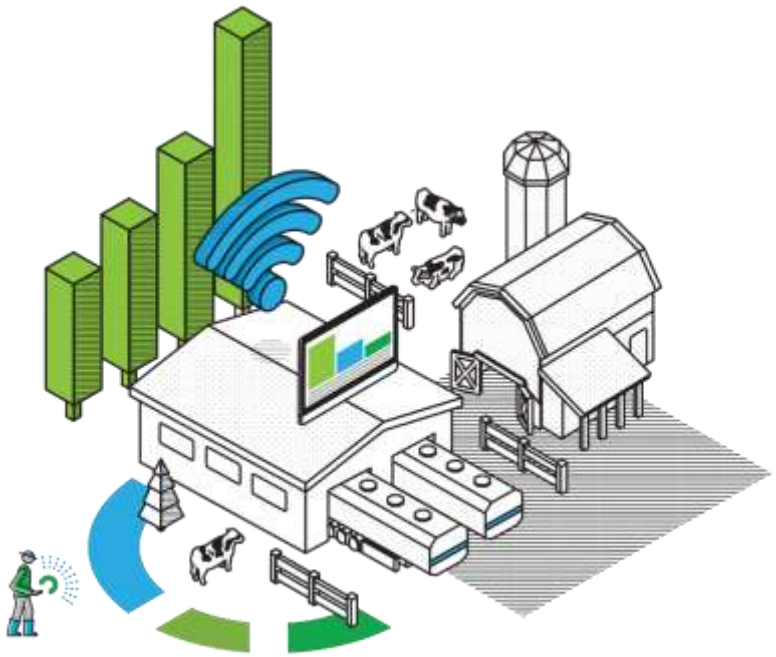
PIPER

EVERY **PRECIOUS** DROP



ACCUSTREAM – DIRECT LOAD

OPERATORS MANUAL

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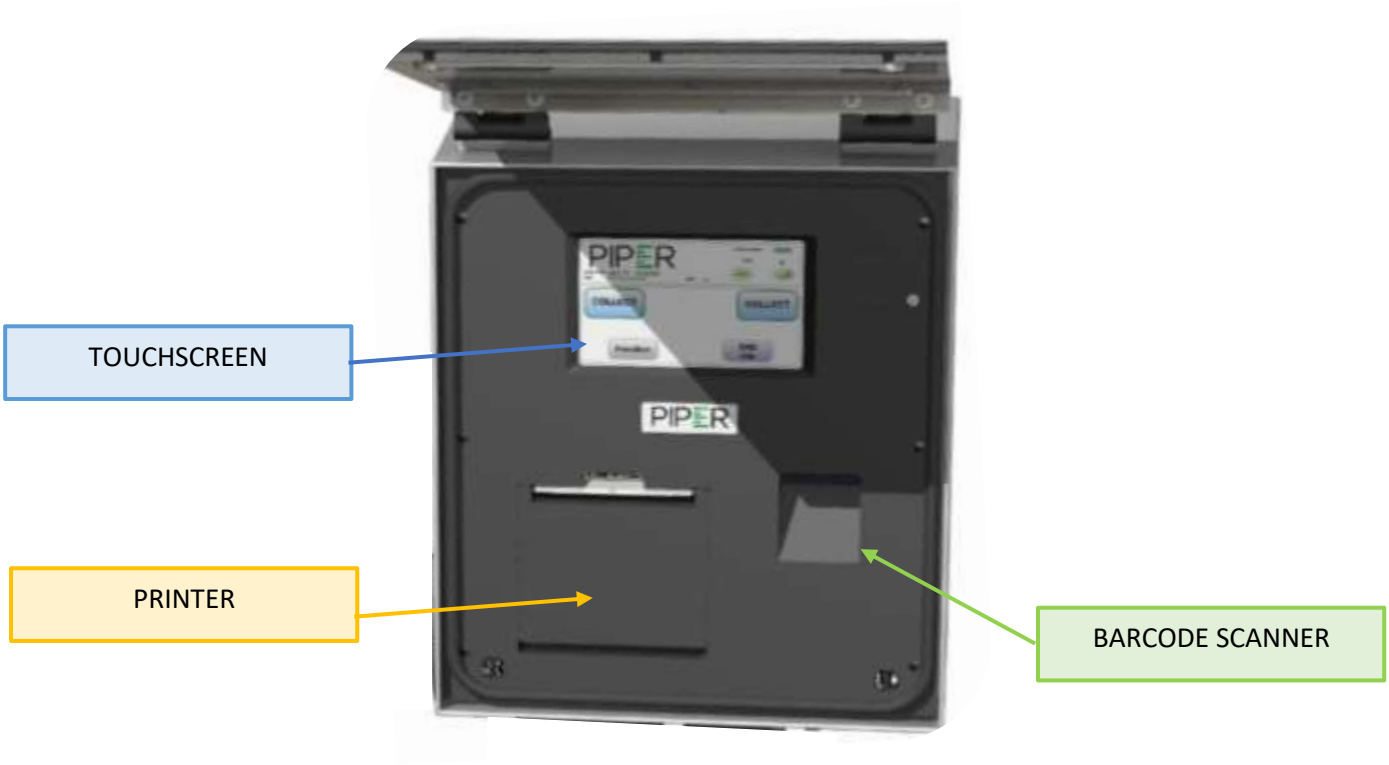

USING THE SYSTEM

REGISTERING A TRAILER

The system can have four trailers registered at any one point in time. Registering a trailer is simple and can be done while another trailer on another port is being loaded.

1. First the operator must select a Port:
    a. On the Home Screen there are four vertically stacked icons of the back of a trailer. These icons represent Ports 1 – 4. Port 1 being on top and descending to Port 4 on the bottom.
    b. Select the Port icon that the trailer is parked at.
    c. Once the Port has been selected the Port Window will be displayed. *See Image 1 below*
2. Once a Port is selected there are three fields to enter values in:
    a. Number: This field is where the trailer number is entered
    b. Capacity: This field is where the trailer capacity is entered.
        i. If the Capacity.csv file has been downloaded to the system and the trailer number is recognised, the trailers capacity from the file will be prompted.
        ii. If the Capasity.csv file has not been updated with relevant trailer numbers the "Default Capacity" from the parameter list will be prompted. The operator will be required check and alter this value if it is not the capacity of the trailer being registered to the Port.
    c. Milk Type: This field is used to identify the milk port being loaded at that Port.
        i. If the MilkTypes.csv file has been downloaded to the system, the operator will enter a number to identify the Milk Type being metered for the load.
3. Once Trailer registration is complete the operator should select *START LOAD* and then the *Home* icon seen in *Image 1 below*.
   This does NOT mean that metered milk from this point on will be registered to that trailer. It does mean, that any milk that passes through the meter when Port 3 is connected from this point on, will be accredited to the registered trailer, until *END LOAD* is selected.

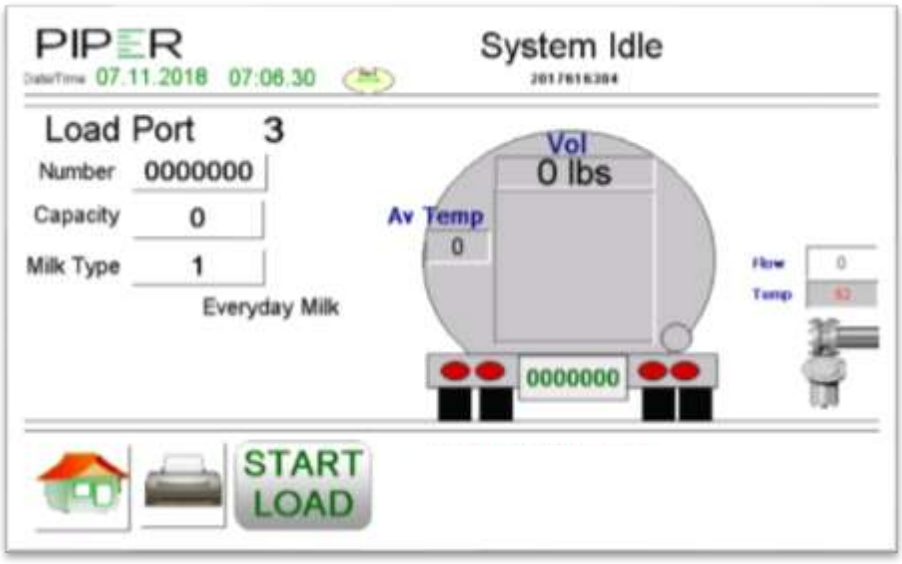

Image 1: Port 3 Window

CONNECTING A PORT AND COMMENCING LOADING

To begin loading into a trailer the delivery hose must first be connected from a Port to a trailer. Once this is complete the operator MUST visually check the Piper System *Home Screen* to verify that the system has received an input signal from the Port switch. This is indicated by the on-screen pipework connecting to the relevant port.

If the system does not receive an input signal from the Port switch and the operator fails to verify the connection on the screen, the system will not know which of the registered trailers the milk is being loaded into. Therefore, the milk will not be accredited to any trailer. Remember, there could potentially be four trailers registered. The exception to this is, if an operator realises they did not verify the connection on the screen and upon inspecting the screen does not see a connected port, rectifying this before a loading is *Finished* or before a C.I.P. is initiated will correct the loaded volume into the trailer registered at the connected Port.

Image 1 – Page 1 shows a system with no port connected

Image 2 shows the on-screen pipework is now connected to Port 3 Trailer 204.

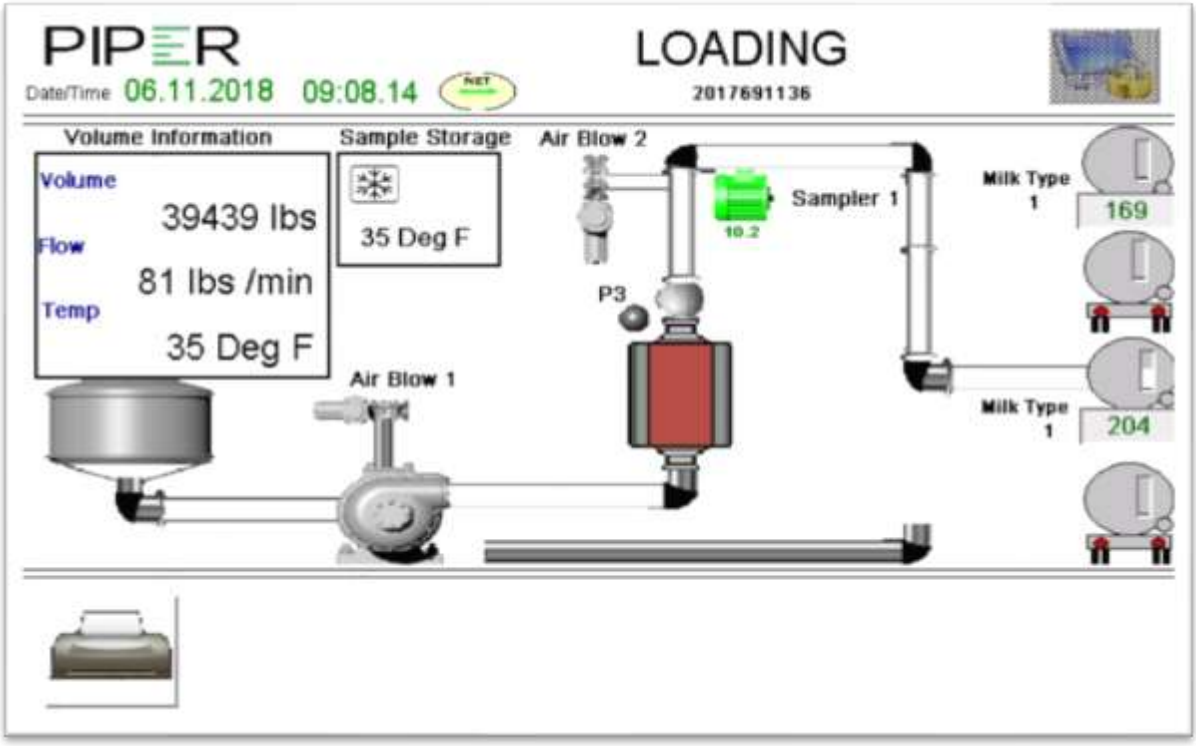

Image 2: On-screen pipework connected to Port 3 trailer 20

MANUALLY SELECTED PORT

In the event that there is flow in the meter and no Port switch input signal is being received by the system a *Port Selection* window will be displayed on the screen. The first action for the operator in this event should be to check the port switch and try rectify the problem there. If the Port switch is faulty and not closing the operator should Manually select a Port on the screen from the *Port Selection* window. This should only be utilised when completely necessary because a change of state from (1) Loading to Idle or (2) C.I.P to Loading will require the operator to reconfirm the manual port selection. A manually selected port is indicated on the *Home Screen* by an image of a hand over the port. *Image 3 shows the Home Screen with a manually selected port on Port 2*

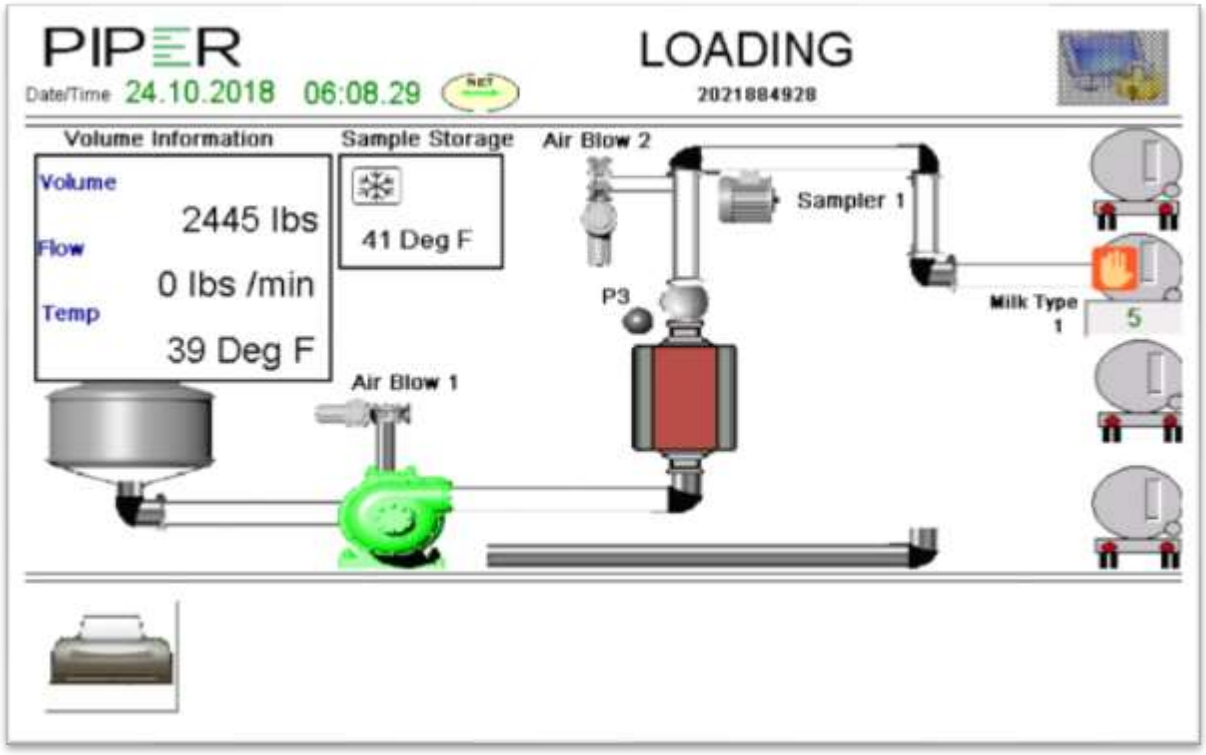

Image 3: Manually Selected Port on Home Screen

LOADING VIEW

The operator can monitor the current loading from two screens. The Home screen will display:

1. Loaded Volume
2. Flow Rate
3. Milk Temperature
4. Sample Temperature
5. The Connected Port
6. All registered trailers
7. All field device activations, indicated by turning GREEN in colour. See Sampler 1, *Image 4 – below.*

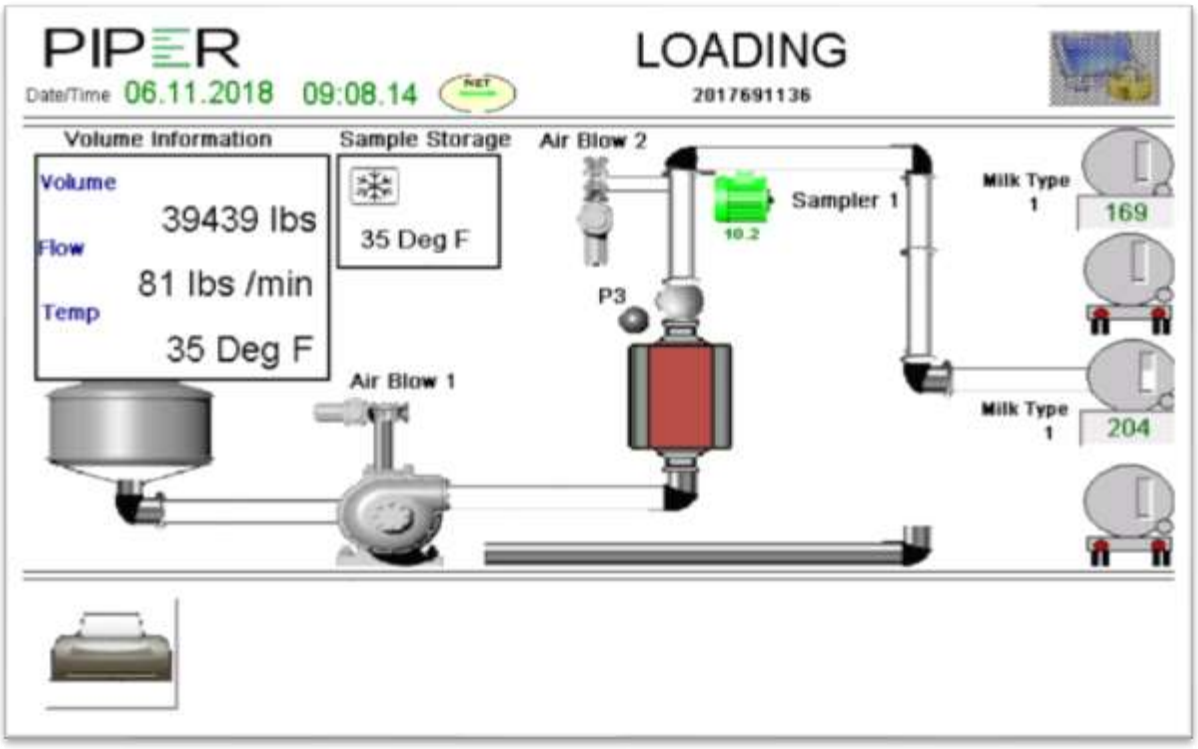

Image 4: Field Device Activations

The operator can also select the trailer icon for any port to view registered trailers or the current Load status of the connected trailer. *Image 5 – Page 5, shows a trailer on Port 1 Screen during loading.*

Here the operator can see:

- Loaded volume
- Trailer Number
- Trailer capacity
- Milk Type
- Flow rate
- Current temperature
- The average temperature over the loaded volume

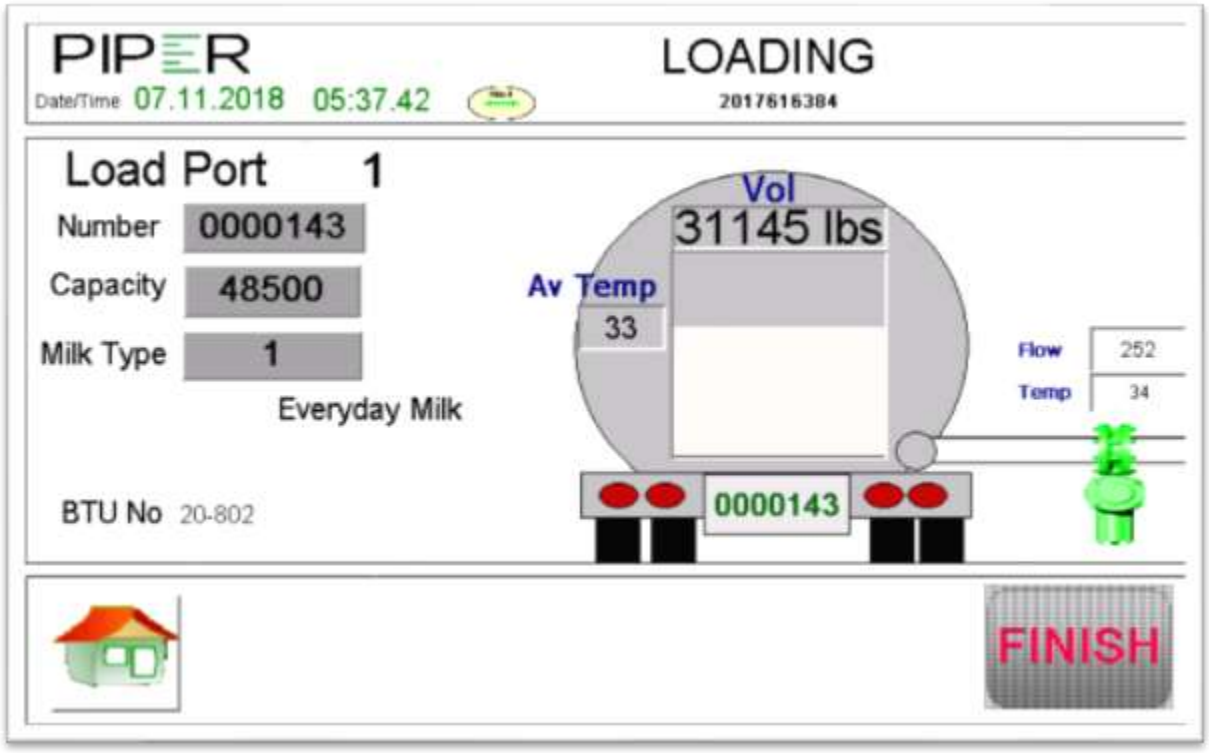

Image 5: Viewing Loading through Port Window

FINSIHING A LOAD

1. To Finish and "End the Load", the operator must select the Port on the *Home Screen*.
2. On the Port Window, select *Finish.* *See image 5 – Page 5.*
3. Once *FINISH* has been selected the operator will be brought to the *END LOAD* window. *See image 6 below.*
4. Here, the Sample Number, Samplers I.D., Manifest Number and Load Tracking ID can be scanned, with a barcode scanner, or manually entered by selecting the numeric box and entering the correct number through the pop-up *Keypad* window.
    a. These fields can have a maximum of 9 characters entered. If a ten-digit number is entered the keypad will revert to 999999999
5. Once these values have been entered and the operator is satisfied that they are correct, they should select END LOAD.
6. The load is complete and no amendments can be made.

Image 6: End Load Window

C.I.P.

The system logs all C.I.P data and presents it on the Piper Portal. The system records:

1. the volume of fluid that passes through the meter
2. the maximum and minimum temperatures of the C.I.P fluid

There user can define a valid C.I.P. by entering values in settings parameters:

- C.I.P. Max temperature (deg F)
- C.I.P Min Volume (lbs)
- C.I.P. Validity Period (Hours)

If the user chooses to utilise this functionality and enters values against these parameters, the system will monitor C.I.Ps. If the defined temperature is not reached or the minimum volume of C.I.P fluid not metered, the system will prompt the user to perform C.I.P and will discontinue metering until these parameters are met. The C.I.P validity period ensures a C.I.P is performed every XX hours. If this period of time elapses and the system is in a "Loading State", the system will allow loading to continue until the system goes into an "Idle State". Once this happens the system will discontinue metering until a C.I.P is performed.

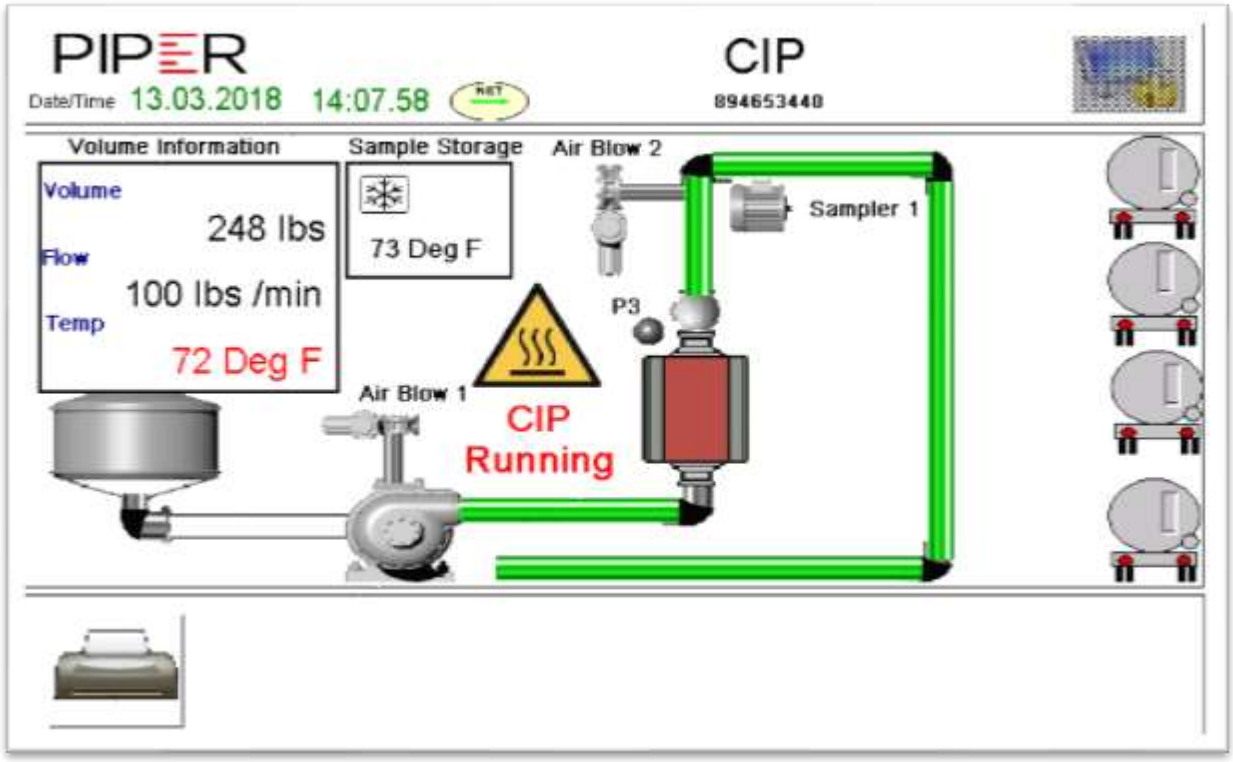

Image 7: C.I.P Activation

Traffic Light Warning System

The system is supplied with a traffic light warning tower to warn the operators in the parlour of system events. There are three tiers to the tower:

1. Top Tier: Audible Buzzer
2. Middle Tier: Amber
3. Bottom Tier: Red

The sequences of activation are as follows:

- Trailer Capacity Warning:
  - Momentary activation on the buzzer with Flashing RED tier
- Trailer Capacity Limit:
  - Continuous activation of the buzzer with Solid RED tier
- Sample Temperature Limit:
  - Momentary activation of the buzzer with Flashing AMBER tier
- Milk Temperature Limit:
  - Momentary activation of the buzzer with Solid AMBER tier

ACCESSING THE PRINT REPORT PAGE

The operator has the option to re-print the previous C.I.P and Load Dockets. There is a printer icon located on the bottom left corner of the *Home Screen* to access this window.

- Reports CIP: This will print previous C.I.P report, showing temperatures and volume
- Load Docket: This will print previous completed load for the selected port.
- Load Report: This will print the milking records of the previous load for the selected port
    - Milk Start, Milk Stop, Volumes, Temperatures.

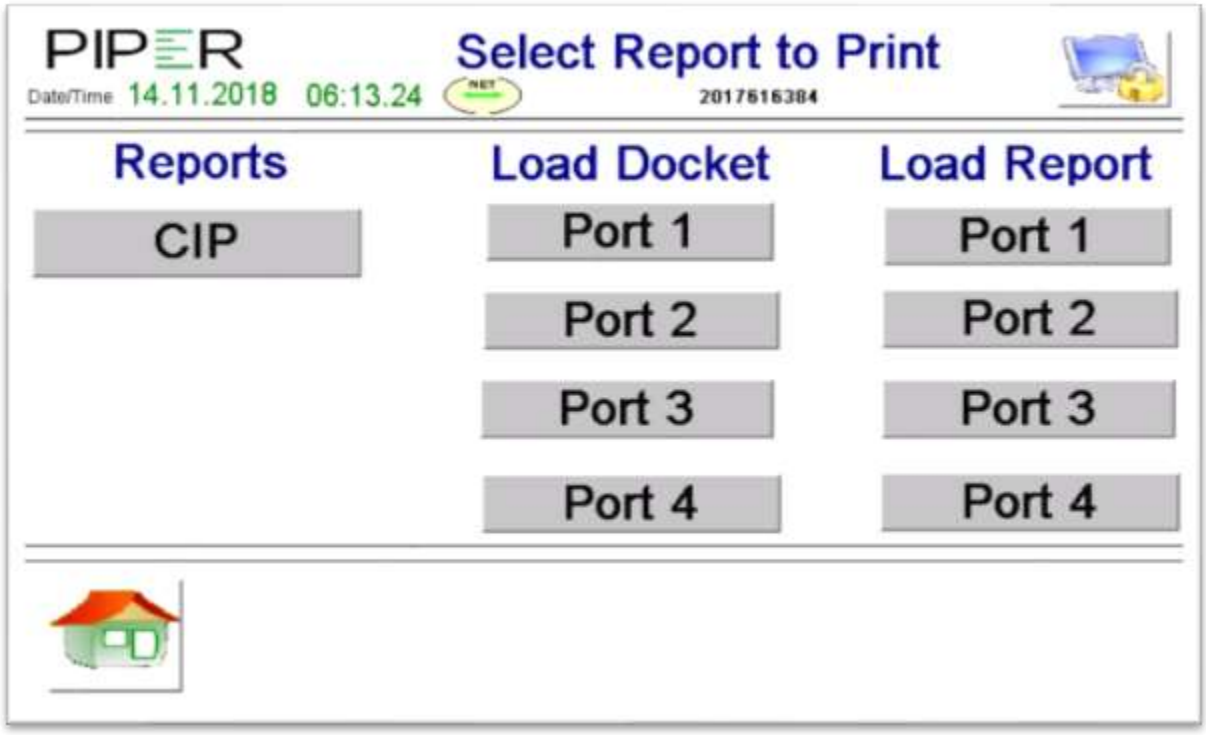

Image 8: Print Report Page