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Controller Reference

The Dryer Programmer for Windows Computers

PELLERIN MILNOR CORPORATION **Post Office Box 400, Kenner, Louisiana 70063–0400, U.S.A.**

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1 The Dryer Programmer Menus

1.1 The File Menu

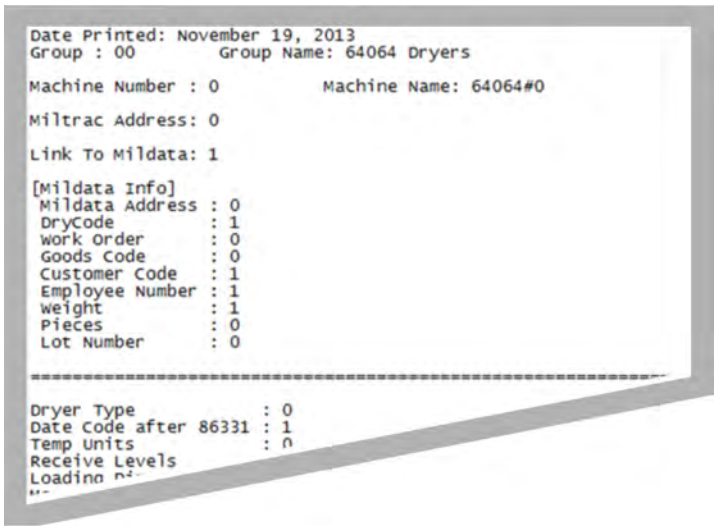
1.1.1 The Export to a File Menu Item

Use the **Export to a File** menu item to create text files from the specified data.

1.1.1.1 Dryer Configurations

The **Dryer Configurations** item writes the configuration data of all dryers to a file named `C:\Dryconf.txt`.

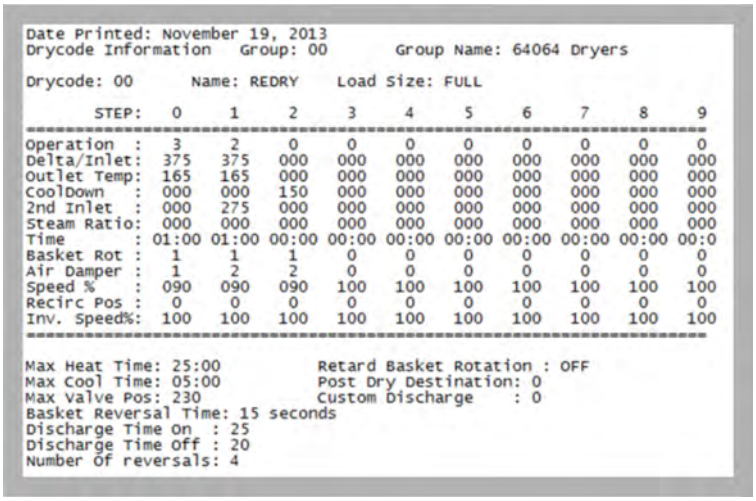
Figure 1. Example Dryer Configuration File



1.1.1.2 Drycodes

The **Drycodes** item writes the parameters of all drycodes to a file named `C:\Drycodes.txt`.

Figure 2. Example Drycode File



```
Date Printed: November 19, 2013
Drycode Information   Group: 00       Group Name: 64064 Dryers

Drycode: 00      Name: REDRY    Load Size: FULL

       STEP:   0     1     2     3     4     5     6     7     8     9
================================================================================
Operation  :   3     2     0     0     0     0     0     0     0     0
Delta/Inlet:  375   375   000   000   000   000   000   000   000   000
Outlet Temp:  165   165   000   000   000   000   000   000   000   000
CoolDown   :  000   000   150   000   000   000   000   000   000   000
2nd Inlet  :  000   275   000   000   000   000   000   000   000   000
Steam Ratio:  000   000   000   000   000   000   000   000   000   000
Time       : 01:00 01:00 00:00 00:00 00:00 00:00 00:00 00:00 00:00 00:0
Basket Rot :   1     1     1     0     0     0     0     0     0     0
Air Damper :   1     2     2     0     0     0     0     0     0     0
Speed %    :  090   090   090   100   100   100   100   100   100   100
Recirc Pos :   0     0     0     0     0     0     0     0     0     0
Inv. Speed%:  100   100   100   100   100   100   100   100   100   100
================================================================================

Max Heat Time: 25:00          Retard Basket Rotation : OFF
Max Cool Time: 05:00          Post Dry Destination: 0
Max Valve Pos: 230            Custom Discharge     : 0
Basket Reversal Time: 15 seconds
Discharge Time On  : 25
Discharge Time Off : 20
Number Of reversals: 4
```

1.1.2 Backup Configuration and Restore Configuration Menu Items

BNDDUP01.C05 0000217917 A.2 B.3 1/2/20 1:40 PM Released

If the Dryer Programmer software is used without Drynet software, use these backup and restore functions to make copies of how the dryers are configured. If the Dryer Programmer software is used as part of the Drynet software, use the backup and restoration functions of the Drynet software.

1.1.2.1 Backup Configuration Menu Item

BNDDUP01.C06 0000217916 A.2 B.3 1/2/20 1:40 PM Released

Click on the **Backup Configuration** item to create a copy of the configuration data for all dryers that are addressed by the Dryer Programmer software.

1.1.2.2 Restore Configuration Menu Item

BNDDUP01.C07 0000217915 A.2 B.3 1/2/20 1:40 PM Released

Click on the **Restore Configuration** item to restore a previous copy of the configuration data to the dryers.

1.1.3 Exit Programmer Menu Item

BNDDUP01.C08 0000217914 A.2 B.3 1/2/20 1:40 PM Released

Click the **Exit Programmer** menu item to close the Dryer Programmer software.

BNDDUP02 / 2019065 BNDDUP02 0000217969 A.4 1/2/20 1:40 PM Released

1.2 The Admin Logon / Logout Menu Item

BNDDUP02.C01 0000217968 A.2 A.4 A.3 1/2/20 1:40 PM Released

1.2.1 Admin Logon

BNDDUP02.C02 0000217967 A.2 A.4 A.3 1/2/20 1:40 PM Released

Click on the **Admin Logon** menu item to make changes and perform other actions:

- manage the programmer password and set the language
- set dryer configurations and manage groups of dryers
- manage the drycodes

1.2.2 Admin Logout

BNDDUP02.C03 0000217966 A.2 A.4 A.3 1/2/20 1:40 PM Released

Click on the **Admin Logout** menu item to disable the administrative functions.

BNDDUP03 / 2019065 BNDDUP03 0000217965 A.4 1/2/20 1:40 PM Released

1.3 Admin Tools (Administrative Tools) Menu

BNDDUP03.C01 0000217964 A.2 A.4 A.3 1/2/20 1:40 PM Released

1.3.1 Create New Password Menu Item

BNDDUP03.C02 0000217963 A.2 A.4 A.3 1/2/20 1:40 PM Released

The **Create New Password** menu item is disabled in this version of the Dryer Programmer software.

1.3.2 Change Password Menu Item

BNDDUP03.C03 0000218414 A.2 A.4 A.3 1/2/20 1:40 PM Released

Click on the **Change Password** menu item to change the required password. The password must be at least 3 characters. Longer passwords are more secure.

1.3.3 Decode Password Menu Item

BNDDUP03.C04 0000218413 A.2 A.4 A.3 1/2/20 1:40 PM Released

This menu item is not used.

1.3.4 Language Menu Item

BNDDUP03.C05 0000218412 A.2 A.4 A.3 1/2/20 1:40 PM Released

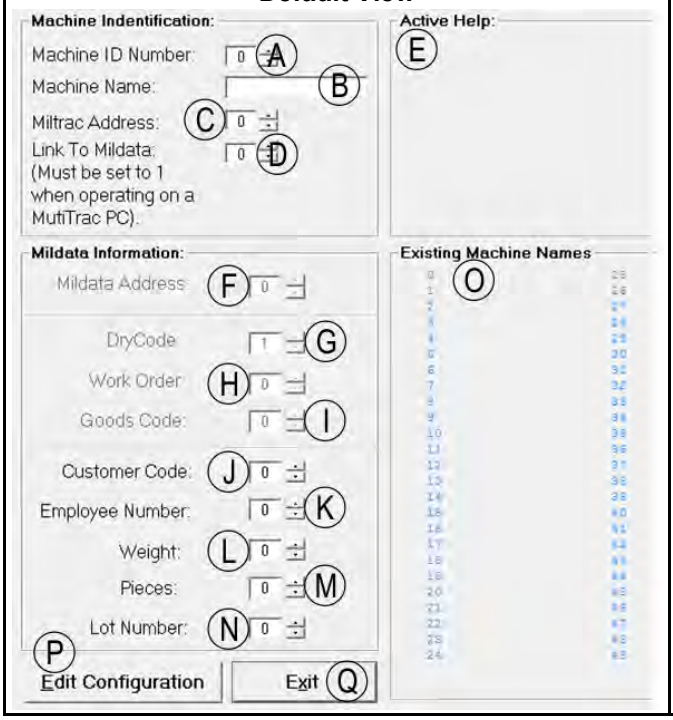
Click the **Language** menu item, then choose your language.

2 Dryer Configuration

2.1 Configure New/Existing Dryer Menu Item

Click the **Configure New/Existing Dryer** menu item to see the **Dryer Configure** screen. Use the **Dryer Configure** screen to define how the dryer is configured and to connect the dryer to the equipment network.

Figure 3. Dryer Configure Screen



Legend

A . . . Machine identification number
B . . . Machine name
C . . . Miltrac™ address
D . . . Link to Mildata®
E . . . Active Help
F . . . Mildata® address
G . . . Drycode
H . . . Work order
I . . . Good code
J . . . Customer code
K . . . Employee number
L . . . Weight
M . . . Pieces
N . . . Lot number
O . . . Existing machine names
P . . . **Edit Configuration** button
Q . . . **Exit** button

2.1.1 Machine Identification

The decisions in this part of the display tell how the Miltrac™ and Mildata® networks identify the dryer.

2.1.1.1 Machine ID (Identification) Number

Enter a number 0-49 to select the dryer that you want to configure.

2.1.1.2 Machine Name

BNDDUP06.C04 0000219050 A.2 A.6 A.3 1/2/20 1:40 PM Released

Enter a name for the dryer. This value can be up to 20 letters and numbers.

2.1.1.3 Miltrac™ Address

BNDDUP06.C05 0000219049 A.2 A.6 A.3 1/2/20 1:40 PM Released

Enter the number used for this dryer in the Miltrac™ network. The range of values is 0-254.

2.1.1.4 Link To Mildata®

BNDDUP06.C06 0000219078 A.2 A.6 A.3 1/2/20 1:40 PM Released

Select 1 if the dryer is part of a Mildata® network or part of a Milnor® MultiTrac system. Otherwise, select 0.

2.1.2 Active Help

BNDDUP06.C07 0000219088 A.2 A.6 A.3 1/2/20 1:40 PM Released

This area displays information about the selected decision.

2.1.3 Mildata® Information

BNDDUP06.C08 0000219087 A.2 A.6 A.4 1/2/20 1:40 PM Released

The decisions in this part of the display tell how the Mildata® network identifies the dryer. These decisions are available when the **Link to Mildata** value is 1.

2.1.3.1 Mildata® Address

BNDDUP06.C09 0000219086 A.2 A.6 A.4 1/2/20 1:40 PM Released

Enter the Mildata® address for this dryer. The range of values is 0-254.

NOTE: The value for this decision must be different from the address of any other machine on the Mildata® or MultiTrac network.

If this dryer interfaces with a MultiTrac computer, enter the Devcomm address for the dryer here. If you enter another value, a Data Unlocatable error will appear during memory uploads and drycode retrievals.

2.1.3.2 Drycode

BNDDUP06.C10 0000219085 A.2 A.6 A.3 1/2/20 1:40 PM Released

Select 1 if you will enter the drycode number for the Mildata® controller to retrieve the correct remote drycode. Only one of **Drycode**, **Work Order**, and **Goods Code** can be selected.

2.1.3.3 Work Order

BNDDUP06.C11 0000219084 A.2 A.6 A.3 1/2/20 1:40 PM Released

Select 1 if you will enter the drycode number for the Mildata® controller to retrieve the correct remote drycode. Only one of **Drycode**, **Work Order**, and **Goods Code** can be selected.

2.1.3.4 Goods Code

BNDDUP06.C12 0000219083 A.2 A.6 A.3 1/2/20 1:40 PM Released

Select 1 if you will enter the goods code number for the Mildata® controller to retrieve the correct remote drycode. Only one of **Drycode**, **Work Order**, and **Goods Code** can be selected.

2.1.3.5 Customer Code

BNDDUP06.C13 0000219082 A.2 A.6 A.3 1/2/20 1:40 PM Released

Select 1 if this dryer should pass the customer code to the Mildata® controller for production reports.

2.1.3.6 Employee Number

BNDDUP06.C14 0000219081 A.2 A.6 A.3 1/2/20 1:40 PM Released

Select 1 if the operator must enter his employee number to use the dryer. The number appears in productivity reports.

2.1.3.7 Weight

BNDDUP06.C15 0000219080 A.2 A.6 A.3 1/2/20 1:40 PM Released

Enter 1 if weight data from the keypad or the Miltrac™ system should be processed by the Mildata® controller.

2.1.3.8 Pieces

BNDDUP06.C16 0000219079 A.2 A.6 A.3 1/2/20 1:40 PM Released

Enter 1 if the number of pieces in the load will be entered at the keypad

2.1.3.9 Lot Number

BNDDUP06.C17 0000219130 A.2 A.6 A.3 1/2/20 1:40 PM Released

Enter 1 if the operator must enter a lot number.

2.1.4 Existing Machine Names

BNDDUP06.C18 0000219129 A.2 A.6 A.3 1/2/20 1:40 PM Released

This area displays the machine identification number and machine name for each machine.

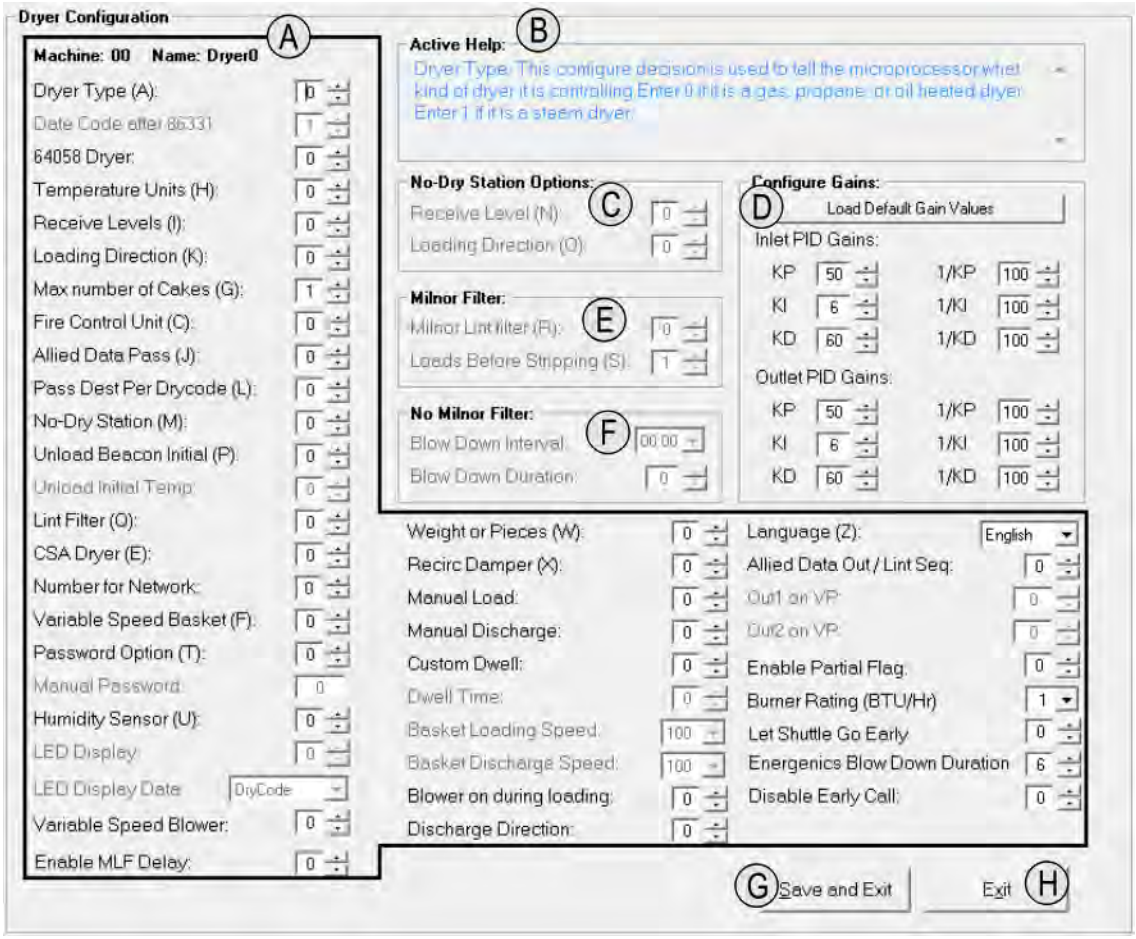
2.1.5 Edit Configuration Button

BNDDUP06.C19 0000219128 A.2 A.6 A.3 1/2/20 1:40 PM Released

The **Dryer Configuration** screen shows the decisions that define the build and options of the dryer.

Figure 4. Dryer Configuration Screen

Default Screen



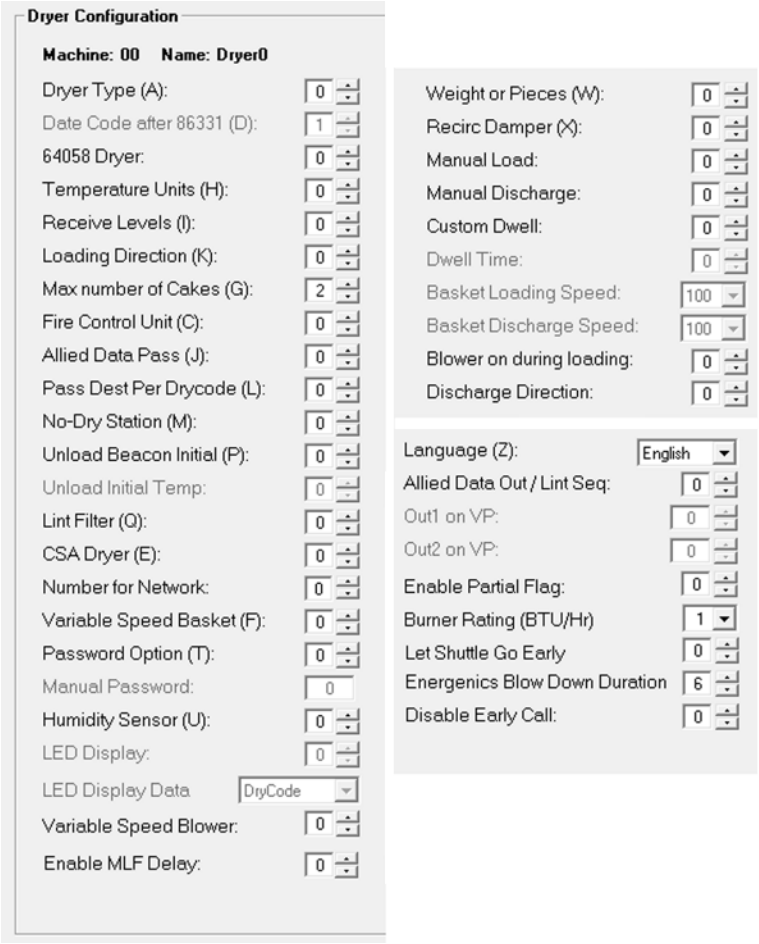
Legend

A . . . Dryer Configuration
B . . . Active Help
C . . . No-Dry Station Options
D . . . Configure Gains
E . . . Milnor® Filter
F . . . No Milnor® Filter
G . . . Save and Exit button
H . . . Exit button

2.1.5.1 Dryer Configuration

BNDDUP06.C20 0000219125 A.2 A.6 A.3 1/2/20 1:40 PM Released

Figure 5. Dryer Configuration General Decisions



2.1.5.1.1 Dryer Type

BNDDUP06.C21 0000219124 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor what type of dryer it controls.

0 Gas, propane, or oil heated dryer
1 Steam dryer

2.1.5.1.2 Date Code after 86331

BNDDUP06.C22 0000219123 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision is not used.

2.1.5.1.3 Modulating Steam

BNDDUP06.C23 0000219122 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if it should control a modulating steam valve.

0 The dryer is not equipped with a modulating steam valve.
1 The dryer is equipped with a modulating steam valve.

2.1.5.1.4 64058 Dryer

BNDDUP06.C24 0000219156 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if the dryer is a 64058 model, which uses different temperature limits and control features.

NOTICE: Contact your dealer or the Milnor® factory if you are not sure about this decision.

0 The dryer is not a 64058 model.
1 The dryer is a 64058 model.

2.1.5.1.5 Temperature Units

BNDDUP06.C25 0000219155 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if temperatures are in Fahrenheit or Celsius.

0 Fahrenheit
1 Celsius

2.1.5.1.6 Receive Levels

BNDDUP06.C26 0000219154 A.2 A.6 A.3 1/2/20 1:40 PM Released

Enter the receive level assigned to your system, as determined by the configuration. This decision does not apply to a stand-alone dryer.

0 Minimum value
7 Maximum value

2.1.5.1.7 Loading Direction

BNDDUP06.C28 0000219152 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor to instruct the MilNet controller in what direction the loading device's belt must operate.

0 Forward loading. Enter this value if the dryer is across the COSHA rail from the press.
1 Backward loading. Enter this value if the dryer is on the same side of the COSHA rail as the press.

2.1.5.1.8 Max (maximum) number of Cakes

BNDDUP06.C29 0000219151 A.2 A.6 A.3 1/2/20 1:40 PM Released

1 Minimum valid entry. Enter this value if the dryer is loaded with one cake of goods from the extraction device.
7 Maximum valid entry. Enter this value if the dryer is loaded with seven cakes of goods from the extraction device.

2.1.5.1.9 Fire Control Unit

BNDDUP06.C27 0000219150 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor what type of fire control unit the gas dryer uses.

0 Fire control unit **NOT** made by Landis & Gyr.
1 Landis & Gyr

2.1.5.1.10 Allied Data Pass

BNDDUP06.C30 0000219149 A.2 A.6 A.3 1/2/20 1:40 PM Released

0 The dryer is a part of a MilNet network which passes data automatically.
1 When the operator loads the dryer, he will enter batch data to be passed to a device on the MilNet network.

2.1.5.1.11 Pass Dest (Destination) Per Drycode

BNDDUP06.C31 0000219148 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if the user will program a destination code for each drycode.The two standard potential free contacts allow up to four destinations.

0 Do **not** pass a destination with each drycode.
1 Pass a destination with each drycode

2.1.5.1.12 No-Dry Station

BNDDUP06.C32 0000219147 A.2 A.6 A.3 1/2/20 1:40 PM Released

The dryer can control a separate discharge location, called a "no-dry station." This station can receive goods that do not need to be dried, such as bed linens, without a separate controller. This function is standard on Milnor® dryers. See the dryer documentation or contact your dealer for more information.

0 The dryer does NOT control a no-dry station.
1 The dryer controls a no-dry station.

2.1.5.1.13 Unload Beacon Initial

BNDDUP06.C33 0000219177 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor when the unload beacon should operate.

0 Turn on the unload beacon when the cooldown step starts.
1 Turn on the unload beacon when the cooldown step ends.
2 At "x" degrees hotter than the desired cooldown temperature. In the next decision, enter the number of degrees hotter than the cooldown temperature that should start the unload beacon.

2.1.5.1.14 Unload Initial Temp

BNDDUP06.C34 0000219176 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision is used when the value of the **Unload Beacon Initia**l decision (above) is "2."

0°F or 0°C The minimum valid value. Start the unload beacon at the desired cooldown temperature. This setting is the same as **Unload Beacon Initial = 1**.
5 Start the unload beacon when the temperature is 5 degrees hotter than the desired cooldown temperature.
50°F or 27°C The maximum valid value. Start the unload beacon when the temperature is 50 Fahrenheit degrees (27 Celsius degrees) hotter than the desired cooldown temperature.

2.1.5.1.15 Lint Filter

BNDDUP06.C35 0000219464 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor that it will control a lint filter system, either Milnor® or Allied. If your dryer is connected to a lint filter that requires the dryer to initiate a stripping sequence, enter a 1. If your lint filter operates continuously, enter a 0.

0 The lint filter system operates continuously or is not present.

1 The lint filter system requires the dryer to start the sequence for stripping.

2.1.5.1.16 CSA Dryer

BNDDUP06.C36 0000219463 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision is required for Milnor® gas dryers to operate legally in Canada. CSA configuration changes these factors in the programming and operation of the gas dryer:

- The maximum programmable outlet temperature is 185°F (85°C).
- Damper position 3 (MIN AIR) is not a valid choice.
- The damper position automatically changes to 1 (MAX AIR - 1) when the valve position is lower than 49.
- The damper position automatically changes to 2 (MIN AIR + 1) when the valve position is lower than 19.

0 Not required to meet CSA requirements for combustion.
1 Dryer adjusts automatically to meet CSA requirements for combustion.

2.1.5.1.17 Number for Network

BNDDUP06.C37 0000219462 A.2 A.6 A.4 1/2/20 1:40 PM Released

0 Miltrac™ systems with the new protocol (Miltrac™ version 89100 and later).
96, 97, 98, 99 High speed protocol available with dryer software 21000 and later and PC Miltrac™ 21000 and later. Use the largest number that allows reliable communication.
11, 13, 24, 30 Number of bytes configured at the Milnet/Miltrac™ system. This value depends on the version of Milnet/Miltrac™ software used.

2.1.5.1.18 Variable Speed Basket

BNDDUP06.C38 0000219461 A.2 A.6 A.3 1/2/20 1:40 PM Released

This configure decision tells the machine if it has a variable speed controller and thus allows you to program the basket speed for each step of the drycode.

0 One fixed basket speed
1 Variable basket speeds

2.1.5.1.19 Password Option

BNDDUP06.C39 0000219460 A.2 A.6 A.3 1/2/20 1:40 PM Released

A password can be required before manual intervention is allowed.

0 No password is required for manual intervention.
1 Require the operator to enter a password for manual intervention.

2.1.5.1.20 Manual Password

BNDDUP06.C40 0000219459 A.2 A.6 A.4 1/2/20 1:40 PM Released

Enter four numeric digits that will be required before manual intervention is allowed.

0000 Minimum valid value
9999 Maximum valid value

2.1.5.1.21 Humidity Sensor

BNDDUP06.C41 0000219458 A.2 A.6 A.3 1/2/20 1:40 PM Released

Humidity sensing is an option that allows the microprocessor to monitor the humidity in the dryer and change values in the drycode accordingly.

0 No humidity sensor
1 Optional humidity sensor is present

2.1.5.1.22 LED Display

BNDDUP06.C42 0000219457 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision is not used.

2.1.5.1.23 LED Display Data

BNDDUP06.C43 0000219456 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision is not used.

2.1.5.1.24 Variable Speed Blower

BNDDUP06.C44 0000219515 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if the dryer uses an inverter on the main air blower motor.

0 The main air blower operates at a single speed.
1 The main air blower motor is controlled by an inverter that allows the blower to operate at more than one speed.

2.1.5.1.25 Enable MLF Delay

BNDDUP06.C45 0000219514 A.2 A.6 A.3 1/2/20 1:40 PM Released

This item adds 30 seconds to the end of the cooldown step to allow the main air blower time to coast before the lint stripping sequence starts.

0 Do not delay the lint stripping sequence on dryers with internal lint filters.
1 Delay to lint stripping sequence to make the sequence more effective.

2.1.5.1.26 Weight or Pieces

BNDDUP06.C46 0000219513 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor whether to pass weight data or a count of pieces to the Miltrac™ controller.

0 The dryer controller passes weight data to the Miltrac™ controller.
1 The dryer controller passes the number of pieces to the Miltrac™ controller.

2.1.5.1.27 Recirc Damper

BNDDUP06.C47 0000219512 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if the dryer uses a recirculation damper.

0 No recirculation damper
1 Dryer uses a recirculation damper

2.1.5.1.28 Manual Load

BNDDUP06.C48 0000219511 A.2 A.6 A.4 1/2/20 1:40 PM Released

Enter a 1 to allow the operator to manually jog the basket during loading. Enter a 0 to disable this feature.

0 The operator **cannot** jog the basket while the dryer is loading.
1 The operator **can** jog the basket while the dryer is loading.

2.1.5.1.29 Manual Discharge

BNDDUP06.C49 0000219510 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if the operator can manually jog the basket when the dryer is ready to discharge and the discharge door is open.

0 The operator **cannot** jog the basket when discharge is allowed and the dryer door is open.
1 The operator **can** jog the basket when discharge is allowed and the dryer door is open.

2.1.5.1.30 Custom Dwell

BNDDUP06.C50 0000219509 A.2 A.6 A.4 1/2/20 1:40 PM Released

Dwell time is the time that the basket coasts before the motor is engaged to drive the basket in the other direction.

0 Standard dwell time.
1 Allow a custom dwell time in the **Dwell Time** decision (below).

2.1.5.1.31 Dwell Time

BNDDUP06.C51 0000219508 A.2 A.6 A.4 1/2/20 1:40 PM Released

00 No dwell time; minimum valid value.
35 3.5 seconds of dwell time.
99 9.9 seconds of dwell time; maximum valid value.

2.1.5.1.32 Basket Loading Speed

BNDDUP06.C52 0000219507 A.2 A.6 A.4 1/2/20 1:40 PM Released

This decision tells the microprocessor what basket speed to use while the dryer is loading. The value of this decision is a percentage relative to the standard basket speed.

50 50 percent of standard basket speed; minimum valid value.
100 Standard basket speed.
120 120 percent of standard basket speed; maximum valid value.

2.1.5.1.33 Basket Discharge Speed

BNDDUP06.C53 0000219506 A.2 A.6 A.4 1/2/20 1:40 PM Released

This decision tells the microprocessor what basket speed to use while the dryer is discharging. The value of this decision is a percentage relative to the standard basket speed.

50 50 percent of standard basket speed; minimum valid value.
100 Standard basket speed.
120 120 percent of standard basket speed; maximum valid value.

2.1.5.1.34 Blower on during loading

BNDDUP06.C54 0000219549 A.2 A.6 A.4 1/2/20 1:40 PM Released

This decision tells the microprocessor to run the main air blower when the dryer is receiving a load. This can help suck small pieces into the dryer.

0 Do not run the main air blower while loading.
1 Run the main air blower while loading.

2.1.5.1.35 Discharge Direction

BNDDUP06.C55 0000219548 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the Miltrac™ controller which direction to run the discharge belt when this dryer discharges.

Tells Miltrac™ what direction (backwards) to run the discharge belts behind the Dryer.

0 Run the discharge belt in the default direction when this dryer discharges.
1 Run the discharge belt in the reverse direction when this dryer discharges. Running the belt in reverse may reduce the chance of errors caused by a blocked photoeye.

2.1.5.1.36 Language

BNDDUP06.C56 0000219547 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor to use English or the alternate language for all displays and user prompts.

0 English
1 Alternate language

2.1.5.1.37 Allied Data Out / Lint Seq. (Sequencer)

BNDDUP06.C57 0000219546 A.2 A.6 A.3 1/2/20 1:40 PM Released

Allows the dryer to interface to non-Milnor® equipment on the discharge end. Also enables the use of an external lint sequencer. If set to a 1, the dryer requires a third 8/16 board. This board contains 4 bits of destination code, a DISCHARGE DESIRED output and a data valid output.

NOTICE: The dryer controller must contain a third 8-output/16-input board if the value for this decision is **1**.

0 Dryer does not interface with an external lint sequencer or allied (non-Milnor®) devices for discharge.
1 Dryer interfaces with an external lint sequencer and/or an allied (non-Milnor®) device for discharge.

2.1.5.1.38 Out1 on VP

BNDDUP06.C58 0000219545 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision is valid for CSA dryers (when **CSA Dryer** = 1). The OUT1 output controls the speed of the combustion air motor. The value for this decision is preset at the Milnor® factory. Do not change this value.

2.1.5.1.39 Out2 on VP

BNDDUP06.C59 0000219544 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision is valid for CSA dryers (when **CSA Dryer** = 1). The OUT2 output controls the speed of the combustion air motor. The value for this decision is preset at the Milnor® factory. Do not change this value.

2.1.5.1.40 Enable Partial Flag

BNDDUP06.C60 0000219543 A.2 A.6 A.3 1/2/20 1:40 PM Released

The dryer looks for Miltrac™ to tell it when it receives a partial load. It does not go by the number of cakes received. This software requires new Miltrac™ protocol and shuttle software 88506 or later.

2.1.5.1.41 Burner Rating (BTU/Hr)

BNDDUP06.C61 0000219542 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision represents the capacity of the gas burner. The value selected here is used only to calculate gas consumption for Mildata® reports. Select the value closest to the value from the machine nameplate.

1 Approximately 1 million BTUs
1 Approximately 2 million BTUs
2.5 Approximately 2.5 million BTUs

2.1.5.1.42 Let Shuttle Go Early

BNDDUP06.C62 0000219541 A.2 A.6 A.3 1/2/20 1:40 PM Released

0 The shuttle can depart from the dryer when the dryer load door is closed.
1 The shuttle can depart from the dryer when the load blocks and unblocks the shuttle discharge-end photoeye.

2.1.5.1.43 Energenics Blow Down Duration

BNDDUP06.C63 0000219540 A.2 A.6 A.4 1/2/20 1:40 PM Released

This value defines the time needed to blow the lint in an Energenics lint collector from the screen into the collecting bag.

6 Minimum valid value
12 Maximum valid value

2.1.5.1.44 Disable Early Call

BNDDUP06.C64 0000219627 A.2 A.6 A.3 1/2/20 1:40 PM Released

The dryer will not request another load until the dryer has completely finished unloading.

0 Allow the dryer to call for a load before the previous load is completely discharged.
1 The dryer will call for a load only when the previous load is completely discharged from the dryer.

2.1.5.2 Active Help

BNDDUP06.C65 0000219626 A.2 A.6 A.3 1/2/20 1:40 PM Released

The **Active Help** window shows information about the current decision.

2.1.5.3 No-Dry Station Options

BNDDUP06.C66 0000219625 A.2 A.6 A.3 1/2/20 1:40 PM Released

These decisions are available when the dryer is configured to control a no-dry station.

2.1.5.3.1 Receive Level

BNDDUP06.C67 0000219624 A.2 A.6 A.3 1/2/20 1:40 PM Released

Enter the receive level number assigned to this machine in your system, as determined by the configuration. This decision does not apply to a stand-alone dryer. The receive level number is from 0 to 7.

0 Smallest valid value
7 Largest valid value

2.1.5.3.2 Loading Direction

BNDDUP06.C68 0000219623 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor which direction the belt on the loading device must run to put a load into the dryer.

0 Forward. The dryer is on the opposite side of the shuttle rail from the extract device.
1 Backward. The dryer is on the same side of the shuttle rail as the extract device.

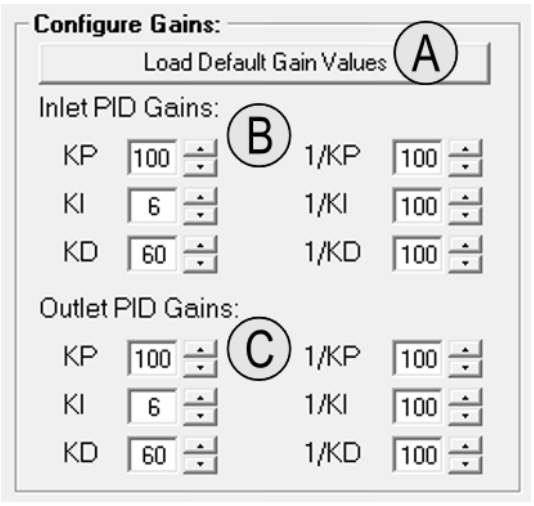
2.1.5.4 Configure Gains

BNDDUP06.C69 0000219621 A.2 A.6 A.3 1/2/20 1:40 PM Released

The dryer controller uses gains values to adjust the modulating valve to achieve the set temperature.

Figure 6. Configure Gains

Default View



Legend

A . . . Load Default Gains button
B . . . Inlet PID Gains
C . . . Outlet PID Gains

2.1.5.4.1 Load Default Gain Values button

BNDDUP06.C70 0000219620 A.2 A.6 A.3 1/2/20 1:40 PM Released

Click the **Load Default Gain Values** button to fill the gains fields with the default values. Adjust these default values as needed to improve performance.

2.1.5.4.2 Inlet PID Gains

BNDDUP06.C71 0000219619 A.2 A.6 A.3 1/2/20 1:40 PM Released

Table 1. Default Values

Field	Value	Field	Value
KP	100	1/KP	100
KI	6	1/KI	100
KD	60	1/KD	100

2.1.5.4.3 Outlet PID Gains

BNDDUP06.C72 0000219618 A.2 A.6 A.3 1/2/20 1:40 PM Released

Table 2. Default Values

Field	Value	Field	Value
KP	100	1/KP	100
KI	6	1/KI	100
KD	60	1/KD	100

2.1.5.5 Milnor® Filter

BNDDUP06.C73 0000219646 A.2 A.6 A.3 1/2/20 1:40 PM Released

2.1.5.5.1 Milnor® Lint filter

BNDDUP06.C74 0000219645 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor if the dryer is equipped with a Milnor® AutoLint lint filter.

0 Dryer is not equipped with a Milnor® AutoLint lint filter.
1 Dryer is equipped with a Milnor® AutoLint lint filter.

2.1.5.5.2 Loads Before Stripping

BNDDUP06.C75 0000219673 A.2 A.6 A.3 1/2/20 1:40 PM Released

This decision tells the microprocessor how many loads the dryer must run before the microprocessor commands an AutoLint cycle. A 12-minute maximum dry time (time that the main blower is on) overrides the load count. For instance, if you enter 3 for this decision and the first load runs for longer than 12 minutes, the filter will cycle before the next load is run.

NOTICE:

- The microprocessor will override this decision and command an AutoLint cycle after 12 minutes of main blower operation.

1 Minimum valid value; strip after every load.
4 Maximum valid value; strip after every four loads or 12 minutes of main blower operation, whichever occurs first.

2.1.5.6 No Milnor® Filter

BNDDUP06.C76 0000219672 A.2 A.6 A.4 1/2/20 1:40 PM Released

These decisions tell the microprocessor when to blow down the screen on a non-Milnor® lint filter. These decisions appear only if decision **Milnor Filter = 0**.

2.1.5.6.1 Blow Down Interval

BNDDUP06.C77 0000219671 A.2 A.6 A.3 1/2/20 1:40 PM Released

This configure decision tells the microprocessor how often the user desires to initiate the lint stripping cycle.

00:00 Minimum value.
06:00 Maximum value; strip the lint filter screen every 6 minutes.

2.1.5.6.2 Blow Down Duration

BNDDUP06.C78 0000219670 A.2 A.6 A.4 1/2/20 1:40 PM Released

This configure decision tells the microprocessor how long in seconds the user desires the lint stripping cycle to operate.

000 Minimum value.
255 Maximum value; 255 seconds.

2.1.5.7 Save and Exit button

BNDDUP06.C79 0000219669 A.2 A.6 A.3 1/2/20 1:40 PM Released

Click the **Save and Exit** button to save the current configuration values and exit to the main screen.

2.1.5.8 Exit button

BNDDUP06.C80 0000219668 A.2 A.6 A.3 1/2/20 1:40 PM Released

Click the **Exit** button to abandon the most recent configuration changes and exit to the main screen. The controller requires confirmation to exit without saving.

2.1.6 Exit Button

BNDDUP06.C81 0000219667 A.2 A.6 A.3 1/2/20 1:40 PM Released

Click the **Exit** button to close the **Dryer Configure** screen.

BNDDUP04 / 2019065 BNDDUP04 0000218431 A.4 1/2/20 1:40 PM Released

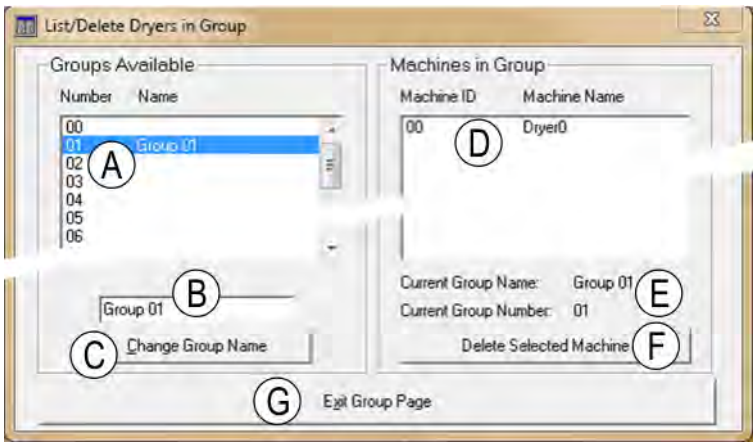
2.2 List/Delete Dryers in Group

BNDDUP04.T01 0000218430 A.2 A.4 A.3 1/2/20 1:40 PM Released

Dryer groups allow dryers to share drycodes if the dryers are similar. Each dryer must be a part of one dryer group.

Figure 7. Dryer Group window

Typical View



Legend

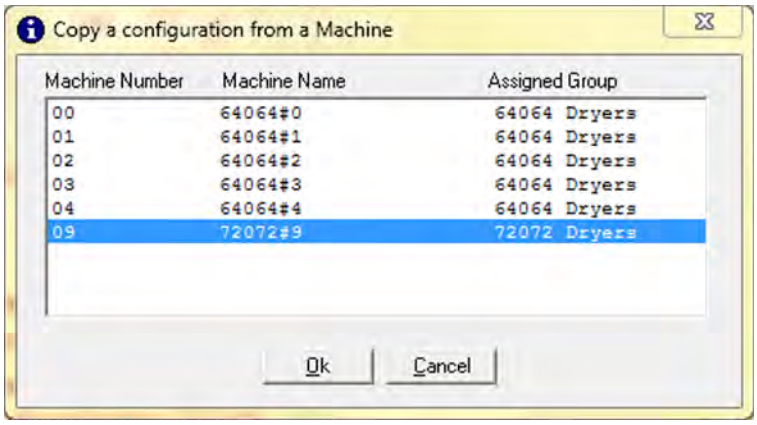
A . . . Group numbers and available group names
B . . . Selected group name for change
C . . . **Change Group Name** button
D . . . Machines in selected group
E . . . Group information
F . . . **Delete Selected Machine** button
G . . . **Exit Group Page** button

1. Set the machine ID.
2. Set the machine name.

3. Set the Miltrac™ address for the machine
4. Set the **Link to** Mildata® for the machine.
5. Set the Mildata® address for the machine.
6. Set the data for the dryer to pass.
7. Click the **Edit Configuration** button.
8. Click the **Copy Configuration from another Machine** button near the top of the screen, just below the window title bar.
9. Click on a machine as a source of configuration data.

Figure 8. Copy Configuration window

Example



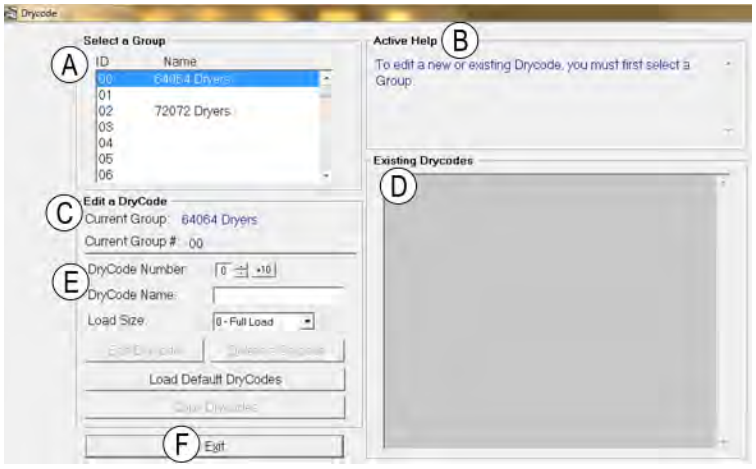
10. Click on **OK** to confirm the source machine, then click the **Save and Exit** button.
11. Select one of the available configure groups, then click on **OK**.
12. Confirm the memory upload.

3 DryCode Configuration

3.1 Drycode Configuration

BNDDUP05.C01 0000218432 A.2 A.8 A.5 1/2/20 1:40 PM Released

Figure 9. Drycode Configuration Screen

Example	Legend
	**A . . . Drycode Groups** list **B . . . Active Help** area **C . . . Drycode Editing** area **D . . . Existing Drycodes** list **E . . . Drycode Number** and **Name** fields **F . . . Exit** button

3.1.1 Select a Group

BNDDUP05.C02 0000218426 A.2 A.8 A.3 1/2/20 1:40 PM Released

Click on a dryer group to select the group.

3.1.2 Active Help

BNDDUP05.C03 0000218425 A.2 A.8 A.4 1/2/20 1:40 PM Released

Displays information about the selected decision or field.

3.1.3 Edit a Drycode

BNDDUP05.C04 0000218424 A.2 A.8 A.3 1/2/20 1:40 PM Released

3.1.3.1 Current Group

BNDDUP05.C05 0000218469 A.2 A.8 A.4 1/2/20 1:40 PM Released

Displays the selected group.

3.1.3.2 Current Group # (Number)

BNDDUP05.C06 0000218468 A.2 A.8 A.4 1/2/20 1:40 PM Released

Displays the number for the selected group.

3.1.3.3 Drycode Number

BNDDUP05.C07 0000218467 A.2 A.8 A.3 1/2/20 1:40 PM Released

Click on the arrows to the right of the **Drycode Number** field to select a drycode number to change or create.

3.1.3.4 Drycode Name

BNDDUP05.C08 0000218466 A.2 A.8 A.3 1/2/20 1:40 PM Released

This field displays the name of the drycode number selected above. If the drycode number is not associated with a drycode, type a name for the new drycode here.

3.1.3.5 Load Size

BNDDUP05.C09 0000218464 A.2 A.8 A.3 1/2/20 1:40 PM Released

0 - Full Load drycode used when the dryer is loaded at its normal full capacity, such as two 150-pound (68 kg) cakes loaded into a dryer rated for 200 to 350 pounds (91 to 158 kg)

1 - Partial Load drycode used when the dryer is loaded at less than its full capacity, such as one 150-pound (68 kg) cake loaded into a dryer rated for 200 to 350 pounds (91 to 158 kg)

3.1.3.6 Edit Drycode button

BNDDUP05.C10 0000218463 A.2 A.8 A.3 1/2/20 1:40 PM Released

Click this button to view the **Drycode Information** display.

3.1.3.7 Drycode Parameters

BNDDUP05.C11 0000218462 A.2 A.8 A.3 1/2/20 1:40 PM Released

3.1.3.7.1 Header Information

BNDDUP05.C12 0000218461 A.2 A.8 A.3 1/2/20 1:40 PM Released

Figure 10. Drycode Configuration Display

Header Information

Legend

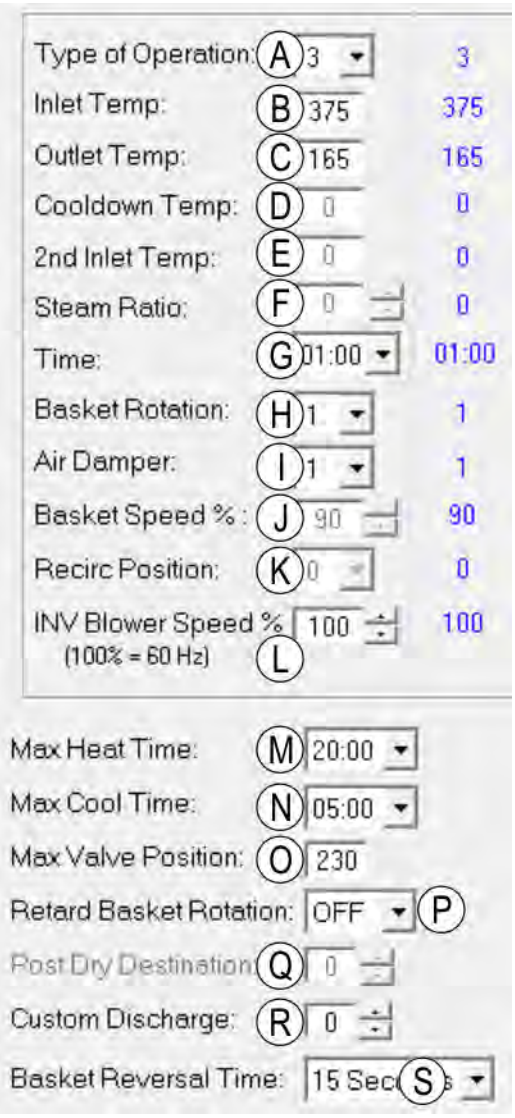
A . . . Group name and **Group number**
B . . . Drycode Name
C . . . Drycode number and **Load Size**
D . . . Current Step
E . . . Decisions area

3.1.3.7.2 Drycode Decisions

BNDDUP05.C13 0000218498 A.2 A.8 A.3 1/2/20 1:40 PM Released

Figure 11. Drycode Configuration Decisions

Typical



Legend

A . . . Type of Operation
B . . . Inlet Temp (Temperature)
C . . . Outlet Temp (Temperature)
D . . . Cooldown Temp (Temperature)
E . . . 2nd Inlet Temp (Temperature)
F . . . Steam Ratio
G . . . Time
H . . . Basket Rotation
I . . . Air Damper
J . . . Basket Speed %
K . . . Recirc (Recirculation) Position
L . . . INV (Inverter) Blower Speed %
M . . . Max (Maximum) Heat Time
N . . . Max (Maximum) Cool Time
O . . . Max (Maximum) Valve Position
P . . . Retard Basket Rotation
Q . . . Post Dry Destination
R . . . Custom Discharge
S . . . Basket Reversal Time

3.1.3.7.2.1 Type of Operation

BNDDUP05.C14 0000218552 A.2 A.8 A.4 1/2/20 1:40 PM Released

0 = Cooldown The gas valve or steam valve closes. The programmed **Time** begins 15 seconds after the programmed **Cooldown Temperature** is achieved.

1 = Time The microprocessor monitors the inlet temperature and the outlet temperature for the programmed time. The programmed **Outlet Temperature** limits the time. The next step begins when the programmed **Time** for this step expires.

2 = Inlet After the desired outlet temperature is achieved, the microprocessor compares the inlet temperature to the programmed **Second Inlet Temperature**. The timer starts after the programmed **Second Inlet Temperature** has been achieved for 15 seconds and the outlet temperature remains within 2° of the programmed **Outlet Temperature**.

3 = Outlet + (gas dryers only) The timer starts running 15 seconds after the desired **Inlet Temperature** is achieved and when the measured outlet temperature is within 2° of the desired **Outlet Temperature**.
3 = On-Off (not for gas dryers) The outlet temperature is monitored by the processor. The steam valve turns on when the measured outlet temperature falls below **Delta** degrees less than the programmed **Outlet Temperature**. The steam valve turns off when the measured outlet temperature rises **Delta** degrees above the programmed **Outlet Temperature**.
4 = Tumble The gas valve shuts off and the basket rotates for the programmed time.
5 = Tumble + Air The gas valve shuts off, the blower turns on, and the basket rotates for the programmed time.
6 = Steam Ratio The microprocessor measures the inlet temperature and outlet temperature every 5 seconds. A proprietary algorithm determines a ratio of inlet to outlet temperatures. The timer starts when the calculated ratio is greater than or equal to the programmed **Steam Ratio**.

3.1.3.7.2.2 Inlet Temperature

BNDDUP05.C15 0000218551 A.2 A.8 A.3 1/2/20 1:40 PM Released

Hotter inlet temperatures make the goods hotter. Very hot inlet temperatures can damage some goods.

200°F (93°C) lower limit for all dryers
450°F (232°C) upper limit for non-64058 dryers
500°F (260°C) upper limit for 64058 dryers

3.1.3.7.2.3 Outlet Temperature

BNDDUP05.C16 0000218550 A.2 A.8 A.4 1/2/20 1:40 PM Released

90°F (32°C) lower limit for all dryers
185°F (85°C) upper limit for non-64058 dryers and all CSA-certified dryers
195°F (90°C) upper limit for 64058 dryers except CSA-certified models

3.1.3.7.2.4 Cooldown Temperature

BNDDUP05.C17 0000218549 A.2 A.8 A.3 1/2/20 1:40 PM Released

This temperature determines when the goods are cool enough to discharge.

90°F (32°C) lower limit
214°F (101°C) upper limit

3.1.3.7.2.5 2nd Inlet Temperature

BNDDUP05.C18 0000218548 A.2 A.8 A.3 1/2/20 1:40 PM Released

After the desired outlet temperature is achieved, the microprocessor compares the inlet temperature to the programmed **Second Inlet Temperature**.The timer starts after the programmed **Second Inlet Temperature** has been achieved for 15 seconds and the outlet temperature remains within 2° of the programmed **Outlet Temperature**.

200°F (93°C) lower limit for all dryers
450°F (232°C) upper limit for non-64058 dryers

3.1.3.7.2.6 Steam Ratio

BNDDUP05.C19 0000218547 A.2 A.8 A.3 1/2/20 1:40 PM Released

This value is used in steam dryers when the operation is a type 6 (Steam Ratio). A cooldown step usually follows a steam ratio step.

100 lower limit for all dryers
150 upper limit for all dryers

3.1.3.7.2.7 Time

BNDDUP05.C20 0000218546 A.2 A.8 A.4 1/2/20 1:40 PM Released

Duration for the current step.

00:00 minimum value
28:15 maximum value

3.1.3.7.2.8 Basket Rotation

BNDDUP05.C21 0000218545 A.2 A.8 A.4 1/2/20 1:40 PM Released

Direction of basket rotation.

0 one direction; basket rotates anti-clockwise only
1 two directions; basket alternates between clockwise and anti-clockwise rotation

3.1.3.7.2.9 Air Damper

BNDDUP05.C22 0000218544 A.2 A.8 A.4 1/2/20 1:40 PM Released

The position of the main air damper.

0 maximum air flow (100 percent open)
1 less than maximum air flow (approximately 75 percent open)
2 more than minimum air flow (approximately 60 percent open)

3.1.3.7.2.10 Basket Speed Percentage

BNDDUP05.C23 0000218881 A.2 A.8 A.4 1/2/20 1:40 PM Released

Basket speed during this step.

50 percent minimum value; approximately 17 revolutions per minute
100 percent default value; approximately 33 revolutions per minute
120 percent maximum value; approximately 40 revolutions per minute

3.1.3.7.2.11 Recirculation Position

BNDDUP05.C24 0000218880 A.2 A.8 A.3 1/2/20 1:40 PM Released

0 disable recirculation
1 enable recirculation

3.1.3.7.2.12 Inverter Blower Speed Percentage

BNDDUP05.C25 0000218879 A.2 A.8 A.3 1/2/20 1:40 PM Released

Main blower speed Max 100% = 60 hz to a Min of 60% = 36 hz. For Milnor®'s defined 'Green' mode the blower should be set to 75% = 45Hz.

60 percent minimum variable blower speed; 36 Hz
75 percent Milnor® "Green" mode speed; 45 Hz
100 percent maximum variable blower speed; 60 Hz

3.1.3.7.2.13 Maximum Heat Time

BNDDUP05.C26 0000218878 A.2 A.8 A.4 1/2/20 1:40 PM Released

Maximum duration of the drycode, excluding cooldown.

01:00 minimum value
60:00 maximum value

3.1.3.7.2.14 Maximum Cool Time

BNDDUP05.C27 0000218877 A.2 A.8 A.3 1/2/20 1:40 PM Released

Maximum duration of the cooldown step of this formula.

01:00 minimum value
10:00 maximum value

3.1.3.7.2.15 Maximum Valve Position

BNDDUP05.C28 0000218876 A.2 A.8 A.3 1/2/20 1:40 PM Released

Maximum valve position for modulating gas valve. Greater valve position values cause hotter inlet air temperatures.

50 minimum value; partially open

255 maximum value; fully open

3.1.3.7.2.16 Retard Basket Rotation

BNDDUP05.C29 0000218875 A.2 A.8 A.4 1/2/20 1:40 PM Released

Slows rotation in one direction to helps goods fall away from the basket; clockwise for left-side dryers and anti-clockwise for right-side dryers.

OFF basket rotates a programmed **Basket Speed Percentage** in both directions

9 percent minimum non-zero value; basket rotates 9 percent slower than the programmed **Basket Speed Percentage** in the direction described above

17 percent maximum value; basket rotates 17 percent slower than the programmed **Basket Speed Percentage** in the direction described above

3.1.3.7.2.17 Post-Dry Destination

BNDDUP05.C30 0000218874 A.2 A.8 A.3 1/2/20 1:40 PM Released

Used by stand alone dryers (manually loaded) which do not pass destination codes. Each drycode can have one destination code assigned.

0 minimum value for the destination

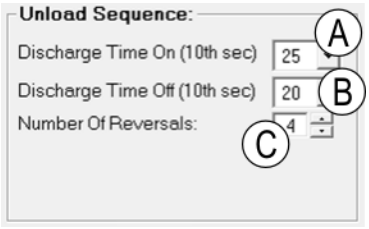
15 maximum value for the destination

3.1.3.7.2.18 Custom Discharge

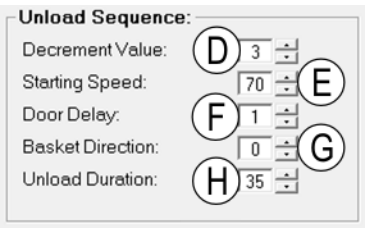
BNDDUP05.C31 0000218873 A.2 A.8 A.3 1/2/20 1:40 PM Released

In standard discharge (**Custom Discharge** = 0) the dryer jogs the basket to discharge the goods. In custom discharge (**Custom Discharge** = 1) the operator programs the parameters of the discharge sequence. Select custom discharge if goods clump together during the discharge operation.

Figure 12. Drycode Unload Sequence Decisions

Custom Discharge = 0	Legend
	**A . . .** Discharge Time On **B . . .** Discharge Time Off **C . . .** Number of Reversals **D . . .** Decrement Value **E . . .** Starting Speed **F . . .** Door Delay **G . . .** Basket Direction **H . . .** Unload Duration

Drycode Unload Sequence Decisions (cont'd.)

Custom Discharge = 1	
	

3.1.3.7.2.19 Discharge Time On (10th second)

BNDDUP05.C32 0000218973 A.2 A.8 A.4 1/2/20 1:40 PM Released

The time in 10ths of a second that the motor turns the basket in each direction before a reversal.

5 minimum value; motor on for 1/2 second
99 maximum value; motor on for 9.9 seconds

3.1.3.7.2.20 Discharge Time Off (10th second)

BNDDUP05.C33 0000218972 A.2 A.8 A.4 1/2/20 1:40 PM Released

The time in 10ths of a second that the basket coasts before a change of direction.

5 minimum value; motor off for 1/2 second before reversing
99 maximum value; motor off for 9.9 seconds before reversing

3.1.3.7.2.21 Number of Reversals

BNDDUP05.C34 0000218971 A.2 A.8 A.5 1/2/20 1:40 PM Released

The number of times the basket will change direction during the discharge sequence.

2 minimum value for number of **Discharge Time On** cycles
19 maximum value for number of **Discharge Time On** cycles

3.1.3.7.2.22 Decrement Value

BNDDUP05.C35 0000218970 A.2 A.8 A.4 1/2/20 1:40 PM Released

Percent of **Starting Speed** RPMs subtracted from the basket after a minimum of 2 reversals. The basket gradually slows.

0 minimum percent to slow at each interval
15 maximum percent to slow at each interval

3.1.3.7.2.23 Starting Speed

BNDDUP05.C36 0000218969 A.2 A.8 A.4 1/2/20 1:40 PM Released

Percent of default speed (approximately 32 RPMs).

20 minimum value
120 maximum value

3.1.3.7.2.24 Door Delay

BNDDUP05.C37 0000218968 A.2 A.8 A.4 1/2/20 1:40 PM Released

The time in seconds after the discharge sequence begins and before the discharge door opens; usually set to **0**.

0 no delay
1 1 second

2 2 seconds

3.1.3.7.2.25 Basket Direction

BNDDUP05.C38 0000218967 A.2 A.8 A.4 1/2/20 1:40 PM Released

Basket rotation direction during the discharge sequence.

0 clockwise
1 anti-clockwise

3.1.3.7.2.26 Unload Duration

BNDDUP05.C39 0000218966 A.2 A.8 A.3 1/2/20 1:40 PM Released

The time in seconds from 0 to 255 (4 min and 15 sec), the discharge sequence is to last.

0 minimum value
35 typical value (35 seconds)
255 maximum value (4:15)

3.1.3.7.2.27 Basket Reversal Time

BNDDUP05.C40 0000218965 A.2 A.8 A.3 1/2/20 1:40 PM Released

The time in seconds that the basket turns before an optional reversal.

15 15 seconds
20 20 seconds
25 25 seconds

3.1.3.8 Delete a Drycode button

BNDDUP05.C41 0000218964 A.2 A.8 A.4 1/2/20 1:40 PM Released

Click the **Delete a Drycode** button to open the **Delete a Drycode** display.

3.1.3.9 Load Default Drycodes

BNDDUP05.C42 0000219032 A.2 A.8 A.4 1/2/20 1:40 PM Released

Click the **Load Default Drycodes** button to send the factory default drycodes to the dryer. This action is available when the **Existing Drycodes** area is empty.

3.1.3.10 Copy Drycodes

BNDDUP05.C43 0000219031 A.2 A.8 A.4 1/2/20 1:40 PM Released

Click the **Copy Drycodes** button to open a window for copying a drycode within a group to an empty drycode number in the same group.

3.1.4 Existing Drycodes

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The **Existing Drycodes** area displays the list of existing drycodes, corresponding drycode numbers, and the load size (full and/or partial) for each drycode.

3.1.5 Exit button

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Click the **Exit** button to return to the main Milnor® **Dryer Programmer** screen.