Installation & User Guide

Compressed Air System Flow Controller

IMPORTANT !

Read this manual carefully and keep for future reference

Warnings

WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from the Company, its subsidiaries and authorized distributors provide product and / or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application including consequences of any failure, and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, include without limitation, product features, specifications, designs, availability and pricing are subject to change by the company and its subsidiaries at any time without notice.

NOTICE: PPFC may be ordered with left-to-right or right-to-left orientation. **Units are not field reversible**.

Installation

Please read these instructions before installing this product.

IMPORTANT INSTALLATION INSTRUCTIONS FOR:
PPFC 75, 200 and 1000 Models

1. **DO NOT** install the unit until you have read this entire product information sheet.
2. **Product** is specifically designed for **clean, dry, compressed air service**, and use with any other fluid (liquid or gas) is a misapplication. For example, use with, or injection of certain hazardous liquids or gases in the system (such as alcohol or liquid petroleum gas) could be harmful to unit or result in combustible condition or hazardous external leakage. Manufacturer's warranties are void in the event of misapplication and manufacturer assumes no responsibility for any resulting loss. Maximum inlet pressure rating is 300 psig (21 bar) and a control range of 0-160 psi (11 bar). Temperature range is -4˚ F to 176˚ F (-20˚ C to 80˚ C).
3. **INSTALL** upstream of and as close as possible to where controlled compressed air is needed.
4. **INSTALL** with air flow in direction into "Inlet" and out "System"(as noted on chassis housing).
5. **UNITS** are provided with orientation of air flow from left to right. Units may be ordered with reverse flow, if desired.
6. **DO NOT** restrict the air flow with undersize piping or fittings, unless maximum air flow is not needed.
7. **INSTALLATION** of a 5 micron rated filter upstream of controller is recommended.
8. **WITH THE INDICATOR DIAL** in the **OFF** position, allow the inlet side pressure to slowly build and settle to full pressure.
9. **DO NOT** fill tank on inlet side of system to full pressure and then open ball valve blasting full pressure to inlet of PPFC Controller. This may cause damage. Always throttle valve to slowly increase pressure to controller.
10. **TO CONTROL SYSTEM AIR** turn adjustment knob clockwise to raise the controlled air pressure and counter clockwise to lower controlled air pressure.

Operation

To Operate: Once unit has been installed and all safety requirements have been adhered, you are ready to begin.

Using the adjustment dial on the front of the PPFC, turn knob from the off position slowly in a clock wise motion to the desired setting. Note that as a best practice a 10 psi delta should be set between the **Inlet Pressure** and **System Pressure** gauges.

The indication numbers on the dial face are for reference only and are not to be used an accurate indication of the system set pressure.

If a higher **System Pressure** is initially set than desired, simply turn the dial counter clock wise until the desired **System Pressure** is achieved. Note: When dialing the pressure to a lower setting excess air pressure will be exhausted around the front dial. This will continue until the **System Pressure** is satisfied.

The PPFC is designed to react quickly to meet flow demands. As a function of meeting this demand, the unit will consume a small amount of air (.05 cfm).

Calibration

Units are factory calibrated and should require no additional calibration at time of installation.

Front Dial Indicator is for reference only and has no bearing on unit functionality or actual Inlet or System Pressure. Gauges (supplied) should be utilized to determine actual setting.

In the unlikely event that a unit needs recalibration, please follow these recommendations.

Recalibration

1. **INSTALL** controller on air line with at least 110 psi (7.5 bar) air pressure at the inlet port.
2. **REMOVE** lock button (Figure "A") from unit revealing adjustment screw.(Figure "B")
3. **TURN** adjusting knob to 100psi (7 bar) setting.
4. **ADJUST** dial to 100 psig (7 bar) reading. If the gauge reads other than 100 psig (7 bar) adjust screw with a flat head screwdriver while holding the adjusting knob on 100 psi (7 bar) setting until both gauge and adjustment knob reading match.
5. **TO CHECK CALIBRATION ADJUSTMENT:** when dial and gauge are reading the same (100 psi ±2 psi; 7 bar ±0.14 bar), turn adjusting knob to 20 psi (1.4 bar). Unit is calibrated when gauge reads 20 psig ±5 psig (1.4 bar ±0.34 bar). The ±2 psi and ±5 psig are accepted tolerances of the most commonly used gauges.
6. **DO NOT** adjust screw (Figure"B") more than one half turn when calibrating unit. If more than one half turn is required to calibrate it, additional problems with the unit are involved and unit should be returned to the vendor.
7. **DIAL STOP SET** can be used to prevent over pressurization. To utilize the stop set, remove lock button, knob tensioner and acrylic dial. (Figure"A") Then remove the hold down screw (Figure"B"), lift the hold down washer (Figure"B"). The stop set is located under the dial face. Lift and turn the stop set to desired set point, then replace the dial face, hold down washer and hold down screw.

FIGURE "A"

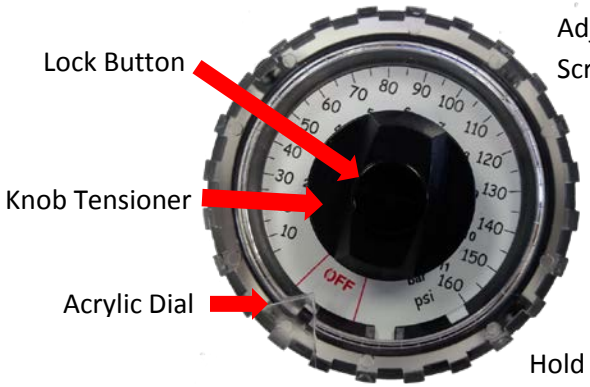
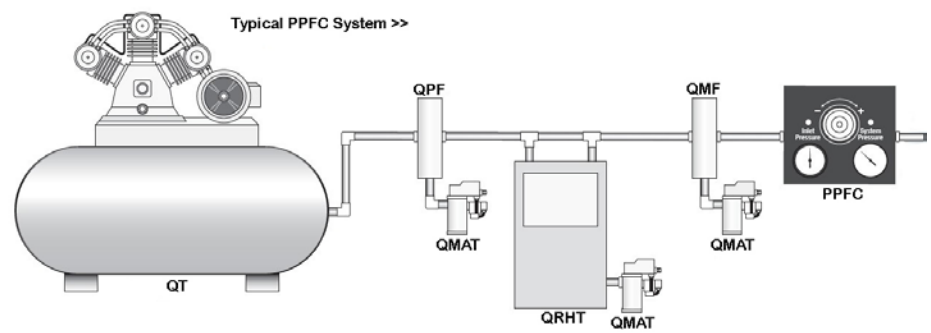


FIGURE "B"

Typical Installation



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Troubleshooting

WHEN ANY of the following symptoms occur, contact our customer service department for recommendations or product replacement:

- **A.** Excessive relief venting
  - a. Unit is designed to bleed excess air pressure around the control knob, until system pressure has settled. Note: Unit has a constant bleed of approximately .05cfm to maintain ability to react to system demands without delay.
  - b. Secondary compressor in system side, causing over pressurization. See Typical Installation Diagram
  - c. Dial indicator was dialed above system requirements and then dialed down causing venting until system pressure has settled to match dial reading.
- **B.** Inability to attain high secondary pressure
  - a. Increase system pressure by slowly turning front dial clockwise until desired pressure is achieved on gauge.

    Turn dial slow and allow system pressure to adjust and settle before increasing.
  - b. Blockage due to lack of lubrication or dirty air supply.

    Lack of lubrication is typically caused by excessive moisture in air stream and /or lack of appropriate filtration. 5 micron pre-filter is recommended for maximum product performance.
- **C.** System pressure does not match dial indicator
  - a. Calibration may be required (See Calibration section of this guide for details)
- **D.** Dial does not turn freely or is loose to the touch
  - a. Adjust black thumb screw on front of dial face until desired dial tension is achieved.
- **E.** Unit not adjusting during cold weather
  - a. If operating below freezing (32°F/ 0°C) no moisture should be allowed into controller inlet.

The above Symptoms are often caused by improper application, dirty and/or wet air supply. Supply only clean dry air to inlet, achieved by a 5 micron pre-filter. Possible need of factory maintenance or replacement may be required. Contact your Local Distributor or Quincy Compressor 251·937·5900