Customized Controls

Powder Line

Touchscreen Operation Manual

herman miller

Canton, GA 30114
Contact Person:
Phone Number:
Job Number: 5576
CC Phone Number:

INDEX

Automatic Mode-Starting of the SBS Powder Line System.

The System may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.
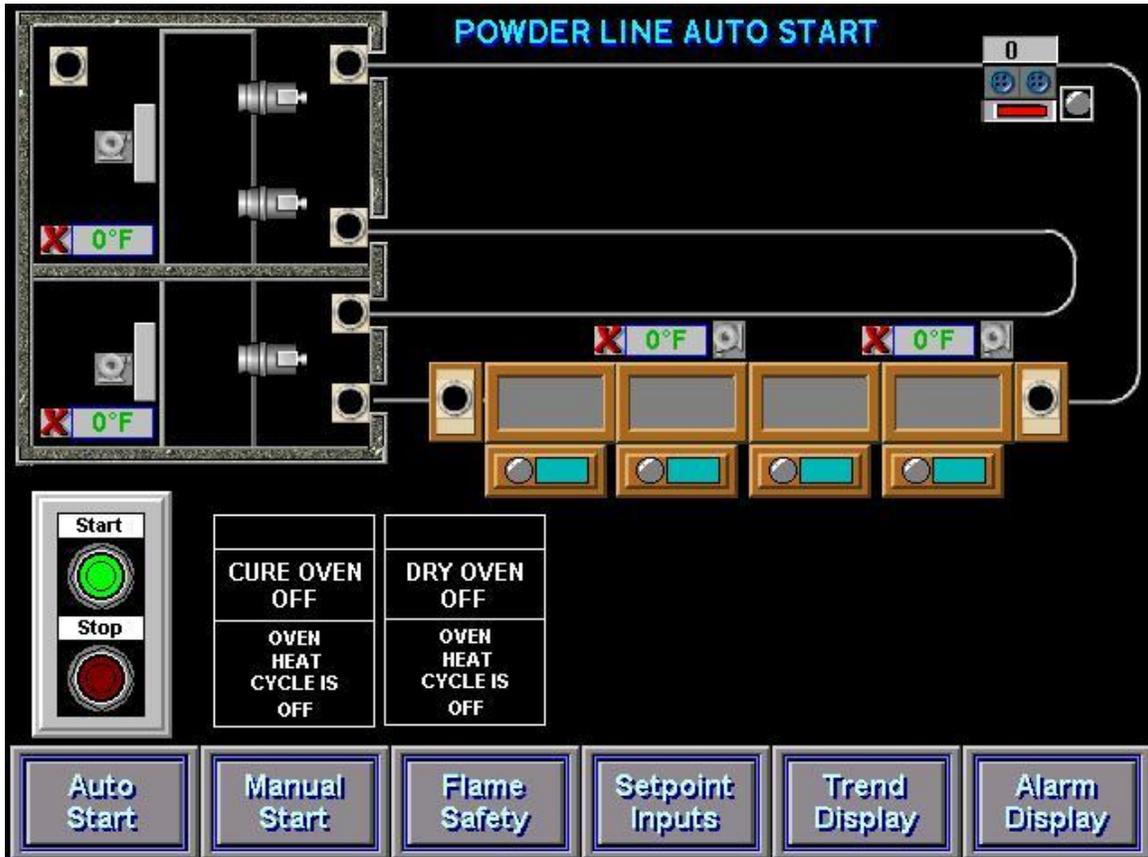
The Washer and Ovens must be in **Auto Mode** to be started Automatically, the Conveyor will not start Automatically but must be started separately.

If the Component is in **Auto** mode then the Burner Message will have a Black box and say Auto, if it is in **Manual** mode then the Message will have a Black box and will say Manual.

Auto and **Manual** modes must be toggled from individual **Manual Start** screens.

The **Cure Oven** will start when the **Start Button** is depressed if it is in **Auto** mode, all of the Oven components and fans will step start. The Honeywell controller will start the Burner Fan and following a Twelve-Minute Purge time, the burner will light.

The **Dry-Off Oven** will start when the **Start Button** is depressed if it is in **Auto** mode, all of the Oven components and fans will step start. The Honeywell controller will start the Burner Fan and following a Twelve-Minute Purge time, the burner will light.

The **Washer** will start when the **Start Button** is depressed if it is in **Auto** mode. The Honeywell controller will start the Burner Fan and following a two and one-half Minute Purge time, the burner will light. The pump motors will not step-start until the process temperatures are above 100 degrees Fahrenheit.

Automatic Mode-Starting of the SBS Powder Line System.

The **Cure Oven Indicator** will display the following States of the Oven Burner.
> **Oven Heat Cycle Off**
> **Oven Heat Cycle Started**
> **Oven Burner Purging**
> **Oven Burner Lighting**
> **Oven Burner Preheating**
> **Oven Burner Temperature OK**
> **Flame Enable Switch is Off**
> **Oven Temp Setpoint Change**
> **Oven Temp Out of Range**
> **Oven is Cooling Down**
> **Oven Burner Relay Alarm**

The **Conveyor Indicator** displays the following States of the Conveyor.
> **Conveyor Disabled**
> **Conveyor Enabled**
> **Conveyor is Running Forward**
> **Conveyor is Running Reverse**
> **Conveyor Frequency Drive Faulted (Must Reset)**

The **Dry-Off Oven Indicator** will display the following States of the Oven Burner.
> **Oven Heat Cycle Off**
> **Oven Heat Cycle Started**
> **Oven Burner Purging**
> **Oven Burner Lighting**
> **Oven Burner Preheating**
> **Oven Burner Temperature OK**
> **Flame Enable Switch is Off**
> **Oven Temp Setpoint Change**
> **Oven Temp Out of Range**
> **Oven is Cooling Down**
> **Oven Burner Relay Alarm**

To Stop the **Cure Oven** in Automatic Mode:
Depress the **Stop Button**, the Oven burner will turn off but all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees. When the Oven has completed its Cool-Down all Fans and Motors will turn off.

To Stop the **Washer** in Automatic Mode:
Depress the **Stop Button**, the Washer Burners and pumps will turn off but the Exhaust Fans will continue running for Ten Minutes to evacuate excess steam from the Washer.

To Stop the **Dry-Off Oven** in Automatic Mode:
Depress the **Stop Button**, the Oven burner will turn off but all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees. When the Oven has completed its Cool-Down all Fans and Motors will turn off.
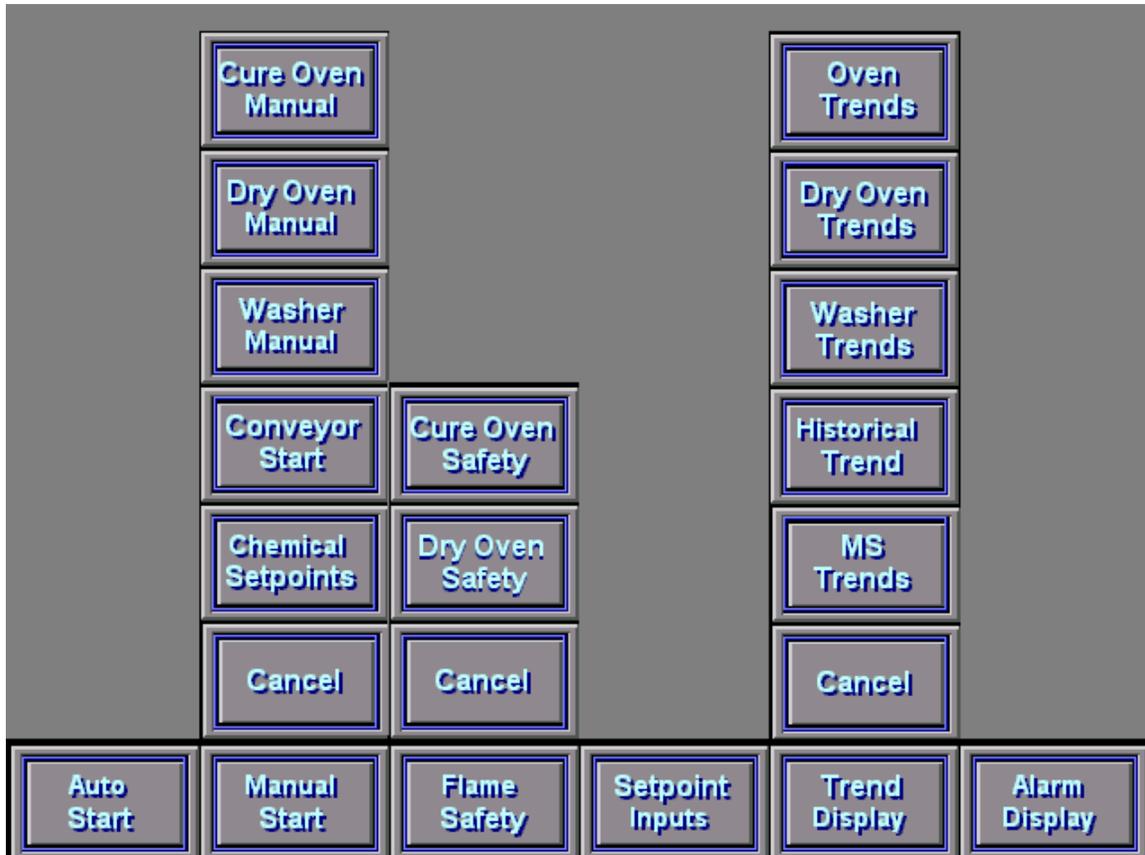
Main Menu- Navigating to Different Screens

The function Keys are Located at the bottom of every screen.
They are used to navigate to all of the screens available.

The **Auto Start** Selection will display the **Auto Start** Screen
The <u>**Manual Start**</u> Selection will display <u>**Manual Start Option Keys.**</u>
The **Cure Oven Manual** Selection will display the **Cure Oven Manual** Screen
The **Dry Oven Manual** Selection will display the **Dry Oven Manual** Screen
The **Washer Manual** Selection will display the **Washer Manual** Screen.
The **Conveyor** Selection will display the **Conveyor Manual** Screen.
The **Chemical Setpoints** Selection will display the **Chemical Setpoints** Screen.
The <u>**Flame Safety**</u> Selection will display <u>**Flame Safety Option Keys**</u>.
The **Cure Oven Display** Selection will display the **Oven Flame Safety Display** Screen.
The **Dry Oven Display** Selection will display the **Dry Oven Flame Safety Display.**
The **Setpoint Inputs** Selection displays **Setpoint Temperatures** and **Conveyor Speed.**
The <u>**Trend Display**</u> Selection will display <u>**Trend Display Option Keys**</u>.
The **Cure Oven Trend** Selection displays the **6-Hour Trend** Screen for the Cure Oven.
The **Dry Oven Trend** Selection displays the **6-Hour Trend** Screen for the Cure Oven.
The **Washer Trend** Selection displays the **6-Hour Trend** Screen for the Washer.
The **Historical Trend** Selection displays the **Historical Trend** Screen**.**.
The **MS Trend** Selection displays the **Chemical Trend** Screen for the Washer.
The **Alarm Display** Selection will display the **Alarm Display** Screen.

Automatic Mode-Starting of the Powder Line Cure Oven

The Cure Oven may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.
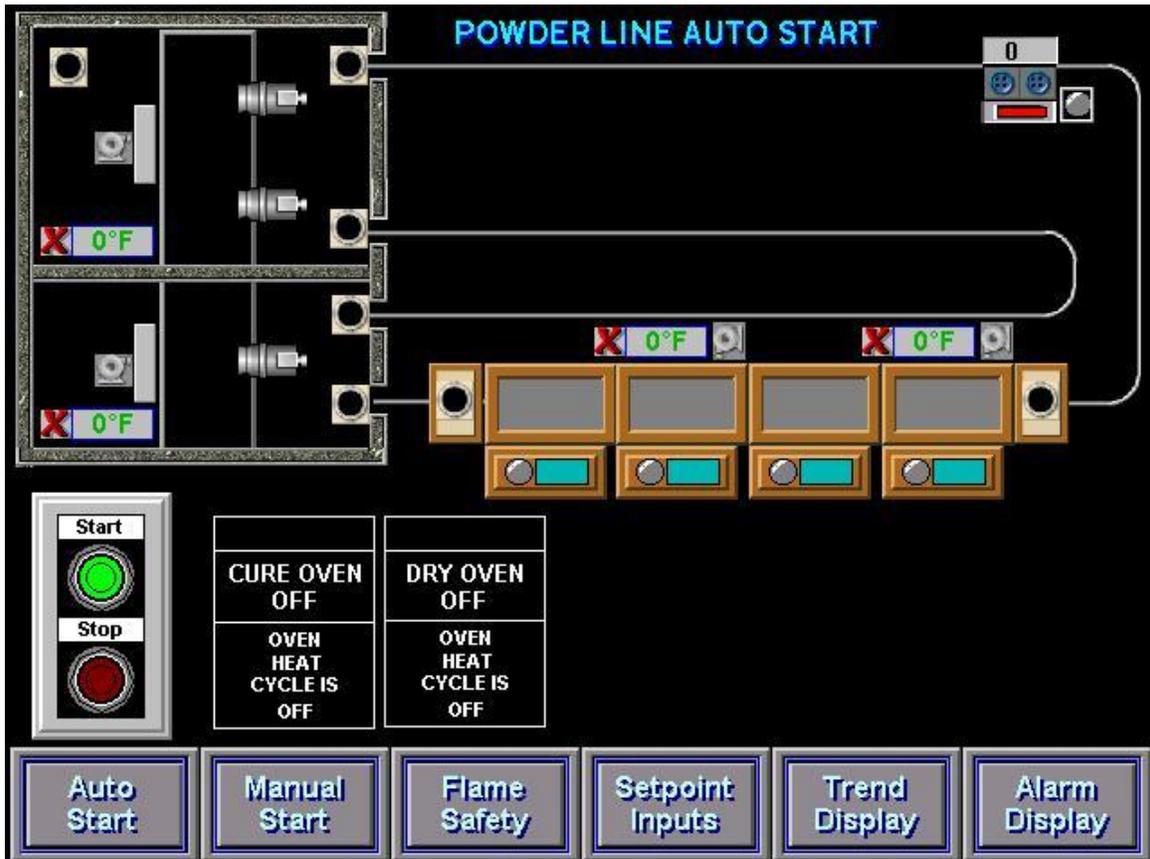
The Cure Oven must be in **Auto Mode** to be started automatically. If **Auto** is not displayed to the right of the **Start Button** then it must be toggled from **Manual** to **Auto.**

The **Start Button** is depressed to **Automatically** start all of the Oven components.

The **Oven Heat Cycle Off** display will change to **Oven Heat Cycle Started** and the burner will light following a **Twelve-Minute Purge**.

Automatic Mode-Starting of the Powder Line Cure Oven

The **Cure Oven Indicator** displays the following States of the Oven Burner.
  Oven Heat Cycle Off
  Oven Heat Cycle Started
  Oven Burner Purging
  Oven Burner Lighting
  Oven Burner Preheating
  Oven Burner Temperature OK
  Flame Enable Switch is Off
  Oven Temp Setpoint Change
  Oven Temp Out of Range
  Oven is Cooling Down
  Oven Burner Relay Alarm

  To Stop the Oven in Automatic Mode:
Depress the **Stop Button**, the Oven burner will turn off but all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees.

When the Oven has completed its Cool-Down all Fans and Motors will turn off.

The Current Oven Burner Temperatures are displayed to the right of the Start Button. The Oven Range of Temperature is 0 to 500 Degrees Fahrenheit.

Automatic Mode-Starting of the Powder Line Dry-Off Oven

The Dry-Off Oven may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.
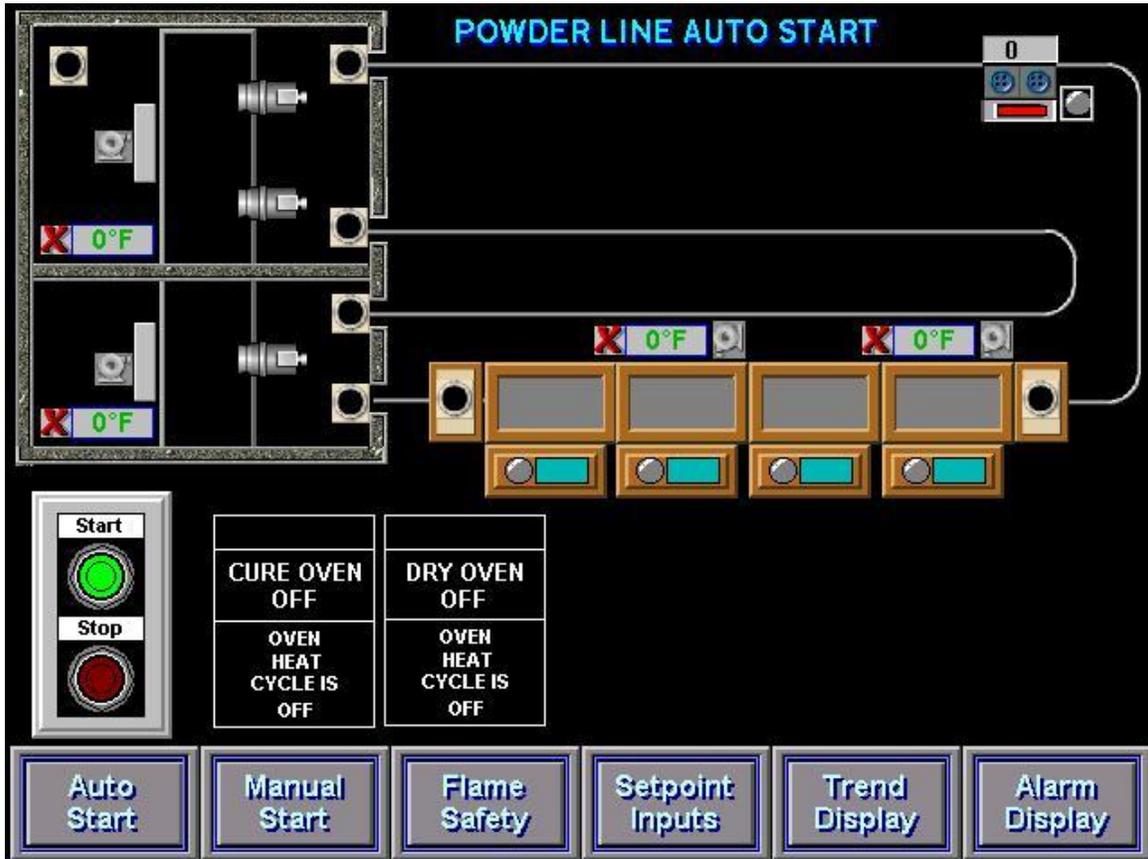
The Dry-Off Oven must be in **Auto Mode** to be started automatically.

If **Auto** is not displayed to the right of the **Start Button** then it must be toggled from **Manual** to **Auto.**

The **Start Button** is depressed to **Automatically** start all of the Oven components.

The **Oven Heat Cycle Off** display will change to **Oven Heat Cycle Started** and the burner will light following a **Twelve-Minute Purge**.

Automatic Mode-Starting of the Powder Line Dry-Off Oven

The **Dry-Off Oven Indicator** displays the following States of the Oven Burner.
   Oven Heat Cycle Off
   Oven Heat Cycle Started
   Oven Burner Purging
   Oven Burner Lighting
   Oven Burner Preheating
   Oven Burner Temperature OK
   Flame Enable Switch is Off
   Oven Temp Setpoint Change
   Oven Temp Out of Range
   Oven is Cooling Down
   Oven Burner Relay Alarm

   To Stop the Dry-Off Oven in Automatic Mode:
Depress the **Stop Button**, the Oven burner will turn off but all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees.

When the Oven has completed its Cool-Down all Fans and Motors will turn off.

The Current Oven Burner Temperatures are displayed to the right of the Start Button. The Oven Range of Temperature is 0 to 500 Degrees Fahrenheit.

Automatic Mode-Starting of the Powder Line Washer

The Washer may be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen.
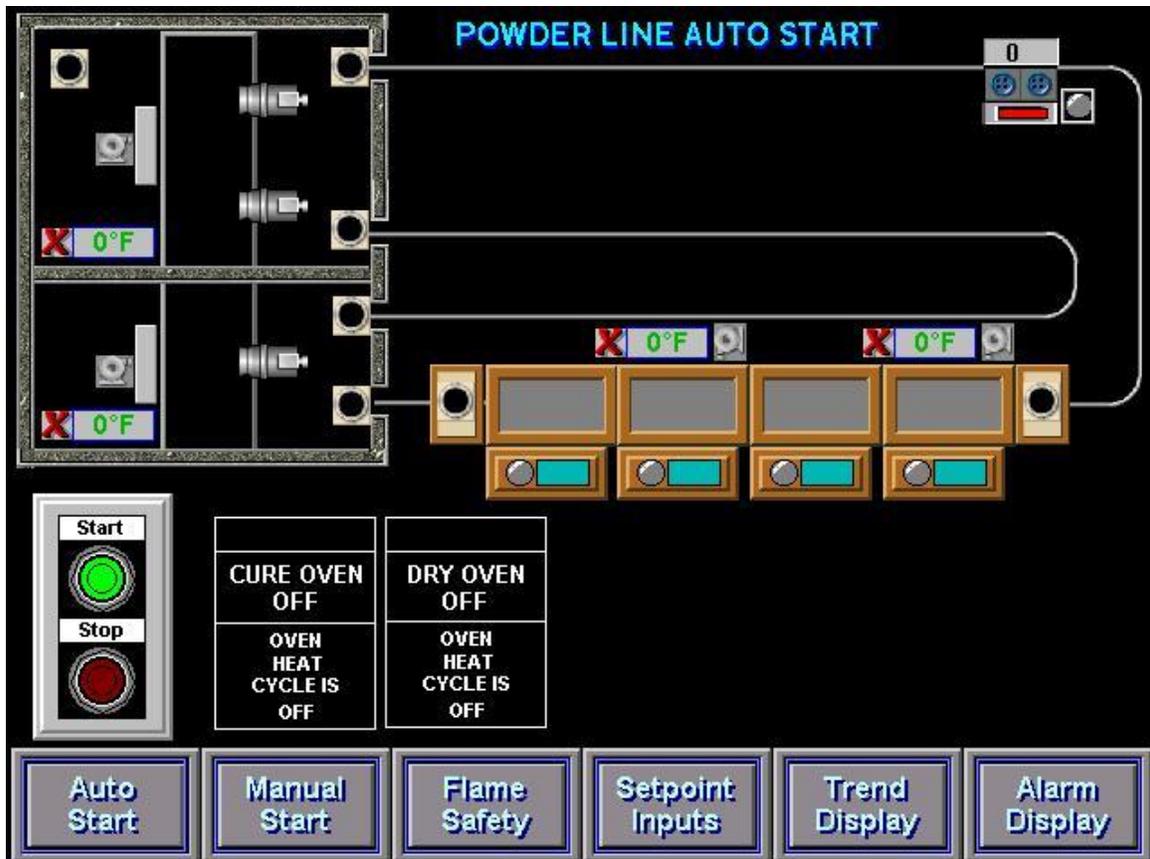
The Washer must be in **Auto Mode** to be started automatically.

If **Auto** is not displayed to the right of the **Start Button** then it must be toggled from **Manual** to **Auto.**
The **Start Button** is depressed to **Automatically** start all of the Washer components.

Started will be displayed above the **Start Button** and the burners will light but the pump motors will not step-start until the process temperatures are above 100 Degrees Fahrenheit.

Automatic Mode-Starting of the Powder Line Conveyor

The Conveyor can also be started from the **Conveyor Screen** accessed by depressing the **Manual Start** and then the **Conveyor Start** Function button in the bottom left corner of any screen.

The Conveyor will operate in **Auto Mode** or **Manual Mode** and may be started by depressing the **Start Button** on the **Conveyor Manual Screen.**
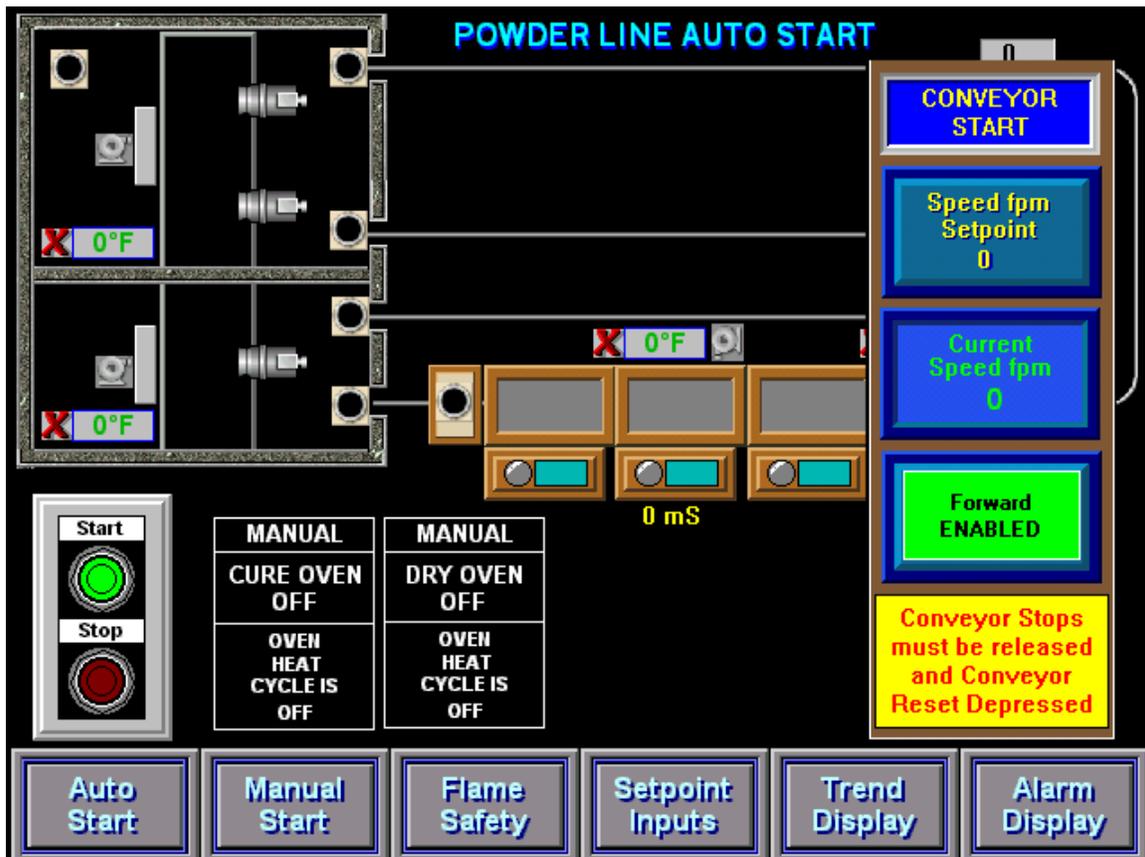
Automatic Mode-Starting of the Powder Line Conveyor

The **Conveyor Indicator** on the **Conveyor Manual Start Screen** shows the following States of the Conveyor.
     Conveyor Contactor Disabled
     Conveyor is Starting
     Conveyor Running Forward
     Conveyor Running Reverse
     Conveyor Drive Faulted

To Stop the Conveyor in Automatic Mode:
Depress the **Conveyor Stop Button**, the Conveyor will Coast to a Stop in 5 Seconds.

To Stop the Conveyor in an Emergency:
Depress any of the **Conveyor Stops** at their remote locations or at the Control Panel, the Conveyor will come to an immediate Stop. The **Stop Switch must then be Released** and the **Conveyor Contactor must be Reset** at the Control Panel before restarting the Conveyor.
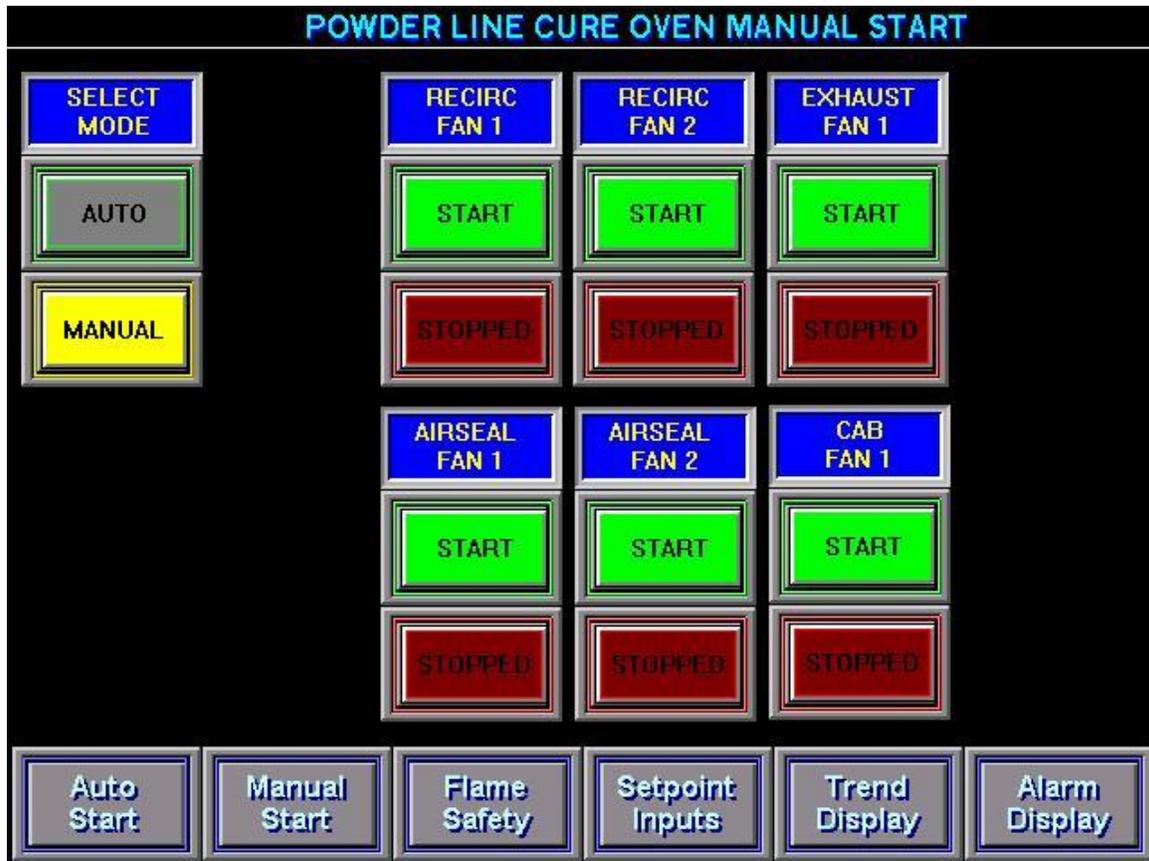
The Current Conveyor Speed is displayed on the **Auto Start Screen**, the **Conveyor Manual Screen** or the **System Setpoints Screen**.

The Conveyor Range of Speed is 5 FPM to 15 FPM.

After the Conveyor is running, the Conveyor Message Box will Display **Conveyor Running Forward** and the **Conveyor Speed Display** will change from 0.0 to the Actual Running Speed.

Manual Mode-Starting of the Powder Line Cure Oven

        The Cure Oven must be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen. Individual motors may then be started from the **Cure Oven Manual Screen** accessed by depressing the **Manual Start** Function button on the bottom of any screen.

        All components must be in **Manual Mode** to be started Manually. If **Manual** is not displayed and flashing on the left side of the screen then it must be toggled from the **Auto** to **Manual.**

        The **Start Button** on the **Auto Start Screen** must already be depressed to enable all of the Motors to be Manually toggled On or Off.

After the individual Fans have started all of the individual Fan Start Switches will display **Running**.

        When the Oven is Stopped all of the individual Fan Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Cure Oven

Recirculation Fan 1 can be started when the button is <u>green</u> and the word **Start** is displayed.
Recirculation Fan 1 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Recirculation Fan 2 can be started when the button is <u>green</u> and the word **Start** is displayed.
Recirculation Fan 2 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Exhaust Fan can be started when the button is <u>green</u> and the word **Start** is displayed.
Exhaust Fan can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

CAB Fan 1 can be started when the button is <u>green</u> and the word **Start** is displayed.
CAB Fan 1 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Airseal Fan 1 can be started when the button is <u>green</u> and the word **Start** is displayed.
Airseal Fan 1 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Airseal Fan 2 can be started when the button is <u>green</u> and the word **Start** is displayed.
Airseal Fan 2 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

To Stop the Cure Oven in Manual Mode:

Depress the **Stop Button**, *all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees.*

When the Oven has Completed its Cool-Down all Fans and Motors will turn off.

The Current Oven Temperature is displayed below the Start/Stop Buttons.
The Oven Range of Temperature is 0 to 500 Degrees Fahrenheit.

After Oven is started, all of the individual Fan Start Switches will display **Running**.
When the Oven is Stopped all of the individual Fan Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Dry-Off Oven

The Dry-Off Oven must be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen. Individual motors may then be started from the **Dry-Off Oven Manual Screen** accessed by depressing the **Manual Start** Function button on the bottom of any screen.

All components must be in **Manual Mode** to be started Manually.
If **Manual** is not displayed and flashing on the left side of the screen then it must be toggled from the **Auto** to **Manual.**

The **Start Button** on the **Auto Start Screen** must already be depressed to enable all of the Motors to be Manually toggled On or Off.

After the individual Fans have started all of the individual Fan Start Switches will display **Running**.
When the Oven is Stopped all of the individual Fan Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Dry-Off Oven

Recirculation Fan 1 can be started when the button is <u>green</u> and the word **Start** is displayed.
Recirculation Fan 1 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Exhaust Fan can be started when the button is <u>green</u> and the word **Start** is displayed.
Exhaust Fan can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

CAB Fan 1 can be started when the button is <u>green</u> and the word **Start** is displayed.
CAB Fan 1 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Airseal Fan 1 can be started when the button is <u>green</u> and the word **Start** is displayed.
Airseal Fan 1 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Airseal Fan 2 can be started when the button is <u>green</u> and the word **Start** is displayed.
Airseal Fan 2 can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

To Stop the Dry-Off Oven in Manual Mode:

Depress the **Stop Button**, *<u>all of the Oven Fans will continue running until the Oven Temperature is Below 200 Degrees.</u>*

When the Oven has Completed its Cool-Down all Fans and Motors will turn off.

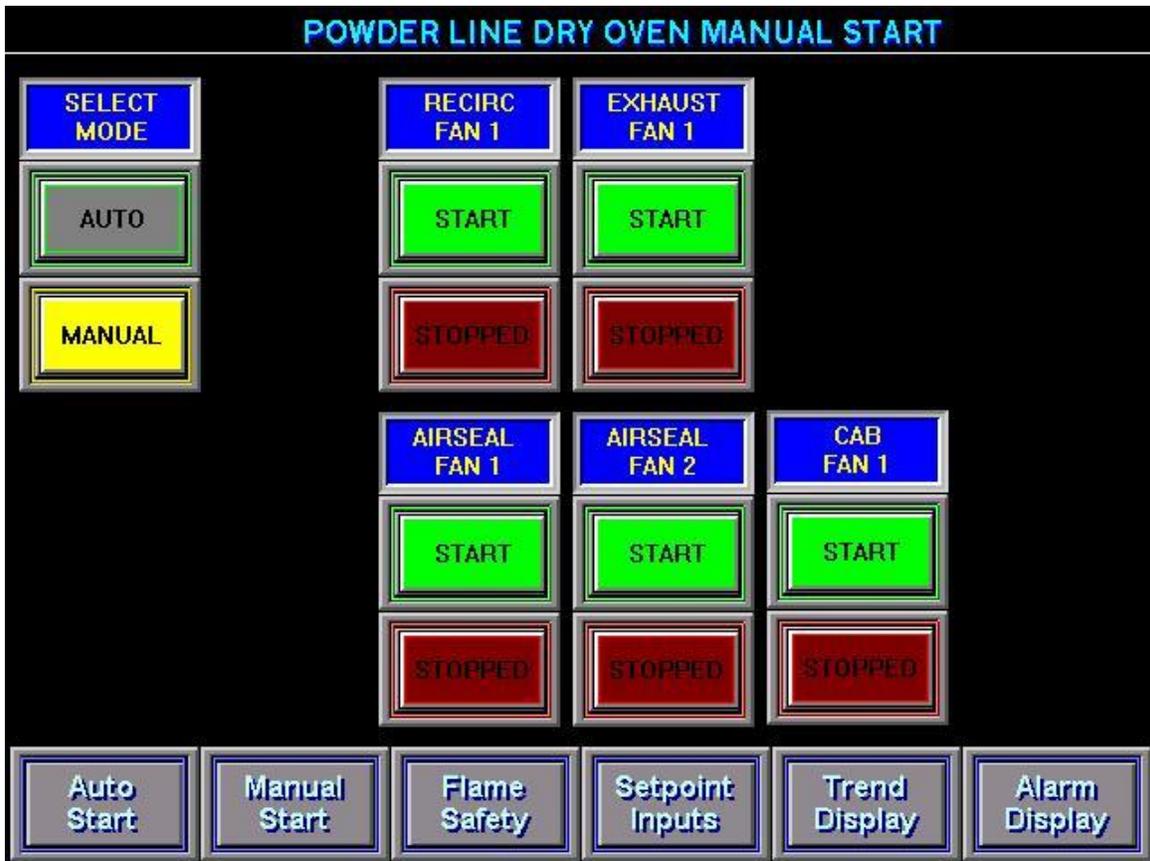The Current Oven Temperature is displayed below the Start/Stop Buttons.
The Oven Range of Temperature is 0 to 500 Degrees Fahrenheit.

After Oven is started, all of the individual Fan Start Switches will display **Running**.
When the Oven is Stopped all of the individual Fan Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Washer

The Washer must be started from the **Auto Start Screen** accessed by depressing the **Auto Start** Function button in the bottom left corner of any screen. Individual motors may then be started from the **Washer Manual** Screen accessed by depressing the **Manual Start** Function button on the bottom of any screen.

POWDER LINE WASHER MANUAL START

SELECT MODE		ENTRANCE FAN	EXIT FAN	CAB FAN 1	CAB FAN 3
AUTO		START	START	START	START
MANUAL		STOPPED	STOPPED	STOPPED	STOPPED
MS SETPOINT	MS SETPOINT	STAGE 1 PUMP	STAGE 2 PUMP	STAGE 3 PUMP	STAGE 4 RISER
Stage 1 MS 0##	Stage 2 MS 0##	START	START	START	START
		STOPPED	STOPPED	STOPPED	STOPPED
Auto Start	Manual Start	Flame Safety	Setpoint Inputs	Trend Display	Alarm Display

All components must be in **Manual Mode** to be started Manually. If **Manual** is not displayed in the box on the right of the screen then it must be toggled from the **Auto** to **Manual.**
The **Start Button** on the **Auto Start Screen** must be depressed to enable all of the Motors to be Manually toggled On or Off.

After the individual Pumps and Fans have started all of the individual Start Switches will display **Running**.
When the Washer is Stopped all of the individual Stop Switches will display **Stopped**.

Manual Mode-Starting of the Powder Line Washer

Stage 1 Pump can be started when the button is <u>green</u> and the word **Start** is displayed.
Stage 1 Pump can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Stage 2 Pump can be started when the button is <u>green</u> and the word **Start** is displayed.
Stage 2 Pump can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Stage 3 Pump can be started when the button is <u>green</u> and the word **Start** is displayed.
Stage 3 Pump can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Stage 4 Pump can be started when the button is <u>green</u> and the word **Start** is displayed.
Stage 4 Pump can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Entrance Exhaust Fan can be started when the button is <u>green</u> and the word **Start** is displayed.
Entrance Exhaust Fan can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Exit Exhaust Fan can be started when the button is <u>green</u> and the word **Start** is displayed.
Exit Exhaust Fan can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Burner 1 CAB can be started when the button is <u>green</u> and the word **Start** is displayed.
Burner 1 CAB can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

Burner 3 CAB can be started when the button is <u>green</u> and the word **Start** is displayed.
Burner 3 CAB can be stopped when the button is <u>red</u> and the word **Stop** is displayed.

To Stop the Washer in Manual Mode:
Depress the **Washer Stop Button**, *all of the Washer Pumps and Burners will stop but the Exhaust Fans will continue running for Ten Minutes to evacuate excess Steam from the Washer.*

System Setpoints-Entering New Setpoint Variables

The status of the System Temperature Setpoints and Current operating Temperatures are viewed by depressing the **System Setpoints** Button.

A new Temperature Setpoint Can be entered by depressing any of the Oven or Washer Temperature Setpoint buttons above the Current Setpoint Temperature.

A new Setpoint can be entered when the Keypad window is displayed

The Cure Oven Setpoint parameters are between 0 and 500 Degrees Fahrenheit.

The Dry Oven Setpoint parameters are between 0 and 500 Degrees Fahrenheit.

The Washer Setpoint parameters are between 0 and 160 Degrees Fahrenheit.

Cure Oven Display-Viewing the Cure Oven Burner Flame Safety

Pressing the **Cure Oven Display** Selection from the **Main Menu** screen can monitor the status of the **Cure Oven Burner Flame Safety**.
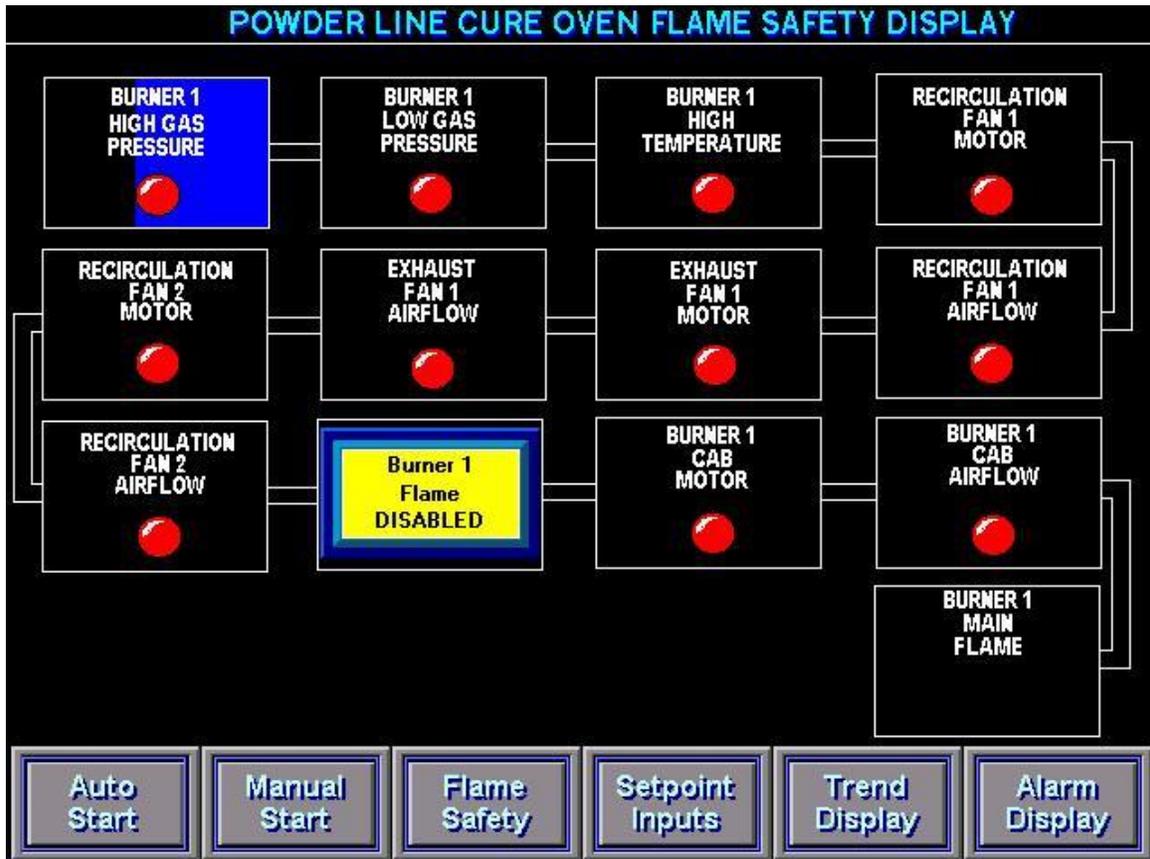
Each of the Flame Safeties are field wired in series, hence each must turn blue on the Display Screen sequentially starting from the **Emergency Stop Input, Master Control**.

If both **Gas Pressures** are in range then the Display will be blue up to the **High Temperature Switch**.

A Black **High Temperature Switch** indicates that it must be reset, it is located next to the Oven burner on top of the Oven.

As each Oven Fan is turned on its Airflow Switch will turn blue.

The Individual Burners may be disabled by depressing the **Flame Enable** buttons.

The **Purge Time** remaining will be displayed when all of the **Flame Safeties** are made.

The **Oven Burner Flame Off** will turn blue and display a Flame which indicates the Current Flame Output when a **Main Flame** is detected.

Dry-Off Oven Display-Viewing the Dry-Off Oven Burner Flame Safety

Pressing the **Dry-Off Oven Display** Selection from the **Main Menu** screen can monitor the status of the **Dry-Off Oven Burner Flame Safety**.

Each of the Flame Safeties are field wired in series, hence each must turn <u>blue</u> on the Display Screen sequentially starting from the **Emergency Stop Input, Master Control**.

If both **Gas Pressures** are in range then the Display will be <u>blue</u> up to the **High Temperature Switch**.

A black **High Temperature Switch** indicates that it must be reset, it is located next to the Oven burner on top of the Oven.
As each Oven Fan is turned on its Airflow Switch will turn <u>blue</u>.
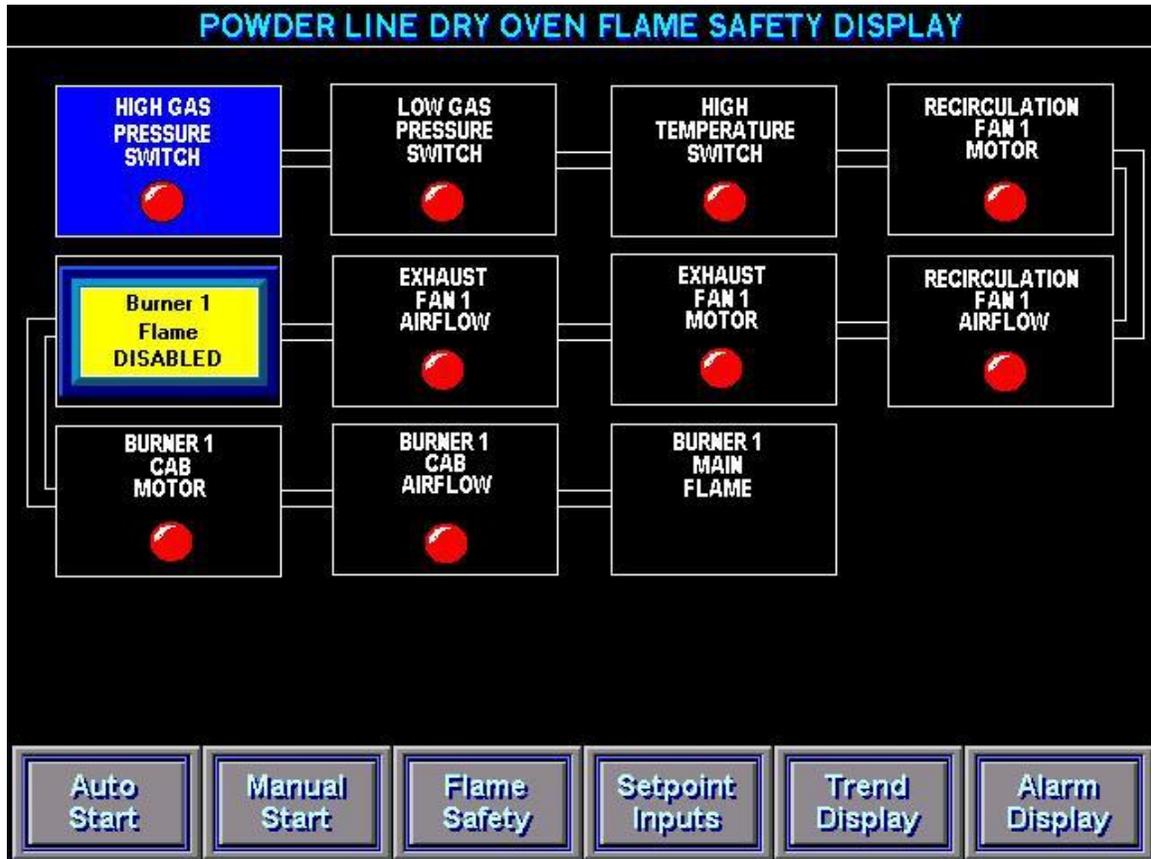
The Individual Burners may be disabled by depressing the **Flame Enable** buttons.

The **Purge Time** remaining will be displayed when all of the **Flame Safeties** are made.

The **Dry-Off Oven Burner Flame Off** will turn <u>blue </u>and display a Flame which indicates the Current Flame Output when a **Main Flame** is detected.

Cure Oven Trend Display

The status of the Combo Oven Temperatures and Setpoints are viewed on a Trend by depressing the **Cure Oven Trend** Button from any screen.
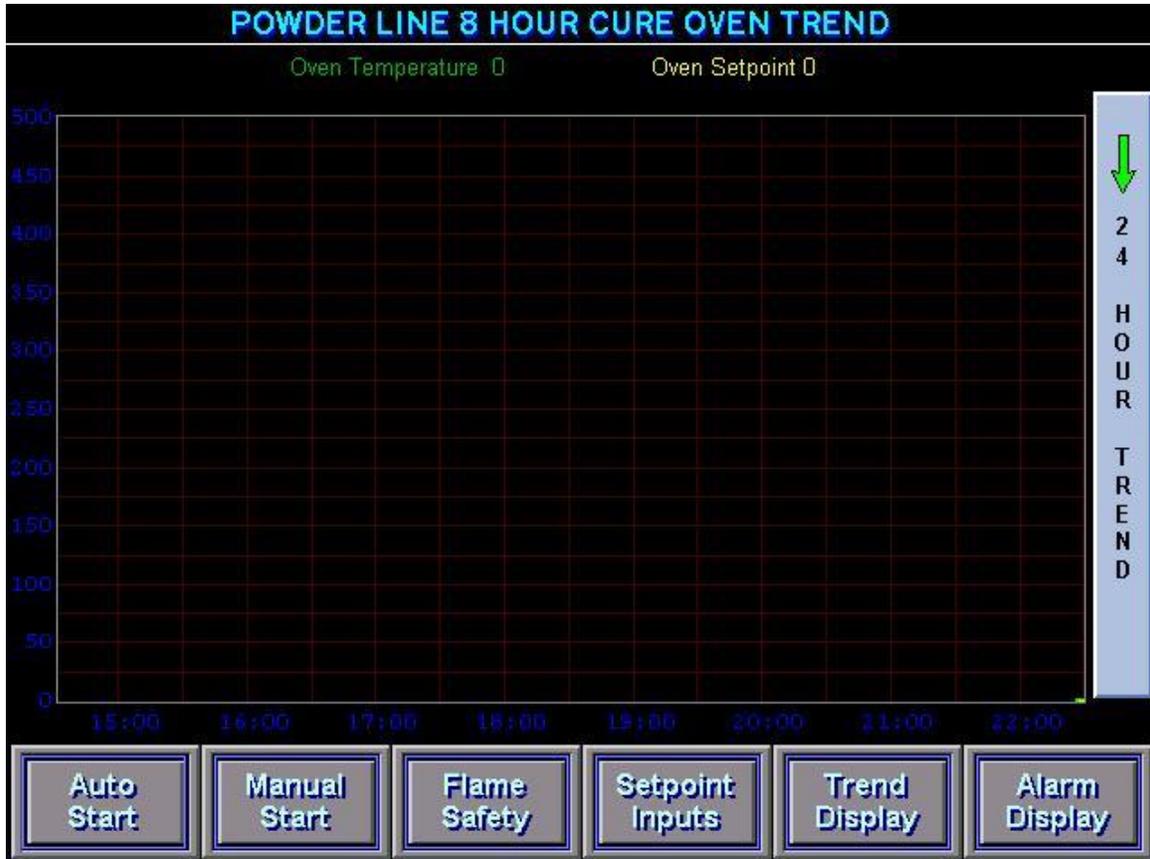
The recorded Temperatures move from **Right** to **Left** the way a Chart recorder operates.

The Temperatures and Setpoints are displayed in a Eight-Hour time span and may only be viewed while they are displayed.

The Cure Oven Trend Display will update every Two Minutes.

The **Burner 1 Temperature** is Displayed with a **Green Line**.
The **Burner 1 Setpoint** Temperature is Displayed with a **Yellow Line**.

Alarms-Viewing Current and Acknowledged Alarms

When a new alarm occurs the Alarm Master Screen is Automatically Displayed.
Depressing the **Alarm Master** from any screen will access the Alarm Screen.

IMPORTANT!

If an Alarm is Acknowledged with the **Acknowledge All** Button the PLC will Ignore the Alarm and the Beacon will turn Off.

If an Alarm is Reset with the **Reset All** Button then if the Alarm is still Active it will reactivate the Alarm Screen and Beacon and will be displayed again, if it is not still Active then it will not be displayed again.

POWDER LINE ALARM DISPLAY				
Date	Time	State	Cmt	

Update Successful

Acknowledge All   Reset All   18:00:00 PM 10/3/92

| Auto Start | Manual Start | Flame Safety | Setpoint Inputs | Trend Display | Alarm Display |

Alarm Messages- Currently Programmed Alarms

Currently Programmed Alarm are:

Cure Oven
Cure Oven Recirculation Fan 1 Airflow Alarm
Cure Oven Recirculation Fan 2 Airflow Alarm
Cure Oven Exhaust Fan Airflow Alarm
Cure Oven Recirculation Fan 1 Contactor Overload Alarm
Cure Oven Recirculation Fan 2 Contactor Overload Alarm
Cure Oven Airseal Fan 1 Contactor Overload Alarm
Cure Oven Airseal Fan 2 Contactor Overload Alarm
Cure Oven Exhaust Fan Contactor Overload Alarm
Cure Oven Burner Fan 1 Contactor Overload Alarm
Cure Oven Burner 1 High Gas Pressure Alarm
Cure Oven Burner 1 Low Gas Pressure Alarm
Cure Oven Burner 1 High Temperature Limit Switch Alarm
Cure Oven Burner 1 Honeywell Control Relay Alarm
Cure Oven Burner 1 Temperature Input Error
Cure Oven Burner 1 High Temperature Flame Off Alarm

Dry-Off Oven
Dry Oven Recirculation Fan 1 Airflow Alarm
Dry Oven Exhaust Fan Airflow Alarm
Dry Oven Recirculation Fan 1 Contactor Overload Alarm
Dry Oven Airseal Fan 1 Contactor Overload Alarm
Dry Oven Airseal Fan 2 Contactor Overload Alarm
Dry Oven Exhaust Fan Contactor Overload Alarm
Dry Oven Burner Fan 1 Contactor Overload Alarm
Dry Oven Burner 1 High Gas Pressure Alarm
Dry Oven Burner 1 Low Gas Pressure Alarm
Dry Oven Burner 1 High Temperature Limit Switch Alarm
Dry Oven Burner 1 Honeywell Control Relay Alarm
Dry Oven Burner 1 Temperature Input Error
Dry Oven Burner 1 High Temperature Flame Off Alarm

Alarm Messages- Currently Programmed Alarms

Currently Programmed Alarm are:

Washer
Washer Stage 1 Pump Contactor Overload Alarm
Washer Stage 2 Pump Contactor Overload Alarm
Washer Stage 3 Pump Contactor Overload Alarm
Washer Stage 4 Pump Contactor Overload Alarm
Washer Stage 1 Burner Fan Contactor Overload Alarm
Washer Stage 3 Burner Fan Contactor Overload Alarm
Washer Entrance Exhaust Fan Contactor Overload Alarm
Washer Exit Exhaust Fan Contactor Overload Alarm
Washer Stage 1 High Gas Pressure Alarm
Washer Stage 1 Low Gas Pressure Alarm
Washer Stage 1 Low Water Alarm
Washer Stage 1 Honeywell Control Relay Alarm
Washer Stage 1 Temperature Input Error Alarm
Washer Stage 3 High Gas Pressure Alarm
Washer Stage 3 Low Gas Pressure Alarm
Washer Stage 3 Low Water Alarm
Washer Stage 3 Honeywell Control Relay Alarm
Washer Stage 1 Temperature Input Error Alarm
Washer Stage 3 Temperature Input Error Alarm
Washer Stage 1 Low Alarm Bit
Washer Stage 2 Low Alarm Bit
Washer Stage 3 Low Alarm Bit
Washer Stage 4 Low Alarm Bit
Washer Entrance Airflow Alarm Bit
Washer Exit Airflow Alarm Bit

Conveyor
Conveyor Frequency Drive Faulted (Must Reset)
Touchscreen Panel Emergency Stop Depressed (Must Reset)