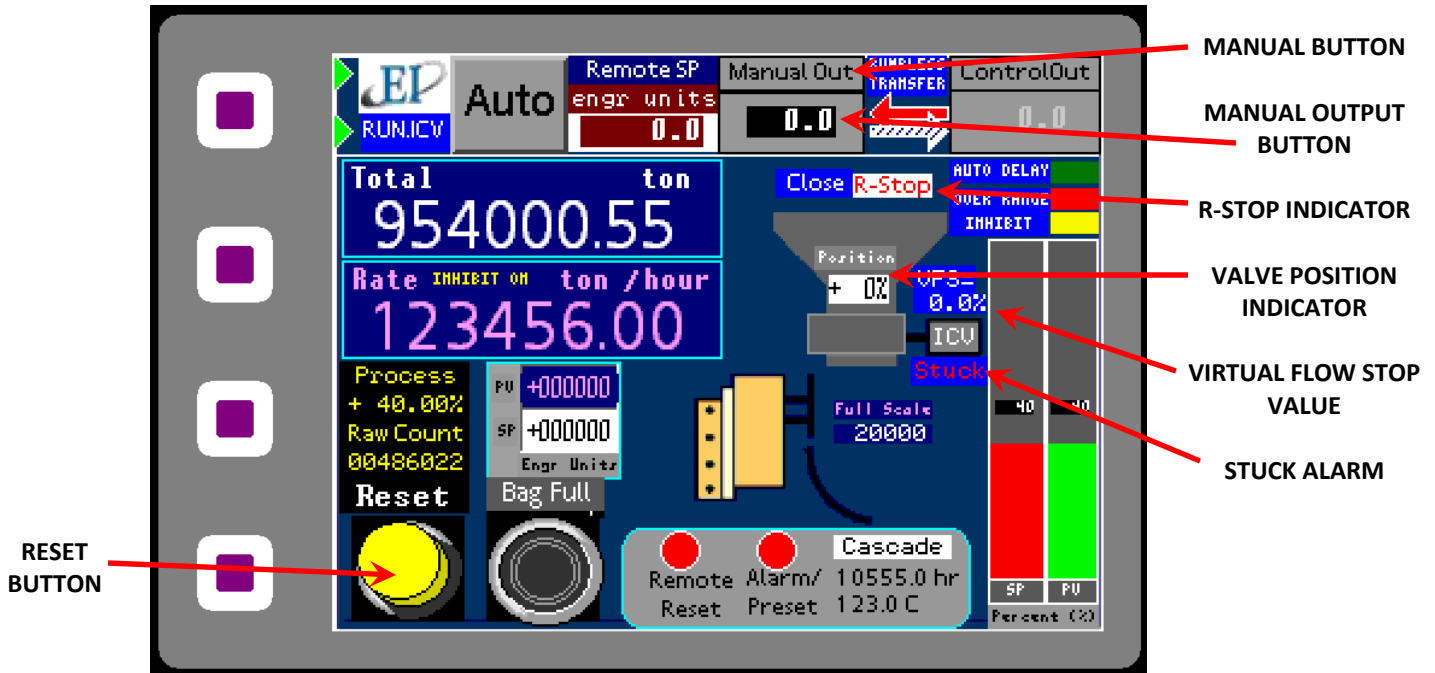




Running the CentriFeeder with ICV

Assuming that the meter has been properly installed and calibrated, your CentriFeeder™ can be run in one of two modes which can be quickly and easily switched between even while your process is running. These two modes are Manual and Automatic. These modes can be accessed from the main run display shown below. This display is accessed by pressing the Run Button from the TOP (Main Menu) page.



MANUAL

Entering Manual Mode

Manual Mode allows you to manually input the desired location of the valve by entering a value for the Manual Output. This allows more control of the flow, however, please note that starting and stopping the flow are manually controlled as well. To enter Manual Mode, simply press the Manual Out Button at any time, whether product is flowing through the CentriFeeder™ or not.

While in Manual Mode, you can manually enter values for the Manual Output of the CentriFeeder™. Your desired Manual Output, or the percentage that the valve is open, can be entered by double clicking on the Manual Out Button and entering your value in the pop up numeric keypad.



Starting Flow

Please Note: The ICV will not run if the R-Stop Indicator is visible on the screen. The valve will only operate if there is a closure between Customer Connections #18 and #19 and a jumper has been installed to serve this purpose. If this jumper has been removed, or the Remote Stop is engaged, the R-Stop Indicator will be visible onscreen.

If the Run/Stop Button is Red, then the valve is currently closed and product is not flowing through the CentriFeeder™. Press the Run/Stop Button so that it turns Green in order to open the valve to the desired position (as indicated by the entered Manual Out value). Once a value has been entered and the Run/Stop Button is Green, the valve will open and the actual position of the valve will be indicated by the Valve Position Indicator.

Please note that the valve will most likely have the ability to open to a point which will exceed the flow indicated by your Electronic Full Scale. The CentriFeeder™ will not be damaged, but you will experience an excessive amount of flow through the meter. Incremental changes in the valve's position are recommended if a large flow value is not desired. However, opening the valve to 100% can be useful to clear the valve of residual product when the feed hopper is empty in order to prepare for a product change.

Stopping Flow

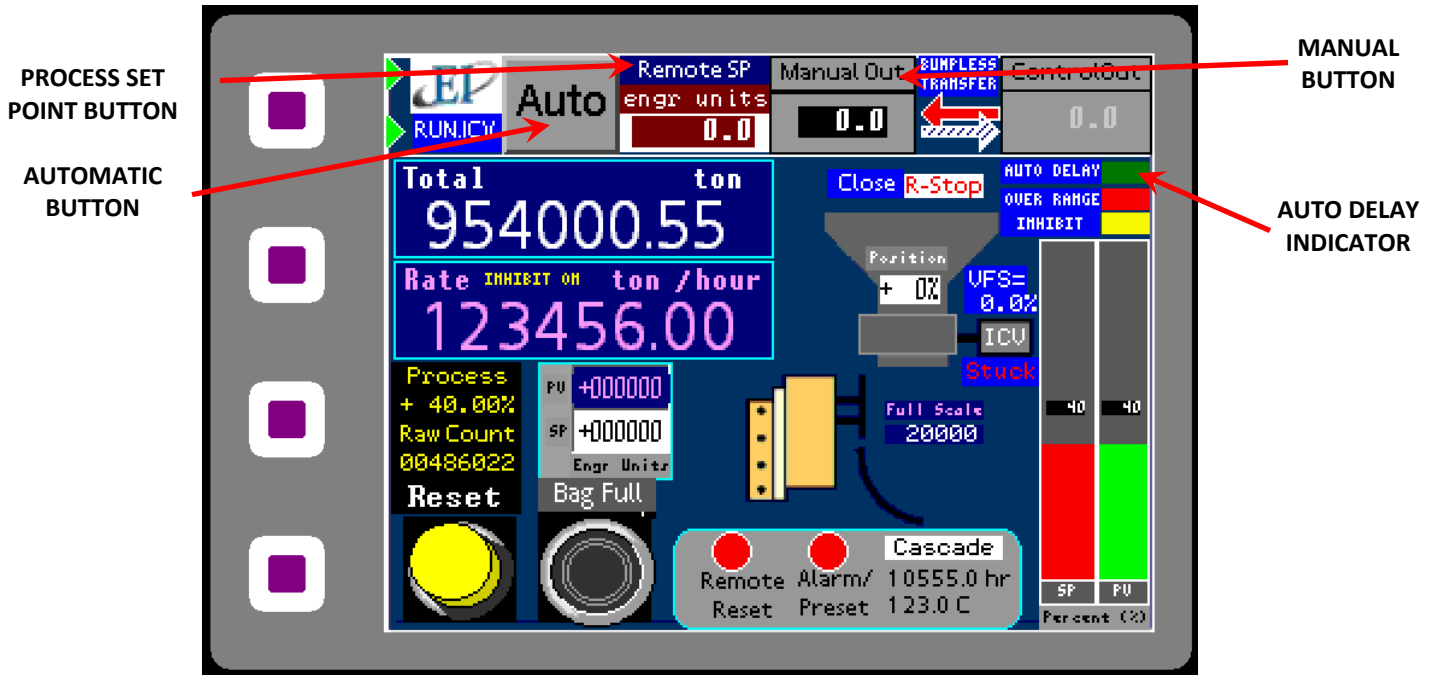
To stop flow while it is running, (the Run/Stop Button is Green) press the Run/Stop Button. The Button should now be Red. Pressing this button will cause the valve to close to the Virtual Flow Stop value indicated above the Integrated Control Valve actuator icon.

If the valve does not close to within +1% of the target value in about 15 seconds, the Anti-Binding Function will activate, and try to close the ICV to within +1% of the closed target value. If it is not able to reach target in 3 minutes, a "Stuck" alarm will be activated. On closing, this is usually due to product bridging between the valve and Tangential Liner, and will usually open when asked. For more information, refer to the Anti-Binding Section of this manual.



AUTOMATIC

Automatic Mode is a mode that enables the valve’s position, or output, to be changed automatically based on a desired process Set Point. The valve will automatically adjust until the Set Point is reached or maintained.



Entering Automatic Mode

You can access Automatic Mode from the Run page (pressing Run from the TOP page - Main Menu) by pressing the Automatic Button. You should now be in Automatic Mode. If you have not run the CentriFeeder™ before, then simply press the Run/Stop Button and when it has turned to green, the Integrated Control Valve will open.

If product has been run through the CentriFeeder™ before, then the stored Auto Delay value should be indicated in the Control Out Display. Pressing the Run/Stop Button will signal to the Integrated Control Valve to access the previously saved Auto Output value and will run in Manual Mode for the allotted time indicated in your Auto Delay Settings. After the Auto Delay set time has expired, the system will switch to Automatic Mode and you should see the Manual Button change from green to gray and the Automatic Button change from gray to green indicating that it has changed modes.

Changing the Set Point Value

The Process Set Point is similar to the Manual Output value for Manual Mode, however rather than indicating a percent open value for the valve itself, the Process Set Point indicates a percentage of your Electronic Full Scale value. This value can be changed by pressing on the Process Set Point Button and entering your value in the pop up numeric keypad.



CHANGING BETWEEN MODES

Auto to Manual

You can change from Automatic Mode to Manual Mode even while in process, by pressing the Manual Button. The Manual Button should now be green, indicating that Manual Mode is activated. The last Auto Output value will be transferred to the Manual Out Display, and the system will run at the new Manual Out value. Changing the Process Value will require changing the Man Out value via the keypad pop-up. Please note that while in Manual Mode, the Process Value will no longer be under automatic control.

Manual to Auto

You can change from Manual Mode to Automatic Mode even while in process, by pressing the Automatic Button. The Automatic Button should now be green, indicating that Auto Mode is activated. Changing to Automatic Mode will cause the Manual Output value to be transferred to the Auto Output value. Because you are in Automatic Mode, the Auto Output value will change, if necessary, to make the Process Value equal to the Set Point value. As long as there is not a significant change in the process, you should be able to change from Automatic Mode to Manual Mode and back again without a significant process change, at least for a short while.

ANTI-BINDING FUNCTION

If the Integrated Control Valve becomes stuck, it will put itself into “maximum impulse” and will attempt to free itself 5 times after which it will go into rest mode for a duration of 10 minutes. While in rest mode, the valve will move, however the power to the valve is reduced in order to prevent it from overheating. A “Stuck” warning will also appear on the main run page beneath the Valve Actuator Icon. In addition, a “Stuck” bit will be set in the assigned Modbus register for remote access.