



# PRO OIL PRESSURE REGULATOR

The Hauck PRO Oil Pressure Regulator is designed to function as an inexpensive, rugged, self-contained pressure reducing valve. Its self-contained design eliminates the need for external actuators or control lines. The PRO was specifically engineered for use on oil supply systems where it is desired to automatically reduce a high oil pressure to a lower oil pressure and maintain that lower pressure within close limits.

## APPLICATION

The PRO can be used on systems operating with any grade of fuel oil up to and including No. 6, with viscosities to 1000 SSU, and with oil supply pressures to the regulator not exceeding 50 psig. The maximum operating temperature of the regulator is 300° F.

The PRO is rugged, compact, and easily installed. The regulator must be located in a horizontal oil line (as level as possible) with the arrow on the body pointing in the direction of oil flow. The regulator adjusting screw must be pointing down. An edge plate filter with a spacing of .008 inches (.015 inches for capacities above 100 gph) is recommended immediately upstream of the regulator oil inlet. The use of a filter prevents material build-up within the regulator thus reducing the possibility of unsatisfactory operation.

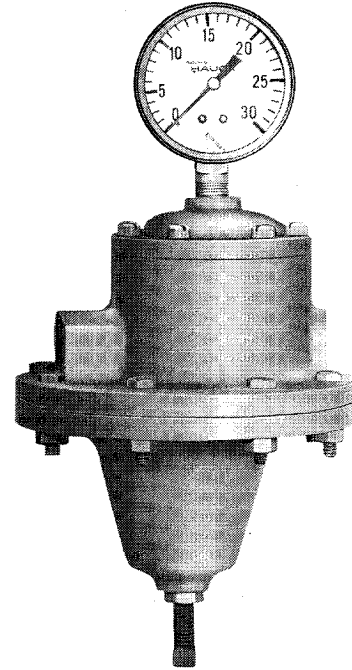


Fig. 1 - Hauck PRO oil pressure regulator with gauge.

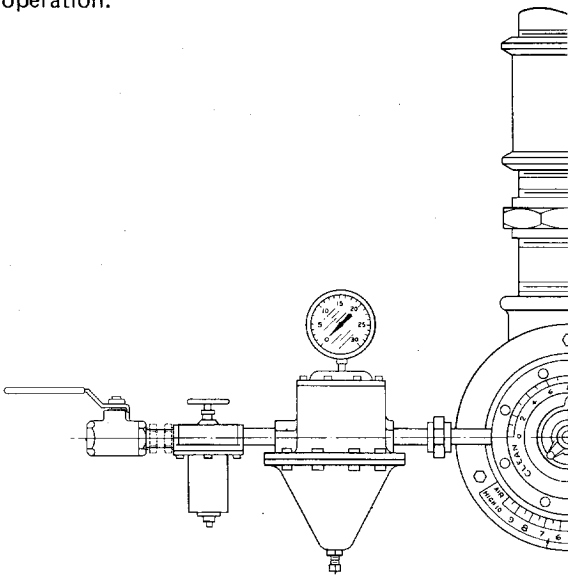


Fig. 2 - PRO regulator (with optional pressure gauge) and edge plate filter in a Hauck 780 PAC series burner supply line.

## FEATURES

- INLET PRESSURE TO 50 PSIG
- OUTLET PRESSURE 1-25 PSIG
- HANDLES NO. 2 TO NO. 6 OIL
- SELF-CONTAINED
- INEXPENSIVE
- RUGGED

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## OPERATION

The desired discharge pressure of the PRO is maintained essentially constant throughout its rated capacity by varying the flow area of a throttling valve located within the regulator. Oil supplied to the regulator at a relatively high pressure is reduced to the desired lower pressure as it passes through the throttling valve.

A pressure chamber is provided between the discharge of the throttling valve and the exit of the regulator. The oil pressure developed in this chamber exerts a force on a flexible diaphragm. This force is counterbalanced by a force exerted by a compression type spring. The amount of spring compression and thus the magnitude of the spring force is set by positioning an adjusting screw. Once the adjusting screw is set at a fixed position, an almost constant force will be exerted by the spring on the diaphragm. Thus, for a constant flow condition (no diaphragm or valve movement), the discharge pressure will remain constant. Any change in the PRO discharge pressure due to either increased or decreased flow demand or changes in liquid properties will result in a force imbalance on the diaphragm. It will be forced to deflect; either increasing or decreasing flow through the throttling valve. The diaphragm will continue to move until the "original" discharge pressure is established and the forces on the diaphragm once again become balanced.

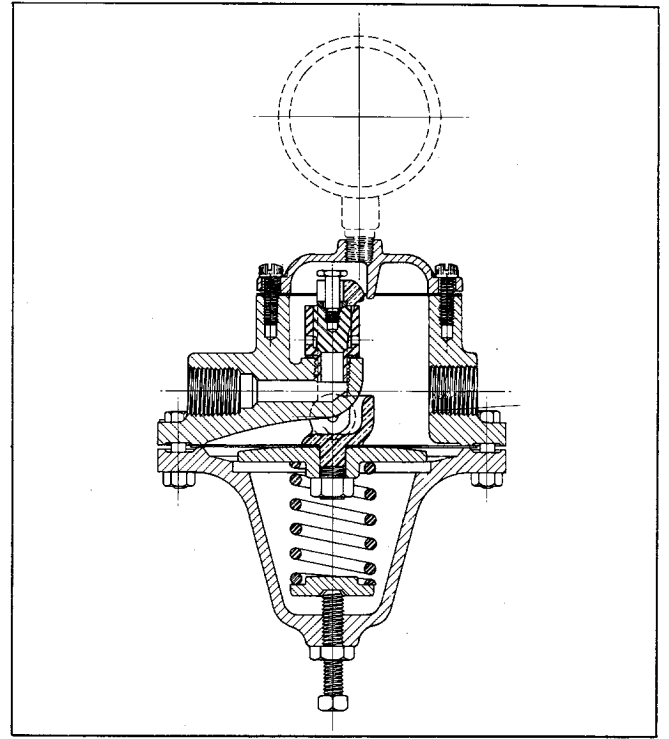


Fig. 3 - Drawing showing the PRO internal components.

## SELECTION TABLE

Regulator Model Number	NPT Pipe Size	Recommended Maximum Capacity*	Maximum Discharge Pressure
PRO 1B	1/2	50gph	10 psig
PRO 2B	1/2	30gph	25 psig
PRO 4B	1/2	125gph	25 psig
PRO 5A	1/2	150gph	25 psig

\* Recommended maximum capacity based on a 10% droop at the maximum discharge pressure. Actual flow curves, showing relationship between droop and capacity, are available on request.

## DIMENSIONS

