

#### APPLICATION:

The 30 HPG-D is used to produce a pneumatic output signal when the monitored pressure falls below the set pressure. The pneumatic source is isolated from the monitored pressure by a vent chamber which allows the monitored pressure to vent away if it reaches a high enough pressure to cause diaphragm failure.

The control pilot may be remotely installed to operate a motor valve and function as a pressure reducing regulator.

The best application of this pilot is for instrument protection where the monitored pressure may surge above the rated pressure of the pilot.

#### FEATURES:

- Single Adjustment
- Filtered gas supply
- Accurate control
- Intermittent vent pilot construction
- Remote installation

#### CERTIFICATIONS:

Canadian Registration Number (CRN):  
0C15143.24567890NTY

#### SUPPLY PRESSURE:

Equal to or not less than 60% of maximum upstream pressure when used to operate low pressure motor valves (shown in Section E2).

20 to 30 psig when used to operate high pressure motor valves (shown in Section E1).

#### PRESSURE RANGE:

5 psig to 300 psig

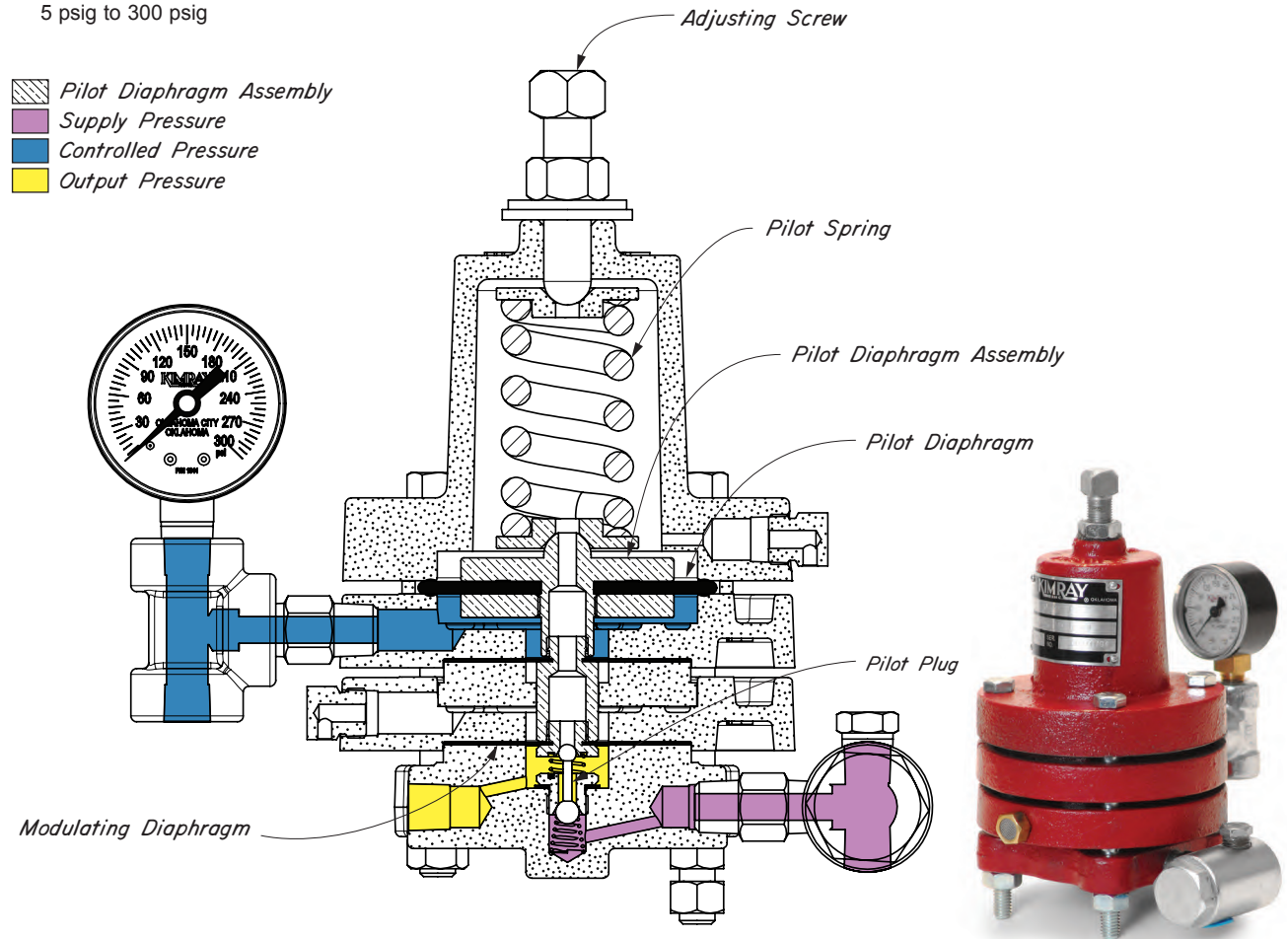
#### OPERATION:

The 30 HPG-D consists of a PILOT DIAPHRAGM ASSEMBLY which moves without friction within a housing, to operate a 3 way PILOT PLUG. PILOT DIAPHRAGM ASSEMBLY is supported by the PILOT DIAPHRAGM and the MODULATING DIAPHRAGM. The PILOT SPRING loads the upper side of the PILOT DIAPHRAGM ASSEMBLY and is opposed on the underside by Controlled Pressure (Blue) acting on the net area of the PILOT and MODULATING DIAPHRAGMS (area of PILOT DIAPHRAGM minus area of MODULATING DIAPHRAGM).

The 30 HPG-D can be considered as an inverse multiplier. Each 1 psig change in Controlled Pressure (Blue) results in a change in Output Pressure (Yellow) of 8 psig. A ratio of 8:1.

Assume that the Controlled Pressure (Blue) is at the set point. With a decrease in Controlled Pressure (Blue) the PILOT DIAPHRAGM ASSEMBLY is forced downward by the PILOT SPRING. The upper seat for the PILOT PLUG (Yellow to Atmosphere) is closed and the lower seat for the PILOT PLUG (Violet to Yellow) is opened. This results in increased Output Pressure (Yellow) under the MODULATING DIAPHRAGM which balances the lost upward force due to the slight decrease of Controlled Pressure (Blue). The PILOT DIAPHRAGM ASSEMBLY returns to a position at which both the upper and lower seats are closed.

A slight increase in Controlled Pressure (Blue) opens the upper seat and closes the lower seat to reduce the Output Pressure (Yellow).

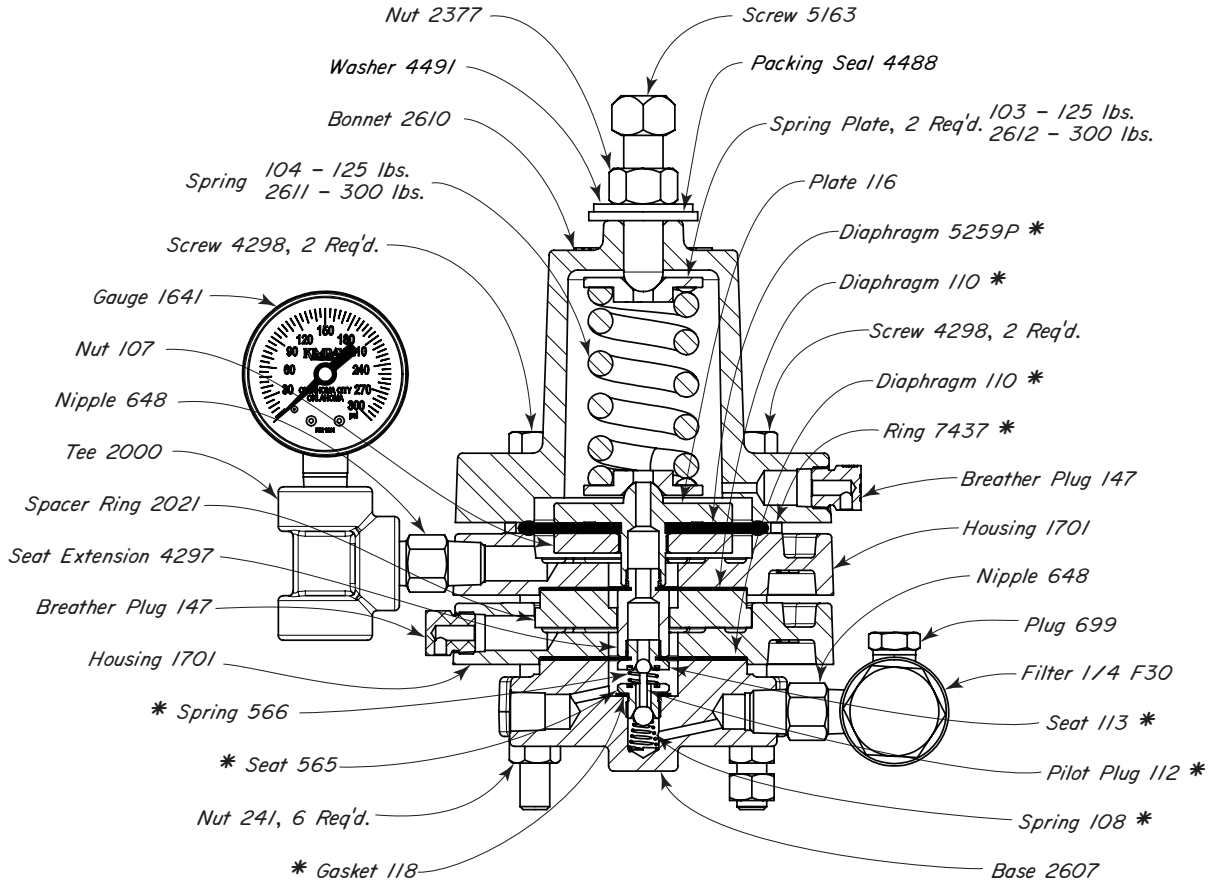


Kimray is an ISO 9001- certified manufacturer.

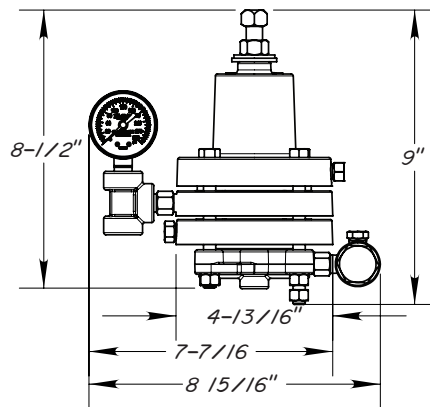
# PILOTS AND ACCESSORIES



## HIGH PRESSURE - PRESSURE PILOTS DUCTILE IRON



### PILOT DIMENSIONS



#### PILOTS AVAILABLE:

CAT. NO.	PILOT	MAX W.P.	OPER. PRES.	KIT
AHJ	30 HPG-D	300	300	RSR
AHJS6	30 HPG-D w/316SS	300	300	RSR
AHJ2	30 HPG-D w/125 lb Spring	300	125	RSR

#### NOTES:

All openings are tapped 1/4" NPT.

\*These are recommended spare parts and are stocked as repair kits.

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