

E. When a surge of product or when the obstruction is cleared, the line pressure will again drop to free running pressure, the infeed pressure switch will trip in and the infeed will start automatically.

F. If the obstruction in the line does not clear, then the line pressure will continue to rise and the blower pressure switch will trip out and the system will stop. The **system must be locked out**, obstruction should be removed manually and the system restarted.

G. If the system is continually operated with too high a rate of product being fed into it, the infeed will be continuously tripping out and tripping in. The rate of flow should then be checked and the metering device adjusted accordingly.

H. During break in period, it may be advisable to run the system at less than its' rated volume until the product has polished the inside of the pipe, on long systems (2000 to 2500 feet) this pressure drop from polishing can be as much as 1 psi in 24 hours and 1 more psi in the first year. On short systems, 100 feet to 300 feet long polishing has little effect.

PULSATION DAMPER

This fitting is located inside the control panel, connected to the bulkhead fitting where the airline enters the panel. The function of the pulsation damper is to steady the pressure at the (Mercoïd) switches and the gauge from the pulsations of the blower

Check this damper for oil or liquid inside, if erratic readings appear on the air gauge.

Any air leaks appearing in the ¼" airline piping from the blower or inside the panel will show false readings on the pressure gauge and will not trip the pressure switches at the correct settings.

Dust inside the airline will also show low readings and restrict the pressure switches from working correctly.

Vibration will also eventually ruin a pressure gauge, usually it will only rise to a certain pressure and not further, yet pressure switches may operate correctly, giving the illusion the switches are tripping out too soon.

CALIBRATING MERCOÏD PRESSURE SWITCHES

The (Mercoïd) indicators are leveled and calibrated at Baum Pneumatics facility prior to shipment. However, in transit, or through installation they may get out of adjustment.

To set them properly, the system must be operating, or in any event a pressure of approx. 2 psi must be reached on the air gauge. With the face off the infeed switch, loosen the two small hold down screws on the calibrated scale. Lower the upper indicator until it reads 2 psi, or at the same reading as the air gauge. Slowly slide the calibrated scale up or down, until the mercury bulb tips over, giving a reading on an ammeter, and then retighten the two screws. If it is essential to keep the system operating, slide the scale until the mercury bulb begins to tilt, set the screws, and raise the indicator using the knurled adjustment screw, to its' proper setting.

Follow the same procedures for both mercoïds switches.

See start up sheet for settings for your system, or contact Baum Pneumatics to calculate your system settings.

If mercoïd settings are set beyond the capacity of the drive motor this can overload the motor, and burn it out as well as possible damage to the blower.

Pressure readings in psi can be directly compared to amperage on the blower drive motor, both are linear to the load or burden placed on the system, and can be plotted on graph paper.

Example: If Free Running Pressure = 1 psi or 40 amps.

And an Operating Pressure of 3 psi equals 100 amps

Then each additional psi of burden would equal 30 more amps on the motor.

These values are typical only; each pneumatic conveying system has to be plotted individually. But amperage and pressure are readings of the same thing... system burden on the blower.