



# CONOFLOW REGULATORS & CONTROLS

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### WARNING

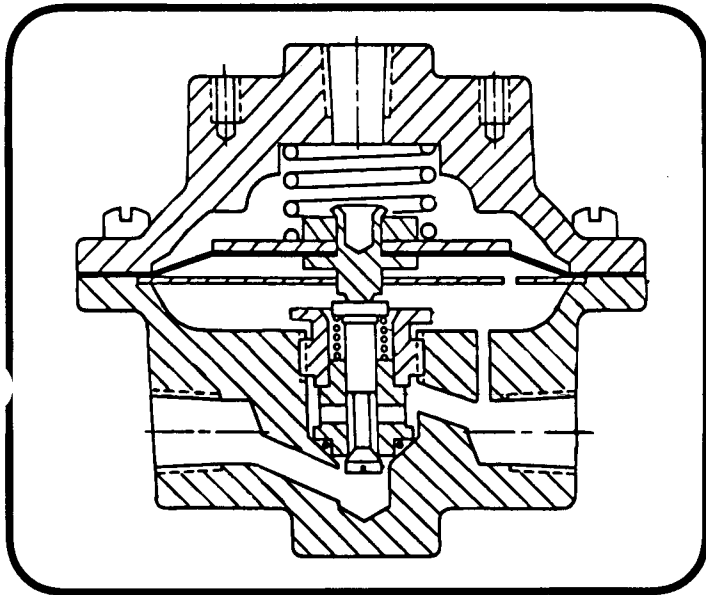
Conoflow's products are designed and manufactured using materials and workmanship required to meet all applicable industry standards. The use of these products should be confined to services specified and/or recommended in the Conoflow catalogs, instructions or by Conoflow application engineers (i.e. exceeding pressure-temperature rating or using device for services other than those specified).

To avoid personal injury or equipment damage due to misuse or misapplication of a product, it is necessary to select the proper materials of construction and pressure-temperature ratings which are consistent with performance requirements.



**FOREMOST  
IN  
CONTROL  
ELEMENTS**

## INSTRUCTION AND MAINTENANCE MANUAL GH26/27 SERIES FIXED DIFFERENTIAL REGULATOR



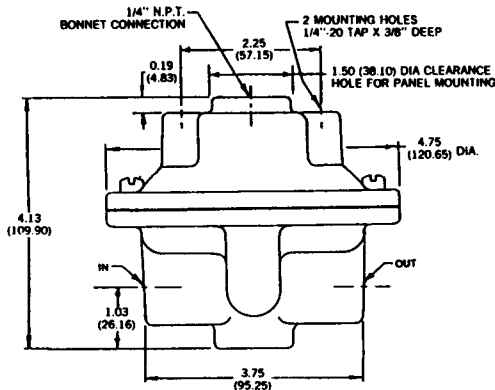
### PRINCIPLE OF OPERATION

The GH26/H27 Series Regulators are used to maintain a fixed differential pressure across a needle valve downstream from the regulator. The spring in the bonnet of the regulator exerts a fixed force on the diaphragm assembly which requires approximately 3 PSI(21 kPa) underneath the diaphragm to balance with zero signal pressure. As signal pressure is applied to the bonnet connection, an increase in output pressure is required to keep the forces on the diaphragm assembly balanced. In equilibrium, the force due to the output pressure will be equal to the force from the spring plus the force due to the signal pressure. Since the spring force is equivalent to 3 PSI(21 kPa), the output pressure will always be 3 PSI(21 kPa) greater than the signal pressure.

If the output pressure drops below the equilibrium point, there is a net downward force on the diaphragm assembly. This force causes the nozzle plug to open allowing supply pressure to flow downstream until the output pressure returns to its equilibrium value.

If the output pressure rises above the equilibrium point, the diaphragm seat lifts from the nozzle plug allowing it to close. The nozzle remains closed until the excess pressure is dissipated downstream.

### DIMENSIONS



MODEL	INLET & OUTLET CONNECTIONS
GH26XF	1/2" N.P.T.
GH27XF	1/4" N.P.T.

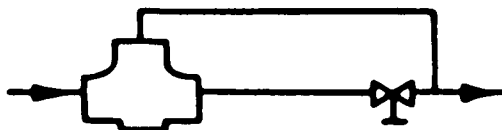
### INSTALLATION

**CAUTION: Maximum Supply Pressure is 250 PSI(1724 kPa).**

The GH26XF regulator has two 3/8" N.P.T. connections. The GH27XF has 1/2" N.P.T. connections. Both models have 1/4" N.P.T. bonnet connections. The inlet connection is marked "IN". The outlet connection is piped to the metering device. The bonnet connection is piped downstream of the metering device (See Figure 1). **IT IS RECOMMENDED THAT A FILTERED AIR SUPPLY BE USED.**

Check all connections for leakage after installation.

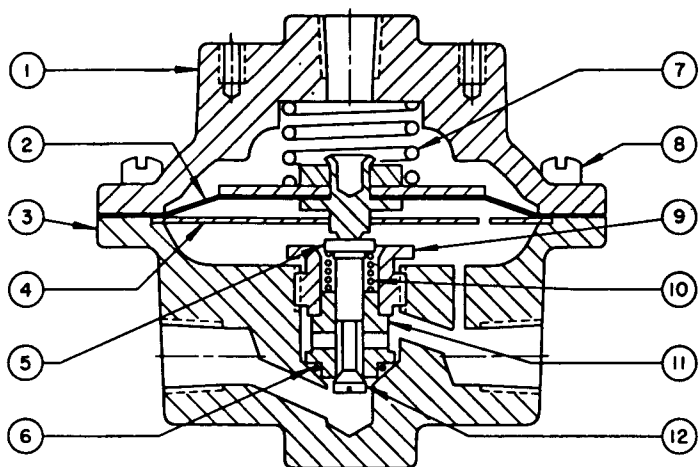
FIGURE 1



**FOR CERTIFIED DIMENSIONAL DRAWING,  
REFER TO A17-36**

## MAINTENANCE

Remove air supply pressure and bleed off output pressure prior to performing maintenance.



Periodic replacement of the diaphragm assembly and nozzle assembly is recommended for services where the unit is on stream continuously and where consistent, high accuracy regulation is required. The frequency of replacement will depend on the nature of the service, cleanliness of air, humidity of the air, etc.

To replace the diaphragm assembly(2), remove six screws (8) and lift off bonnet (1), and spring (7). Place new diaphragm assembly (2) over body with diaphragm plate up; reinstall bonnet (1) and tighten six screws (8). The six screws (8) should be tightened alternately.

To replace nozzle assembly (items 5, 6, 9, 10, 11 and 12) proceed as above. Use 1" socket wrench to remove and replace nozzle assembly to avoid damage to the nozzle. Nozzle assembly may be cleaned by immersion in a suitable solvent and blowing dry with air stream.

ITEM NO.	DESCRIPTION	QTY. REQ'D.	GH26XFXM(2)	GH27XFXM(2)
1	Bonnet	1	6020549	6020549
2 <sup>(1)</sup>	Diaphragm Assembly	1	6020846	6020846
3	Body	1	6020879	6020861
4	Baffle Plate	1	6020747	6020747
5	Top Plug	1	6020754	6020754
6 <sup>(1)</sup>	"O" Ring	1	6076780	6076780
7	Spring	1	6020804	6020804
8	Fill. Hd. Screw ¼-20 N.C. x ½" Lg.	8	6900089	6900089
9	Retaining Nut	1	6020762	6020762
10	Plug Spring	1	6017289	6017289
11	Nozzle	1	6020788	6020788
12	Bottom Plug	1	6020770	6020770

### NOTES:

1. Recommended Spare Parts can be purchased individually or as a spare parts kit under number 6385351  
Spare Parts Kit — GH26/27  
Consists of items 2 and 6.
2. For definition of catalog number, refer to Sales Bulletin C-2006.
3. When ordering spare parts, specify complete catalog no., item no. and part no. This will permit positive identification and rapid handling of order.



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WARNING — TECHNICAL DATA SUBJECT TO EAR CONTROLS

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