMI) indicates that the flame control unit is attempting to ignite the flame.

**Burner Box Pressure High (G)**—This light (ELBB) indicates that the permissible burner box pressure has been exceeded. This is an error condition.

**Combustion Air Low (H)**—This light (ELCA) indicates that combustion air flow delivered to the dryer is too low for proper operation.

**Main Air Low (I)**—This light (ELMA) indicates that main air flow delivered to the dryer is too low for proper operation.

**1.2.2.10. Gas druk te laag (J)**—Deze lamp (ELGL) geeft aan dat de ingaande gasdruk naar de droger te laag is, of de druk regelaar werkt niet goed.

**1.2.2.11. Gas druk te hoog (K)**—Deze lamp (ELGH) geeft aan dat de gas druk naar de droger te hoog is, of de druk regelaar werkt niet goed.

**1.2.2.12. Storing brander automatisch (L)**—Als de machine is uitgevoerd met een brander automatisch deze lamp (ELFET) geeft aan dat de ionosatie of onsteking startgas dat niet juist is en gemeld wordt aan de brander automatisch.

Deze lamp is soms aanwezig op de machine als deze uitgevoerd is met een Landis & Gyr brander automatisch. Wanneer aanwezig, dit betekent dat als de *Brander automatisch uitgeschakeld* status lamp hier onder.

**1.2.2.13. Brander automatisch uitgeschakeld (M)**—Als de machine uitgevoerd is met een Landis+Gyr brander automatisch deze lamp geeft aan dat de microprocessor opdracht geeft om de brander te starten maar dat de brander automatisch uitgeschakeld is omdat 1 of meerdere veiligheidscondities in het opstart circuit niet bereikt is.

**1.2.3. Status lampen —op de machine typen stoom, thermische olie, voordrogers en alle shakers**

Drogers en voordrogers verwarmd met stoom, thermische olie als ook shakers (niet verwarmde drogers) hebben drie status lampen op de voorzijde om de deuren te monitoren.

**Gas Pressure Low (J)**—This light (ELGL) indicates that the gas pressure delivered to the dryer is too low for proper operation, or the gas regulator is damaged.

**Gas Pressure High (K)**—This light (ELGH) indicates that the gas pressure delivered to the dryer is too high for proper operation, or the gas regulator is damaged.

**Fireye Tripped (L)**—If the machine is equipped with a Fireye fire control unit, this light (ELFET) indicates that the flame rod signaled the flame control unit that neither the pilot nor the burner is lit.

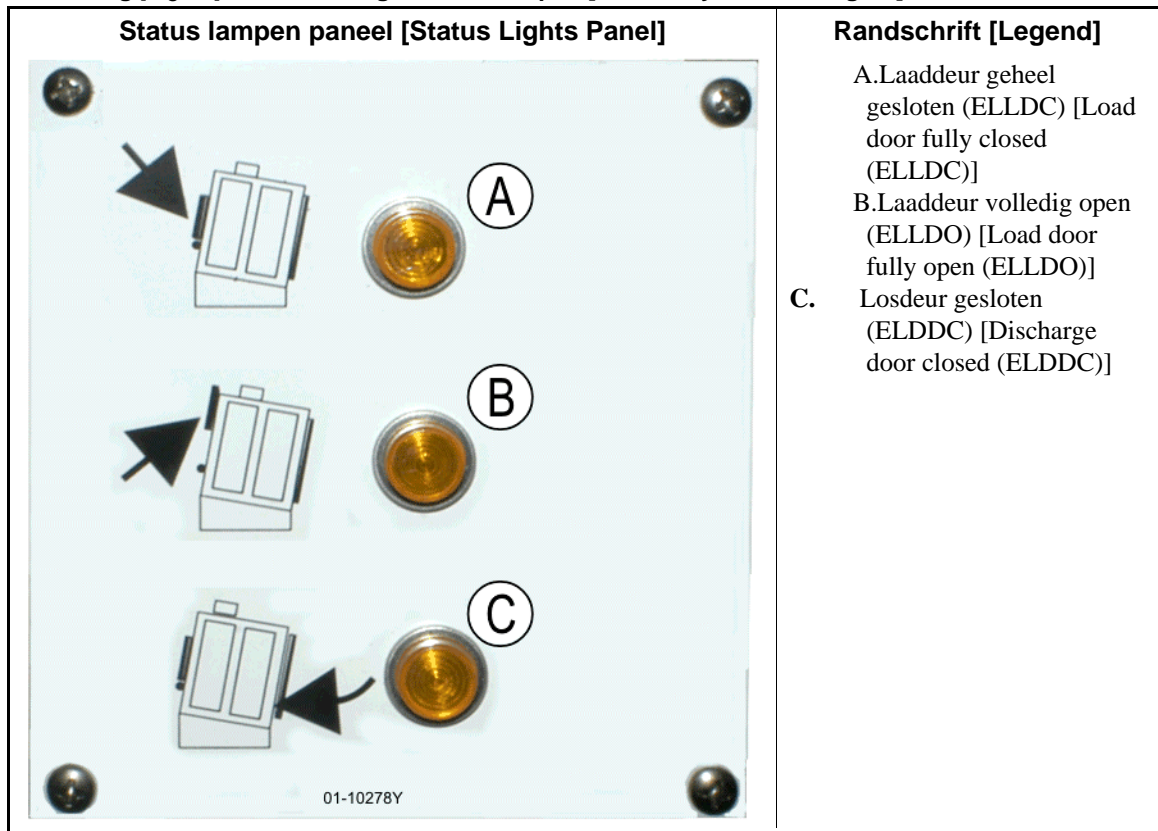
This light is sometimes provided when the machine is equipped with a Landis & Gyr fire control unit. If so, it has the same meaning as the *Fire Controller Locked Out* status light below.

**Fire Controller Locked Out (M)**—If the machine is equipped with a Landis+Gyr fire control unit, this light (ELCLO) indicates that the microprocessor requested fire, but the flame control unit was disabled because one of the conditions required by the safety reset circuit was not satisfied.

**Machine-mounted Status Lights—Steam and Thermal Oil Dryers and Conditioners and All Shakers**

Dryers and conditioners heated by steam or thermal oil, as well as all shakers (non-heated units) have three amber status lights on the front panel to monitor the doors.

**Afbeelding [Figure] 9: Stoom droger status lampen [Steam Dryer Status Lights]**



**1.2.3.1. Laaddeur gesloten**—Deze lamp geeft aan dat de laaddeur volledig gesloten is. Als de laaddeur niet geheel is gesloten 15 seconden nadat de droger het signaal *Geladen* ontvangt, het bericht *Laaddeur open* verschijnt.

**Load Door Closed**—This light indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.

**1.2.3.2. Laaddeur open**—Deze lamp geeft aan dat de deur geheel geopend is. Als de laaddeur niet geheel open is na 15 seconden na het “Open laaddeur” commando van de microprocessor de melding *Laaddeur niet open* komt op.

**Load Door Open**—This light indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.

**1.2.3.3. Losdeur gesloten**—Deze lamp geeft aan dat de losdeur volledig gesloten is. Als de besturing geen melding heeft dat de losdeur gesloten is, de laaddeur gaat open maar er komt geen laad signaal naar het laad device om met laden te beginnen en de melding *Losdeur open* verschijnt.

**Discharge Door Closed**—This light indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.

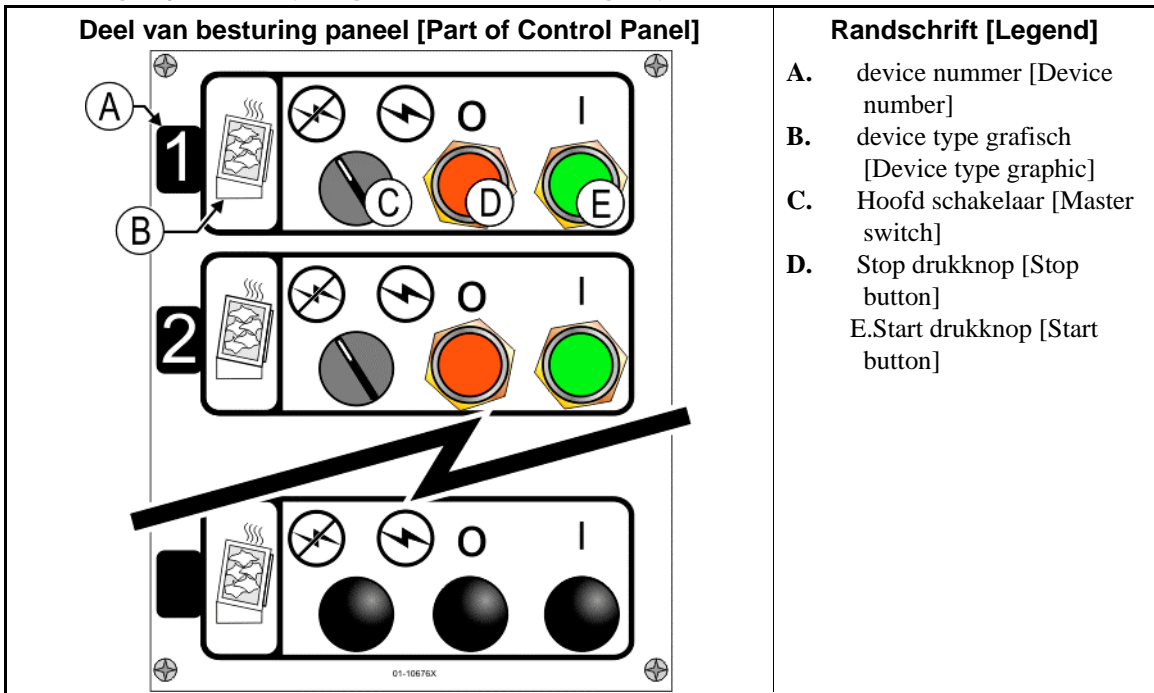
**1.2.4. Besturing gemonteerd op de Shuttle besturingkast (drynet) paneel**

Bij normale werking alle machines in het drynet netwerk worden apart aan en uitgeschakeld op deze locatie. Bij machines welke geel deel uitmaken van het drynet netwerk de bovenstaande besturing zijn in een aparte kast gemonteerd.

**Controls Mounted on the Dryer-Shuttle Controller (DryNet) Console**

In normal operation, all machines in the DryNet network are individually powered on and off at this location. On machines that are not part of a DryNet network, corresponding controls are mounted on a separate dryer control box.

**Afbeelding [Figure] 10: Drynet-gemonteerde besturing [Drynet-mounted Controls]**



**1.2.4.1. Hoofd schakelaar (C)**—De beheert de stroom besturing spanning naar de machine en de DC voeding voor de microprocessor en de componenten als volgt:

- ⊕—Het circuit is ingeschakeld en schakeld de werking in.
- ⊗—Het circuit is uitgeschakeld stopt de werking

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

**1.2.4.2. Stop drukknop (D)**—Als deze drukknop ingedrukt wordt stopt de machine door het 3-wire circuit te openen. De noodstop schakelaar geeft de zelfde functie.

**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**1.2.4.3. Start drukknop (E)**—Als deze drukknop ingedrukt word kan de machine gestart worden mits alle veiligheids condities ingeschakeld zijn. Wanneer ingeschakelt kan de machine handmatig of automatisch werken.

**1.2.5. Machine functies aanwezig voor de operator in drynet**

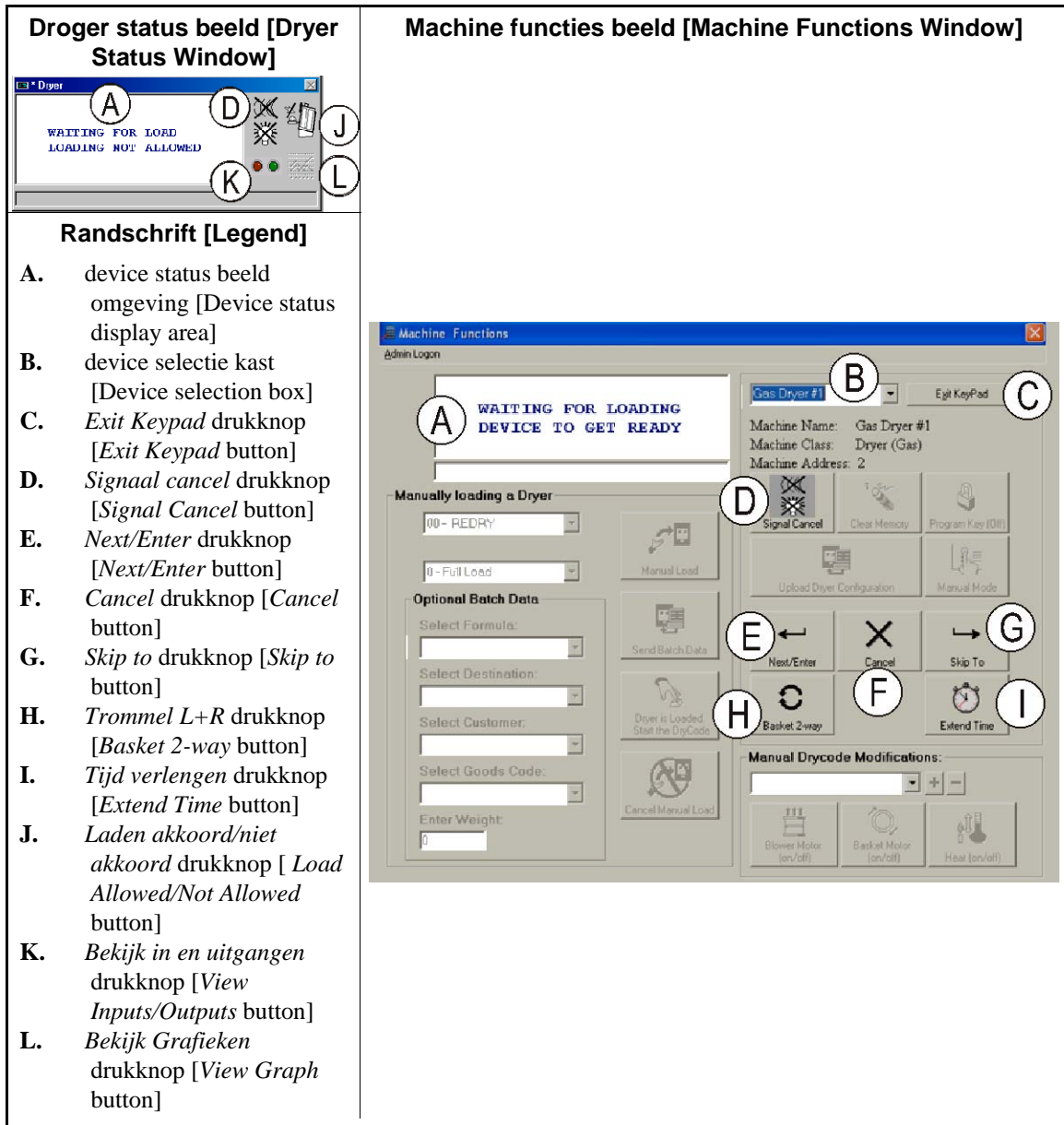
Gedurende normale werking het drynet scherm geeft een klein vlak *Machine status* aan voor elke machine (drogers en shuttle) in het drynet netwerk. Als u op het vlak klikt komt het volgende *Machine functies* beeld op voor de geselecteerde machine. Beide vlakken hebben drukknoppen voor ede operator. Sommige drukknoppen worden weergegeven op beide vlakken. Alleen sommige drukknoppen zijn afhankelijk voor welke persoon die inlogt in het systeem. Klik op een knop met de muis om de juiste functie. Deze vlakken en knoppen worden getoond in [Afbeelding 11](#) en uitgelegt hier onder.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

**Machine Functions Available to the Operator on DryNet**

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 11](#) and explained below.

**Afbeelding [Figure] 11: Drynet beelden gebruikt door de operator [DryNet Windows Used by the Operator]**



**1.2.5.1. Device status display (A)**—De besturing gebruikt deze omgeving om weer te geven welke berichten relevant zijn voor het actieve device geselecteerd volgens [Sectie 1.2.5.2](#).

**Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.2.5.2](#).

**1.2.5.2. Device selectie box (B)**—Klik met de muis op de geassseerde deel aan de rechter kant van deze box om een lijst te zien met alle machines bestuurd bij deze droger/shuttle besturing. Klik op een van de machines in de lijst om deze actief te maken.

**Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.

- 1.2.5.3. Exit Keypad drukknop (C)**—Klick op de muis op deze drukknop om terug te gaan naar het machine beeldscherm om alle machines te zien.
- 1.2.5.4. Signal Cancel drukknop (D)**—Als een storing het signaal (zwaailamp of claxon) klick op deze knop om het signaal uit te schakelen. Als het signaal begon toen een geldig programma was geselecteert het signaal gaat automatisch uit als het programma is gestart.
- 1.2.5.5. Next/Enter drukknop (E)**—Deze drukknop is alleen actief als een bevoegde persoon is ingelogt in het systeem.
- 1.2.5.6. Cancel drukknop (F)**—Klick op de muis op deze knop om de huidige droog stap te beëindigen.
- 1.2.5.7. Skip to drukknop (G)**—Deze drukknop is alleen actief als een bevoegde persoon is ingelogt in het systeem.
- 1.2.5.8. Trommel L+R drukknop (H)**—Klick met de muis op deze knop om de trommel kort te laten draaien tussen 1-richting en links en rechtsom.
- 1.2.5.9. Tijd verlengen drukknop(I)**—Klick met de muis op deze knop om 1 minuut extra aan de tijd toe te voegen voor de huidige stap.Elke volgende klick verlengt de tijd met 1 minuut.
- 1.2.5.10. Laden akkoord/niet akkoord drukknop (J)**—Geeft de zelfde functie als de *Laden niet akkoord* schakelaar op de machine. Klick op deze knop om de geselecteerde machine te kiezen “off-line” (niet akkoord)of wijzig dit naar (laden akkoord). Wanneer off-line vraagt de machine niet om een lading en de shuttle levert geen posten af bij deze droger.
- 1.2.5.11. Bekijk in- en uitgangen drukknop (K)**—Klick op deze knop om het *Droger I/O* scherm te laten zien. Wat de aan/uit status laat zien van elke microprocessor in-en uitgangen voor de geselecteerde machine.
- Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.
- Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.
- Next/Enter button (E)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- Cancel button (F)**—Click the mouse on this button to cancel the current drycode step.
- Skip to button (G)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- Basket 2-way button (H)**—Click the mouse on this button to toggle basket rotation between one-way and two-way.
- Extend Time button (I)**—Click the mouse on this button to add one minute to the time of the current step. Each additional click adds another minute.
- Load Allowed/Not Allowed button (J)**—Performs the same function as the *Load Not Allowed* switch on the machine. Click this button to take the selected machine “off-line” (Not Allowed) or return it on-line (Load Allowed). While off-line, the machine will not request a load and the shuttle will not deliver cakes to this machine.
- View Inputs/Outputs button (K)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.



**1.2.5.12. *Bekijk grafiek drukknop (L)***—Klick op deze knop om het *Temperatuur profiel* scherm te laten zien voor deze machine, wat de huidige-tijd grafiek laat zien of gerelateerde temperatuur voor de geselecteerde machine.

— Einde BIPDGT01 —

***View Graph button (L)***—Click this button to display the *Temperature Profile* window for this machine, which shows a real-time graph of temperature and related information for the selected machine.

— End of BIPDGT01 —

## Hoofdstuk 2

# Normale machine werking

## Chapter 2

# Normal Machine Operation

BIPDUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20090511 Lang: DUT01 Applic: PDU YDS

### 2.1. Droger werking instructie voor wasserij personeel

### Dryer Operating Instructions for Plant Personnel

#### 2.1.1. Start hier voor veiligheid

#### Start Here for Safety

Dit document is bedoeld om u te herinneren dat de persoon die de droger bedient of wat nodig is om de droger te laten werken. Ga niet met deze droger werken voordat iemand de de instructie detail met u besproken heeft.

This document is meant to remind you, the person operating this dryer, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



**GEVAAR [3]: Diverse Risico's'**—Een onzorgvuldige manier van werken kan leiden tot ernstige beschadigingen aan de machine of omliggende installaties en eigendommen. Het kan leiden tot ernstige verwondingen van het bedienpersoneel met eventueel de dood tot gevolg. Door het verkeerd gebruik van de machine kan de garantie vervallen.

**DANGER [3]: Multiple Hazards**—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



**GEVAAR [4]: Elektrokutie en (Ver)Brandgevaar door elektriciteit**—Contact met elektrische spanning kan de dood of ernstig letsel tot gevolg hebben. In de machine is elektriciteitsspanning aanwezig, tenzij de hoofdvoeding van de machine is uitgeschakeld.

**DANGER [4]: Electrocution and Electrical Burn Hazards**—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Zorg steeds dat uzelf de hoofdschakelaar uitzet voordat u aan de machine gaat werken en controleer met een goed meetinstrument of er nog spanning op de machine aanwezig is. Zorg ervoor dat niemand anders de hoofdschakelaar kan opzetten tijdens de werken.
- Laat geen ongekwalificeerde mensen, onderhoud, reparaties of modificaties




















- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not unlock or open electric box doors.

uitvoeren.

- Wees voorzichtig bij het openen van elektrische deuren met componenten.

### 2.1.2. Test schakelaar setting

### Check Switch Settings

Weergave of handeling [Display or Action]	Uitleg	Explanation
	Verzeker u dat de <i>Run/Programmeren</i> sleutelschakelaar is op  .	Verify that the <i>Run/Program</i> keyswitch is at  .
	Alle noodstop schakelaars moeten uitgetrokken staan en in de <i>Gereed</i> positie om de machine te laten werken.	All emergency stop buttons must be unlatched and in the <i>ready</i> position to allow machine operation.
	Verzeker u dat de hoofdschakelaar is op  .	Verify that the master switch is at  .
	Verzeker u dat de <i>Laden niet toegestaan</i> schakelaar is op  om automatisch laden toe te staan.	Verify that the <i>Load Not Allowed</i> switch is at  to allow automatic loading.
	Verzeker u dat de <i>Lossen toegestaan</i> schakelaar is op  om automatisch losswn toe te staan van de gedroogde goederen.	Verify that the <i>Discharge Allowed</i> switch is at  to allow automatic discharging of processed goods.
	Verzeker u dat de <i>Lokaal/remote</i> schakelaar op de stand  om communicatie met het netwerk toe te staan.	Verify that the <i>Local/Remote</i> switch is set to  to allow network communication.
	Verzeker u dat de <i>Automatisch/handmatig</i> schakelaar is op  om automatisch werken toe te staan.	Verify that the <i>Automatic/Manual</i> switch is at  to allow automatic operation.

### 2.1.3. Machine laden

Een Milnor systeem besturing bestuurd deze machine automatisch en andere machines in dit systeem. Als alle schakelaars staan in de stand als beschreven in. De machine accepteert,laaden lost een lading zonder handmatige interventie.

Bij het opstarten de vraagt aan de operator of de machine geladen is. Als de machine niet is geladen normale automatische werking begint. Als de machine een lading heeft de machine of de Mildata PC vraagt de operator om de post

### Loading the Machine

A Milnor system controller automatically operates this machine and other machines in the system. If all switches are positioned as described in [Section 2.1.2](#), the machine will accept, process, and discharge a load without manual intervention.

At start-up, the machine asks the operator if the machine is loaded. If the machine is not loaded, normal automatic operation begins. If the machine contains a load, the machine controller or Mildata computer will prompt

data welke hoort bij de lading. Wanneer de operator de data invoerd of bevestigt gaat de droger in de automatische modes werken.

the operator for the data associated with the load. When the operator enters and confirms all necessary batch data, begins operating in automatic mode.

2.1.4. Wat vertelt het scherm mij?

What Does the Display Tell Me?

2.1.4.1. Droogcode en stap informatie voor gas verwarmde drogers

Drycode and Step Information for Gas-fired Dryers

Weergave of handeling  
[Display or Action]

Uitleg

Explanation

```
Wacht op lading
*****
```

Droger is gereed.

Dryer is idle.

```
WAITING FOR LOAD
*****
```

```
Laden
-----
```

Droger is aan het laden.

Dryer is loading.

```
LOADING
-----
```

```
04F TIF TOF 031 AIR
S01 425D185 012 000
```

*04F* indiceert dat de droger droogt met droogcode 04 voor een volle lading; *04P* betekend een deel lading.

*04F* indicates that the dryer is running drycode 04 for a full load; *04P* would represent a partial load.

```
04F TIF TOF 031 AIR
S01 425D185 012 000
```

*S01* is het huidige stap nummer van de geselecteerde droog code

*S01* is the current step number of the selected drycode.

*TIF* komt op boven de inlaat temperatuur in fahrenheit (425 in dit voorbeeld). *TIC* komt op als de droger ingesteld is voor celcius.

*TIF* appears above the inlet temperature in degrees Fahrenheit (425 in this example). *TIC* appears when the dryer is configured for Celsius.

*TOF* komt op als de uitlaat temperatuur in graden fahrenheit (185 in dit voorbeeld?). *TOC* komt op als de droger is ingesteld voor celcius

*TOF* appears above the outlet temperature in degrees Fahrenheit (185 in this example). *TOC* appears when the dryer is configured for Celsius.

*D* tussen de inlaat en uitlaat temperatuur representeert *Gekozen* temperatuur. Het scherm wisselt ook naar de *Aktueel* temperatuur wanneer *A* vervangt *D*.

*D* between the inlet and outlet temperatures represents *Desired* temperature. The display alternates to also show the *Actual* temperatures when *A* replaces *D*.

*031* representeert de minuten en kwart minuten van de totale droogtijd (3 minuten en 15 seconden in dit voorbeeld).

*031* represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).

## Hoofdstuk 2. Normale machine werking

<b>Weergave of handeling</b> [Display or Action]	<b>Uitleg</b>	<b>Explanation</b>
	<p><i>012</i> representeert de tijd die nog over is in deze stap (1 minuut en 30 seconden in dit voorbeeld).</p>	<p><i>012</i> represents the time remaining in this step (1 minute and 30 seconds in this example).</p>
	<p><i>Lucht</i> komt op als de luchtklep positie (000 in dit voorbeeld range is 000 tot 002). Het scherm wisselt naar de modulerende klep positie hieronder <i>KP</i>.</p>	<p><i>AIR</i> appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the modulating valve position below <i>VP</i>.</p>

**2.1.4.2. Drrrog code en stap informatie voor stoom drogers**

**Drycode and Step Information for Steam Dryers**

**Weergave of handeling**  
[Display or Action]

**Uitleg**

**Explanation**

```
Wacht op lading
*****
```

Droger is gereed.

Dryer is idle.

```
WAITING FOR LOAD
*****
```

```
Laden
-----
```

Laden droger.

Dryer is loading.

```
LOADING
-----
```

```
04F TIF TOF 031 AIR
S01 ---D--- 012 000
```

*04F* indiceert dat de droger werkt met droog code 04 voor een volle lading; *04P* representeert een deel lading

*04F* indicates that the dryer is running drycode 04 for a full load; *04P* would represent a partial load.

```
04F TIF TOF 031 AIR
S01 ---D--- 012 000
```

*S01* is de huidige stap nummer van de geselecteerde droog code.

*S01* is the current step number of the selected drycode.

Gekozen temperaturen worden niet ingesteld bij stoomdrogers. Actuele temperaturen worden getoond in de onderste lijn van het scherm onder *TIF (TIC)* en *TOF (TOC)*

Desired temperatures are not set on steam dryers. Actual temperatures are shown on the bottom line of the display, below *TIF (TIC)* and *TOF (TOC)*

*031* representeert de minuten en kwart minuten van de totale droogtijd (3 minuten en 15 seconden in dit voorbeeld.

*031* represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).

*012* representeert de tijd die nog te gaan is in deze stap (1 minuut en 30 seconden in dit voorbeeld).

*012* represents the time remaining in this step (1 minute and 30 seconds in this example).

*Lucht* komt op als de luchtklep positie (000 in dit voorbeeld, range is van 000 tot 002). Het scherm wisselt ook naar het stoom ratio beneden *SR*.

*AIR* appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the steam ratio below *SR*.



**2.1.5. Lossen van de machine**



In de automatische modes de machine lost na het einde van het droog programma. Om de goederen handmatig te lossen zet de *Lossen*

**Unloading the Machine**

In automatic mode, the machine will discharge at the end of each dry cycle. To discharge the goods manually, set the

Hoofdstuk 2. Normale machine werking

*toegestaan* schakelaar op . Gebruik de  om de trommel te tornen.

*Discharge Allowed* switch to . Use  to jog the basket.

Wanneer de droger wacht met lossen of is aan het lossen het scherm wisselt tussen *Wacht op lossen* en *Lossen* met de post data van de lading die wordt gelost.

When the dryer is waiting to discharge or is discharging, the display alternates *WAITING TO DISCHARGE* or *DISCHARGING* with the batch data of the load being discharged.

**Weergave of handeling**  
[Display or Action]

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

**Uitleg**

*FM* komt op boven het was programma nummer voor deze lading

**Explanation**

*FM* appears above the wash formula number for the load.

*DC* komt op boven de droog code nummer voor deze lading.

*DC* appears above the drycode number for the load.

*DS* komt op boven de doel code voor deze lading.

*DS* appears above the destination for the load.

*CC* komt op boven de klant code voor deze lading

*CC* appears above the customer code for the load.

*GC* komt op boven de goederen code voor deze lading

*GC* appears above the goods code for the load.

*WDT* komt op boven de wachttijd tijd wacht op lossen.

*WDT* appears above the elapsed time spent waiting to discharge.

— Einde BIPDU001 —

— End of BIPDU001 —



## Hoofdstuk 3

# Signalen en storingen

## Chapter 3

# Signals and Errors

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### 3.1. Shuttle fout meldingen

Meeste shuttle fout meldingen zijn condities die opgelost kunnen worden door de machine operator. In sommige gevallen heeft de operator iemand nodig voor onderhoud of management assistentie. Onderhoud assistentie is nodig in volgende situaties:

- Wanneer de machine service nodig heeft om de storing op te lossen.
- Wanneer een storing opgelost moet worden aan de binnenzijde van de machine met de spanning er op.

**Shuttle werk omgeving**—De omgeving waarin de shuttle beweegt gedurende automatisch bedrijf en moet afgeschermd zijn als uitgelegd in ANSI standard Z8.1-2006 “American National Standard voor commerciële wasserij en chemisch reiniging apparatuur en werking van veiligheid voorschriften.” personeel welke de shuttle omgeving betreed om een storing op te lossen, of voor elke andere reden. Dit personeel moet goed geïnstrueerd zijn in de shuttle veiligheid en in de lokale gepubliceerde veiligheids voorschriften.



**WAARSCHUWING 5: Stoot en Verpletter Gevaar**—Een shuttle beweegt onaangekondigd gedurende automatisch bedrijf. Iedereen binnen de beweeg ruimte van de shuttle kan beklemd of ernstig verwond worden.

- Operators: Nooit de shuttle ruimte ingaan zonder dat de spanning is uitgeschakeld.
- Onderhouds personeel :Altijd de shuttle

### Shuttle Error Messages

Most shuttle error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. Maintenance assistance is needed in either of the following two circumstances:

- When the machine requires servicing to resolve the error.
- When an error must be resolved from inside the shuttle operating area with power on.

**shuttle operating area**—the area within which the shuttle moves during automatic operation and which must be guarded, as explained in ANSI Standard Z8.1-2006 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements.” Personnel who enter the shuttle operating area, whether to resolve an error, or for any other reason, must be properly trained in shuttle safety and abide by the published facility safety precautions.

**WARNING 5: Strike and Crush Hazards**—A shuttle moves unpredictably during automatic operation. Anyone within the operating area of the shuttle can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.

van automatisch bedrijfs afhalen voordat u de shuttle omgeving betreed.

Van het standpunt hoe een storing op te lossen, de shuttle heeft vijf type storing meldingen: tijd limiet fouten, level encoder tel fouten, positie fouten, transport fouten en fouten die gerapporteerd zouden moeten worden aan het management en onderhoud personeel. De fouten worden getoond bij categorie en op alfabetische volgorde per categorie. U zal misschien meerdere categorie's moeten bekijken om de storing te vinden die u zoekt. De uitleg voor elke categorie zijn verdeeld in drie delen.

1. Een beschrijving van deze fout categorie.
2. Een lijst van de fouten en de beschrijving ervan.
3. Hoe een fout op te lossen van dit type

### 3.1.1. **Waarover “3-wire uitgeschakeld druk start om verder te gaan”**

Dit bericht komt op en het signaal klinkt bij opstarten totdat *Start* de drukknop (ⓘ) is ingedrukt. Dit bericht en signaal komt ook op als er een noodstop is ingedrukt. Als een motor thermische beveiliging uitgevallen is of sommige andere berichten getoond worden. Alhoewel de fouten beschreven in dit document niet vanzelf het 3-wire circuit uitschakelt. Voorbeeld, als de shuttle ver genoeg rijdt om de Eindpunt schakelaar in te drukken aan het einde van de rails geeft dit een rail limiet fout (zie [Sectie 3.1.5](#)), de voet bescherming plaat raakt een object en schakelt het 3-wire circuit uit. In dit geval het 3-wire circuit melding komt op en niet de rail limiet melding. Dit betekent dat de shuttle vrijgemaakt moet worden, ver genoeg, tot de voet schakelaar weer vrij is gemaakt.

### 3.1.2. **Automatisch blijven werken na de fout correctie.**

De shuttle gaat initialiseren als een normaal onderdeel om te herstellen van de meeste fouten beschreven in dit document. Gedurende dit

- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, shuttle errors are of five types: time limit errors, level encoder counting errors, position errors, transfer errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### **About “THREE WIRE DISABLED PUSH START TO GO”**

This message appears and the operator alarm sounds at startup until the *Start* button (ⓘ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. Although the errors described in this document do not, by themselves, disable the three-wire circuit, a few may coincide with events that do disable the three wire circuit. For example, if the shuttle traverses far enough to close an oops switch at the end of the rail and trigger a RAIL LIMIT error (see [Section 3.1.5](#)), the shuttle foot guard may also hit an object and depress, opening the three wire circuit. In such a case, the THREE WIRE DISABLED message, not the RAIL LIMIT message will appear, requiring the shuttle to be physically moved far enough away from the object to release the foot guard.

### **Resuming Automatic Operation After Error Correction**

The shuttle will initialize as a normal part of recovering from most of the errors described in this document. During this process it will

proces de shuttle gaat normaal naar de thuis positie en/of brengt de liftband naar de laagste niveau. Als de shuttle band een post heeft, vraagt deze gelijk om de post data. In dit geval de operator moet de actuele post data ingeven voor deze post en elke positie van de shuttle.

usually traverse to its home station and/or move the elevating bed to the lowest level. If the shuttle contains goods, it may also prompt for cake data. In this event, the operator must be able to accurately enter or confirm the batch codes for the goods on each position of the shuttle.


### 3.1.3. **Tijd limiet fouten**


Een tijd limiet fout verschijnt als een shuttle actie niet is afgemaakt binnen de gestelde tijd. Het is mogelijk dat een tijdelijke conditie de beweging van de shuttle verhindert. Als de specifieke tijd te configureren is, is er een kleine kans dat de tijd instelling gewijzigd moet worden (zie shuttle configuratie instructies in het instructieboek). De tijd limiet fouten stoppen de shuttle beweging zodat het personeel kan nazien welke fout conditie er is. Deze fouten zijn als volgt:

### **Time Limit Errors**

A time limit error occurs if a shuttle action is not completed within the specified time. It is likely that a temporary condition interfered with shuttle movement. If the specified time is configurable, there is a slight chance that the time value must be adjusted (see the shuttle configuration instructions in the reference manual). Time limit errors stop shuttle motion so that personnel can check for an interfering condition. These errors are as follows:

Weergave of handeling [Display or Action]	Uitleg	Explanation
Fout-test ketting Druk signal cancel  ERROR - CHECK CHAIN PRESS SIGNAL CANCEL	Wanneer de shuttle gaat initialiseren, de shuttle maakt de fout, om niet naar de maximale en minimale positie te gaan binnen de gestelde tijd gespecificeerd in de "Tijd om bodemtop te bereiken" configure instelling.	While initializing, the shuttle bed failed to move to its maximum and minimum positions within the time specified in the "time to reach bottom-top" configure decision.
Fout- geen post Druk signal cancel  ERROR - NO CAKE PRESS SIGNAL CANCEL	Gedurende lossen ,de Fotocel aan de loszijde was niet gemaakt binnen de gestelde tijd in de "Band vrij tijd" configure instelling	During discharge, the discharge-end photo eye was not blocked within the time specified in the "clear belt time" configure decision.
Fout- telt niet Druk signal cancel  ERR - NOT COUNTING PRESS SIGNAL CANCEL	Meer dan 45 seconden voorbij tussen thuis positie terwijl de shuttle links of rechts rijdt.	More then 45 seconds elapsed between station targets while the shuttle was moving left or right.
Fout - wacht te lang Druk signal cancel  ERROR- WAIT TOO LONG PRESS SIGNAL CANCEL	Het ontvangst device heeft niet bevestigd dat de lossing binnen de tijd is gespecificeerd in de configuratie instelling.	The receiving device did not acknowledge the machine's discharge within the time specified in the "allied load completed delay" configure decision.
Lostijd te lang Druk signal cancel  TOO LONG TO DISCH. PRESS SIGNAL CANCEL	De band rijdt en de los eind Fotocel is nog geblokkeerd 30 seconden na de tijd gespecificeerd in de "Band vrij tijd"configure instelling voorbij is.	The belt is moving and the discharge-end photo eye is still blocked 30 seconds after the time specified in the "clear belt time" configure decision expires.
2 lang tel LVL Druk signal cancel  2 LONG COUNT LVL PRESS SIGNAL CANCEL	Meer dan 30 seconden tussen de niveau targets wanneer de shuttle de band omhoog of omlaag stuurt.	More then 30 seconds elapsed between level targets while the shuttle elevating bed was moving up or down.

Identificeer en corrigeer elke conditie welke de pers in storting zet, druk dan de *Signaal cancel* drukknop (  ) om de shuttle te laten initialiseren om verder te gaan met automatisch bedrijf. Als de storting opkomt informeer uw onderhouds dienst.

Identify and correct any condition that may have prevented the action from occurring, then press the *Signal Cancel* button (  ) to initialize the shuttle and resume automatic operation. If error recurs, call maintenance personnel.

### 3.1.4. Band niveau encoder fouten

De besturing van sommige shuttle modellen ziet de positie van de hefband met een encoder dat de targets telt bij elk vertikaal niveau als de

### Level Encoder Counting Errors

The controller for some shuttle models tracks the position of the elevating bed with an encoder that counts targets at each vertical

band de target passeert. Een fout ontstaat als de niveau encoder niet telt. Deze fout stopt de shuttle zodat de shuttle opnieuw kan initialiseren. Deze categorie fouten heeft het volgende inclusief:

level as the bed passes the target. An error occurs if the level encoder loses count. These errors stop shuttle motion so that the shuttle can be re-initialized. This category of error includes the following:

Weergave of handeling [Display or Action]	Uitleg	Explanation
Telling over max Druk signaal cancel	De telling is over de maximale waarde gespecificeerd in de “Aantal ontvangst niveau’s” of de “Aantal los niveau’s” configuratie instelling ,ongeacht welke verschijnt.	The count exceeded the maximum value specified in the “number of receive levels” or the “number of discharge levels” configure decision, whichever applies.
CNTS EXCEEDED MAX PRESS SIGNAL CANCEL		
Telling onder 0 Druk signaal cancel	De telling is op of ongeveer onder nul.	The count is at, or about to fall below zero.
CNTS FELL BELOW 0 PRESS SIGNAL CANCEL		
Ketting slap Druk signal cancel	Een slappe ketting situatie ontstaat als de band naar beneden gaat maar voordat de ingestelde telling bereikt is.	A slack chain condition occurred while the bed was moving down, but before reaching the desired count.
SAW SLACK CHAIN PRESS SIGNAL CANCEL		

De conditie dat de encoder fout veroorzaakt is misschien op dit moment en komt niet terug. Druk de drukknop om de shuttle te initialiseren en verder te gaan met automatisch bedrijf. Als de storting terug komt waarschuw de onderhoudsdienst.

The condition that caused the encoder error is likely to be momentary and will probably not recur. Press the *Signal Cancel* button (🚫) to initialize the shuttle and resume automatic operation. If the error recurs, call maintenance personnel.

### 3.1.5. Positie fouten

Dit type storting indiceert dat de besturing detecteert dat de shuttle of een component van de shuttle is op de verkeerde plaats. Shuttle beweging stopt om te kijken of via handbediening interventie nodig is. Met handbediening kan het nodig zijn om de goederen vrij te maken van de fotocel of de shuttle op de juiste positie te zetten met d.m.v. handbediening.

### Position Errors

This type of error indicates that the controller detects the shuttle or a shuttle component is in the wrong place. Shuttle motion stops so that it can be determined if manual intervention is needed. Manual intervention may involve removing goods that are blocking a photoeye, or repositioning the shuttle using the manual controls.



**WARSCHUWING 6: Risico i.v.m. schade**—De handbediening overbrugt de fotocellen welke normale wijze de shuttle beschermd dat de post iets anders raakt of op de vloer laat vallen.

- Gebruik uw gezond verstand en consequenties voordat u de shuttle handmatig laad rijden of hijsen.

**CAUTION 6: Risk of damage**—The manual controls override the photo eyes which normally prevent the shuttle from running a cake into an object, or onto the floor.

- Use care and consider the consequences before moving the shuttle manually.

De juiste handbediening voor elke fout staat op

The pertinent manual controls for each error

### Hoofdstuk 3. Signalen en storingen

een lijst in de fout omschrijving. Deze categorie van fouten is inclusief het volgende:

are listed in the error description. This category of error includes the following:

Weergave of handeling [Display or Action]	Uitleg	Explanation
<div style="border: 1px solid black; padding: 2px;">Post moet handmatig lossen</div> <div style="border: 1px solid black; padding: 2px;">CAKE MUST BE MANUALLY UNLOADED</div>	<p>Geldt voor shuttles geconfigureerd om niet de tweede band te lossen als er een post op band 1 is maar niet op band 0. Pertinente handbediening besturing <i>Band 1 vooruit/achteruit</i> schakelaar. Met band 1 klaar voor lossen hou schakelaar op <i>Vooruit</i> (↗) totdat de post is gelost.</p>	<p>Applies to shuttles configured not to elevate the second belt to discharge. A cake is on belt 1 but not on belt 0. Pertinent manual controls: <i>Belt 1 Forward/Reverse</i> switch. With belt 1 aligned for discharge, hold switch at <i>Forward</i> (↗) until cake is discharged.</p>
<div style="border: 1px solid black; padding: 2px;">Fout- Niet uitgeschoven Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px;">ERROR-NOT RETRACTED PRESS SIGNAL CANCEL</div>	<p>De shuttle gaat rijden, omhoog of omlaag, maar de band is nog niet geheel ingeschoven. Pertinente handmatige besturing: <i>Band 0 uitgeschoven/uitgeschoven ontvangschakelaar</i> (↖/↗), <i>Band 0 uitgeschoven/uitgeschoven lossen schakelaar</i> (↖/↗), <i>Band geheel uitgeschoven lamp</i>. Bedien de juiste schakelaar om de lamp te laten branden.</p>	<p>The shuttle desired to traverse, elevate, or descend, but the shuttle bed is not fully retracted. Pertinent manual controls: <i>Belt 0 Extend/Retract to Receive</i> switch (↖/↗), <i>Belt 0 Extend/Retract to Discharge</i> switch (↖/↗), <i>Belt Fully Retracted</i> light. Operate the appropriate switch to illuminate the light.</p>
<div style="border: 1px solid black; padding: 2px;">Fout-Rail limiet Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px;">ERROR - RAIL LIMIT PRESS SIGNAL CANCEL</div>	<p>De shuttle rijdt naar uiterst rechts of links, bereikt de schakelaar en blijft daar langer dan 5 seconden. Pertinente handmatige besturing: <i>Rijd links/rechts</i> schakelaar (↙/↘).</p>	<p>The shuttle traversed too far right or left, actuated the oops switch, and remained there longer than five seconds. Pertinent manual control: <i>Travel Left/Right</i> switch (↙/↘).</p>
<div style="border: 1px solid black; padding: 2px;">Fout-slappe ketting Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px;">ERROR - SLACK CHAIN PRESS SIGNAL CANCEL</div>	<p>De shuttle band bereikt de laagste positie of raakt iets anders tijdens het omlaag gaan van de band. Pertinente handmatige besturing: <i>Gereed omlaag/omhoog sleutel Gaat omlaag</i> schakelaar (↕) of <i>Gaat omlaag/omhoog</i> schakelaar (↕/↗), als voorzien.</p>	<p>The shuttle bed either descended onto its lower mechanical stop or met an obstruction while descending. Pertinent manual controls: <i>Enable Down/Up</i> key switch, <i>Move Down</i> switch (↕) or <i>Move Down/Up</i> switch (↕/↗), as applicable.</p>



### Hoofdstuk 3. Signalen en storingen

Weergave of handeling [Display or Action]	Uitleg	Explanation
<div style="border: 1px solid black; padding: 2px;">Fout- ketting vast Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">ERROR - TAUT CHAIN PRESS SIGNAL CANCEL</div>	<p>De shuttle band raakt de bovenste mechanische stop of raakt een ander item tijdens het omhoog gaan. Pertinent handmatige besturing: : <i>Gereed omlaag/omhoog</i> sleutelschakelaar, <i>Gaat omlaag</i> sschakelaar (↙) of <i>Gaat omlaag/omhoog</i> schakelaar(↙/↗), als aanwezig, en <i>ketting vast</i> ligt op. Zet de sleutelschakelaar op handbediening en bedien de schakelaar. In de ketting vast positie de lamp ligt op en blijft branden tot de conditie weer normaal is.</p>	<p>The shuttle bed either struck its upper mechanical stop or met another obstruction while rising. Pertinent manual controls: <i>Enable Down/Up</i> key switch, <i>Move Down</i> switch (↙) or <i>Move Down/Up</i> switch (↙/↗), as applicable, and <i>Taut Chain</i> light. Set the key switch for manual operation and operate the switch. In a taut chain condition, the light is illuminated and goes out when the condition is eliminated.</p>
<div style="border: 1px solid black; padding: 2px;">Uitschuiven t ever Stel de band handmatig</div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">EXTENDING TOO FAR ADJUST BELT MANUALLY</div>	<p>De shuttle band gaat voorbij de vol uitgeschoven positie. Pertinent handmatige besturing: <i>Band 0 uitgeschoven/ingeschoven om te lossen</i> switch (↔/↔), <i>Band 0 geheel uitgeschoven om te lossen</i> lamp. Bedien de schakelaar om de lamp te laten branden.</p>	<p>The shuttle bed went beyond its fully extended position. Pertinent manual controls: <i>Belt 0 Extend/Retract to Discharge</i> switch (↔/↔), <i>Belt 0 Fully Extended to Discharge</i> light. Operate the switch to illuminate the light.</p>
<div style="border: 1px solid black; padding: 2px;">Te ver ingeschoven Stel de band handmatig in</div> <div style="border: 1px solid black; padding: 2px; margin-top: 2px;">RETRACTING TOO FAR ADJUST BELT MANUALLY</div>	<p>De shuttle band is voorbij de geheel ingeschoven positie. Pertinent handmatige besturing: <i>Band 0 uitgeschoven/ingeschoven om te ontvangen</i> schakelaar (↔/↔), <i>Band 0 uitgeschoven/ingeschoven om te lossen</i> schakelaar (↔/↔), <i>Band geheel ingeschoven</i> lamp. Bedien de juiste schakelaar totdat de lamp oplicht.</p>	<p>The shuttle bed went beyond its fully retracted position. Pertinent manual controls: <i>Belt 0 Extend/Retract to Receive</i> switch (↔/↔), <i>Belt 0 Extend/Retract to Discharge</i> switch (↔/↔), <i>Belt Fully Retracted</i> light. Operate the appropriate switch until the light illuminates.</p>

Herstel een positie fout als volgt:

Correct a position error as follows:



Weergave of handeling [Display or Action]	Uitleg	Explanation
	Zet de <i>Automatisch/Handbediening</i> schakelaar naar <i>Handbediening</i> .	Set the <i>Automatic/Manual</i> switch to <i>Manual</i> .
Gebruik het juiste handbediening,handmatige besturing (zoals boven omschreven)om de shuttle goed te posioneren. Als er een ketting fout is,heeft u toegang nodig om de sleutel <i>Gereed omlaag/omhoog</i> schakelaar te bedienen. Als de shuttle niet reageert informeer uw onderhouddienst. Als u toestemming heeft:	Use the appropriate manual controls (explained above) to position the shuttle properly. In the case of a chain error, you will need access to the key-operated <i>Enable Down/Up</i> switch. If the shuttle will not respond, call maintenance personnel. If you are able to re-position the shuttle:	
	Zet de <i>Automatisch/Handbediening</i> schakelaar terug op <i>Automatisch</i> .	Return the <i>Automatic/Manual</i> switch to <i>Automatic</i> .
Handbediening-druk skip voor exit	Dit bericht verschijnt wanneer terug gegaan word naar automatisch bedrijf na gebruik van de handbediening.	This message appears when returning to automatic mode after using the manual controls.
BARE MANUAL-PRESS SKIPTO TO EXIT	Druk skip op het keypad of drukknop (drynet beeldscherm) om de shuttle te initialiseren te starten.	Press the <b>SKIP TO</b> key (keypad) or button (DryNet device display) to start shuttle initialization.

### 3.1.6. Transport fouten

Een fout van dit type komt op als,als voorbeeld, een stuk wasgoed naast de post uit de pers en blokkeert de Fotocel. Deze fouten betekenen het volgende:

### Transfer Errors

An error of this type occurs if, for example, a piece of goods separates from a pressed cake and blocks a photo eye. These errors include the following:

### Hoofdstuk 3. Signalen en storingen

#### Weergave of handeling

[Display or Action]

Fout-fotocel fout1  
Druk signal cancel

ERROR - EYE ERROR 1  
PRESS SIGNAL CANCEL

Fout - Fotocel fout  
3  
Druk signal cancel

ERROR - EYE ERROR 3  
PRESS SIGNAL CANCEL

Fout -fotocel 4 druk  
signal cancel  
Druk signal cancel

ERROR - EYE ERROR 4  
PRESS SIGNAL CANCEL

Fout- Fotocel fout 5  
Druk signal cancel

ERROR - EYE ERROR 5  
PRESS SIGNAL CANCEL

#### Uitleg

Of de Fotocel aan de laad en/of loszijde is geblokkeerd op een band met meerdere post posities wanneer de shuttle wil gaan starten, indiceert dat een was post zich buiten de band uitsteekt. Risico op schade. Fotocel fout 2 is het zelfde. Elke fout is specifiek voor het model shuttle.

De los einde Fotocel op een band met meer wasposten heeft niet de fotocel donker gemaakt en vrijgemaakt zoveel keer als de besturing weet hoeveel posten er op de band zijn;de besturing telde te weinig posten. Dit kan voorkomen als er twee posten tegen elkaar komen waardoor de besturing dit als 1 post ziet.

De Fotocel aan de loszijde van een meer posten band is bedekt tijdens het laden. Indiceert dat de post (posten)na de eerste post missen. Wanneer een meer postenband is geladen de laatste post moet de laadzijde fotocel gezien hebben en stopt de band voordat de eerste post de loszijde fotocel heeft gezien. Deze fout als de posten te dicht op elkaar liggen doordat er los wasgoed uit de post steekt en te veel ruimte op de band gebruikt.

De laadzijde en loszijde Fotocel zijn beide bedekt wanneer de shuttle de band wil rijden,heffen,zakken of uitschuiven. Indiceert dat de post van de band afvalt,en schade kan veroorzaken.

#### Explanation

Either the load-end or discharge-end photo eye is blocked on a multi-cake belt when the shuttle desires to move, indicating that a cake may be protruding off of the belt, risking damage. EYE ERROR 2 is similar. Each error applies to specific models.

The discharge-end photo eye on a multi-cake belt did not block and clear as many times, during discharge, as the controller believes there are cakes; that is, the controller counted too few cakes. This can occur if goods straddle two cakes making them indistinguishable to the controller.





The discharge-end photo eye on a multi-cake belt blocks during loading, indicating that cake(s) following the first cake, may be missing. When a multi-cake belt is loaded, the last cake should clear the load-end photo eye and stop the belt before the first cake blocks the discharge-end photo-eye. This error can occur if loosely compacted cakes spread apart and take up too much room on the belt.

The load-end and discharge-end photo eyes are both blocked when the shuttle desires to traverse or lower the bed, indicating that a cake may protrude from the belt, risking damage.

Weergave of handeling [Display or Action]	Uitleg	Explanation
<div style="border: 1px solid black; padding: 2px;">Fout-fotocel fout6 Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px;">ERROR - EYE ERROR 6 PRESS SIGNAL CANCEL</div>	<p>De extra Fotocel is bedekt wanneer de shuttle wil gaan rijden,heffen,zakken of uitschuiven van de band. Indiceert dat de post van de band afvalt,en schade kan veroorzaken.</p>	<p>The overshoot photoeye is blocked when the shuttle desires to traverse or raise/lower the bed, indicating that a cake may protrude from the belt, risking damage.</p>
<div style="border: 1px solid black; padding: 2px;">Fout-XFER afgebroken Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px;">ERROR - XFER ABORTED PRESS SIGNAL CANCEL</div>	<p>De Miltrac besturing beëindigt het transport in werking. Voorbeeld, 1 van de fotocel fouten zoals boven besproken komt op nadat de transport cyclus is gestart maar voordat de communicatie met Miltrac gereed was.</p>	<p>The Miltrac controller cancelled the transfer in progress. For example, one of the photo eye errors described above occurs after the transfer process starts, but before communication with Miltrac is completed.</p>

Kijkend naar de veiligheids voorschriften maak fotocellen vrij door de goederen te verwijderen of door handmatig de band te laten draaien als volgt:

Observing published safety precautions, clear an improperly blocked photoeye by physically removing the goods or by manually running the belt to move the goods, as follows:

Weergave of handeling [Display or Action]	Uitleg	Explanation
	<p>Zet de <i>Automatisch/Handmatig</i> schakelaar op <i>Handbediening</i>.</p>	<p>Set the <i>Automatic/Manual</i> switch to <i>Manual</i>.</p>
	<p>Gebruik de juiste schakelaar (max 4 banden boven elkaar genummerd van 0 tot3 van onder naar boven) de band te laten draaien en de transport cyclus af te maken.</p>	<p>Use the appropriate <i>Belt x Forward/Reverse</i> switch (up to four vertically stacked belts, numbered 0 through 3, from bottom to top) to run that belt and complete or correct the transfer.</p>
	<p>Zet de <i>Automatisch/Handmatig</i> schakelaar op <i>Automatisch</i>.</p>	<p>Return the <i>Automatic/Manual</i> switch to <i>Automatic</i>.</p>
<div style="border: 1px solid black; padding: 2px;">BARE MANUAL-PRESS SKIPTO TO EXIT Handmatig-druk skip voor exit</div> <div style="border: 1px solid black; padding: 2px;">BARE MANUAL-PRESS SKIPTO TO EXIT</div>	<p>Dit bericht komt op bij terug gaan naar automatische cyclus na de handbediening te hebben gebruikt.</p>	<p>This message appears when returning to automatic mode after using the manual controls.</p>
	<p>Druk de SKIP TO drukknop (keypad) of drukknop ( Drynet scherm) om de shuttle in te initialiseren te starten en verder te gaan met de automatische cyclus.</p>	<p>Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization and resume automatic operation.</p>

### 3.1.7. Fouten welke gemeld moeten worden aan het management of onderhouddienst

De volgende fouten hebben consequenties welke opgelost moeten worden door het management. Adresseer de consequenties om de fouten op te lossen.

### Errors That Should Be Reported to Management or Maintenance Personnel

The following errors have consequences that should be resolved by management personnel. Addressing the consequences resolves the error.

Weergave of handeling [Display or Action]	Uitleg	Explanation
<div style="border: 1px solid black; padding: 2px;">Test I/O board x Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px;">CHECK I/O BOARD x PRESS SIGNAL CANCEL</div>	De besturing heeft een defect of systeem board niet herkent. Als deze fout opkomt direct nadat de configure waarden zijn ingevoerd, is mogelijk het gevolg van het invoeren van een optie die niet aanwezig is op de machine. Als dit gebeurt nadat de optie hardmatig is geïnstalleerd. Het indiceert dat deze optie nog niet in configure ingevoerd is. Ook is het mogelijk dat het board of bijbehorende circuit uitgevallen is.	The controller detects a failed or missing control circuit board. If this error occurred immediately after configure values were programmed, it is probably the result of specifying an optional feature that is not actually present on the machine. If it occurred after adding hardware for an optional feature, it indicates that this feature has not yet been specified in configuration. Otherwise, it probably indicates that a board or related circuitry has failed.
<div style="border: 1px solid black; padding: 2px;">Reset geheugen nu Druk 4 + 5 + 6</div> <div style="border: 1px solid black; padding: 2px;">CLEAR MEMORY NOW PRESS 4 + 5 + 6</div>	Programmeerbare data is niet juist. Configure waarden moeten opnieuw worden ingevuld als uitgelegd in het deel van de referentie handboek voor programmering.	Field-programmable data became corrupt. Configure values must be re-programmed as explained in the part of the reference manual on programming.
<div style="border: 1px solid black; padding: 2px;">Fout-teveel inputs Druk signal cancel</div> <div style="border: 1px solid black; padding: 2px;">ERROR - TOO MANY DIR PRESS SIGNAL CANCEL</div>	De linkse en rechtse directie ingangen van een extern laad unit zijn gemaakt op de zelfde tijd. Dit is een besturing circuit fout en heeft elektrisch storing zoeken nodig.	The right and left direction inputs from an allied loading device were actuated at the same time. This is a control circuitry malfunction requiring electrical troubleshooting.
<div style="border: 1px solid black; padding: 2px;">Programmeren 0 Menu OK draai sleutel naar run</div> <div style="border: 1px solid black; padding: 2px;">PROGRAM 0 MENU OK TURN KEY TO RUN</div>	De <b>Run/Programmeren</b> sleutel zit in de machine en de schakelaar is in de <i>Programmeren</i> positie.	The <b>Run/Program</b> key has been left in the machine and the switch is in the <i>Program</i> position. This key should be removed and placed in a secure location accessible only to management personnel.

## 3.2. Storing meldingen droger

Meeste droger storing meldingen en de condities dat de storing veroorzaakt kunnen verholpen worden door de operator. In sommige gevallen heeft de operator iemand nodig van de onderhouds dienst. Als de droger automatisch laad via een shuttle band. Ga niet in de buurt staan van de shuttle rij of hef omgeving mits u getraind bent in de veiligheid voorschriften van de shuttle. Lees anders eerst altijd de veiligheids instructies.



**WAARSCHUWING [7]: Klem en verpletter gevaar**—De shuttle wagen dat een aantal automatisch ladende drogers bedient beweegt zonder waarschuwing vooraf in een automatische modes. Als de shuttle rijd en/of omhoog en omlaag gaat vlakbij de voorzijde van een droger. Iedereen die vlakbij de voorzijde van een droger bevind kan beklemd raken.

- Operators ‘ ‘nooit de shuttle omgeving betreden zonder de spanning uit te schakelen.
- Onderhoud personeel ;altijd de machine van de automatische werking afhalen  
voordT DE SHUTTLE OMGEVING  
BETREDEN WORDT.

Vanuit het standpunt hoe een storing op te lossen, droger storingen hebben vier types: overwarmte storingen, laaddeur storingen, andere automatische storingen en storingen welke aan de leiding van de wasserij of onderhoud dienst gerapporteerd moeten worden. De storingen zijn gesorteerd op catagorie en alfabetische volgorde. Het is misschien nodig om naar meer dan 1 catagorie te kijken om de storing te vinden waar u naar zoekt. de uitleg voor elke catagorie zijn verdeeld in drie delen:

1. Beschrijving van de storing catagorie
2. een lijst met storingen en omschrijving
3. Hoe een storing te verhelpen van dit type

### 3.2.1. Betreffene de “3-wire uitgeschakeld ” melding

Dit bericht komt op en de claxon luid bij het opstarten totdat de *Start* drukknop (Ⓜ) word ingedrukt. Dit bericht en signaal is ook geldig als elke noodstop schakelaar ingedrukt wordt. Als een thermische beveiliging uitvalt of in andere

## Dryer Error Messages

Most dryer error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. If the dryer is automatically loaded by a shuttle conveyor, do not enter the shuttle operating area to resolve an error unless properly trained in shuttle safety. Abide by the published facility safety precautions.

### WARNING [7]: Strike and Crush

**Hazards**—The shuttle conveyor that serves a line of automatically-loaded dryers moves unpredictably during automatic operation. As it traverses, it passes, almost touching the front of each dryer. Anyone at or near the front of a dryer can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.
- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, dryer errors are of four types: overheat errors, load door advisories, other automatic operation errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### About the “THREE WIRE DISABLED” Message

This message appears and the operator alarm sounds at startup until the *Start* button (Ⓜ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if

condities verschijnd. Enkele storingsen zijn beschreven in dit document zijn geschakeld dat het 3-wire circuit uitvalt. Wanneer dit gebeurt de 3-wire circuit melding getoond wordt en niet de storings melding. Alhoewel de twee belangrijkste speciale gevallen worden uitgelegt in [Sectie 3.2.2 “Te warm storingsen”](#).

### 3.2.2. Te warm storingsen

Een te warm storing komt op als de besturing een uitlaat temperatuur ziet die boven de toegestane waarde komt Alhoewel een te warm storing kan diverse andere oorzaken hebben. De besturing denkt dat er brand is in de trommel en neemt de volgende acties

- Opent het 3-wire circuit wat:
  - » Schakelt de verwarming uit ( sluit de gasklep)
  - » Schakelt de hoofd lucht stroom uit
  - » stopt het draaien van de trommel
- Aktveert de interne sprinkler wele water in de trommel sproeit

certain other events occur. A few errors described in this document may coincide with events that disable the three-wire circuit. When this occurs, the THREE WIRE DISABLED message, and not the error message, will typically appear on the display. However, two important special cases are explained in [Section 3.2.2 “Overheat Errors”](#).

### Overheat Errors

An overheat error occurs if the controller detects an outlet temperature exceeding the permissible value. Although an overheat error can have numerous causes, the controller assumes there is a fire in the basket and takes the following actions:

- opens the three wire circuit, which:
  - » shuts off the heat source (e.g., closes the gas valve)
  - » shuts off the main air flow
  - » stops basket rotation
- actuates the internal sprinkler, which sprays water into the basket

**Weergave of handeling**  
[Display or Action]

```
Uitlaat temp te hoog
240dF -Spanning
uit-
```

```
OUTLET TEMP EXCEEDED
240dF -POWER DOWN-
```

**Uitleg**

Een aanwezig veiligheid unit op de droger zorgt voor deze storing als de uitlaat temperatuur boven de 240 ° Fahrenheit (116° Celsius). Dit gebeurt niet als de temperatuur direct omhoog gaat alleen als het 3-wire circuit conditie,uitgelegd hier onder, weigert. Misschien omdat een onderdeel uitvalt. Deze storing is in de software gezet gebaseerd op de uitlaat temperatuur en inlaat temperatuur. Het kan dat deze storing opkomt als een elektrisch onderdeel kapot gaat zoals een A/D board.Alhoewel het 3-wire circuit opent dit bericht heeft voorrang boven het 3-wire circuit uitgeschakeld bericht.

**Explanation**

A redundant safety feature on the dryer will trigger this error if outlet temperature exceeds 240° Fahrenheit (116° Celsius). This event will not occur as a result of an actual temperature rise unless the THREE WIRE DISABLED condition, explained below, fails, perhaps due to a component failure. This error is triggered in software, based on the outlet temperature input. Hence, this error may occur erroneously, due to an electrical component failure such as a failed A/D board. Although the three wire circuit opens when this event occurs, this error message will take precedence over the THREE WIRE DISABLED message.

```
3-wire uitgeschakeld
*****
*
```

```
THREE WIRE DISABLED
*****
```

Deze melding is het resultaat dat de uitlaat temperatuur boven de 225 ° Fahrenheit (107° Celsius),maar het kan ook andere oorzaken hebben.wanneer deze melding verschijnd gedurende normale werking (na dat de *Start* drukknop is ingedrukt) **Onmiddellijk testen of het sprinkler mechanisme (gemonteerd op de zijkant van de ontlad trechter) is ingekomen.** en als dat zo is. Behandel de melding als een te warm storing. Deze storing word ingeschakeld door twee temperatuur veiligheid voelers (Fenwall schakelaars/voelers) gemonteerd in het uitlaat kanaal van de droger.

This message may be the result of the outlet temperature exceeding 225° Fahrenheit (107° Celsius), but it may also have other causes. Whenever this message appears during operation (after the *Start* button is pressed), **immediately check to see if the sprinkler mechanism (mounted on the side of the discharge shroud) is actuated** and if so, resolve this message as an overheat error. This error is triggered by either of two temperature safety switches (Fenwall switches) mounted in the outlet duct.

Een te warm storing oplossen als volgt:

Resolve an overheat error as follows:

Weergave of handeling [Display or Action]	Uitleg	Explanation
⊗, ⊕	<ol style="list-style-type: none"> <li>Als de uitlaat temp te warm 240df storing gemeld wordt.Zet de droger <i>Master</i> schakelaar uit,en dan weer aan.Dit is nodig om het Sprinkler gekozen uitgang relai te resetten.Anders is het niet mogelijk de sprinkler te sluiten.</li> <li>Als er geen bewijs is voor brand , <b>Trek de rode hendel naar beneden op het sprinkler mechanisme tot die vast klikt.</b> om de water stroom naar de trommel te stoppen,maar ga verder met onderzoeken naar mogelijke brand en zonodig aktiveer de sprinkler nogmaals.</li> </ol>	<ol style="list-style-type: none"> <li>If the OUTLET TEMP EXCEEDED 240dF error occurred, turn the dryer <i>Master</i> switch off, then back on. This is required to reset the Desires Sprinkler output relay. Otherwise it will not be possible to shut off the sprinkler.</li> <li>If there is no evidence of fire, <b>pull down the red handle on the sprinkler mechanism until the handle locks in place,</b> to stop the flow of water into the basket, but continue to observe for evidence of fire and be prepared to re-activate the sprinkler.</li> </ol>
ⓘ	<p>Druk de <i>Start</i> drukknop op de droger in.Als de uitlaat temperatuur niet afgekoeld onder de 214 ° Fahrenheit (101° Celsius), het 3-wire circuit kan niet ingeschakeld worden. Wacht tot de droger voldoende is afgekoeld.</p>	<p>Press the dryer <i>Start</i> button. If outlet temperature has not cooled below 214° Fahrenheit (101° Celsius), the three wire circuit will not energize. Wait until the dryer has cooled sufficiently.</p>

Wanneer het 3-wire circuit is ingeschakeld gebruik de handmatige besturing om de verbrande of beschadigde goederen te lossen. Gebruik alle nodige brand veiligheids voorschriften als u dat doet. Als er brand in de trommel is geweest moet u de droger en trommel volledig inspecteren voordat u de droger weer inschakeld.Anders met de droger *Automatisch/handmatig* schakelaar op *Automatisch* gezet. De droger blijft automatisch werken. Als er geen brand ondekt is maar de storing blijft komen indiceert dat er een onderdeel defect is.Informeer direct het vonderhoud personeel.

Once the three wire circuit is energized, use the manual controls to discharge any fire-damaged goods. Use all necessary fire safety precautions when doing so. If a basket fire did occur, the dryer will need to be inspected for damage before returning it to service. Otherwise, with the dryer *Automatic/Manual* switch set to *Automatic*, the dryer should resume automatic operation. If no fire occurred but the error recurs, this indicates a malfunctioning component. Call maintenance personnel.

### 3.2.3. Laad deur missers

Dit bericht komt op zonder een signaal als de laad deur niet binnen 15 seconden open of dicht

### Load Door Advisories

These messages occur with no accompanying operator alarm if the load door does not open



gaat na het verkregen commando om dit te doen. Verder gaan word niet toegestaan maar gaat verder als de juiste laad deur ingang is gemaakt.

or close within 15 seconds after being commanded to do so. Processing will not proceed until the action occurs, but will resume without any intervention once the appropriate load door input is made.

Weergave of handeling [Display or Action]	Uitleg	Explanation
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">Laaddeur niet open</div> <div style="border: 1px solid black; padding: 2px;">LOAD DOOR NOT OPEN</div>	<p>De laaddeur is niet open gegaan binnen de gestelde tijd. De deur is misschien niet naar gevraagde positie gegaan door een mechanisch probleem zoals te lage perslucht druk. Deze storing kan ook voorkomen als de benaderings schakelaar defect is.</p>	<p>The load door did not open within the specified time. The door may not have moved to the needed position due to a mechanical problem such as low air pressure. This error could also occur erroneously as a result of a problem such as a failed proximity switch.</p>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">Laaddeur open</div> <div style="border: 1px solid black; padding: 2px;">LOAD DOOR OPEN</div>	<p>De laaddeur is niet gesloten binnen de gestelde tijd. Dit komt hoogstwaarschijnlijk doordat een stuk wasgoed de deur blokkeert, maar het kan ook de reden zijn als laaddeur niet open.</p>	<p>The load door did not close within the specified time. This is most likely due to a piece of goods blocking the door, but it could also be for a similar reason as LOAD DOOR NOT OPEN.</p>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">Losdeur open</div> <div style="border: 1px solid black; padding: 2px;">DISCHARGE DOOR OPEN</div>	<p>De losdeur is gesloten binnen de gestelde tijd. Wanneer het commando er is tijdens laden. Dit kan ook de reden zijn bij deur niet open.</p>	<p>The discharge door did not close within the specified time, when commanded to do so at loading. This could also be for a similar reason as LOAD DOOR NOT OPEN.</p>

Als deze conditie zichzelf niet herstelt binnen een korte tijd, kijk dan goed en corrigeer elke conditie die de functie van de laaddeur hindert. Dit moet gedaan worden door gekwalificeert personeel, en bekend is met de veiligheids voorschriften. Als deze conditie zichzelf corrigeert maar terug komt informeer het onderhouds personeel.

If the condition does not self-correct within a short time, investigate, and correct any condition interfering with load door operation. This will require personnel with the appropriate qualifications and authority, and compliance with published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

### 3.2.4. Andere automatische werkende storingen

De storingen in deze categorie komen met het operator signaal. De droger stopt en kan er gekeken worden welke actie nodig is.

### Other Automatic Operation Errors

The errors in this category are accompanied by the operator signal. Dryer operation stops so that it can be determined if intervention is needed.

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<b>Weergave of handeling</b> [Display or Action]	<b>Uitleg</b>	<b>Explanation</b>
<div data-bbox="279 327 630 365" style="border: 1px solid black; padding: 2px;">Test storing lampen</div> <div data-bbox="279 373 630 438" style="border: 1px solid black; padding: 2px;">CHECK ERROR LIGHTS</div>	<p>Deze storing komt enkel op voor gas en propaan verwarmde drogers. Verschillende condities moeten zijn gemaakt voordat de brander automaat Landis &amp; gyr merk (als gespecificeerd) vlam controle systeem de brander start en laat branden. deze storing geeft aan dat niet alle condities zijn gemaakt. De machine besturing controleert deze condities niet apart, maar sommige condities worden getoond door de lampen op de droger status (storing) paneel. wanneer een lamp oplicht, kan je zien welke conditie gemaakt zijn of een foutmelding aangeven. Bekijk de beschrijving van de droger om de functie van de elke status lamp.</p>	<p>This error only applies to gas and propane dryers. Numerous conditions must be satisfied before the Fireye or Landis &amp; Gyr brand (as specified) flame control system will ignite the burner or permit it to remain lit. This error indicates that not all conditions are satisfied. The machine controller does not monitor these condition individually, but several conditions are represented by lights on the dryer status (error) light panel. When illuminated, certain lights indicate that a particular condition is satisfied while others indicate an un-met, or error condition. Refer to the description of dryer controls for an explanation of each status light.</p>
<div data-bbox="279 1108 630 1178" style="border: 1px solid black; padding: 2px;">Losdeur niet gesloten Na het lossen</div> <div data-bbox="279 1186 630 1247" style="border: 1px solid black; padding: 2px;">DISCHARGE DOOR NOT CLOSED AFTER DISCH.</div>	<p>De losdeur is niet volledig gesloten na het lossen van de lading. Mogelijk blokkeert wasgoed de deur, door een mechanisch probleem te lage perslucht druk. Of een elektrisch probleem als een defecte benaderings schakelaar.</p>	<p>The discharge door did not close fully after discharge. This may be due to goods blocking the door, to a mechanical problem such as low air pressure, or to an electrical problem such as a failed proximity switch.</p>

Weergave of handeling [Display or Action]	Uitleg	Explanation
<div style="border: 1px solid black; padding: 2px;">Trommel draai fout</div> <div style="border: 1px solid black; padding: 2px;">ROTATION FAILURE</div>	<p>De trommel stopt met draaien voor meer dan 8 seconden gedurende een droog proces. Als de trommel niet juist draait de navolgende oorzaak kan voorkomen; wasgoed zit vast tussen de midden seal, condens op de trommel wielen zorgen dat de trommel slipt of een fout van de frequentie regelaar. De storing kan ook voorkomen doordat de trommel benadering schakelaar niet ziet tijdens het draaien, doordat de benadering schakelaar niet goed is uitgelijnd of een defecte weerstand in het systeem.</p>	<p>The basket stopped rotating for more than 8 seconds during a dry cycle. If the basket is actually not rotating properly, some possible causes include goods caught in the basket seals, condensation on the basket support rollers causing the basket to slip, and a malfunctioning inverter. The error can also be caused by a problem that prevents the controller from detecting basket rotation, such as a mis-aligned proximity switch, or a burned out capacitor in the motion sensing circuit.</p>
<div style="border: 1px solid black; padding: 2px;">*transport afgebroken* Maak shuttle vrij</div> <div style="border: 1px solid black; padding: 2px;">*TRANSFER ABORTED* CLEAR SHUTTLE FIRST</div>	<p>De Miltrac besturing breekt het transport in werking af. Als voorbeeld, een stuk wasgoed blokkeert de loszijde fotocel op de shuttle. Dit betekent normaal dat de shuttle stopt voor een droger en beide machines hebben een storing. de shuttle fout moet eerst opgelost worden. Kijk naar de instructies van de shuttle storing meldingen.</p>	<p>The Miltrac controller cancelled the transfer in progress. For example, a piece of goods blocked the discharge-end photo eye on the shuttle. Hence this error usually means that the shuttle is stopped in front of this dryer and both devices have errors. The shuttle error must be addressed first. Refer to the instructions on shuttle error messages.</p>

Druk de *Signaal cancel* drukknop (☒) om het operator alarm op stil te zetten. als de storing zichzelf corrigeert de automatische werking gaat verder.

Als dat niet het geval is onderzoek wat het probleem is en corrigeer het. Dit moet gedaan worden door gekwalificeerd personeel welke bekend is met de veiligheid voorschriften. als de conditie blijft terugkomen informeer het onderhouds personeel.

Press the *Signal Cancel* button (☒) to silence the operator alarm. If the error self-corrected, automatic operation should resume. If not, investigate and correct the problem. This will require personnel with the appropriate qualifications and authority and compliance with the published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

### 3.2.5. Meldingen welke gerapporteerd moeten worden aan het management of onderhouds personeel.

De volgende fouten hebben consequenties

### Messages That Should Be Reported to Management or Maintenance Personnel

The following errors have consequences that

### Hoofdstuk 3. Signalen en storingen

welke opgelost moeten worden door het management of onderhouds personeel. Het bekend maken lost de storingen op.

should be resolved by management or maintenance personnel. Addressing the consequences resolves the error.

<b>Weergave of handeling</b> [Display or Action]	<b>Uitleg</b>	<b>Explanation</b>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">                     Fout in geheugen Draai sleutel om te programmeren                 </div> <div style="border: 1px solid black; padding: 2px;">                     ERROR IN MEMORY TURN KEY TO PROGRAM                 </div>	<p>Vrije programmeerbare data (configuratie en/of droog code zijn beschadigt (onbetrouwbaar). De juiste data moet gedownload of hergeprogrammeerd als uitgelegd in het deel programmering.</p>	<p>Field-programmable data (configuration and/or drycodes) became corrupt (unreliable). The correct data must be downloaded or re-programmed, as explained in the part of the reference manual on programming.</p>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">                     Illigale droog code xxx Zie handboek                 </div> <div style="border: 1px solid black; padding: 2px;">                     ILLEGAL DRYCODE xxx SEE MANUAL                 </div>	<p>De droger besturing ontvangt een vraag om met een droog code te draaien welke niet is geprogrammeerd; dat is, de droogcode is niet lokaal. Het droogcode nummer samen met andere post codes welke opgeslagen zijn in de mentor of mildata PC. Het is de verantwoordelijkheid van de persoon die de post codes met de was programma samenstelt juist zijn. Als het wasgoed is toegestaan om te drogen met een niet juiste droog code (iligaal) de droger lost de goederen nat. De operator kan dit probleem direct oplossen door het operator signaal te cancelen (☒) om dan een andere droog code te kiezen; alleen het management personeel moet er zeker van zijn dat de specifieke droog code is geprogrammeerd (of gedownload). Naar de droger of dat er een bekende droog code is met een wasprogramma in de Mentor programmering.</p>	<p>The dryer controller received a request to run a drycode that is not currently programmed; that is, the drycode is not local. The drycode number, along with other batch codes, originated in the Mentor or Mildata computer. It is the responsibility of the person who associates the post-wash codes with the wash formula to ensure that the assigned codes are valid. If goods are permitted to be processed in the dryer using an invalid (illegal) drycode, the dryer will simply discharge the goods wet. The operator may be able to resolve this immediate problem by cancelling the operator signal (☒) then invoking another suitable drycode; however, management personnel will need to ensure that either the specified drycode is programmed in (or downloaded to) the dryer or that a valid drycode number is associated with the wash formula in Mentor programming.</p>

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<b>Weergave of handeling</b> [Display or Action]	<b>Uitleg</b>	<b>Explanation</b>
<div style="border: 1px solid black; padding: 2px;">Onjuist paswoord</div> <div style="border: 1px solid black; padding: 2px;">INVALID PASSWORD</div>	Deze melding geldt niet voor drogers in een drynet (droger/shuttle besturing)netwerk. Als de droger is geconfigureert om een paswoord of handmatige inbreng en de operator heeft deze niet, hier moet het management naar kijken.	This message does not apply to dryers in a DryNet (Dryer/Shuttle Controller) network. If the dryer is configured to require a password for manual intervention and the operator does not have one, this will need to be obtained from management personel.
<div style="border: 1px solid black; padding: 2px;">Naam board defect Druk signaal cancel</div> <div style="border: 1px solid black; padding: 2px;">name BOARD FAILED PRESS SIGNAL CANCEL</div>	Het type systeem board communiceert niet met de microprocessor. Dit vraagt om elektrisch storing zoeken.	The named peripheral board is not communicating with the microprocessor. This will require electrical troubleshooting.

— Einde BIPDUT01 —

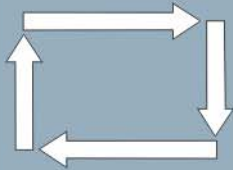
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Français

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## Guide de l'opérateur [Operator Guide]—

### Contrôleur de séchoir/navette Drynet [Drynet Dryer/Shuttle Controller]

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6464TG1R	7272TG1L	7272TG1R	7272TS1L	7272TS1R	CTLDRSPC	

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# Chapitre 1

## Commandes

# Chapter 1

## Controls

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### 1.1. Commandes sur les navettes y compris dans un réseau DryNet

Ce document décrit les commandes physiques fournies avec les différents modèles de navette ainsi que quelques fonctions DryNet qui remplacent les commandes physiques lorsque la navette fait partie d'un réseau DryNet (contrôleur de séchoir/navette). La navette n'aura que les commandes nécessaires au type de mouvements qu'elle peut effectuer. Certaines commandes sont toujours situées sur la navette elle-même. Généralement, sur les navettes qui traversent un rail, les commandes de fonctionnement manuelles sont situées sur le boîtier de commande autonome de la navette, tandis que sur les navettes qui ne traversent pas de rail, elles se trouvent sur la navette elle-même. Si la navette fait partie d'un réseau DryNet, certaines commandes physiques se trouvent sur la console DryNet. C'est également là que les fonctions de machine sont disponibles via le logiciel DryNet.

#### 1.1.1. Commandes montées sur la machine

Ceux-ci incluent un ou plusieurs interrupteurs d'arrêt d'urgence tels que décrits dans [Section 1.2.1.1 "Interrupteur d'arrêt d'urgence \(bouton poussoir de verrouillage\)"](#) et les autres commandes décrites dans cette section.

### Controls on Shuttles Including Those in a DryNet Network

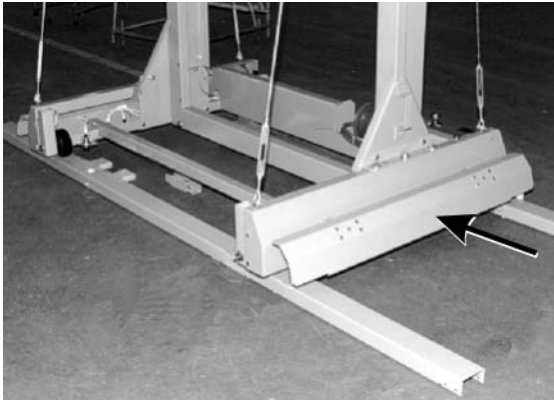
This document describes the physical controls provided with the various shuttle models as well as a few DryNet operating functions which serve in place of physical controls when the shuttle is part of a DryNet (Dryer/Shuttle Controller) network. The shuttle will have only those controls needed for the type of movements it can perform. Certain controls are always located on the shuttle itself. Generally, on shuttles that traverse a rail, the manual operation controls are located on the free-standing shuttle control box, while on shuttles that do not traverse, they are on the shuttle itself. If the shuttle is part of a DryNet network, certain physical controls are located at the DryNet Console. This is also where machine functions are available via the DryNet software.

#### Machine-mounted Controls

These include one or more emergency stop switches as described in [Section 1.2.1.1 "Emergency Stop Switch \(locking push button\)"](#) and the other controls described under this section.

- 1.1.1.1. Plinthes d'arrêt d'urgence**—Les navettes sont équipées de plinthes à charnières ([Illustration 1](#)) sur leurs deux côtés dans les directions de traversée. Lorsqu'une plinthe pivote suffisamment, cela actionne un interrupteur qui arrête la machine en supprimant le circuit triphasé.

**Illustration [Figure] 1: Plinthe de navette [Shuttle Kick Plate]**



**Emergency Stop Kick Plates**—Shuttles are provided with hinged kick plates ([Figure 1](#)) on both sides of the machine in the traversing directions. When a kick plate pivots sufficiently, this actuates a switch that stops the machine by dropping out the three-wire circuit.

- 1.1.1.2. Interrupteur de déconnexion du moteur**—Cet interrupteur (SHMD) agit sur le courant triphasé des moteurs de navette, comme suit :

- 0 ARRÊT**—Le courant triphasé n'est pas disponible. La navette ne sera pas alimentée pour se déplacer.
- 1 MARCHÉ** —Le courant triphasé est disponible. **La machine peut commencer à se déplacer immédiatement.**

**Illustration [Figure] 2: Interrupteur Déconnexion du moteur [Motor Disconnect Switch]**



**Motor Disconnect Switch**—This switch (SHMD) affects three-phase power for the shuttle motors, as follows:

- 0 OFF**—Three-phase power is not available. The shuttle will not move under power.
- 1 ON** —Three-phase power is available. **The machine may immediately begin moving.**

- 1.1.2. Commandes de fonctionnement manuelles**

[Illustration 3](#) illustre le tableau de commande

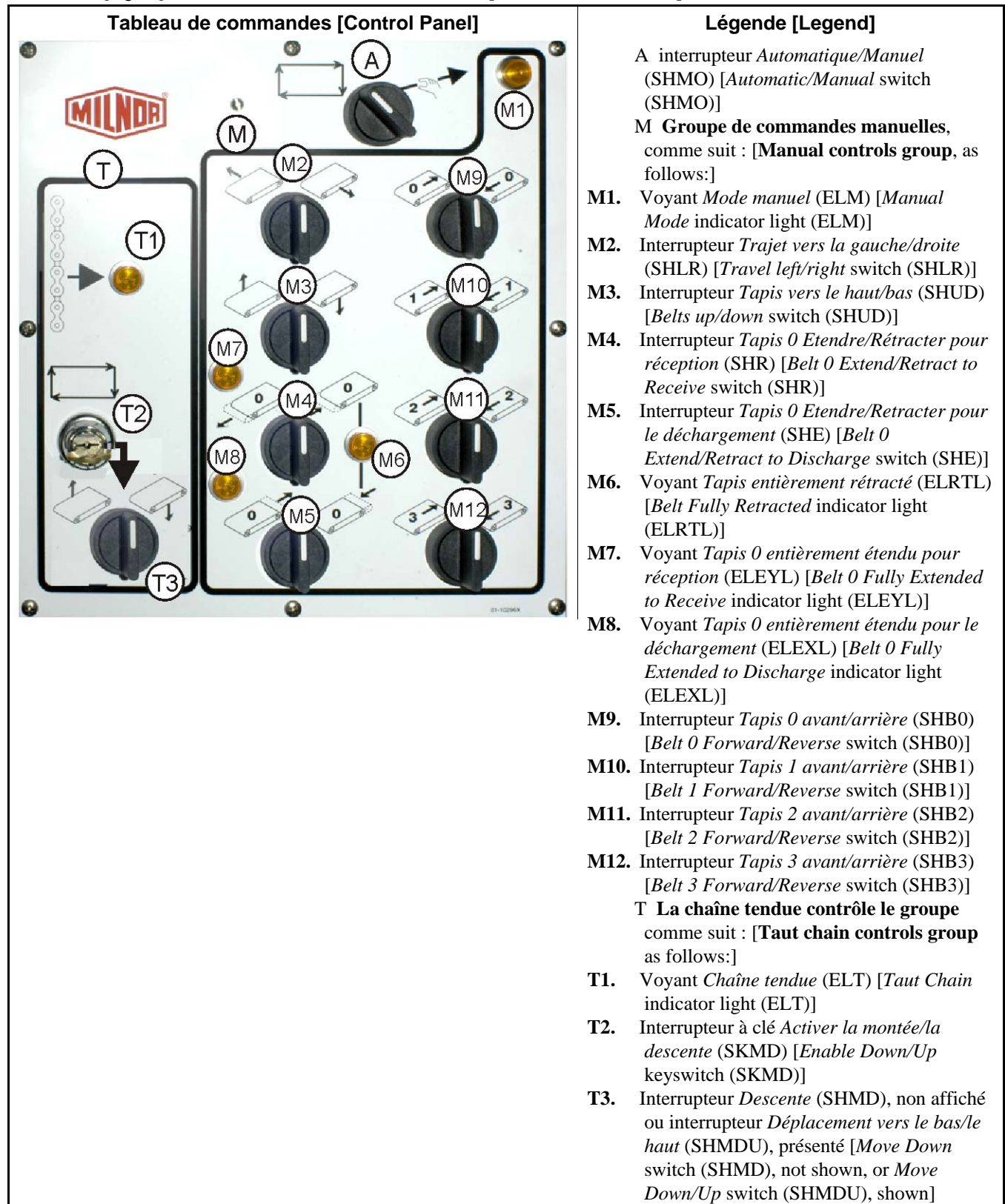
## Manual Operation Controls

[Figure 3](#) illustre le tableau de commande utilisé on



utilisé sur les navettes pour les galettes et les produits. Seules les commandes correspondant à la fonction de déplacement de la navette sont fournies sur une navette donnée.

shuttles for cakes and loose goods. Only those controls corresponding to the shuttle's motion capability are provided on a given shuttle.



Illustration [Figure] 3: Tableau de commandes manuelles [Manual Control Panel]



**1.1.2.1. Interrupteur Automatique/Manuel (A)**—Cet interrupteur (SHMO) détermine ce qui contrôle le mouvement de la machine, comme suit :

- —La machine est contrôlée par les interrupteurs dans Groupe de commandes manuelles.
- —La machine se déplace par commande automatique. **La machine peut commencer à se déplacer immédiatement.**

**Automatic/Manual switch (A)**—This switch (SHMO) determines what controls machine movement, as follows:

- —The machine is controlled by the switches in the manual controls group.
- —The machine moves under automatic control. **The machine may immediately begin moving.**

**1.1.2.2. Groupe de commandes manuelles (M)**



**Manual Controls Group (M)**



**1.1.2.2.1. Voyant Mode manuel (M1)**—Le voyant *Mode manuel* (ELM) s’allume lorsque le mode manuel est activé, indiquant que les commandes manuelles sont actives.

**Manual Mode indicator light (M1)**—The *Manual Mode* indicator light (ELM) illuminates when manual mode is enabled, indicating that the manual control switches are active.

**1.1.2.2.2. Interrupteur Trajet vers la gauche/droite (M2)** —Maintenir cet interrupteur excentré (SHLR) dans l’une des positions momentanées a pour résultat que la navette traverse le rail, comme suit :



**Travel left/right switch (M2)**—Holding this center-off switch (SHLR) in one of the momentary positions causes the shuttle to traverse the rail, as follows:



- —(Momentané dans le sens inverse des aiguilles d’une montre) La navette se déplace vers la gauche le long du rail, par rapport au flux des produits.
- —(Momentané dans le sens des aiguilles d’une montre) La navette se déplace vers la droite le long du rail.

- —(momentary counter-clockwise) The shuttle moves left along the rail, relative to the flow of goods.
- —(momentary clockwise) The shuttle moves right along the rail.

**1.1.2.2.3. Interrupteur Tapis vers le haut/bas (M3)** —Maintenir cet interrupteur excentré (SHUD) dans l’une des positions momentanées a pour résultat de déplacer les assises comme suit :

**Belts up/down switch (M3)**—Holding this center-off switch (SHUD) in one of the momentary positions causes the bed(s) to move as follows:

- —(Momentané dans le sens inverse des aiguilles d’une montre) Le treuil est activé et les assises s’élèvent.
- —(Momentané dans le sens des aiguilles d’une montre) Le treuil est activé et les assises descendent.

- —(momentary counter-clockwise) The hoist runs and the bed(s) rise.
- —(momentary clockwise) The hoist runs and the bed(s) descend.

**1.1.2.2.4. Interrupteur Tapis 0 Etendre/Rétracter pour réception (M4)** —Maintenir cet interrupteur excentré (SHR) dans l’une des positions momentanées a pour résultat de déplacer l’assise (supérieure) du tapis 0 comme

**Belt 0 Extend/Retract to Receive switch (M4)**—Holding this center-off switch (SHR) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with

suit en même temps qu'il reçoit une charge :

✎—(Momentané dans le sens inverse des aiguilles d'une montre) L'assise s'étend vers l'unité depuis laquelle elle reçoit les produits.

✎—(Momentané dans le sens des aiguilles d'une montre) Le tapis se rétracte de sa position de réception.

receiving a load:

✎—(momentary counter-clockwise) The bed extends toward the device it will receive the goods from.

✎—(momentary clockwise) The belt retracts from the receive position.

- 1.1.2.2.5. **Interrupteur *Tapis 0 Etendre/Retracter pour le déchargement* (M5)** —Maintenir cet interrupteur excentré (SHE) dans l'une des positions momentanées à pour résultat de déplacer l'assise (supérieure) du tapis 0 comme suit, en même temps qu'il décharge une charge :

✎—(Momentané dans le sens inverse des aiguilles d'une montre) L'assise s'étend vers l'unité sur laquelle elle déchargera les produits.

✎—(Momentané dans le sens des aiguilles d'une montre) Le tapis se rétracte de sa position de déchargement.

***Belt 0 Extend/Retract to Discharge switch (M5)***—Holding this center-off switch (SHE) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with discharging a load:

✎—(momentary counter-clockwise) The bed extends toward the device it will discharge the goods to.

✎—(momentary clockwise) The belt retracts from the discharge position.

- 1.1.2.2.6. **Voyant *Tapis entièrement rétracté* (M6)** —Ce voyant (ELRTL) s'allume lorsque l'assise (supérieure) du tapis 0 est entièrement rétractée, ce qui indique que la navette peut traverser sans risque.

***Belt Fully Retracted indicator light (M6)***—This light (ELRTL) illuminates when the Belt 0 (topmost) bed is fully retracted, indicating that the shuttle can traverse safely.

- 1.1.2.2.7. **Voyant *Tapis 0 entièrement étendu pour réception* (M7)** —Ce voyant (ELEYL) s'allume lorsque l'assise (supérieure) du tapis 0 est entièrement étendue pour recevoir une charge d'une autre unité.

***Belt 0 Fully Extended to Receive indicator light (M7)***—This light (ELEYL) illuminates when the Belt 0 (topmost) bed is fully extended to receive a load from another device.

- 1.1.2.2.8. **Voyant *Tapis 0 entièrement étendu pour le déchargement* (M8)** —Ce voyant (ELEXL) s'allume lorsque l'assise (supérieure) du tapis 0 est entièrement étendue pour décharger une charge dans une autre unité.

***Belt 0 Fully Extended to Discharge indicator light (M8)***—This light (ELEXL) illuminates when the Belt 0 (topmost) bed is fully extended to discharge a load to another device.

- 1.1.2.2.9. **Interrupteur *Tapis [0-3] avant/arrière* (M9 à M12)**—Maintenir cet interrupteur excentré (SHB0) dans l'une des positions momentanées a pour résultat de faire fonctionner le tapis comme suit :

✎—(Momentané dans le sens inverse des aiguilles d'une montre) Le tapis sélectionné se déplace vers l'avant, dans la direction de l'unité qui reçoit normalement les produits du tapis.

***Belt [0-3] Forward/Reverse switch (M9 through M12)***—Holding this center-off switch (SHB0) in one of the momentary positions causes the selected belt to run as follows:

✎—(momentary counter-clockwise) The selected belt runs forward, toward the device which normally receives goods from the belt.

☞—(Momentané dans le sens des aiguilles d’une montre) Le tapis sélectionné tourne dans le sens inverse, vers l’unité qui décharge normalement les produits sur le tapis.

☞—(momentary clockwise) The selected belt runs in reverse, toward the device which normally discharges goods to the belt.

### 1.1.2.3. Commandes de récupération de chaîne tendue (T)

### Taut Chain Recovery Controls (T)

#### Supplément 1

#### Supplement 1

#### A propos des conditions de chaîne tendue

#### About Taut Chain Conditions

Selon le type de treuil, les navettes sont subdivisées en trois catégories :

From the standpoint of the type of hoist, shuttles fall into three categories:

**moteur de levage monté en haut**—Ce type de navette possède un moteur de levage qui est monté de façon rigide sur la pièce du cadre supérieur. Le moteur de levage entraîne une chaîne à rouleaux à une extrémité libre. Ce type de navette est sujet à la condition de chaîne tendue qui survient si le contrôleur ne capte pas la position supérieure lorsque l’assise s’élève, lui faisant atteindre sa limite mécanique supérieure.

**top-mounted hoist motor**—This shuttle type has a hoist motor that is rigidly mounted to the top frame member. The hoist motor drives a roller chain with one free end. This type is susceptible to the taut chain condition that occurs if the controller does not sense the topmost position when the bed is rising, causing it to reach its upper mechanical limit.

**moteur de levage monté sur le côté (navette de faible dégagement)**—Ce type utilise un réducteur de moteur de levage qui est monté de façon rigide près du haut d’une pièce de cadre latéral. Le moteur de levage entraîne une chaîne à rouleaux qui forme une boucle et se connecte à l’assise à la fois au-dessus et au-dessous. Ce type est susceptible de rencontrer la même condition que ci-dessus et la condition qui se produit si le contrôleur ne capte pas la position inférieure lorsque l’assise descend, lui faisant ainsi atteindre sa limite mécanique inférieure.

**side-mounted hoist motor (low clearance shuttle)**—This type uses a hoist motor reducer that is rigidly mounted near the top of a side frame member. The hoist motor drives a roller chain that forms a loop and connects to the bed assembly both above and below. This type is susceptible to the same condition as above and the condition that occurs if the controller does not sense the bottom-most position when the bed is descending, causing it to reach its lower mechanical limit.



**ATTENTION 1: Risque de dommages**—Forcer l’assise à se placer contre un arrêt mécanique par une utilisation incorrecte de la chaîne tendue ou d’autres commandes manuelles peut causer la courbure ou la rupture des composants de la navette, ou griller le moteur de levage.

**CAUTION 1: Risk of damage**—Forcing the bed assembly against a mechanical stop by improper use of the taut chain or other manual controls may cause shuttle components to bend or break, or the hoist motor to burn out.

- Assurez-vous de ne pas maintenir une commande dans une direction dans laquelle l’assise ne peut pas se déplacer.

- Ensure that you do not hold a control in a direction the bed assembly cannot move.



**Treuil Demag (navette pour châssis léger)—**

Ce type utilise un treuil de marque Demag suspendu à partir de la pièce de cadre supérieure entraînant une chaîne d'ancre. Ce type n'est pas sujet à la condition de chaîne tendue.

**Demag hoist (light frame shuttle)—**

This type uses a Demag brand hoist suspended from the top frame member that drives an anchor chain. This type is not susceptible to the taut chain condition.

1.1.2.3.1. **Voyant *Chaîne tendue* (T1)** —Le voyant (ELT) s'allume pour indiquer qu'une condition d'erreur de chaîne s'est produite.

***Taut Chain* indicator light (T1)**—This light (ELT) illuminates to indicate that a taut chain error has occurred.

1.1.2.3.2. **Interrupteur à clé *Bas/haut activé* (T2)**—L'interrupteur à clé (SKMD) détermine ce qui contrôle le mouvement vertical des assises de la navette, comme suit :

***Enable Up/Down* keyswitch (T2)**—This keyswitch (SKMD) determines what controls vertical movement of the shuttle bed(s), as follows:

☞—Les assises peuvent être abaissées manuellement à l'aide de l'interrupteur *Descente* ou abaissées ou montées manuellement à l'aide de l'interrupteur *Déplacement vers le bas/le haut*, selon celui qui est fourni.

☞—The bed(s) can be manually lowered with the *Move Down* switch or manually lowered or raised with the *Move Down/Up* switch, whichever is provided.

☐—Les mouvements de la navette sont contrôlés automatiquement.

☐—Shuttle movements are controlled automatically.

1.1.2.3.3. **Interrupteur *Descente* ou interrupteur *Déplacement vers le bas/le haut* (T3)**—S'il est armé comme décrit en [Section 1.1.2.3.2](#), l'interrupteur *Descente* (SHMD) désactivé dans le sens contraire des aiguilles d'une montre ou l'interrupteur excentré *Déplacement vers le bas/le haut* (SHMDU) fourni sur les navettes dotées d'un moteur de levage monté latéralement, déplace le treuil comme suit :

***Move Down* switch or *Move Down/Up* switch (T3)**—If armed as described in [Section 1.1.2.3.2](#), the counter-clockwise-off, *Move Down* switch (SHMD) provided on shuttles with a top-mounted hoist motor, or the center-off, *Move Down/Up* switch (SHMDU) provided on shuttles with a side-mounted hoist motor, causes the hoist to move as follows:

☞—(Momentané dans le sens des aiguilles d'une montre). Les assises descendent lorsque vous maintenez la position.

☞—(momentary clockwise) The bed(s) descend while this position is held.

**Remarque 1:** Les modèles plus anciens utilisent une touche *Descente*. Les assises descendent lorsque vous maintenez la touche enfoncée.

**Note 1:** Older models use a *Move Down* button. The bed(s) descend while this button is held.

☞—(Momentané dans le sens contraire des aiguilles d'une montre, si fourni). Les assises s'élèvent lorsque vous maintenez cette position.

☞—(momentary counter-clockwise, if provided) The bed(s) rise while this position is held.

### 1.1.3. **Commandes sur la console (DryNet) du contrôleur de séchoir/navette**

En fonctionnement normal, la navette, ainsi que

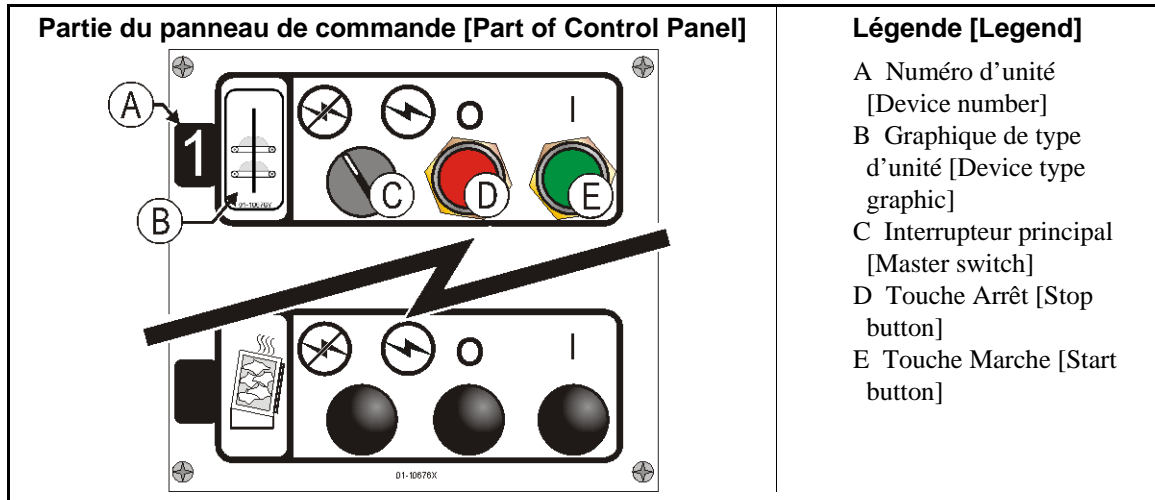
### **Controls on the Dryer/Shuttle Controller (DryNet) Console**

In normal operation, the shuttle, along with

toutes les autres machines du réseau DryNet, sont mises en marche et à l'arrêt individuellement à cet emplacement. Les navettes qui ne font pas partie d'un réseau DryNet auront leurs commandes correspondantes montées sur la navette elle-même ou sur le boîtier de commande de navette autonome.

all other machines in the DryNet network are individually powered on and off at this location. Shuttles that are not part of a DryNet network will have corresponding controls mounted on the shuttle itself, or the free-standing shuttle control box.

Illustration [Figure] 4: Commandes montées sur Drynet [DryNet-mounted Controls]



**1.1.3.1. Interrupteur principal (C)**—*Interrupteur principal* contrôle l'alimentation de la machine par circuit de commande monophasé ainsi que l'alimentation en courant continu du microprocesseur et de ses composants, comme suit :

- ⊕—Ce circuit est alimenté, ce qui permet le fonctionnement.
- ⊗—L'alimentation du circuit est arrêtée, ce qui arrête ou empêche le fonctionnement.

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

**1.1.3.2. Touche Arrêt (D)**—Sélectionner cette touche arrête immédiatement la machine en ouvrant le circuit triphasé. Le coup de poing d'arrêt d'urgence exécute la même fonction.

**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**1.1.3.3. Touche Marche (E)**—Appuyer sur cette touche active le fonctionnement de la machine si toutes les considérations de sécurité sont remplies. Lorsque le fonctionnement est activé, la machine s'exécutera en mode manuel ou automatique.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

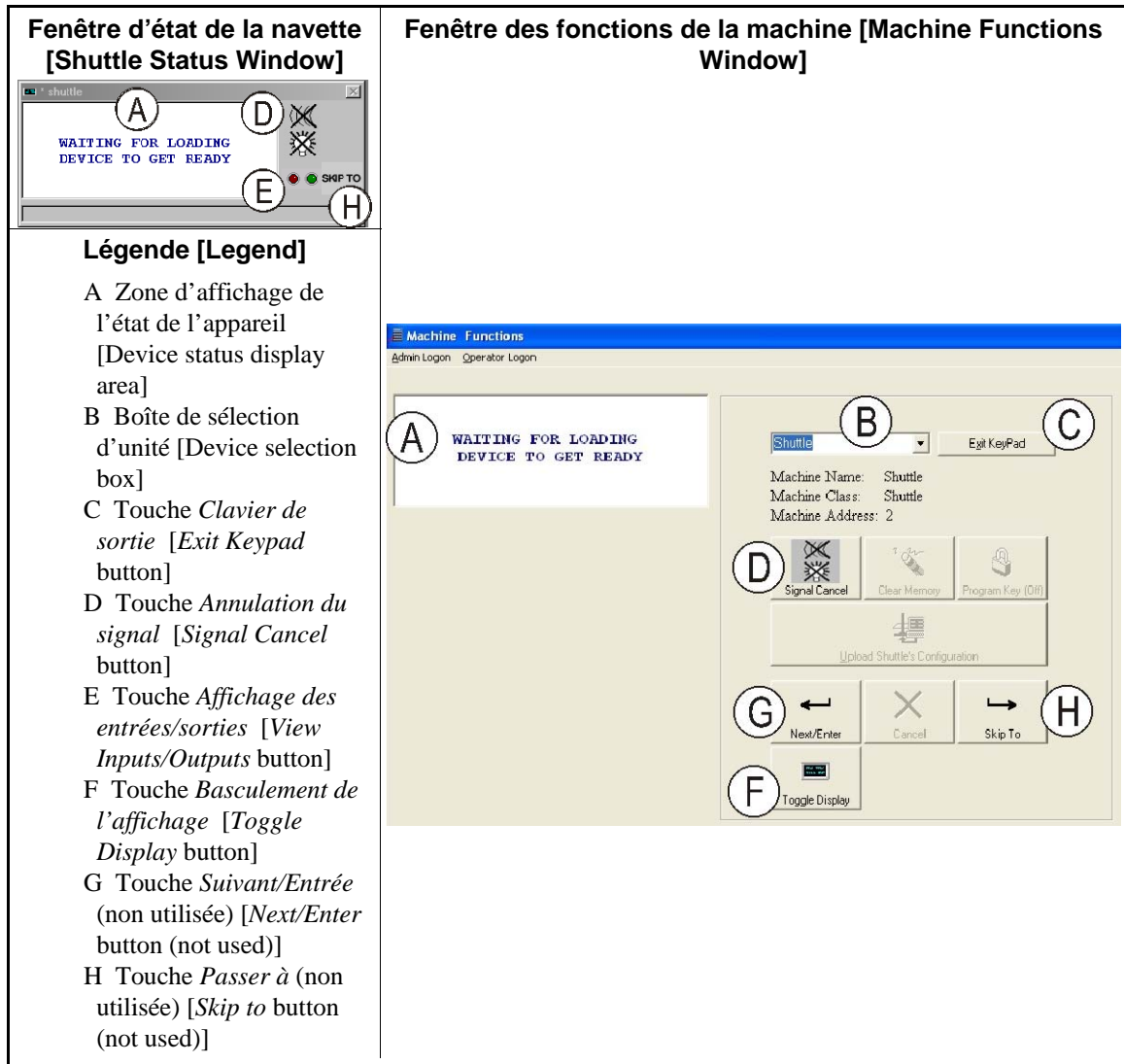
#### 1.1.4. Fonctions de la navette disponibles pour l'opérateur sur DryNet

En fonctionnement normal, DryNet CRT affichera une petite fenêtre *Etat de l'unité* pour chaque machine (séchoir et navette) du réseau DryNet. Si vous cliquez sur la fenêtre, cela affiche la fenêtre *Fonctions de la machine* de la machine sélectionnée. Les deux fenêtres contiennent des boutons sélectionnables par l'opérateur. Certains boutons sont répétés dans les deux fenêtres. Seuls certains boutons sont disponibles selon que l'utilisateur est connecté au système et selon son mode de connexion. Cliquez sur un bouton avec la souris pour actualiser la fonction. Ces fenêtres et boutons sont présentés dans [Illustration 5](#) et expliqués ci-dessous.

#### Shuttle Machine Functions Available to the Operator on DryNet

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 5](#) and explained below.

Illustration [Figure] 5: Fenêtres DryNet utilisées par l'opérateur [DryNet Windows Used by the Operator]



**1.1.4.1. Affichage de l'état de l'unité (A)**—Le contrôleur utilise cette zone pour afficher des messages relatifs à l'unité active sélectionnée selon [Section 1.1.4.2](#).

**1.1.4.2. Boîte de sélection d'unité (B)**—Cliquez avec la souris sur la flèche sur le bord droit de cette boîte pour afficher une liste de toutes les unités contrôlées par ce contrôleur de séchoir/navette. Cliquez sur une des unités de la liste pour la rendre active.

**1.1.4.3. Bouton *Clavier de sortie* (C)**—Cliquez avec la souris sur ce bouton pour revenir à l'écran d'affichage de la machine afin de contrôler toutes les unités.

**Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.1.4.2](#).

**Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.

**Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.

**1.1.4.4. Bouton *Annulation du signal* (D)**—Si une erreur entraîne le signal opérateur (voyants clignotants et/ou un bruiteur), cliquez sur ce bouton pour arrêter le signal opérateur. Si le signal s’est déclenché lorsqu’une formule valide a été sélectionnée, il s’éteindra automatiquement au démarrage de la formule.

**1.1.4.5. Bouton *Affichage des entrées/sorties* (E)**—Cliquez sur ce bouton pour afficher la fenêtre *E/S du séchoir* qui présente l’état Marche/Arrêt de chaque entrée et sortie de microprocesseur pour la machine sélectionnée.

**1.1.4.6. Bouton *Basculement de l’affichage* (F)**—Pour utilisation par le personnel d’entretien. Cliquez sur ce bouton de façon répétée pour basculer entre les différents affichages de la fenêtre d’état de la navette. Ces écrans affichent les informations de galette, les entrées, les sorties, les cibles de comptage horizontal lorsque la navette traverse le rail et les cibles de comptage vertical lorsque les assises de la navette montent et descendent.

— Fin BIVUU001 —

***Signal Cancel button* (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the operator signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.

***View Inputs/Outputs button* (E)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.

***Toggle Display button* (F)**—For use by service personnel. Click this button repeatedly to toggle through various displays on the Shuttle Status window. These displays show cake information, inputs, outputs, counting horizontal targets as the shuttle traverses the rail, and counting vertical targets as the shuttle bed(s) elevate and descend.

— End of BIVUU001 —

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## 1.2. Commandes des Séchoirs, Conditionneurs et Agitateurs, y compris ceux d’un réseau DryNet

Ce document décrit les commandes physiques présentes sur les séchoirs, conditionneurs et agitateurs ainsi que quelques fonctions DryNet qui remplacent les commandes physiques lorsque la machine fait partie d’un réseau DryNet (Séchoir/Contrôleur de navette). Ces commandes physiques comprennent les commandes d’intervention manuelles et les voyants d’état montés sur la machine ainsi que les commandes marche/arrêt montées sur la console DryNet ou autre boîtier électrique monté à distance. Les fonctions d’exploitation Drynet sont exécutées sur la console DryNet.

### 1.2.1. Commandes montées sur la machine

Les commandes montées sur la machine comprennent un ou plusieurs interrupteurs d’arrêt d’urgence et les commandes servant à

## Controls on Dryers, Conditioners, and Shakers Including Those in a DryNet Network

This document describes the physical controls provided with dryers, conditioners, and shakers as well as a few DryNet operating functions which serve in place of physical controls when the machine is part of a DryNet (Dryer/Shuttle Controller) network. The physical controls include manual intervention controls and status lights mounted on the machine, and power controls mounted on the DryNet console or other remote-mounted electric box. Drynet operating functions are performed at the DryNet console.

### Machine-mounted Controls

Controls mounted on the machine include one or more emergency stop switches and the controls necessary to manually unload the

décharger manuellement le séchoir (Illustration 7).

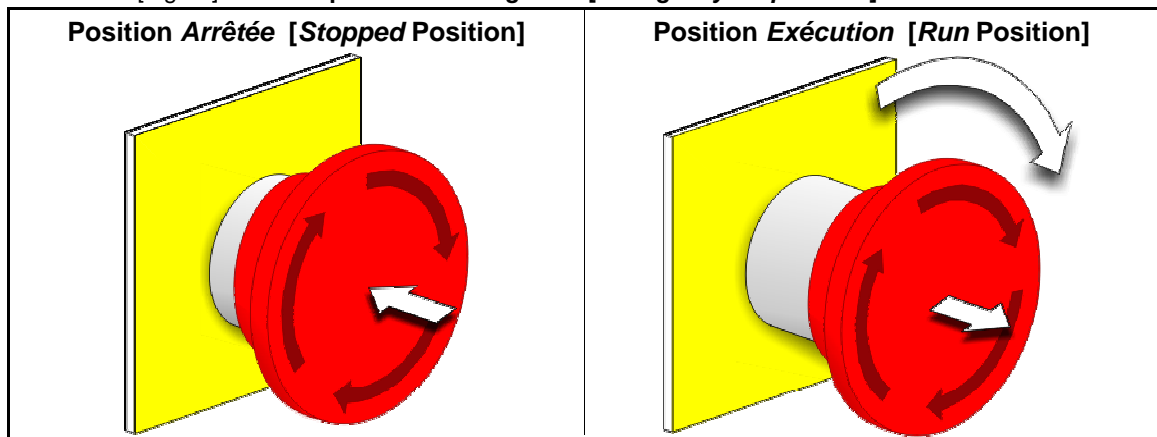
dryer (Figure 7).

### 1.2.1.1. Interrupteur d'arrêt d'urgence (bouton poussoir de verrouillage)

[Document BIVUU002]—Un ou plusieurs interrupteurs *Arrêt d'urgence* (Illustration 6) sont fournis sur l'unité. Lorsque vous les activez, un interrupteur d'arrêt d'urgence coupe le courant des commandes de la machine, arrête la machine et la verrouille en position enfoncée (interrupteur actionné, machine arrêtée). Lorsque cela peut être fait en toute sécurité, tournez le bouton dans le sens des aiguilles d'une montre pour déverrouiller l'interrupteur. Pour reprendre le fonctionnement, effectuez la procédure de démarrage normale de l'unité.

**Emergency Stop Switch (locking push button)**—One or more *emergency stop* switches (Figure 6) are provided on the device. When pressed, any emergency stop switch removes power from the machine controls, stops the machine and locks in the depressed (switch actuated, machine stopped) position. When safe to do so, turn the button clockwise to unlock the switch. To resume operation, perform the device's normal startup procedure.

Illustration [Figure] 6: Interrupteur *Arrêt d'urgence* [Emergency Stop Switch]



**Attention** [2]: Appuyez immédiatement sur l'interrupteur *Arrêt d'urgence* dans une situation d'urgence. Cela désactive le circuit triphasé tout en maintenant le courant dans le contrôleur de microprocesseur.

**Notice** [2]: Press the *emergency stop* switch immediately in an emergency situation. This disables the 3-wire circuit while maintaining power to the microprocessor controller.

**Affichage ou action**  
[Display or Action]

**Explication**

**Explanation**



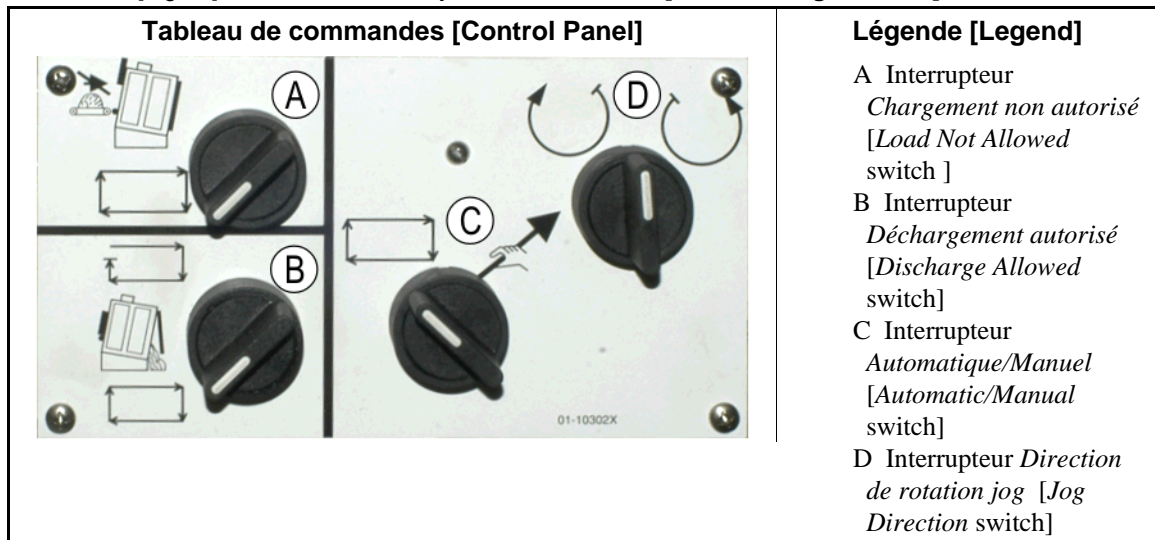
Ce symbole représente l'interrupteur d'arrêt d'urgence dans les documents [Pas de traduction nécessaire]<sup>®</sup> autres que les diagrammes de connexions électriques.

This symbol represents the emergency stop switch in Milnor<sup>®</sup> documents other than electrical wiring diagrams.

### 1.2.1.2. Commandes de porte et de rotation

### Door and Jog Controls

Illustration [Figure] 7: Commandes de porte et de rotation [Door and Jog Controls]



1.2.1.2.1. Interrupteur de chargement non autorisé

(A)—Cet interrupteur détermine si la machine demande (accepte) automatiquement un nouveau chargement, comme suit :

- La machine ne demande pas de chargement.
- La machine demande un nouveau chargement après le déchargement du chargement en cours (nécessaire au fonctionnement normal, automatique).

Load Not Allowed switch (A)—This switch determines whether the machine will request (accept) a new load automatically, as follows:

- The machine will not request a load.
- The machine will request a new load after discharging the current load (required for normal, automatic operation).

1.2.1.2.2. Interrupteur de déchargement autorisé

(B) —Cet interrupteur détermine comment la machine se déchargera, comme suit :

- La machine décharge automatiquement chaque chargement lorsque le code de séchage est terminé, sans tenir compte de l'état de l'unité réceptrice. Par exemple, si un chariot est supposé être en place mais ne l'est pas, les produits se déchargeront sur le sol.
- Cette position permet à la machine de ne se décharger que lorsqu'elle reçoit un signal de déchargement du contrôleur [Pas de traduction nécessaire]<sup>TM</sup>. Par conséquent, cette position s'utilise de deux manières : 1) elle est requise pour le fonctionnement normal si la machine est déchargée via le contrôleur Miltrac, et 2) elle peut être utilisée pour éviter le déchargement automatique si la machine n'est pas déchargée via le contrôleur Miltrac.

Discharge Allowed switch (B) —This switch determines how the machine will discharge, as follows:

- The machine automatically discharges each load when the dry code is finished, without regard for the ready status of the receiving device. For example, if a cart is supposed to be in position, but it is not, the goods will discharge onto the floor.
- This position prevents the machine from discharging unless it receives a signal from the Miltrac<sup>TM</sup> controller to discharge. Hence, this position has two uses: 1) It is required for normal operation if the machine is unloaded via Miltrac, and 2) it may be used to prevent automatic discharge if the machine is not unloaded via Miltrac.

- Si la machine est prête à être déchargée,


- If the machine is ready to discharge,


tourner l'interrupteur brièvement à cette position momentanée lancera le processus de déchargement.


turning the switch to this momentary position briefly will initiate the discharge process.


1.2.1.2.3. **Interrupteur de rotation automatique/manuelle (C)**—Cet interrupteur détermine ce qui contrôle la rotation du panier, comme suit :

**Automatic/Manual Rotation switch (C)**—This switch determines what controls basket rotation, as follows:

—Le fonctionnement automatique est suspendu, la porte de déchargement s'ouvre et la rotation du panier est contrôlée par l'interrupteur *Direction de rotation*.


—Automatic operation is suspended, the discharge door opens and basket rotation is controlled by the *Jog Direction* switch.


—Le panier tourne automatiquement.


—The basket rotates automatically.


1.2.1.2.4. **Sélecteur de direction de rotation (D)**—Utilisé pour le déchargement. Lorsque la rotation est définie sur manuelle, ce dispositif excentré fait tourner le panier comme suit, excepté ce qui est mentionné dans [Remarque 2](#):

**Jog Direction switch (D)**—Used for unloading. When rotation is set to manual, this center-off switch causes the basket to rotate as follows, except as explained in [Note 2](#):

—(Momentané, dans le sens des aiguilles d'une montre) fait tourner le panier dans le sens des aiguilles d'une montre (lorsque vous regardez la machine de face) lorsque le sélecteur est maintenu.

—(momentary, clockwise) rotates the basket clockwise (when viewing the machine from the front) while the switch is held.

—(Momentané, dans le sens inverse des aiguilles d'une montre) fait tourner le panier dans le sens inverse des aiguilles d'une montre lorsque le sélecteur est maintenu.

—(momentary, counter-clockwise) rotates the basket counterclockwise while the switch is held.

**Remarque 2:** Les modèles 6458Txxx et 7244Txxx peuvent posséder des souffleurs sur la gauche ou sur la droite. Les machines comportant des souffleurs sur le côté gauche fonctionnent exactement comme il est décrit ci-dessus. Par exemple, si vous maintenez le sélecteur à la position dans le sens des aiguilles d'une montre, cela fera tourner le panier dans le sens inverse des aiguilles d'une montre lorsque vous le regardez face à la machine. Il s'agit de la direction dans laquelle tourne le panier lors du déchargement automatique, afin d'éviter l'étalement des produits.

**Note 2:** 6458Txxx and 7244Txxx models can have blowers either on the left or the right. Machines with lefthand blowers function exactly as stated above. Those with righthand blowers function opposite that stated above. For example, holding the switch at the clockwise position will cause the basket to rotate counter-clockwise when viewed from the front of the machine. This is the direction the basket turns during automatic unloading, to help prevent plastering of the goods.

1.2.2. **Voyants d'état montés sur la machine —Séchoirs à gaz**

Les séchoirs chauffés au gaz possèdent plusieurs voyants d'état orange situés sur leur panneau avant qui permettent de contrôler les portes du séchoir ainsi que le système de chauffage. Certains de ces voyants sont actionnés par le contrôleur de la machine et d'autres par le contrôleur de flamme [Pas de traduction nécessaire]<sup>®</sup> ou Landis+Gyr). Lorsqu'une

**Machine-mounted Status Lights—Gas Dryers**

Gas-fired dryers have several amber status lights on the front panel used to monitor the dryer doors and heating system. Some of these lights are operated by the machine controller and some are operated by the fire control unit (Fireye<sup>®</sup> or Landis+Gyr). When an error condition causes a light to either illuminate or extinguish, an error message is



condition d'erreur allume ou éteint un voyant, un message d'erreur s'affiche. Pour les voyants activés par le contrôleur de flamme, le message d'erreur affiche "VERIFIER LES VOYANTS D'ERREUR."

displayed. For lights operated by the fire control unit, the error message will say "CHECK ERROR LIGHTS."

Illustration [Figure] 8: Voyant d'état du séchoir au gaz [Gas Dryer Status Lights]

Panneau des voyants d'état [Status Lights Panel]	Légende [Legend]
	<p><b>A</b> Porte de chargement fermée (ELLDC) [Load door closed (ELLDC)]</p> <p><b>B</b> Porte de chargement ouverte (ELLDO) [Load door open (ELLDO)]</p> <p><b>C</b> Porte de déchargement ouverte (ELDDC) [Discharge door closed (ELDDC)]</p> <p><b>D</b> Soupape pilote activée (ELPG) [Pilot valve enabled (ELPG)]</p> <p><b>E</b> Gaz principal activé (ELMT) [Main gas enabled (ELMT)]</p> <p><b>F</b> Allumage activé (ELMI) [Ignition enabled (ELMI)]</p> <p><b>G</b> <b>Pression élevée de la boîte de brûleur (ELBB).</b> Modèles 6458TG1x et 7272TG1x uniquement. [Burner box pressure high (ELBB). 6458TG1x and 7272TG1x models only.]</p> <p><b>H</b> Air de combustion faible (ELCA) [Combustion air low (ELCA)]</p> <p><b>I</b> Air principal faible (ELMA) [Main air low (ELMA)]</p> <p><b>J</b> Faible pression de gaz (ELGL) [Gas pressure low (ELGL)]</p> <p><b>K</b> Pression de gaz élevée (ELGH) [Gas pressure high (ELGH)]</p> <p><b>L</b> Allumeur Fireye déclenché (ELFET) [Fireeye tripped (ELFET)]</p> <p><b>M</b> <b>Contrôleur de flamme verrouillé (ELCLO).</b> Contrôleur Landis+Gyr uniquement. [Fire control unit locked out (ELCLO). Landis+Gyr fire control only.]</p>

- 1.2.2.1. Porte de chargement fermée (A)**—Ce voyant (ELLDC) indique que la porte de chargement est entièrement fermée. Si la porte de chargement n'est pas entièrement fermée 15 secondes après que le séchoir reçoit le signal *Chargé*, le message *Porte de chargement ouverte* s'affiche.
- 1.2.2.2. Porte de chargement ouverte (B)**—Ce voyant (ELLDO) indique que la porte de chargement est entièrement ouverte. Si la porte de chargement ne s'ouvre pas entièrement dans les 15 secondes après réception de la commande "Porte de chargement ouverte" provenant du microprocesseur, *Porte de chargement non ouverte* s'affiche.
- 1.2.2.3. Porte de déchargement fermé (C)**—Ce voyant (ELDDC) indique que la porte de déchargement est entièrement fermée. Si le contrôleur ne détecte pas que la porte de déchargement est fermée, il lui permettra de s'ouvrir pour le chargement, mais il ne signalera pas à l'unité de chargement de commencer le chargement et le message *Porte de déchargement ouverte* sera affiché.
- 1.2.2.4. Soupape pilote activée (D)**—Ce voyant (ELPG) indique que le contrôleur de flamme a alimenté la soupape pilote.
- 1.2.2.5. Gaz principal activé (E)**—Ce voyant (ELMT) indique que le contrôleur de flamme a alimenté la soupape de gaz à ouverture progressive et la soupape de gaz principale.
- 1.2.2.6. Allumage activé (F)**—Ce voyant (ELMI) indique que le contrôleur de flamme tente d'allumer la flamme.
- 1.2.2.7. Pression de boîte de brûleur élevée (G)**—Ce voyant (ELBB) indique que la pression autorisée pour la boîte de brûleur a été dépassée. Il s'agit d'une condition d'erreur.
- 1.2.2.8. Air de combustion faible (H)**—Ce voyant (ELCA) indique que le flux d'air de combustion fourni au séchoir est trop faible pour un fonctionnement correct.
- Load Door Closed (A)**—This light (ELLDC) indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.
- Load Door Open (B)**—This light (ELLDO) indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the "open load door" command from the microprocessor, *Load Door Not Open* is displayed.
- Discharge Door Closed (C)**—This light (ELDDC) indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.
- Pilot Valve Enabled (D)**—This light (ELPG) indicates that the flame control unit has energized the pilot valve.
- Main Gas Enabled (E)**—This light (ELMT) indicates that the flame control unit has energized the modulating gas valve and the main gas valve.
- Ignition Enabled (F)**—This light (ELMI) indicates that the flame control unit is attempting to ignite the flame.
- Burner Box Pressure High (G)**—This light (ELBB) indicates that the permissible burner box pressure has been exceeded. This is an error condition.
- Combustion Air Low (H)**—This light (ELCA) indicates that combustion air flow delivered to the dryer is too low for proper operation.

- 1.2.2.9. Air principal faible (I)**—Ce voyant (ELMA) indique que le flux d'air principal fourni au séchoir est trop faible pour un fonctionnement correct.
- 1.2.2.10. Faible pression de gaz (J)**—Ce voyant (ELGL) indique que la pression de gaz fournie au séchoir est trop faible pour un fonctionnement correct ou que le détendeur est endommagé.
- 1.2.2.11. Pression de gaz élevée (K)**—Ce voyant (ELGH) indique que la pression de gaz fournie au séchoir est trop forte pour un fonctionnement correct ou que le détendeur est endommagé.
- 1.2.2.12. Allumeur Fireye déclenché (L)**—Si la machine est équipée d'un contrôleur de flamme Fireye, ce voyant (ELFET) indique que la tige de flamme a signalé au contrôleur de flamme que ni le pilote ni le brûleur n'est allumé.
- Ce voyant est parfois fourni lorsque la machine est équipée d'un contrôleur de flamme Landis & Gyr. Si c'est le cas, il a la même signification que le voyant d'état *Contrôleur de flamme verrouillé* ci-dessous.
- 1.2.2.13. Contrôleur de flamme verrouillé (M)**—Si la machine est équipée d'un contrôleur de flamme Landis+Gyr, ce voyant (ELCLO) indique que le microprocesseur a demandé l'allumage, mais le contrôleur de flamme a été désactivé parce qu'une des conditions requises par le circuit de réinitialisation de sécurité n'a pas été satisfaite.
- 1.2.3. Voyants d'état montés sur machine —Séchoirs et conditionneurs à vapeur et à l'huile thermique, conditionneurs et tous les agitateurs**
- Les séchoirs et conditionneurs chauffés à la vapeur ou à l'huile thermique, ainsi que tous les agitateurs (appareils non chauffés) possèdent trois voyants d'état orange sur leur panneau avant pour le contrôle des portes.

**Main Air Low (I)**—This light (ELMA) indicates that main air flow delivered to the dryer is too low for proper operation.

**Gas Pressure Low (J)**—This light (ELGL) indicates that the gas pressure delivered to the dryer is too low for proper operation, or the gas regulator is damaged.

**Gas Pressure High (K)**—This light (ELGH) indicates that the gas pressure delivered to the dryer is too high for proper operation, or the gas regulator is damaged.

**Fireye Tripped (L)**—If the machine is equipped with a Fireye fire control unit, this light (ELFET) indicates that the flame rod signaled the flame control unit that neither the pilot nor the burner is lit.

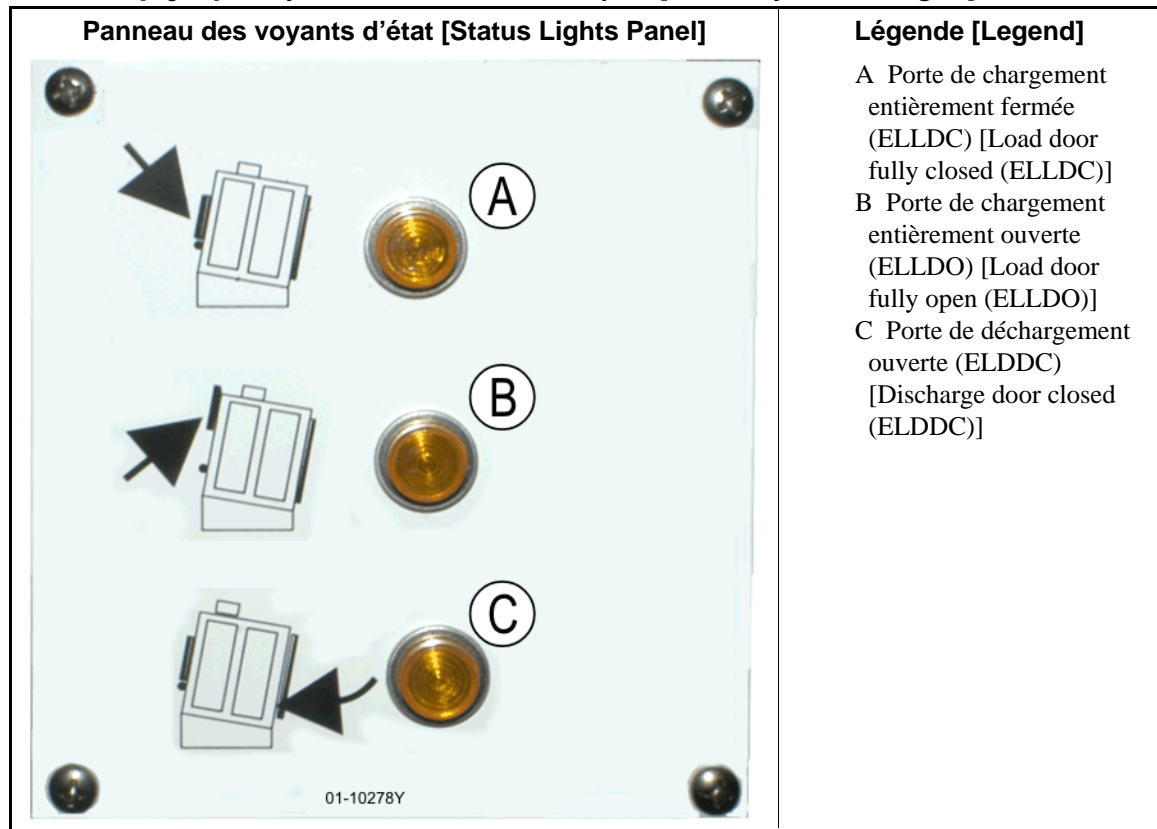
This light is sometimes provided when the machine is equipped with a Landis & Gyr fire control unit. If so, it has the same meaning as the *Fire Controller Locked Out* status light below.

**Fire Controller Locked Out (M)**—If the machine is equipped with a Landis+Gyr fire control unit, this light (ELCLO) indicates that the microprocessor requested fire, but the flame control unit was disabled because one of the conditions required by the safety reset circuit was not satisfied.

### **Machine-mounted Status Lights—Steam and Thermal Oil Dryers and Conditioners and All Shakers**

Dryers and conditioners heated by steam or thermal oil, as well as all shakers (non-heated units) have three amber status lights on the front panel to monitor the doors.

Illustration [Figure] 9: Voyants d'état du séchoir à vapeur [Steam Dryer Status Lights]



**1.2.3.1. Porte de chargement fermée**—Ce voyant indique que la porte de chargement est entièrement fermée. Si la porte de chargement n'est pas entièrement fermée 15 secondes après que le séchoir reçoit le signal *Chargé* le message *Porte de chargement ouverte* s'affiche.

**Load Door Closed**—This light indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.

**1.2.3.2. Porte de chargement ouverte**—Ce voyant indique que la porte de chargement est entièrement ouverte. Si la porte de chargement ne s'ouvre pas entièrement dans les 15 secondes après réception de la commande "Porte de chargement ouverte" provenant du microprocesseur, *Porte de chargement non ouverte* s'affiche.

**Load Door Open**—This light indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the "open load door" command from the microprocessor, *Load Door Not Open* is displayed.

**1.2.3.3. Porte de déchargement fermée**—Ce voyant indique que la porte de déchargement est entièrement fermée. Si le contrôleur ne détecte pas que la porte de déchargement est fermée, il lui permettra de s'ouvrir pour le chargement, mais il ne signalera pas à l'unité de chargement de commencer le chargement et le message *Porte de déchargement ouverte* sera affiché.

**Discharge Door Closed**—This light indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.

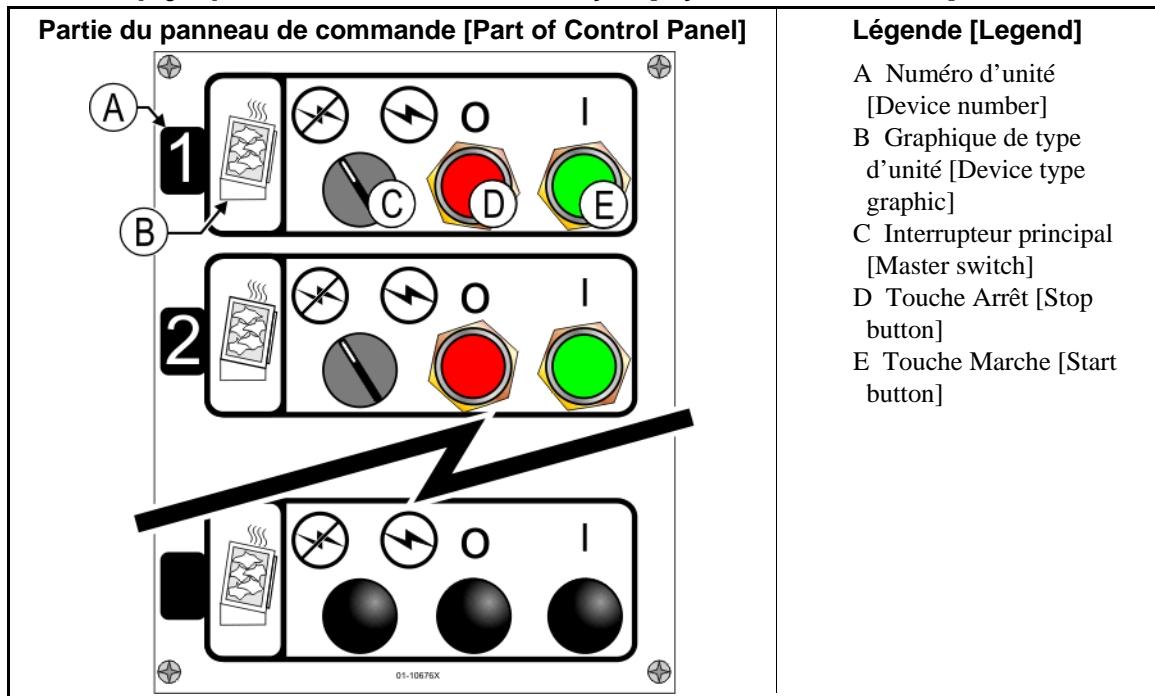
### 1.2.4. Commandes montées sur la console (DryNet) du contrôleur de navette-séchoir

En fonctionnement normal, toutes les machines du réseau DryNet sont mises en marche et arrêtées individuellement à cet emplacement. Sur les machines qui ne font pas partie d'un réseau DryNet, les commandes correspondantes sont montées sur un boîtier de commande de séchoir séparé.

### Controls Mounted on the Dryer-Shuttle Controller (DryNet) Console

In normal operation, all machines in the DryNet network are individually powered on and off at this location. On machines that are not part of a DryNet network, corresponding controls are mounted on a separate dryer control box.

Illustration [Figure] 10: Commandes montées sur Drynet [Drynet-mounted Controls]



**1.2.4.1. Interrupteur principal (C)**—*Interrupteur principal* contrôle l'alimentation de la machine par circuit de commande monophasé ainsi que l'alimentation en courant CC du microprocesseur et de ses composants, comme suit :

- ⊕—Ce circuit est alimenté, ce qui permet le fonctionnement.
- ⊗—L'alimentation du circuit est arrêtée, ce qui arrête ou empêche le fonctionnement.

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

**1.2.4.2. Touche Arrêt (D)**—Sélectionner cette touche arrête immédiatement la machine en ouvrant le circuit triphasé. Le bouton d'arrêt d'urgence exécute la même fonction.

**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**1.2.4.3. Touche Marche (E)**—Appuyer sur cette touche active le fonctionnement de la machine si toutes les considérations de sécurité sont remplies. Lorsque le fonctionnement est activé, la machine s'exécutera en mode manuel ou automatique.

**1.2.5. Fonctions de machine disponibles pour l'opérateur sous DryNet**

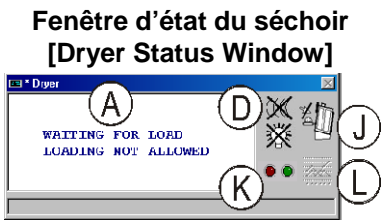
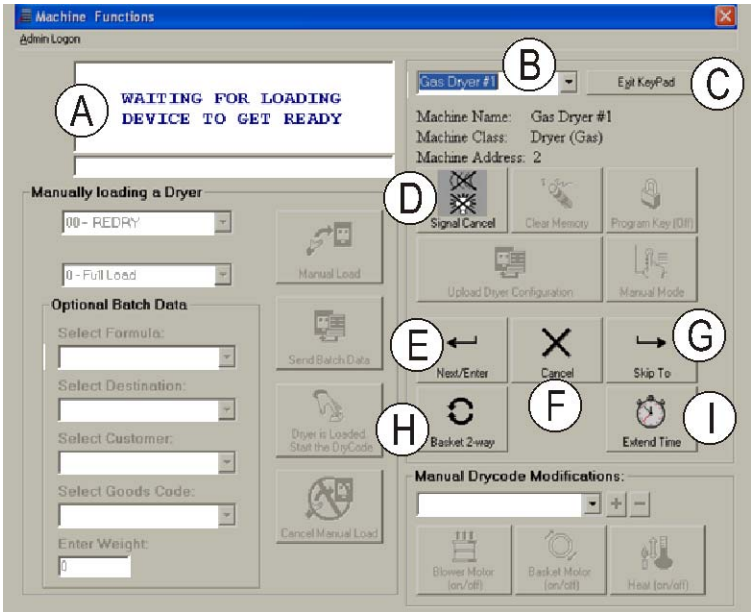
En fonctionnement normal, DryNet CRT affichera une petite fenêtre *Etat de l'unité* pour chaque machine (séchoir et navette) du réseau DryNet. Si vous cliquez sur la fenêtre, cela affiche la fenêtre *Fonctions de la machine* de la machine sélectionnée. Les deux fenêtres contiennent des boutons sélectionnables par l'opérateur. Certains boutons sont répétés dans les deux fenêtres. Seuls certains boutons sont disponibles selon que l'utilisateur est connecté au système et selon son mode de connexion. Cliquez sur un bouton avec la souris pour actualiser la fonction. Ces fenêtres et boutons sont présentés dans [Illustration 11](#) et expliqués ci-dessous.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

**Machine Functions Available to the Operator on DryNet**

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 11](#) and explained below.

Illustration [Figure] 11: Fenêtres DryNet utilisées par l'opérateur [DryNet Windows Used by the Operator]

<p><b>Fenêtre d'état du séchoir [Dryer Status Window]</b></p>  <p><b>Légende [Legend]</b></p> <ul style="list-style-type: none"> <li>A Zone d'affichage de l'état de l'appareil [Device status display area]</li> <li>B Boîte de sélection d'unité [Device selection box]</li> <li>C Touche <i>Clavier de sortie</i> [Exit Keypad button]</li> <li>D Touche <i>Annulation du signal</i> [Signal Cancel button]</li> <li>E Touche <i>Suivant/Entrée</i> [Next/Enter button]</li> <li>F Touche <i>Annuler</i> [Cancel button]</li> <li>G Touche <i>Passer à</i> [Skip to button]</li> <li>H Touche <i>Panier 2 modes</i> [Basket 2-way button]</li> <li>I Touche <i>Temps d'extension</i> [Extend Time button]</li> <li>J Touche <i>Charge autorisée/non autorisée</i> [Load Allowed/Not Allowed button]</li> <li>K Touche <i>Affichage des entrées/sorties</i> [View Inputs/Outputs button]</li> <li>L Touche <i>Affichage du graphique</i> [View Graph button]</li> </ul>	<p><b>Fenêtre des fonctions de la machine [Machine Functions Window]</b></p> 
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------

**1.2.5.1. Affichage de l'état de l'unité (A)**—Le contrôleur utilise cette zone pour afficher des messages relatifs à l'unité active sélectionnée selon [Section 1.2.5.2.](#)

**Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.2.5.2.](#)



- 1.2.5.2. Boîte de sélection d'unité (B)**—Cliquez avec la souris sur la flèche sur le bord droit de cette boîte pour afficher une liste de toutes les unités contrôlées par ce contrôleur de séchoir/navette. Cliquez sur une des unités de la liste pour la rendre active.
- 1.2.5.3. Bouton *Clavier de sortie* (C)**—Cliquez avec la souris sur ce bouton pour revenir à l'écran d'affichage de la machine afin de contrôler toutes les unités.
- 1.2.5.4. Bouton *Annulation du signal* (D)**—Si une erreur a déclenché le signal de l'opérateur (voyants clignotants et/ou un buzzer), cliquez sur ce bouton pour arrêter le signal. Si le signal s'est déclenché lorsqu'une formule valide a été sélectionnée, il s'éteindra automatiquement au démarrage de la formule.
- 1.2.5.5. Bouton *Suivant/Entrée* (E)**—Ce bouton est activé uniquement si un administrateur ou un opérateur est connecté au contrôleur.
- 1.2.5.6. Bouton *Annuler* (F)**—Cliquez avec la souris sur ce bouton pour annuler l'étape drycode en cours.
- 1.2.5.7. Bouton *Passer à* (G)**—Ce bouton est activé uniquement si un administrateur ou un opérateur est connecté au contrôleur.
- 1.2.5.8. Bouton *Panier 2-way modes* (H)**—Cliquez avec la souris sur ce bouton pour basculer la rotation du panier d'un sens à deux sens.
- 1.2.5.9. Bouton *Temps d'extension* (I)**—Cliquez avec la souris sur ce bouton pour ajouter une minute au temps de l'étape en cours. Chaque clic supplémentaire ajoute une minute.
- Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.
- Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.
- Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.
- Next/Enter button (E)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- Cancel button (F)**—Click the mouse on this button to cancel the current drycode step.
- Skip to button (G)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- Basket 2-way button (H)**—Click the mouse on this button to toggle basket rotation between one-way and two-way.
- Extend Time button (I)**—Click the mouse on this button to add one minute to the time of the current step. Each additional click adds another minute.

**1.2.5.10. Bouton Charge autorisée/non autorisée (J)**—Exécute la même fonction que l'interrupteur *Chargement non autorisé* sur la machine. Cliquez sur le bouton pour intercepter la machine sélectionnée "Hors connexion" (Non autorisé) ou la reconnecter (Charge acceptée). Lorsqu'elle est hors connexion, la machine ne demandera pas de charge et la navette ne lui fournira pas de galettes.

**1.2.5.11. Bouton Affichage des entrées/sorties (K)**—Cliquez sur ce bouton pour afficher la fenêtre *E/S du séchoir*, qui présente l'état Marche/Arrêt de chaque entrée et sortie de microprocesseur pour la machine sélectionnée.

**1.2.5.12. Bouton Affichage du graphique (L)**—Cliquez sur ce bouton pour afficher la fenêtre *Profil de température* pour cette machine, qui présente un graphique en temps réel de la température et des informations associées pour la machine sélectionnée.

**Load Allowed/Not Allowed button (J)**—Performs the same function as the *Load Not Allowed* switch on the machine. Click this button to take the selected machine "off-line" (Not Allowed) or return it on-line (Load Allowed). While off-line, the machine will not request a load and the shuttle will not deliver cakes to this machine.

**View Inputs/Outputs button (K)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.

**View Graph button (L)**—Click this button to display the *Temperature Profile* window for this machine, which shows a real-time graph of temperature and related information for the selected machine.

— Fin BIPDGT01 —

— End of BIPDGT01 —

## Chapitre 2

# Fonctionnement normal de la machine

## Chapter 2

# Normal Machine Operation

BIPDUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20100811 Lang: FRE01 Applic: PDU YDS

### 2.1. Instructions de fonctionnement du séchoir pour le personnel de l'usine

### Dryer Operating Instructions for Plant Personnel

#### 2.1.1. Commencer ici pour la sécurité

Ce document est destiné à rappeler à la personne qui fait fonctionner ce séchoir les opérations requises pour utiliser la machine. N'essayez pas de faire fonctionner la machine si un opérateur expérimenté et formé ne vous en a pas expliqué les détails.

#### Start Here for Safety

This document is meant to remind you, the person operating this dryer, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



**DANGER 3: Risques multiples**—Toute opération effectuée par l'opérateur sans précaution peut tuer ou blesser le personnel, endommager ou détruire la machine, endommager l'installation et/ou annuler la garantie.

**DANGER 3: Multiple Hazards**—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



**DANGER 4: Risques d'électrocution et de brûlure électrique**—Tout contact avec le courant électrique peut entraîner la mort ou des blessures graves. Du courant électrique est présent à l'intérieur de l'armoire tant que le disjoncteur ou sectionneur principal de l'alimentation de la machine n'est pas désactivé. Ne pas déverrouiller ou ouvrir les portes des boîtiers électriques.

**DANGER 4: Electrocution and Electrical Burn Hazards**—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Vous devez connaître l'emplacement du sectionneur principal et l'utiliser en cas d'urgence pour couper le courant de la machine.




















- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not unlock or open electric box

- Ne pas effectuer de la maintenance, des réparations ou des modifications non autorisées.
- Ne pas déverrouiller ou ouvrir les portes des boîtiers électriques.

doors.

### 2.1.2. Vérifier les paramètres de l'interrupteur

### Check Switch Settings

Affichage ou action [Display or Action]	Explication	Explanation
	Vérifiez que l'interrupteur à clé <i>Exécuter/Programme</i> est positionné sur  .	Verify that the <i>Run/Program</i> keyswitch is at  .
	Toutes les touches d'arrêt d'urgence doivent être relâchées et à la position <i>prêt</i> pour permettre le fonctionnement de la machine.	All emergency stop buttons must be unlatched and in the <i>ready</i> position to allow machine operation.
	Vérifiez que l'interrupteur principal est positionné sur  .	Verify that the master switch is at  .
	Vérifiez que l'interrupteur <i>Chargement non autorisé</i> est positionné sur  pour permettre le chargement automatique.	Verify that the <i>Load Not Allowed</i> switch is at  to allow automatic loading.
	Vérifiez que l'interrupteur <i>Déchargement autorisé</i> est positionné sur  pour permettre le déchargement automatique des produits traités.	Verify that the <i>Discharge Allowed</i> switch is at  to allow automatic discharging of processed goods.
	Vérifiez que l'interrupteur <i>Local/Distant</i> est positionné sur  pour permettre la communication réseau.	Verify that the <i>Local/Remote</i> switch is set to  to allow network communication.
	Vérifiez que l'interrupteur <i>Automatique/Manuel</i> est positionné sur  pour permettre le fonctionnement automatique.	Verify that the <i>Automatic/Manual</i> switch is at  to allow automatic operation.

### 2.1.3. Chargement de la machine

Un contrôleur de système Milnor fait fonctionner automatiquement cette machine et les autres machines du système. Si tous les interrupteurs sont positionnés comme décrit en [Section 2.1.2](#), la machine recevra, traitera et déchargera une charge sans intervention

### Loading the Machine

A Milnor system controller automatically operates this machine and other machines in the system. If all switches are positioned as described in [Section 2.1.2](#), the machine will accept, process, and discharge a load without manual intervention.

manuelle.

Au démarrage, la machine demande à l'opérateur si elle est chargée. Si la machine n'est pas chargée, le fonctionnement automatique normal commence. Si la machine contient une charge, le contrôleur de la machine ou l'ordinateur Mildata demandera à l'opérateur de saisir les données associées à la charge. Lorsque l'opérateur entre et confirme toutes les données de lot, la machine commence à fonctionner en mode automatique.

At start-up, the machine asks the operator if the machine is loaded. If the machine is not loaded, normal automatic operation begins. If the machine contains a load, the machine controller or Mildata computer will prompt the operator for the data associated with the load. When the operator enters and confirms all necessary batch data, begins operating in automatic mode.

## 2.1.4. Informations affichées à l'écran **What Does the Display Tell Me?**

### 2.1.4.1. Informations de code de séchage et d'étape pour les séchoirs alimentés au gaz **Drycode and Step Information for Gas-fired Dryers**

Affichage ou action [Display or Action]	Explication	Explanation
<pre>EN ATTENTE DE CHARGE *****</pre>	Le séchoir est inactif.	Dryer is idle.
<pre>WAITING FOR LOAD *****</pre>		
<pre>CHARGEMENT -----</pre>	Le séchoir est en cours de chargement.	Dryer is loading.
<pre>LOADING -----</pre>		
<pre>04F TIF TOF 031 AIR S01 425D185 012 000</pre>	<i>04F</i> indique que le séchoir exécute le code de séchage 04 pour une charge complète ; <i>04P</i> représenterait une charge partielle.	<i>04F</i> indicates that the dryer is running drycode 04 for a full load; <i>04P</i> would represent a partial load.
<pre>04F TIF TOF 031 AIR S01 425D185 012 000</pre>	<i>S01</i> est le numéro de l'étape en cours pour le code de séchage sélectionné.	<i>S01</i> is the current step number of the selected drycode.
	<i>TIF</i> apparaît au-dessus de la température d'admission en degrés Fahrenheit (425 dans cet exemple). <i>TIC</i> apparaît lorsque le séchoir est configuré pour les degrés Celsius.	<i>TIF</i> appears above the inlet temperature in degrees Fahrenheit (425 in this example). <i>TIC</i> appears when the dryer is configured for Celsius.
	<i>TOF</i> apparaît au-dessus de la température de refoulement en degrés Fahrenheit (185 dans cet exemple). <i>TOC</i> apparaît lorsque le séchoir est configuré pour les degrés Celsius.	<i>TOF</i> appears above the outlet temperature in degrees Fahrenheit (185 in this example). <i>TOC</i> appears when the dryer is configured for Celsius.
	<i>D</i> entre les températures d'admission et de refoulement représente la température <i>souhaitées</i> . L'affichage change pour présenter également les températures <i>réelles</i> lorsque <i>A</i> remplace <i>D</i> .	<i>D</i> between the inlet and outlet temperatures represents <i>Desired</i> temperature. The display alternates to also show the <i>Actual</i> temperatures when <i>A</i> replaces <i>D</i> .

**Affichage ou action**  
[Display or Action]

**Explication**

**Explanation**

*031* représente les minutes et les quarts de minutes du temps d'exécution total (3 minutes et 15 secondes dans cet exemple).

*031* represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).

*012* représente le temps restant dans cette étape (1 minute et 30 secondes dans cet exemple).

*012* represents the time remaining in this step (1 minute and 30 seconds in this example).

*AIR* apparaît au-dessus de la position de l'amortisseur (000 dans cet exemple, plage de 000 à 002). L'affichage change pour présenter également la position de la soupape à ouverture progressive au-dessous de *VP*.

*AIR* appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the modulating valve position below *VP*.

**2.1.4.2. Informations de code de séchage et d'étape pour les séchoirs à vapeur**

**Drycode and Step Information for Steam Dryers**

**Affichage ou action**  
[Display or Action]

**Explication**

**Explanation**

```
EN ATTENTE DE CHARGE
*****
```

Le séchoir est inactif.

Dryer is idle.

```
WAITING FOR LOAD
*****
```

```
CHARGEMENT
-----
```

Le séchoir est en cours de chargement.

Dryer is loading.

```
LOADING
-----
```

```
04F TIF TOF 031 AIR
S01 ---D--- 012 000
```

*04F* indique que le séchoir exécute le code de séchage 04 pour une charge complète *04P* représenterait une charge partielle.

*04F* indicates that the dryer is running drycode 04 for a full load; *04P* would represent a partial load.

```
04F TIF TOF 031 AIR
S01 ---D--- 012 000
```

*S01* est le numéro de l'étape en cours pour le code de séchage sélectionné.

*S01* is the current step number of the selected drycode.

Les températures souhaitées ne sont pas définies sur les séchoirs à vapeur. Les températures réelles sont affichées sur la ligne en bas de l'écran, au-dessous de *TIF (TIC)* et *TOF (TOC)*

Desired temperatures are not set on steam dryers. Actual temperatures are shown on the bottom line of the display, below *TIF (TIC)* and *TOF (TOC)*

*031* représente les minutes et les quarts de minutes du temps d'exécution total (3 minutes et 15 secondes dans cet exemple).

*031* represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).

*012* représente le temps restant dans cette étape (1 minute et 30 secondes dans cet exemple).

*012* represents the time remaining in this step (1 minute and 30 seconds in this example).

*AIR* apparaît au-dessus de la position de l'amortisseur (000 dans cet exemple, plage de 000 à 002). L'écran change pour afficher également le taux de vapeur au-dessous de *SR*.

*AIR* appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the steam ratio below *SR*.



**2.1.5. Déchargement de la machine**



En mode automatique, la machine de décharge à la fin de chaque cycle de séchage. Pour décharger les produits manuellement, définissez

**Unloading the Machine**

In automatic mode, the machine will discharge at the end of each dry cycle. To discharge the goods manually, set the



le sélecteur *Déchargement autorisé* sur . Utilisez  pour secouer le panier.

*Discharge Allowed* switch to . Use  to jog the basket.

Lorsque le séchoir attend d'être déchargé ou se décharge, l'écran bascule à *EN ATTENTE DE DECHARGEMENT* ou *DECHARGEMENT* et présente les données de lot de la charge en cours de déchargement.

When the dryer is waiting to discharge or is discharging, the display alternates *WAITING TO DISCHARGE* or *DISCHARGING* with the batch data of the load being discharged.

**Affichage ou action**  
[Display or Action]

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

**Explication**

*FM* apparaît au-dessus du numéro de formule de lavage pour la charge.

**Explanation**

*FM* appears above the wash formula number for the load.

*DC* apparaît au-dessus du numéro de code de séchage pour la charge.

*DC* appears above the drycode number for the load.

*DS* apparaît au-dessus de la destination de la charge.

*DS* appears above the destination for the load.

*CC* apparaît au-dessus du code client de la charge.

*CC* appears above the customer code for the load.

*GC* apparaît au-dessus du code des produits pour la charge.

*GC* appears above the goods code for the load.

*WDT* apparaît au-dessus du temps passé en attente de déchargement.

*WDT* appears above the elapsed time spent waiting to discharge.

— Fin BIPDUO01 —

— End of BIPDUO01 —

# Chapitre 3

## Signaux et erreurs

# Chapter 3

## Signals and Errors

BICSUT01 (Published) Book specs- Dates: 20080722 / 20080722 / 20100811 Lang: FRE01 Applic: PDU YDS

### 3.1. Messages d'erreur de la navette

La plupart des messages d'erreur de navette et des conditions qui les provoquent peuvent être résolus par l'opérateur. Dans certains cas, l'opérateur devra demander l'aide de la maintenance ou de la direction. L'aide de la maintenance est nécessaire dans les deux circonstances suivantes :

- Lorsque la machine nécessite une intervention pour que l'erreur soit résolue.
- Lorsqu'une erreur doit être résolue de l'intérieur de la zone de fonctionnement de la navette avec la machine sous tension.

**zone de fonctionnement de la navette**—Zone dans laquelle la navette se déplace lors du fonctionnement automatique et qui doit être protégée, comme il est explicité dans la norme ANSI Z8.1-2006 “Norme nationale américaine pour l'équipement et les opérations de blanchisserie commerciale et de nettoyage à sec – Exigences de sécurité.”. Le personnel qui pénètre dans la zone de fonctionnement de la navette, que ce soit pour résoudre une erreur, ou pour toute autre raison, doit être correctement formé à la sécurité de la navette et respecter les précautions de sécurité diffusées sur le site.



**AVERTISSEMENT 5: Risques de coups et d'écrasement**—Une navette se déplace de façon imprévisible lors du fonctionnement automatique. Toute personne dans la zone de fonctionnement de la navette peut subir un coup ou être écrasée.

- Opérateurs : Ne jamais pénétrer dans la

### Shuttle Error Messages

Most shuttle error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. Maintenance assistance is needed in either of the following two circumstances:

- When the machine requires servicing to resolve the error.
- When an error must be resolved from inside the shuttle operating area with power on.

**shuttle operating area**—the area within which the shuttle moves during automatic operation and which must be guarded, as explained in ANSI Standard Z8.1-2006 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements.” Personnel who enter the shuttle operating area, whether to resolve an error, or for any other reason, must be properly trained in shuttle safety and abide by the published facility safety precautions.

**WARNING 5: Strike and Crush Hazards**—A shuttle moves unpredictably during automatic operation. Anyone within the operating area of the shuttle can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is

- zone de fonctionnement de la navette à moins qu'elle soit mise hors tension de façon fiable.
- Personnel de maintenance : Désactiver toujours le fonctionnement automatique avant d'entrer dans la zone de fonctionnement de la navette.

Pour le mode de résolution d'erreur, les erreurs de navette sont de cinq types : les erreurs de délai, les erreurs de comptage au niveau du codeur, les erreurs de position, les erreurs de transfert et les erreurs qui doivent être signalées au personnel de direction ou de maintenance. Les erreurs sont répertoriées par catégorie, puis de façon alphabétique dans chaque catégorie. Vous devrez peut-être rechercher dans plusieurs catégories pour trouver l'erreur. Les explications de chaque catégorie comportent trois parties :

1. une description de cette catégorie d'erreurs
2. une liste des erreurs et leurs descriptions
3. comment résoudre une erreur de ce type

### 3.1.1. A propos de “TRIPHASE DESACTIVE...APPUYER SUR DEMARRER POUR COMMENCER”

Ce message apparaît et l'alarme sonore de l'opérateur se déclenche lors du démarrage jusqu'à ce que vous appuyiez sur la touche *Démarrer*.(Ⓜ). Ces messages et signaux apparaissent également si vous appuyez sur le coup de poing d'arrêt d'urgence, si la surcharge d'un moteur se déclenche ou si certains autres événements surviennent. Bien que les erreurs décrites dans ce document ne suffisent pas à réactiver le circuit triphasé, quelques unes peuvent coïncider avec des événements qui désactivent ce circuit. Par exemple, si la navette fait une traversée assez longue pour fermer un interrupteur de sécurité oops à l'extrémité du rail et déclencher une erreur de LIMITE DE RAIL (voir [Section 3.1.5](#)), la protection inférieure de la navette peut également heurter un objet et s'abaisser, en ouvrant le circuit triphasé. Dans ce cas, le message TRIPHASE DESACTIVE apparaîtra, et non le message LIMITE DE RAIL, ce qui demandera de déplacer physiquement la navette assez loin de l'objet pour relâcher la protection inférieure.

reliably locked out.

- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, shuttle errors are of five types: time limit errors, level encoder counting errors, position errors, transfer errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### About “THREE WIRE DISABLED PUSH START TO GO”

This message appears and the operator alarm sounds at startup until the *Start* button (Ⓜ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. Although the errors described in this document do not, by themselves, disable the three-wire circuit, a few may coincide with events that do disable the three wire circuit. For example, if the shuttle traverses far enough to close an oops switch at the end of the rail and trigger a RAIL LIMIT error (see [Section 3.1.5](#)), the shuttle foot guard may also hit an object and depress, opening the three wire circuit. In such a case, the THREE WIRE DISABLED message, not the RAIL LIMIT message will appear, requiring the shuttle to be physically moved far enough away from the object to release the foot guard.

### 3.1.2. **Reprise du fonctionnement automatique après correction de l'erreur**

La navette s'initialisera au cours du processus normal de reprise de la plupart des erreurs décrites dans ce document. Lors de ce processus elle se déplace généralement vers sa position d'origine et/ou déplace le plateau élévateur au niveau le plus bas. Si la navette contient une charge, elle peut également demander à regrouper des données. Dans ce cas, l'opérateur doit être capable d'entrer ou confirmer les codes exacts de traitement différé correspondant aux produits à chaque position de la navette.

### 3.1.3. **Erreurs de délai**

Une erreur de délai se produit lorsqu'une action de la navette n'est pas terminée dans le temps indiqué. Il est probable qu'une condition temporaire ait interféré avec le mouvement de la navette. Si le temps spécifié peut être configuré, il y a une faible chance que la valeur de temps doive être ajustée (voir les instructions de configuration de la navette dans le manuel de référence). Les erreurs de délai interrompent le mouvement de la navette afin que le personnel puisse vérifier ce qui interfère. Ces erreurs sont les suivantes :

### **Resuming Automatic Operation After Error Correction**

The shuttle will initialize as a normal part of recovering from most of the errors described in this document. During this process it will usually traverse to its home station and/or move the elevating bed to the lowest level. If the shuttle contains goods, it may also prompt for cake data. In this event, the operator must be able to accurately enter or confirm the batch codes for the goods on each position of the shuttle.

### **Time Limit Errors**

A time limit error occurs if a shuttle action is not completed within the specified time. It is likely that a temporary condition interfered with shuttle movement. If the specified time is configurable, there is a slight chance that the time value must be adjusted (see the shuttle configuration instructions in the reference manual). Time limit errors stop shuttle motion so that personnel can check for an interfering condition. These errors are as follows:

**Affichage ou action**  
[Display or Action]

ERREUR - VERIFIER LA  
CHAINE  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - CHECK CHAIN  
PRESS SIGNAL CANCEL

ERREUR - PAS DE  
GALETTE  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - NO CAKE  
PRESS SIGNAL CANCEL

ERR - PAS DE  
COMPTAGE  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERR - NOT COUNTING  
PRESS SIGNAL CANCEL

ERREUR- ATTENTE TROP  
LONGUE  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR- WAIT TOO LONG  
PRESS SIGNAL CANCEL

DECH. TROP LONG.  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

TOO LONG TO DISCH.  
PRESS SIGNAL CANCEL

2 COMPTAGES LONG  
NIVEAU  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

2 LONG COUNT LVL  
PRESS SIGNAL CANCEL

**Explication**

Lors de son initialisation, l'assise de la navette n'est pas parvenue à se déplacer vers ses positions maximum et minimum durant le temps spécifié dans la décision de configuration "temps nécessaire pour atteindre le bas-haut".

Lors du déchargement, la cellule photo-électrique à l'extrémité de déchargement n'a pas été bloquée dans le temps spécifié dans la décision de configuration. "temps de dégagement de tapis".

Plus de 45 secondes se sont écoulées entre les cibles de position lorsque la navette se déplaçait vers la gauche ou vers la droite.

L'unité réceptrice n'a pas accusé réception du déchargement de la machine dans le temps spécifié dans la décision de configuration "délai de charge associée terminé".

Le tapis se déplace et la cellule photo-électrique à l'extrémité de déchargement reste bloquée 30 secondes après l'expiration du temps spécifié dans la décision de configuration "temps de dégagement de tapis".

Plus de 30 secondes se sont écoulées entre les cibles de niveau lorsque le plateau élévateur de la navette se déplaçait vers le haut ou vers le bas.

**Explanation**

While initializing, the shuttle bed failed to move to its maximum and minimum positions within the time specified in the "time to reach bottom-top" configure decision.

During discharge, the discharge-end photo eye was not blocked within the time specified in the "clear belt time" configure decision.

More than 45 seconds elapsed between station targets while the shuttle was moving left or right.

The receiving device did not acknowledge the machine's discharge within the time specified in the "allied load completed delay" configure decision.

The belt is moving and the discharge-end photo eye is still blocked 30 seconds after the time specified in the "clear belt time" configure decision expires.

More than 30 seconds elapsed between level targets while the shuttle elevating bed was moving up or down.

Identifiez et corrigez qui peut avoir gêné l'action, puis appuyez sur la touche *Annulation du signal* (✖) pour initialiser la navette et

Identify and correct any condition that may have prevented the action from occurring, then press the *Signal Cancel* button (✖) to

reprendre le fonctionnement automatique. Si l'erreur se produit à nouveau, faites appel au personnel de maintenance.

initialize the shuttle and resume automatic operation. If error recurs, call maintenance personnel.

### 3.1.4. Erreurs de comptage du codeur de niveau

Pour certains modèles de navettes, le contrôleur trace la position du plateau élévateur à l'aide d'un codeur qui compte les cibles à chaque niveau vertical lorsque le plateau dépasse la cible. Une erreur se produit si le codeur de niveau perd le comptage. Ces erreurs interrompent le mouvement de la navette afin que la navette puisse être réinitialisée. Cette catégorie d'erreurs comprend les erreurs suivantes :

### Level Encoder Counting Errors

The controller for some shuttle models tracks the position of the elevating bed with an encoder that counts targets at each vertical level as the bed passes the target. An error occurs if the level encoder loses count. These errors stop shuttle motion so that the shuttle can be re-initialized. This category of error includes the following:

Affichage ou action [Display or Action]	Explication	Explanation
LES COMPTAGES ONT DEPASSE LE MAX APPUYEZ SUR L'ANNULATION DE SIGNAL	Le comptage a dépassé la valeur maximale spécifiée dans la décision de configuration "nombre de niveaux de réception" ou "nombre de niveaux de déchargement", suivant celle qui s'applique.	The count exceeded the maximum value specified in the "number of receive levels" or the "number of discharge levels" configure decision, whichever applies.
CNTS EXCEEDED MAX PRESS SIGNAL CANCEL		
COMPTAGES TOMBES AU- DESSOUS DE 0 APPUYEZ SUR L'ANNULATION DE SIGNAL	Le comptage est à 0 ou sur le point d'atteindre une valeur inférieure à zéro.	The count is at, or about to fall below zero.
CNTS FELL BELOW 0 PRESS SIGNAL CANCEL		
CHAINE DETENDU APPUYEZ SUR L'ANNULATION DE SIGNAL	Du mou dans la chaîne s'est produit lorsque l'assise se déplaçait vers le bas, mais avant d'atteindre le comptage souhaité.	A slack chain condition occurred while the bed was moving down, but before reaching the desired count.
SAW SLACK CHAIN PRESS SIGNAL CANCEL		

La condition qui a causé l'erreur du codeur est probablement momentanée et ne se reproduira vraisemblablement pas. Appuyez sur la touche *Annulation du signal* (✖) pour initialiser la navette et reprendre le fonctionnement automatique. Si l'erreur se reproduit, faites appel au personnel de maintenance.

The condition that caused the encoder error is likely to be momentary and will probably not recur. Press the *Signal Cancel* button (✖) to initialize the shuttle and resume automatic operation. If the error recurs, call maintenance personnel.

### 3.1.5. Erreurs de position

Ce type d'erreur indique que le contrôleur

### Position Errors

This type of error indicates that the controller

détecte que la navette ou un de ses composants n'est pas positionné correctement. Le mouvement de la navette s'interrompt afin qu'il puisse être déterminé si une intervention manuelle est nécessaire. Une intervention manuelle peut consister à retirer des produits qui bloquent une cellule photo-électrique ou à repositionner la navette à l'aide des commandes manuelles.



**ATTENTION [6]: Risque de dommages**—

Les commandes manuelles remplacent les cellules photo-électriques qui empêchent normalement la navette de lancer une galette dans un objet ou sur le sol.

- Prenez des précautions et tenez compte des conséquences avant de déplacer la navette manuellement.

Les commandes manuelles correspondant à chaque erreur sont répertoriées dans la description de l'erreur.

Cette catégorie d'erreurs comprend les erreurs suivantes:

detects the shuttle or a shuttle component is in the wrong place. Shuttle motion stops so that it can be determined if manual intervention is needed. Manual intervention may involve removing goods that are blocking a photoeye, or repositioning the shuttle using the manual controls.

**CAUTION [6]: Risk of damage**—The

manual controls override the photo eyes which normally prevent the shuttle from running a cake into an object, or onto the floor.

- Use care and consider the consequences before moving the shuttle manually.

The pertinent manual controls for each error are listed in the error description. This category of error includes the following:

**Affichage ou action**  
[Display or Action]

LA GALETTE DOIT ETRE DECHARGEE MANUELLEMENT
CAKE MUST BE MANUALLY UNLOADED

ERREUR-NON RETRACTE APPUYEZ SUR L'ANNULATION DE SIGNAL
ERROR-NOT RETRACTED PRESS SIGNAL CANCEL

ERREUR - LIMITE DE RAIL APPUYEZ SUR L'ANNULATION DE SIGNAL
ERROR - RAIL LIMIT PRESS SIGNAL CANCEL

ERREUR - CHAINE DETENDU APPUYEZ SUR L'ANNULATION DE SIGNAL
ERROR - SLACK CHAIN PRESS SIGNAL CANCEL

**Explication**

S'applique aux navettes qui sont configurées pour faire en sorte ne pas élever le deuxième tapis pour le déchargement. Une galette est sur le tapis 1 mais pas sur le tapis 0. Commandes manuelles correspondantes : interrupteur *Tapis 1 avant/arrière*. Lorsque le tapis 1 est aligné pour le déchargement, maintenez l'interrupteur sur *Avant* (↔) jusqu'à ce que la galette soit déchargée.

La navette voulait traverser, monter ou descendre, mais l'assise de la navette n'est pas entièrement rétractée. Commandes manuelles correspondantes : interrupteur *Tapis 0 Etendre/Rétracter pour réception* (↔/↔), interrupteur *Tapis 0 Etendre/Rétracter pour déchargement* (↔/↔), voyant *Tapis entièrement rétracté*. Activez l'interrupteur approprié pour allumer le voyant.

La navette a traversé trop loin vers la droite ou vers la gauche, a actionné l'interrupteur oops et y est restée plus de cinq secondes. Commande manuelle correspondante : interrupteur *Trajet vers la gauche/droite* (↔/↔).

L'assise de la navette est descendue à son arrêt mécanique le plus bas ou a rencontré un obstacle lors de la descente. Commandes manuelles correspondantes : interrupteur à clé *Activer la montée/la descente*, interrupteur *Descente* (⤴) ou interrupteur *Déplacement vers le bas/le haut* (⤴/⤵), si applicable.

**Explanation**

Applies to shuttles configured not to elevate the second belt to discharge. A cake is on belt 1 but not on belt 0. Pertinent manual controls: *Belt 1 Forward/Reverse* switch. With belt 1 aligned for discharge, hold switch at *Forward* (↔) until cake is discharged.

The shuttle desired to traverse, elevate, or descend, but the shuttle bed is not fully retracted. Pertinent manual controls: *Belt 0 Extend/Retract to Receive* switch (↔/↔), *Belt 0 Extend/Retract to Discharge* switch (↔/↔), *Belt Fully Retracted* light. Operate the appropriate switch to illuminate the light.

The shuttle traversed too far right or left, actuated the oops switch, and remained there longer than five seconds. Pertinent manual control: *Travel Left/Right* switch (↔/↔).

The shuttle bed either descended onto its lower mechanical stop or met an obstruction while descending. Pertinent manual controls: *Enable Down/Up* key switch, *Move Down* switch (⤴) or *Move Down/Up* switch (⤴/⤵), as applicable.



**Affichage ou action**  
[Display or Action]

ERREUR - CHAINE  
TENDUE  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - TAUT CHAIN  
PRESS SIGNAL CANCEL

**Explication**

L'assise de la navette a atteint son arrêt mécanique supérieur ou a rencontré un autre obstacle en montant. Commandes manuelles correspondantes : interrupteur à clé *Activer la montée/la descente*, interrupteur *Descente* (↕) ou interrupteur *Déplacement vers le bas/le haut* (↕/↗), comme applicable, et voyant *Chaîne tendue*.  
Actionnez l'interrupteur à clé pour le fonctionnement manuel et faites-le fonctionner. Dans une condition de chaîne tendue, le voyant est allumé et s'éteint lorsque la condition est éliminée.

**Explanation**

The shuttle bed either struck its upper mechanical stop or met another obstruction while rising. Pertinent manual controls: *Enable Down/Up* key switch, *Move Down* switch (↕) or *Move Down/Up* switch (↕/↗), as applicable, and *Taut Chain* light. Set the key switch for manual operation and operate the switch. In a taut chain condition, the light is illuminated and goes out when the condition is eliminated.

TROP GRANDE  
EXTENSION  
AJUSTER LE TAPIS  
MANUELLEMENT

EXTENDING TOO FAR  
ADJUST BELT MANUALLY

L'assise de navette a dépassé sa position d'extension complète. Commandes manuelles correspondantes : interrupteur *Tapis 0 Etendu/Retiré pour le déchargement* (↗/↘), voyant *Tapis 0 entièrement étendu pour le déchargement*. Faites fonctionner l'interrupteur pour allumer le voyant.

The shuttle bed went beyond its fully extended position. Pertinent manual controls: *Belt 0 Extend/Retract to Discharge* switch (↗/↘), *Belt 0 Fully Extended to Discharge* light. Operate the switch to illuminate the light.

TROP GRANDE  
RETRACTION  
AJUSTER LE TAPIS  
MANUELLEMENT

RETRACTING TOO FAR  
ADJUST BELT MANUALLY

L'assise de la navette a dépassé sa position de rétraction complète. Commandes manuelles correspondantes : interrupteur *Tapis 0 Etendre/Rétracter pour réception* (↘/↗), interrupteur *Tapis 0 Etendu/Retiré pour le déchargement* (↗/↘), voyant *Tapis entièrement rétracté*. Faites fonctionner l'interrupteur approprié jusqu'à ce que le voyant s'allume.

The shuttle bed went beyond its fully retracted position. Pertinent manual controls: *Belt 0 Extend/Retract to Receive* switch (↘/↗), *Belt 0 Extend/Retract to Discharge* switch (↗/↘), *Belt Fully Retracted* light. Operate the appropriate switch until the light illuminates.

Corrigez une position d'erreur comme suit :

Correct a position error as follows:

**Affichage ou action**  
[Display or Action]

**Explication**

**Explanation**



Définissez l'interrupteur *Automatique/Manuel* par *Manuel*.

Set the *Automatic/Manual* switch to *Manual*.

Utilisez les commandes manuelles appropriées (expliquées ci-dessus) pour positionner correctement la navette. Dans le cas d'une erreur de chaîne, vous devrez accéder à l'interrupteur à clé *Activer la montée/la descente*. Si la navette ne répond pas, faites appel au personnel de maintenance. Si vous parvenez à repositionner la navette :

Use the appropriate manual controls (explained above) to position the shuttle properly. In the case of a chain error, you will need access to the key-operated *Enable Down/Up* switch. If the shuttle will not respond, call maintenance personnel. If you are able to re-position the shuttle:



Ramenez l'interrupteur *Automatique/Manuel* à *Automatique*.

Return the *Automatic/Manual* switch to *Automatic*.

MANUEL SIMPLE- APPUYEZ SUR SKIP TO POUR FERMER
BARE MANUAL-PRESS SKIPTO TO EXIT

Ce message apparaît lorsque vous revenez au mode automatique après avoir utilisé les commandes manuelles.

This message appears when returning to automatic mode after using the manual controls.



Appuyez sur la touche SKIP TO (clavier) ou la touche (affichage d'unité DryNet) pour démarrer l'initialisation de la navette.

Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization.

**3.1.6. Erreurs de transfert**

Une erreur de ce type survient si, par exemple, un produit se sépare d'une galette compressée et bloque une cellule photo-électrique. Ces erreurs comprennent notamment :

**Transfer Errors**

An error of this type occurs if, for example, a piece of goods separates from a pressed cake and blocks a photo eye. These errors include the following:

**Affichage ou action**  
[Display or Action]

ERREUR - ERREUR DE  
CELLULE PHOTO-  
ELECTRIQUE 1  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - EYE ERROR 1  
PRESS SIGNAL CANCEL

ERREUR - ERREUR DE  
CELLULE PHOTO-  
ELECTRIQUE 3  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - EYE ERROR 3  
PRESS SIGNAL CANCEL

ERREUR - ERREUR DE  
CELLULE PHOTO-  
ELECTRIQUE 4  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - EYE ERROR 4  
PRESS SIGNAL CANCEL

**Explication**

La cellule photo-électrique sur l'extrémité de chargement ou de déchargement est bloquée sur un tapis multi-galettes lorsque la navette veut se déplacer, ce qui indique qu'une galette peut ressortir du tapis, présentant un risque de dommages. ERREUR DE CELLULE PHOTO-ELECTRIQUE 2 identique. Chaque erreur s'applique à des modèles spécifiques.

La cellule photo-électrique à l'extrémité de déchargement sur un tapis multi-galettes ne s'est pas bloquée et vidée autant de fois, lors du déchargement, que le contrôleur a compté de galettes ; autrement dit, le contrôleur a compté trop peu de galettes. Cela peut se produire si des produits sont à cheval sur deux galettes ce qui les rend indistincts pour le contrôleur.

La cellule photo-électrique à l'extrémité de déchargement sur un tapis multi-galettes se bloque pendant le chargement, ce qui indique que les galettes qui suivent la première galette peuvent être manquantes. Lorsqu'un tapis multi-galettes est chargé, la dernière galette doit vider la cellule photo-électrique à l'extrémité de chargement et arrêter le tapis avant que la première galette ne bloque la cellule photo-électrique à l'extrémité de déchargement. Cette erreur peut se produire si des galettes compressées de façon lâche se divisent et prennent trop de place sur le tapis.

**Explanation**

Either the load-end or discharge-end photo eye is blocked on a multi-cake belt when the shuttle desires to move, indicating that a cake may be protruding off of the belt, risking damage. EYE ERROR 2 is similar. Each error applies to specific models.

The discharge-end photo eye on a multi-cake belt did not block and clear as many times, during discharge, as the controller believes there are cakes; that is, the controller counted too few cakes. This can occur if goods straddle two cakes making them indistinguishable to the controller.

The discharge-end photo eye on a multi-cake belt blocks during loading, indicating that cake(s) following the first cake, may be missing. When a multi-cake belt is loaded, the last cake should clear the load-end photo eye and stop the belt before the first cake blocks the discharge-end photo-eye. This error can occur if loosely compacted cakes spread apart and take up too much room on the belt.

**Affichage ou action**  
[Display or Action]

ERREUR - ERREUR DE  
CELLULE PHOTO-  
ELECTRIQUE 5  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - EYE ERROR 5  
PRESS SIGNAL CANCEL

ERREUR - ERREUR DE  
CELLULE PHOTO-  
ELECTRIQUE 6  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - EYE ERROR 6  
PRESS SIGNAL CANCEL

ERREUR - XFER  
ABANDONNE  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - XFER ABORTED  
PRESS SIGNAL CANCEL

**Explication**

Les cellules photo-électriques aux extrémités de chargement et de déchargement sont toutes deux bloquées lorsque la navette veut se déplacer ou baisser l'assise, ce qui indique qu'une galette peut ressortir du tapis et présente un risque de dommages.

La cellule photo-électrique en dépassement est bloquée lorsque la navette veut traverser ou monter/descendre l'assise, ce qui indique qu'une galette peut ressortir du tapis et présente un risque de dommages.

Le contrôleur Miltrac a annulé le transfert en cours. Par exemple, l'une des erreurs de cellule photo-électrique décrites ci-dessus se produit après que le processus de transfert ne commence, mais avant que la communication avec le contrôleur Miltrac ne soit terminée.

**Explanation**

The load-end and discharge-end photo eyes are both blocked when the shuttle desires to traverse or lower the bed, indicating that a cake may protrude from the belt, risking damage.

The overshoot photoeye is blocked when the shuttle desires to traverse or raise/lower the bed, indicating that a cake may protrude from the belt, risking damage.

The Miltrac controller cancelled the transfer in progress. For example, one of the photo eye errors described above occurs after the transfer process starts, but before communication with Miltrac is completed.

En respectant les précautions de sécurité diffusées, libérez une cellule photo-électrique bloquée par erreur en retirant physiquement les produits ou en faisant tourner manuellement le tapis pour déplacer les produits, comme suit :

Observing published safety precautions, clear an improperly blocked photoeye by physically removing the goods or by manually running the belt to move the goods, as follows:

**Affichage ou action**  
[Display or Action]

**Explication**

**Explanation**



Définissez l'interrupteur *Automatique/Manuel* par *Manuel*.

Set the *Automatic/Manual* switch to *Manual*.



Utilisez l'interrupteur approprié *Tapis x Avant/Arrière* (jusqu'à quatre tapis empilés verticalement, numérotés de 0 à 3, de bas en haut) pour actionner ce tapis et terminer ou corriger le transfert.

Use the appropriate *Belt x Forward/Reverse* switch (up to four vertically stacked belts, numbered 0 through 3, from bottom to top) to run that belt and complete or correct the transfer.



Ramenez l'interrupteur *Automatique/Manuel* à *Automatique*.

Return the *Automatic/Manual* switch to *Automatic*.

MANUEL SIMPLE-  
APPUYEZ SUR  
SKIP TO POUR FERMER

Ce message apparaît lorsque vous revenez au mode automatique après avoir utilisé les commandes manuelles.

This message appears when returning to automatic mode after using the manual controls.

BARE MANUAL-PRESS  
SKIPTO TO EXIT



Appuyez sur la touche PASSER A (clavier) ou la touche (affichage d'unité DryNet) pour démarrer l'initialisation de la navette et reprendre le fonctionnement automatique.

Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization and resume automatic operation.

**3.1.7. Erreurs qui doivent être signalées au personnel de direction ou de maintenance**

Les erreurs suivantes ont des conséquences qui doivent être résolues par le personnel de direction. L'analyse des conséquences résout l'erreur.

**Errors That Should Be Reported to Management or Maintenance Personnel**

The following errors have consequences that should be resolved by management personnel. Addressing the consequences resolves the error.

**Affichage ou action**

[Display or Action]

VERIFICATION DE LA  
CARTE D'E-S x  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

CHECK I/O BOARD x  
PRESS SIGNAL CANCEL

**Explication**

Le contrôleur détecte une carte de circuit de contrôle défectueuse ou manquante. Si cette erreur se produit immédiatement après que les valeurs de configuration ont été programmées, cela est probablement dû à la spécification d'une fonction facultative qui n'est en fait pas présente sur la machine. Si l'erreur s'est produite après l'ajout d'un matériel pour une fonction facultative, cela indique que cette fonction n'a pas encore été spécifiée dans la configuration. Sinon, cela indique probablement la défaillance d'une carte ou d'un circuit associé.

**Explanation**

The controller detects a failed or missing control circuit board. If this error occurred immediately after configure values were programmed, it is probably the result of specifying an optional feature that is not actually present on the machine. If it occurred after adding hardware for an optional feature, it indicates that this feature has not yet been specified in configuration. Otherwise, it probably indicates that a board or related circuitry has failed.

VIDER LA MEMOIRE  
MAINTENANT  
APPUYER SUR 4 + 5 +  
6

CLEAR MEMORY NOW  
PRESS 4 + 5 + 6

Les données de la zone programmable ont été altérées. La configuration des valeurs doit être reprogrammée comme il est expliqué dans la partie du manuel de référence qui concerne la programmation.

Field-programmable data became corrupt. Configure values must be re-programmed as explained in the part of the reference manual on programming.

ERREUR - TROP DE DIR  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

ERROR - TOO MANY DIR  
PRESS SIGNAL CANCEL

Les entrées de direction droite et gauche provenant d'une unité de chargement associée ont été actionnées en même temps. Il s'agit d'un dysfonctionnement du circuit de contrôle qui requiert un dépannage électrique.

The right and left direction inputs from an allied loading device were actuated at the same time. This is a control circuitry malfunction requiring electrical troubleshooting.

PROGRAMME 0 MENU  
OK TOURNER LA CLE  
POUR EXECUTER

PROGRAM 0 MENU  
OK TURN KEY TO RUN

La clé **Exécuter/Programme** a été laissée dans la machine et l'interrupteur est à la position *Programme*. Cette clé doit être retirée et placée en lieu sûr afin d'être utilisée uniquement par le personnel de direction.

The **Run/Program** key has been left in the machine and the switch is in the *Program* position. This key should be removed and placed in a secure location accessible only to management personnel.

## 3.2. Messages d'erreur du séchoir

La plupart des messages d'erreur de séchoir et des conditions qui les provoquent peuvent être résolus par l'opérateur. Dans certains cas, l'opérateur devra demander l'aide de la maintenance ou de la direction. Si le séchoir est chargé automatiquement par un tapis navette, ne pénétrer dans la zone de fonctionnement de la navette que si vous avez reçu une formation appropriée à la sécurité de la navette. Respectez les précautions de sécurité diffusées sur le site.



**AVERTISSEMENT [7]: Dangers de coups et d'écrasement**—Le tapis navette qui dessert une ligne de séchoirs à chargement automatique se déplace de façon imprévisible lors du fonctionnement automatique. Lors de sa traversée, il touche presque l'avant de chaque séchoir. Toute personne qui se trouve devant ou près de l'avant d'un séchoir peut recevoir un coup ou être écrasée.

- Opérateurs : Ne jamais pénétrer dans la zone de fonctionnement de la navette à moins qu'elle soit mise hors tension de façon fiable.
- Personnel de maintenance : Désactiver toujours le fonctionnement automatique avant d'entrer dans la zone de fonctionnement de la navette.

En ce qui concerne la résolution des erreurs, les erreurs de séchoir sont de quatre types : les erreurs de surchauffe, les erreurs relatives à la porte de chargement, les autres erreurs de fonctionnement automatique et les erreurs qui doivent être signalées au personnel de direction ou de maintenance. Les erreurs sont répertoriées par catégorie, puis de façon alphabétique dans chaque catégorie. Vous devrez peut-être rechercher dans plusieurs catégories pour trouver l'erreur recherchée. Les explications de chaque catégorie comportent trois parties :

1. une description de cette catégorie d'erreurs
2. une liste des erreurs et leurs descriptions
3. comment résoudre une erreur de ce type

### 3.2.1. A propos du message "CIRCUIT TRIPHASE DESACTIVE"

Ce message apparaît et l'alarme sonore de l'opérateur se déclenche lors du démarrage

## Dryer Error Messages

Most dryer error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. If the dryer is automatically loaded by a shuttle conveyor, do not enter the shuttle operating area to resolve an error unless properly trained in shuttle safety. Abide by the published facility safety precautions.

**WARNING [7]: Strike and Crush Hazards**—The shuttle conveyor that serves a line of automatically-loaded dryers moves unpredictably during automatic operation. As it traverses, it passes, almost touching the front of each dryer. Anyone at or near the front of a dryer can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.
- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, dryer errors are of four types: overheat errors, load door advisories, other automatic operation errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### About the "THREE WIRE DISABLED" Message

This message appears and the operator alarm sounds at startup until the *Start* button (Ⓜ) is

jusqu'à ce que vous appuyiez sur la touche *Démarrer*. Ces message et signal apparaissent également si vous appuyez sur la touche d'arrêt d'urgence, si la surcharge d'un moteur se déclenche ou si certains autres événements surviennent. Quelques erreurs décrites dans ce document peuvent coïncider avec des événements qui désactivent le circuit triphasé. Lorsque cela se produit, le message **CIRCUIT TRIPHASE DESACTIVE**, et non le message d'erreur, apparaît généralement à l'écran. Cependant, deux cas spéciaux importants sont explicités en [Section 3.2.2 "Erreurs de surchauffe"](#).

### 3.2.2. Erreurs de surchauffe

Une erreur de surchauffe se produit si le contrôleur détecte une température de refoulement qui dépasse la valeur autorisée. Bien qu'une erreur de surchauffe puisse avoir de nombreuses causes, le contrôleur suppose que le panier a pris feu et entreprend les actions suivantes :

- il ouvre le circuit triphasé, ce qui :
  - » ferme la source de chaleur (par exemple, il ferme le robinet à gaz)
  - » il ferme le flux d'air principal
  - » il arrête la rotation du panier
- il actionne l'extincteur interne, qui vaporise de l'eau dans le panier

pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. A few errors described in this document may coincide with events that disable the three-wire circuit. When this occurs, the **THREE WIRE DISABLED** message, and not the error message, will typically appear on the display. However, two important special cases are explained in [Section 3.2.2 "Overheat Errors"](#).

### Overheat Errors

An overheat error occurs if the controller detects an outlet temperature exceeding the permissible value. Although an overheat error can have numerous causes, the controller assumes there is a fire in the basket and takes the following actions:

- opens the three wire circuit, which:
  - » shuts off the heat source (e.g., closes the gas valve)
  - » shuts off the main air flow
  - » stops basket rotation
- actuates the internal sprinkler, which sprays water into the basket



**Affichage ou action**  
[Display or Action]

TEMP. REFOULEMENT A DEPASSE 240dF -MISE HORS TENSION
OUTLET TEMP EXCEEDED 240dF -POWER DOWN-

**Explication**

Une fonction de sécurité redondante sur le séchoir déclenche cette erreur si la température de refolement dépasse 240° Fahrenheit (116° Celsius). Cet événement ne sera pas dû à une augmentation réelle de la température sauf si la condition CIRCUIT TRIPHASE DESACTIVE, expliquée ci-dessous, échoue, peut-être en raison d'un composant défectueux. Cette erreur est déclenchée dans le logiciel à partir de l'entrée de température de refolement. Par conséquent, cette erreur peut se produire de façon erronée, à cause d'une défaillance de composant électrique tel qu'une carte A/N défectueuse. Bien que le circuit triphasé s'ouvre lorsque cet événement se produit, ce message d'erreur sera prioritaire sur le message CIRCUIT TRIPHASE DESACTIVE.

**Explanation**

A redundant safety feature on the dryer will trigger this error if outlet temperature exceeds 240° Fahrenheit (116° Celsius). This event will not occur as a result of an actual temperature rise unless the THREE WIRE DISABLED condition, explained below, fails, perhaps due to a component failure. This error is triggered in software, based on the outlet temperature input. Hence, this error may occur erroneously, due to an electrical component failure such as a failed A/D board. Although the three wire circuit opens when this event occurs, this error message will take precedence over the THREE WIRE DISABLED message.

CIRCUIT TRIPHASE DESACTIVE *****
THREE WIRE DISABLED *****

Ce message peut être dû à une température de refolement dépassant 225° Fahrenheit (107° Celsius), mais il peut avoir d'autres causes. A chaque fois que ce message apparaît durant le fonctionnement (après sélection de la touche *Démarrer*, **vérifiez immédiatement que l'extincteur (monté sur le côté de la flasque de décharge) est actionné** et si c'est le cas, résolvez ce message comme un message de surchauffe. Cette erreur est déclenchée par l'un des deux dispositifs de sécurité de température (détecteurs Fenwal) montés sur le conduit de refolement.

This message may be the result of the outlet temperature exceeding 225° Fahrenheit (107° Celsius), but it may also have other causes. Whenever this message appears during operation (after the *Start* button is pressed), **immediately check to see if the sprinkler mechanism (mounted on the side of the discharge shroud) is actuated** and if so, resolve this message as an overheat error. This error is triggered by either of two temperature safety switches (Fenwal switches) mounted in the outlet duct.

Résolvez une erreur de surchauffe comme suit :      Resolve an overheat error as follows:

Affichage ou action [Display or Action]	Explication	Explanation
⊗, ⊕	<ol style="list-style-type: none"> <li>1. Si l'erreur TEMP. REFOULEMENT A DEPASSE 240dF se produit, arrêter l'interrupteur du séchoir <i>Maître</i>, puis le remettre en marche. Cela est nécessaire pour réinitialiser le relais de sortie extincteur souhaité. Sinon, il ne sera pas possible d'éteindre l'extincteur.</li> <li>2. S'il n'y a pas de preuve d'incendie, <b>abaisser la poignée rouge sur l'extincteur jusqu'à ce qu'elle soit verrouillée en place</b> permet d'arrêter le flux d'eau dans le panier. Cependant, continuez à observer les signes d'incendie éventuels et soyez prêt à ré-activer l'extincteur.</li> </ol>	<ol style="list-style-type: none"> <li>1. If the OUTLET TEMP EXCEEDED 240dF error occurred, turn the dryer <i>Master</i> switch off, then back on. This is required to reset the Desires Sprinkler output relay. Otherwise it will not be possible to shut off the sprinkler.</li> <li>2. If there is no evidence of fire, <b>pull down the red handle on the sprinkler mechanism until the handle locks in place</b>, to stop the flow of water into the basket, but continue to observe for evidence of fire and be prepared to re-activate the sprinkler.</li> </ol>
Ⓢ	<p>Appuyez sur la touche <i>Démarrer</i> du séchoir. Si la température de refoulement n'a pas refroidi au-dessous de 214° Fahrenheit (101° Celsius), le circuit triphasé ne sera pas sous tension. Attendez que le séchoir ait suffisamment refroidi.</p>	<p>Press the dryer <i>Start</i> button. If outlet temperature has not cooled below 214° Fahrenheit (101° Celsius), the three wire circuit will not energize. Wait until the dryer has cooled sufficiently.</p>

Une fois que le circuit triphasé est sous tension, utilisez les commandes manuelles pour décharger les produits éventuellement endommagés par l'incendie. Pour ce faire, prenez toutes les précautions de sécurité contre l'incendie nécessaires. Si un incendie de panier s'est réellement produit, le séchoir doit être inspecté pour savoir s'il n'est pas endommagé avant d'être remis en service. Sinon, avec le sélecteur *Automatique/Manuel* de séchoir positionné sur *Automatique*, le séchoir doit reprendre son fonctionnement automatique. Si aucun incendie n'est survenu mais que l'erreur se reproduit, cela indique le dysfonctionnement d'un composant. Appelez le personnel de maintenance.

Once the three wire circuit is energized, use the manual controls to discharge any fire-damaged goods. Use all necessary fire safety precautions when doing so. If a basket fire did occur, the dryer will need to be inspected for damage before returning it to service. Otherwise, with the dryer *Automatic/Manual* switch set to *Automatic*, the dryer should resume automatic operation. If no fire occurred but the error recurs, this indicates a malfunctioning component. Call maintenance personnel.

### 3.2.3. Conditions de porte de chargement

Ces messages apparaissent sans être accompagnés d'une alarme opérateur si la porte de chargement ne s'ouvre ou ne se ferme pas dans les 15 secondes après en avoir reçu la commande. Le traitement ne se poursuit pas avant que l'action ait lieu, mais reprendra sans intervention une fois que l'entrée de porte de chargement est effectuée.

#### Affichage ou action [Display or Action]

PORTE DE CHARGEMENT  
NON OUVERTE

LOAD DOOR NOT OPEN

PORTE DE CHARGEMENT  
OUVERTE

LOAD DOOR OPEN

PORTE DE  
DÉCHARGEMENT OUVERTE

DISCHARGE DOOR OPEN

#### Explication

La porte de chargement ne s'est pas ouverte dans le temps spécifié. La porte n'a peut-être pas été déplacée à la position nécessaire à cause d'un problème mécanique tel qu'une faible pression d'air. Cette erreur peut également survenir de façon erronée à cause d'un problème tel que la défaillance d'un interrupteur de proximité.

La porte de chargement ne s'est pas fermée dans le temps spécifié. Cela est probablement dû à un produit qui bloque la porte, mais peut également se produire pour une raison identique à la condition PORTE DE CHARGEMENT NON OUVERTE.

La porte de déchargement ne s'est pas fermée dans le temps spécifié, lorsqu'elle est commandée de le faire lors du chargement. Ce peut être également pour une raison identique à PORTE DE CHARGEMENT NON OUVERTE.

#### Explanation

The load door did not open within the specified time. The door may not have moved to the needed position due to a mechanical problem such as low air pressure. This error could also occur erroneously as a result of a problem such as a failed proximity switch.

The load door did not close within the specified time. This is most likely due to a piece of goods blocking the door, but it could also be for a similar reason as LOAD DOOR NOT OPEN.

The discharge door did not close within the specified time, when commanded to do so at loading. This could also be for a similar reason as LOAD DOOR NOT OPEN.

### Load Door Advisories

These messages occur with no accompanying operator alarm if the load door does not open or close within 15 seconds after being commanded to do so. Processing will not proceed until the action occurs, but will resume without any intervention once the appropriate load door input is made.

Si la condition ne se résout pas d'elle-même en peu de temps, examinez et corrigez toute condition qui gêne le fonctionnement de la porte de chargement. Cela requiert que le personnel ait les qualifications et l'autorisation appropriées et respecte les précautions de sécurité diffusées sur le site. Si la condition se résout d'elle-même mais se reproduit, appelez le personnel de maintenance.

If the condition does not self-correct within a short time, investigate, and correct any condition interfering with load door operation. This will require personnel with the appropriate qualifications and authority, and compliance with published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

**3.2.4. Autres erreurs de fonctionnement automatique**

Les erreurs de cette catégorie sont accompagnées du signal opérateur. Le fonctionnement du séchoir s'arrête afin qu'il puisse être déterminé si une intervention est nécessaire.

**Other Automatic Operation Errors**

The errors in this category are accompanied by the operator signal. Dryer operation stops so that it can be determined if intervention is needed.

**Affichage ou action**

[Display or Action]

VERIFIER LES VOYANTS  
D'ERREUR

CHECK ERROR LIGHTS

**Explication**

Cette erreur s'applique uniquement aux sècheurs à gaz et au propane. De nombreuses conditions doivent être satisfaites avant que le contrôleur de flamme Fireye ou Landis & Gyr (comme spécifié) allume le brûleur ou lui permette de rester allumé. Cette erreur indique que toutes les conditions ne sont pas satisfaites. Le contrôleur de la machine ne surveille pas ces conditions individuellement, mais plusieurs conditions sont représentées par des voyants sur le tableau des voyants d'état (d'erreur) du sècheur. Lorsqu'ils sont allumés, certains voyants indiquent qu'une condition spécifique est satisfaite tandis que d'autres indiquent une condition non respectée ou une condition d'erreur. Reportez-vous à la description des commandes du sècheur pour obtenir une explication de chaque voyant d'état.

**Explanation**

This error only applies to gas and propane dryers. Numerous conditions must be satisfied before the Fireye or Landis & Gyr brand (as specified) flame control system will ignite the burner or permit it to remain lit. This error indicates that not all conditions are satisfied. The machine controller does not monitor these condition individually, but several conditions are represented by lights on the dryer status (error) light panel. When illuminated, certain lights indicate that a particular condition is satisfied while others indicate an un-met, or error condition. Refer to the description of dryer controls for an explanation of each status light.

PORTE DE  
DECHARGEMENT NON  
FERMEE APRES LE  
DECH.

DISCHARGE DOOR NOT  
CLOSED AFTER DISCH.

La porte de déchargement ne s'est pas entièrement fermée après le déchargement. Cela peut être dû à des produits qui bloquent la porte, à un problème mécanique tel qu'une faible pression d'air ou à un problème électrique comme la défaillance d'un interrupteur de proximité.

The discharge door did not close fully after discharge. This may be due to goods blocking the door, to a mechanical problem such as low air pressure, or to an electrical problem such as a failed proximity switch.

Affichage ou action [Display or Action]	Explication	Explanation
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">ECHEC DE ROTATION</div> <div style="border: 1px solid black; padding: 2px;">ROTATION FAILURE</div>	<p>Le panier s'est arrêté de tourner pendant plus de 8 secondes durant un cycle de séchage. Si c'est le panier qui ne tourne pas correctement, cela peut être dû à des produits qui se sont pris dans les joints du panier, à la condensation sur les galets de support de panier qui fait glisser le panier et au dysfonctionnement d'un convertisseur. L'erreur peut également être causée par un problème empêchant le contrôleur de détecter la rotation du panier, tel qu'un interrupteur de proximité désaligné ou un condensateur grillé dans le circuit du capteur de mouvement.</p>	<p>The basket stopped rotating for more than 8 seconds during a dry cycle. If the basket is actually not rotating properly, some possible causes include goods caught in the basket seals, condensation on the basket support rollers causing the basket to slip, and a malfunctioning inverter. The error can also be caused by a problem that prevents the controller from detecting basket rotation, such as a mis-aligned proximity switch, or a burned out capacitor in the motion sensing circuit.</p>
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">*TRANSFERT ABANDONNE* VIDER D'ABORD LA NAVETTE</div> <div style="border: 1px solid black; padding: 2px;">*TRANSFER ABORTED* CLEAR SHUTTLE FIRST</div>	<p>Le contrôleur Miltrac a annulé le transfert en cours. Par exemple, un produit a bloqué la cellule photo-électrique sur le bord de déchargement de la navette. Par conséquent, cette erreur signifie généralement que la navette est arrêtée devant ce séchoir et que les deux appareils comportent des erreurs. L'erreur de navette doit être résolue en premier. Reportez-vous aux instructions concernant les messages d'erreur de la navette.</p>	<p>The Miltrac controller cancelled the transfer in progress. For example, a piece of goods blocked the discharge-end photo eye on the shuttle. Hence this error usually means that the shuttle is stopped in front of this dryer and both devices have errors. The shuttle error must be addressed first. Refer to the instructions on shuttle error messages.</p>

Appuyez sur la touche *Annulation du signal* (☒) pour arrêter l'alarme opérateur. Si l'erreur s'est résolue d'elle-même, le fonctionnement automatique doit reprendre. Si ce n'est pas le cas, examinez et corrigez le problème. Cela requiert que le personnel possède les qualifications et l'autorisation nécessaire et qu'il respecte les précautions de sécurité diffusées sur le site. Si la condition se résout d'elle-même mais se reproduit, appelez le personnel de maintenance.

Press the *Signal Cancel* button (☒) to silence the operator alarm. If the error self-corrected, automatic operation should resume. If not, investigate and correct the problem. This will require personnel with the appropriate qualifications and authority and compliance with the published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

**3.2.5. Messages qui doivent être signalés au personnel de direction ou de maintenance**

Les erreurs suivantes ont des conséquences qui doivent être résolues par le personnel de direction ou de maintenance. L'analyse des conséquences résout l'erreur.

**Messages That Should Be Reported to Management or Maintenance Personnel**

The following errors have consequences that should be resolved by management or maintenance personnel. Addressing the consequences resolves the error.

**Affichage ou action**

[Display or Action]

ERREUR DE MEMOIRE  
TOURNER LA CLE SUR  
PROGRAMME

ERROR IN MEMORY  
TURN KEY TO PROGRAM

CODE SECHAGE  
INTERDIT xxx  
VOIR MANUEL

ILLEGAL DRYCODE xxx  
SEE MANUAL

**Explication**

Des données programmables (configuration et/ou codes de séchage) ont été endommagées (ne sont pas fiables). Les données correctes doivent être téléchargées ou re-programmées, comme il est expliqué dans la partie du manuel relative à la programmation.

Le contrôleur du séchoir a reçu une demande d'exécution d'un code de séchage qui n'est pas actuellement programmé ; en d'autres termes, le code de séchage n'est pas valide. Le numéro de code de séchage, ainsi que les autres codes de lot, proviennent de l'ordinateur Mentor ou Mildata. Il incombe à la personne qui associe les codes post-lavage à la formule de lavage de s'assurer que les codes affectés sont valides. Si les produits sont autorisés à être traités dans le séchoir à l'aide d'un code de séchage non valide (interdit), le séchoir déchargera simplement les articles mouillés. L'opérateur peut être capable de résoudre ce problème immédiatement en annulant le signal opérateur (✖) puis en validant un autre code de séchage adapté ; cependant, le personnel de direction devra s'assurer que le code de séchage spécifié est programmé (ou téléchargé) dans le séchoir ou qu'un numéro de code de séchage valide est associé à la formule de lavage dans la programmation Mentor.

**Explanation**

Field-programmable data (configuration and/or drycodes) became corrupt (unreliable). The correct data must be downloaded or re-programmed, as explained in the part of the reference manual on programming.

The dryer controller received a request to run a drycode that is not currently programmed; that is, the drycode is not local. The drycode number, along with other batch codes, originated in the Mentor or Mildata computer. It is the responsibility of the person who associates the post-wash codes with the wash formula to ensure that the assigned codes are valid. If goods are permitted to be processed in the dryer using an invalid (illegal) drycode, the dryer will simply discharge the goods wet. The operator may be able to resolve this immediate problem by cancelling the operator signal (✖) then invoking another suitable drycode; however, management personnel will need to ensure that either the specified drycode is programmed in (or downloaded to) the dryer or that a valid drycode number is associated with the wash formula in Mentor programming.



**Affichage ou action**  
[Display or Action]

MOT DE PASSE NON  
VALIDE

INVALID PASSWORD

ECHEC DE CARTE nom  
APPUYEZ SUR  
L'ANNULATION DE  
SIGNAL

name BOARD FAILED  
PRESS SIGNAL CANCEL

**Explication**

Ce message ne s'applique pas aux séchoirs dans un réseau DryNet (contrôleur de séchoir/navette). Si le séchoir est configuré pour nécessiter un mot de passe pour l'intervention manuelle et que l'opérateur n'en a pas, il devra l'obtenir auprès du personnel de direction.

La carte de périphérique indiquée ne communique pas avec le microprocesseur. Cela nécessitera un dépannage électrique.

**Explanation**

This message does not apply to dryers in a DryNet (Dryer/Shuttle Controller) network. If the dryer is configured to require a password for manual intervention and the operator does not have one, this will need to be obtained from management personnel.

The named peripheral board is not communicating with the microprocessor. This will require electrical troubleshooting.

— Fin BIPDUT01 —

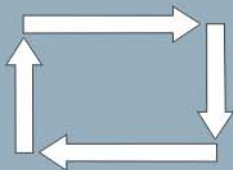
— End of BIPDUT01 —



Deutsch

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## Betriebshandbuch [Operator Guide]—

# DryNet-Steuerung für Trockner und Transportsystem [Drynet Dryer/Shuttle Controller]

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**Anwendbare Milnor<sup>®</sup> Maschinen der Modelle: [Applicable Milnor<sup>®</sup> products by model number:]**

50040SA1	5040TG2L	5040TG2R	5040TS2L	5040TS2R	5050TG2L	5050TG2R
5050TS1L	5050TS1R	6458TG1L	6458TG1R	6458TS1L	6458TS1R	6464TG1L
6464TG1R	7272TG1L	7272TG1R	7272TS1L	7272TS1R	CTLDRSPC	

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# Kapitel 1

## Steuerelemente

# Chapter 1

## Controls

BIVUUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20110405 Lang: GER01 Applic: PDU YDS

- 1.1. Steuerelemente an Transportsystemen (auch im DryNet-Netzwerk)**
- Dieses Dokument beschreibt die physischen Steuerelemente der verschiedenen Transportsysteme sowie einige DryNet-Betriebsfunktionen, die die physischen Steuerelemente der Maschine in einem DryNet-Netzwerk (Trockner-/Transportsystemsteuerung) ersetzen. Das Transportsystem besitzt nur die Steuerelemente, die für die möglichen Bewegungen notwendig sind. Bestimmte Steuerelemente befinden sich immer auf dem Transportsystem. In der Regel befinden sich die Steuerelemente für den manuellen Betrieb bei einem Transportsystem auf Schienen an dem freistehenden Steuerkasten des Transportsystems. Bei Transportsystemen, die nicht fahren, befinden sich diese Elemente am Transportsystem selbst. Wenn das Transportsystem Teil eines DryNet-Netzwerkes ist, befinden sich bestimmte physische Steuerelemente auf der DryNet-Konsole. Hier stehen auch Maschinenfunktionen über die DryNet-Software zur Verfügung.

- 1.1.1. Steuerelemente auf der Maschine**
- Dazu gehören mindestens ein Notstoppschalter, wie in [Abschnitt 1.2.1.1 “Notstoppschalter \(einrastender Drucktaster\)”](#) beschrieben, sowie andere Steuerelemente, die in diesem Abschnitt erläutert werden.

### Controls on Shuttles Including Those in a DryNet Network

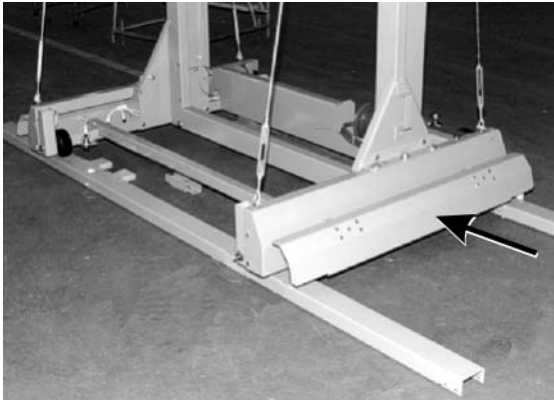
This document describes the physical controls provided with the various shuttle models as well as a few DryNet operating functions which serve in place of physical controls when the shuttle is part of a DryNet (Dryer/Shuttle Controller) network. The shuttle will have only those controls needed for the type of movements it can perform. Certain controls are always located on the shuttle itself. Generally, on shuttles that traverse a rail, the manual operation controls are located on the free-standing shuttle control box, while on shuttles that do not traverse, they are on the shuttle itself. If the shuttle is part of a DryNet network, certain physical controls are located at the DryNet Console. This is also where machine functions are available via the DryNet software.

### Machine-mounted Controls

These include one or more emergency stop switches as described in [Section 1.2.1.1 “Emergency Stop Switch \(locking push button\)”](#) and the other controls described under this section.

- 1.1.1.1. Notstopp-Trittbleche**—Transportsysteme besitzen schwenkbare Trittbleche ([Abbildung 1](#)) auf beiden Fahrtrichtungsseiten der Maschine. Wird ein Trittblech weit genug geschwenkt, wird ein Schalter betätigt, der die Maschine anhält und die Dreileiterschaltung deaktiviert.

**Abbildung [Figure] 1: Trittblech des Transportsystems [Shuttle Kick Plate]**



**Emergency Stop Kick Plates**—Shuttles are provided with hinged kick plates ([Figure 1](#)) on both sides of the machine in the traversing directions. When a kick plate pivots sufficiently, this actuates a switch that stops the machine by dropping out the three-wire circuit.

- 1.1.1.2. Motortrennschalter**—Dieser Schalter (SHMD) regelt die Drei-Phasen-Stromversorgung der Transportsystemmotoren wie folgt:
- 0 OFF**—Die Drei-Phasen-Stromversorgung ist nicht verfügbar. Das Transportsystem bewegt sich nicht mit Strom.
  - 1 ON** —Die Drei-Phasen-Stromversorgung ist verfügbar. **Die Maschine kann sich sofort bewegen.**

**Abbildung [Figure] 2: Motortrennschalter [Motor Disconnect Switch]**



**Motor Disconnect Switch**—This switch (SHMD) affects three-phase power for the shuttle motors, as follows:

- 0 OFF**—Three-phase power is not available. The shuttle will not move under power.
- 1 ON** —Three-phase power is available. **The machine may immediately begin moving.**

**1.1.2. Steuerelemente zur manuellen Bedienung**

[Abbildung 3](#) stellt das Bedienfeld dar, das bei

**Manual Operation Controls**

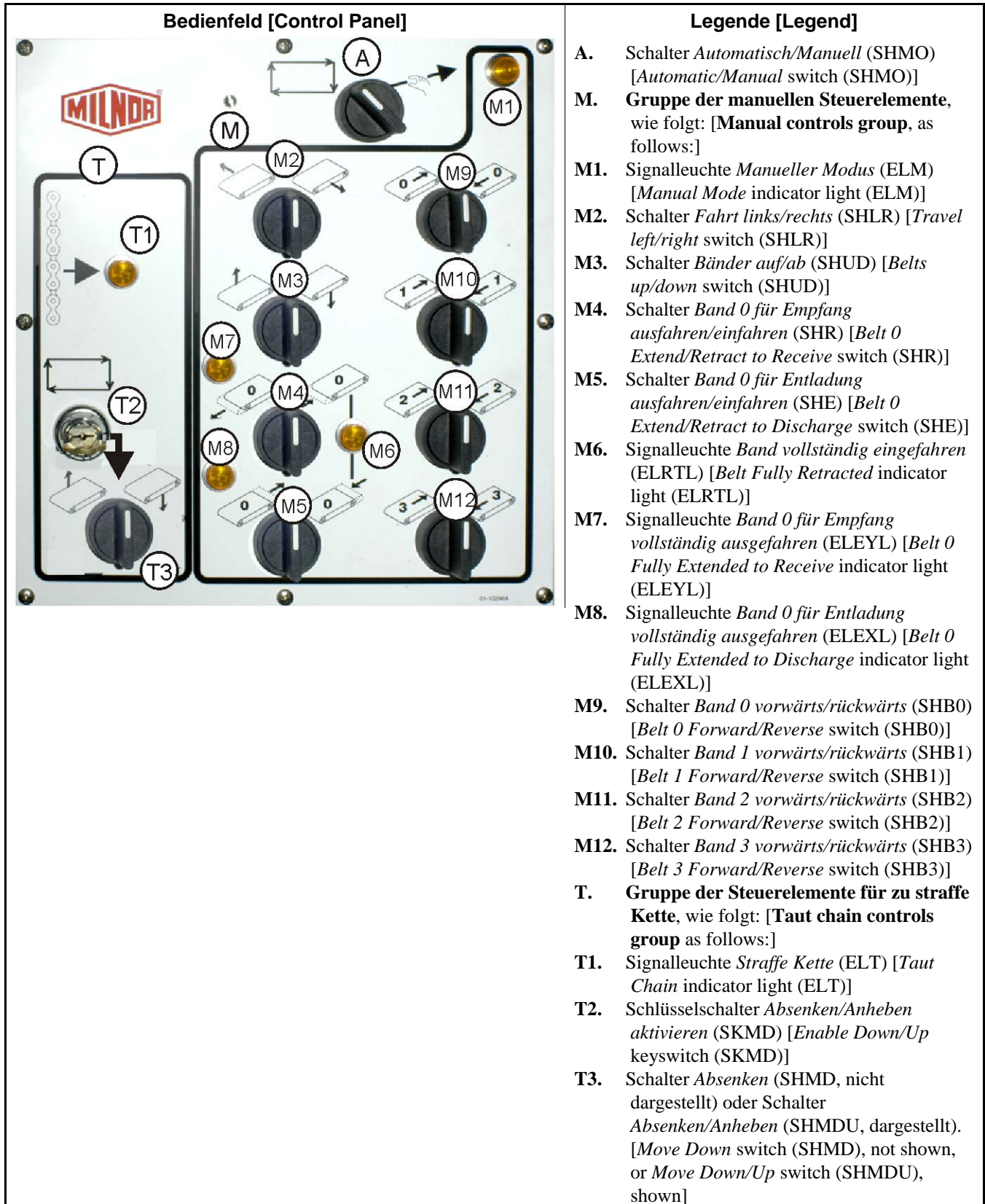
[Figure 3](#) illustrates the control panel used on

Transportsystemen für Wäschekuchen und loses Waschgut verwendet wird. Auf dem jeweiligen Transportsystem befinden sich nur die Steuerelemente, die für die möglichen Bewegungen notwendig sind.



shuttles for cakes and loose goods. Only those controls corresponding to the shuttle's motion capability are provided on a given shuttle.



Abbildung [Figure] 3: Manuelles Bedienfeld [Manual Control Panel]





**1.1.2.1. Schalter *Automatisch/Manuell (A)***—Dieser Schalter (SHMO) legt wie folgt fest, wie die Maschine gesteuert wird:

- —Die Maschine wird durch die Schalter in der Gruppe der manuellen Steuerelemente gesteuert.
- —Die Maschine bewegt sich mit automatischer Steuerung. **Die Maschine kann sich sofort bewegen.**



**1.1.2.2. Gruppe der manuellen Steuerelemente (M)**

**1.1.2.2.1. Signalleuchte *Manueller Modus (M1)***—Die Signalleuchte *Manueller Modus* (ELM) leuchtet, wenn der manuelle Modus aktiviert ist, d. h., die manuellen Steuerelemente aktiv sind.


**1.1.2.2.2. Schalter *Fahrt links/rechts (M2)***—Wird dieser Mitte-Null-Schalter (SHLR) in einer der Momentpositionen gehalten, fährt das Transportsystem wie folgt auf der Schiene:

- —(linke Momentposition) Das Transportsystem bewegt sich relativ zum Waschgutstrom nach links auf der Schiene.
- —(rechte Momentposition) Das Transportsystem bewegt sich nach rechts auf der Schiene.



**1.1.2.2.3. Schalter *Bänder auf/ab (M3)***—Wird dieser Mitte-Null-Schalter (SHUD) in einer der Momentpositionen gehalten, bewegt sich das Untergestell wie folgt:

- —(linke Momentposition) Das Hubwerk arbeitet und das Untergestell wird angehoben.
- —(rechte Momentposition) Das Hubwerk arbeitet und das Untergestell wird abgesenkt.

**1.1.2.2.4. Schalter *Band 0 für Empfang ausfahren/einfahren (M4)***—Wird dieser Mitte-Null-Schalter (SHR) in einer der Momentpositionen gehalten, bewegt sich das Untergestell von Band 0 (oberstes Band) wie folgt beim Empfang einer Ladung:

- —(linke Momentposition) Das Untergestell fährt zur Maschine aus, von der es das Waschgut erhält.



***Automatic/Manual switch (A)***—This switch (SHMO) determines what controls machine movement, as follows:

- —The machine is controlled by the switches in the manual controls group.
- —The machine moves under automatic control. **The machine may immediately begin moving.**



**Manual Controls Group (M)**

***Manual Mode indicator light (M1)***—The *Manual Mode* indicator light (ELM) illuminates when manual mode is enabled, indicating that the manual control switches are active.


***Travel left/right switch (M2)***—Holding this center-off switch (SHLR) in one of the momentary positions causes the shuttle to traverse the rail, as follows:

- —(momentary counter-clockwise) The shuttle moves left along the rail, relative to the flow of goods.
- —(momentary clockwise) The shuttle moves right along the rail.

***Belts up/down switch (M3)***—Holding this center-off switch (SHUD) in one of the momentary positions causes the bed(s) to move as follows:

- —(momentary counter-clockwise) The hoist runs and the bed(s) rise.
- —(momentary clockwise) The hoist runs and the bed(s) descend.

***Belt 0 Extend/Retract to Receive switch (M4)***—Holding this center-off switch (SHR) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with receiving a load:

- —(momentary counter-clockwise) The bed extends toward the device it will receive the goods from.

☞—(rechte Momentposition) Das Band fährt von der Empfangsposition zurück.

☞—(momentary clockwise) The belt retracts from the receive position.

- 1.1.2.2.5. **Schalter *Band 0* für Entladung ausfahren/einfahren (M5)**—Wird dieser Mitte-Null-Schalter (SHE) in einer der Momentpositionen gehalten, bewegt sich das Untergestell von Band 0 (oberstes Band) wie folgt beim Entladen einer Ladung:

***Belt 0 Extend/Retract to Discharge switch (M5)***—Holding this center-off switch (SHE) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with discharging a load:

☞—(linke Momentposition) Das Untergestell fährt zur Maschine aus, an die es das Waschgut entlädt.

☞—(momentary counter-clockwise) The bed extends toward the device it will discharge the goods to.

☞—(rechte Momentposition) Das Band fährt von der Entladeposition zurück.

☞—(momentary clockwise) The belt retracts from the discharge position.

- 1.1.2.2.6. **Signalleuchte *Band vollständig eingefahren* (M6)**—Diese Leuchte (ELRTL) leuchtet, wenn das Untergestell von Band 0 (oberstes Band) vollständig eingefahren ist und das Transportsystem sicher fahren kann.

***Belt Fully Retracted indicator light (M6)***—This light (ELRTL) illuminates when the Belt 0 (topmost) bed is fully retracted, indicating that the shuttle can traverse safely.

- 1.1.2.2.7. **Signalleuchte *Band 0* für Empfang vollständig ausgefahren (M7)**—Diese Leuchte (ELEYL) leuchtet, wenn das Untergestell von Band 0 (oberstes Band) vollständig ausgefahren ist, um eine Ladung von einem anderen Gerät zu erhalten.

***Belt 0 Fully Extended to Receive indicator light (M7)***—This light (ELEYL) illuminates when the Belt 0 (topmost) bed is fully extended to receive a load from another device.

- 1.1.2.2.8. **Signalleuchte *Band 0* für Entladung vollständig ausgefahren (M8)**—Diese Leuchte (ELEXL) leuchtet, wenn das Untergestell von Band 0 (oberstes Band) vollständig ausgefahren ist, um eine Ladung an ein anderes Gerät zu entladen.

***Belt 0 Fully Extended to Discharge indicator light (M8)***—This light (ELEXL) illuminates when the Belt 0 (topmost) bed is fully extended to discharge a load to another device.

- 1.1.2.2.9. **Schalter *Band [0-3] vorwärts/rückwärts* (M9 bis M12)**—Wird dieser Mitte-Null-Schalter (SHB0) in einer der Momentpositionen gehalten, bewegt sich das ausgewählte Band wie folgt:

***Belt [0-3] Forward/Reverse switch (M9 through M12)***—Holding this center-off switch (SHB0) in one of the momentary positions causes the selected belt to run as follows:

☞—(linke Momentposition) Das ausgewählte Band fährt vorwärts zu dem Gerät, an das es in der Regel das Waschgut abgibt.

☞—(momentary counter-clockwise) The selected belt runs forward, toward the device which normally receives goods from the belt.

☞—(rechte Momentposition) Das ausgewählte Band fährt rückwärts zu dem Gerät, das normalerweise Waschgut auf das Band entlädt.

☞—(momentary clockwise) The selected belt runs in reverse, toward the device which normally discharges goods to the belt.

### 1.1.2.3. Steuerelemente zur Wiederherstellung einer zu straffen Kette (T)

#### Ergänzung 1

##### Informationen zu straffen Ketten

Aus der Sicht des Hubwerks gibt es drei verschiedene Kategorien von Transportsystemen:

**oben montierter Hubmotor**—Bei diesem Transportsystem ist der Hubmotor fest mit dem oberen Rahmen verbunden. Der Hubmotor treibt eine Rollenkette mit einem freien Ende an. Diese Art von Transportsystem ist anfällig für eine zu straffe Kette. Dieses Problem tritt auf, wenn die Steuerung die oberste Position beim Anheben des Untergestells nicht erkennt und der obere Anschlag erreicht wird.

**seitlich montierter Hubmotor (Transportsystem mit geringem Abstand)**—Dieses System verwendet einen Hubmotor mit Untersetzungsgetriebe, der fest mit dem oberen Teil eines Seitenrahmens verbunden ist. Der Hubmotor treibt eine Rollenkette an, die eine Schleife bildet und mit dem Untergestell sowohl oben als auch unten verbunden ist. Dieses System ist anfällig für das gleiche Problem. Das Problem tritt auf, wenn die Steuerung beim Absenken des Untergestells nicht die unterste Position erkennt und der untere mechanische Anschlag erreicht wird.



**ACHTUNG [1]: Gefahr der Beschädigung**—Werden die Steuerelemente für eine zu straffe Kette oder andere manuelle Steuerelemente falsch verwendet, sodass das Untergestell gegen einen Anschlag fährt, kann dies zum Verbiegen oder Brechen von Komponenten oder zum Durchbrennen des Hubmotors führen.

- Ein Steuerelement nie in eine Richtung stellen, in die das Untergestell sich nicht bewegen kann.

### Taut Chain Recovery Controls (T)

#### Supplement 1

##### About Taut Chain Conditions

From the standpoint of the type of hoist, shuttles fall into three categories:

**top-mounted hoist motor**—This shuttle type has a hoist motor that is rigidly mounted to the top frame member. The hoist motor drives a roller chain with one free end. This type is susceptible to the taut chain condition that occurs if the controller does not sense the topmost position when the bed is rising, causing it to reach its upper mechanical limit.

**side-mounted hoist motor (low clearance shuttle)**—This type uses a hoist motor reducer that is rigidly mounted near the top of a side frame member. The hoist motor drives a roller chain that forms a loop and connects to the bed assembly both above and below. This type is susceptible to the same condition as above and the condition that occurs if the controller does not sense the bottom-most position when the bed is descending, causing it to reach its lower mechanical limit.

**CAUTION [1]: Risk of damage**—Forcing the bed assembly against a mechanical stop by improper use of the taut chain or other manual controls may cause shuttle components to bend or break, or the hoist motor to burn out.

- Ensure that you do not hold a control in a direction the bed assembly cannot move.

**Demag-Hubwerk**

**(Leichttrahmentransportsystem)**—Dieses System verwendet ein Demag-Hubwerk, das vom oberen Rahmenteil herabhängt und eine Ankerkette antreibt. Diese Art ist nicht anfällig für eine zu straffe Kette.

**Demag hoist (light frame shuttle)**—This type uses a Demag brand hoist suspended from the top frame member that drives an anchor chain. This type is not susceptible to the taut chain condition.

1.1.2.3.1. **Signalleuchte *Straffe Kette* (T1)**—Diese Leuchte (ELT) leuchtet, wenn ein Fehler durch eine zu straffe Kette aufgetreten ist.

***Taut Chain* indicator light (T1)**—This light (ELT) illuminates to indicate that a taut chain error has occurred.

1.1.2.3.2. **Schlüsselschalter *Anheben/Absenken aktivieren* (T2)**—Dieser Schlüsselschalter (SKMD) legt wie folgt die vertikale Bewegung des Untergestells des Transportsystems fest:

***Enable Up/Down* keyswitch (T2)**—This keyswitch (SKMD) determines what controls vertical movement of the shuttle bed(s), as follows:

↻—Das Untergestell kann manuell mit dem Schalter *Absenken* abgesenkt oder manuell mit dem Schalter *Absenken/Anheben* abgesenkt oder angehoben werden, je nachdem, welcher Schalter vorhanden ist.

↻—The bed(s) can be manually lowered with the *Move Down* switch or manually lowered or raised with the *Move Down/Up* switch, whichever is provided.

☐—Die Transportsystembewegungen werden automatisch gesteuert.

☐—Shuttle movements are controlled automatically.

1.1.2.3.3. **Schalter *Absenken* oder Schalter *Absenken/Anheben* (T3)**—Bei Ausstattung wie in [Abschnitt 1.1.2.3.2](#) beschrieben, bewegt der Schalter *Absenken* (SHMD, Nullstellung links) bei Transportsystemen mit einem oben montierten Hubmotor oder der Mitte-Null-Schalter *Absenken/Anheben* (SHMDU) bei Transportsystemen mit einem seitlich montierten Hubmotor das Hubwerk wie folgt:

***Move Down* switch or *Move Down/Up* switch (T3)**—If armed as described in [Section 1.1.2.3.2](#), the counter-clockwise-off, *Move Down* switch (SHMD) provided on shuttles with a top-mounted hoist motor, or the center-off, *Move Down/Up* switch (SHMDU) provided on shuttles with a side-mounted hoist motor, causes the hoist to move as follows:

↻—(rechte Momentposition) Das Untergestell wird abgesenkt, wenn der Schalter in dieser Position gehalten wird.

↻—(momentary clockwise) The bed(s) descend while this position is held.

**Anmerkung 1:** Ältere Modelle verwenden den Taster *Absenken*. Das Untergestell wird abgesenkt, während dieser Taster gehalten wird.

**Note 1:** Older models use a *Move Down* button. The bed(s) descend while this button is held.

↻—(linke Momentposition, falls vorhanden) Das Untergestell wird angehoben, wenn der Schalter in dieser Position gehalten wird.

↻—(momentary counter-clockwise, if provided) The bed(s) rise while this position is held.

### 1.1.3. **Steuerelemente auf der Steuerungskonsole für Trockner und Transportsystem (DryNet)**

Bei Normalbetrieb werden das Transportsystem und alle anderen Maschinen im DryNet-

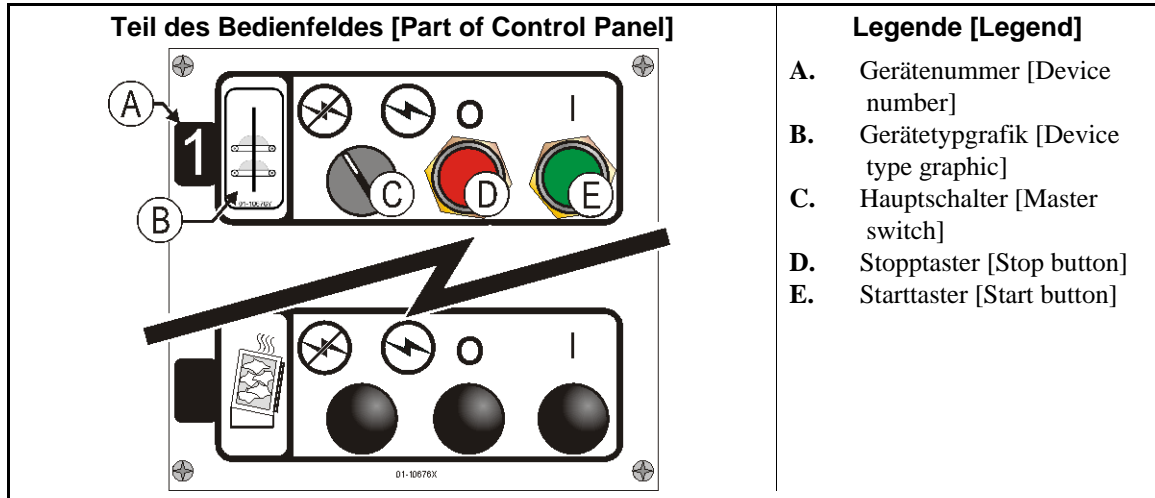
### **Controls on the Dryer/Shuttle Controller (DryNet) Console**

In normal operation, the shuttle, along with all other machines in the DryNet network are

Netzwerk von dieser Position einzeln ein- und ausgeschaltet. Bei Transportsystemen, die nicht Teil eines DryNet-Netzwerkes sind, befinden sich die entsprechenden Steuerelemente am Transportsystem selbst oder auf einem freistehenden Steuerkasten für das Transportsystem.

individually powered on and off at this location. Shuttles that are not part of a DryNet network will have corresponding controls mounted on the shuttle itself, or the free-standing shuttle control box.

Abbildung [Figure] 4: Steuerelemente der DryNet-Konsole [DryNet-mounted Controls]



**1.1.3.1. Hauptschalter (C)**—Der *Hauptschalter* steuert den einphasigen Steuerkreis zur Maschine und die Gleichstromversorgung des Mikroprozessors und dessen Komponenten wie folgt:

- ⊕—Der Steuerkreis ist aktiviert, Betrieb möglich.
- ⊗—Der Steuerkreis ist deaktiviert, Betrieb wird gestoppt oder verhindert.

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

**1.1.3.2. Stopptaster (D)**—Beim Drücken dieses Tasters wird die Maschine sofort angehalten und die Dreileiterschaltung wird unterbrochen. Der Notstopptaster besitzt die gleiche Funktion.

**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**1.1.3.3. Starttaster (E)**—Beim Drücken dieses Tasters ist der Betrieb der Maschine möglich, wenn alle Sicherheitsbedingungen erfüllt sind. Bei aktiviertem Betrieb arbeitet die Maschine im manuellen oder automatischen Modus.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

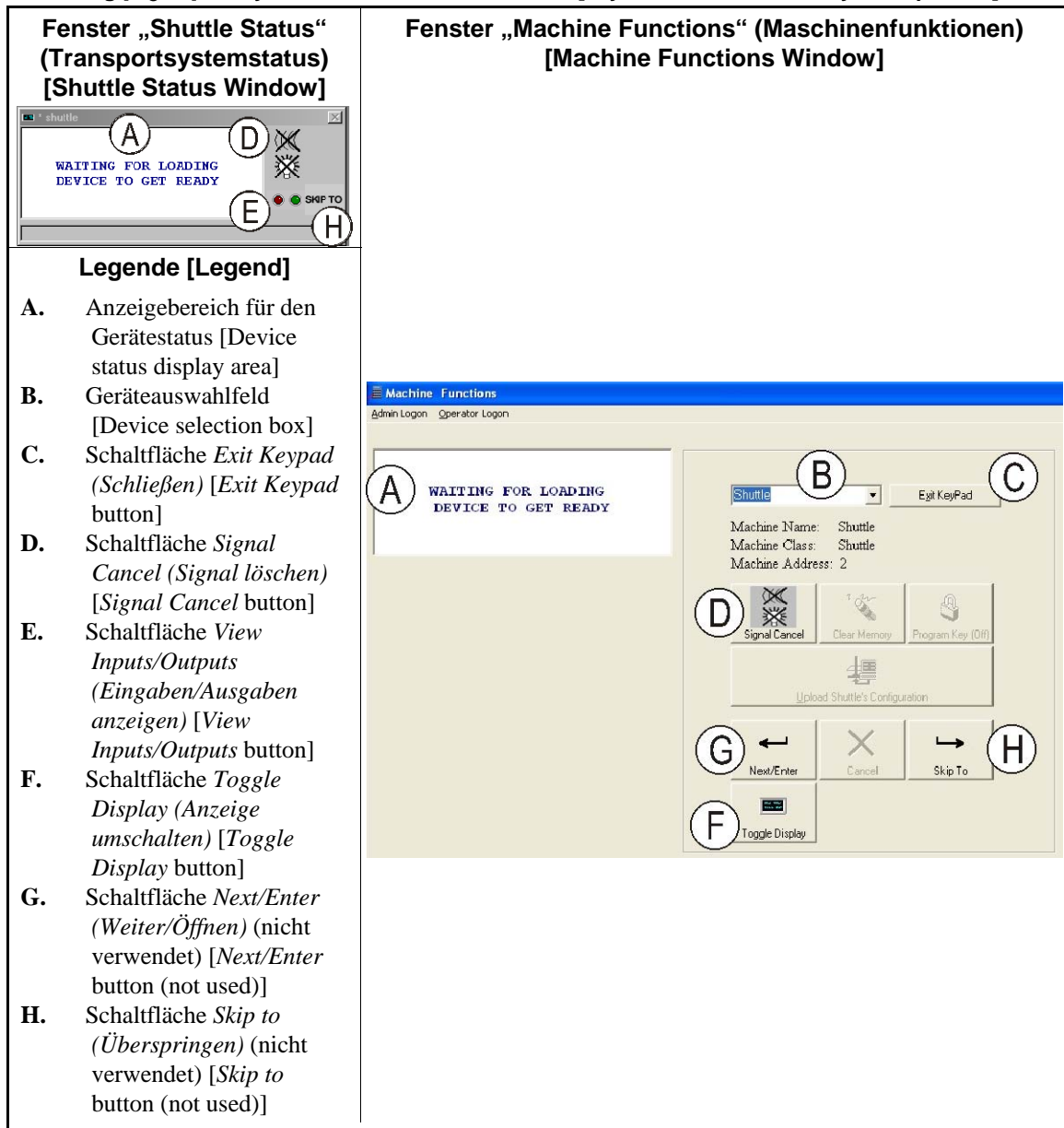
#### 1.1.4. **Transportsystemfunktionen für den Bediener auf der DryNet-Konsole**

Bei normalem Betrieb zeigt DryNet CRT ein kleines Fenster *Device Status (Gerätestatus)* für alle Maschinen (Trockner und Transportsystem) im DryNet-Netzwerk. Wenn Sie auf das Fenster klicken, wird das Fenster *Machine Functions (Maschinenfunktionen)* für die ausgewählte Maschine angezeigt. Beide Fenster enthalten Schaltflächen für den Bediener. Einige Schaltflächen sind in beiden Fenstern vorhanden. In Abhängigkeit von der Anmeldung des Benutzers im System stehen nur bestimmte Schaltflächen zur Verfügung. Um eine Funktion zu aktivieren, klicken Sie mit der Maus auf eine Schaltfläche. Diese Fenster und Schaltflächen werden in [Abbildung 5](#) dargestellt und im Folgenden erläutert.

#### **Shuttle Machine Functions Available to the Operator on DryNet**

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 5](#) and explained below.

Abbildung [Figure] 5: DryNet-Fenster für den Bediener [DryNet Windows Used by the Operator]



**1.1.4.1. Gerätestatusanzeige (A)**—Die Steuerung zeigt in diesem Bereich die Meldungen zum entsprechend [Abschnitt 1.1.4.2](#) ausgewählten aktiven Gerät an.

**Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.1.4.2](#).

**1.1.4.2. Geräteauswahlfeld (B)**—Durch den Klick mit der Maus auf den Pfeilkopf auf der rechten Seite des Feldes erscheint eine Liste mit allen Geräten, die von dieser Trockner-/Transportsystemsteuerung kontrolliert werden. Wenn Sie auf eines der Geräte in der Liste klicken, wird dieses zu einem aktiven Gerät.

**Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.



**1.1.4.3. Schaltfläche *Exit Keypad (Schließen)* (C)**—Klicken Sie mit der Maus auf diese Schaltfläche, um zum Maschinenanzeigebildschirm zur Überwachung aller Geräte zurückzukehren.

***Exit Keypad button (C)***—Click the mouse on this button to return to the machine display screen to monitor all devices.

**1.1.4.4. Schaltfläche *Signal Cancel (Signal löschen)* (D)**—Wenn ein Fehler das Bedienersignal auslöste (blinkende Leuchten und/oder akustischer Signalton), klicken Sie auf diese Schaltfläche, um das Bedienersignal abzustellen. Wenn das Signal einsetzte, als eine gültige Formel ausgewählt wurde, endet das Signal automatisch, wenn die Formel gestartet wird.

***Signal Cancel button (D)***—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the operator signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.

**1.1.4.5. Schaltfläche *View Inputs/Outputs (Eingaben/Ausgaben anzeigen)* (E)**—Klicken Sie auf diese Schaltfläche, um das Fenster *Dryer I/O (Trockner-E/A)* anzuzeigen, das den Ein-/Aus-Status der einzelnen Mikroprozessor-Ein- und Ausgaben für die ausgewählte Maschine anzeigt.

***View Inputs/Outputs button (E)***—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.

**1.1.4.6. Schaltfläche *Toggle Display (Anzeige umschalten)* (F)**—Für die Verwendung durch das Wartungspersonal. Klicken Sie mehrmals auf diese Schaltfläche, um zwischen den verschiedenen Anzeigen im Fenster „Shuttle Status“ (Transportsystemstatus) umzuschalten. Diese Anzeigen enthalten Informationen zum Wäschekuchen, zu den Ein- und Ausgaben, zur Zählung der horizontalen Ziele bei der Fahrt des Transportsystems auf der Schiene sowie zur Zählung der vertikalen Ziele bei der Anhebung/Absenkung des Transportsystemgestells.

***Toggle Display button (F)***—For use by service personnel. Click this button repeatedly to toggle through various displays on the Shuttle Status window. These displays show cake information, inputs, outputs, counting horizontal targets as the shuttle traverses the rail, and counting vertical targets as the shuttle bed(s) elevate and descend.

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## 1.2. Steuerelemente auf Trocknern, Vortrocknern und Schüttlern (auch im DryNet-Netzwerk)

Dieses Dokument beschreibt die physischen Steuerelemente der Trockner, Vortrockner und Schüttler sowie einige DryNet-Betriebsfunktionen, die die physischen Steuerelemente der Maschine in einem DryNet-Netzwerk (Trockner-/Transportsystemsteuerung) ersetzen. Zu den

## Controls on Dryers, Conditioners, and Shakers Including Those in a DryNet Network

This document describes the physical controls provided with dryers, conditioners, and shakers as well as a few DryNet operating functions which serve in place of physical controls when the machine is part of a DryNet (Dryer/Shuttle Controller) network. The physical controls include manual

physischen Steuerelementen gehören manuelle Steuerelemente und Signalleuchten auf der Maschine sowie Netzschalter auf der DryNet-Konsole oder auf anderen separaten Elektrokästen. Die DryNet-Betriebsfunktionen werden von der DryNet-Konsole aus gesteuert.

intervention controls and status lights mounted on the machine, and power controls mounted on the DryNet console or other remote-mounted electric box. Drynet operating functions are performed at the DryNet console.

### 1.2.1. Steuerelemente auf der Maschine

Zu den Steuerelementen auf der Maschine gehören mindestens ein Notstoppschalter und die zur manuellen Entladung des Trockners notwendigen Schalter (Abbildung 7).

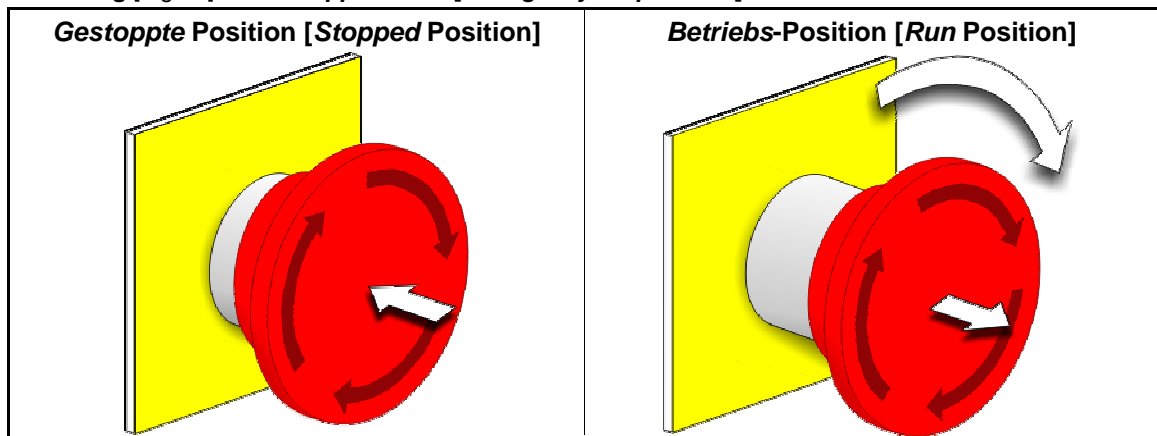
### Machine-mounted Controls

Controls mounted on the machine include one or more emergency stop switches and the controls necessary to manually unload the dryer (Figure 7).

- 1.2.1.1. **Notstoppschalter (einrastender Drucktaster)** [Dokument BIVUU002]— Mindestens ein *Notstoppschalter* (Abbildung 6) befindet sich auf der Vorrichtung. Beim Drücken wird die Stromversorgung zu den Steuerelementen der Maschinen unterbrochen, die Maschine wird angehalten und der Schalter in einer gedrückten Position (Schalter aktiviert, Maschine gestoppt) verriegelt. Wenn keine Gefahr besteht, den Taster nach rechts drehen, um den Schalter auszurasen. Um den Betrieb wieder aufzunehmen, die normalen Schritte zum Einschalten des Gerätes durchführen.

**Emergency Stop Switch (locking push button)**—One or more *emergency stop* switches (Figure 6) are provided on the device. When pressed, any emergency stop switch removes power from the machine controls, stops the machine and locks in the depressed (switch actuated, machine stopped) position. When safe to do so, turn the button clockwise to unlock the switch. To resume operation, perform the device's normal startup procedure.

Abbildung [Figure] 6: *Notstoppschalter* [Emergency Stop Switch]



**Beachtung 2:** Den *Notstoppschalter* in einem Notfall sofort drücken. Dadurch wird die Dreileiterschaltung deaktiviert, die Stromversorgung zur Mikroprozessorsteuerung wird jedoch aufrechterhalten.

**Notice 2:** Press the *emergency stop* switch immediately in an emergency situation. This disables the 3-wire circuit while maintaining power to the microprocessor controller.

**Anzeige oder Aktion**  
[Display or Action]

**Erklärung**

**Explanation**



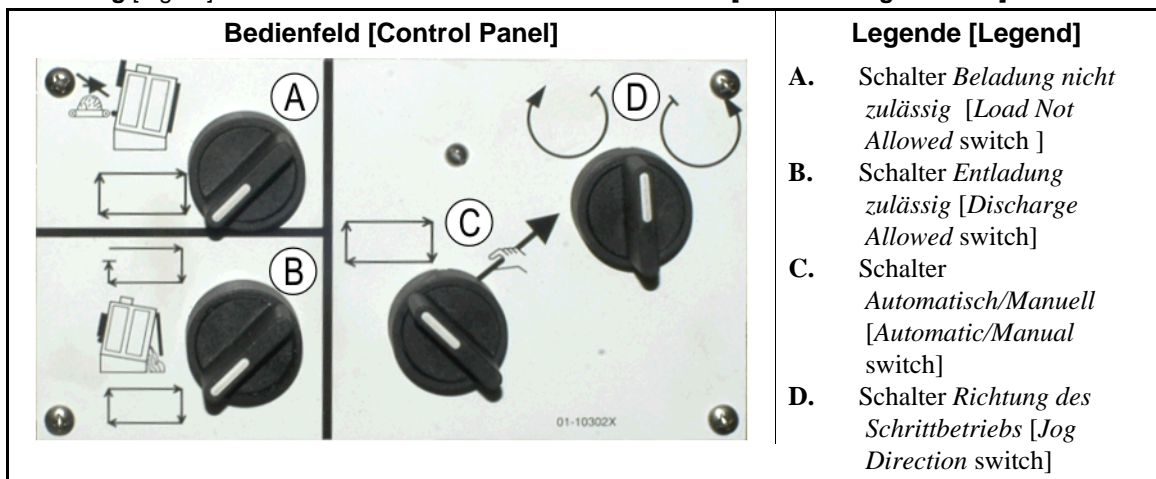
Dieses Symbol stellt den Notstoppschalter in allen Milnor®-Dokumenten außer Schaltplänen dar.

This symbol represents the emergency stop switch in Milnor® documents other than electrical wiring diagrams.

**1.2.1.2. Steuerelemente für Tür und Schrittbetrieb**

**Door and Jog Controls**

**Abbildung [Figure] 7: Steuerelemente für Tür und Schrittbetrieb [Door and Jog Controls]**



1.2.1.2.1. Schalter „Beladung nicht zulässig“ (A)—Dieser Schalter legt wie folgt fest, ob die Maschine eine neue Ladung automatisch anfordert (akzeptiert):

- Die Maschine fordert keine Ladung an.
- Die Maschine fordert nach der Entladung der aktuellen Ladung eine neue Ladung an (notwendig für normalen automatischen Betrieb).

Load Not Allowed switch (A)—This switch determines whether the machine will request (accept) a new load automatically, as follows:

- The machine will not request a load.
- The machine will request a new load after discharging the current load (required for normal, automatic operation).

1.2.1.2.2. Schalter „Entladung zulässig“ (B) —Dieser Schalter legt wie folgt fest, wie die Maschine entladen wird:

- Die Maschine entlädt nach Abschluss des Trockencodes automatisch jede Ladung, ohne den Bereitschaftsstatus der Empfangsvorrichtung zu berücksichtigen. Wenn sich beispielsweise ein Wagen nicht in der richtigen Position befindet, wird die Wäsche auf den Boden entladen.
- Diese Position verhindert, dass die Maschine entladen wird, wenn kein Signal

Discharge Allowed switch (B) —This switch determines how the machine will discharge, as follows:

- The machine automatically discharges each load when the dry code is finished, without regard for the ready status of the receiving device. For example, if a cart is supposed to be in position, but it is not, the goods will discharge onto the floor.
- This position prevents the machine from discharging unless it receives a signal

zur Entladung von der Miltrac™-Steuerung vorliegt. Diese Position wird demzufolge in zwei Fällen verwendet: 1) Sie ist notwendig für den normalen Betrieb, wenn die Maschine über Miltrac entladen wird, und 2) sie kann verwendet werden, um eine automatische Entladung zu verhindern, wenn die Maschinen nicht über Miltrac entladen wird.

- ☐—Wenn die Maschine zur Entladung bereit ist, wird der Entladeprozess gestartet, wenn dieser Schalter kurz in die Momentposition gedreht wird.

#### 1.2.1.2.3. Schalter „Automatische/manuelle Drehung“ (C)—Dieser Schalter legt die Steuerung der Trommeldrehung wie folgt fest:

- ☞—Der automatische Betrieb wird deaktiviert, die Entladetür öffnet sich und die Trommeldrehung wird mit dem Schalter *Richtung des Schrittbetriebs* gesteuert.
- ☐—Die Trommel dreht sich automatisch.

#### 1.2.1.2.4. Schalter „Richtung des Schrittbetriebs“ (D)—Wird zur Entladung verwendet. Wenn die Drehung auf manuell gestellt ist, wird die Trommel mit diesem Mitte-Null-Schalter wie folgt gedreht (Ausnahmen werden in [Anmerkung 2](#) erläutert):

- ☺—(rechte Momentposition) dreht die Trommel nach rechts (Blick auf die Maschine von vorn), solange der Schalter gehalten wird.
- ☹—(linke Momentposition) dreht die Trommel nach links, solange der Schalter gehalten wird.

**Anmerkung 2:** Die Modelle 6458Txxx und 7244Txxx können rechts oder links ein Gebläse besitzen. Maschinen mit dem Gebläse auf der linken Seite funktionieren wie oben erläutert. Maschinen mit dem Gebläse auf der rechten Seite funktionieren genau umgekehrt. Wird der Schalter beispielsweise nach rechts gehalten, dreht sich die Trommel nach links (Blick auf die Maschine von vorn). Dies ist die Richtung, in die die Trommel bei automatischer Entladung dreht, damit das Waschgut nicht zusammengedrückt wird.

from the Miltrac™ controller to discharge. Hence, this position has two uses: 1) It is required for normal operation if the machine is unloaded via Miltrac, and 2) it may be used to prevent automatic discharge if the machine is not unloaded via Miltrac.

- ☐—If the machine is ready to discharge, turning the switch to this momentary position briefly will initiate the discharge process.

#### Automatic/Manual Rotation switch (C)—This switch determines what controls basket rotation, as follows:

- ☞—Automatic operation is suspended, the discharge door opens and basket rotation is controlled by the *Jog Direction* switch.
- ☐—The basket rotates automatically.

#### Jog Direction switch (D)—Used for unloading. When rotation is set to manual, this center-off switch causes the basket to rotate as follows, except as explained in [Note 2](#):

- ☺—(momentary, clockwise) rotates the basket clockwise (when viewing the machine from the front) while the switch is held.
- ☹—(momentary, counter-clockwise) rotates the basket counterclockwise while the switch is held.

**Note 2:** 6458Txxx and 7244Txxx models can have blowers either on the left or the right. Machines with lefthand blowers function exactly as stated above. Those with righthand blowers function opposite that stated above. For example, holding the switch at the clockwise position will cause the basket to rotate counter-clockwise when viewed from the front of the machine. This is the direction the basket turns during automatic unloading, to help prevent plastering of the goods.

### 1.2.2. **Signalleuchten auf der Maschine — Gastrockner**

Gastrockner besitzen verschiedene gelbe Signalleuchten auf dem vorderen Bedienfeld zur Überwachung der Trocknertüren und der Heizung. Einige dieser Leuchten sind mit der Maschinensteuerung verbunden, andere mit dem Flammenwächter (Fireye® oder Landis+Gyr). Wenn eine Leuchte aufgrund eines Fehlerzustands leuchtet oder nicht mehr leuchtet, wird eine Fehlermeldung angezeigt. Bei Leuchten, die mit dem Flammenwächter verbunden sind, erscheint folgende Fehlermeldung: “CHECK ERROR LIGHTS (Fehlerleuchten überprüfen).”

### **Machine-mounted Status Lights—Gas Dryers**

Gas-fired dryers have several amber status lights on the front panel used to monitor the dryer doors and heating system. Some of these lights are operated by the machine controller and some are operated by the fire control unit (Fireye® or Landis+Gyr). When an error condition causes a light to either illuminate or extinguish, an error message is displayed. For lights operated by the fire control unit, the error message will say “CHECK ERROR LIGHTS.”

Abbildung [Figure] 8: Signalleuchten des Gastrockners [Gas Dryer Status Lights]

Signalleuchtenfeld [Status Lights Panel]	Legende [Legend]
	<p><b>A.</b> Ladetür geschlossen (ELLDC) [Load door closed (ELLDC)]</p> <p><b>B.</b> Ladetür offen (ELLDO) [Load door open (ELLDO)]</p> <p><b>C.</b> Entladetür geschlossen (ELDDC) [Discharge door closed (ELDDC)]</p> <p><b>D.</b> Zündgasventil aktiviert (ELPG) [Pilot valve enabled (ELPG)]</p> <p><b>E.</b> Hauptgaszufuhr aktiviert (ELMT) [Main gas enabled (ELMT)]</p> <p><b>F.</b> Zündung aktiviert (ELMI) [Ignition enabled (ELMI)]</p> <p><b>G.</b> Druck im Brennergesschrank hoch (ELBB). Nur bei den Modellen 6458TG1x und 7272TG1x. [Burner box pressure high (ELBB). 6458TG1x and 7272TG1x models only.]</p> <p><b>H.</b> Verbrennungsluftzufuhr niedrig (ELCA) [Combustion air low (ELCA)]</p> <p><b>I.</b> Hauptluftzufuhr niedrig (ELMA) [Main air low (ELMA)]</p> <p><b>J.</b> Gasdruck niedrig (ELGL) [Gas pressure low (ELGL)]</p> <p><b>K.</b> Gasdruck hoch (ELGH) [Gas pressure high (ELGH)]</p> <p><b>L.</b> Fireye-Flammenwächter ausgelöst (ELFET) [Fireye tripped (ELFET)]</p> <p><b>M.</b> Flammenwächter blockiert (ELCLO). Nur bei Landis+Gyr-Flammenwächter. [Fire control unit locked out (ELCLO). Landis+Gyr fire control only.]</p>

- 1.2.2.1. Ladetür geschlossen (A)**—Diese Leuchte (ELLDC) zeigt an, dass die Ladetür vollständig geschlossen ist. Wenn sich die Ladetür nicht innerhalb von 15 s nach dem Signal *Loaded (Beladen)* für den Trockner schließt, wird die Meldung *Load Door Open (Ladetür offen)* angezeigt.
- 1.2.2.2. Ladetür offen (B)**—Diese Leuchte (ELLDO) zeigt an, dass die Ladetür vollständig geöffnet ist. Wenn sich die Ladetür nicht innerhalb von 15 s nach dem Befehl “open load door (Ladetür öffnen)” vom Mikroprozessor öffnet, wird die Meldung *Load Door Not Open (Ladetür nicht offen)* angezeigt.
- 1.2.2.3. Entladetür geschlossen (C)**—Diese Leuchte (ELLDC) zeigt an, dass die Entladetür vollständig geschlossen ist. Wenn die Steuerung nicht erkennt, dass die Entladetür geschlossen ist, bleibt die Ladetür zum Beladen geöffnet. Die Beladevorrichtung erhält jedoch kein Signal für die Beladung, und es wird die Meldung *Discharge Door Open (Entladetür offen)* angezeigt.
- 1.2.2.4. Zündgasventil aktiviert (D)**—Diese Leuchte (ELPG) zeigt an, dass der Flammenwächter das Zündgasventil aktiviert hat.
- 1.2.2.5. Hauptgaszufuhr aktiviert (E)**—Diese Leuchte (ELMT) zeigt an, dass der Flammenwächter das Gasregelventil und das Hauptgasventil aktiviert hat.
- 1.2.2.6. Zündung aktiviert (F)**—Diese Leuchte (ELMI) zeigt an, dass der Flammenwächter versucht, die Flamme zu entzünden.
- 1.2.2.7. Druck im Brennergesschrank hoch (G)**—Diese Leuchte (ELBB) zeigt an, dass der zulässige Druck im Brennergesschrank überschritten wurde. Dies ist ein Fehlerzustand.
- 1.2.2.8. Verbrennungsluftzufuhr niedrig (H)**—Diese Leuchte (ELCA) zeigt an, dass die Verbrennungsluftzufuhr zum Trockner für den ordnungsgemäßen Betrieb zu niedrig ist.
- Load Door Closed (A)**—This light (ELLDC) indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.
- Load Door Open (B)**—This light (ELLDO) indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.
- Discharge Door Closed (C)**—This light (ELDDC) indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.
- Pilot Valve Enabled (D)**—This light (ELPG) indicates that the flame control unit has energized the pilot valve.
- Main Gas Enabled (E)**—This light (ELMT) indicates that the flame control unit has energized the modulating gas valve and the main gas valve.
- Ignition Enabled (F)**—This light (ELMI) indicates that the flame control unit is attempting to ignite the flame.
- Burner Box Pressure High (G)**—This light (ELBB) indicates that the permissible burner box pressure has been exceeded. This is an error condition.
- Combustion Air Low (H)**—This light (ELCA) indicates that combustion air flow delivered to the dryer is too low for proper operation.

**1.2.2.9. Hauptluftzufuhr niedrig (I)**—Diese Leuchte (ELMA) zeigt an, dass die Hauptluftzufuhr zum Trockner für den ordnungsgemäßen Betrieb zu niedrig ist.

**Main Air Low (I)**—This light (ELMA) indicates that main air flow delivered to the dryer is too low for proper operation.

**1.2.2.10. Gasdruck niedrig (J)**—Diese Leuchte (ELGL) zeigt an, dass der Druck der Gaszufuhr zum Trockner für den ordnungsgemäßen Betrieb zu niedrig oder der Gasregler beschädigt ist.

**Gas Pressure Low (J)**—This light (ELGL) indicates that the gas pressure delivered to the dryer is too low for proper operation, or the gas regulator is damaged.

**1.2.2.11. Gasdruck hoch (K)**—Diese Leuchte (ELGH) zeigt an, dass der Druck der Gaszufuhr zum Trockner für den ordnungsgemäßen Betrieb zu hoch oder der Gasregler beschädigt ist.

**Gas Pressure High (K)**—This light (ELGH) indicates that the gas pressure delivered to the dryer is too high for proper operation, or the gas regulator is damaged.

**1.2.2.12. Fireye-Flammenwächter ausgelöst (L)**—Bei einer Maschine mit einem Fireye-Flammenwächter zeigt diese Leuchte (ELFET) an, dass der Flammenstab dem Flammenwächter signalisierte, dass weder die Zündflamme noch der Brenner gezündet ist.

**Fireye Tripped (L)**—If the machine is equipped with a Fireye fire control unit, this light (ELFET) indicates that the flame rod signaled the flame control unit that neither the pilot nor the burner is lit.

Diese Leuchte ist manchmal bei einer Maschine mit einem Landis&Gyr-Flammenwächter vorhanden. In diesem Fall besitzt sie die gleiche Bedeutung wie die folgende Signalleuchte *Flammenwächter blockiert*.

This light is sometimes provided when the machine is equipped with a Landis & Gyr fire control unit. If so, it has the same meaning as the *Fire Controller Locked Out* status light below.

**1.2.2.13. Flammenwächter blockiert (M)**—Bei einer Maschine mit einem Landis+Gyr-Flammenwächter zeigt diese Leuchte (ELCLO) an, dass der Flammenwächter bei Anforderung einer Flamme durch den Mikroprozessor deaktiviert war, weil eine der Bedingungen der Sicherheitsschaltung nicht erfüllt wurde.

**Fire Controller Locked Out (M)**—If the machine is equipped with a Landis+Gyr fire control unit, this light (ELCLO) indicates that the microprocessor requested fire, but the flame control unit was disabled because one of the conditions required by the safety reset circuit was not satisfied.

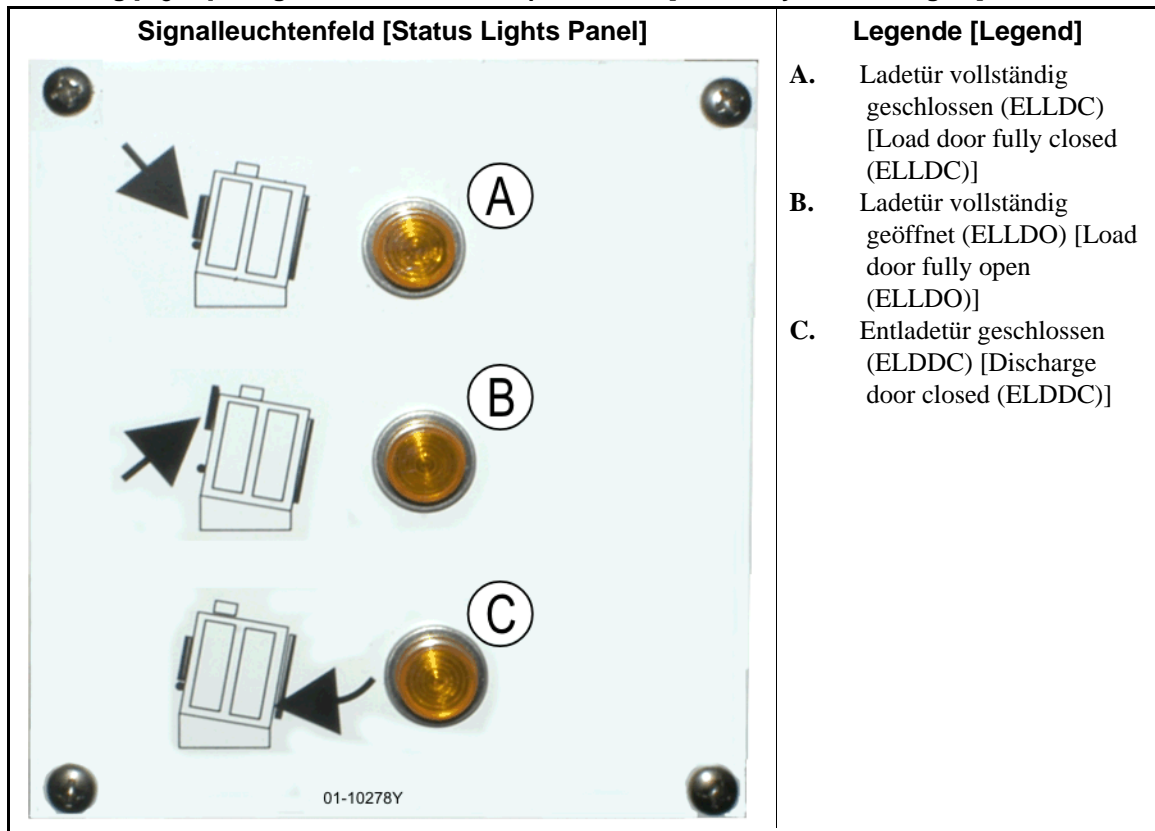
**1.2.3. Signalleuchten auf der Maschine — Dampf- und Wärmeträgeröl-Trockner und -Vortrockner sowie alle Schüttler**  
Trockner und Vortrockner, die mit Dampf oder Wärmeträgeröl beheizt werden, sowie alle Schüttler (nicht beheizte Einheiten) besitzen drei gelbe Signalleuchten auf der Vorderseite zur Überwachung der Türen.

**Machine-mounted Status Lights—Steam and Thermal Oil Dryers and Conditioners and All Shakers**

Dryers and conditioners heated by steam or thermal oil, as well as all shakers (non-heated units) have three amber status lights on the front panel to monitor the doors.



Abbildung [Figure] 9: Signalleuchten von Dampftrocknern [Steam Dryer Status Lights]



**1.2.3.1. Ladetür geschlossen**—Diese Leuchte zeigt an, dass die Ladetür vollständig geschlossen ist. Wenn sich die Ladetür nicht innerhalb von 15 s nach dem Signal *Loaded (Beladen)* für den Trockner schließt, wird die Meldung *Load Door Open (Ladetür offen)* angezeigt.

**Load Door Closed**—This light indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.

**1.2.3.2. Ladetür offen**—Diese Leuchte zeigt an, dass die Ladetür vollständig geöffnet ist. Wenn sich die Ladetür nicht innerhalb von 15 s nach dem Befehl “open load door (Ladetür öffnen)” vom Mikroprozessor öffnet, wird die Meldung *Load Door Not Open (Ladetür nicht offen)* angezeigt.

**Load Door Open**—This light indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.

**1.2.3.3. Entladetür geschlossen**—Diese Leuchte zeigt an, dass die Entladetür vollständig geschlossen ist. Wenn die Steuerung nicht erkennt, dass die Entladetür geschlossen ist, bleibt die Ladetür zum Beladen geöffnet. Die Beladevorrichtung erhält jedoch kein Signal für die Beladung, und es wird die Meldung *Discharge Door Open (Entladetür offen)* angezeigt.

**Discharge Door Closed**—This light indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.

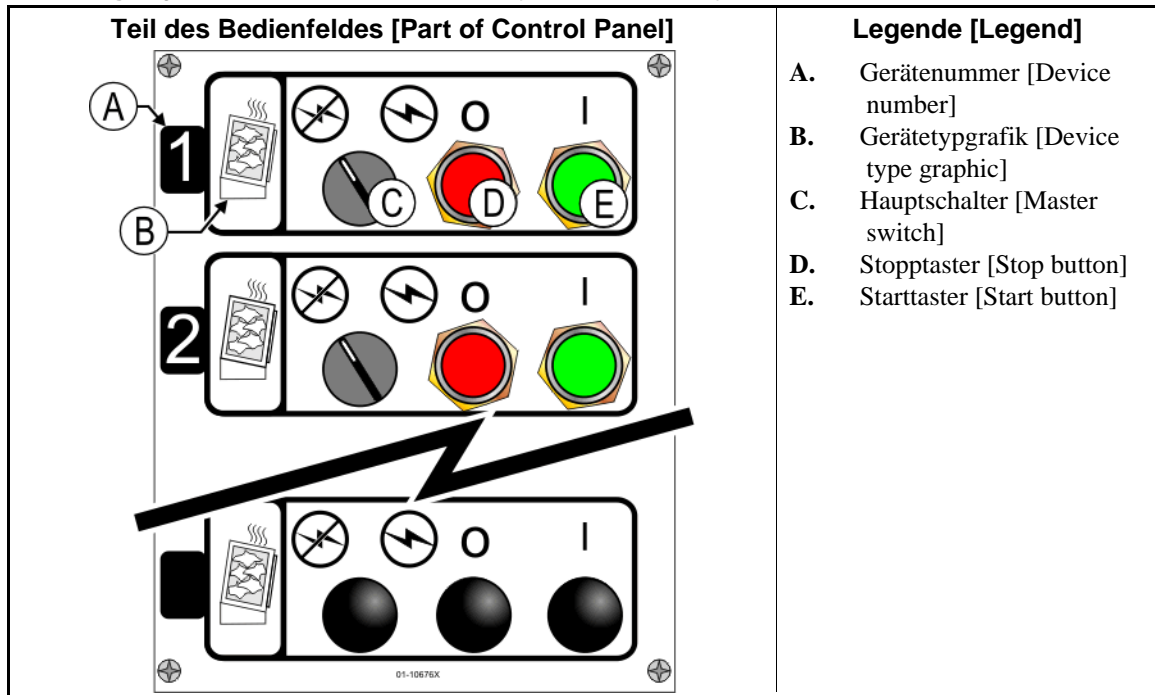
### 1.2.4. Steuerelemente auf der Steuerungskonsole für Trockner und Transportsystem (DryNet)

Bei Normalbetrieb werden alle Maschinen im DryNet-Netzwerk von dieser Position einzeln ein- und ausgeschaltet. Bei Maschinen, die nicht zum DryNet-Netzwerk gehören, befinden sich die entsprechenden Steuerelemente auf einem separaten Trocknersteuerkasten.

### Controls Mounted on the Dryer-Shuttle Controller (DryNet) Console

In normal operation, all machines in the DryNet network are individually powered on and off at this location. On machines that are not part of a DryNet network, corresponding controls are mounted on a separate dryer control box.

Abbildung [Figure] 10: Steuerelemente der DryNet-Konsole [Drynet-mounted Controls]



**1.2.4.1. Hauptschalter (C)**—Der *Hauptschalter* steuert den einphasigen Steuerkreis zur Maschine und die Gleichstromversorgung des Mikroprozessors und dessen Komponenten wie folgt:

- ⊕—Der Steuerkreis ist aktiviert, Betrieb möglich.
- ⊗—Der Steuerkreis ist deaktiviert, Betrieb wird gestoppt oder verhindert.

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

**1.2.4.2. Stopptaster (D)**—Beim Drücken dieses Tasters wird die Maschine sofort angehalten und die Dreileiterschaltung wird unterbrochen. Der Notstopptaster besitzt die gleiche Funktion.

**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**1.2.4.3. Starttaster (E)**—Beim Drücken dieses Tasters ist der Betrieb der Maschine möglich, wenn alle Sicherheitsbedingungen erfüllt sind. Bei aktiviertem Betrieb arbeitet die Maschine im manuellen oder automatischen Modus.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

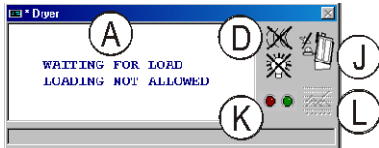
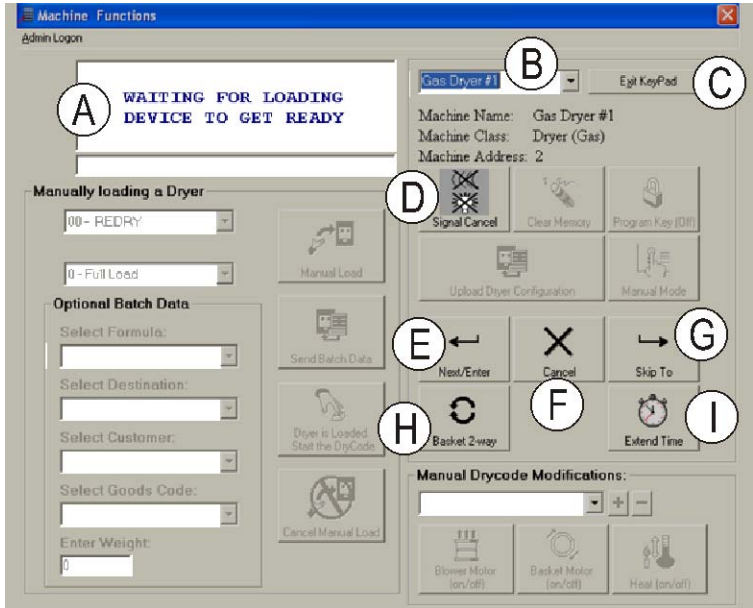
### 1.2.5. **Maschinenfunktionen für den Bediener auf der DryNet-Konsole**

Bei normalem Betrieb zeigt DryNet CRT ein kleines Fenster *Device Status (Gerätestatus)* für alle Maschinen (Trockner und Transportsystem) im DryNet-Netzwerk. Wenn Sie auf das Fenster klicken, wird das Fenster *Machine Functions (Maschinenfunktionen)* für die ausgewählte Maschine angezeigt. Beide Fenster enthalten Schaltflächen für den Bediener. Einige Schaltflächen sind in beiden Fenstern vorhanden. In Abhängigkeit von der Anmeldung des Benutzers im System stehen nur bestimmte Schaltflächen zur Verfügung. Um eine Funktion zu aktivieren, klicken Sie mit der Maus auf eine Schaltfläche. Diese Fenster und Schaltflächen werden in [Abbildung 11](#) dargestellt und im Folgenden erläutert.

### **Machine Functions Available to the Operator on DryNet**

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 11](#) and explained below.

Abbildung [Figure] 11: DryNet-Fenster für den Bediener [DryNet Windows Used by the Operator]

<p style="text-align: center;"><b>Fenster „Dryer Status“ (Trocknerstatus) [Dryer Status Window]</b></p>  <p style="text-align: center;"><b>Legende [Legend]</b></p> <ul style="list-style-type: none"> <li><b>A.</b> Anzeigebereich für den Gerätestatus [Device status display area]</li> <li><b>B.</b> Geräteauswahlfeld [Device selection box]</li> <li><b>C.</b> Schaltfläche <i>Exit Keypad (Schließen)</i> [Exit Keypad button]</li> <li><b>D.</b> Schaltfläche <i>Signal Cancel (Signal löschen)</i> [Signal Cancel button]</li> <li><b>E.</b> Schaltfläche <i>Next/Enter (Weiter/Öffnen)</i> [Next/Enter button]</li> <li><b>F.</b> Schaltfläche <i>Cancel (Abbrechen)</i> [Cancel button]</li> <li><b>G.</b> Schaltfläche <i>Skip to (Überspringen)</i> [Skip to button]</li> <li><b>H.</b> Schaltfläche <i>Basket 2-way (Trommel, 2 Richtungen)</i> [Basket 2-way button]</li> <li><b>I.</b> Schaltfläche <i>Extend Time (Zeit verlängern)</i> [Extend Time button]</li> <li><b>J.</b> Schaltfläche <i>Load Allowed/Not Allowed (Beladung zulässig/nicht zulässig)</i> [Load Allowed/Not Allowed button]</li> <li><b>K.</b> Schaltfläche <i>View Inputs/Outputs (Eingaben/Ausgaben anzeigen)</i> [View Inputs/Outputs button]</li> <li><b>L.</b> Schaltfläche <i>View Graph (Kurve anzeigen)</i> [View Graph button]</li> </ul>	<p style="text-align: center;"><b>Fenster „Machine Functions“ (Maschinenfunktionen) [Machine Functions Window]</b></p> 
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- 1.2.5.1. Gerätestatusanzeige (A)**—Die Steuerung zeigt in diesem Bereich die Meldungen zum entsprechend [Abschnitt 1.2.5.2](#) ausgewählten aktiven Gerät an.
- Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.2.5.2](#).
- 1.2.5.2. Geräteauswahlfeld (B)**—Durch den Klick mit der Maus auf den Pfeilkopf auf der rechten Seite des Feldes erscheint eine Liste mit allen Geräten, die von dieser Trockner-/Transportsystemsteuerung kontrolliert werden. Wenn Sie auf eines der Geräte in der Liste klicken, wird dieses zu einem aktiven Gerät.
- Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.
- 1.2.5.3. Schaltfläche *Exit Keypad (Schließen)* (C)**—Klicken Sie mit der Maus auf diese Schaltfläche, um zum Maschinenanzeigebildschirm zur Überwachung aller Geräte zurückzukehren.
- Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.
- 1.2.5.4. Schaltfläche *Signal Cancel (Signal löschen)* (D)**—Wenn ein Fehler das Bedienersignal auslöste (blinkende Leuchten und/oder akustischer Signalton), klicken Sie auf diese Schaltfläche, um das Signal abzustellen. Wenn das Signal einsetzte, als eine gültige Formel ausgewählt wurde, endet das Signal automatisch, wenn die Formel gestartet wird.
- Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.
- 1.2.5.5. Schaltfläche *Next/Enter (Weiter/Öffnen)* (E)**—Diese Schaltfläche ist nur aktiv, wenn ein Administrator oder ein Bediener in der Steuerung angemeldet ist.
- Next/Enter button (E)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- 1.2.5.6. Schaltfläche *Cancel (Abbrechen)* (F)**—Klicken Sie mit der Maus auf diese Schaltfläche, um den aktuellen Trockencodeschritt zu löschen.
- Cancel button (F)**—Click the mouse on this button to cancel the current drycode step.
- 1.2.5.7. Schaltfläche *Skip to (Überspringen)* (G)**—Diese Schaltfläche ist nur aktiv, wenn ein Administrator oder ein Bediener in der Steuerung angemeldet ist.
- Skip to button (G)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- 1.2.5.8. Schaltfläche *Basket 2-way (Trommel, 2 Richtungen)* (H)**—Klicken Sie mit der Maus auf diese Schaltfläche, um die Trommeldrehung zwischen einer Richtung und zwei Richtungen umzuschalten.
- Basket 2-way button (H)**—Click the mouse on this button to toggle basket rotation between one-way and two-way.

**1.2.5.9. Schaltfläche *Extend Time (Zeit verlängern)* (I)**—Klicken Sie mit der Maus auf diese Schaltfläche, um den aktuellen Schritt um eine Minute zu verlängern. Jeder weitere Klick verlängert um eine weitere Minute.

***Extend Time* button (I)**—Click the mouse on this button to add one minute to the time of the current step. Each additional click adds another minute.

**1.2.5.10. Schaltfläche *Load Allowed/Not Allowed (Beladung zulässig/nicht zulässig)* (J)**—Führt die gleiche Funktion wie der Schalter *Beladung nicht zulässig* auf der Maschine aus. Klicken Sie auf diese Schaltfläche, um die ausgewählte Maschine “offline” (Beladung nicht zulässig) oder wieder online (Beladung zulässig) zu setzen. Im Offlinezustand fordert die Maschine keine Ladung an und das Transportsystem liefert keine Wäsekuchen an diese Maschine.

***Load Allowed/Not Allowed* button (J)**—Performs the same function as the *Load Not Allowed* switch on the machine. Click this button to take the selected machine “off-line” (Not Allowed) or return it on-line (*Load Allowed*). While off-line, the machine will not request a load and the shuttle will not deliver cakes to this machine.

**1.2.5.11. Schaltfläche *View Inputs/Outputs (Eingaben/Ausgaben anzeigen)* (K)**—Klicken Sie auf diese Schaltfläche, um das Fenster *Dryer I/O (Trockner-E/A)* anzuzeigen, das den Ein-/Aus-Status der einzelnen Mikroprozessor-Ein- und Ausgaben für die ausgewählte Maschine anzeigt.

***View Inputs/Outputs* button (K)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.

**1.2.5.12. Schaltfläche *View Graph (Kurve anzeigen)* (L)**—Klicken Sie auf diese Schaltfläche, um das Fenster *Temperature Profile (Temperaturprofil)* für diese Maschine anzuzeigen, das eine Echtzeitkurve der Temperatur sowie relevante Informationen zur ausgewählten Maschine enthält.

***View Graph* button (L)**—Click this button to display the *Temperature Profile* window for this machine, which shows a real-time graph of temperature and related information for the selected machine.

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## Kapitel 2

# Normaler Maschinenbetrieb

## Chapter 2

# Normal Machine Operation

BIPDUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20110405 Lang: GER01 Applic: PDU YDS

### 2.1. Trocknerbetriebsanweisung für Werkspersonal

### Dryer Operating Instructions for Plant Personnel

#### 2.1.1. Aus Sicherheitsgründen hier beginnen

#### Start Here for Safety

Dieses Dokument soll Sie, den Bediener des Trockners, daran erinnern, was zur Bedienung der Maschine notwendig ist. Die Maschine nicht bedienen, ohne dass ein erfahrener, geschulter Bediener die Einzelheiten erläutert.

This document is meant to remind you, the person operating this dryer, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



**VORSICHT GEFAHR 3: Mehrfache Gefahren**—Unvorsichtige Bedienung kann zu Verletzung oder gar Tod von Personen führen, zur Beschädigung oder Zerstörung der Maschine und anderer Gegenstände sowie zum Erlöschen der Garantie.

**DANGER 3: Multiple Hazards**—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



**VORSICHT GEFAHR 4: Todes- und Verbrennungsgefahr durch Stromschlag**—Die Berührung von unter Hochspannung stehenden Teilen kann ernsthafte Verletzungen oder Stromschlag mit Todesfolge hervorrufen. Hochspannung liegt im Inneren des Schaltschranks an, solange der Trennschalter für die Stromversorgung zur Maschine nicht ausgeschaltet ist.

**DANGER 4: Electrocution and Electrical Burn Hazards**—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.




















- Machen Sie sich mit der Position des Hauptschalters der Maschine vertraut und betätigen Sie diesen im Notfall, damit kein Strom mehr an der Maschine anliegt.
- Unternehmen Sie keine unqualifizierten Wartungen, Reparaturen oder

- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not unlock or open electric box doors.

Veränderungen.

- Entriegeln oder öffnen Sie nicht die Türen der Schaltkästen.

## 2.1.2. Schaltereinstellungen prüfen Check Switch Settings

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
	Der Schlüsselschalter <i>Betrieb/Programmieren</i> muss auf  stehen.	Verify that the <i>Run/Program</i> keyswitch is at  .
	Für den Betrieb der Maschine müssen alle Notstopptaster entriegelt sein und in der Position <i>bereit</i> stehen.	All emergency stop buttons must be unlatched and in the <i>ready</i> position to allow machine operation.
	Der Hauptschalter muss auf  stehen.	Verify that the master switch is at  .
	Der Schalter <i>Beladung nicht zulässig</i> muss auf  stehen, damit die automatische Beladung möglich ist.	Verify that the <i>Load Not Allowed</i> switch is at  to allow automatic loading.
	Der Schalter <i>Entladung zulässig</i> muss auf  stehen, damit die automatische Entladung der verarbeiteten Wäsche möglich ist.	Verify that the <i>Discharge Allowed</i> switch is at  to allow automatic discharging of processed goods.
	Der Schalter <i>Lokal/Remote</i> muss auf  stehen, damit eine Netzwerkkommunikation möglich ist.	Verify that the <i>Local/Remote</i> switch is set to  to allow network communication.
	Der Schalter <i>Automatisch/Manuell</i> muss auf  stehen, damit der Automatikbetrieb möglich ist.	Verify that the <i>Automatic/Manual</i> switch is at  to allow automatic operation.

## 2.1.3. Beladen der Maschine

Die Milnor-Systemsteuerung bedient diese Maschine und andere Maschinen im System automatisch. Wenn alle Schalter so eingestellt sind, wie in [Abschnitt 2.1.2](#) beschrieben, akzeptiert, verarbeitet und entlädt die Maschine eine Ladung ohne manuellen Eingriff.

Beim Einschalten fragt die Maschine den Bediener, ob die Maschine beladen ist. Wenn die Maschine nicht beladen ist, beginnt der normale automatische Betrieb. Wenn die Maschine eine Ladung enthält, muss der Bediener die entsprechenden Daten zur Ladung

## Loading the Machine

A Milnor system controller automatically operates this machine and other machines in the system. If all switches are positioned as described in [Section 2.1.2](#), the machine will accept, process, and discharge a load without manual intervention.

At start-up, the machine asks the operator if the machine is loaded. If the machine is not loaded, normal automatic operation begins. If the machine contains a load, the machine controller or Mildata computer will prompt the operator for the data associated with the



in die Maschinensteuerung oder den Milda-  
Computer eingeben. Wenn der Bediener die  
notwendigen Postendaten eingibt und bestätigt,  
beginnt der Betrieb im Automatikmodus.

load. When the operator enters and confirms  
all necessary batch data, begins operating in  
automatic mode.

## 2.1.4. Was steht auf der Anzeige?

## What Does the Display Tell Me?

### 2.1.4.1. Trockencode und Schrittinformationen für Gastrockner

### Drycode and Step Information for Gas-fired Dryers

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
<pre> WAITING FOR LOAD *****                     </pre>	Trockner ist leer und wartet auf Ladung.	Dryer is idle.
<pre> WAITING FOR LOAD *****                     </pre>		
<pre> LOADING -----                     </pre>	Trockner wird beladen.	Dryer is loading.
<pre> LOADING -----                     </pre>		
<pre> 04F  TIF  TOF  031  AIR S01  425D185  012  000                     </pre>	<i>04F</i> gibt an, dass der Trockner den Trockencode 04 für eine volle Ladung ausführt; <i>04P</i> würde für eine Teilladung stehen.	<i>04F</i> indicates that the dryer is running drycode 04 for a full load; <i>04P</i> would represent a partial load.
<pre> 04F  TIF  TOF  031  AIR S01  425D185  012  000                     </pre>	<i>S01</i> ist der aktuelle Schritt des ausgewählten Trockencodes.	<i>S01</i> is the current step number of the selected drycode.
	<i>TIF</i> erscheint über der Vorlauftemperatur in °F (in diesem Beispiel 425). <i>TIC</i> erscheint, wenn der Trockner auf Celsius eingestellt ist.	<i>TIF</i> appears above the inlet temperature in degrees Fahrenheit (425 in this example). <i>TIC</i> appears when the dryer is configured for Celsius.
	<i>TOF</i> erscheint über der Rücklauftemperatur in °F (in diesem Beispiel 185). <i>TOC</i> erscheint, wenn der Trockner auf Celsius eingestellt ist.	<i>TOF</i> appears above the outlet temperature in degrees Fahrenheit (185 in this example). <i>TOC</i> appears when the dryer is configured for Celsius.
	<i>D</i> zwischen der Vorlauf- und der Rücklauftemperatur steht für die <i>Soll</i> -Temperatur. Die Anzeige wechselt und zeigt auch die <i>Ist</i> -Temperaturen, wenn <i>A D.</i> ersetzt.	<i>D</i> between the inlet and outlet temperatures represents <i>Desired</i> temperature. The display alternates to also show the <i>Actual</i> temperatures when <i>A</i> replaces <i>D.</i>

**Anzeige oder Aktion**  
[Display or Action]

**Erklärung**

**Explanation**

*031* steht für die Minuten und Viertelminuten der gesamten Laufzeit (3 min und 15 s in diesem Beispiel).

*031* represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).

*012* steht für die verbleibende Zeit für diesen Schritt (1 min und 30 s in diesem Beispiel).

*012* represents the time remaining in this step (1 minute and 30 seconds in this example).

*AIR* erscheint über der Luftklappenposition (in diesem Beispiel 000, der Bereich liegt zwischen 000 und 002). Die Anzeige wechselt, um auch die Regelventilposition unter *VP* anzuzeigen.

*AIR* appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the modulating valve position below *VP*.

**2.1.4.2. Trockencode und Schrittinformationen für Dampftrockner**

**Drycode and Step Information for Steam Dryers**

**Anzeige oder Aktion**  
[Display or Action]

**Erklärung**

**Explanation**

```
WAITING FOR LOAD
*****
```

Trockner ist leer und wartet auf Ladung.

Dryer is idle.

```
WAITING FOR LOAD
*****
```

```
LOADING
-----
```

Trockner wird beladen.

Dryer is loading.

```
LOADING
-----
```

```
04F TIF TOF 031 AIR
S01 ---D--- 012 000
```

*04F* gibt an, dass der Trockner den Trockencode 04 für eine volle Ladung ausführt; *04P* würde für eine Teilladung stehen.

*04F* indicates that the dryer is running drycode 04 for a full load; *04P* would represent a partial load.

```
04F TIF TOF 031 AIR
S01 ---D--- 012 000
```

*S01* ist der aktuelle Schritt des ausgewählten Trockencodes.

*S01* is the current step number of the selected drycode.

Die Solltemperaturen werden bei Dampftrocknern nicht eingestellt. Die Isttemperaturen werden in der unteren Zeile der Anzeige unter *TIF (TIC)* und *TOF (TOC)* dargestellt.

Desired temperatures are not set on steam dryers. Actual temperatures are shown on the bottom line of the display, below *TIF (TIC)* and *TOF (TOC)*

*031* steht für die Minuten und Viertelminuten der gesamten Laufzeit (3 min und 15 s in diesem Beispiel).

*031* represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).

*012* steht für die verbleibende Zeit für diesen Schritt (1 min und 30 s in diesem Beispiel).

*012* represents the time remaining in this step (1 minute and 30 seconds in this example).

*AIR* erscheint über der Luftklappenposition (in diesem Beispiel 000, der Bereich liegt zwischen 000 und 002). Die Anzeige wechselt auch, um das Dampfverhältnis unter *SR* anzuzeigen.



*AIR* appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the steam ratio below *SR*.



**2.1.5. Entladen der Maschine**

Im Automatikbetrieb wird die Maschine am

**Unloading the Machine**

In automatic mode, the machine will

Ende jedes Trockenzyklus entladen. Zur manuellen Entladung der Wäsche den Schalter *Entladung zulässig* auf  stellen. Mit  die Trommel manuell drehen.

discharge at the end of each dry cycle. To discharge the goods manually, set the *Discharge Allowed* switch to . Use  to jog the basket.

Wenn der Trockner auf die Entladung wartet oder gerade entladen wird, steht auf der Anzeige *WAITING TO DISCHARGE* (*Wartet auf Entladung*) oder *DISCHARGING* (*Wird entladen*) sowie die Postendaten für die Ladung, die gerade entladen wird.

When the dryer is waiting to discharge or is discharging, the display alternates *WAITING TO DISCHARGE* or *DISCHARGING* with the batch data of the load being discharged.

**Anzeige oder Aktion**  
[Display or Action]

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

**Erklärung**

*FM* erscheint über der Waschformelnummer für diese Ladung.

*DC* erscheint über der Trockencodenummer für diese Ladung.

*DS* erscheint über dem Ziel für diese Ladung.

*CC* erscheint über dem Kundencode für diese Ladung.

*GC* erscheint über dem Waschgutcode für diese Ladung.

*WDT* erscheint über der vergangenen Zeit beim Warten auf die Entladung.

**Explanation**

*FM* appears above the wash formula number for the load.

*DC* appears above the drycode number for the load.

*DS* appears above the destination for the load.

*CC* appears above the customer code for the load.

*GC* appears above the goods code for the load.

*WDT* appears above the elapsed time spent waiting to discharge.

— Ende BIPDU001 —

— End of BIPDU001 —

## Kapitel 3

# Signale und Fehler

## Chapter 3

# Signals and Errors

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### 3.1. **Transportsystem-Fehlermeldungen**

Die meisten Transportsystem-Fehlermeldungen und deren Ursachen können vom Bediener behoben werden. In einigen Fällen muss der Bediener das Wartungspersonal oder Vorgesetzte um Hilfe bitten. Hilfe vom Wartungspersonal wird in den folgenden beiden Situationen benötigt:

- Wenn die Maschine repariert werden muss, um den Fehler zu beheben.
- Wenn ein Fehler im Betriebsbereich des Transportsystems bei eingeschalteter Maschine behoben werden muss.

**Betriebsbereich des Transportsystems**—Der Bereich, in dem sich das Transportsystem bei Automatikbetrieb bewegt und der entsprechend der Norm ANSI Z8.1-2006 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements (US-amerikanische Norm für Geräte für Industriegewaschereien und chemische Reinigungen und deren Bedienung - Sicherheitsanforderungen)” gesichert werden muss. Personen, die den Betriebsbereich des Transportsystems zur Fehlerbehebung oder aus einem sonstigen Grund betreten, müssen ordnungsgemäß in der Sicherheit des Transportsystems geschult sein und die geltenden Sicherheitsvorschriften des Werkes einhalten.

### **Shuttle Error Messages**

Most shuttle error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. Maintenance assistance is needed in either of the following two circumstances:

- When the machine requires servicing to resolve the error.
- When an error must be resolved from inside the shuttle operating area with power on.

**shuttle operating area**—the area within which the shuttle moves during automatic operation and which must be guarded, as explained in ANSI Standard Z8.1-2006 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements.” Personnel who enter the shuttle operating area, whether to resolve an error, or for any other reason, must be properly trained in shuttle safety and abide by the published facility safety precautions.



**WARNUNG 5: Stoß- und Quetschgefahr**—Ein Transportsystem bewegt sich bei Automatikbetrieb unvorhersehbar. Jede Person im Betriebsbereich des Transportsystems kann angefahren oder eingequetscht werden.

- Bediener: Nie den Betriebsbereich des Transportsystems betreten, wenn der Strom nicht sicher abgeschaltet ist.
- Wartungspersonal: Vor dem Betreten des Betriebsbereichs des Transportsystems immer den Automatikbetrieb deaktivieren.

Aus der Sicht der Fehlerbehebung gibt es fünf Arten von Transportsystemfehlern: Zeitbegrenzungsfehler, Zählfehler des Stufengebers, Positionsfehler, Transferfehler und Fehler zur Weiterleitung an Vorgesetzte oder das Wartungspersonal. Die Fehler werden nach Kategorie und innerhalb einer Kategorie alphabetisch sortiert. Um den betreffenden Fehler zu finden, müssen Sie möglicherweise in mehr als einer Kategorie suchen. Die Erläuterungen der einzelnen Kategorien sind in drei Abschnitte unterteilt:

1. eine Beschreibung dieser Fehlerkategorie
2. eine Liste der Fehler und deren Beschreibungen
3. Schritte zur Behebung eines Fehlers dieser Art

### 3.1.1. Informationen über “THREE WIRE DISABLED PUSH START TO GO (Dreileiterschaltung deaktiviert - zum Fortsetzen auf START drücken)”

Beim Einschalten erscheint diese Meldung und der akustische Bedieneralarm ertönt, bis der *Start*-Taster (ⓘ) gedrückt wird. Diese Meldung und das akustische Signal treten auch auf, wenn ein Notstopptaster gedrückt wird, ein Überlastschalter eines Motors ausgelöst wird oder ein anderes Ereignis eintritt. Die in diesem Dokument beschriebenen Fehler deaktivieren die Dreileiterschaltung zwar nicht selbst, doch einige können zusammen mit Ereignissen auftreten, die die Dreileiterschaltung deaktivieren. Wenn das Transportsystem z. B. weit genug fährt, um einen Schalter *oops* am Ende der Schiene zu schließen und den Fehler

**WARNING 5: Strike and Crush Hazards**—A shuttle moves unpredictably during automatic operation. Anyone within the operating area of the shuttle can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.
- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, shuttle errors are of five types: time limit errors, level encoder counting errors, position errors, transfer errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### About “THREE WIRE DISABLED PUSH START TO GO”

This message appears and the operator alarm sounds at startup until the *Start* button (ⓘ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. Although the errors described in this document do not, by themselves, disable the three-wire circuit, a few may coincide with events that do disable the three wire circuit. For example, if the shuttle traverses far enough to close an *oops* switch at the end of the rail and trigger a RAIL LIMIT error (see [Section 3.1.5](#)), the shuttle foot guard may also hit an object and

RAIL LIMIT (Schiengrenze) auszulösen (siehe [Abschnitt 3.1.5](#)), kann der Fußschutz des Transportsystems auch ein Objekt treffen und betätigen und so die Dreileiterschaltung unterbrechen. In diesem Fall erscheint die Meldung THREE WIRE DISABLED (Dreileiterschaltung deaktiviert) und nicht die Meldung RAIL LIMIT (Schiengrenze). Das Transportsystem muss weit genug vom Objekt weg bewegt werden, um den Fußschutz zu lösen.

### 3.1.2. **Wiederaufnahme des Automatikbetriebs nach Fehlerbehebung**

Nach den meisten in diesem Dokument beschriebenen Fehlern initialisiert sich das Transportsystem in der Regel selbst. Während dieses Prozesses fährt das System in der Regel in die Ausgangsposition und/oder bewegt das Hubgestell auf die unterste Stufe. Wenn das Transportsystem Waschgut enthält, können auch Wäschekuchendaten angefordert werden. In diesem Fall muss der Bediener die Postencodes für das Waschgut in jeder Position des Transportsystems eingeben oder bestätigen.

### 3.1.3. **Zeitbegrenzungsfehler**

Ein Zeitbegrenzungsfehler tritt auf, wenn eine Bewegung des Transportsystems nicht innerhalb der festgelegten Zeit abgeschlossen ist. Wahrscheinlich hat ein temporärer Zustand die Transportsystembewegung gestört. Wenn die festgelegte Zeit konfigurierbar ist, kann u. U. auch der Zeitwert angepasst werden (siehe die Konfigurationsanweisungen zum Transportsystem im Referenzhandbuch). Zeitbegrenzungsfehler stoppen die Transportsystembewegung, damit das Personal nach der Ursache suchen kann. Es gibt folgende Fehler:

depress, opening the three wire circuit. In such a case, the THREE WIRE DISABLED message, not the RAIL LIMIT message will appear, requiring the shuttle to be physically moved far enough away from the object to release the foot guard.

### **Resuming Automatic Operation After Error Correction**

The shuttle will initialize as a normal part of recovering from most of the errors described in this document. During this process it will usually traverse to its home station and/or move the elevating bed to the lowest level. If the shuttle contains goods, it may also prompt for cake data. In this event, the operator must be able to accurately enter or confirm the batch codes for the goods on each position of the shuttle.

### **Time Limit Errors**

A time limit error occurs if a shuttle action is not completed within the specified time. It is likely that a temporary condition interfered with shuttle movement. If the specified time is configurable, there is a slight chance that the time value must be adjusted (see the shuttle configuration instructions in the reference manual). Time limit errors stop shuttle motion so that personnel can check for an interfering condition. These errors are as follows:



**Anzeige oder Aktion**

[Display or Action]

ERROR - CHECK CHAIN  
(Fehler - Kette  
prüfen)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERROR - CHECK CHAIN  
PRESS SIGNAL CANCEL

ERROR - NO CAKE  
(Fehler - kein  
Wäschekuchen)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERROR - NO CAKE  
PRESS SIGNAL CANCEL

ERR - NOT COUNTING  
(Fehler - keine  
Zählung)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERR - NOT COUNTING  
PRESS SIGNAL CANCEL

ERROR- WAIT TOO LONG  
(Fehler - Wartezeit  
zu lang)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERROR- WAIT TOO LONG  
PRESS SIGNAL CANCEL

TOO LONG TO DISCH.  
(Entladung dauert zu  
lang)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

TOO LONG TO DISCH.  
PRESS SIGNAL CANCEL

**Erklärung**

Bei der Initialisierung wurde das Untergestell des Transportsystems nicht innerhalb der unter “time to reach bottom-top (Zeit, um untere/obere Position zu erreichen)” konfigurierten Zeit in die maximale und minimale Position bewegt.

Bei der Entladung wurde die Fotozelle auf der Entladeseite nicht innerhalb der unter “clear belt time (Zeit zur Freigabe des Bandes)” konfigurierten Zeit blockiert.

Es sind mehr als 45 s zwischen den Stationszielen vergangen, als sich das Transportsystem nach links oder rechts bewegte.

Das Empfangsgerät bestätigte die Entladung der Maschine nicht innerhalb der unter “allied load completed delay (Verzögerung nach abgeschlossener Ladung)” festgelegten Zeit.

Das Band bewegt sich und die Fotozelle der Entladeseite ist 30 s nach der unter “clear belt time (Zeit zur Freigabe des Bandes)” konfigurierten Zeit immer noch blockiert.

**Explanation**

While initializing, the shuttle bed failed to move to its maximum and minimum positions within the time specified in the “time to reach bottom-top” configure decision.

During discharge, the discharge-end photo eye was not blocked within the time specified in the “clear belt time” configure decision.

More than 45 seconds elapsed between station targets while the shuttle was moving left or right.

The receiving device did not acknowledge the machine's discharge within the time specified in the “allied load completed delay” configure decision.

The belt is moving and the discharge-end photo eye is still blocked 30 seconds after the time specified in the “clear belt time” configure decision expires.

**Anzeige oder Aktion**  
[Display or Action]

2 LONG COUNT LVL  
(Zeit zwischen  
Stufen zu lang)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

2 LONG COUNT LVL  
PRESS SIGNAL CANCEL

**Erklärung**

Mehr als 30 s sind zwischen den anzufahrenden Stufen vergangen, als sich das Hubgestell des Transportsystems nach oben oder unten bewegte.

**Explanation**

More than 30 seconds elapsed between level targets while the shuttle elevating bed was moving up or down.

Zuerst den Zustand, der eine Bewegung verhinderte, suchen und beheben. Danach die Schaltfläche *Signal Cancel* (*Signal löschen*) drücken (☒), um das Transportsystem zu initialisieren und den Automatikbetrieb wiederaufzunehmen. Tritt der Fehler erneut auf, das Wartungspersonal verständigen.

Identify and correct any condition that may have prevented the action from occurring, then press the *Signal Cancel* button (☒) to initialize the shuttle and resume automatic operation. If error recurs, call maintenance personnel.

**3.1.4. Zählfehler des Stufengebers**

Die Steuerung einiger Transportsystemmodelle verfolgt die Position des Hubgestells mit einem Geber, der die Ziele auf jeder vertikalen Stufe zählt, wenn das Gestell das Ziel passiert. Ein Fehler tritt auf, wenn der Stufengeber nicht mehr zählt. Diese Fehler stoppen die Transportsystembewegung, sodass das Transportsystem neu initialisiert werden muss. Zu dieser Fehlerkategorie gehören folgende Fehler:

**Level Encoder Counting Errors**

The controller for some shuttle models tracks the position of the elevating bed with an encoder that counts targets at each vertical level as the bed passes the target. An error occurs if the level encoder loses count. These errors stop shuttle motion so that the shuttle can be re-initialized. This category of error includes the following:

**Anzeige oder Aktion**  
[Display or Action]

CNTS EXCEEDED MAX  
(Max. Zählwert  
überschritten)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

CNTS EXCEEDED MAX  
PRESS SIGNAL CANCEL

CNTS FELL BELOW 0  
(Zählwert unter 0)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

CNTS FELL BELOW 0  
PRESS SIGNAL CANCEL

SAW SLACK CHAIN  
(Schlaffe Kette  
erkannt)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

SAW SLACK CHAIN  
PRESS SIGNAL CANCEL

**Erklärung**

Die Zählung hat den unter  
“number of receive levels  
(Anzahl der Empfangsstufen)”  
oder “number of discharge  
levels (Anzahl der  
Entladestufen)” festgelegten  
Maximalwert überschritten (je  
nachdem, was zutrifft).

Die Zählung ist oder fällt bald  
unter 0.

Beim Absenken des  
Untergestells wurde eine  
schlaffe Kette erkannt, bevor die  
gewünschte Stufe erreicht  
wurde.

**Explanation**

The count exceeded the  
maximum value specified in  
the “number of receive  
levels” or the “number of  
discharge levels” configure  
decision, whichever applies.

The count is at, or about to  
fall below zero.

A slack chain condition  
occurred while the bed was  
moving down, but before  
reaching the desired count.

Die Ursache für diesen Geberfehler ist  
höchstwahrscheinlich nur temporär und wird  
nicht erneut eintreten. Die Schaltfläche *Signal  
Cancel (Signal löschen)* drücken (🖱️), um das  
Transportsystem zu initialisieren und den  
Automatikbetrieb wiederaufzunehmen. Tritt der  
Fehler erneut auf, das Wartungspersonal  
verständigen.

The condition that caused the encoder error is  
likely to be momentary and will probably not  
recur. Press the *Signal Cancel* button (🖱️) to  
initialize the shuttle and resume automatic  
operation. If the error recurs, call  
maintenance personnel.

**3.1.5. Positionenfehler**

Bei dieser Art von Fehler hat die Steuerung  
erkannt, dass das Transportsystem oder eine  
Komponente des Transportsystems in der  
falschen Position ist. Die Bewegung des  
Transportsystems stoppt, sodass untersucht  
werden kann, ob ein manueller Eingriff  
notwendig ist. Dabei muss ggf. Waschgut, das  
eine Fozelle blockiert, manuell entfernt oder  
das Transportsystem mit den manuellen  
Steuerelementen neu positioniert werden.

**Position Errors**

This type of error indicates that the controller  
detects the shuttle or a shuttle component is  
in the wrong place. Shuttle motion stops so  
that it can be determined if manual  
intervention is needed. Manual intervention  
may involve removing goods that are  
blocking a photoeye, or repositioning the  
shuttle using the manual controls.



**ACHTUNG [6]: Gefahr der  
Beschädigung**—Die manuellen  
Steuerelemente deaktivieren die Funktion der

**CAUTION [6]: Risk of damage**—The  
manual controls override the photo eyes  
which normally prevent the shuttle from

Fotozellen, die normalerweise verhindern, dass der Wäschekuchen vom Transportsystem in ein Objekt fährt oder auf den Boden fällt.

- Beim manuellen Bewegen des Transportsystems vorsichtig vorgehen und alle Konsequenzen berücksichtigen.

Die entsprechenden manuellen Steuerelemente für die einzelnen Fehler sind in der Fehlerbeschreibung aufgeführt. Zu dieser Fehlerkategorie gehören folgende Fehler:

running a cake into an object, or onto the floor.

- Use care and consider the consequences before moving the shuttle manually.

The pertinent manual controls for each error are listed in the error description. This category of error includes the following:

**Anzeige oder Aktion**

[Display or Action]

CAKE MUST BE  
MANUALLY UNLOADED  
(Wäschekuchen muss  
manuell entladen  
werden)

CAKE MUST BE  
MANUALLY UNLOADED

ERROR-NOT RETRACTED  
(Fehler - nicht  
eingefahren)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERROR-NOT RETRACTED  
PRESS SIGNAL CANCEL

ERROR - RAIL LIMIT  
(Fehler -  
Schienengrenze)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERROR - RAIL LIMIT  
PRESS SIGNAL CANCEL

**Erklärung**

Gilt für Transportsysteme, die so konfiguriert sind, dass das zweite Band zur Entladung angehoben werden kann. Ein Wäschekuchen befindet sich auf Band 1, jedoch nicht auf Band 0. Dazugehörige manuelle Steuerelemente: Schalter *Band 1 vorwärts/rückwärts*. Wenn Band 1 zur Entladung ausgerichtet ist, den Schalter bei *vorwärts* halten (↔), bis der Wäschekuchen entladen ist.

Das Transportsystem war für die Vorwärts-/Rückwärts- bzw. Aufwärts-/Abwärtsbewegung bereit, doch das Transportsystemgestell ist noch nicht vollständig eingefahren. Dazugehörige manuelle Steuerelemente: Schalter *Band 0 für Empfang ausfahren/einfahren* (↔/↔), Schalter *Band 0 für Entladung ausfahren/einfahren* (↔/↔), Leuchte *Band vollständig eingefahren*. Den entsprechenden Schalter betätigen, um die Leuchte einzuschalten.

Das Transportsystem ist zu weit nach rechts oder links gefahren, hat den Schalter *oops* ausgelöst und blieb länger als 5 s in dieser Position. Dazugehöriges manuelles Steuerelement: Schalter *Fahrt links/rechts* (↔/↔).

**Explanation**

Applies to shuttles configured not to elevate the second belt to discharge. A cake is on belt 1 but not on belt 0. Pertinent manual controls: *Belt 1 Forward/Reverse* switch. With belt 1 aligned for discharge, hold switch at *Forward* (↔) until cake is discharged.

The shuttle desired to traverse, elevate, or descend, but the shuttle bed is not fully retracted. Pertinent manual controls: *Belt 0 Extend/Retract to Receive* switch (↔/↔), *Belt 0 Extend/Retract to Discharge* switch (↔/↔), *Belt Fully Retracted* light. Operate the appropriate switch to illuminate the light.

The shuttle traversed too far right or left, actuated the *oops* switch, and remained there longer than five seconds. Pertinent manual control: *Travel Left/Right* switch (↔/↔).

**Anzeige oder Aktion**  
[Display or Action]

ERROR - SLACK CHAIN  
(Fehler - Schlaffe  
Kette)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERROR - SLACK CHAIN  
PRESS SIGNAL CANCEL

ERROR - TAUT CHAIN  
(Fehler - Straffe  
Kette)  
PRESS SIGNAL CANCEL  
(Auf „Signal  
löschen“ drücken)

ERROR - TAUT CHAIN  
PRESS SIGNAL CANCEL

EXTENDING TOO FAR  
(Zu weit  
ausgefahren)  
ADJUST BELT MANUALLY  
(Band manuell  
einstellen)

EXTENDING TOO FAR  
ADJUST BELT MANUALLY

**Erklärung**

Das Transportsystemgestell wurde entweder zum unteren Anschlag gefahren oder ist beim Absenken auf ein Hindernis gestoßen. Dazugehörige manuelle Steuerelemente: Schlüsselschalter *Absenken/Anheben aktivieren*, Schalter *Absenken* (↙) oder Schalter *Absenken/Anheben* (↙/↗), je nachdem, was zutrifft.

Das Transportsystemgestell wurde entweder zum oberen Anschlag gefahren oder ist beim Anheben auf ein Hindernis gestoßen. Dazugehörige manuelle Steuerelemente: Schlüsselschalter *Absenken/Anheben aktivieren*, Schalter *Absenken* (↙) oder Schalter *Absenken/Anheben* (↙/↗), je nachdem, was zutrifft, und Leuchte *Straffe Kette*. Den Schlüsselschalter auf manuellen Betrieb stellen und den Schalter betätigen. Bei einer zu straffen Kette leuchtet die Leuchte. Diese erlischt, wenn der Zustand beseitigt ist.

Das Transportsystemgestell wurde über die maximale Ausfahrposition bewegt. Dazugehörige manuelle Steuerelemente: Schalter *Band 0 für Entladung ausfahren/einfahren* (↔/↔), Leuchte *Band 0 für Entladung vollständig ausgefahren*. Den Schalter betätigen, um die Leuchte einzuschalten.

**Explanation**

The shuttle bed either descended onto its lower mechanical stop or met an obstruction while descending. Pertinent manual controls: *Enable Down/Up* key switch, *Move Down* switch (↙) or *Move Down/Up* switch (↙/↗), as applicable.

The shuttle bed either struck its upper mechanical stop or met another obstruction while rising. Pertinent manual controls: *Enable Down/Up* key switch, *Move Down/Up* switch (↙/↗), as applicable, and *Taut Chain* light. Set the key switch for manual operation and operate the switch. In a taut chain condition, the light is illuminated and goes out when the condition is eliminated.

The shuttle bed went beyond its fully extended position. Pertinent manual controls: *Belt 0 Extend/Retract to Discharge* switch (↔/↔), *Belt 0 Fully Extended to Discharge* light. Operate the switch to illuminate the light.

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
<p>RETRACTING TOO FAR (Zu weit eingefahren) ADJUST BELT MANUALLY (Band manuell einstellen)</p>	<p>Das Transportsystemgestell wurde über die maximale Einfahrposition bewegt. Dazugehörige manuelle Steuerelemente: Schalter <i>Band 0 für Empfang</i> <i>ausfahren/einfahren</i> (↔/↔), Schalter <i>Band 0 für Entladung</i> <i>ausfahren/einfahren</i> (↔/↔), Licht <i>Band vollständig eingefahren</i>. Den entsprechenden Schalter betätigen, bis die Leuchte leuchtet.</p>	<p>The shuttle bed went beyond its fully retracted position. Pertinent manual controls: <i>Belt 0 Extend/Retract to Receive</i> switch (↔/↔), <i>Belt 0 Extend/Retract to Discharge</i> switch (↔/↔), <i>Belt Fully Retracted</i> light. Operate the appropriate switch until the light illuminates.</p>

Einen Positionsfehler wie folgt beheben:

Correct a position error as follows:

**Anzeige oder Aktion**  
[Display or Action]

**Erklärung**

**Explanation**



Den Schalter *Automatisch/Manuell* auf *Manuell* stellen.

Set the *Automatic/Manual* switch to *Manual*.

Mit den entsprechenden manuellen Steuerelementen (Erläuterung siehe oben) das Transportsystem in die richtige Position bringen. Bei einem Kettenfehler ist der Zugang zum Schlüsselschalter *Absenken/Anheben aktivieren* notwendig. Wenn das Transportsystem nicht reagiert, das Wartungspersonal verständigen. Wenn das Transportsystem neu positioniert werden kann:

Use the appropriate manual controls (explained above) to position the shuttle properly. In the case of a chain error, you will need access to the key-operated *Enable Down/Up* switch. If the shuttle will not respond, call maintenance personnel. If you are able to re-position the shuttle:



Den Schalter *Automatisch/Manuell* auf *Automatisch* stellen.

Return the *Automatic/Manual* switch to *Automatic*.

```
BARE MANUAL-PRESS
SKIPTO TO EXIT
(Manueller Betrieb -
Zum Beenden auf
„Überspringen“
drücken)
```

Diese Meldung erscheint beim Umschalten vom manuellen Betrieb auf Automatikbetrieb.

This message appears when returning to automatic mode after using the manual controls.

```
BARE MANUAL-PRESS
SKIPTO TO EXIT
```



Entweder auf die Taste (Tastenfeld) oder auf die Schaltfläche (DryNet-Anzeige) SKIP TO (Überspringen) drücken, um die Transportsysteminitialisierung zu starten.

Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization.

**3.1.6. Transferfehler**

Ein Fehler dieser Art tritt auf, wenn sich beispielsweise ein Teil des Waschguts vom gepressten Wäschekuchen löst und eine Fozelle blockiert. Zu dieser Kategorie gehören folgende Fehler:

**Transfer Errors**

An error of this type occurs if, for example, a piece of goods separates from a pressed cake and blocks a photo eye. These errors include the following:



**Anzeige oder Aktion**

[Display or Action]

```
ERROR - EYE ERROR 1
(Fehler -
Fotzellenfehler 1)
PRESS SIGNAL CANCEL
(Auf „Signal
löschen“ drücken)
```

```
ERROR - EYE ERROR 1
PRESS SIGNAL CANCEL
```

```
ERROR - EYE ERROR 3
(Fehler -
Fotzellenfehler 3)
PRESS SIGNAL CANCEL
(Auf „Signal
löschen“ drücken)
```

```
ERROR - EYE ERROR 3
PRESS SIGNAL CANCEL
```

**Erklärung**

Die Fotozelle auf der Beladeseite oder auf der Entladeseite ist auf einem Band mit mehreren Wäschekuchen blockiert, als das Transportsystem für die Bewegung bereit war. Dies weist darauf hin, dass möglicherweise ein Wäschekuchen vom Band ragt und die Gefahr der Beschädigung besteht. Der Fehler EYE ERROR 2 (Fotzellenfehler 2) ist ähnlich. Jeder Fehler bezieht sich auf bestimmte Modelle.

Die Fotozelle auf der Entladeseite bei einem Band mit mehreren Wäschekuchen wurde bei der Entladung nicht so oft blockiert und freigegeben, wie die Steuerung Wäschekuchen erwartete, d. h., die Steuerung zählte zu wenig Wäschekuchen. Dies kann auftreten, wenn zwei Wäschekuchen zusammengedrückt sind, sodass die Steuerung sie nicht mehr getrennt zählen kann.

**Explanation**

Either the load-end or discharge-end photo eye is blocked on a multi-cake belt when the shuttle desires to move, indicating that a cake may be protruding off of the belt, risking damage. EYE ERROR 2 is similar. Each error applies to specific models.

The discharge-end photo eye on a multi-cake belt did not block and clear as many times, during discharge, as the controller believes there are cakes; that is, the controller counted too few cakes. This can occur if goods straddle two cakes making them indistinguishable to the controller.

**Anzeige oder Aktion**  
[Display or Action]

```
ERROR - EYE ERROR 4
(Fehler -
Fotzellenfehler 4)
PRESS SIGNAL CANCEL
(Auf „Signal
löschen“ drücken)
```

```
ERROR - EYE ERROR 4
PRESS SIGNAL CANCEL
```

**Erklärung**

Die Fotozelle auf der Entladeseite bei einem Band mit mehreren Wäschekuchen wird beim Beladen blockiert, was darauf hinweist, dass der Wäschekuchen nach dem ersten Wäschekuchen möglicherweise fehlt. Beim Beladen eines Bandes mit mehreren Wäschekuchen sollte der letzte Wäschekuchen die Fotozelle auf der Beladeseite freigeben und das Band stoppen, bevor der erste Wäschekuchen die Fotozelle der Entladeseite blockiert. Dieser Fehler kann auftreten, wenn sich lose zusammengesetzte Wäschekuchen teilen und zu viel Platz auf dem Band einnehmen.

**Explanation**

The discharge-end photo eye on a multi-cake belt blocks during loading, indicating that cake(s) following the first cake, may be missing. When a multi-cake belt is loaded, the last cake should clear the load-end photo eye and stop the belt before the first cake blocks the discharge-end photo-eye. This error can occur if loosely compacted cakes spread apart and take up too much room on the belt.

```
ERROR - EYE ERROR 5
(Fehler -
Fotzellenfehler 5)
PRESS SIGNAL CANCEL
(Auf „Signal
löschen“ drücken)
```

```
ERROR - EYE ERROR 5
PRESS SIGNAL CANCEL
```

Die Fotozelle auf der Beladeseite und auf der Entladeseite werden blockiert, wenn das Transportsystem für die Fahrt oder für das Absenken des Untergestells bereit ist. Dies weist darauf hin, dass ein Wäschekuchen vom Band ragt und die Gefahr der Beschädigung besteht.

The load-end and discharge-end photo eyes are both blocked when the shuttle desires to traverse or lower the bed, indicating that a cake may protrude from the belt, risking damage.

```
ERROR - EYE ERROR 6
(Fehler -
Fotzellenfehler 6)
PRESS SIGNAL CANCEL
(Auf „Signal
löschen“ drücken)
```

```
ERROR - EYE ERROR 6
RESS SIGNAL CANCEL
```

Die Überlauffotozelle ist blockiert, wenn das Transportsystem für die Fahrt oder das Anheben/Absenken des Untergestells bereit ist. Dies weist darauf hin, dass ein Wäschekuchen vom Band ragt und die Gefahr der Beschädigung besteht.

The overshoot photoeye is blocked when the shuttle desires to traverse or raise/lower the bed, indicating that a cake may protrude from the belt, risking damage.

```
ERROR - XFER ABORTED
(Fehler - Transfer
abgebrochen)
PRESS SIGNAL CANCEL
(Auf „Signal
löschen“ drücken)
```

```
ERROR - XFER ABORTED
PRESS SIGNAL CANCEL
```

Die Miltrac-Steuerung brach den laufenden Transfer ab. Beispielsweise tritt einer der oben beschriebenen Fotzellenfehler nach Beginn des Transfers auf, bevor die Kommunikation mit Miltrac abgeschlossen ist.

The Miltrac controller cancelled the transfer in progress. For example, one of the photo eye errors described above occurs after the transfer process starts, but before communication with Miltrac is completed.

Unter Einhaltung der geltenden Sicherheitsmaßnahmen eine falsch blockierte Fotozelle freigeben. Dazu das Waschgut manuell entfernen oder das Band mit dem Waschgut wie folgt manuell bewegen:

Observing published safety precautions, clear an improperly blocked photoeye by physically removing the goods or by manually running the belt to move the goods, as follows:

**Anzeige oder Aktion**  
[Display or Action]

**Erklärung**

**Explanation**



Den Schalter *Automatisch/Manuell* auf *Manuell* stellen.

Set the *Automatic/Manual* switch to *Manual*.



Mit dem entsprechenden Schalter *Belt x vorwärts/rückwärts* (bis zu vier vertikal übereinander angeordnete Bänder mit den Nummern 0 bis 3 von unten nach oben) das betreffende Band bewegen und den Transfer abschließen oder korrigieren.

Use the appropriate *Belt x Forward/Reverse* switch (up to four vertically stacked belts, numbered 0 through 3, from bottom to top) to run that belt and complete or correct the transfer.



Den Schalter *Automatisch/Manuell* wieder auf *Automatisch* stellen.

Return the *Automatic/Manual* switch to *Automatic*.

```
BARE MANUAL-PRESS
SKIPTO TO EXIT
(Manueller Betrieb -
Zum Beenden auf
„Überspringen“
drücken)
```

Diese Meldung erscheint beim Umschalten vom manuellen Betrieb auf Automatikbetrieb.

This message appears when returning to automatic mode after using the manual controls.

```
BARE MANUAL-PRESS
SKIPTO TO EXIT
```



Entweder auf die Taste (Tastenfeld) oder auf die Schaltfläche (DryNet-Anzeige) SKIP TO (Überspringen) drücken, um die Transportsysteminitialisierung zu starten und den Automatikbetrieb wiederaufzunehmen.

Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization and resume automatic operation.

### 3.1.7. Fehler zur Weiterleitung an Vorgesetzte oder das Wartungspersonal

Die folgenden Fehler haben Konsequenzen, die vom Vorgesetzten beseitigt werden sollten. Werden die Konsequenzen beseitigt, ist der Fehler behoben.

### Errors That Should Be Reported to Management or Maintenance Personnel

The following errors have consequences that should be resolved by management personnel. Addressing the consequences resolves the error.

**Anzeige oder Aktion**  
[Display or Action]

CHECK I/O BOARD x (E/A-Karte x prüfen) PRESS SIGNAL CANCEL (Auf „Signal löschen“ drücken)
CHECK I/O BOARD x PRESS SIGNAL CANCEL

CLEAR MEMORY NOW (Speicher jetzt löschen) PRESS 4 + 5 + 6 (4 + 5 + 6 drücken)
CLEAR MEMORY NOW PRESS 4 + 5 + 6

ERROR - TOO MANY DIR (Fehler - zu viele Richtungen) PRESS SIGNAL CANCEL (Auf „Signal löschen“ drücken)
ERROR - TOO MANY DIR PRESS SIGNAL CANCEL

PROGRAM 0 MENU (Kein Menü programmieren) OK TURN KEY TO RUN (Schlüssel auf „Betrieb“ stellen)
PROGRAM 0 MENU OK TURN KEY TO RUN

**Erklärung**

Die Steuerung erkennt eine ausgefallene oder fehlende Steuerplatine. Wenn dieser Fehler direkt nach dem Programmieren der Konfigurationswerte auftritt, wurde wahrscheinlich eine optionale Funktion eingerichtet, die zurzeit nicht an der Maschine vorhanden ist. Wenn dieser Fehler nach dem Hinzufügen von Hardware für eine optionale Funktion auftritt, wurde diese Funktion in der Konfiguration noch nicht eingerichtet. In anderen Fällen weist dieser Fehler wahrscheinlich darauf hin, dass eine Karte oder ein dazugehöriger Stromkreis ausgefallen ist.

Die anwenderprogrammierbaren Daten sind beschädigt. Die Konfigurationswerte müssen entsprechend den Erläuterungen im Referenzhandbuchabschnitt zur Programmierung neu programmiert werden.

Die rechten und linken Richtungseingaben einer dazugehörigen Beladevorrichtung wurden gleichzeitig betätigt. Dies ist eine elektrische Fehlfunktion einer Steuereinheit, die behoben werden muss.

Der Schlüssel **Betrieb/Programmieren** wurde in der Maschine gelassen und der Schalter befindet sich in der Position *Programmieren*. Dieser Schlüssel sollte entfernt und an einem sicheren Ort aufbewahrt werden, zu dem nur Vorgesetzte Zutritt haben.

**Explanation**

The controller detects a failed or missing control circuit board. If this error occurred immediately after configure values were programmed, it is probably the result of specifying an optional feature that is not actually present on the machine. If it occurred after adding hardware for an optional feature, it indicates that this feature has not yet been specified in configuration. Otherwise, it probably indicates that a board or related circuitry has failed.

Field-programmable data became corrupt. Configure values must be re-programmed as explained in the part of the reference manual on programming.

The right and left direction inputs from an allied loading device were actuated at the same time. This is a control circuitry malfunction requiring electrical troubleshooting.

The **Run/Program** key has been left in the machine and the switch is in the *Program* position. This key should be removed and placed in a secure location accessible only to management personnel.

## 3.2. Trocknerfehlermeldungen

Die meisten Trocknerfehlermeldungen und deren Ursachen können vom Bediener behoben werden. In einigen Fällen muss der Bediener das Wartungspersonal oder Vorgesetzte um Hilfe bitten. Wenn der Trockner automatisch durch ein Transportband beladen wird, den Betriebsbereich des Transportbands zur Fehlerbehebung nicht betreten, wenn Sie nicht in der Sicherheit des Transportsystems ordnungsgemäß geschult sind. Die geltenden Sicherheitsvorschriften des Werkes einhalten.



**WARNUNG [7]: Stoß- und Quetschgefahr**—Das Transportband, das mehrere automatisch beladene Trockner bedient, bewegt sich beim Automatikbetrieb unvorhergesehen. Bei der Bewegung berührt das System fast die Vorderseite der einzelnen Trockner. Für jede Person in der Nähe eines Trockners besteht Stoß- oder Quetschgefahr.

- Bediener: Nie den Betriebsbereich des Transportsystems betreten, wenn der Strom nicht sicher abgeschaltet ist.
- Wartungspersonal: Vor dem Betreten des Betriebsbereichs des Transportsystems immer den Automatikbetrieb deaktivieren.

Aus der Sicht der Fehlerbehebung gibt es vier Arten von Trocknerfehlern: Überhitzungsfehler, Ladetürhinweise, sonstige Automatikbetriebsfehler und Fehler zur Weiterleitung an Vorgesetzte oder das Wartungspersonal Die Fehler werden nach Kategorie und innerhalb einer Kategorie alphabetisch sortiert. Um den betreffenden Fehler zu finden, müssen Sie möglicherweise in mehr als einer Kategorie suchen. Die Erläuterungen der einzelnen Kategorien sind in drei Abschnitte unterteilt:

1. eine Beschreibung dieser Fehlerkategorie
2. eine Liste der Fehler und deren Beschreibungen
3. Schritte zur Behebung eines Fehlers dieser Art

## Dryer Error Messages

Most dryer error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. If the dryer is automatically loaded by a shuttle conveyor, do not enter the shuttle operating area to resolve an error unless properly trained in shuttle safety. Abide by the published facility safety precautions.

**WARNUNG [7]: Strike and Crush Hazards**—The shuttle conveyor that serves a line of automatically-loaded dryers moves unpredictably during automatic operation. As it traverses, it passes, almost touching the front of each dryer. Anyone at or near the front of a dryer can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.
- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, dryer errors are of four types: overheat errors, load door advisories, other automatic operation errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### 3.2.1. Zur Meldung “THREE WIRE DISABLED (Dreileiterschaltung deaktiviert)”

Beim Einschalten erscheint diese Meldung und der akustische Bedieneralarm ertönt, bis der *Start*-Taster (ⓘ) gedrückt wird. Diese Meldung und das akustische Signal treten auch auf, wenn ein Notstopptaster gedrückt wird, ein Überlastschalter eines Motors ausgelöst wird oder ein anderes Ereignis eintritt. Einige in diesem Dokument beschriebenen Fehler können zusammen mit Ereignissen auftreten, die die Dreileiterschaltung deaktivieren. In diesem Fall erscheint die Meldung THREE WIRE DISABLED (Dreileiterschaltung deaktiviert) und nicht die Fehlermeldung, die sonst auf der Anzeige erscheint. Zwei wichtige Sonderfälle werden jedoch in [Abschnitt 3.2.2 “Überhitzungsfehler”](#) erläutert.

### 3.2.2. Überhitzungsfehler

Ein Überhitzungsfehler tritt auf, wenn die Steuerung eine Rücklauftemperatur über dem zulässigen Wert erkennt. Ein Überhitzungsfehler kann zwar verschiedene Ursachen haben, doch die Steuerung geht von einem Brand in der Trommel aus und leitet folgende Maßnahmen ein:

- Unterbrechung der Dreileiterschaltung, dadurch wird:
  - » die Heizungsquelle (z. B. das Gasventil) geschlossen,
  - » die Hauptluftzufuhr geschlossen,
  - » die Trommeldrehung geschlossen.
- Aktivierung der internen Sprinkleranlage, die Wasser in die Trommel sprüht.

### About the “THREE WIRE DISABLED” Message

This message appears and the operator alarm sounds at startup until the *Start* button (ⓘ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. A few errors described in this document may coincide with events that disable the three-wire circuit. When this occurs, the THREE WIRE DISABLED message, and not the error message, will typically appear on the display. However, two important special cases are explained in [Section 3.2.2 “Overheat Errors”](#).

### Overheat Errors

An overheat error occurs if the controller detects an outlet temperature exceeding the permissible value. Although an overheat error can have numerous causes, the controller assumes there is a fire in the basket and takes the following actions:

- opens the three wire circuit, which:
  - » shuts off the heat source (e.g., closes the gas valve)
  - » shuts off the main air flow
  - » stops basket rotation
- actuates the internal sprinkler, which sprays water into the basket

**Anzeige oder Aktion**

[Display or Action]

```
OUTLET TEMP EXCEEDED
(Rücklauftemperatur
höher als)
240dF -POWER DOWN-
(Abschalten)
```

```
OUTLET TEMP EXCEEDED
240dF -POWER DOWN-
```

**Erklärung**

Eine redundante Sicherheitsfunktion am Trockner löst diesen Fehler aus, wenn die Rücklauftemperatur 116 °C (240 °F) erreicht. Dieses Ereignis tritt nicht bei einem Anstieg der Isttemperatur auf, es sei denn, der im Folgenden erläuterte Zustand THREE WIRE DISABLED (Dreileiterschaltung deaktiviert) tritt auf, z. B. durch einen Komponentenausfall. Dieser Fehler wird in der Software aufgrund der Daten für die Rücklauftemperatur ausgelöst. Demzufolge kann dieser Fehler fälschlicherweise auftreten, weil beispielsweise eine elektrische Komponente, z. B. eine A/D-Karte ausgefallen ist. Die Dreileiterschaltung unterbricht zwar in diesem Fall, doch diese Fehlermeldung überschreibt die Meldung THREE WIRE DISABLED (Dreileiterschaltung deaktiviert).

**Explanation**

A redundant safety feature on the dryer will trigger this error if outlet temperature exceeds 240° Fahrenheit (116° Celsius). This event will not occur as a result of an actual temperature rise unless the THREE WIRE DISABLED condition, explained below, fails, perhaps due to a component failure. This error is triggered in software, based on the outlet temperature input. Hence, this error may occur erroneously, due to an electrical component failure such as a failed A/D board. Although the three wire circuit opens when this event occurs, this error message will take precedence over the THREE WIRE DISABLED message.

```
THREE WIRE DISABLED
(Dreileiterschaltung
deaktiviert)
*****
```

```
THREE WIRE DISABLED
*****
```

Diese Meldung ist das Ergebnis einer Rücklauftemperatur über 107 °C (225 °F), doch sie kann andere Ursachen haben. Wenn diese Meldung während des Betriebs erscheint (nachdem der Taster *Start* gedrückt wurde), **sofort überprüfen, ob die Sprinkleranlage (auf der Seite der Entladeöffnung) aktiviert ist.** Wenn ja, diese Meldung als Überhitzungsfehler behandeln. Dieser Fehler wird durch einen der beiden Temperatursicherheitsschalter (Fenwal-Schalter) am Auslasskanal ausgelöst.

This message may be the result of the outlet temperature exceeding 225° Fahrenheit (107° Celsius), but it may also have other causes. Whenever this message appears during operation (after the *Start* button is pressed), **immediately check to see if the sprinkler mechanism (mounted on the side of the discharge shroud) is actuated** and if so, resolve this message as an overheat error. This error is triggered by either of two temperature safety switches (Fenwal switches) mounted in the outlet duct.

Einen Überhitzungsfehler wie folgt beheben:

Resolve an overheat error as follows:

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
⊗, ⊕	<ol style="list-style-type: none"> <li>1. Wenn der Fehler OUTLET TEMP EXCEEDED 240dF (Rücklauf­temperatur höher als 240 °F) aufgetreten ist, den <i>Hauptschalter</i> des Trockners ausschalten und wieder einschalten. Dies ist notwendig, um das Ausgangsrelais Sprinkler erwünscht zurückzusetzen. Sonst kann die Sprinkleranlage nicht ausgeschaltet werden.</li> <li>2. Wenn kein Brand vorliegt, <b>den roten Griff an der Sprinkleranlage nach unten ziehen, bis der Griff einrastet</b>, um den Wasserzulauf in die Trommel zu stoppen. Danach weiterhin auf Brandanzeichen achten und die Sprinkleranlage bei Bedarf wieder einschalten.</li> </ol>	<ol style="list-style-type: none"> <li>1. If the OUTLET TEMP EXCEEDED 240dF error occurred, turn the dryer <i>Master</i> switch off, then back on. This is required to reset the Desires Sprinkler output relay. Otherwise it will not be possible to shut off the sprinkler.</li> <li>2. If there is no evidence of fire, <b>pull down the red handle on the sprinkler mechanism until the handle locks in place</b>, to stop the flow of water into the basket, but continue to observe for evidence of fire and be prepared to re-activate the sprinkler.</li> </ol>
Ⓢ	<p>Der <i>Start</i>-Taster des Trockners drücken. Fällt die Rücklauf­temperatur nicht unter 101 °C (214 °F), wird die Dreileiterschaltung nicht aktiviert. Warten, bis der Trockner ausreichend abgekühlt ist.</p>	<p>Press the dryer <i>Start</i> button. If outlet temperature has not cooled below 214° Fahrenheit (101° Celsius), the three wire circuit will not energize. Wait until the dryer has cooled sufficiently.</p>

Sobald die Dreileiterschaltung aktiviert ist, mit den manuellen Steuerelementen eventuell brandbeschädigtes Waschgut entladen. Dabei alle notwendigen Brandschutzmaßnahmen einhalten. Wenn eine Trommel Feuer fängt, muss der Trockner vor erneuter Inbetriebnahmen auf Beschädigungen untersucht werden. Anderenfalls setzt der Trockner den Automatikbetrieb in der Regel fort, wenn der Trocknerschalter *Automatisch/Manuell* auf *Automatisch* gestellt ist. Wenn dieser Fehler erneut angezeigt wird, obwohl kein Brand vorliegt, deutet dies auf eine fehlerhafte Komponente hin. Wartungspersonal verständigen.

Once the three wire circuit is energized, use the manual controls to discharge any fire-damaged goods. Use all necessary fire safety precautions when doing so. If a basket fire did occur, the dryer will need to be inspected for damage before returning it to service. Otherwise, with the dryer *Automatic/Manual* switch set to *Automatic*, the dryer should resume automatic operation. If no fire occurred but the error recurs, this indicates a malfunctioning component. Call maintenance personnel.



### 3.2.3. Ladetürhinweise

Diese Meldungen werden ohne Bedieneralarm angezeigt, wenn sich eine Ladetür nicht innerhalb von 15 s nach dem entsprechenden Befehl öffnet oder schließt. Die Verarbeitung stoppt, bis die entsprechende Maßnahme durchgeführt wird. Sobald jedoch die passende Ladetüreingabe erfolgt, wird der Betrieb ohne weiteren Eingriff fortgesetzt.

### Load Door Advisories

These messages occur with no accompanying operator alarm if the load door does not open or close within 15 seconds after being commanded to do so. Processing will not proceed until the action occurs, but will resume without any intervention once the appropriate load door input is made.

**Anzeige oder Aktion**  
[Display or Action]

**Erklärung**

**Explanation**

LOAD DOOR NOT OPEN  
(Ladetür nicht  
offen)

LOAD DOOR NOT OPEN

Die Ladetür öffnete sich nicht innerhalb der festgelegten Zeit. Die Tür befindet sich möglicherweise aufgrund eines mechanischen Problems, z. B. niedriger Druckluftdruck, nicht in der richtigen Position. Dieser Fehler kann auch fälschlicherweise auftreten, wenn beispielsweise ein Annäherungsschalter ausgefallen ist.

The load door did not open within the specified time. The door may not have moved to the needed position due to a mechanical problem such as low air pressure. This error could also occur erroneously as a result of a problem such as a failed proximity switch.

LOAD DOOR OPEN  
(Ladetür offen)

LOAD DOOR OPEN

Die Ladetür wurde nicht innerhalb der festgelegten Zeit geschlossen. Dies liegt möglicherweise daran, dass ein Stück Waschgut die Tür blockiert. Es kann jedoch auch eine ähnliche Ursache wie bei der Meldung LOAD DOOR NOT OPEN (Ladetür nicht offen) vorliegen.

The load door did not close within the specified time. This is most likely due to a piece of goods blocking the door, but it could also be for a similar reason as LOAD DOOR NOT OPEN.

DISCHARGE DOOR OPEN  
(Entladetür offen)

DISCHARGE DOOR OPEN

Die Entladetür wurde nicht innerhalb der festgelegten Zeit geschlossen, als der entsprechende Befehl bei der Entladung ausgegeben wurde. Die Ursachen können ähnlich sein wie bei der Meldung LOAD DOOR NOT OPEN (Ladetür nicht offen).

The discharge door did not close within the specified time, when commanded to do so at loading. This could also be for a similar reason as LOAD DOOR NOT OPEN.

Wenn der Zustand sich nicht innerhalb kurzer Zeit selbstständig korrigiert, das Problem mit dem Ladetürbetrieb untersuchen und beheben. Dies müssen Personen mit den entsprechenden Qualifikationen und Berechtigungen unter Einhaltung der geltenden Sicherheitsmaßnahmen des Werks durchführen. Wenn sich der Zustand von selbst behebt,

If the condition does not self-correct within a short time, investigate, and correct any condition interfering with load door operation. This will require personnel with the appropriate qualifications and authority, and compliance with published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

jedoch erneut auftritt, das Wartungspersonal verständigen.

**3.2.4. Sonstige  
Automatikbetriebsfehler**

Die Fehler in dieser Kategorie werden von einem Bedienersignal begleitet. Der Trocknerbetrieb stoppt, sodass untersucht werden kann, ob ein manueller Eingriff notwendig ist.

**Other Automatic Operation  
Errors**

The errors in this category are accompanied by the operator signal. Dryer operation stops so that it can be determined if intervention is needed.

**Anzeige oder Aktion**

[Display or Action]

CHECK ERROR LIGHTS  
(Fehlerleuchten  
überprüfen)

CHECK ERROR LIGHTS

**Erklärung**

Dieser Fehler tritt nur bei Gas- und Propanrocknern auf. Es müssen verschiedene Bedingungen erfüllt sein, bevor der Fireye- oder Landis&Gyr-Flammenwächter den Brenner zündet bzw. brennen lässt. Dieser Fehler weist darauf hin, dass nicht alle Bedingungen erfüllt sind. Die Maschinensteuerung überwacht diese Bedingungen nicht einzeln, sondern es werden mehrere Bedingungen durch die Signal- bzw. Fehlerleuchten des Trockners angezeigt. Wenn bestimmte Leuchten leuchten, heißt dies, dass eine bestimmte Bedingung erfüllt ist. Andere zeigen an, dass eine unerfüllte Bedingung oder ein Fehlerzustand vorliegt. Die Erläuterung der einzelnen Signalleuchten finden Sie in der Beschreibung der Trocknersteuerelemente.

**Explanation**

This error only applies to gas and propane dryers. Numerous conditions must be satisfied before the Fireye or Landis & Gyr brand (as specified) flame control system will ignite the burner or permit it to remain lit. This error indicates that not all conditions are satisfied. The machine controller does not monitor these condition individually, but several conditions are represented by lights on the dryer status (error) light panel. When illuminated, certain lights indicate that a particular condition is satisfied while others indicate an un-met, or error condition. Refer to the description of dryer controls for an explanation of each status light.


DISCHARGE DOOR NOT  
CLOSED AFTER DISCH.  
(Entladetür nach  
Entladung nicht  
geschlossen)


DISCHARGE DOOR NOT  
CLOSED AFTER DISCH.

Die Entladetür wurde nach der Entladung nicht vollständig geschlossen. Dies kann daran liegen, dass Waschgut die Tür blockiert, ein mechanisches Problem, z. B. niedriger Druckluftdruck, oder ein elektrisches Problem, z. B. ein ausgefallener Annäherungsschalter, vorliegt.

The discharge door did not close fully after discharge. This may be due to goods blocking the door, to a mechanical problem such as low air pressure, or to an electrical problem such as a failed proximity switch.

Anzeige oder Aktion [Display or Action]	Erklärung	Explanation
<div style="border: 1px solid black; padding: 2px;">ROTATION FAILURE (Drehungsfehler)</div> <div style="border: 1px solid black; padding: 2px;">ROTATION FAILURE</div>	<p>Die Trommel drehte sich beim Trocknen länger als 8 s nicht. Wenn sich die Trommel nicht richtig dreht, können folgende Probleme vorliegen: Waschgut hat sich in den Trommeldichtungen verfangen, aufgrund der Kondensation an den Trommelstützrollen rutscht die Trommel, der Umrichter funktioniert nicht richtig. Dieser Fehler kann auch durch ein Problem verursacht werden, sodass die Steuerung die Trommeldrehung nicht erkennt, z. B. durch einen falsch ausgerichteten Annäherungsschalter oder einen durchgebrannten Kondensator in der Bewegungssensoreinheit.</p>	<p>The basket stopped rotating for more than 8 seconds during a dry cycle. If the basket is actually not rotating properly, some possible causes include goods caught in the basket seals, condensation on the basket support rollers causing the basket to slip, and a malfunctioning inverter. The error can also be caused by a problem that prevents the controller from detecting basket rotation, such as a mis-aligned proximity switch, or a burned out capacitor in the motion sensing circuit.</p>
<div style="border: 1px solid black; padding: 2px;">*TRANSFER ABORTED* (Transfer abgebrochen) CLEAR SHUTTLE FIRST (Zuerst Transportsystem freimachen)</div> <div style="border: 1px solid black; padding: 2px;">*TRANSFER ABORTED* CLEAR SHUTTLE FIRST</div>	<p>Die Miltrac-Steuerung brach den laufenden Transfer ab. Beispielsweise blockiert ein Stück Waschgut die Fotozelle auf der Entladeseite des Transportsystems. In der Regel bedeutet dieser Fehler, dass das Transportsystem vor diesem Trockner angehalten wurde und beide Geräte Fehler anzeigen. Der Transportsystemfehler muss zuerst behoben werden. Siehe dazu die Anweisungen zu den Transportsystem-Fehlermeldungen.</p>	<p>The Miltrac controller cancelled the transfer in progress. For example, a piece of goods blocked the discharge-end photo eye on the shuttle. Hence this error usually means that the shuttle is stopped in front of this dryer and both devices have errors. The shuttle error must be addressed first. Refer to the instructions on shuttle error messages.</p>

Den Bedieneralarm mit dem Taster *Signal Cancel* (*Signal löschen*) () deaktivieren. Wenn sich der Fehler selbst behebt, wird der Automatikbetrieb in der Regel fortgesetzt. Anderenfalls das Problem untersuchen und beheben. Dies müssen Personen mit den entsprechenden Qualifikationen und Berechtigungen unter Einhaltung der geltenden Sicherheitsmaßnahmen des Werks durchführen. Wenn sich der Zustand von selbst behebt, jedoch erneut auftritt, das Wartungspersonal verständigen.

Press the *Signal Cancel* button () to silence the operator alarm. If the error self-corrected, automatic operation should resume. If not, investigate and correct the problem. This will require personnel with the appropriate qualifications and authority and compliance with the published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

**3.2.5. Meldungen zur Weiterleitung an Vorgesetzte oder das Wartungspersonal**

Die folgenden Fehler haben Konsequenzen, die von Vorgesetzten oder dem Wartungspersonal beseitigt werden sollten. Werden die Konsequenzen beseitigt, ist der Fehler behoben.

**Messages That Should Be Reported to Management or Maintenance Personnel**

The following errors have consequences that should be resolved by management or maintenance personnel. Addressing the consequences resolves the error.

**Anzeige oder Aktion**

[Display or Action]

```
ERROR IN MEMORY
(Fehler im Speicher)
TURN KEY TO PROGRAM
(Schlüssel auf
Programmierung
drehen)
```

```
ERROR IN MEMORY
TURN KEY TO PROGRAM
```

```
ILLEGAL DRYCODE xxx
(Falscher
Trockencode xxx)
SEE MANUAL (Siehe
Handbuch)
```

```
ILLEGAL DRYCODE xxx
SEE MANUAL
```

**Erklärung**

Anwenderprogrammierbare Daten (Konfiguration und/oder Trockencodes) wurden beschädigt (unzuverlässig). Die korrekten Daten müssen heruntergeladen oder entsprechend den Erläuterungen im Referenzhandbuchabschnitt zur Programmierung neu programmiert werden.

Die Trocknersteuerung sollte einen Trockencode ausführen, der zurzeit nicht programmiert ist, d. h., der Trockencode ist nicht lokal. Die Trockencodenummer sowie andere Postencodes stammen von der Mentor-Steuerung oder dem Mildata-Computer. Die Person, die die Codes nach dem Waschen der Waschformel zuordnet, muss sicherstellen, dass die zugeordneten Codes gültig sind. Wenn Waschgut im Trockner mit einem ungültigen (falschen) Trockencode verarbeitet werden soll, entlädt der Trockner das Waschgut nass. Der Bediener kann dieses Problem lösen, indem er das Bedienersignal (☒) löscht und anschließend einen anderen geeigneten Trockencode eingibt. Der Vorgesetzte muss jedoch sicherstellen, dass entweder der festgelegte Trockencode im Trockner programmiert (oder heruntergeladen) wird oder der Waschformel eine gültige Trockencodenummer in der Mentor-Programmierung zugeordnet wird.

**Explanation**

Field-programmable data (configuration and/or drycodes) became corrupt (unreliable). The correct data must be downloaded or re-programmed, as explained in the part of the reference manual on programming.

The dryer controller received a request to run a drycode that is not currently programmed; that is, the drycode is not local. The drycode number, along with other batch codes, originated in the Mentor or Mildata computer. It is the responsibility of the person who associates the post-wash codes with the wash formula to ensure that the assigned codes are valid. If goods are permitted to be processed in the dryer using an invalid (illegal) drycode, the dryer will simply discharge the goods wet. The operator may be able to resolve this immediate problem by cancelling the operator signal (☒) then invoking another suitable drycode; however, management personnel will need to ensure that either the specified drycode is programmed in (or downloaded to) the dryer or that a valid drycode number is associated with the wash formula in Mentor programming.

**Anzeige oder Aktion**  
 [Display or Action]

```
INVALID PASSWORD
(Ungültiges
Passwort)
```

```
INVALID PASSWORD
```

```
name BOARD FAILED
(xx-Karte
ausgefallen)
PRESS SIGNAL CANCEL
(Auf „Signal
löschen“ drücken)
```

```
name BOARD FAILED
PRESS SIGNAL CANCEL
```

**Erklärung**

Diese Meldung gilt nicht für Trockner in einem DryNet-Netzwerk (Trockner-/Transportsystemsteuerung). Wenn entsprechend der Konfiguration eines Trockners ein Passwort bei einem manuellen Eingriff eingegeben werden muss und der Bediener kein Passwort besitzt, muss dieses vom Vorgesetzten angefordert werden.

Die genannte Peripheriekarte kommuniziert nicht mit dem Mikroprozessor. Hier ist eine Fehlerbehebung in der Elektrik notwendig.

**Explanation**

This message does not apply to dryers in a DryNet network. If the dryer is configured to require a password for manual intervention and the operator does not have one, this will need to be obtained from management personel.

The named peripheral board is not communicating with the microprocessor. This will require electrical troubleshooting.

— Ende BIPDUT01 —

— End of BIPDUT01 —

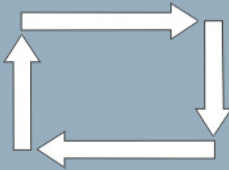




Svenska

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## Driftsmanual [Operator Guide]— Drynets torkar-/skyttelkontroll [Drynet Dryer/Shuttle Controller]

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Läs Säkerhetsmanualen

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

**Tillämpliga Milnor® produkter efter modellnummer: [Applicable Milnor® products by model number:]**

50040SA1	5040TG2L	5040TG2R	5040TS2L	5040TS2R	5050TG2L	5050TG2R
5050TS1L	5050TS1R	6458TG1L	6458TG1R	6458TS1L	6458TS1R	6464TG1L
6464TG1R	7272TG1L	7272TG1R	7272TS1L	7272TS1R	CTLDRSPC	

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# Kapitel 1

## Kontroller

# Chapter 1

## Controls

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### 1.1. Skyttelkontroller inklusive sådana i ett DryNet-nätverk

Detta dokument beskriver de fysiska kontroller som finns för de olika skyttelmodellerna, liksom vissa driftsfunktioner i DryNet, som fungerar i stället för fysiska kontroller, när skytteln ingår i ett DryNet-nätverk (torkare-/skyttelkontroll). Skytteln kommer enbart att ha de kontroller som behövs för den typ av rörelser som den kan utföra. Vissa kontroller finns alltid på själva skytteln. Vanligen, på skyttlar som går längs en räls, finns de manuella kontrollerna på den fristående manöverpanelen för skytteln, men på skyttlar som inte förflyttar sig, finns de på själva skytteln. Om skytteln ingår i ett DryNet-nätverk, finns vissa fysiska kontroller på manöverpanelen för DryNet. Det är också här maskinfunktionerna är tillgängliga via DryNet:s mjukvara.

#### 1.1.1. Manöverpaneler monterade på maskinen

Dessa inkluderar en eller flera nödstoppknappar, enligt beskrivning i [Avsnitt 1.2.1.1](#) “Nödstoppsbrytare (låsand tryckknapp)” och de övriga kontroller som beskrivs i denna sektion.

### Controls on Shuttles Including Those in a DryNet Network

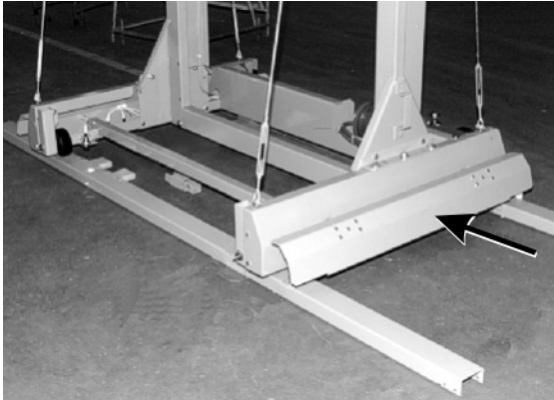
This document describes the physical controls provided with the various shuttle models as well as a few DryNet operating functions which serve in place of physical controls when the shuttle is part of a DryNet (Dryer/Shuttle Controller) network. The shuttle will have only those controls needed for the type of movements it can perform. Certain controls are always located on the shuttle itself. Generally, on shuttles that traverse a rail, the manual operation controls are located on the free-standing shuttle control box, while on shuttles that do not traverse, they are on the shuttle itself. If the shuttle is part of a DryNet network, certain physical controls are located at the DryNet Console. This is also where machine functions are available via the DryNet software.

#### Machine-mounted Controls

These include one or more emergency stop switches as described in [Section 1.2.1.1](#) “Emergency Stop Switch (locking push button)” and the other controls described under this section.

- 1.1.1.1. Sparkplattor för nödstopp**—Skyttlarna har påhängda sparkplattor (Figur 1) på båda sidorna, i maskinens rörelseriktning. När en sparkplatta snurrar tillräckligt, aktiverar det en strömbrytare som stoppar maskinen genom att koppla bort treledarkretsen.

Figur [Figure] 1: Skyttelns sparkplatta [Shuttle Kick Plate]



- 1.1.1.2. Motorns urkopplingsströmbrytare**—Denna strömbrytare (SHMD) påverkar trefas-försörjningen till skyttelmotorena, enligt följande:

**0 AV**—Trefas-el är inte tillgänglig. Skytteln rör sig inte med kraft.

**1 PÅ** —Trefas-el är tillgänglig. **Maskinen kan omedelbart börja röra sig.**

Figur [Figure] 2: Urkoppling av motorn-brytare [Motor Disconnect Switch]



- 1.1.2. Manuella driftkontroller**  
Figur 3 visar kontrollpanelen på skytteln, som

### Emergency Stop Kick

**Plates**—Shuttles are provided with hinged kick plates (Figure 1) on both sides of the machine in the traversing directions. When a kick plate pivots sufficiently, this actuates a switch that stops the machine by dropping out the three-wire circuit.

**Motor Disconnect Switch**—This switch (SHMD) affects three-phase power for the shuttle motors, as follows:

**0 OFF**—Three-phase power is not available. The shuttle will not move under power.

**1 ON** —Three-phase power is available. **The machine may immediately begin moving.**

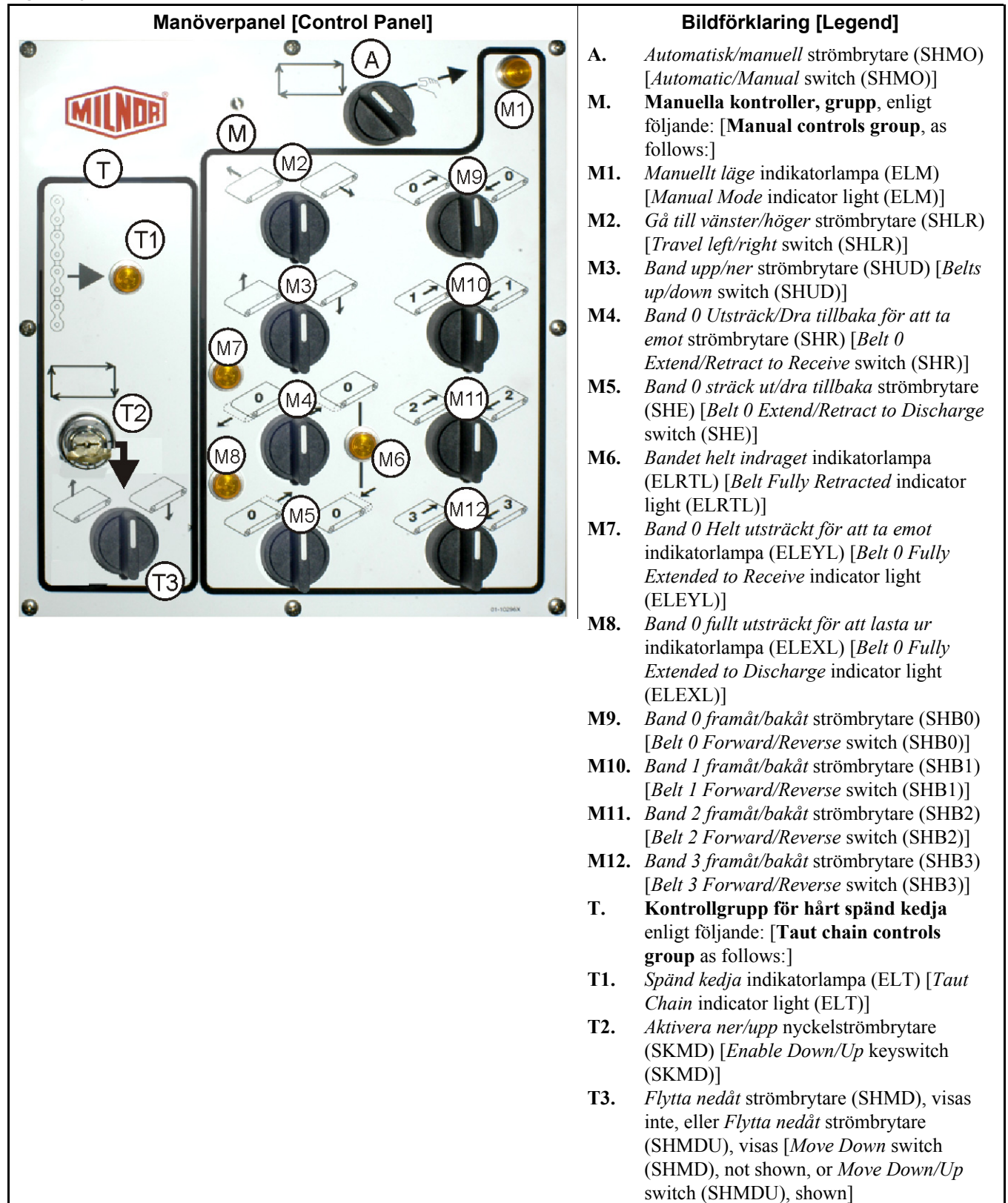
### Manual Operation Controls

Figure 3 illustrates the control panel used on



används för cakes och löst material. Endast de kontroller som motsvarar skyttelns rörelsekapacitet visas för varje given skyttel.

shuttles for cakes and loose goods. Only those controls corresponding to the shuttle's motion capability are provided on a given shuttle.

Figur [Figure] 3: Manuell kontrollpanel [Manual Control Panel]





**1.1.2.1. Automatisk/manuell strömbrytare (A)**—Denna strömbrytare (SHMO) styr vad som kontrollerar maskinens rörelse, enligt följande:

- —Maskinen styrs av strömbrytarna i manuella kontroller, grupp
- —Maskinen rör sig under automatisk kontroll. **Maskinen kan omedelbart börja röra sig.**



**1.1.2.2. Manuella kontroller, grupp (M)**

**1.1.2.2.1. Manuellt läge indikatorlampa (M1)**—Indikatorlampan *Manuellt läge* (ELM) tänds när manuellt läge är aktiverat, vilket visar att de manuella kontrollströmbrytarna är aktiva.



**1.1.2.2.2. Gå till vänster/höger strömbrytare (M2)**—Om man håller denna center-off-kontakt (SHLR) i ett av de tillfälliga lägena, kommer skytteln att röra sig längs rälsen, enligt följande:

- —(tillfällig moturs) Skytteln rör sig till vänster längs rälsen, i förhållande till materialets rörelseriktning.
- —(tillfälligt medurs) Skytteln rör sig till höger längs rälsen.



**1.1.2.2.3. Band upp/ner strömbrytare (M3)**—Om man håller denna vippkontakt (SHUD) i ett av de tillfälliga lägena, kommer bädden/-arna att röra sig på följande sätt:

- —(tillfällig moturs) Lyften rör sig och bädden/-arna höjs.
- —(tillfälligt medurs) Lyften rör sig och bädden/-arna sänks.

**1.1.2.2.4. Band 0 Utsträck/Dra tillbaka för att ta emot strömbrytare (M4)**—Om man håller denna vippkontakt (SHR) i ett av de tillfälliga lägena kommer band 0 (överst) att röra sig på följande sätt, i samband med att det tar emot en last:

- —(tillfällig moturs) Bädde n rör sig mot den enhet den ska ta emot material från.
- —(tillfälligt medurs) Bandet drar sig bort från mottagarläget.



**Automatic/Manual switch (A)**—This switch (SHMO) determines what controls machine movement, as follows:

- —The machine is controlled by the switches in the manual controls group.
- —The machine moves under automatic control. **The machine may immediately begin moving.**



**Manual Controls Group (M)**

**Manual Mode indicator light (M1)**—The *Manual Mode* indicator light (ELM) illuminates when manual mode is enabled, indicating that the manual control switches are active.



**Travel left/right switch (M2)**—Holding this center-off switch (SHLR) in one of the momentary positions causes the shuttle to traverse the rail, as follows:

- —(momentary counter-clockwise) The shuttle moves left along the rail, relative to the flow of goods.
- —(momentary clockwise) The shuttle moves right along the rail.


**Belts up/down switch (M3)**—Holding this center-off switch (SHUD) in one of the momentary positions causes the bed(s) to move as follows:


- —(momentary counter-clockwise) The hoist runs and the bed(s) rise.
- —(momentary clockwise) The hoist runs and the bed(s) descend.

**Belt 0 Extend/Retract to Receive switch (M4)**—Holding this center-off switch (SHR) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with receiving a load:

- —(momentary counter-clockwise) The bed extends toward the device it will receive the goods from.
- —(momentary clockwise) The belt retracts from the receive position.

- 1.1.2.2.5. **Band 0 sträck ut/dra tillbaka strömbrytare (M5)**—Om man håller denna vippkontakt (SHE) i ett av de tillfälliga lägena, kommer band 0 (överst) att röra sig enligt följande

—(tillfällig moturs) Badden sträcks ut mot enheten som den ska lasta ur materialet i.


—(tillfällig medurs) Bandet drar sig tillbaka från tömningsläget.


- 1.1.2.2.6. **Bandet helt indraget indikatorlampa (M6)**—Denna lampa (ELRTL) tänds när band 0 (överst) är helt indraget, och visar att skytteln kan flytta sig säkert.

- 1.1.2.2.7. **Band 0 Helt utsträckt för att ta emot indikatorlampa (M7)**—Denna lampa (ELEYL) tänds när badden för band 0 (överst) är helt utsträckt för att ta emot en last från en annan enhet.

- 1.1.2.2.8. **Band 0 fullt utsträckt för att lasta ur indikatorlampa (M8)**—Denna lampa (ELEXL) tänds när badden för band 0 (överst) är helt utsträckt för att lasta ur en last i en annan enhet.

- 1.1.2.2.9. **Band [0-3] framåt/bakåt strömbrytare (M9 till och med M12)**—Om man håller denna vippbrytare (SHB0) i ett av de tillfälliga lägena, kommer det valda bandet att röra sig enligt följande:

—(tillfällig moturs) Det valda bandet körs framåt, mot den enhet som normalt tar emot material från det bandet.

—(tillfällig medurs) Det valda bandet körs baklänges, mot den enhet som normalt lastar av material på bandet.


- 1.1.2.3. **Kontroller för återställning av spänd kedja (T)**


**Bilaga 1**

**Om lägen med spänd kedja**

Med utgångspunkt från typ av lyft, kan skyttlar indelas i tre kategorier:

**Belt 0 Extend/Retract to Discharge switch (M5)**—Holding this center-off switch (SHE) in one of the momentary positions causes the belt 0 (topmost) bed to move as follows in conjunction with discharging a load:

—(momentary counter-clockwise) The bed extends toward the device it will discharge the goods to.


—(momentary clockwise) The belt retracts from the discharge position.


**Belt Fully Retracted indicator light (M6)**—This light (ELRTL) illuminates when the Belt 0 (topmost) bed is fully retracted, indicating that the shuttle can traverse safely.

**Belt 0 Fully Extended to Receive indicator light (M7)**—This light (ELEYL) illuminates when the Belt 0 (topmost) bed is fully extended to receive a load from another device.

**Belt 0 Fully Extended to Discharge indicator light (M8)**—This light (ELEXL) illuminates when the Belt 0 (topmost) bed is fully extended to discharge a load to another device.

**Belt [0-3] Forward/Reverse switch (M9 through M12)**—Holding this center-off switch (SHB0) in one of the momentary positions causes the selected belt to run as follows:

—(momentary counter-clockwise) The selected belt runs forward, toward the device which normally receives goods from the belt.

—(momentary clockwise) The selected belt runs in reverse, toward the device which normally discharges goods to the belt.

**Taut Chain Recovery Controls (T)**

**Supplement 1**

**About Taut Chain Conditions**

From the standpoint of the type of hoist, shuttles fall into three categories:



**toppmonterad lyftmotor**—Denna skytteltyp har en lyftmotor som sitter fast monterad högst upp på ramelementet. Lyftmotorn driver en rullkedja med en fri ände. Denna typ är känslig för läget med spänd kedja som uppstår om kontrollerna inte känner av det högsta läget när bädden lyfts, vilket får den att nå sin högsta mekaniska gräns.

**sidomonterad lyftmotor (skyttel med låg frigång)**—Denna typ använder en lyftmotor som är fast monterad nära toppen av ett sideelement. Lyftmotorn driver en rullkedja som bildar en ögla och ansluter till bäddens fastsättning både upp till och ned till. Denna typ är känslig för samma förhållande som ovanstående och det läge som uppstår om kontrollen inte känner av det lägsta läget när bädden sänks, vilket får den att nå sitt lägsta mekaniska läge.



**WARNING 1: Risk för skada**—Om bäddens fastsättning tvingas mot ett mekaniskt stopp genom felaktig användning av spänd kedja eller andra manuella kontroller kan skyttelns komponenter böjas eller brytas sönder, eller lyftmotorn brännas ut.

- Säkerställ att du inte håller en kontroll i en riktning som bäddens fastsättning inte kan röra sig i.

**Demag-lyft (lättramsskyttel)**—Denna typ använder en lyft av märket Demag, som hänger ner från övre ramelementet och driver ankarkedjan. Denna typ är inte känslig för spänd-kedja-läget.

**top-mounted hoist motor**—This shuttle type has a hoist motor that is rigidly mounted to the top frame member. The hoist motor drives a roller chain with one free end. This type is susceptible to the taut chain condition that occurs if the controller does not sense the topmost position when the bed is rising, causing it to reach its upper mechanical limit.

**side-mounted hoist motor (low clearance shuttle)**—This type uses a hoist motor reducer that is rigidly mounted near the top of a side frame member. The hoist motor drives a roller chain that forms a loop and connects to the bed assembly both above and below. This type is susceptible to the same condition as above and the condition that occurs if the controller does not sense the bottom-most position when the bed is descending, causing it to reach its lower mechanical limit.

**CAUTION 1: Risk of damage**—Forcing the bed assembly against a mechanical stop by improper use of the taut chain or other manual controls may cause shuttle components to bend or break, or the hoist motor to burn out.

- Ensure that you do not hold a control in a direction the bed assembly cannot move.

**Demag hoist (light frame shuttle)**—This type uses a Demag brand hoist suspended from the top frame member that drives an anchor chain. This type is not susceptible to the taut chain condition.

1.1.2.3.1. **Spänd kedja** indikatorlampa (T1)—Denna lampa (ELT) tänds för att visa att ett spänd-kedja-fel har uppstått.

1.1.2.3.2. **Aktivera upp/ner nyckelströmbrytare** (T2)—Denna nyckelströmbrytare (SKMD) styr vad som kontrollerar skyttelbäddens/-bäddarnas vertikala rörelse, enligt följande:

- ☞—Bädden/bäddarna kan sänkas manuellt med strömbrytaren *Flytta nedåt* eller sänkas eller höjas manuellt med strömbrytaren *Flytta*

**Taut Chain** indicator light (T1)—This light (ELT) illuminates to indicate that a taut chain error has occurred.

**Enable Up/Down** keyswitch (T2)—This keyswitch (SKMD) determines what controls vertical movement of the shuttle bed(s), as follows:

- ☞—The bed(s) can be manually lowered with the *Move Down* switch or manually lowered or raised with the *Move*

*nedåt*, vilken av dem som finns på enheten.

☐—Skyttelns rörelser kontrolleras automatiskt.

1.1.2.3.3. Strömbrytaren *Flytta nedåt* eller strömbrytaren *Flytta nedåt* (T3)—Om den är utrustad som beskrivs i [Avsnitt 1.1.2.3.2](#), med moturs-av, får strömbrytaren *Flytta nedåt* (SHMD) som finns på skyttlar med toppmonterad lyftmotor, eller vippbrytaren *Flytta nedåt* (SHMDU) som finns på skyttlar med sidomonterad lyftmotor, lyften att röra sig enligt följande:

↻—(tillfällig medurs) Bädden/bäddarna sänks när detta läge hålls.

**Anmärkning 1:** Äldre modeller använder en knapp *Flytta nedåt*. Bädden/bäddarna sänks medan denna knapp hålls.

↻—(tillfällig moturs, om den finns) Bädden/bäddarna höjs när detta läge hålls.

*Down/Up* switch, whichever is provided.

☐—Shuttle movements are controlled automatically.

*Move Down* switch or *Move Down/Up* switch (T3)—If armed as described in [Section 1.1.2.3.2](#), the counter-clockwise-off, *Move Down* switch (SHMD) provided on shuttles with a top-mounted hoist motor, or the center-off, *Move Down/Up* switch (SHMDU) provided on shuttles with a side-mounted hoist motor, causes the hoist to move as follows:

↻—(momentary clockwise) The bed(s) descend while this position is held.

**Note 1:** Older models use a *Move Down* button. The bed(s) descend while this button is held.

↻—(momentary counter-clockwise, if provided) The bed(s) rise while this position is held.

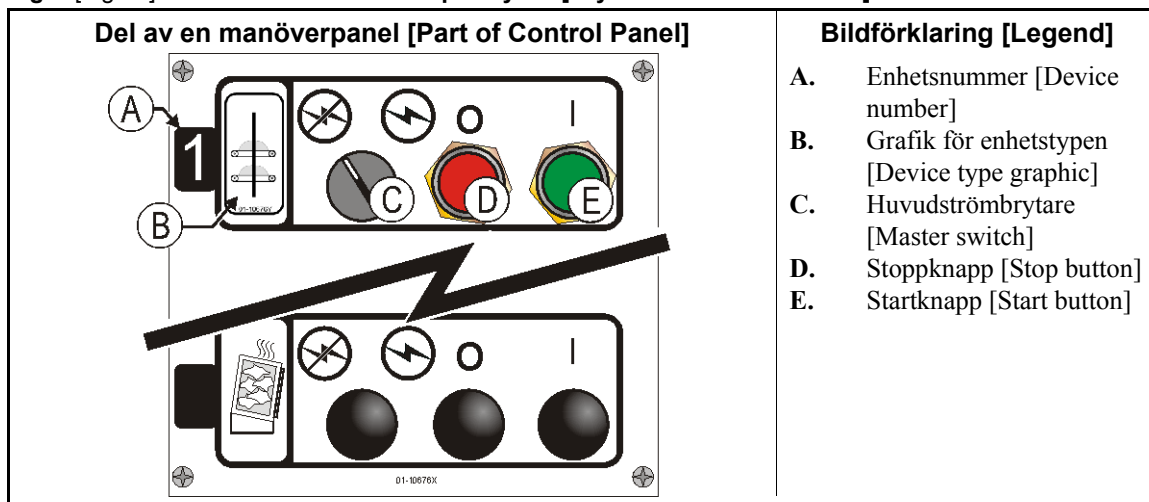
### 1.1.3. Kontroller på torkarens/skyttelns manöverpanel (DryNet)

I normal drift sätts skytteln, liksom alla andra maskiner i DryNet-nätverket, på och stängs av individuellt vid detta läge. Skyttlar som inte ingår i ett DryNet-nätverk har liknande kontroller monterade på själva skytteln, eller på den fristående kontrollpanelen.

### Controls on the Dryer/Shuttle Controller (DryNet) Console

In normal operation, the shuttle, along with all other machines in the DryNet network are individually powered on and off at this location. Shuttles that are not part of a DryNet network will have corresponding controls mounted on the shuttle itself, or the free-standing shuttle control box.

Figur [Figure] 4: Kontroller monterade på DryNet [DryNet-mounted Controls]



- 1.1.3.1. Huvudbrytare (C)**—Kontrollerna *Huvudströmbrytare* styr enfas kontrollkrets-el till maskinen och DC-el till förseln till mikroprocessorn och dess komponenter, enligt följande:

- ☑—Kretsen är strömförande, vilket tillåter drift.
- ☒—Kretsen är icke strömförande, vilket stoppar eller förhindrar drift.

- 1.1.3.2. Stoppknapp (D)**—Vid tryck på knappen stannar maskinen omedelbart genom att tre-ledar-kretsen öppnas. Nödstoppsknappen fungerar på samma sätt.

- 1.1.3.3. Startknapp (E)**—Vid tryck på knappen kan maskinen startas om alla säkerhetsföreskrifter efterföljs. När drift är aktiverad, fungerar maskinen i manuellt eller automatiskt läge.

- 1.1.4. Maskinfunktioner för skytteln, tillgängliga för operatören på DryNet.**

Under normal drift visar DryNet CRT ett litet fönster, *Enhetsstatus* för varje maskin torkare och skyttel (i DryNet) nätverket. Om man klickar på själva fönstret, visar det *Maskinfunktioner* fönstret för den valda maskinen. Båda fönstren innehåller knappar som operatören kan använda. Vissa knappar finns på båda fönstren. Endast vissa knappar finns, beroende på om och hur användaren är inloggad i systemet. Klicka på en knapp med musen för att aktivera funktionen. Dessa fönster och knappar visas i [Figur 5](#) och förklaras här nedan.

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ☑—The circuit is energized, permitting operation.
- ☒—The circuit is de-energized, stopping or preventing operation.

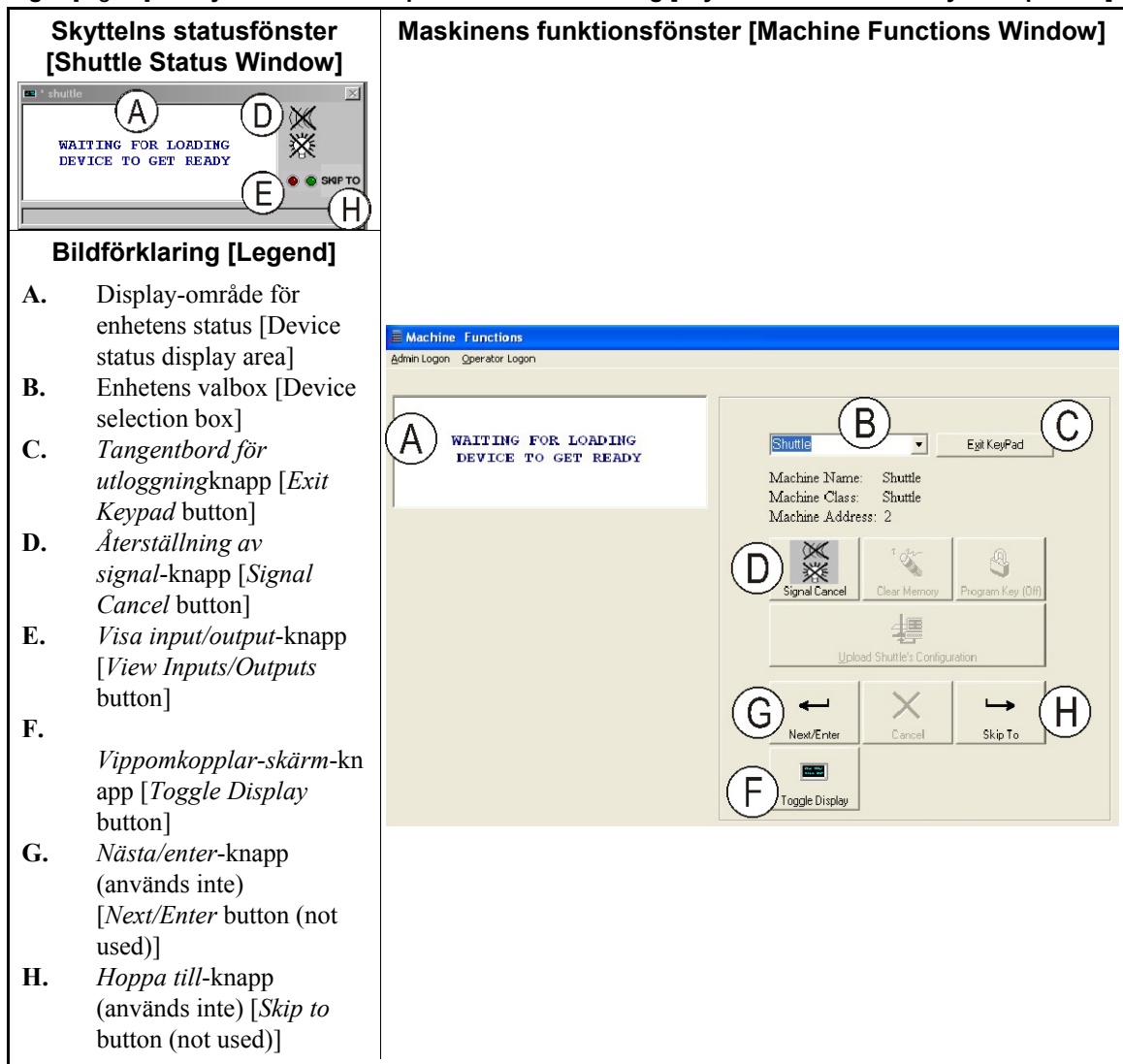
**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

### Shuttle Machine Functions Available to the Operator on DryNet

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 5](#) and explained below.

Figur [Figure] 5: DryNet-fönster för operatörens användning [DryNet Windows Used by the Operator]



**1.1.4.1. Visa enhetsstatus (A)**—Kontrollen använder detta område för att visa meddelanden som är relevanta för den valda aktiva enheten enligt [Avsnitt 1.1.4.2](#).

**Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.1.4.2](#).

**1.1.4.2. Valbox för enheten (B)**—Klicka med musen på pilhuvudet i högra delen av boxen för att se en lista över alla enheter som kontrolleras av denna torkar-/skyttelkontroll. Klicka på en av enheterna i listan för att aktivera den.

**Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.

**1.1.4.3. Tangentbord för utloggning knapp (C)**—Klicka med musen på den här knappen för att återgå till maskinens display-skärm, för att övervaka alla enheter.

**Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.

**1.1.4.4. Återställning av signal knapp (D)**—Om ett fel gjorde att operatören signalerar (blinkande ljus och/eller ljudsignal), klicka på denna knapp för att stänga av signalen. Om signalen startade när en giltig formel valdes, kommer signalen att stoppas automatiskt när formeln startas.

**1.1.4.5. Visa input/output knapp (E)**—Klicka på den här knappen för att visa fönstret *Torkare I/O*, som visar status på/av för varje mikroprocessor-input och -output för den valda maskinen.

**1.1.4.6. Vippomkopplars-skärm knapp (F)**—För användning av servicepersonal. Klicka på den här knappen upprepade gånger för att klicka igenom olika skärmar i skyttelns statusfönster. Dessa skärmar visar cake-information, inputs, outputs, räknar horisontella mål när skytteln rör sig längs rälsen, och räknar vertikala mål när skyttelbädden/-bäddarna höjs och sänks.

**Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the operator signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.

**View Inputs/Outputs button (E)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.

**Toggle Display button (F)**—For use by service personnel. Click this button repeatedly to toggle through various displays on the Shuttle Status window. These displays show cake information, inputs, outputs, counting horizontal targets as the shuttle traverses the rail, and counting vertical targets as the shuttle bed(s) elevate and descend.

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BIPDGT01 (Published) Book specs- Dates: 20080722 / 20080722 / 20120517 Lang: SWE01 Applic: PDU YDS

## 1.2. Manöverpaneler på torkare, beredare och skakanordningar inklusive sådana i ett DryNet-nätverk

Detta dokument beskriver de fysiska manöverpaneler som finns på torkare, beredare och skakanordningar, liksom vissa driftfunktioner hos DryNet, som fungerar i stället för fysiska manöverpaneler, när maskinen ingår i ett DryNet-nätverk (torkar-/skyttelmanövrering). De fysiska kontrollerna inkluderar kontroller för manuell intervention och statuslampor monterade på maskinen och elbrytare monterade på DryNet-konsolen eller någon annan el-box monterad utanför maskinen. Driftfunktioner för DryNet utförs vid DryNet-konsolen.

### 1.2.1. Manöverpaneler monterade på maskinen

Manöverpaneler monterade på maskinen inkluderar en eller flera nödstopp-brytare och de nödvändiga kontrollerna för att lasta ur torkaren manuellt (Figur 7).

## Controls on Dryers, Conditioners, and Shakers Including Those in a DryNet Network

This document describes the physical controls provided with dryers, conditioners, and shakers as well as a few DryNet operating functions which serve in place of physical controls when the machine is part of a DryNet (Dryer/Shuttle Controller) network. The physical controls include manual intervention controls and status lights mounted on the machine, and power controls mounted on the DryNet console or other remote-mounted electric box. Drynet operating functions are performed at the DryNet console.

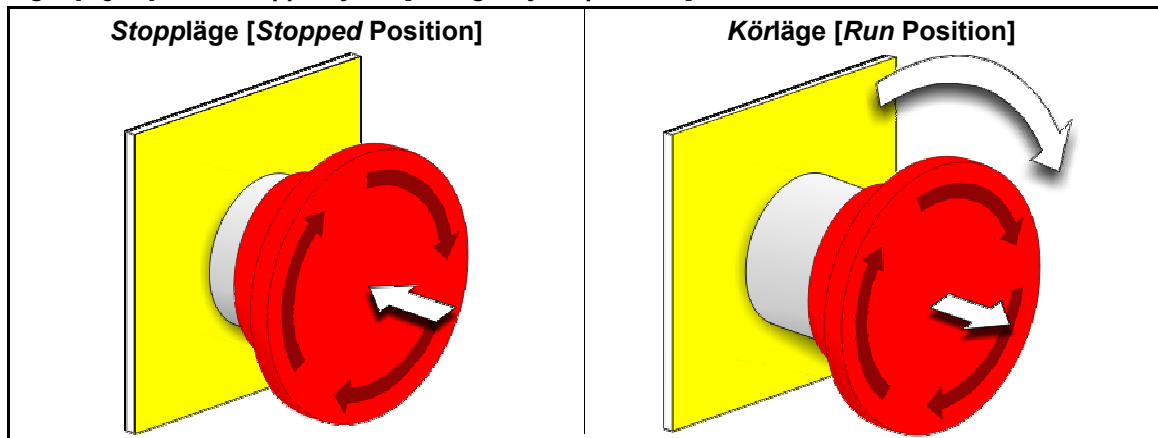
### Machine-mounted Controls

Controls mounted on the machine include one or more emergency stop switches and the controls necessary to manually unload the dryer (Figure 7).

**1.2.1.1. Nödstoppsbrytare (låsand tryckknapp) [Dokument BIVUU002]**—En eller flera *nödstoppsbrytare* (Figur 6) finns på enheten. När en *nödstoppsbrytare* trycks ned avlägsnas strömmen från maskinens kontrolldon, maskinen stannar och knappen låser sig i nedtryckt (brytare aktiverad, maskinen stoppad) läge. När faran är över, vrid knappen medurs för att låsa upp brytaren. För att återuppta driften utförs enhetens normala uppstartningsprocedur.

**Emergency Stop Switch (locking push button)**—One or more *emergency stop switches* (Figure 6) are provided on the device. When pressed, any emergency stop switch removes power from the machine controls, stops the machine and locks in the depressed (switch actuated, machine stopped) position. When safe to do so, turn the button clockwise to unlock the switch. To resume operation, perform the device's normal startup procedure.

Figur [Figure] 6: *Nödstoppsbrytare [Emergency Stop Switch]*



**Obs [2]:** Tryck omedelbart på *nödstoppsbrytaren* i en nödsituation. Detta inaktiverar kretsen medan mikroprocessorns styrenhet fortsätter att förses med ström.

**Notice [2]:** Press the *emergency stop switch* immediately in an emergency situation. This disables the 3-wire circuit while maintaining power to the microprocessor controller.

**Visa eller Utför [Display or Action]**

**Förklaring**

**Explanation**



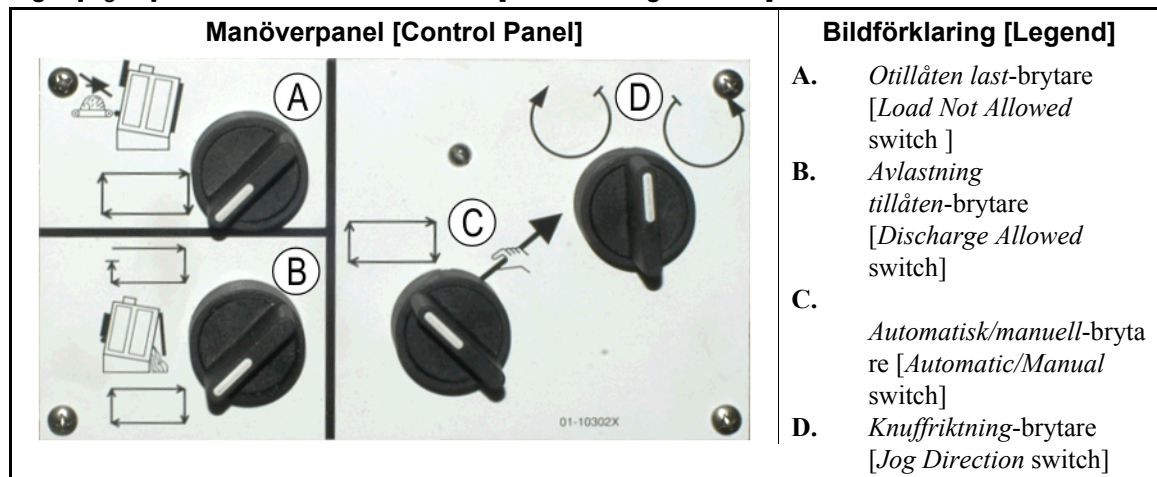
Denna symbol representerar *nödstoppsbrytaren* i alla Milnor<sup>®</sup> dokument bortsett från elektriska kopplingscheman.

This symbol represents the *emergency stop switch* in Milnor<sup>®</sup> documents other than electrical wiring diagrams.

**1.2.1.2. Dörrar och knuffkontroller**

**Door and Jog Controls**

Figur [Figure] 7: Dörrar och knuffkontroller [Door and Jog Controls]



1.2.1.2.1. Brytare för otillåten last (A)—Denna brytare styr om maskinen ska begära (acceptera) en ny last automatiskt, enligt följande:

- Maskinen ska inte begära en last.
- Maskinen kommer att begära en ny last när den har lastat av den aktuella lasten (krävs för normal, automatisk drift).

Load Not Allowed switch (A)—This switch determines whether the machine will request (accept) a new load automatically, as follows:

- The machine will not request a load.
- The machine will request a new load after discharging the current load (required for normal, automatic operation).

1.2.1.2.2. Brytare för avlastning tillåten (B) —Denna brytare styr hur maskinen ska lasta av, enligt följande:

- Maskinen lastar automatiskt ur varje last, när torkningskoden är klar, utan att ta hänsyn till den mottagande enhetens färdig-status. Till exempel, om en vagn borde vara i rätt läge, men inte är det, kommer materialet att lastas ur på golvet.
- Detta läge hindrar maskinen från att lasta ur, om den inte får en signal från manöverpanelen Miltrac™ att tömma. Detta läge har alltså två användningsområden: 1) Det krävs för normal drift om maskinen lastas ur via Miltrac och 2) det kan användas för att förhindra automatisk tömning om maskinen inte lastas ur via Miltrac.

Discharge Allowed switch (B) —This switch determines how the machine will discharge, as follows:

- The machine automatically discharges each load when the dry code is finished, without regard for the ready status of the receiving device. For example, if a cart is supposed to be in position, but it is not, the goods will discharge onto the floor.
- This position prevents the machine from discharging unless it receives a signal from the Miltrac™ controller to discharge. Hence, this position has two uses: 1) It is required for normal operation if the machine is unloaded via Miltrac, and 2) it may be used to prevent automatic discharge if the machine is not unloaded via Miltrac.

- Om maskinen är redo för tömning, kommer en snabb vridning av brytaren till detta tillfälliga läge att sätta igång tömningsprocessen.

- If the machine is ready to discharge, turning the switch to this momentary position briefly will initiate the discharge process.

1.2.1.2.3. Automatisk/manuell rotationsbrytare

Automatic/Manual Rotation switch

(C)—Denna brytare styr vad som kontrollerar korgens rotation, enligt följande:

☞—Automatisk drift är avstängd, tömningsdörren öppnas och korgens rotation kontrolleras av brytaren *Knuffriktning*.

☐—Korgen roterar automatiskt

1.2.1.2.4. **Knuffriktningsbrytare (D)**—Används för tömning. När rotationen är inställd på manuella, får denna centrum-ut-kontakt korgen att rotera på följande sätt, utom enligt förklaring i [Anmärkning 2](#):

☺—(kortvarig, medurs) får korgen att rotera medurs (när man ser maskinen framifrån) medan kontakten hålls inne.

☺—(kortvarig, moturs) får korgen att rotera moturs medan kontakten hålls inne.

**Anmärkning 2:** Modellerna 6458Txxx och 7244Txxx kan ha fläktar antingen till vänster eller till höger. Maskiner med fläktar på vänster sida fungerar exakt så som beskrivs här ovan. De som har fläktar på höger sida fungerar tvärtemot vad som beskrivs ovan. Till exempel, om man håller kontakten i medurs-läge kommer korgen att rotera moturs, när man ser maskinen framifrån. Detta är den riktning korgen rör sig i under automatisk tömning, för att hjälpa till att förebygga att materialet klibbar ihop.

## 1.2.2. **Gastorkar med statuslampor monterade på maskinen**

Gasdrivna torkare har flera bärnstensfärgade lampor på den främre panelen som används för att övervaka torkardörrarna och uppvärmningssystemet. Vissa av de här lamporna styrs av maskinoperatören och vissa styrs av brandskyddsenheten (Fireye® eller Landis+Gyr). När ett fel får en lampa att antingen tändas eller släckas, visas ett felmeddelande. För lampor som styrs av brandskyddsenheten, visas felmeddelandet ("KONTROLLERA FELLAMPOR." or Landis+Gyr).

(C)—This switch determines what controls basket rotation, as follows:

☞—Automatic operation is suspended, the discharge door opens and basket rotation is controlled by the *Jog Direction* switch.

☐—The basket rotates automatically.

**Jog Direction switch (D)**—Used for unloading. When rotation is set to manual, this center-off switch causes the basket to rotate as follows, except as explained in [Note 2](#):

☺—(momentary, clockwise) rotates the basket clockwise (when viewing the machine from the front) while the switch is held.

☺—(momentary, counter-clockwise) rotates the basket counterclockwise while the switch is held.

**Note 2:** 6458Txxx and 7244Txxx models can have blowers either on the left or the right. Machines with lefthand blowers function exactly as stated above. Those with righthand blowers function opposite that stated above. For example, holding the switch at the clockwise position will cause the basket to rotate counter-clockwise when viewed from the front of the machine. This is the direction the basket turns during automatic unloading, to help prevent plastering of the goods.

## **Machine-mounted Status Lights—Gas Dryers**

Gas-fired dryers have several amber status lights on the front panel used to monitor the dryer doors and heating system. Some of these lights are operated by the machine controller and some are operated by the fire control unit (Fireye® or Landis+Gyr). When an error condition causes a light to either illuminate or extinguish, an error message is displayed. For lights operated by the fire control unit, the error message will say "CHECK ERROR LIGHTS."



Figur [Figure] 8: Statuslampor på gasdrivna torkare [Gas Dryer Status Lights]

Panel för statuslampor [Status Lights Panel]	Bildförklaring [Legend]
	<p><b>A.</b> Lastluckan stängd (ELLDC) [Load door closed (ELLDC)]</p> <p><b>B.</b> Lastluckan öppen (ELLDO) [Load door open (ELLDO)]</p> <p><b>C.</b> Tömningsluckan stängd (ELDDC) [Discharge door closed (ELDDC)]</p> <p><b>D.</b> Styrventilen aktiverad (ELPG) [Pilot valve enabled (ELPG)]</p> <p><b>E.</b> Huvudgas aktiverad (ELMT) [Main gas enabled (ELMT)]</p> <p><b>F.</b> Tändningen aktiverad (ELMI) [Ignition enabled (ELMI)]</p> <p><b>G.</b> Högt tryck i brännarboxen (ELBB). Endast modellerna 6458TG1x och 7272TG1x. [Burner box pressure high (ELBB). 6458TG1x and 7272TG1x models only.]</p> <p><b>H.</b> Förbränningsluft för låg (ELCA) [Combustion air low (ELCA)]</p> <p><b>I.</b> Huvudluft låg (ELMA) [Main air low (ELMA)]</p> <p><b>J.</b> Gastryck lågt (ELGL) [Gas pressure low (ELGL)]</p> <p><b>K.</b> Gastryck högt (ELGH) [Gas pressure high (ELGH)]</p> <p><b>L.</b> Fireye utlöst (ELFET) [Fireeye tripped (ELFET)]</p> <p><b>M.</b> Brandskyddsensheten locked-out (ELCLO). Endast Landis+Gyr brandövervakning. [Fire control unit locked out (ELCLO). Landis+Gyr fire control only.]</p>

- 1.2.2.1. Lastlucka stängd (A)**—Denna lampa (ELLDC) visar att lastningsluckan är helt stängd. Om lastningsluckan inte är helt stängd 15 sekunder efter det att torkaren tar emot signalen *Lastad*, visas meddelandet *Lastningsluckan öppen*.
- 1.2.2.2. Lastningsluckan öppen (B)**—Denna lampa (ELLDO) visar att lastningsluckan är helt öppen. Om lastningsluckan inte öppnas helt inom 15 sekunder efter kommandot “öppna lastningsluckan” från mikroprocessorn, visas *Lastningsluckan inte öppen*.
- 1.2.2.3. Tömningsluckan stängd (C)**—Denna lampa (ELDDC) visar att tömningsluckan är helt stängd. Om kontrollen inte upptäcker att tömningsluckan är stängd, kommer den att tillåta laddningsluckan att öppnas för laddning, men den kommer inte att signalera till laddningsenheten att börja ladda och meddelandet *Tömningsluckan öppen* kommer att visas.
- 1.2.2.4. Styrventilen aktiverad (D)**—Denna lampa (ELPG) visar att flamkontrollsenheten har laddat styrventilen.
- 1.2.2.5. Huvudgas aktiverad (E)**—Denna lampa (ELMT) visar att flamkontrollsenheten har laddat den modulerande gasventilen och huvudgasventilen.
- 1.2.2.6. Tändning aktiverad (F)**—Denna lampa (ELMI) visar att flamkontrollsenheten försöker tända flammen.
- 1.2.2.7. Högt tryck i brännarboxen (G)**—Denna lampa (ELBB) visar att det tillåtna brännarboxtrycket har överskridits. Detta är ett fel.
- 1.2.2.8. Förbränningsluft låg (H)**—Denna lampa (ELCA) visar att leveransen av förbränningsluft som levereras till torkaren är för låg för korrekt drift.
- 1.2.2.9. Huvudluft låg (I)**—Denna lampa (ELMA) visar att huvudluftflödet som levereras till torkaren är för lågt för korrekt drift.
- Load Door Closed (A)**—This light (ELLDC) indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.
- Load Door Open (B)**—This light (ELLDO) indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.
- Discharge Door Closed (C)**—This light (ELDDC) indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.
- Pilot Valve Enabled (D)**—This light (ELPG) indicates that the flame control unit has energized the pilot valve.
- Main Gas Enabled (E)**—This light (ELMT) indicates that the flame control unit has energized the modulating gas valve and the main gas valve.
- Ignition Enabled (F)**—This light (ELMI) indicates that the flame control unit is attempting to ignite the flame.
- Burner Box Pressure High (G)**—This light (ELBB) indicates that the permissible burner box pressure has been exceeded. This is an error condition.
- Combustion Air Low (H)**—This light (ELCA) indicates that combustion air flow delivered to the dryer is too low for proper operation.
- Main Air Low (I)**—This light (ELMA) indicates that main air flow delivered to the dryer is too low for proper operation.

**1.2.2.10. Gastrycket lågt (J)**—Denna lampa (ELGL) visar att gastrycket som levereras till torkaren är för lågt för korrekt drift, eller att gasregulatorn är skadad.

**1.2.2.11. Gastrycket högt (K)**—Denna lampa (ELGH) visar att gastrycket som levereras till torkaren är för lågt för korrekt drift, eller att gasregulatorn är skadad.

**1.2.2.12. Fireye löst (L)**—Om maskinen är utrustad med en Fireye-kontrollenhet, visar denna lampa (ELFET) att flamstången signalerat till flamkontrollenheten att varken pilot- eller brännaren är tänd.

Denna lampa finns ibland när maskinen är utrustad med en brandkontrollenhet från Landis & Gyr. Om så är fallet, har den samma betydelse som statuslampan *Eldkontrollen locked-out* här nedanför.

**1.2.2.13. Elkontrollen locked-out (M)**—Om maskinen är utrustad med en eldkontrollenhet från Landis+Gyr, visar denna lampa (ELCLO) att mikroprocessorn begärde eld, men flamkontrollenheten var avaktiverad därför att ett av de villkor som krävs för säkerhets-återställningskretsen inte var uppfyllt.

### 1.2.3. Statuslampor monterade på maskinen —, Ång- och värme-oljetorkar och beredare och alla skakanordningar

Torkar och beredningsenheter som värms med ånga eller termiskt med olja, liksom alla skakenheter (icke uppvärmda enheter) har tre bärnstensfärgade statuslampor på frontpanelen för att övervaka luckorna.

**Gas Pressure Low (J)**—This light (ELGL) indicates that the gas pressure delivered to the dryer is too low for proper operation, or the gas regulator is damaged.

**Gas Pressure High (K)**—This light (ELGH) indicates that the gas pressure delivered to the dryer is too high for proper operation, or the gas regulator is damaged.

**Fireye Tripped (L)**—If the machine is equipped with a Fireye fire control unit, this light (ELFET) indicates that the flame rod signaled the flame control unit that neither the pilot nor the burner is lit.

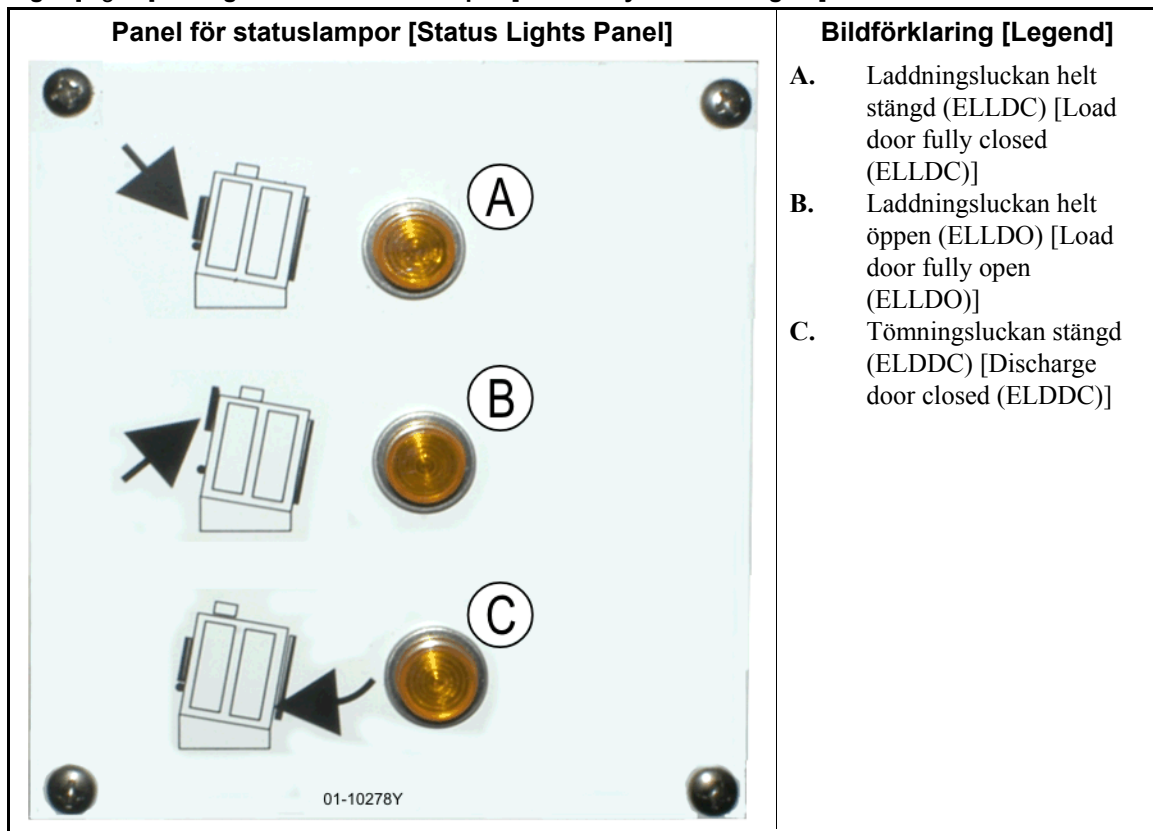
This light is sometimes provided when the machine is equipped with a Landis & Gyr fire control unit. If so, it has the same meaning as the *Fire Controller Locked Out* status light below.

**Fire Controller Locked Out (M)**—If the machine is equipped with a Landis+Gyr fire control unit, this light (ELCLO) indicates that the microprocessor requested fire, but the flame control unit was disabled because one of the conditions required by the safety reset circuit was not satisfied.

### Machine-mounted Status Lights—Steam and Thermal Oil Dryers and Conditioners and All Shakers

Dryers and conditioners heated by steam or thermal oil, as well as all shakers (non-heated units) have three amber status lights on the front panel to monitor the doors.

Figur [Figure] 9: Ångtorkarens statuslampor [Steam Dryer Status Lights]



**1.2.3.1. Laddningsluckan stängd**—Denna lampa visar att lastningsluckan är helt stängd. Om lastningsluckan inte är helt stängd 15 sekunder efter det att torkaren tar emot signalen *Lastad*, visas meddelandet *Lastningsluckan öppen*.

**Load Door Closed**—This light indicates that the load door is fully closed. If the load door is not fully closed 15 seconds after the dryer receives the *Loaded* signal, the *Load Door Open* message is displayed.

**1.2.3.2. Lastningsluckan öppen**—Denna lampa visar att lastningsluckan är helt öppen. Om lastningsluckan inte öppnas helt inom 15 sekunder efter kommandot “öppna lastningsluckan” från mikroprocessorn, visas *Lastningsluckan inte öppen*.

**Load Door Open**—This light indicates that the load door is fully open. If the load door does not open fully within 15 seconds of the “open load door” command from the microprocessor, *Load Door Not Open* is displayed.

**1.2.3.3. Tömningsluckan stängd**—Denna lampa visar att tömningsluckan är helt stängd. Om kontrollen inte upptäcker att tömningsluckan är stängd, kommer den att tillåta laddningsluckan att öppnas för laddning, men den kommer inte att signalera till laddningsenheten att börja ladda och meddelandet *Tömningsluckan öppen* kommer att visas.

**Discharge Door Closed**—This light indicates that the discharge door is completely closed. If the controller does not detect the discharge door closed, it will permit the load door to open for loading, but it will not signal the loading device to begin loading and the message *Discharge Door Open* will be displayed.

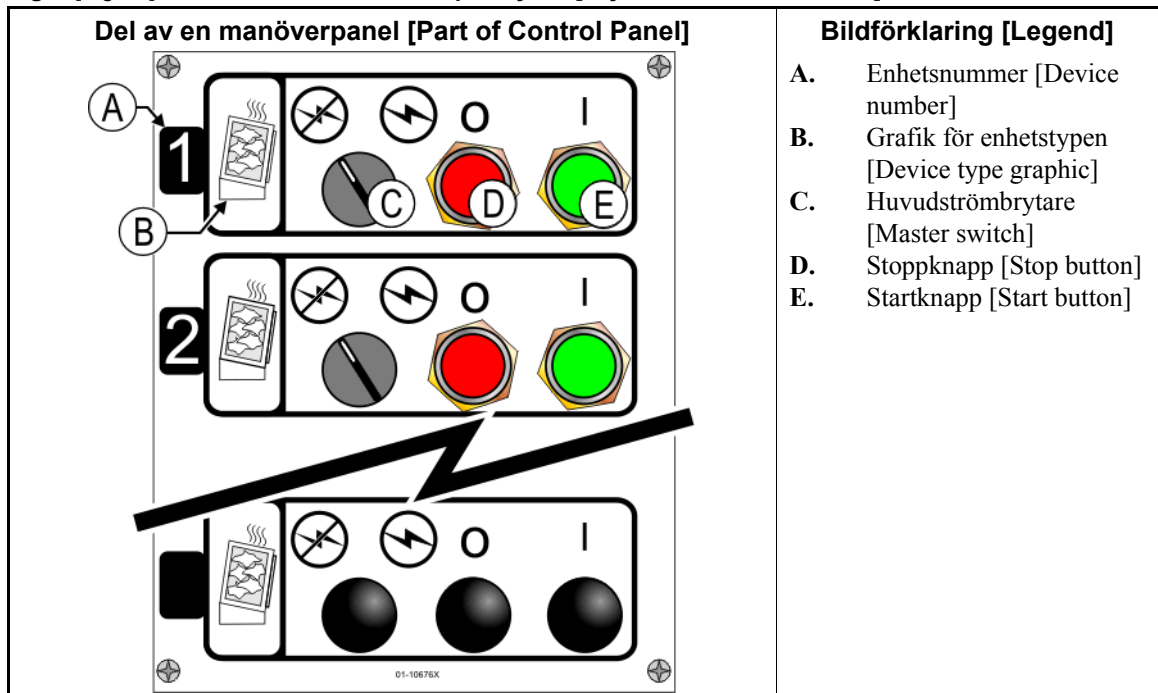
### 1.2.4. Kontroller på torkarskyttels manöverkonsol (DryNet)

Vid normal drift styrs eltillförseln individuellt för varje maskin, från detta läge. På maskiner som inte ingår i ett DryNet-nätverk, sitter dessa kontroller i en separat kontrollbox för torkaren.

### Controls Mounted on the Dryer-Shuttle Controller (DryNet) Console

In normal operation, all machines in the DryNet network are individually powered on and off at this location. On machines that are not part of a DryNet network, corresponding controls are mounted on a separate dryer control box.

Figur [Figure] 10: Kontroller monterade på DryNet [Drynet-mounted Controls]



**1.2.4.1. Huvudbrytare (C)**—Kontrollerna *Huvudströmbrytare* styr enfas kontrollkrets-el till maskinen och DC-eltillförseln till mikroprocessorn och dess komponenter, enligt följande:

- ⊕—Kretsen är strömförande, vilket tillåter drift.
- ⊗—Kretsen är icke strömförande, vilket stoppar eller förhindrar drift.

**Master Switch (C)**—The *Master switch* controls single-phase control circuit power to the machine and the DC power supply for the microprocessor and its components, as follows:

- ⊕—The circuit is energized, permitting operation.
- ⊗—The circuit is de-energized, stopping or preventing operation.

**1.2.4.2. Stoppknapp (D)**—Vid tryck på knappen stannar maskinen omedelbart genom att tre-ledar-kretsen öppnas. Nödstoppsknappen fungerar på samma sätt.

**Stop Button (D)**—Pressing this button stops the machine immediately by opening the three-wire circuit. The Emergency Stop button performs the same function.

**1.2.4.3. Startknapp (E)**—Vid tryck på knappen kan maskinen startas om alla säkerhetsföreskrifter efterföljs. När drift är aktiverad, fungerar maskinen i manuellt eller automatiskt läge.

**Start Button (E)**—Pressing this button enables machine operation if all safety considerations are met. When operation is enabled, the machine will operate in manual or automatic mode.

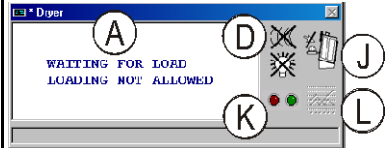
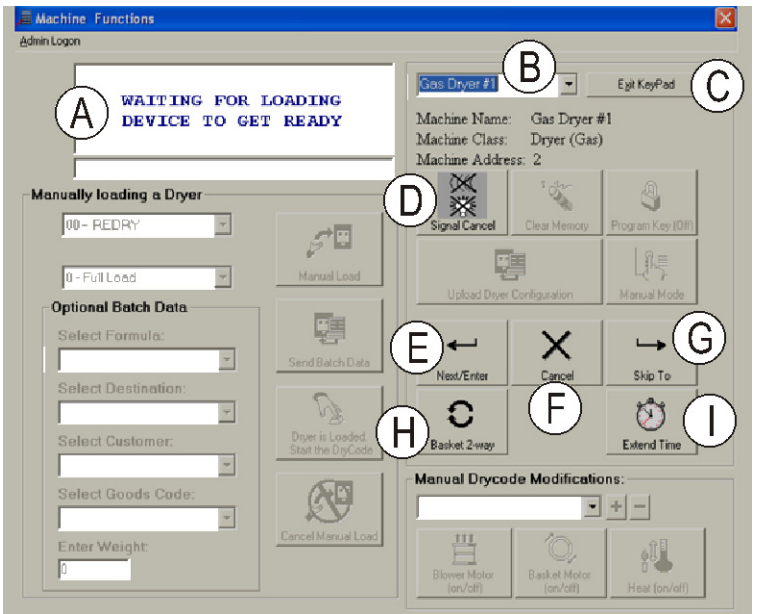
**1.2.5. Maskinfunktioner tillgängliga för operatören på DryNet**

Under normal drift visar DryNet CRT ett litet fönster *Enhetsstatus* för varje maskin (torkare och skyttel) i DryNet-nätverket. Om man klickar på själva fönstret, visar det *Maskinfunktioner*-fönstret för den valda maskinen. Båda fönstren innehåller knappar som operatören kan använda. Vissa knappar finns på båda fönstren. Endast vissa knappar finns, beroende på om och hur användaren är inloggad i systemet. Klicka på en knapp med musen för att aktivera funktionen. Dessa fönster och knappar visas i [Figur 11](#) och förklaras här nedan.

**Machine Functions Available to the Operator on DryNet**

During normal operation, the DryNet CRT will display a small *Device Status* window for every machine (dryer and shuttle) on the DryNet network. If you click on the window itself, this displays the *Machine Functions* window for the selected machine. Both windows contain buttons available to the operator. Some buttons are repeated on both windows. Only certain buttons are available depending on whether and how the user is logged in to the system. Click a button with the mouse to actuate the function. These windows and buttons are shown in [Figure 11](#) and explained below.

Figur [Figure] 11: DryNet-fönster för operatörens användning [DryNet Windows Used by the Operator]

Torkarens statusfönster [Dryer Status Window]	Maskinens funktionsfönster [Machine Functions Window]
 <p><b>Bildförklaring [Legend]</b></p> <ul style="list-style-type: none"> <li>A. Display-område för enhetens status [Device status display area]</li> <li>B. Enhetens valbox [Device selection box]</li> <li>C. Tangentbord för utloggning-knapp [Exit Keypad button]</li> <li>D. Återställning av signalknapp [Signal Cancel button]</li> <li>E. Nästa/enter-knapp [Next/Enter button]</li> <li>F. Ångra-knapp [Cancel button]</li> <li>G. Hoppa till-knapp [Skip to button]</li> <li>H. Tvåvägskorg-knapp [Basket 2-way button]</li> <li>I. Förläng tid-knapp [Extend Time button]</li> <li>J. Tillåten/otillåten last-knapp [Load Allowed/Not Allowed button]</li> <li>K. Visa input/output-knapp [View Inputs/Outputs button]</li> <li>L. Visa figur-knapp [View Graph button]</li> </ul>	

**1.2.5.1. Visa enhetsstatus (A)**—Kontrollen använder detta område för att visa meddelanden som är relevanta för den valda aktiva enheten enligt [Avsnitt 1.2.5.2](#).

**1.2.5.2. Valbox för enheten (B)**—Klicka med musen på pilhuvudet i högra delen av boxen för att se en lista över alla enheter som kontrolleras av denna torkar-/skyttekontroll. Klicka på en av enheterna i listan för att aktivera den.

**Device status display (A)**—The controller uses this area to display messages relevant to the active device selected according to [Section 1.2.5.2](#).

**Device selection box (B)**—Click the mouse on the arrowhead at the right end of this box to see a list of all devices controlled by this Dryer/Shuttle controller. Click on one of the devices in the list to make it the active device.

- 1.2.5.3. Tangentbord för utloggning knapp (C)**—Klicka med musen på den här knappen för att återgå till maskinens display-skärm, för att övervaka alla enheter.
- 1.2.5.4. Återställning av signal knapp (D)**—Om ett fel gjorde att operatören signalerar (blinkande ljus och/eller ljudsignal), klicka på denna knapp för att tysta signalen. Om signalen startade när en giltig formel valdes, kommer signalen att stoppas automatiskt när formeln startas.
- 1.2.5.5. Nästa/enter knapp (E)**—Denna knapp är endast aktiverad när en administratör eller operatör är inloggad vid manöverpanelen.
- 1.2.5.6. Ångra knapp (F)**—Klicka med musen på denna knapp för att ångra det aktuella drycode-steget.
- 1.2.5.7. Hoppa till knapp (G)**—Denna knapp är endast aktiverad när en administratör eller operatör är inloggad vid manöverpanelen.
- 1.2.5.8. Tvåvägskorg knapp (H)**—Klicka med musen på den här knappen för att ställa in korgens rotation på en-vägs eller två-vägs.
- 1.2.5.9. Förläng tid knapp (I)**—Klicka med musen på denna knapp för att lägga till en minut till tiden för aktuellt steg. Varje extra klick lägger till ännu en minut.
- 1.2.5.10. Tillåten/otillåten last knapp (J)**—Utför samma funktion som strömbrytare *Otillåten last* på maskinen. Klicka på den här knappen för att ta den valda maskinen “off-line” (inte tillåten) eller återställa den till online-läge (tillåten last). I off-line-läge kommer maskinen inte att begära en last och skytteln kommer inte att leverera cakes till denna maskin.
- 1.2.5.11. Visa input/output button (K)**—Klicka på den här knappen för att visa fönstret *Torkare I/O*, som visar status på/av för varje mikroprocessor-input och -output för den valda maskinen.
- Exit Keypad button (C)**—Click the mouse on this button to return to the machine display screen to monitor all devices.
- Signal Cancel button (D)**—If an error caused the operator signal (flashing lights and/or audible buzzer), click on this button to silence the signal. If the signal began when a valid formula was selected, the signal will end automatically when the formula is started.
- Next/Enter button (E)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- Cancel button (F)**—Click the mouse on this button to cancel the current drycode step.
- Skip to button (G)**—This button is enabled only when an administrator or an operator is logged in at the controller.
- Basket 2-way button (H)**—Click the mouse on this button to toggle basket rotation between one-way and two-way.
- Extend Time button (I)**—Click the mouse on this button to add one minute to the time of the current step. Each additional click adds another minute.
- Load Allowed/Not Allowed button (J)**—Performs the same function as the *Load Not Allowed* switch on the machine. Click this button to take the selected machine “off-line” (Not Allowed) or return it on-line (Load Allowed). While off-line, the machine will not request a load and the shuttle will not deliver cakes to this machine.
- View Inputs/Outputs button (K)**—Click this button to display the *Dryer I/O* window, which shows the on/off status of each microprocessor input and output for the selected machine.



**1.2.5.12. Visa figur knapp (L)**—Klicka på den här knappen för att visa fönstret *Temperaturprofil* för denna maskin, som visar en realtids-graf för temperaturen och närliggande information för den valda maskinen.

— Slut på BIPDGT01 —

**View Graph button (L)**—Click this button to display the *Temperature Profile* window for this machine, which shows a real-time graph of temperature and related information for the selected machine.

— End of BIPDGT01 —

## Kapitel 2

# Normal drift av maskinen

## Chapter 2

# Normal Machine Operation

BIPDUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20120517 Lang: SWE01 Applic: PDU YDS

### 2.1. Användningsinstruktioner för torkaren, avsedda för fabrikspersonal

### Dryer Operating Instructions for Plant Personnel

#### 2.1.1. Börja här och läs om säkerhet

#### Start Here for Safety

Detta dokument är avsett att påminna dig, den person som manövrerar denna torkare, om vad som krävs för att manövrera den här maskinen. Försök inte manövrera denna maskin, innan en erfaren, utbildad operatör förklarar detaljerna för dig.

This document is meant to remind you, the person operating this dryer, of what is required to operate this machine. Do not attempt to operate this machine before an experienced, trained operator explains the details to you.



**FARA 3: Multipla risker**—Vårdslös hantering kan döda eller skada personal, skada eller förstöra maskinen, skada egendom och/eller göra garantin ogiltig.

**DANGER 3: Multiple Hazards**—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.



**FARA 4: Risk för dödsfall eller elektriska brännskador**—Kontakt med elström kan döda eller allvarligt skada dig. Elström finns kvar i skåpet så länge huvudbrytaren är påslagen.




















**DANGER 4: Electrocution and Electrical Burn Hazards**—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Informera dig om var maskinens huvudbrytare finns och använd den i nödsituationer för att avlägsna strömmen från maskinen.
- Försök dig inte på obehörig reparation, underhåll eller ändringar.
- Lås inte upp eller öppna elskåp.

- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not unlock or open electric box doors.

### 2.1.2. Kontrollera strömbrytarens inställningar

Visa eller Utför  
[Display or Action]

	Förklaring	Explanation
	Kontrollera att nyckelströmbrytaren <i>Kör/Program</i> står i läge  .	Verify that the <i>Run/Program</i> keyswitch is at  .
	Alla nödstoppknappar måste vara öppna och i läge <i>klar</i> för att maskinen ska kunna köras.	All emergency stop buttons must be unlatched and in the <i>ready</i> position to allow machine operation.
	Kontrollera att huvudströmbrytaren står i läge  .	Verify that the master switch is at  .
	Kontrollera att strömbrytaren <i>Otillåten last</i> står i läge  för att tillåta automatisk ilastning.	Verify that the <i>Load Not Allowed</i> switch is at  to allow automatic loading.
	Kontrollera att strömbrytaren <i>Avlastning tillåten</i> står i läge  för att tillåta automatisk tömning av behandlat material.	Verify that the <i>Discharge Allowed</i> switch is at  to allow automatic discharging of processed goods.
	Kontrollera att strömbrytaren <i>Lokal/distans</i> står i läge  för att tillåta nätverkskommunikation.	Verify that the <i>Local/Remote</i> switch is set to  to allow network communication.
	Kontrollera att strömbrytaren <i>Automatisk/manuell</i> står i läge  för att tillåta automatisk drift.	Verify that the <i>Automatic/Manual</i> switch is at  to allow automatic operation.

### 2.1.3. Lasta maskinen

En systemkontrollant från Milnor kör automatiskt den här maskinen och andra maskiner i systemet. Om alla strömbrytare står i läge som i beskrivningen i [Avsnitt 2.1.2](#), kommer maskinen att acceptera, behandla och tömma en laddning utan manuell intervention.

Vid uppstart frågar maskinen operatören om maskinen är laddad. Om den inte är laddad, börjar normal automatisk drift. Om maskinen innehåller en last, kommer maskinkontrollen eller Mildata-datorn att fråga operatören efter lastens data. När operatören lägger in och bekräftar alla nödvändiga batch-data, börjar maskinen gå i automatiskt läge.

### Loading the Machine

A Milnor system controller automatically operates this machine and other machines in the system. If all switches are positioned as described in [Section 2.1.2](#), the machine will accept, process, and discharge a load without manual intervention.

At start-up, the machine asks the operator if the machine is loaded. If the machine is not loaded, normal automatic operation begins. If the machine contains a load, the machine controller or Mildata computer will prompt the operator for the data associated with the load. When the operator enters and confirms all necessary batch data, begins operating in automatic mode.

## 2.1.4. Vad säger displayen mig?

## What Does the Display Tell Me?

### 2.1.4.1. Drycode och stegvis information för gas-eldade torkare.

### Drycode and Step Information for Gas-fired Dryers

Visa eller Utför [Display or Action]	Förklaring	Explanation
VÄNTAR PÅ LAST *****	Torkaren är inte igång.	Dryer is idle.
WAITING FOR LOAD *****		
LADDAR -----	Torkaren laddas.	Dryer is loading.
LOADING -----		
04F TIF TOF 031 AIR S01 425D185 012 000	04F visar att torkaren kör drycode 04 med full last. 04P skulle betyda delvis lastad.	04F indicates that the dryer is running drycode 04 for a full load; 04P would represent a partial load.
04F TIF TOF 031 AIR S01 425D185 012 000	s01 är det aktuella steg-numret i de valda torkkoden.	S01 is the current step number of the selected drycode.
	TIF visas över ingångstemperaturen i grader Fahrenheit (425 i detta exempel). TIC visas när torkaren är konfigurerade för Celsius.	TIF appears above the inlet temperature in degrees Fahrenheit (425 in this example). TIC appears when the dryer is configured for Celsius.
	TOF visas ovanför utgångstemperaturen i grader Fahrenheit (185 i detta exempel). TOC visas när torkaren är konfigurerad för Celsius.	TOF appears above the outlet temperature in degrees Fahrenheit (185 in this example). TOC appears when the dryer is configured for Celsius.
	D mellan in- och utgångstemperaturerna representerar temperaturen Önskad. Skärmen visar alternativ för att även visa temperaturerna Aktuell när A ersätter D.	D between the inlet and outlet temperatures represents Desired temperature. The display alternates to also show the Actual temperatures when A replaces D.
	031 står för antalet minuter och kvarts-minuter av total körtid (3 minuter och 15 sekunder i detta exempel).	031 represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).

<b>Visa eller Utför</b> [Display or Action]	<b>Förklaring</b>	<b>Explanation</b>
	<p><i>012</i> visar den återstående tiden i detta steg (1 minut och 30 sekunder i detta exempel).</p>	<p><i>012</i> represents the time remaining in this step (1 minute and 30 seconds in this example).</p>
	<p><i>LUFT</i> visas ovanför spjällets läge (000 i detta exempel, kan sträcka sig från 000 till 002). Skärmen växlar och visar också den modulerande ventilens läge nedan <i>VP</i>.</p>	<p><i>AIR</i> appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the modulating valve position below <i>VP</i>.</p>

### 2.1.4.2. Drycode och stegvis information för ångtorkar

### Drycode and Step Information for Steam Dryers

Visa eller Utför [Display or Action]	Förklaring	Explanation
<div style="border: 1px solid black; padding: 2px;">VÄNTAR PÅ LAST *****</div> <div style="border: 1px solid black; padding: 2px;">WAITING FOR LOAD *****</div>	Torkaren är inte igång.	Dryer is idle.
<div style="border: 1px solid black; padding: 2px;">LADDAR -----</div> <div style="border: 1px solid black; padding: 2px;">LOADING -----</div>	Torkaren laddas.	Dryer is loading.
<div style="border: 1px solid black; padding: 2px;">04F TIF TOF 031 AIR S01 ---D--- 012 000</div> <div style="border: 1px solid black; padding: 2px;">04F TIF TOF 031 AIR S01 ---D--- 012 000</div>	<p>04F visar att torkaren kör drycode 04 med full last; 04P skulle betyda delvis lastad.</p> <p>s01 är det aktuella steg-numret i de valda torkkoden.</p> <p>Önskad temperaturer är inte inställda på ångtorkarna. Aktuella temperaturer visas på nedersta linjen på skärmen, nedan TIF (TIC) och TOF (TOC)</p> <p>031 står för antalet minuter och kvarts-minuter av total körtid (3 minuter och 15 sekunder i detta exempel).</p> <p>012 visar den återstående tiden i detta steg (1 minut och 30 sekunder i detta exempel).</p> <p>LUFT visas ovanför spjällets läge (000 i detta exempel, kan sträcka sig från 000 till 002). Skärmen växlar och visar också ångproportionen nedan SR.</p>	<p>04F indicates that the dryer is running drycode 04 for a full load; 04P would represent a partial load.</p> <p>S01 is the current step number of the selected drycode.</p> <p>Desired temperatures are not set on steam dryers. Actual temperatures are shown on the bottom line of the display, below TIF (TIC) and TOF (TOC)</p> <p>031 represents the minutes and quarter-minutes of total run time (3 minutes and 15 seconds in this example).</p> <p>012 represents the time remaining in this step (1 minute and 30 seconds in this example).</p> <p>AIR appears above the damper position (000 in this example, range is 000 through 002). The display alternates to also show the steam ratio below SR.</p>

### 2.1.5. Tömning av maskinen

I automatiskt läge kommer maskinen att tömma i slutet av varje torkeykel. För att tömma ut material manuellt, ställ strömbrytaren *Avlastning tillåten* i läge ☐. Använd ☺/☹ för

### Unloading the Machine

In automatic mode, the machine will discharge at the end of each dry cycle. To discharge the goods manually, set the *Discharge Allowed* switch to ☐. Use ☺/☹

att luta korgen.

När torkaren väntar på att lasta ur eller håller på att tömma, växlar skärmen mellan *VÄNTAR PÅ ATT TÖMMA* och *TÖMMER* med batch-data för den last som håller på att tömmas.

to jog the basket.

When the dryer is waiting to discharge or is discharging, the display alternates *WAITING TO DISCHARGE* or *DISCHARGING* with the batch data of the load being discharged.

**Visa eller Utför**  
[Display or Action]

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

FM	DC	DS	CC	GC	WDT
15	04	02	12	11	123

**Förklaring**

*FM* visas över tvättformel-numret för lasten.

*DC* visas över drycode-numret för lasten.

*DS* visas ovanför lastens mål.

*CC* visas ovanför kundkoden för lasten.

*GC* visas ovanför materialkoden för lasten.

*WDT* visas ovanför den tid som gått åt till att vänta på att tömma.

**Explanation**

*FM* appears above the wash formula number for the load.

*DC* appears above the drycode number for the load.

*DS* appears above the destination for the load.

*CC* appears above the customer code for the load.

*GC* appears above the goods code for the load.

*WDT* appears above the elapsed time spent waiting to discharge.

— Slut på BIPDUO01 —

— End of BIPDUO01 —

## Kapitel 3

# Signaler och fel

## Chapter 3

# Signals and Errors

BICSUT01 (Published) Book specs- Dates: 20080722 / 20080722 / 20120517 Lang: SWE01 Applic: PDU YDS

### 3.1. Felmeddelanden för skytteln

De flesta felmeddelanden och de flesta orsaker till felmeddelanden för skytteln, kan åtgärdas av operatören. I vissa fall måste operatören ringa efter hjälp från underhåll eller ledningen. Hjälp från underhåll behövs vid något av följande två situationer:

- När maskinen behöver service för att åtgärda felet.
- När ett fel måste åtgärdas från insidan av skyttelns arbetsområde med eltilförseln på.

**skyttelns arbetsområde**—området där skytteln rör sig under automatisk drift och som måste vara skyddat, enligt förklaring i ANSI-stadgan Z8.1-2006 “Nationell amerikansk standard för kommersiell tvätt- och kemtvättsutrustning och operation - säkerhetsföreskrifter (American National Standards for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements.)” Personal som går in i skyttelns arbetsområde, för att åtgärda ett fel eller av annan orsak, måste vara ordentligt utbildad inom skyttel-säkerhet och följa de skriftliga lokala säkerhetsföreskrifterna.



**WARNING 5: Risk för skada genom slag eller krosskada**—En skyttel har ett oförutsebart rörelsemönster under automatisk drift. Alla som finns inom skyttelns arbetsområde kan få slag eller bli krossade.

- Operatörer: Gå aldrig in i skyttelns arbetsområde om inte elförsörjningen är

### Shuttle Error Messages

Most shuttle error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will need to call for maintenance or management assistance. Maintenance assistance is needed in either of the following two circumstances:

- When the machine requires servicing to resolve the error.
- When an error must be resolved from inside the shuttle operating area with power on.

**shuttle operating area**—the area within which the shuttle moves during automatic operation and which must be guarded, as explained in ANSI Standard Z8.1-2006 “American National Standard for Commercial Laundry and Drycleaning Equipment and Operations - Safety Requirements.” Personnel who enter the shuttle operating area, whether to resolve an error, or for any other reason, must be properly trained in shuttle safety and abide by the published facility safety precautions.

**WARNING 5: Strike and Crush Hazards**—A shuttle moves unpredictably during automatic operation. Anyone within the operating area of the shuttle can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is



- pålitligt avstängd.
- Underhållspersonal: Koppla alltid bort automatisk drift innan du går in i skyttelns arbetsområde.

Med utgångspunkt i hur fel åtgärdas, är skyttelns fel av fem typer: felaktiga tidsgränser, fel i nivå-avkodarens räkneverk, lägesfel, fel i förflyttningen och fel som ska rapporteras till ledningen eller till underhållspersonal. Felen listas efter kategori och alfabetiskt inom varje kategori. Du kanske måste leta igenom mer än en kategori för att hitta det fel du letar efter. Förklaringarna för varje kategori är i tre delar:

1. en beskrivning av denna felkategori
2. en lista med fel och beskrivningar av dem
3. hur man åtgärdar fel av denna typ

### 3.1.1. Om “TRE-LEDARE URKOPPLAD TRYCK PÅ START FÖR ATT BÖRJA”

Detta meddelande syns på skärmen och operatörsalarmet låter vid start, tills knappen *Start* trycks in (ⓘ). Detta meddelande och signalen kommer också om någon nödstoppsknapp trycks in, om motorns överbelastningsskydd utlöses, eller vid vissa andra händelser. Fastän de fel som beskrivs här inte i sig själva sätter tre-ledarkretsen ur spel, kan några få av dem sammanfalla med andra händelser, som sätter tre-ledarkretsen ur funktion. Till exempel, om skytteln går så långt att den sluter en hoppsan-kontakt vid slutet av rälsen och utlöser ett RÄLSGRÄNS-fel (se [Avsnitt 3.1.5](#)), skyttelfotsskyddet kan också träffa och trycka ner ett föremål, och öppna tre-ledarkretsen. I sådana fall, visas meddelandet TRE-LEDARE UR FUNKTION och inte RÄLSGRÄNS-meddelandet, vilket gör att skytteln fysiskt måste flyttas tillräckligt långt bort från föremålet för att lösgöra fotvakten.

### 3.1.2. Att återstarta automatisk drift efter åtgärdande av fel

Skytteln ställer sig i startläge, som en normal del av återhämtandet efter de flesta fel som beskrivs i detta dokument. Under denna process kommer

reliably locked out.

- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, shuttle errors are of five types: time limit errors, level encoder counting errors, position errors, transfer errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### About “THREE WIRE DISABLED PUSH START TO GO”

This message appears and the operator alarm sounds at startup until the *Start* button (ⓘ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. Although the errors described in this document do not, by themselves, disable the three-wire circuit, a few may coincide with events that do disable the three wire circuit. For example, if the shuttle traverses far enough to close an oops switch at the end of the rail and trigger a RAIL LIMIT error (see [Section 3.1.5](#)), the shuttle foot guard may also hit an object and depress, opening the three wire circuit. In such a case, the THREE WIRE DISABLED message, not the RAIL LIMIT message will appear, requiring the shuttle to be physically moved far enough away from the object to release the foot guard.

### Resuming Automatic Operation After Error Correction

The shuttle will initialize as a normal part of recovering from most of the errors described in this document. During this process it will

den vanligtvis att gå till hemstationen och/eller flytta lyftbädden till lägsta nivå. Om skytteln innehåller material, kan den också begära cake-data. I så fall måste operatören kunna lägga in korrekt, eller bekräfta, batch-koderna för materialet i varje läge för skytteln.

### 3.1.3.

#### **Tidsgränsfel**

Ett tidsgränsfel uppstår om en skyttelrörelse inte fullgörs inom den specificerade tiden. Det är troligt att skyttelrörelsen störts tillfälligt. Om det är möjligt att konfigurera den specificerade tiden, finns en liten möjlighet att tidsvärdet måste justeras (se konfigurationsinstruktionerna för skytteln i referensmanualen). Tidsgränsfel stoppar skyttelns rörelse så att personal kan kontrollera om något störande tillstånd föreligger. Dessa fel är som följer:

usually traverse to its home station and/or move the elevating bed to the lowest level. If the shuttle contains goods, it may also prompt for cake data. In this event, the operator must be able to accurately enter or confirm the batch codes for the goods on each position of the shuttle.

#### **Time Limit Errors**

A time limit error occurs if a shuttle action is not completed within the specified time. It is likely that a temporary condition interfered with shuttle movement. If the specified time is configurable, there is a slight chance that the time value must be adjusted (see the shuttle configuration instructions in the reference manual). Time limit errors stop shuttle motion so that personnel can check for an interfering condition. These errors are as follows:

Visa eller Utför [Display or Action]	Förklaring	Explanation
FEL - KONTROLLERA KEDJAN TRYCK SIGNAL AVBRYT	Under startfasen, rörde sig inte skyttelbädden till sina högsta och lägsta lägen inom den tid som specificeras i “tid för att nå från längst ner till högst upp” kofigurationsbeslutet.	While initializing, the shuttle bed failed to move to its maximum and minimum positions within the time specified in the “time to reach bottom-top” configure decision.
ERROR - CHECK CHAIN PRESS SIGNAL CANCEL		
FEL - INGEN CAKE TRYCK SIGNAL AVBRYT	Under urlastningsfasen, blockerades inte fotocellen i urlastningsänden inom den tid som specificeras i “tid för att tömma bandet” konfigurationsbeslutet.	During discharge, the discharge-end photo eye was not blocked within the time specified in the “clear belt time” configure decision.
ERROR - NO CAKE PRESS SIGNAL CANCEL		
FEL - RÄKNAR INTE TRYCK SIGNAL AVBRYT	Mer än 45 sekunder gick mellan stationsmålen medan skytteln rörde sig åt vänster eller höger.	More then 45 seconds elapsed between station targets while the shuttle was moving left or right.
ERR - NOT COUNTING PRESS SIGNAL CANCEL		
FEL - VÄNTADE FÖR LÄNGE TRYCK SIGNAL AVBRYT	Mottagningsenheten bekräftade inte maskinens urlastning inom den tid som specificeras i “försenad ansluten-last-färdig” konfigurationsbeslutet.	The receiving device did not acknowledge the machine's discharge within the time specified in the “allied load completed delay” configure decision.
ERROR- WAIT TOO LONG PRESS SIGNAL CANCEL		
FÖR LÅNG TID FÖR AVLASTNING TRYCK SIGNAL AVBRYT	Bandet rör sig och fotocellen i urlastningsänden är fortfarande blockerad, 30 sekunder efter utgången av den tid som specificeras i “tid för att tömma bandet” konfigurationsbeslutet.	The belt is moving and the discharge-end photo eye is still blocked 30 seconds after the time specified in the “clear belt time” configure decision expires.
TOO LONG TO DISCH. PRESS SIGNAL CANCEL		
FÖR LÅNG RÄKNENIVÅ TRYCK SIGNAL AVBRYT	Mer än 30 sekunder gick mellan nivåmålen medan skyttelns höjningsbädd rörde sig uppåt eller nedåt.	More then 30 seconds elapsed between level targets while the shuttle elevating bed was moving up or down.
2 LONG COUNT LVL PRESS SIGNAL CANCEL		

Identifiera och åtgärda förhållanden som kan ha förhindrat processen, tryck sedan på *Återställning av signal*-knappen (☞) för att initialisera skytteln och återstarta automatisk drift. Om felet återkommer, ring underhållspersonal.

Identify and correct any condition that may have prevented the action from occurring, then press the *Signal Cancel* button (☞) to initialize the shuttle and resume automatic operation. If error recurs, call maintenance personnel.

### 3.1.4. Fel i nivåmätaren

Kontrollören för vissa skyttelmodeller spårar läget för höjningsbädden med en avkodare som räknare mål vid varje vertikal nivå, när bädden

### Level Encoder Counting Errors

The controller for some shuttle models tracks the position of the elevating bed with an encoder that counts targets at each vertical

passerar målet. Ett fel uppstår om nivåavkodaren tappar räkningen. Sådana fel stoppar skyttelrörelsen så att skytteln kan åter-initieras. Denna felkategori inkluderar följande:

Visa eller Utför [Display or Action]	Förklaring	Explanation
RÄKNAREN ÖVERSKRIDER MAXIMUM TRYCK SIGNAL AVBRYT	Räknaren överskred maximivärdet som specificeras i “antal mottagnivåer” respektive “antal urlastningsnivåer” konfigurationsbeslut.	The count exceeded the maximum value specified in the “number of receive levels” or the “number of discharge levels” configure decision, whichever applies.
CNTS EXCEEDED MAX PRESS SIGNAL CANCEL		
RÄKNAREN GICK UNDER 0 TRYCK SIGNAL AVBRYT	Räknaren är vid, eller nära att gå under, noll.	The count is at, or about to fall below zero.
CNTS FELL BELOW 0 PRESS SIGNAL CANCEL		
SÅGKEDJAN SLAK TRYCK SIGNAL AVBRYT	Kedjan blev slak medan bädden rörde sig nedåt, men innan den nådde önskat värde.	A slack chain condition occurred while the bed was moving down, but before reaching the desired count.
SAW SLACK CHAIN PRESS SIGNAL CANCEL		

Förhållandet som orsakade räknarfelet är troligtvis tillfälligt och återkommer förmodligen inte. Tryck på *Återställning av signal*-knappen (☒) för att initialisera skytteln och återgå i automatisk drift. Om felet återkommer, ring underhållspersonal.

The condition that caused the encoder error is likely to be momentary and will probably not recur. Press the *Signal Cancel* button (☒) to initialize the shuttle and resume automatic operation. If the error recurs, call maintenance personnel.

### 3.1.5. Lägesfel

Denna typ av fel pekar på att kontrollen upptäcker att skytteln, eller en komponent i skytteln, är på fel plats. Skyttelrörelsen stoppar så att man kan avgöra om manuellt ingripande behövs. Manuellt ingripande kan innebära att material som blockerar en fotocell måste tas bort, eller att man måste ändra skyttelns läge genom att använda manuella kontroller.

### Position Errors

This type of error indicates that the controller detects the shuttle or a shuttle component is in the wrong place. Shuttle motion stops so that it can be determined if manual intervention is needed. Manual intervention may involve removing goods that are blocking a photoeye, or repositioning the shuttle using the manual controls.



**WARNING 6: Risk för skada**—De manuella kontrollerna tar över fotocellerna, som normalt förhindrar att skytteln kör in en cake i ett föremål, eller på golvet.

- Var försiktig och tänk över konsekvenserna innan du flyttar skytteln manuellt.

**CAUTION 6: Risk of damage**—The manual controls override the photo eyes which normally prevent the shuttle from running a cake into an object, or onto the floor.

- Use care and consider the consequences before moving the shuttle manually.

Relevanta manuella kontroller för varje fel är listade i felbeskrivningen. Denna felkategori

The pertinent manual controls for each error are listed in the error description. This

inkluderar följande:

category of error includes the following:

**Visa eller Utför**

[Display or Action]

CAKE MÅSTE VARA  
MANUELLT LOSSAS

CAKE MUST BE  
MANUALLY UNLOADED

**Förklaring**

Tillämplig på skyttlar som konfigurerats för att inte lyfta den andra bandet för tömning. En cake finns på band 1 men inte på band 0. Relevanta manuella kontroller: *Band 1 framåt/bakåt*-kontakt. Med band 1 i läge för urlastning, håll kontakten på *Framåt* (☞) tills cake är urlastad.

**Explanation**

Applies to shuttles configured not to elevate the second belt to discharge. A cake is on belt 1 but not on belt 0. Pertinent manual controls: *Belt 1 Forward/Reverse* switch. With belt 1 aligned for discharge, hold switch at *Forward* (☞) until cake is discharged.

FEL - INTE  
TILLBAKADRAGEN  
TRYCK SIGNAL AVBRYT

ERROR-NOT RETRACTED  
PRESS SIGNAL CANCEL

Skytteln ville gå, höjas eller sänkas, men skyttelbädden har inte gått tillbaka helt. Relevanta kontroller: *Band 0 Utsträck/Dra tillbaka för att ta emot*-kontakt (☞/☞), *Band 0 Utsträck/Dra tillbaka för att lasta ur*-kontakt (☞/☞), *Bandet helt indraget* ljus. Använd relevant strömbrytare för att belysa ljuset.

The shuttle desired to traverse, elevate, or descend, but the shuttle bed is not fully retracted. Pertinent manual controls: *Belt 0 Extend/Retract to Receive* switch (☞/☞), *Belt 0 Extend/Retract to Discharge* switch (☞/☞), *Belt Fully Retracted* light. Operate the appropriate switch to illuminate the light.

FEL - RÄLSGRÄNS  
TRYCK SIGNAL AVBRYT

ERROR - RAIL LIMIT  
PRESS SIGNAL CANCEL

Skytteln gick för långt åt höger eller vänster, aktiverade hoppsan-kontakten och stannade där mer än 5 sekunder. Relevant manuell kontroll: *Gå till vänster/höger* kontakt (☞/☞).

The shuttle traversed too far right or left, actuated the oops switch, and remained there longer than five seconds. Pertinent manual control: *Travel Left/Right* switch (☞/☞).

FEL - SLAK KEDJA  
TRYCK SIGNAL AVBRYT

ERROR - SLACK CHAIN  
PRESS SIGNAL CANCEL




Skyttelbädden sänktes antingen till sitt lägsta mekaniska stopp eller träffade på ett hinder medan den sänktes. Relevanta manuella kontroller: *Aktivera ner/upp* nyckelströmbrytare, *Flytta nedåt* strömbrytare (☞) or *Flytta nedåt* strömbrytare (☞/☞), den som passar.

The shuttle bed either descended onto its lower mechanical stop or met an obstruction while descending. Pertinent manual controls: *Enable Down/Up* key switch, *Move Down* switch (☞) or *Move Down/Up* switch (☞/☞), as applicable.

Visa eller Utför [Display or Action]	Förklaring	Explanation
<div data-bbox="289 310 630 401" style="border: 1px solid black; padding: 2px;">FEL - FÖR HÅRT SPÄND KEDJA TRYCK SIGNAL AVBRYT</div> <div data-bbox="289 415 630 474" style="border: 1px solid black; padding: 2px;">ERROR - TAUT CHAIN PRESS SIGNAL CANCEL</div>	<p>Skyttelbädden gick antingen upp till sitt översta manuella stopp eller stötte på ett annat hinder medan den höjdes. Relevanta manuella kontroller: <i>Aktivera ner/upp nyckelströmbrytare, Flytta nedåt strömbrytare (↙) eller Flytta nedåt strömbrytare (↙/↘), den som passar, och Spänd kedja</i> ljus. Ställ in nyckelströmbrytaren på manuell drift och använd strömbrytaren. Om kedjan är spänd, tänds ljuset och slocknar när tillståndet är avvärijt.</p>	<p>The shuttle bed either struck its upper mechanical stop or met another obstruction while rising. Pertinent manual controls: <i>Enable Down/Up key switch, Move Down switch (↙) or Move Down/Up switch (↙/↘), as applicable, and Taut Chain light</i>. Set the key switch for manual operation and operate the switch. In a taut chain condition, the light is illuminated and goes out when the condition is eliminated.</p>
<div data-bbox="289 835 630 926" style="border: 1px solid black; padding: 2px;">FÖR LÅNGT UTSTRÄCKT JUSTERA BANDET MANUELLT</div> <div data-bbox="289 940 630 999" style="border: 1px solid black; padding: 2px;">EXTENDING TOO FAR ADJUST BELT MANUALLY</div>	<p>Skyttelbädden gick längre än till sitt fullt utsträckt läge. Relevanta manuella kontroller: <i>Band 0 sträck ut/dra tillbaka strömbrytare (↔/↔), Band 0 fullt utsträckt för att lasta ur</i> ljus. Använd kontakten för att tända ljuset.</p>	<p>The shuttle bed went beyond its fully extended position. Pertinent manual controls: <i>Belt 0 Extend/Retract to Discharge switch (↔/↔), Belt 0 Fully Extended to Discharge light</i>. Operate the switch to illuminate the light.</p>
<div data-bbox="289 1108 630 1220" style="border: 1px solid black; padding: 2px;">FÖR LÅNGT TILLBAKADRAGEN JUSTERA BANDET MANUELLT</div> <div data-bbox="289 1234 630 1293" style="border: 1px solid black; padding: 2px;">RETRACTING TOO FAR ADJUST BELT MANUALLY</div>	<p>Skyttelbädden gick längre än till sitt fullt indragna läge. Relevanta manuella kontroller: <i>Band 0 Utsträck/Dra tillbaka för att ta emotkontakt (↔/↔), Band 0 sträck ut/dra tillbakakontakt (↔/↔), Bandet helt indraget</i> ljus. Använd relevant kontroll tills ljuset tänds.</p>	<p>The shuttle bed went beyond its fully retracted position. Pertinent manual controls: <i>Belt 0 Extend/Retract to Receive switch (↔/↔), Belt 0 Extend/Retract to Discharge switch (↔/↔), Belt Fully Retracted light</i>. Operate the appropriate switch until the light illuminates.</p>

Korrigera ett lägesfel enligt följande:

Correct a position error as follows:

Visa eller Utför [Display or Action]	Förklaring	Explanation
<p>Använd relevanta manuella kontroller (förklaras ovan) för att ställa skytteln i rätt läge. Om det handlar om ett kedjefel, måste du ha tillträde till den nyckel-reglerade kontakten <i>Aktivera ner/upp</i>. Om skytteln inte svarar, kontakta underhållspersonal. Om du kan ändra läget på skytteln:</p>	<p> Ställ strömbrytaren <i>Automatisk/manuell</i> på <i>Manuell</i>.</p>	<p>Set the <i>Automatic/Manual</i> switch to <i>Manual</i>.</p>
	<p> Återställ kontakten <i>Automatisk/manuell</i> till <i>Automatisk</i>.</p>	<p>Return the <i>Automatic/Manual</i> switch to <i>Automatic</i>.</p>
<p>VISA MANUELL-PRESS SKIPTO ATT AVBRYTA</p>	<p>Detta meddelande visas när man går tillbaka till automatisk drift efter att ha använt de manuella kontrollerna.</p>	<p>This message appears when returning to automatic mode after using the manual controls.</p>
<p>BARE MANUAL-PRESS SKIPTO TO EXIT</p>	<p> Tryck på HOPPA TILL-nyckeln (knappsats) eller knappen (DryNet enhets-display) för att påbörja initialiseringen av skytteln.</p>	<p>Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization.</p>

### 3.1.6. Förflyttningsfel

Ett fel av denna typ uppkommer om, till exempel, en bit material frigör sig från en pressad cake och blockerar fotocellen. Dessa fel inkluderar följande:

### Transfer Errors

An error of this type occurs if, for example, a piece of goods separates from a pressed cake and blocks a photo eye. These errors include the following:



**Visa eller Utför**

[Display or Action]

FEL - FOTOCELLSFEL 1 TRYCK SIGNAL AVBRYT
---------------------------------------------

ERROR - EYE ERROR 1 PRESS SIGNAL CANCEL
--------------------------------------------

FEL - FOTOCELLSFEL 3 TRYCK SIGNAL AVBRYT
---------------------------------------------

ERROR - EYE ERROR 3 PRESS SIGNAL CANCEL
--------------------------------------------

FEL - FOTOCELLSFEL 4 TRYCK SIGNAL AVBRYT
---------------------------------------------

ERROR - EYE ERROR 4 PRESS SIGNAL CANCEL
--------------------------------------------

FEL - FOTOCELLSFEL 5 TRYCK SIGNAL AVBRYT
---------------------------------------------

ERROR - EYE ERROR 5 PRESS SIGNAL CANCEL
--------------------------------------------

**Förklaring**

Antingen laddnings- eller tömningsändens fotocell är blockerade på ett fler-cake-band, när skytteln försöker röra sig, vilket pekar på att en cake kan sticka ut utanför bandet och utgöra en skaderisk. FOTOCELLSFEL 2 är snarlikt. Varje fel hänför sig till specifika modeller.

Tömningsändens fotocell på ett fler-cake-band har inte blockerats och frigjorts så många gånger under tömningen, som kontrollanten tror att det finns cakes, vilket betyder att kontrollanten räknat för få cakes. Detta kan uppkomma om material går emellan två cakes och gör dem omöjliga att skilja åt för kontrollanten.

Fotocellen i slutänden på ett fler-cake-band blockeras under laddning, vilket pekar på att cake(s) som följer efter den första cake, kan saknas. När ett fler-cake-band laddas ska den sista cake frilägga laddningsändens fotocell och stoppa bandet innan den första cake blockerar fotocellen i tömningsänden. Detta fel kan uppstå om löst packade cakes sprids ut och tar upp för mycket plats på bandet.

Både laddningsändens och urlastningsändens fotoceller är blockerade när skytteln vill röra sig eller sänka bädden, vilket pekar på att en cake sticker utanför bandet och orsakar risk för skador.

**Explanation**

Either the load-end or discharge-end photo eye is blocked on a multi-cake belt when the shuttle desires to move, indicating that a cake may be protruding off of the belt, risking damage. EYE ERROR 2 is similar. Each error applies to specific models.

The discharge-end photo eye on a multi-cake belt did not block and clear as many times, during discharge, as the controller believes there are cakes; that is, the controller counted too few cakes. This can occur if goods straddle two cakes making them indistinguishable to the controller.





The discharge-end photo eye on a multi-cake belt blocks during loading, indicating that cake(s) following the first cake, may be missing. When a multi-cake belt is loaded, the last cake should clear the load-end photo eye and stop the belt before the first cake blocks the discharge-end photo-eye. This error can occur if loosely compacted cakes spread apart and take up too much room on the belt.

The load-end and discharge-end photo eyes are both blocked when the shuttle desires to traverse or lower the bed, indicating that a cake may protrude from the belt, risking damage.

Visa eller Utför [Display or Action]	Förklaring	Explanation
<div style="border: 1px solid black; padding: 2px;">FEL - FOTOCELLSFEL 6 TRYCK SIGNAL AVBRYT</div> <div style="border: 1px solid black; padding: 2px;">ERROR - EYE ERROR 6 PRESS SIGNAL CANCEL</div>	Den överskjutande fotocellen är blockerad när skytteln vill röra sig eller höja/sänka bädden, vilket pekar på att en cake kan sticka utanför bandet och orsaka risk för skador.	The overshoot photoeye is blocked when the shuttle desires to traverse or raise/lower the bed, indicating that a cake may protrude from the belt, risking damage.
<div style="border: 1px solid black; padding: 2px;">FEL - XFER AVBRUTEN TRYCK SIGNAL AVBRYT</div> <div style="border: 1px solid black; padding: 2px;">ERROR - XFER ABORTED PRESS SIGNAL CANCEL</div>	Miltrac-kontrollen avbröt den pågående rörelsen. Till exempel ett av fotocellsfelen som beskrivs ovan, uppkommer efter det att rörelsen startar, men innan meddelandet till Miltrac är fullständigt.	The Miltrac controller cancelled the transfer in progress. For example, one of the photo eye errors described above occurs after the transfer process starts, but before communication with Miltrac is completed.

Med iakttagande av skriftliga säkerhetsinstruktioner, rengör en felaktigt blockerad fotocell genom att fysiskt avlägsna material, eller genom att köra bandet manuellt för att flytta materialet, enligt följande:

Observing published safety precautions, clear an improperly blocked photoeye by physically removing the goods or by manually running the belt to move the goods, as follows:

Visa eller Utför [Display or Action]	Förklaring	Explanation
	Ställ strömbrytaren <i>Automatisk/manuell</i> på <i>Manuell</i> .	Set the <i>Automatic/Manual</i> switch to <i>Manual</i> .
	Använd relevant <i>Band x framåt/bakåt</i> kontakt (upp till fyra vertikalt ordnade band, numrerade från 0 till och med 3, från det understa till det översta) för att köra det bandet och avsluta eller korrigera rörelsen.	Use the appropriate <i>Belt x Forward/Reverse</i> switch (up to four vertically stacked belts, numbered 0 through 3, from bottom to top) to run that belt and complete or correct the transfer.
	Återställ kontakten <i>Automatisk/manuell</i> till <i>Automatisk</i> .	Return the <i>Automatic/Manual</i> switch to <i>Automatic</i> .
<div style="border: 1px solid black; padding: 2px;">VISA MANUELL-PRESS SKIPTO ATT AVBRYTA</div> <div style="border: 1px solid black; padding: 2px;">BARE MANUAL-PRESS SKIPTO TO EXIT</div>	Detta meddelande visas när man går tillbaka till automatisk drift efter att ha använt de manuella kontrollerna.	This message appears when returning to automatic mode after using the manual controls.
	Tryck på GÅ-TILL-nyckeln (tangentbord) eller knappen (DryNet enhets-skärm) för att starta skyttelns initialisering och återuppta automatisk drift.	Press the SKIP TO key (keypad) or button (DryNet device display) to start shuttle initialization and resume automatic operation.

**3.1.7. Fel som ska rapporteras till ledningen eller underhållspersonalen.**

Följande fel har konsekvenser som bör åtgärdas av ledningspersonal. Åtgärdande av konsekvenserna avhjälper felet.

**Errors That Should Be Reported to Management or Maintenance Personnel**

The following errors have consequences that should be resolved by management personnel. Addressing the consequences resolves the error.

**Visa eller Utför**

[Display or Action]

Kontrollera I/O-tavlan x TRYCK SIGNAL AVBRYT
CHECK I/O BOARD x PRESS SIGNAL CANCEL

**Förklaring**

Kontrollen upptäcker ett kretskort som är skadat eller saknas. Om detta fel uppstod direkt efter programmering av konfigurationsvärdena, beror det antagligen på att man specificerat en tillvalsfunktion som inte finns på maskinen. Om det uppstod efter det att hårdvara lades till för en tillvalsfunktion, tyder det på att denna funktion ännu inte har specificerats i konfigurationen. Annars tyder det antagligen på att ett kretskort eller närbesläktad krets har brutits.

**Explanation**

The controller detects a failed or missing control circuit board. If this error occurred immediately after configure values were programmed, it is probably the result of specifying an optional feature that is not actually present on the machine. If it occurred after adding hardware for an optional feature, it indicates that this feature has not yet been specified in configuration. Otherwise, it probably indicates that a board or related circuitry has failed.

TÖM MINNET NU TRYCK 4 + 5 + 6
CLEAR MEMORY NOW PRESS 4 + 5 + 6

Fält-programmerbara data skadades. Konfigurationsvärdena måste programmeras om, enligt förklaring i programmeringsdelen i referensmanualen.

Field-programmable data became corrupt. Configure values must be re-programmed as explained in the part of the reference manual on programming.

FEL - FÖR MÅNGA DIR TRYCK SIGNAL AVBRYT
ERROR - TOO MANY DIR PRESS SIGNAL CANCEL

Höger- och vänsteringångarna från en kopplad laddningsenhet aktiverades samtidigt. Detta är ett fel i kontrollkretsen som kräver elektrisk felsökning.

The right and left direction inputs from an allied loading device were actuated at the same time. This is a control circuitry malfunction requiring electrical troubleshooting.

PROGRAM 0 MENY OK VRID NYCKELN ATT KÖRA
PROGRAM 0 MENU OK TURN KEY TO RUN

**Kör/Program**-nyckeln har lämnats i maskinen och strömbrytaren står i läge *Program*. Nyckeln ska tas ur och placeras på säker plats som endast ledningspersonalen har tillgång till.

The **Run/Program** key has been left in the machine and the switch is in the *Program* position. This key should be removed and placed in a secure location accessible only to management personnel.

— Slut på BICSUT01 —

— End of BICSUT01 —

BIPDUT01 (Published) Book specs- Dates: 20080722 / 20080722 / 20120517 Lang: SWE01 Applic: PDU YDS

### 3.2. Felmeddelanden för torkaren

De flesta felmeddelanden och de flesta orsaker till felmeddelanden för skytteln, kan åtgärdas av operatören. I vissa fall måste operatören ringa

### Dryer Error Messages

Most dryer error messages and the conditions that cause them can be resolved by the operator. In some cases the operator will

efter hjälp från underhåll eller ledningen. Om torkaren inte laddas automatiskt av ett skyttelband, gå inte in i skyttelns arbetsområde för att åtgärda ett fel om du inte är ordentligt utbildad i skyttelsäkerhet. Följ de skriftliga säkerhetsföreskrifterna för enheten.



**WARNING 7: Risk för skada genom slag eller krosskada**—Skyttelbandet som tjänar en rad automatlastade torkare, rör sig oförutsägbart under automatisk drift. Medan det rör sig, passerar det och nästan rör vid framsidan av varje torkare. Personer som finns vid eller nära framsidan av en torkare kan få ett slag eller bli krossade.

- Operatörer: Gå aldrig in i skyttelns arbetsområde om inte elförsörjningen är pålitligt avstängd.
- Underhållspersonal: Koppla alltid bort automatisk drift innan du går in i skyttelns arbetsområde.

Med utgångspunkt i hur ett fel ska åtgärdas, är torkarnas fel av fyra typer: överhettningsfel, säkerhetsmeddelanden från laddningsluckor, andra fel med den automatiska driften och fel som ska rapporteras till lednings- eller underhållspersonal. Felen listas efter kategori och alfabetiskt inom varje kategori. Du kanske måste leta igenom mer än en kategori för att hitta det fel du letar efter. Förklaringarna för varje kategori är i tre delar:

1. en beskrivning av denna felkategori
2. en lista med fel och beskrivningar av dem
3. hur man åtgärdar fel av denna typ

### 3.2.1. Om meddelandet “TRELEDARKRETSEN UR FUNKTION”

Detta meddelande syns på skärmen och operatörsalarmet låter vid start tills knappen *Start* trycks in (Ⓜ). Detta meddelande och signalen kommer också om någon nödstoppsknapp trycks in, om motorns överbelastningsskydd utlöses, eller vid vissa andra händelser. Vissa fel som beskrivs i detta dokument kan sammanfalla med händelser som stänger av treledarkretsen. När detta händer, visas TRELEDARE INAKTIVERAD och inte felmeddelandet, på

need to call for maintenance or management assistance. If the dryer is automatically loaded by a shuttle conveyor, do not enter the shuttle operating area to resolve an error unless properly trained in shuttle safety. Abide by the published facility safety precautions.

**WARNING 7: Strike and Crush Hazards**—The shuttle conveyor that serves a line of automatically-loaded dryers moves unpredictably during automatic operation. As it traverses, it passes, almost touching the front of each dryer. Anyone at or near the front of a dryer can be struck or crushed.

- Operators: Never enter the shuttle operating area unless power is reliably locked out.
- Maintenance personnel: Always disable automatic operation before entering the shuttle operating area.

From the standpoint of how to resolve the error, dryer errors are of four types: overheat errors, load door advisories, other automatic operation errors, and errors that should be reported to management or maintenance personnel. The errors are listed by category and alphabetically within each category. You may need to look through more than one category to find the error you are looking for. The explanations for each category are in three parts:

1. a description of this category of error
2. a list of the errors and their descriptions
3. how to resolve an error of this type

### About the “THREE WIRE DISABLED” Message

This message appears and the operator alarm sounds at startup until the *Start* button (Ⓜ) is pressed. This message and signal will also occur if any emergency stop button is pressed, if a motor overload trips, or if certain other events occur. A few errors described in this document may coincide with events that disable the three-wire circuit. When this occurs, the THREE WIRE DISABLED message, and not the error

displayen. Men två viktiga specialfall förklaras i [Avsnitt 3.2.2 “Överhettningsfel”](#).

### 3.2.2. **Överhettningsfel**

Ett överhettningsfel uppstår om kontrollen upptäcker en utgångstemperatur som överstiger det tillåtna värdet. Fast ett överhettningsfel kan ha många orsaker, antar kontrollen att det brinner i korgen och vidtar följande åtgärder:

- öppnar treledarkretsen, som :
  - » stänger av värmekällan (t.ex. stänger gasventilen)
  - » stänger av huvudluftflödet
  - » stoppar korgens rotation
- aktiverar den interna sprinklern, som sprutar vatten i korgen

message, will typically appear on the display. However, two important special cases are explained in [Section 3.2.2 “Overheat Errors”](#).

### **Overheat Errors**

An overheat error occurs if the controller detects an outlet temperature exceeding the permissible value. Although an overheat error can have numerous causes, the controller assumes there is a fire in the basket and takes the following actions:

- opens the three wire circuit, which:
  - » shuts off the heat source (e.g., closes the gas valve)
  - » shuts off the main air flow
  - » stops basket rotation
- actuates the internal sprinkler, which sprays water into the basket

**Visa eller Utför**

[Display or Action]

ÖVERSKRIDEN UTSLÄPPSTEMPERATUR 240dF -STÄNG AV-
OUTLET TEMP EXCEEDED 240dF -POWER DOWN-

**Förklaring**

En extra säkerhetsfunktion på torkaren utlöser detta fel om utsläppstemperaturen överstiger 240 ° Fahrenheit (116° Celsius). Denna händelse uppkommer inte som resultat av en ökning av temperaturen, om inte TRELEDAREN UR FUNKTION-läge, som beskrivs nedan, misslyckas, möjligen beroende på komponentfel. Detta fel utlöses av mjukvara som baserar sig på temperaturdata från urlastningsänden. Därför kan felet uppstå felaktigt, beroende på fel i en elektrisk komponent, som en felaktig A/D-tavla. Även om treledarkretsen öppnas när detta fel uppstår, visas detta felmeddelande framför meddelandet TRELEDARE UR FUNKTION.

**Explanation**

A redundant safety feature on the dryer will trigger this error if outlet temperature exceeds 240° Fahrenheit (116° Celsius). This event will not occur as a result of an actual temperature rise unless the THREE WIRE DISABLED condition, explained below, fails, perhaps due to a component failure. This error is triggered in software, based on the outlet temperature input. Hence, this error may occur erroneously, due to an electrical component failure such as a failed A/D board. Although the three wire circuit opens when this event occurs, this error message will take precedence over the THREE WIRE DISABLED message.

TRELEDARKRETSEN UR FUNKTION *****
THREE WIRE DISABLED *****

Detta meddelande kan bero på att utände-temperaturen överstiger 225° Fahrenheit (107° Celsius), men det kan också ha andra orsaker. När meddelandet visas under drift (efter det att knappen *Start* tryckts in), **kontrollera omedelbart om sprinklarmekanismen (som sitter på sidan av utsläppshöljet) är aktiverad** och i så fall, hantera detta meddelande som ett överhettningfel. Detta fel härrör från någon av de två säkerhetsströmbrytarna för temperatur (Fenwal-kontakter) som sitter på utsläppstrumman.

This message may be the result of the outlet temperature exceeding 225° Fahrenheit (107° Celsius), but it may also have other causes. Whenever this message appears during operation (after the *Start* button is pressed), **immediately check to see if the sprinkler mechanism (mounted on the side of the discharge shroud) is actuated** and if so, resolve this message as an overheat error. This error is triggered by either of two temperature safety switches (Fenwal switches) mounted in the outlet duct.

Åtgärda ett överhettningproblem enligt följande:

Resolve an overheat error as follows:

Visa eller Utför [Display or Action]	Förklaring	Explanation
⊗, ⊕	<ol style="list-style-type: none"> <li>1. Om UTSLÄPPSTEMPERATUREN ÖVERSTEG 240 grader F-felet uppstod, stäng av och sätt sedan på igen, torkarströmbrytaren <i>Master</i>. Detta krävs för att återställa utsläppsreläet Önskar sprinkler. Annars kommer det inte vara möjligt att stänga av sprinklern.</li> <li>2. Om det inte finns några tecken på brand, <b>dra ner det röda handtaget på sprinklarmekanismen tills handtaget låses i läge</b>, för att stoppa vattenflödet in i korgen, men fortsätt att söka efter tecken på brand och var beredd att återaktivera sprinklern.</li> </ol>	<ol style="list-style-type: none"> <li>1. If the OUTLET TEMP EXCEEDED 240°F error occurred, turn the dryer <i>Master</i> switch off, then back on. This is required to reset the Desires Sprinkler output relay. Otherwise it will not be possible to shut off the sprinkler.</li> <li>2. If there is no evidence of fire, <b>pull down the red handle on the sprinkler mechanism until the handle locks in place</b>, to stop the flow of water into the basket, but continue to observe for evidence of fire and be prepared to re-activate the sprinkler.</li> </ol>
ⓘ	<p>Tryck på torkarknappen <i>Start</i>. Om utsläppstemperaturen inte har svalnat till under 214° Fahrenheit (101° Celsius), kommer treledarkretsen inte att laddas. Vänta tills torkaren har svalnat tillräckligt.</p>	<p>Press the dryer <i>Start</i> button. If outlet temperature has not cooled below 214° Fahrenheit (101° Celsius), the three wire circuit will not energize. Wait until the dryer has cooled sufficiently.</p>

När treledarkretsen är laddad, använd de manuella kontrollerna för att tömma ur eventuellt brandskadat material. Använd alla nödvändiga säkerhetsåtgärder för brand när detta görs. Om en korgbrand uppstått måste torkaren inspekteras för skador innan den sätts i drift igen. Om inte, bör torkaren återta automatisk drift med strömbrytaren *Automatisk/manuell* inställd på *Automatisk*. Om ingen brand uppstod, men felet återkommer, pekar det på att det finns en komponent som fungerar dåligt. Kontakta underhållspersonal.

Once the three wire circuit is energized, use the manual controls to discharge any fire-damaged goods. Use all necessary fire safety precautions when doing so. If a basket fire did occur, the dryer will need to be inspected for damage before returning it to service. Otherwise, with the dryer *Automatic/Manual* switch set to *Automatic*, the dryer should resume automatic operation. If no fire occurred but the error recurs, this indicates a malfunctioning component. Call maintenance personnel.

### 3.2.3. Lastluckegivare

Dessa meddelanden uppträder utan något operatörsalarm om lastluckan inte öppnas eller stängs inom 15 sekunder efter kommandot.

### Load Door Advisories

These messages occur with no accompanying operator alarm if the load door does not open or close within 15 seconds after being



Bearbetningen fortsätter inte förrän åtgärd vidtas, men återupptas så fort inmatningen för den aktuella lastningsluckan görs.

commanded to do so. Processing will not proceed until the action occurs, but will resume without any intervention once the appropriate load door input is made.

**Visa eller Utför**  
[Display or Action]

LASTNINGSLUCKAN INTE  
ÖPPEN

LOAD DOOR NOT OPEN

**Förklaring**

Lastningsluckan öppnades inte inom den specificerade tiden. Luckan kanske inte hade flyttat sig till det nödvändiga läget beroende på ett mekaniskt problem, som lågt lufttryck. Detta fel kan också uppstå felaktigt, till följd av ett problem, som felaktig anslutningskontakt.

**Explanation**

The load door did not open within the specified time. The door may not have moved to the needed position due to a mechanical problem such as low air pressure. This error could also occur erroneously as a result of a problem such as a failed proximity switch.

LASTNINGSLUCKAN ÖPPEN

LOAD DOOR OPEN

Lastningsluckan öppnades inte inom den specificerade tiden. Detta beror troligen på att en bit av materialet blockerar luckan, men det kan också vara av samma sorts anledning som LASTNINGSLUCKAN INTE ÖPPEN.

The load door did not close within the specified time. This is most likely due to a piece of goods blocking the door, but it could also be for a similar reason as LOAD DOOR NOT OPEN.

TÖMNINGSLUCKAN ÖPPEN

DISCHARGE DOOR OPEN

Tömningsluckan stängdes inte inom den specificerade tiden, när den fått kommandot att göra det under ilastning. Detta kan också bero på liknande orsaker som LASTNINGSLUCKAN INTE ÖPPEN.

The discharge door did not close within the specified time, when commanded to do so at loading. This could also be for a similar reason as LOAD DOOR NOT OPEN.

Om felet inte rättas till av sig självt inom kort tid, undersök och åtgärda eventuella problem som stör lastningsluckans funktion. Detta kräver auktoriserad personal med relevant utbildning, och de skriftliga säkerhetsföreskrifterna måste följas. Om felet rättas till av sig självt, men återkommer, kontakta underhållspersonal.

If the condition does not self-correct within a short time, investigate, and correct any condition interfering with load door operation. This will require personnel with the appropriate qualifications and authority, and compliance with published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

### 3.2.4. Övriga fel vid automatisk drift

Felen i denna kategori utlöser operatörssignalen. Torkardriften stoppas så att man kan avgöra om något ingrepp behövs.

### Other Automatic Operation Errors

The errors in this category are accompanied by the operator signal. Dryer operation stops so that it can be determined if intervention is needed.

**Visa eller Utför**

[Display or Action]

KONTROLLERA FELLAMPOR

CHECK ERROR LIGHTS

**Förklaring**

Detta fel hör bara ihop med gas- och propantorkar. Flera villkor måste vara uppfyllda innan Fireye eller Landis & Gyr-märkets (enligt specifikation) brandkontrollsystem tänder tändaren eller tillåter den att fortsätta vara tänd. Detta fel pekar på att inte alla villkor är uppfyllda. Maskinkontrollen övervakar inte dessa fel individuellt, utan flera fel representeras av lampor på lamppanelen (fel-) för torkarstatus. När de är tända, visar vissa lampor att ett visst villkor är uppfyllt medan andra visar ett icke uppfyllt, eller felaktigt, villkor. Se beskrivningen av manöverpanelen för torkaren, för en förklaring av varje status-lampa.

**Explanation**

This error only applies to gas and propane dryers. Numerous conditions must be satisfied before the Fireye or Landis & Gyr brand (as specified) flame control system will ignite the burner or permit it to remain lit. This error indicates that not all conditions are satisfied. The machine controller does not monitor these condition individually, but several conditions are represented by lights on the dryer status (error) light panel. When illuminated, certain lights indicate that a particular condition is satisfied while others indicate an un-met, or error condition. Refer to the description of dryer controls for an explanation of each status light.

TÖMNINGSLUCKAN INTE  
CLOSED AFTER DISCH.

DISCHARGE DOOR NOT  
CLOSED AFTER DISCH.

Tömningsluckan stängdes inte helt efter tömning. Detta kan bero på att material blockerar luckan, på ett mekaniskt problem som lågt lufttryck, eller på ett elektriskt problem som en trasig anslutningskontakt.

The discharge door did not close fully after discharge. This may be due to goods blocking the door, to a mechanical problem such as low air pressure, or to an electrical problem such as a failed proximity switch.

Visa eller Utför [Display or Action]	Förklaring	Explanation
<div style="border: 1px solid black; padding: 2px;">ROTATIONSFEL</div> <div style="border: 1px solid black; padding: 2px;">ROTATION FAILURE</div>	<p>Korgen slutade rotera i mer än 8 sekunder under en torkcykel. Om korgen faktiskt inte roterar ordentligt, finns några möjliga orsaker, som material som fastnat i korgens tätning, kondens på korgens stödlager, vilket får korgen att glida, och en felaktigt fungerande inverter. Felet kan också orsakas av ett problem som hindrar kontrollen att upptäcka att korgen roterar, som en felinställd anslutningskontakt, eller en utbränd kondensator i rörelsesensorkretsen.</p>	<p>The basket stopped rotating for more than 8 seconds during a dry cycle. If the basket is actually not rotating properly, some possible causes include goods caught in the basket seals, condensation on the basket support rollers causing the basket to slip, and a malfunctioning inverter. The error can also be caused by a problem that prevents the controller from detecting basket rotation, such as a mis-aligned proximity switch, or a burned out capacitor in the motion sensing circuit.</p>
<div style="border: 1px solid black; padding: 2px;">*RÖRELSE AVBRUTEN* FÖRSTA KLART SHUTTLE</div> <div style="border: 1px solid black; padding: 2px;">*TRANSFER ABORTED* CLEAR SHUTTLE FIRST</div>	<p>Miltrac-kontrollen avbröt den pågående rörelsen. Exempelvis kan en bit av materialet ha blockerat fotocellen vid skyttelns utsläppsände. Därför betyder detta fel vanligen att skytteln stoppas framför denna tork och båda enheterna har fel. Skyttelfelet måste angripas först. Se instruktionerna angående skyttelfelmeddelanden.</p>	<p>The Miltrac controller cancelled the transfer in progress. For example, a piece of goods blocked the discharge-end photo eye on the shuttle. Hence this error usually means that the shuttle is stopped in front of this dryer and both devices have errors. The shuttle error must be addressed first. Refer to the instructions on shuttle error messages.</p>

Tryck på *Återställning av signal* knappen (☒) för att stänga av operatörsalarmet. Om felet rättar till sig självt, bör automatisk drift återupptas. Om inte, undersök och åtgärda problemet. Detta kräver auktoriserad och specialutbildad personal och de skriftliga säkerhetsföreskrifterna måste följas. Om felet rättas till av sig självt, men återkommer, kontakta underhållspersonal.

Press the *Signal Cancel* button (☒) to silence the operator alarm. If the error self-corrected, automatic operation should resume. If not, investigate and correct the problem. This will require personnel with the appropriate qualifications and authority and compliance with the published facility safety precautions. If the condition self-corrects, but recurs, call maintenance personnel.

### 3.2.5. Meddelanden som ska rapporteras till ledningen eller till underhållspersonal

Följande fel har konsekvenser som bör åtgärdas av ledningen eller underhållspersonal. Åtgärdande av konsekvenserna avhjälpel felet.

### Messages That Should Be Reported to Management or Maintenance Personnel

The following errors have consequences that should be resolved by management or maintenance personnel. Addressing the

consequences resolves the error.

**Visa eller Utför**

[Display or Action]

```
MINNESFEL
VIRD NYCKELN TILL
PROGRAMMET
```

```
ERROR IN MEMORY
TURN KEY TO PROGRAM
```

```
OTILLÅTEN DRYCODE xxx
SE HANDBOK
```

```
ILLEGAL DRYCODE xxx
SEE MANUAL
```

**Förklaring**

Fält-programmerbara data (konfiguration och/eller drycodes) skadades (opålitliga). Korrekta data måste laddas ner eller programmeras om, enligt beskrivning i programmeringsdelen av referensmanualen.

Torkarkontrollen fick en begäran att köra en drycode som inte finns programmerad, vilket betyder att drycoden inte är lokal. Drycode-nummer, tillsammans med andra batch-data, kommer från mentorn eller från Mildatas dator. Det är personen som sammankopplar efter-tvätt-koderna med tvättformlerna, som har ansvaret för att säkerställa att koderna är giltiga. Om materialet tillåts bearbetas i en torkare med användande av en ogiltig (otillåten) drycode, kommer torkaren bara att tömma ut vått material. Operatören kanske kan lösa det omedelbara problemet genom att annullera operatörssignalen (☒) och sedan använda en annan lämplig drycode, men underhållspersonal måste kontrollera att antingen den specificerade drycoden programmeras in (eller laddas ner till) torkaren, eller att ett giltigt drycode-nummer associeras med tvättformeln genom mentor-programmering.

**Explanation**

Field-programmable data (configuration and/or drycodes) became corrupt (unreliable). The correct data must be downloaded or re-programmed, as explained in the part of the reference manual on programming.

The dryer controller received a request to run a drycode that is not currently programmed; that is, the drycode is not local. The drycode number, along with other batch codes, originated in the Mentor or Mildata computer. It is the responsibility of the person who associates the post-wash codes with the wash formula to ensure that the assigned codes are valid. If goods are permitted to be processed in the dryer using an invalid (illegal) drycode, the dryer will simply discharge the goods wet. The operator may be able to resolve this immediate problem by cancelling the operator signal (☒) then invoking another suitable drycode; however, management personnel will need to ensure that either the specified drycode is programmed in (or downloaded to) the dryer or that a valid drycode number is associated with the wash formula in Mentor programming.

### Kapitel 3. Signaler och fel

#### Visa eller Utför

[Display or Action]

```
OGILTIGT LÖSENORD  
INVALID PASSWORD
```

#### Förklaring

Detta meddelande gäller inte torkare i ett DryNet nätverk (torkare-/skyttelkontroll). Om torkaren konfigureras för att begära ett lösenord för manuell användning och operatören inte har något lösenord, måste han få ett från ledningspersonalen.

#### Explanation

This message does not apply to dryers in a DryNet network. If the dryer is configured to require a password for manual intervention and the operator does not have one, this will need to be obtained from management personnel.

```
namn TAVLA  
MISSLYCKADES  
TRYCK SIGNAL AVBRYT  
name BOARD FAILED  
PRESS SIGNAL CANCEL
```

Den nämnda externa tavlan kommunicerar inte med mikroprocessorn. Detta kräver elektrisk felsökning.

The named peripheral board is not communicating with the microprocessor. This will require electrical troubleshooting.

— Slut på BIPDUT01 —

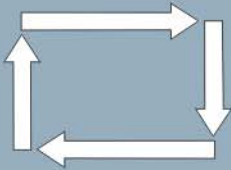
— End of BIPDUT01 —

Italiano

6







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# Guida per l'operatore— Controller della navetta/essiccatoio Drynet

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**Leggere il Manuale di Sicurezza**

PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063 - 0400, U.S.A.

**Prodotti applicabili di Milnor® dal numero di modello:**

50040CS1	50040SA1	50040SB1	50040TG1	50040TS1	50040TT1	58040CS1
58040CT1	58040SA1	58040SB1	58040TG2	58040TS1	58040TT1	58058CS1
58058CT1	58058RS1	58058SA1	58058SB1	58058TG2	58058TS1	58058TT1
58080CS1	58080CT1	58080SA1	58080TG1	58080TS1	58080TT1	64058TG1
6458ATG1	6458TG1L	6458TG1R	6458TS1L	6458TS1R	72072TG1	7272TG1L
7272TG1R	CTLDRSPC					

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1.2.5.1. Display stato dispositivo (A)	
1.2.5.2. Riquadro di selezione del dispositivo (B)	
1.2.5.3. Pulsante <i>Esci tastiera</i> (C)	
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1.2.5.5. Pulsante <i>Prossimo/Invio</i> (E)	
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1.2.5.11. Pulsante <i>Visualizza input/output</i> (K)	
1.2.5.12. Pulsante <i>Visualizza grafico</i> (L)	

## Capitolo 2. Funzionamento normale dell'apparecchio

### 2.1. Istruzioni di funzionamento dell'essiccatoio per il personale dell'impianto (Documento BIPDU001)

- 2.1.1. Iniziare qui per la sicurezza
- 2.1.2. Verificare le impostazioni degli interruttori
- 2.1.3. Caricare l'apparecchio
- 2.1.4. Che cosa indica il display?
  - 2.1.4.1. Codice di asciugatura e step per essiccatoi a gas
  - 2.1.4.2. Codice di asciugatura e step per essiccatoi a vapore
- 2.1.5. Scaricare l'apparecchio

## Capitolo 3. Segnali ed errori

### 3.1. Messaggi di errore della navetta (Documento BICSUT01)

- 3.1.1. "TRE FILI DISABILITATO PREMERE START PER AVVIARE"
- 3.1.2. Ripresa del funzionamento automatico dopo la correzione di un errore
- 3.1.3. Errori di intervallo
- 3.1.4. Errori di conteggio del codificatore di livello
- 3.1.5. Errori di posizione
- 3.1.6. Errori di trasferimento
- 3.1.7. Errori da riferire al personale dirigente o di manutenzione

### 3.2. Messaggi di errore dell'essiccatoio (Documento BIPDUT01)

- 3.2.1. Messaggio "TRE FILI DISABILITATO"
- 3.2.2. Errori di surriscaldamento
- 3.2.3. Avvisi di portello carico

**Sezioni**

- 3.2.4. Altri errori di funzionamento automatico
- 3.2.5. Messaggi da riferire al personale dirigente o di manutenzione

**Illustrazioni, Tabelle e Supplementi**

# Capitolo 1

## Comandi

BIVUJ001 (Published) Book specs- Dates: 20080722 / 20080722 / 20140319 Lang: ITA01 Applic: PDU YDS

### 1.1. Comandi su navette compresi quelli di reti DryNet

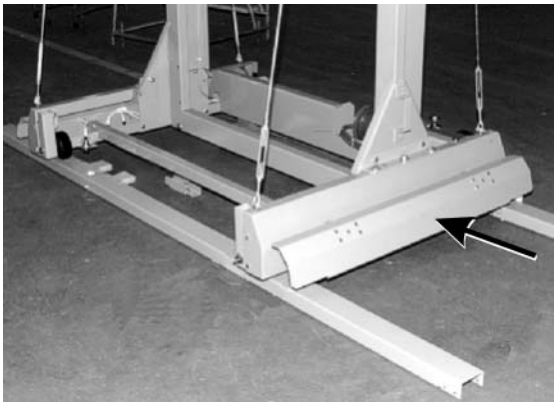
Il documento descrive i comandi fisici in dotazione con i vari modelli di navette, comprese alcune funzioni operative DryNet che sostituiscono i comandi se la navetta è inserita in una rete DryNet (controller dell'essiccatoio/navetta). La navetta è dotata dei soli comandi necessari per il tipo di movimenti da eseguire. Alcuni comandi sono sempre posizionati sulla navetta. In genere, sulle navette a rotaia, i comandi di funzionamento manuale sono posizionati su una scatola di comando a parte, mentre per le navette che non attraversano, sono posizionati sulle stesse. Se la navetta è parte di una rete DryNet, alcuni comandi fisici si trovano sulla consolle DryNet. La consolle garantisce inoltre la disponibilità delle funzioni dell'apparecchio tramite software DryNet.

#### 1.1.1. Comandi installati sull'apparecchio

Comprendono uno o più interruttori di arresto di emergenza come indicato nella [Sezione 1.2.1.1](#) “Interruttore di arresto d'emergenza (che blocca il pulsante di comando)” e gli altri comandi descritti in sezione.

- 1.1.1.1. Zoccoli di arresto di emergenza**—Le navette sono dotate di zoccoli incernierati ([Illustrazione 1](#)) su entrambi i lati dell'apparecchio nelle direzioni trasversali. Quando uno zoccolo gira adeguatamente su se stesso, fa scattare un interruttore che ferma l'apparecchio tramite rilascio del circuito a tre fili.

**Illustrazione 1: Zoccolo della navetta**



- 1.1.1.2. Interruttore di scollegamento motore**—L'interruttore (SHMD) agisce sull'alimentazione trifase per i motori delle navette, come segue:

- 0 OFF**—Alimentazione trifase non disponibile. La navetta non si muove anche se alimentata.
- 1 ON**—Alimentazione trifase disponibile. **L'apparecchio può subito muoversi.**

**Illustrazione 2: Interruttore di *scollegamento motore***



### 1.1.2. Comandi di funzionamento manuale


L' **Illustrazione 3** indica il pannello di controllo in uso sulle navette per pizze e indumenti disaggregati. Solo i comandi corrispondenti alla mobilità della navetta sono posizionati su di essa.

**Illustrazione 3: Pannello di controllo manuale**

Pannello di controllo	Chiave di Lettura
	<p><b>A.</b> Interruttore <i>Automatico/manuale</i> (SHMO)</p> <p><b>M. Gruppo comandi manuali</b>, come sotto:</p> <p><b>M1.</b> Luce indicatore <i>Modalità manuale</i> (ELM)</p> <p><b>M2.</b> Interruttore di <i>corsa a sinistra/destra</i> (SHLR)</p> <p><b>M3.</b> Interruttore di <i>sollevamento/abbassamento nastri</i> (SHUD)</p> <p><b>M4.</b> Interruttore di <i>Estensione/rientro per ricevimento nastro 0</i> (SHR)</p> <p><b>M5.</b> Interruttore di <i>Estensione/rientro per scarico nastro 0</i> (SHE)</p> <p><b>M6.</b> Luce indicatore <i>Nastro rientrato completamente</i> (ELRTL)</p> <p><b>M7.</b> Luce indicatore <i>Nastro 0 completamente in estensione per ricevere</i> (ELEYL)</p> <p><b>M8.</b> Luce indicatore <i>Nastro 0 completamente in estensione per scaricare</i> (ELEXL)</p> <p><b>M9.</b> Interruttore di <i>Marcia avanti/indietro nastro 0</i> (SHB0)</p> <p><b>M10.</b> Interruttore di <i>Marcia avanti/indietro nastro 1</i> (SHB1)</p> <p><b>M11.</b> Interruttore di <i>Marcia avanti/indietro nastro 2</i> (SHB2)</p> <p><b>M12.</b> Interruttore di <i>Marcia avanti/indietro nastro 3</i> (SHB3)</p> <p><b>T. Gruppo comandi di tensionamento della catena</b>, come sotto:</p> <p><b>T1.</b> Luce indicatore <i>Catena tesa</i> (ELT)</p> <p><b>T2.</b> Interruttore a chiave <i>consenti sollevamento/abbassamento</i> (SKMD)</p> <p><b>T3.</b> Interruttore di <i>abbassamento</i> (SHMD), non indicato, o interruttore di <i>abbassamento/sollevamento</i> (SHMDU), indicato</p>



**1.1.2.1. Interruttore Automatico/manuale (A)**—L'interruttore (SHMO) determina il controllo del moto dell'apparecchio, come segue:


—L'apparecchio è controllato dagli interruttori del gruppo comandi manuali.


—L'apparecchio si muove con comando automatico. **L'apparecchio può iniziare subito a muoversi.**

### 1.1.2.2. Gruppo comandi manuali (M)


1.1.2.2.1. **Luce indicatore Modalità manuale (M1)**—La luce indicatore della *Modalità manuale* (ELM) si accende con modalità manuale abilitata, a indicazione che gli interruttori di comando manuale sono attivi.


1.1.2.2.2. **Interruttore di corsa a sinistra/destra (M2)**—Tenere premuto l'interruttore di arresto centrale (SHLR) in una delle posizioni momentanee determina l'attraversamento della rotaia da parte della navetta, come sotto:

—(momentaneo senso antiorario) La navetta si muove a sinistra lungo la rotaia, seguendo il flusso degli indumenti.

—(momentaneo senso orario) La navetta si muove a destra lungo la rotaia.


1.1.2.2.3. **Interruttore di abbassamento/sollevamento nastri (M3)**—Tenere premuto l'interruttore di arresto centrale (SHUD) in una delle posizioni momentanee determina il movimento del(i) supporto(i) come segue:

—(momentaneo senso antiorario) Attivazione del paranco e sollevamento del(i) supporto(i).

—(momentaneo senso orario) Attivazione del paranco e abbassamento del(i) supporto(i).


1.1.2.2.4. **Interruttore di Estensione/rientro per ricevimento nastro 0 (M4)**—Tenere premuto l'interruttore di arresto centrale (SHR) in una posizione momentanea determina il movimento del supporto (più elevato) del nastro 0, come indicato, insieme al ricevimento di un carico:

—(momentaneo senso antiorario) Il supporto si estende verso il dispositivo da cui riceve gli indumenti.

—(momentaneo senso orario) Il nastro rientra dalla posizione di ricevimento.

1.1.2.2.5. **Interruttore di Estensione/rientro per scarico nastro 0 (M5)**—Tenere premuto l'interruttore di arresto centrale (SHR) in una posizione momentanea determina il movimento del supporto (più elevato) del nastro 0, come indicato, insieme all'operazione di scarico:

—(momentaneo senso antiorario) Il supporto si estende verso il dispositivo su cui scarica gli indumenti.

—(momentaneo senso orario) Il nastro rientra dalla posizione di scarico.

1.1.2.2.6. **Luce di indicazione per nastro rientrato completamente (M6)**—La luce (ELRTL) si accende quando il supporto (più elevato) del nastro 0 è rientrato completamente, a indicazione che la navetta può attraversare in sicurezza.

1.1.2.2.7. **Luce di indicazione per Nastro 0 completamente in estensione per ricevere (M7)**—La luce (ELEYL) si accende quando il supporto (più elevato) del nastro 0 è completamente in estensione per ricevere carichi da un altro dispositivo.

1.1.2.2.8. **Luce di indicazione per nastro 0 completamente in estensione per scaricare (M8)**—La luce (ELEXL) si accende quando il supporto (più elevato) del nastro 0 è completamente in estensione per scaricare da un altro dispositivo.

1.1.2.2.9. **Interruttore (da M9 a M12) di marcia avanti/indietro nastro [0-3]**—Tenere premuto l'interruttore di arresto centrale (SHB0) in una posizione momentanea determina il movimento del nastro selezionato come sotto:

- 🔑—(momentaneo senso antiorario) Il nastro selezionato procede marcia avanti verso il dispositivo normalmente preposto a ricevere gli indumenti.
- 🔑—(momentaneo senso orario) Il nastro selezionato procede in retromarcia verso il dispositivo normalmente preposto a scaricare gli indumenti.

### 1.1.2.3. Comandi di ripristino tensionamento catena (T)

#### Supplemento 1

#### Condizioni di tensionamento della catena

In base al tipo di paranco, le navette si dividono in tre categorie:

**motore di sollevamento con installazione superiore**—Questo tipo di navetta ha un motore di sollevamento fisso sull'elemento superiore del telaio. Il motore di sollevamento guida una catena a rulli con un'estremità libera. È sensibile alla condizione di tensionamento catena che si verifica se il controller non registra la posizione più elevata nel sollevamento del supporto, facendo sì che raggiunga il limite meccanico superiore.

**motore di sollevamento con installazione laterale (navetta con poco spazio libero)**—Questo tipo di navetta ha un riduttore del motore di sollevamento fisso installato in prossimità della parte superiore di un elemento laterale del telaio. Il motore di sollevamento guida una catena a rulli che forma un anello e si collega sopra e sotto al gruppo di supporto. È sensibile alla medesima condizione indicata sopra e a quella che si verifica se il controller non registra la posizione più bassa nell'abbassamento del supporto, facendo sì che raggiunga il limite meccanico inferiore.

**ATTENZIONE 1: Rischio di danno**—Spingere il gruppo del supporto verso un arresto meccanico mediante uso improprio del tensionamento della catena o altri comandi manuali può provocare la rottura o flessione dei componenti della navetta, o la bruciatura del motore di sollevamento.

- Assicurarsi di non impostare un comando su una direzione in cui il gruppo del supporto non può muoversi.

**paranco Demag (luce telaio navetta)**—Questo tipo si avvale di paranco Demag sospeso dall'elemento superiore del telaio a guida di una catena di ancoraggio. Non è sensibile alla condizione di tensionamento catena.



Comandi in funzione con tutte le navette eccetto quelle con paranco Demag.

1.1.2.3.1. Luce indicatore *catena tesa* (T1)—La luce (ELT) si accende per indicare un errore di catena tesa.

1.1.2.3.2. Interruttore a chiave *sollevamento/abbassamento attivato* (T2)—L'interruttore a chiave (SKMD) controlla il moto verticale del(i) supporto(i) della navetta, come segue:

🔑—Il(i) supporto(i) può(possano) essere abbassato(i) manualmente con l'interruttore di *abbassamento* o sollevato/abbassato(i) manualmente con l'interruttore di *abbassamento/sollevamento*, a seconda della dotazione.

🔑—I movimenti della navetta sono controllati automaticamente.

1.1.2.3.3. Interruttore di *abbassamento* o di *abbassamento/sollevamento* (T3)—Se conformi a quanto indicato nella [Sezione 1.1.2.3.2](#), l'interruttore di *abbassamento* con spegnimento in senso antiorario (SHMD), in dotazione su navette con motore di sollevamento montato sulla parte superiore, o l'interruttore di *abbassamento/sollevamento* con spegnimento centrale (SHMDU), su navette con motore di sollevamento laterale, determinano il moto del paranco come sotto:

🔑—(momentaneo senso orario) Il supporto(i) si abbassa(no) finché si mantiene la posizione.

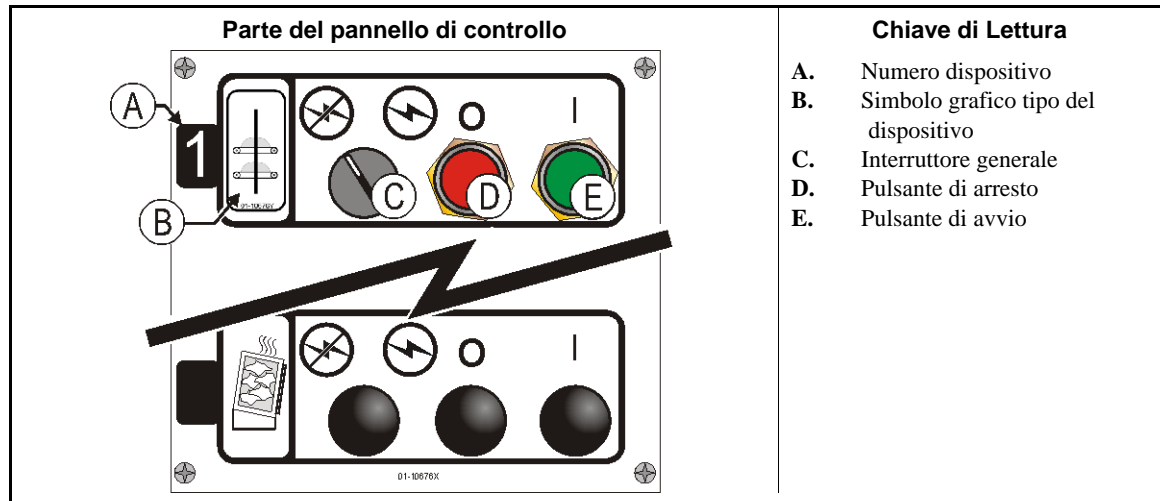
**Nota 1:** I modelli più vecchi usano un pulsante di *abbassamento*. Il supporto(i) si abbassa(no) finché si tiene premuto il pulsante.

🔑—(momentaneo senso antiorario, se presente) Il supporto(i) si solleva(no) finché si mantiene la posizione.

### 1.1.3. Comandi installati sulla consolle (DryNet) del controller navetta/essiccatoio

Nel funzionamento ordinario, la navetta e gli altri apparecchi della rete DryNet presentano alimentazione singola di on/off in questa posizione. Per le navette escluse dalla rete DryNet, i comandi corrispondenti sono installati sulla navetta o sulla scatola di comando indipendente.

Illustrazione 4: Comandi installati su DryNet



**1.1.3.1. Interruttore generale (C)**—L'*Interruttore generale* controlla l'alimentazione monofase del circuito di comando per apparecchio e alimentazione a corrente continua per microprocessore e i suoi componenti, come segue:

- ⊕—Il circuito è alimentato e permette il funzionamento.
- ⊗—Il circuito non è alimentato e blocca o impedisce il funzionamento.

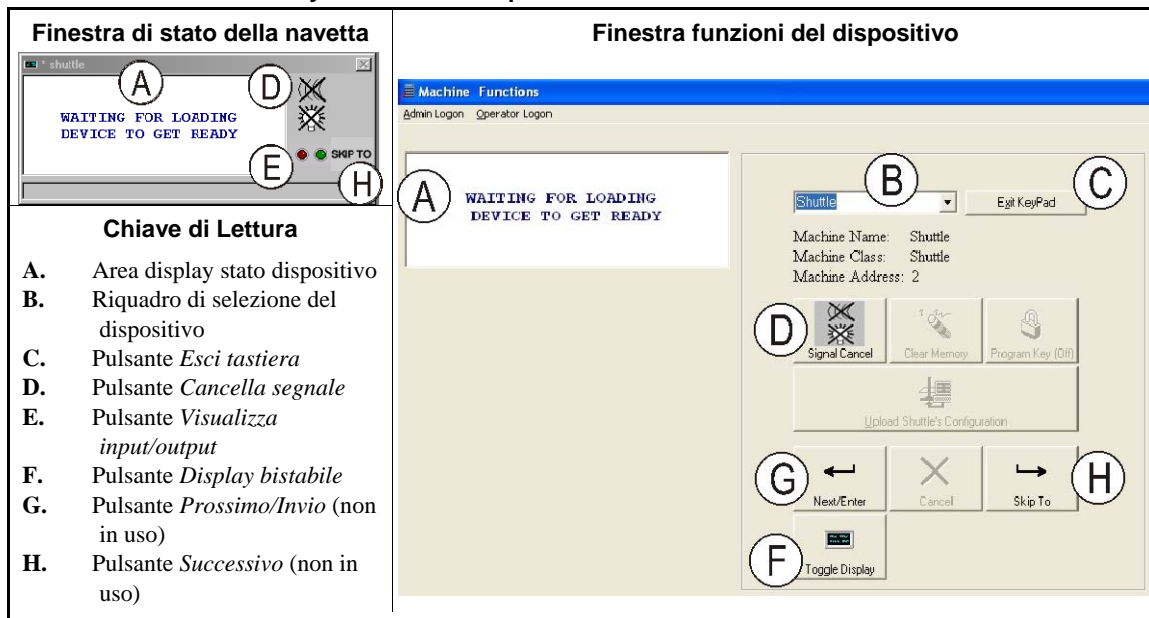
**1.1.3.2. Pulsante di arresto (D)**—Il pulsante blocca immediatamente l'apparecchio aprendo il circuito a tre fili. Il pulsante di arresto di emergenza svolge la stessa funzione.

**1.1.3.3. Pulsante di avvio (E)**—Il pulsante avvia il funzionamento dell'apparecchio in presenza di tutti i requisiti di sicurezza. Con funzionamento abilitato, l'apparecchio funziona in modalità manuale o automatica.

### 1.1.4. Funzioni dell'apparecchio disponibili per operatori su DryNet

In fase di funzionamento normale, il terminale a raggi catodici DryNet visualizza una piccola finestra *Stato del dispositivo* per ogni apparecchio (essiccatoio e navetta) sulla rete DryNet. Se si clicca sulla finestra, compare quella *Funzioni dell'apparecchio* per l'apparecchio selezionato. Entrambe contengono pulsanti per operatori. Alcuni pulsanti si ripetono sulle due finestre. Solo alcuni sono disponibili a seconda delle modalità di accesso al sistema dell'operatore. Cliccare sul pulsante con il mouse per attivare la funzione. Finestre e pulsanti sono indicati nell'*Illustrazione 5* e spiegati qui sotto.

Illustrazione 5: Finestre DryNet in uso dall'operatore



**Chiave di Lettura**

- A.** Area display stato dispositivo
- B.** Riquadro di selezione del dispositivo
- C.** Pulsante *Esci tastiera*
- D.** Pulsante *Cancella segnale*
- E.** Pulsante *Visualizza input/output*
- F.** Pulsante *Display bistabile*
- G.** Pulsante *Prossimo/Invio* (non in uso)
- H.** Pulsante *Successivo* (non in uso)

- 1.1.4.1. Display stato dispositivo (A)**—Il controller visualizza in quest'area i messaggi significativi per il dispositivo attivo selezionato come da [Sezione 1.1.4.2](#).
- 1.1.4.2. Riquadro di selezione del dispositivo (B)**—Cliccare col mouse sulla freccia a destra del riquadro per visualizzare l'elenco dei dispositivi controllati dal controller dell'essiccatoio/navetta. Cliccare su un dispositivo per attivarlo.
- 1.1.4.3. Pulsante *Esci tastiera* (C)**—Cliccare col mouse sul pulsante per ritornare alla schermata del display che monitora i dispositivi.
- 1.1.4.4. Pulsante *Cancella segnale* (D)**—Se un errore attiva il segnale operatore (luci lampeggianti e/o segnale acustico), cliccare qui per disattivarlo. Se il segnale si attiva alla selezione di un programma valido, scomparirà autonomamente all'avvio del programma.
- 1.1.4.5. Pulsante *Visualizza input/output* (E)**—Cliccare sul pulsante per visualizzare la finestra *I/O essiccatoio*, che indica lo stato di on/off dei singoli input e output del microprocessore per l'apparecchio selezionato.
- 1.1.4.6. Pulsante *Display bistabile* (F)**—Ad uso del personale di assistenza. Cliccare ripetutamente sul pulsante per spostarsi sulle diverse schermate della finestra di stato della navetta. Le schermate indicano informazioni su pizze, ingressi, uscite, contano i livelli orizzontali raggiunti dalla navetta nella sua corsa sulla rotaia e quelli verticali in base al sollevamento e alla discesa del/i supporto/i.

— Estremità BIVUU001 —

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## 1.2. Comandi di essiccatoi, essiccatoi parziali e stenditrici compresi quelli di una rete DryNet

Il documento descrive i comandi manuali in dotazione con essiccatoi, essiccatoi parziali e stenditrici, oltre a poche funzioni operative DryNet che sostituiscono i comandi manuali quando l'apparecchio è parte di una rete DryNet (essiccatoio/controller della navetta). I comandi manuali comprendono comandi di intervento manuale, luci di posizione installate sull'apparecchio e comandi di alimentazione installati sulla consolle

DryNet o altro dispositivo elettrico installato da remoto. Le funzioni operative Drynet sono eseguite a livello della consolle DryNet.

### 1.2.1. Comandi installati sull'apparecchio

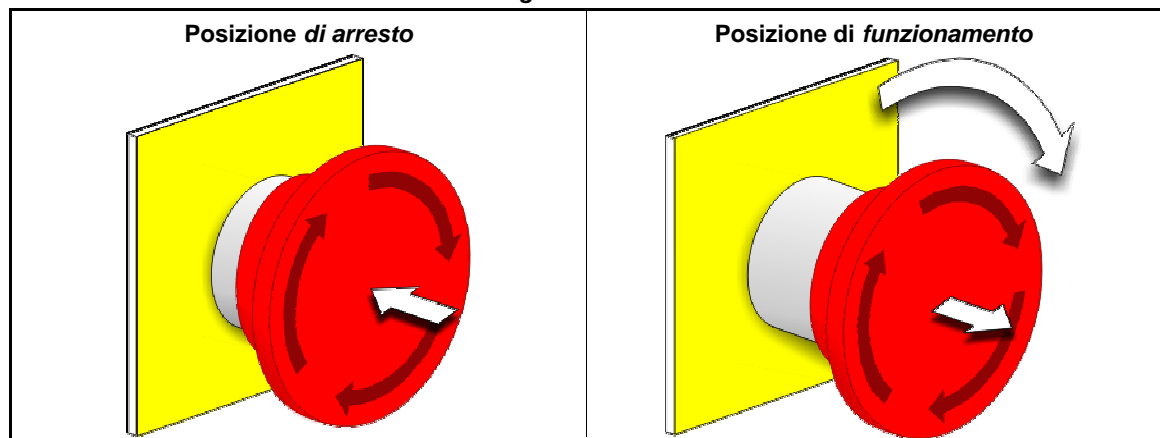
I comandi installati sull'apparecchio comprendono uno o più interruttori di arresto d'emergenza e i comandi per lo scarico manuale dell'essiccatoio (Illustrazione 7).

#### 1.2.1.1. Interruttore di arresto d'emergenza (che blocca il pulsante di comando) [Documento BIVUUO02]

—Il dispositivo presenta uno o più interruttori di Arresto d'emergenza (Illustrazione 6).

Quando si preme uno qualsiasi degli interruttori di arresto d'emergenza, viene scollegata l'alimentazione dai dispositivi di comando dell'apparecchio, la macchina si ferma e l'interruttore si blocca nella posizione abbassata (interruttore attivato e spegnimento dell'apparecchio). Solo in condizioni di sicurezza, ruotare il pulsante in senso orario per sbloccare l'interruttore. Per riprendere il funzionamento, seguire la normale procedura di avviamento del dispositivo.

Illustrazione 6: Interruttore di Arresto d'emergenza



**Avviso 2:** Premere immediatamente l'interruttore di Arresto di emergenza in caso d'emergenza. L'interruttore disattiva il circuito a 3 fili pur garantendo l'alimentazione nel controller del microprocessore.

#### Visualizzazione o azione

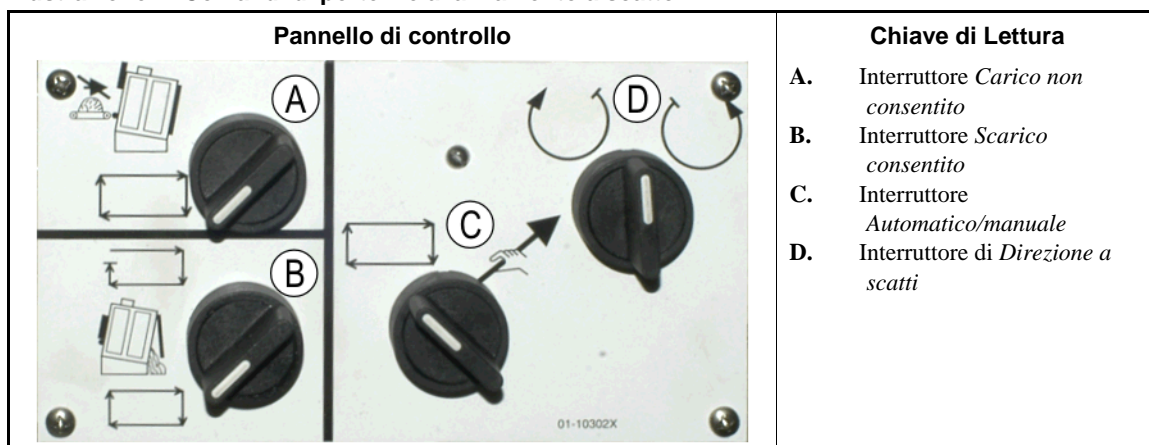
#### Spiegazione





Questo simbolo rappresenta l'interruttore di arresto d'emergenza nei documenti Milnor® diversi dagli schemi del circuito elettrico.

### 1.2.1.2. Comandi di portelli e avanzamento a scatto




Illustrazione 7: Comandi di portelli e avanzamento a scatto





1.2.1.2.1. Interruttore carico non consentito (A)—L'interruttore determina se l'apparecchio richiede (accetta) automaticamente un nuovo carico, come segue:

- —L'apparecchio non richiede carichi.
- —L'apparecchio non richiede un nuovo carico dopo aver scaricato il precedente (richiesto per funzionamento automatico, normale).



1.2.1.2.2. Interruttore scarico consentito (B) —L'interruttore determina le modalità di scarico dell'apparecchio, come segue:

- —L'apparecchio scarica in automatico i carichi al termine del codice di asciugatura, indipendentemente dallo status di disponibilità del dispositivo di ricevimento. Ad esempio, se si presume che un carrello sia in posizione ma non lo è, gli indumenti saranno scaricati sul pavimento.
- —La posizione evita che l'apparecchio scarichi senza aver ricevuto un segnale dal controller Miltrac™. Quindi la posizione ha due utilizzi: 1) è richiesta per il funzionamento normale se l'apparecchio è scaricato tramite Miltrac ed 2) è utilizzabile per impedire lo scarico automatico se l'apparecchio non è scaricato tramite Miltrac.
- —Se l'apparecchio è pronto a scaricare, avviare il processo ruotando l'interruttore sulla posizione temporanea.

1.2.1.2.3. Interruttore di rotazione automatica/manuale (C)—L'interruttore determina il controllo della rotazione del cestello, come segue:

- —Il funzionamento automatico è sospeso, si apre il portello di scarico e la rotazione del cestello è controllata dall'interruttore di *direzione a scatti*.
- —Il cestello ruota automaticamente.

1.2.1.2.4. Interruttore di direzione a scatti (D)—Utilizzato per scaricare. Quando la rotazione è impostata su manuale, quest'interruttore con centro sconnesso determina la rotazione del cestello come segue, eccetto quanto spiegato nella [Nota 2](#):

- —(momentaneo, senso orario) ruota il cestello in senso orario (se si guarda l'apparecchio dal davanti) quando lo si tiene premuto.
- —(momentaneo, senso antiorario) ruota il cestello in senso antiorario quando lo si tiene premuto.

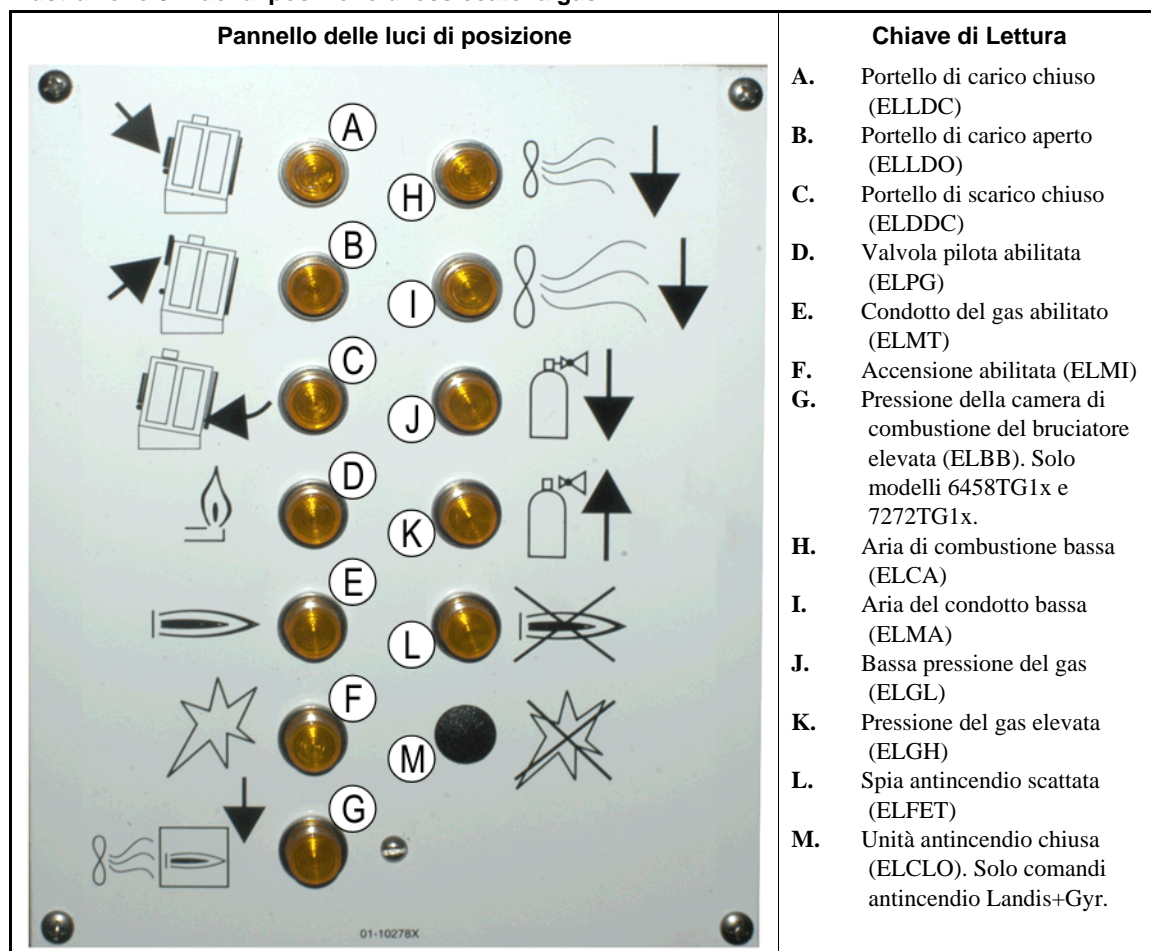
**Nota 2:** I modelli 6458Txxx e 7244Txxx possono avere i ventilatori a destra o a sinistra. Gli apparecchi con ventilatori a sinistra funzionano esattamente come indicato sopra. Quelli con ventilatori a destra funzionano al contrario. Ad esempio, tenere premuto l'interruttore in posizione oraria provoca la rotazione

del cestello in senso antiorario se visto dal davanti dell'apparecchio. Questa è la direzione di rotazione del cestello in fase di scarico manuale, per evitare l'irrigidimento degli indumenti.

### 1.2.2. Luci di posizione installate sull'apparecchio—Essiccatoi a gas

Gli essiccatoi a gas sono dotati di numerose luci di posizione ambrate sul pannello frontale per monitorare i portelli dell'essiccatoio e il sistema di riscaldamento. Alcune luci sono azionate dal controller dell'apparecchio e altre dall'unità antincendio (Fireye® o Landis+Gyr). Quando una condizione di errore determina l'accensione o lo spegnimento di una luce, viene visualizzato un messaggio di errore. Per le luci azionate dall'unità antincendio, il messaggio di errore indica "VERIFICARE ERRORE LUCI."

Illustrazione 8: Luci di posizione di essiccatoi a gas



**1.2.2.1. Portello di carico chiuso (A)**—La luce (ELLDC) indica che il portello di carico è completamente chiuso. Se non è completamente chiuso dopo 15 secondi dal ricevimento del segnale *carico* da parte dell'essiccatoio, compare il messaggio *Portello di carico aperto*.

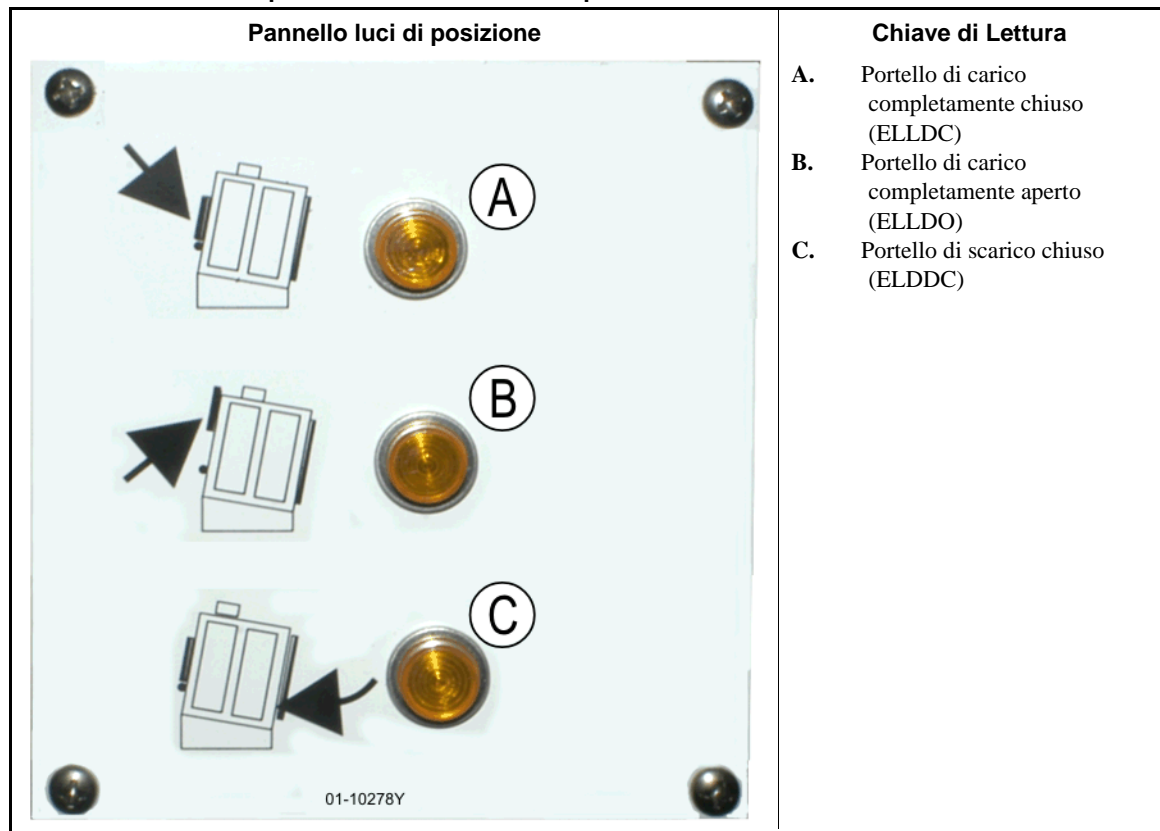
**1.2.2.2. Portello di carico aperto (B)**—La luce (ELLDO) indica che il portello di carico è completamente aperto. Se non è completamente aperto entro 15 secondi dal comando "aprire portello di carico" inviato dal microprocessore, compare il messaggio *Portello di carico non aperto*.

**1.2.2.3. Portello di scarico chiuso (C)**—La luce (ELDDC) indica che il portello di scarico è completamente chiuso. Se il controller non rileva la chiusura del portello di scarico, consentirà l'apertura del portello di carico ma non segnalerà al dispositivo di iniziare a caricare e comparirà il messaggio *Portello di carico aperto*.

- 1.2.2.4. Valvola pilota abilitata (D)**—La luce (ELPG) indica che l'unità di controllo delle candele ha acceso la valvola pilota.
- 1.2.2.5. Condotto del gas abilitato (E)**—La luce (ELMT) indica che l'unità di controllo delle candele ha abilitato la valvola modulante del gas e quella del condotto.
- 1.2.2.6. Accensione abilitata (F)**—La luce (ELMI) indica che l'unità di controllo delle candele sta tentando di accendere la fiamma.
- 1.2.2.7. Pressione della camera di combustione del bruciatore elevata (G)**—La luce (ELBB) indica il superamento della pressione consentita della camera di combustione del bruciatore. È una condizione di errore.
- 1.2.2.8. Aria di combustione bassa (H)**—La luce (ELCA) indica che il flusso di aria di combustione inviato all'essiccatoio è troppo debole per un funzionamento corretto.
- 1.2.2.9. Aria del condotto bassa (I)**—La luce (ELMA) indica che il flusso di aria del condotto inviato all'essiccatoio è troppo debole per un funzionamento corretto.
- 1.2.2.10. Bassa pressione del gas (J)**—La luce (ELGL) indica che la pressione del gas inviata all'essiccatoio è troppo debole per un funzionamento corretto, o un guasto al regolatore del gas.
- 1.2.2.11. Pressione del gas elevata (K)**—La luce (ELGH) indica che la pressione del gas inviata all'essiccatoio è troppo alta per un funzionamento corretto, o un guasto al regolatore del gas.
- 1.2.2.12. Spia antincendio scattata (L)**—Se l'apparecchio è dotato di unità antincendio Fireye, la luce (ELFET) indica che la candele ha segnalato all'unità di controllo che né la spia di accensione né il bruciatore sono accesi.
- A volte la luce è presente se l'apparecchio è dotato di unità antincendio Landis & Gyr. In tal caso, il significato è lo stesso della luce per *Controller antincendio bloccato* qui sotto.
- 1.2.2.13. Controller antincendio bloccato (M)**—Se l'apparecchio è dotato di unità antincendio Landis+Gyr, la luce (ELCLO) indica che il microprocessore deve essere acceso ma che l'unità di controllo delle candele è disabilitata a causa del non soddisfacimento di una condizione richiesta dal circuito di ripristino di sicurezza.
- 1.2.3. Luci di posizione sull'apparecchio—Essiccatoi a vapore e a olio termico, essiccatoi parziali e tutte le stenditrici**
- Gli essiccatoi, anche parziali, riscaldati a vapore od olio termico, così come le stenditrici (unità fredde) hanno tre luci di posizione ambrate sul pannello frontale per il monitoraggio dei portelli.



Illustrazione 9: Luci di posizione di essiccatoi a vapore



**1.2.3.1. Portello di carico chiuso**—La luce indica che il portello di carico è completamente chiuso. Se il portello di carico è ancora parzialmente aperto dopo 15 secondi dal ricevimento dell'essiccatoio del segnale *caricato*, compare il messaggio *Portello di carico aperto*.

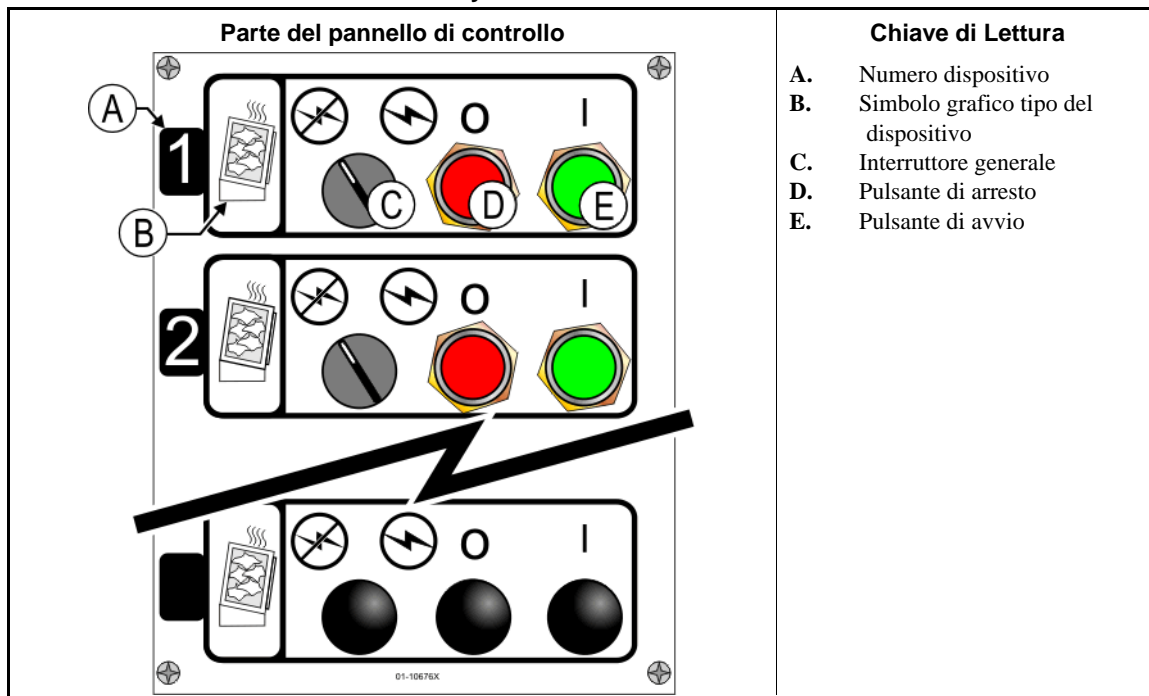
**1.2.3.2. Portello di carico aperto**—La luce indica che il portello di carico è completamente aperto. Se il portello non si apre completamente entro 15 secondi dal comando “aprire portello di carico” del microprocessore, compare il messaggio *Portello di carico non aperto*.

**1.2.3.3. Portello di scarico chiuso**—La luce indica che il portello di scarico è completamente chiuso. Se il controller non rileva la chiusura del portello di scarico, consentirà l’apertura del portello di carico ma non segnalerà al dispositivo di avviare il processo e comparirà il messaggio *Portello di scarico aperto*.

#### 1.2.4. Comandi installati sulla consolle (DryNet) del controller navetta/essiccatoio

Nel funzionamento ordinario, gli apparecchi della rete DryNet presentano alimentazione singola di on/off in questa posizione. Per gli apparecchi esclusi dalla rete DryNet, i comandi corrispondenti sono installati su una scatola di comando a parte dell’essiccatoio.

**Illustrazione 10: Comandi installati su Drynet**



**1.2.4.1. Interruttore generale (C)**—L'*interruttore generale* controlla l'alimentazione monofase del circuito di comando per apparecchio e alimentazione a corrente continua per microprocessore e i suoi componenti, come segue:

- ⚡—Il circuito è alimentato e permette il funzionamento.
- ⊗—Il circuito non è alimentato e blocca o impedisce il funzionamento.

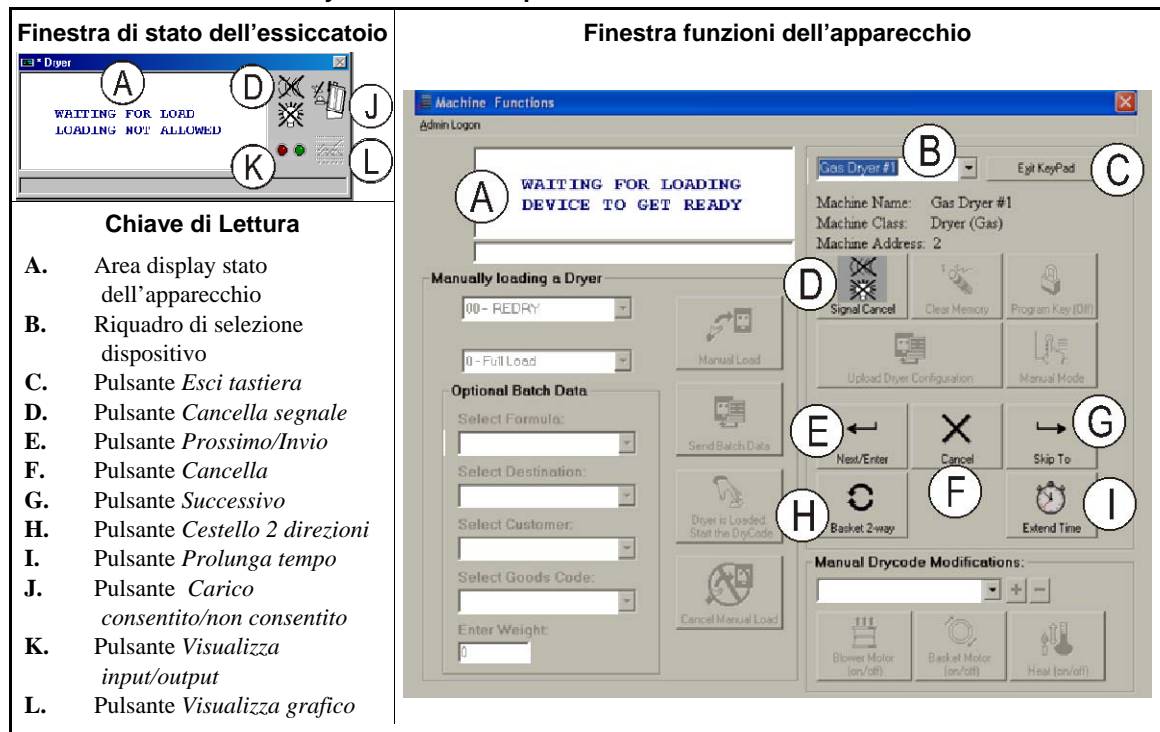
**1.2.4.2. Pulsante di arresto (D)**—Il pulsante blocca immediatamente l'apparecchio aprendo il circuito a tre fili. Il pulsante di arresto di emergenza svolge la stessa funzione.

**1.2.4.3. Pulsante di avvio (E)**—Il pulsante avvia il funzionamento dell'apparecchio in presenza di tutti i requisiti di sicurezza. Con funzionamento abilitato, l'apparecchio funziona in modalità manuale o automatica.

### 1.2.5. Funzioni dell'apparecchio disponibili per operatori su DryNet

In fase di funzionamento normale, il terminale a raggi catodici DryNet visualizza una piccola finestra *Stato del dispositivo* per ogni apparecchio (essiccatoio e navetta) sulla rete DryNet. Se si clicca sulla finestra, compare quella *Funzioni dell'apparecchio* per l'apparecchio selezionato. Entrambe contengono pulsanti per operatori. Alcuni pulsanti si ripetono sulle due finestre. Solo alcuni sono disponibili a seconda delle modalità di accesso al sistema dell'operatore. Cliccare sul pulsante con il mouse per attivare la funzione. Finestre e pulsanti sono indicati nell'[Illustrazione 11](#) e spiegati qui sotto.

Illustrazione 11: Finestre DryNet in uso dall'operatore



- 1.2.5.1. **Display stato dispositivo (A)**—Il controller visualizza in quest'area i messaggi significativi per il dispositivo attivo selezionato come da [Sezione 1.2.5.2](#).
- 1.2.5.2. **Riquadro di selezione del dispositivo (B)**—Cliccare col mouse sulla freccia a destra del riquadro per visualizzare l'elenco dei dispositivi controllati dal controller dell'essiccatoio/navetta. Cliccare su un dispositivo per attivarlo.
- 1.2.5.3. **Pulsante *Esci tastiera* (C)**—Cliccare col mouse sul pulsante per ritornare alla schermata del display che monitora i dispositivi.
- 1.2.5.4. **Pulsante *Cancella segnale* (D)**—Se un errore attiva il segnale operatore (luci lampeggianti e/o segnale acustico), cliccare qui per disattivarlo. Se il segnale si attiva alla selezione di un programma valido, scomparirà autonomamente all'avvio del programma.
- 1.2.5.5. **Pulsante *Prossimo/Invio* (E)**—Pulsante abilitato solo con amministratore od operatore collegato al controller.
- 1.2.5.6. **Pulsante *Cancella* (F)**—Cliccare col mouse sul pulsante per cancellare l'attuale codice di asciugatura.
- 1.2.5.7. **Pulsante *Successivo* (G)**—Pulsante abilitato solo con amministratore od operatore collegato al controller.
- 1.2.5.8. **Pulsante *Cestello 2 direzioni* (H)**—Cliccare col mouse sul pulsante per scegliere la rotazione del cestello tra una e due direzioni.
- 1.2.5.9. **Pulsante *Prolunga tempo* (I)**—Cliccare col mouse sul pulsante per aggiungere un minuto al tempo previsto per questa fase. Ogni clic aggiunge un minuto.

- 1.2.5.10. Pulsante *Carico consentito/non consentito* (J)**—Svolge la stessa funzione dell'interruttore di *carico non consentito* sull'apparecchio. Cliccare sul pulsante per rendere "off-line" l'apparecchio scelto (non consentito) o per ripristinare la funzione on-line (carico consentito). Quando è off-line, l'apparecchio non richiede carichi e la navetta non consegna pizze alla macchina.
- 1.2.5.11. Pulsante *Visualizza input/output* (K)**—Cliccare sul pulsante per visualizzare la finestra *I/O essiccatoio*, che indica lo stato di on/off dei singoli input e output del microprocessore per l'apparecchio selezionato.
- 1.2.5.12. Pulsante *Visualizza grafico* (L)**—Cliccare sul pulsante per visualizzare la finestra dell'*andamento della temperatura* per l'apparecchio, che indica un grafico della temperatura in tempo reale e le relative informazioni dell'apparecchio selezionato.

— Estremità BIPDGT01 —

## Capitolo 2

# Funzionamento normale dell'apparecchio

BIPDUO01 (Published) Book specs- Dates: 20080722 / 20080722 / 20140319 Lang: ITA01 Applic: PDU YDS

### 2.1. Istruzioni di funzionamento dell'essiccatoio per il personale dell'impianto

#### 2.1.1. Iniziare qui per la sicurezza

Lo scopo del documento è ricordare al responsabile del funzionamento dell'essiccatoio i requisiti dell'apparecchio. Non tentare di azionare l'apparecchio senza prima aver ricevuto le dovute spiegazioni da un operatore qualificato e con esperienza.
















**PERICOLO 3: Rischi vari**—Azioni disattente dell'operatore possono provocare morte o ferite al personale, danneggiare o distruggere l'attrezzatura, gli indumenti e/o invalidare la garanzia.



**PERICOLO 4: Rischi di folgorazione e di ustioni elettriche**—Il contatto con l'alta tensione può causare la morte o ustioni gravi. All'interno del quadro è sempre presente alta tensione, a meno che l'interruttore elettrico principale non sia spento.

- Verificare la posizione del dispositivo principale di disinnesto dell'apparecchio e utilizzarlo in caso di emergenza per staccare completamente la corrente.
- Non effettuare interventi di manutenzione, riparazioni né modifiche non autorizzati.
- Non sbloccare né aprire gli sportelli del quadro elettrico.

### 2.1.2. Verificare le impostazioni degli interruttori

Visualizzazione o azione	Spiegazione
	Verificare che l'interruttore a chiave di <i>Funzionamento/Programma</i> sia su  .
	Tutti i pulsanti di arresto di emergenza devono essere sbloccati e sulla posizione <i>pronto</i> per consentire il funzionamento dell'apparecchio.
	Verificare che l'interruttore generale sia su  .
	Verificare che l'interruttore di <i>Carico non consentito</i> sia su  per autorizzare il carico automatico.
	Verificare che l'interruttore di <i>Scarico consentito</i> sia su  per lo scarico automatico degli indumenti trattati.
	Verificare che l'interruttore <i>locale/remoto</i> sia impostato su  per abilitare la comunicazione intranet.
	Verificare che l'interruttore <i>Automatico/manuale</i> sia su  per il funzionamento automatico.

### 2.1.3. Caricare l'apparecchio

Un controller del sistema Milnor aziona in automatico l'apparecchio e altri all'interno del sistema. Se tutti gli interruttori sono posizionati come indicato nella [Sezione 2.1.2](#), l'apparecchio accetta, elabora e scarica i carichi senza intervento manuale.

In fase di avviamento, l'apparecchio chiede conferma all'operatore se è stato caricato. In caso negativo, si avvia il normale funzionamento automatico. In caso contrario, il controller dell'apparecchio o il computer Mildata richiedono all'operatore i dati associati al carico. Quando l'operatore inserisce e conferma tutti i dati necessari dei batch, si avvia il funzionamento automatico.

## 2.1.4. Che cosa indica il display?

### 2.1.4.1. Codice di asciugatura e step per essiccatoi a gas

Visualizzazione o azione	Spiegazione
<div style="border: 1px solid black; padding: 2px;">                     IN ATTESA DI CARICO                      *****                 </div>	Essiccatoio inattivo.
<div style="border: 1px solid black; padding: 2px;">                     CARICAMENTO                      -----                 </div>	L'essiccatoio sta caricando.
<div style="border: 1px solid black; padding: 2px;">                     04F TIF TOF 031 AIR                      S01 425D185 012 000                 </div>	<p><i>04F</i> indica che l'essiccatoio sta eseguendo il codice di asciugatura 04 per un carico completo; <i>04P</i> rappresenta un carico parziale.</p> <p><i>S01</i> è il numero di fase attuale del codice di asciugatura selezionato.</p> <p><i>TIF</i> compare sulla temperatura di ingresso in gradi Fahrenheit (425 nell'esempio). <i>TIC</i> compare quando l'essiccatoio è configurato per i Celsius.</p> <p><i>TOF</i> compare sulla temperatura di uscita in gradi Fahrenheit (185 nell'esempio). <i>TOC</i> compare quando l'essiccatoio è configurato per i Celsius.</p> <p><i>D</i> tra le temperature di ingresso e uscita rappresenta la temperatura <i>Desiderata</i>. Il display si alterna per mostrare anche le temperature <i>Effettive (actual)</i> quando <i>A</i> sostituisce <i>D</i>.</p> <p><i>031</i> indica i minuti e i quarti di minuto del tempo di funzionamento totale (3 minuti e 15 secondi nell'esempio).</p> <p><i>012</i> indica il tempo rimanente in un dato step (1 minuto e 30 secondi nell'esempio).</p> <p><i>ARIA</i> compare sopra la posizione dell'umidificatore (000 nell'esempio, in un range da 000 a 002). Il display si alterna per indicare anche la posizione della valvola modulatrice sottostante <i>VP</i>.</p>

### 2.1.4.2. Codice di asciugatura e step per essiccatoi a vapore

Visualizzazione o azione	Spiegazione
IN ATTESA DI CARICO *****	Essiccatoio inattivo.
CARICAMENTO -----	L'essiccatoio sta caricando.
04F TIF TOF 031 AIR S01 ---D--- 012 000	<p>04F indica che l'essiccatoio sta eseguendo il codice di asciugatura 04 per un carico completo; 04P rappresenta un carico parziale.</p> <p>S01 è il numero di fase attuale del codice di asciugatura selezionato.</p> <p>Le temperature desiderate non sono impostate sugli essiccatoi a vapore. Le temperature effettive sono indicate nella riga in basso del display, sotto TIF (TIC) e TOF (TOC)</p> <p>031 indica i minuti e i quarti di minuto del tempo di funzionamento totale (3 minuti e 15 secondi nell'esempio).</p> <p>012 indica il tempo rimanente in un dato passaggio (1 minuto e 30 secondi nell'esempio).</p> <p>AIR (ARIA) compare sopra la posizione dell'umidificatore (000 nell'esempio, in un range da 000 a 002). Il display si alterna per indicare anche il coefficiente del vapore sottostante SR.</p>

### 2.1.5. Scaricare l'apparecchio

Nella modalità automatica, l'apparecchio scarica alla fine di ogni ciclo di asciugatura. Per lo scarico manuale degli indumenti, impostare l'interruttore di *Scarico consentito* su . Utilizzare per la rotazione del cestello.

Quando l'essiccatoio è in attesa di scarico o sta scaricando, il display alterna il messaggio *IN ATTESA DI SCARICO* o *SCARICO IN ATTO* con i dati del batch del carico che sta processando.

Visualizzazione o azione	Spiegazione
FM DC DS CC GC WDT 15 04 02 12 11 123	<p>FM compare sopra il numero del programma di lavaggio per il carico.</p> <p>DC compare sopra il numero del codice di asciugatura per il carico.</p> <p>DS compare sopra la destinazione del carico.</p> <p>CC compare sopra il codice cliente del carico.</p> <p>GC compare sopra il codice indumenti del carico.</p> <p>WDT compare sopra il conteggio del tempo in attesa di scarico.</p>

— Estremità BIPDU001 —



# Capitolo 3

## Segnali ed errori

BICSUT01 (Published) Book specs- Dates: 20080722 / 20080722 / 20140319 Lang: ITA01 Applic: PDU YDS

### 3.1. Messaggi di errore della navetta

La maggioranza dei messaggi di errore della navetta e delle condizioni che li determinano possono essere gestiti dall'operatore. In certi casi, l'operatore deve rivolgersi al servizio di assistenza autorizzato.

L'assistenza di manutenzione è richiesta nei due casi seguenti:

- L'apparecchio richiede assistenza per la risoluzione dell'errore.
- L'errore deve essere risolto dall'interno dell'area di funzionamento della navetta con alimentazione collegata.

**area di funzionamento della navetta**—area di movimento della navetta nel funzionamento automatico e che richiede sorveglianza, come indicato nello Standard ANSI Z8.1-2006 “Standard nazionale americano per impianti e funzionamento di lavanderie industriali e lavasecco – Requisiti di sicurezza.” Il personale che entra nell'area di funzionamento della navetta per risolvere un errore o per altri motivi deve essere adeguatamente formato sulla sicurezza del trasportatore e rispettare le istruzioni pubblicate in materia di sicurezza dell'impianto.



**AVVERTENZA 5: Rischi di urto e schiacciamento**—Il movimento della navetta è imprevedibile in fase di funzionamento automatico. Le persone all'interno dell'area di funzionamento rischiano di essere schiacciate o colpite.

- Operatori: mai entrare nell'area di funzionamento della navetta con alimentazione collegata.
- Personale di manutenzione: disabilitare sempre il funzionamento automatico prima di entrare nell'area della navetta.

Sul piano della risoluzione degli errori, quelli relativi alla navetta sono di cinque tipi: errori di intervallo, errori di conteggio del codificatore di livello, errori di posizione, errori di trasferimento ed errori da riferire al personale dirigente o di manutenzione. Gli errori sono elencati per categoria e in ordine alfabetico in ogni categoria. È possibile dover consultare più di una categoria per trovare l'errore del caso. Le spiegazioni per categoria sono divise in tre parti:

1. descrizione della categoria di errore
2. elenco degli errori e relative descrizioni
3. modalità di risoluzione di questo tipo di errori

#### 3.1.1. “TRE FILI DISABILITATO PREMERE START PER AVVIARE”

Compare il messaggio e scatta l'allarme operatore all'avvio finché non si preme il pulsante *Start* (ⓘ). Questo messaggio e allarme si verificano anche in caso di pressione di pulsanti di arresto di emergenza, di sovraccarico del motore o altri eventi. Benché gli errori descritti non siano sufficienti da soli a disabilitare il circuito a tre fili, alcuni di essi possono coincidere con eventi in grado di disabilitare il circuito. Ad esempio, se la navetta si spinge fino a chiudere un interruttore di segnalazione alla fine della rotaia e a far scattare un errore di LIMITE ROTAIA (cfr. [Sezione 3.1.5](#)), la protezione della base della navetta può colpire e far cadere un oggetto, aprendo il circuito a tre fili. In tal caso compare il messaggio TRE FILI

DISABILITATO e non LIMITE ROTAIA, che richiede l'allontanamento manuale della navetta dall'oggetto per il rilascio della protezione della base.

### 3.1.2. Ripresa del funzionamento automatico dopo la correzione di un errore

La navetta avvia come un normale componente la ripresa, previa correzione della maggioranza degli errori descritti. Durante il processo, di norma prosegue fino alla stazione di appartenenza e/o sposta il supporto di sollevamento sul livello più basso. Se la navetta è carica di indumenti, può anche indurre i dati delle pizze. In tal caso, l'operatore deve inserire o confermare con attenzione i codici dei batch di indumenti per ogni posizione della navetta.

### 3.1.3. Errori di intervallo

Si verificano se un'azione della navetta non è completata entro un dato intervallo temporale. È probabile che una condizione temporanea abbia interferito con il moto della navetta. Se il dato intervallo è configurabile, ci sono scarse probabilità che il valore temporale sia regolabile (cfr. istruzioni di configurazione della navetta nel manuale di riferimento). Gli errori di intervallo bloccano il moto della navetta per consentire al personale di rilevare l'eventuale condizione di interferenza. Questi errori sono:

Visualizzazione o azione	Spiegazione
ERRORE - VERIFICA CATENA PREMERE CANCELLA SEGNALE	Durante l'inizializzazione, il supporto della navetta non si sposta sulle posizioni massime e minime entro l'intervallo specificato al momento della configurazione "tempo di raggiungimento posizione minima-massima".
ERRORE - NO PIZZA PREMERE CANCELLA SEGNALE	In fase di scarico, la fotocellula di fine scarico non si blocca entro l'intervallo specificato al momento della configurazione "azzerare tempo del trasportatore".
ERRORE - NO CONTEGGIO PREMERE CANCELLA SEGNALE	Oltre 45 secondi tra i due estremi di stazionamento nel movimento della navetta a destra o sinistra.
ERRORE- ATTESA TROPPO LUNGA PREMERE CANCELLA SEGNALE	Il dispositivo di ricevimento non consente lo scarico dell'apparecchio entro l'intervallo specificato al momento della configurazione "ritardo completamente carico combinato".
TROPPO TEMPO ALLO SCARICO PREMERE CANCELLA SEGNALE	Il nastro è in movimento e la fotocellula di fine scarico continua a essere bloccata dopo 30 secondi dal termine dell'intervallo specificato al momento della configurazione "azzerare tempo del trasportatore".
TROPPO TEMPO AI LIVELLI PREMERE CANCELLA SEGNALE	Oltre 30 secondi tra i due estremi di livello durante il sollevamento o l'abbassamento del supporto della navetta.

Individuare e correggere eventuali condizioni che possono impedire un'azione, quindi premere il pulsante *Cancella segnale* (🗑️) per inizializzare la navetta e riprendere il funzionamento automatico. In presenza di errori, rivolgersi al personale di manutenzione.

### 3.1.4. Errori di conteggio del codificatore di livello

Il controller di alcuni modelli traccia la posizione del supporto di sollevamento grazie a un codificatore di conteggio dei target verticali di livello al passaggio del supporto sul target. Se il codificatore perde il conto

si verifica un errore. Gli errori bloccano il moto della navetta fino alla sua successiva inizializzazione. Questa categoria di errori include:

**Visualizzazione o azione**

SUPERATO MASSIMO  
CONTEGGIO  
PREMERE CANCELLA  
SEGNALE

**Spiegazione**

Il conteggio supera il valore massimo specificato nel “numero di livelli di ricevimento” o al momento della configurazione “numero di livelli di scarico”, indipendentemente dai due.

CONTEGGIO SOTTO 0  
PREMERE CANCELLA  
SEGNALE

Il conteggio è o sta per scendere sotto lo zero.

ALLENAMENTO CATENA  
PREMERE CANCELLA  
SEGNALE

Si verifica un allentamento catena durante l’abbassamento del supporto ma prima di aver raggiunto il conteggio auspicato.

La condizione responsabile dell’errore di codificazione è probabilmente temporanea e non si ripresenterà. Premere il pulsante *Cancella segnale* (☒) per l’inizializzazione della navetta e la ripresa del funzionamento automatico. Se l’errore si ripresenta, contattare il personale di manutenzione.

**3.1.5. Errori di posizione**

Questo tipo di errori indica il rilevamento da parte del controller di una posizione sbagliata della navetta o di un suo componente. Il moto della navetta si blocca per verificare l’eventuale necessità di intervento manuale. L’intervento manuale può comportare la rimozione degli indumenti che bloccano la fotocellula o il riposizionamento della navetta con comandi manuali.



**ATTENZIONE [6]: Rischio di danno**—I comandi manuali disabilitano le fotocellule che di norma evitano che la navetta introduca una pizza in un oggetto o la scarichi sul pavimento.

- Adottare estrema cautela e considerare le conseguenze prima di movimentare manualmente la navetta.

I comandi manuali relativi ai singoli errori sono elencati nella descrizione. Questa categoria di errori comprende:

**Visualizzazione o azione**

CARICARE MANUALMENTE  
LA PIZZA

**Spiegazione**

Applicabile a navette configurate per non sollevare il secondo nastro di scarico. Una pizza è sul nastro 1 ma non sullo 0. Comandi manuali del caso: interruttore di *marcia avanti/indietro nastro 1*. Con il nastro 1 allineato per lo scarico, tenere premuto l'interruttore su *marcia avanti* (↗) fino allo scarico della pizza.

ERRORE-NON RIENTRATO  
PREMERE CANCELLA  
SEGNALE

La navetta era impostata per attraversamento, sollevamento o abbassamento ma il supporto non è completamente rientrato. Comandi manuali del caso: interruttore di *Estensione/rientro per ricevimento nastro 0* (↖/↗), interruttore di *Estensione/rientro per scarico nastro 0* (↖/↗), luce *Nastro completamente rientrato*. Azionare l'interruttore adeguato per accendere la luce.

ERRORE - LIMITE  
ROTAIA  
PREMERE CANCELLA  
SEGNALE

La navetta si è allontanata troppo a destra o sinistra, ha attivato l'interruttore di segnalazione ed è rimasta in posizione per più di cinque secondi. Comando manuale del caso: interruttore di *corsa a sinistra/destra* (↖/↗).

ERRORE -  
ALLENAMENTO CATENA  
PREMERE CANCELLA  
SEGNALE

Il supporto della navetta si è abbassato fino al blocco meccanico più basso o all'incontro di un'ostruzione nella discesa. Comandi manuali del caso: interruttore a chiave di *Discesa/salita autorizzata*, interruttore di *Discesa* (↙) o interruttore di *Discesa/salita* (↙/↘), se presenti.

ERRORE - CATENA TESA  
PREMERE CANCELLA  
SEGNALE

Il supporto della navetta ha colpito il blocco meccanico superiore o un'altra ostruzione in fase di salita. Comandi manuali del caso: interruttore a chiave di *Discesa/salita autorizzata*, interruttore di *Discesa* (↙) o interruttore di *Discesa/salita* (↙/↘), se presenti e luce di *Catena tesa*. Impostare l'interruttore a chiave sul funzionamento manuale e attivarlo. In condizioni di catena tesa, la luce è accesa e si spegne con la scomparsa della situazione.

ESTENSIONE ECCESSIVA  
REGOLAZIONE MANUALE  
DEL NASTRO

La navetta ha oltrepassato la posizione di massima estensione. Comandi manuali del caso: interruttore di *Estensione/rientro per scarico nastro 0* (↖/↗), luce di *Estensione completa per scarico nastro 0*. Agire sull'interruttore per accendere la luce.

RIENTRO ECCESSIVO  
REGOLAZIONE MANUALE  
DEL NASTRO

La navetta ha oltrepassato la posizione di massimo rientro. Comandi manuali del caso: interruttore di *Estensione/rientro per ricevimento nastro 0* (↖/↗), interruttore di *Estensione/rientro per scarico nastro 0* (↖/↗), luce di *Rientro completo del nastro*. Agire sull'interruttore adeguato finché la luce non si accende.

Correggere un errore di posizione come segue:

**Visualizzazione o azione**

**Spiegazione**



Impostare l'interruttore *automatico/manuale* su *manuale*.

Utilizzare i comandi manuali adeguati (spiegati qui sopra) per posizionare correttamente la navetta. In caso di errore alla catena, occorre agire sull'interruttore a chiave di *Discesa/salita autorizzata*. Se la navetta non risponde, rivolgersi al personale di manutenzione. Se è possibile riposizionare la navetta:



Riportare l'interruttore *automatico/manuale* sulla posizione *automatico*.

<p>ESCLUDI MANUALE- PREMERE SUCCESSIVO PER USCIRE</p>
-------------------------------------------------------------------

Il messaggio compare quando si ritorna alla modalità automatica dopo l'utilizzo di comandi manuali.



Premere il tasto (tastiera) o il pulsante (display del dispositivo DryNet) **SUCCESSIVO** per avviare l'inizializzazione della navetta.

### 3.1.6. Errori di trasferimento

Un simile errore si verifica se, ad esempio, un indumento si stacca dalla pizza pressata e blocca una fotocellula. Questi errori includono:

#### Visualizzazione o azione

ERRORE - ERRORE  
FOTOCELLULA 1  
PREMERE CANCELLA  
SEGNALE

#### Spiegazione

La fotocellula di fine carico o di fine scarico è bloccata su un nastro che trasporta più pizze quando la navetta deve muoversi, a indicazione che una pizza sporge dal nastro, col rischio di danni. L'ERRORE FOTOCELLULA 2 è simile. Ogni errore si applica a modelli specifici.

ERRORE - ERRORE  
FOTOCELLULA 3  
PREMERE CANCELLA  
SEGNALE

La fotocellula di fine scarico su un nastro trasportatore a più pizze non si blocca e sblocca, in sede di scarico, in base al numero di pizze attese dal controller, ovvero il controller ha contato troppe poche pizze. Può verificarsi se gli indumenti sono a cavallo tra due pizze così da diventare indistinguibili per il controller.

ERRORE - ERRORE  
FOTOCELLULA 4  
PREMERE CANCELLA  
SEGNALE

La fotocellula di fine scarico su un nastro trasportatore a più pizze si blocca in sede di carico, per indicare che la(e) pizza(e) successiva(e) può(possano) essere andata(e) persa(e). Quando un nastro a più pizze è caricato, l'ultima pizza dovrebbe sbloccare la fotocellula di fine carico e fermare il nastro prima che la prima pizza blocchi la fotocellula di fine scarico. L'errore può verificarsi se pizze compattate in modo improprio si disgregano e occupano troppo spazio sul nastro.

ERRORE - ERRORE  
FOTOCELLULA 5  
PREMERE CANCELLA  
SEGNALE

Le fotocellule di fine carico e di fine scarico sono entrambe bloccate quando la navetta intende attraversare o abbassare il supporto, a indicazione che una pizza sporge dal nastro, col rischio di danni.





ERRORE - ERRORE  
FOTOCELLULA 6  
PREMERE CANCELLA  
SEGNALE

La fotocellula di superamento è bloccata quando la navetta intende attraversare o sollevare/abbassare il supporto, a indicazione che una pizza sporge dal nastro, col rischio di danni.

ERRORE -  
TRASFERIMENTO NEGATO  
PREMERE CANCELLA  
SEGNALE

Il controller Miltrac ha cancellato il procedimento in atto. Ad esempio, uno degli errori sopraindicati delle fotocellule si verifica dopo l'avvio del trasferimento ma prima che sia ultimata la comunicazione con Miltrac.

Consultare le istruzioni di sicurezza pubblicate e sbloccare una fotocellula indebitamente bloccata mediante rimozione manuale degli indumenti o funzionamento manuale del nastro trasportatore, come segue:

Visualizzazione o azione	Spiegazione
	Impostare l'interruttore <i>automatico/manuale</i> su <i>manuale</i> .
	Utilizzare l'interruttore adeguato di <i>marcia avanti/indietro nastro x</i> (fino a quattro nastri impilati in verticale, numerati da 0 a 3, dal basso in alto) per azionare il trasportatore e completare o correggere il trasferimento.
	Riportare l'interruttore <i>automatico/manuale</i> sulla posizione <i>automatico</i> .
<div style="border: 1px solid black; padding: 5px; width: fit-content;">                     ESCLUDI MANUALE- PREMERE SUCCESSIVO PER USCIRE                 </div>	Il messaggio compare quando si ritorna alla modalità automatica dopo l'utilizzo di comandi manuali.
	Premere il tasto (tastiera) o il pulsante (display del dispositivo DryNet) <b>SUCCESSIVO</b> per avviare l'inizializzazione della navetta e riprendere il funzionamento automatico.

### 3.1.7. Errori da riferire al personale dirigente o di manutenzione

Le conseguenze dei seguenti errori sono tali da richiedere l'intervento del personale dirigente. Affrontare le conseguenze per risolvere l'errore.

Visualizzazione o azione	Spiegazione
<div style="border: 1px solid black; padding: 5px; width: fit-content;">                     VERIFICARE INGRESSO/USCITA CIRCUITO x PREMERE CANCELLA SEGNALE                 </div>	Il controller rileva un circuito di controllo errato o mancante. Se l'errore si verifica subito dopo la programmazione dei valori di configurazione, dipende probabilmente dalla specificazione di una caratteristica opzionale non presente nell'apparecchio. Se si verifica dopo aver aggiunto componenti elettronici per una caratteristica opzionale, significa che la caratteristica non è ancora stata specificata nella configurazione. Diversamente, indica probabilmente un guasto a un pannello o alla sua circuiteria.
<div style="border: 1px solid black; padding: 5px; width: fit-content;">                     RESETTARE MEMORIA ORA PREMERE 4 + 5 + 6                 </div>	I dati programmabili sono corrotti. È necessario riprogrammare i valori di configurazione come indicato nella sezione del manuale di riferimento sulla programmazione.
<div style="border: 1px solid black; padding: 5px; width: fit-content;">                     ERRORE - TROPPE DIREZIONI PREMERE CANCELLA SEGNALE                 </div>	Gli input di direzione a destra e sinistra da un dispositivo di carico combinato sono stati attuati in contemporanea. Si tratta di malfunzionamento ai circuiti di comando che richiede interventi di tipo elettrico.
<div style="border: 1px solid black; padding: 5px; width: fit-content;">                     MENU PROGRAMMA 0 OK GIRARE CHIAVE PER AVVIARE                 </div>	La chiave di <b>Funzionamento/Programma</b> è stata lasciata nell'apparecchio e l'interruttore è nella posizione <i>Programma</i> . Rimuovere la chiave e metterla in un luogo sicuro accessibile solo al personale dirigente.

### 3.2. Messaggi di errore dell'essiccatoio

La maggioranza dei messaggi di errore e le condizioni che li determinano sono risolvibili dall'operatore. In alcuni casi l'operatore deve rivolgersi all'assistenza del personale dirigente o tecnico. Se l'essiccatoio è caricato in automatico da un trasportatore a navetta, non entrare nell'area di intervento senza un'adeguata formazione sulla sicurezza dell'apparecchio. Rispettare le norme di sicurezza dell'impianto.



**AVVERTENZA 7: Rischi di urto e schiacciamento**—Il trasportatore a navetta in servizio su una linea di carico automatico per essiccatoi si muove in modo imprevedibile in fase di funzionamento automatico. Quando attraversa e scorre per poco non tocca la parte anteriore dell'essiccatoio. Il personale eventualmente nell'area rischia urti o schiacciamenti.

- Operatori: mai entrare nell'area di funzionamento della navetta con alimentazione collegata.
- Personale di manutenzione: disabilitare sempre il funzionamento automatico prima di entrare nell'area della navetta.

Sul piano della risoluzione degli errori, quelli relativi all'essiccatoio sono di quattro tipi: errori di surriscaldamento, avvisi del portello di carico, altri errori di funzionamento automatico ed errori da riferire al personale dirigente o di manutenzione. Gli errori sono elencati per categoria e in ordine alfabetico in ogni categoria. È possibile dover consultare più di una categoria per trovare l'errore del caso. Le spiegazioni per categoria sono divise in tre parti:

1. descrizione della categoria di errore
2. elenco degli errori e relative descrizioni
3. modalità di risoluzione del tipo di errori

#### 3.2.1. Messaggio “TRE FILI DISABILITATO”

Compare il messaggio e scatta l'allarme operatore all'avvio finché non si preme il pulsante *Avvio* (Ⓜ). Questo messaggio e allarme si verificano anche in caso di pressione di pulsanti di arresto di emergenza, di sovraccarico del motore o altri eventi. Una minoranza degli errori descritti può coincidere con eventi in grado di disabilitare il circuito. In tal caso, compare il messaggio TRE FILI DISABILITATO e non il messaggio di errore che di norma si visualizza sul display. Tuttavia, due importanti casi speciali sono spiegati nella [Sezione 3.2.2 “Errori di surriscaldamento”](#).

#### 3.2.2. Errori di surriscaldamento

Si verificano se il controller rileva una temperatura di uscita superiore al valore consentito. Benché un errore di surriscaldamento dipenda da numerose cause, il controller presume l'esistenza di un incendio nel cestello e svolge le seguenti azioni:

- apre il circuito a tre fili, che:
  - » disabilita la fonte di calore (ad es., chiude la valvola del gas)
  - » disabilita la corrente d'aria principale
  - » blocca la rotazione del cestello



- aziona lo spruzzatore interno che getta acqua nel cestello

**Visualizzazione o azione**

TEMPERATURA DI  
USCITA ECCESSIVA  
240dF -STACCARE  
L'ALIMENTAZIONE-

**Spiegazione**

Un dispositivo di sicurezza di troppo sull'essiccatoio fa scattare l'errore se la temperatura di uscita supera i 240° Fahrenheit (116° Celsius). L'evento non si verifica in conseguenza di effettivi rialzi di temperatura fatti salvi eventuali guasti alla condizione TRE FILI DISABILITATO, spiegata sotto, forse imputabile a guasti a un componente. L'errore è scattato nel software, sulla base di un input di temperatura in uscita. Quindi si tratta di un errore dovuto a un guasto a un componente elettrico, ad esempio al pannello analogico-digitale. Nonostante l'apertura del circuito in questa circostanza, il messaggio di errore ha la precedenza sul messaggio TRE FILI DISABILITATO.

TRE FILI  
DISABILITATO  
\*\*\*\*\*

Il messaggio può dipendere da un rialzo della temperatura di uscita superiore ai 225° Fahrenheit (107° Celsius) ma non solo. Indipendentemente da quando compare il messaggio (dopo aver premuto il pulsante *Avvio*), **verificare immediatamente l'azionamento del dispositivo a spruzzo (installato a lato del convogliatore di scarico)** e poi comportarsi come in caso di errore di surriscaldamento. L'errore è fatto scattare da uno dei due interruttori di sicurezza della temperatura (interruttori Fenwal) installati sul condotto di uscita.

Gestire l'errore di surriscaldamento come segue:

**Visualizzazione o azione**



**Spiegazione**

1. In caso di errore TEMPERATURA DI USCITA SUPERIORE A 240Df, spegnere l'interruttore *generale* dell'essiccatoio e poi riaccenderlo. Lo scopo è resettare il relè di uscita dello spruzzatore desiderato. Diversamente non sarà possibile staccare lo spruzzatore.
2. In assenza di incendio, **abbassare la maniglia rossa sul dispositivo a spruzzo finché non si blocca in posizione**, per arrestare il flusso d'acqua nel cestello, ma continuare a monitorare l'eventuale presenza di fiamme ed essere pronti a riattivare lo spruzzatore.



Premere il pulsante di *Avvio* dell'essiccatoio. Se la temperatura di uscita non è scesa sotto i 214° Fahrenheit (101° Celsius), il circuito a tre fili non si attiva. Aspettare fino all'opportuno raffreddamento dell'essiccatoio.

Una volta abilitato il circuito a tre fili, utilizzare i comandi manuali per scaricare eventuali indumenti danneggiati dal fuoco. Adottare tutte le precauzioni del caso. In caso di incendio al cestello, bisogna ispezionare l'essiccatoio per il rilevamento danni prima di ri-azionarlo. Diversamente, con l'interruttore *Automatico/manuale* dell'essiccatoio impostato su *Automatico*, l'apparecchio dovrebbe riprendere il funzionamento automatico. In assenza di incendio ma con la ricomparsa dell'errore, si è in presenza di componente difettoso. Rivolgersi all'assistenza tecnica.

### 3.2.3. Avvisi di portello carico

Messaggi senza allarme operatore se il portello di carico non si apre o chiude entro 15 secondi dal rispettivo comando. L'elaborazione non avviene finché non si verifica l'azione ma riprende senza bisogno d'intervento una volta dato l'input adeguato al portello di carico.

#### Visualizzazione o azione

PORTELLO DI CARICO  
NON APERTO

#### Spiegazione

Il portello di carico non si apre entro il tempo previsto. È possibile che il portello non si sia spostato sulla posizione richiesta a causa di un problema meccanico come una pressione dell'aria insufficiente. L'errore può anche verificarsi per sbaglio per un problema come un guasto all'interruttore di prossimità.

PORTELLO DI CARICO  
APERTO

Il portello di carico non si chiude entro il tempo previsto. È molto probabile che sia per un indumento che blocca la porta ma può anche dipendere da motivi simili a quelli per il PORTELLO DI CARICO NON APERTO.

PORTELLO DI SCARICO  
APERTO

Il portello di scarico non si chiude entro il tempo previsto dal comando. Può anche dipendere da motivi simili a quelli per il PORTELLO DI CARICO NON APERTO.

Se la condizione non si auto-corregge entro breve, ispezionare e correggere qualsiasi condizione che possa interferire col funzionamento del portello. In tal caso bisogna contattare del personale con responsabilità e qualifiche adeguate, nel rispetto delle norme di sicurezza pubblicate per l'impianto. In caso contrario ma con ricomparsa, chiamare l'assistenza tecnica.

### 3.2.4. Altri errori di funzionamento automatico

Questi errori sono accompagnati dal segnale operatore. Il funzionamento dell'essiccatoio si blocca per permettere la verifica di eventuali interventi.

Visualizzazione o azione	Spiegazione
<p>VERIFICARE ERRORE LUCI</p>	<p>Errore applicabile solo a essiccatoi a gas e propano. Svariate condizioni devono essere soddisfatte prima che il sistema di controllo delle candele dei marchi Fireye o Landis &amp; Gyr (come specificato) accenda il bruciatore o gli permetta di restare acceso. L'errore indica che non tutte le condizioni sono soddisfatte. Il controller non le monitora singolarmente ma le diverse condizioni sono rappresentate dalle luci sul pannello che indica gli stati (errori) dell'essiccatoio. Se accese, certe luci indicano il soddisfacimento di una data condizione mentre altre indicano un'inosservanza o una condizione di errore. Consultare la descrizione dei comandi dell'essiccatoio per spiegazioni sulle singole luci di stato.</p>
<p>PORTA DI SCARICO NON CHIUSA DOPO SCARICAMENTO.</p>	<p>La porta di scarico non è completamente chiusa a completamento dell'operazione. Potrebbe dipendere da indumenti che bloccano il portello o a problemi meccanici come una pressione dell'aria troppo bassa o elettrici quali guasti all'interruttore di prossimità.</p>
<p>GUASTO ALLA ROTAZIONE</p>	<p>Il cestello smette di girare per oltre 8 secondi durante il ciclo di asciugatura. Se il cestello non ruota correttamente è possibile che gli indumenti siano intrappolati nelle guarnizioni, che ci sia condensa sui rulli di supporto così da far scivolare il cestello o che dipenda da un malfunzionamento dell'inverter. L'errore può anche essere causato da impedimenti al controller di rilevare la rotazione del cestello, come disallineamenti dell'interruttore di prossimità o la bruciatura di un condensatore nel circuito sensore del moto.</p>
<p>*TRASFERIMENTO NEGATO* PRIMA DISATTIVARE NAVETTA</p>	<p>Il controller Miltrac ha cancellato il trasferimento in atto. Ad esempio, un indumento ha bloccato la fotocellula di fine scarico sulla navetta. L'errore in genere indica che la navetta è bloccata davanti all'essiccatoio ed entrambi i dispositivi registrano errori. È necessario risolvere prima l'errore della navetta. Consultare le istruzioni sui messaggi di errore della navetta.</p>

Premere il pulsante *Cancella segnale* (☒) per bloccare l'allarme operatore. Se l'errore si auto-corregge, il funzionamento automatico dovrebbe riprendere. In caso contrario, ispezionare e correggere il problema. Contattare del personale con responsabilità e qualifiche adeguate, nel rispetto delle norme di sicurezza pubblicate per l'impianto. Se la condizione si auto-corregge ma con ricomparsa, chiamare l'assistenza tecnica.

### 3.2.5. Messaggi da riferire al personale dirigente o di manutenzione

Le conseguenze dei seguenti errori sono tali da richiedere l'intervento del personale dirigente o tecnico. Affrontarle per risolvere l'errore.

#### Visualizzazione o azione

ERRORE MEMORIA  
SPOSTARE LA CHIAVE  
SU PROGRAMMA

#### Spiegazione

Corruzione (inaffidabilità) dei dati programmabili (configurazione e/o codici di asciugatura). Scaricare o ri-programmare i dati corretti, come indicato nella sezione del manuale di riferimento sulla programmazione.

CODICE DI  
ASCIUGATURA xxxx NON  
AUTORIZZATO  
CFR. MANUALE

Il controller dell'essiccatoio ha ricevuto una richiesta di avvio di un codice di asciugatura non attualmente programmato, cioè di un codice non locale. Il numero del codice, insieme ad altri codici di batch, si è originato nel computer Mentor o Mildata. È responsabilità dell'incaricato associare i codici post-lavaggio ai programmi di lavaggio per garantirne la validità. Se si consente a indumenti di essere trattati nell'essiccatoio mediante un codice di asciugatura non valido (non autorizzato), l'essiccatoio scaricherà gli indumenti bagnati. L'operatore deve essere in grado di risolvere immediatamente il problema cancellando il segnale operatore (☒) e quindi richiamando un altro codice di asciugatura adeguato; tuttavia, il personale dovrà garantire che il codice specificato sia programmato (o scaricato) nell'essiccatoio o che un numero di codice di asciugatura valido sia associato a un programma di lavaggio nella programmazione Mentor.

PASSWORD NON VALIDA

Il messaggio non si applica a essiccatoi di una rete DryNet (controller di essiccatoio/navetta). Se l'essiccatoio è configurato per la richiesta di password per interventi manuali ma l'operatore non la conosce, rivolgersi al personale dirigente.

GUASTO SCHEDA  
nominata  
PREMERE CANCELLA  
SEGNALE

La scheda periferica nominata non comunica col microprocessore. Ricerca guasti e soluzioni di tipo elettrico.

— Estremità BIPDUT01 —