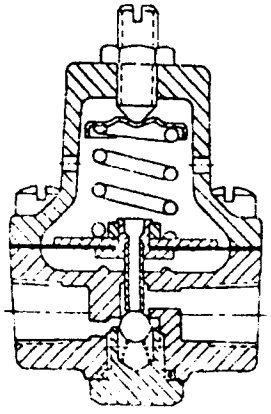
Conoflow

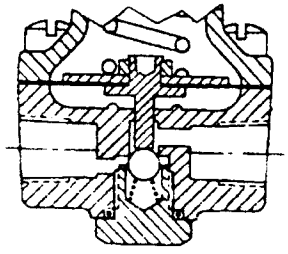
WARNING
Conoflow's products are designed and manufactured using materials and workmanship required to meet all applicable industry standards. The use of these products should be confined to services specified and/or recommended in the Conoflow catalogs, instructions or by Conoflow application engineers (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.

ITT Industries
Engineered for life

INSTRUCTION AND MAINTENANCE MANUAL
GH04 SERIES
CUSION LOADING REGULATORS

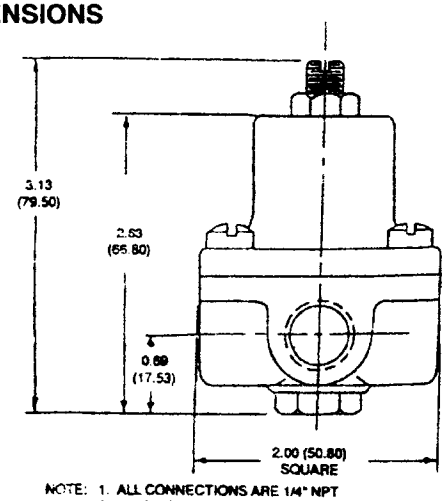


GH04XSKEXXX
RELIEF - NO BLEED



GH04XSKMXXX
NO BLEED - NO RELIEF

DIMENSIONS



NOTE: 1. ALL CONNECTIONS ARE 1/4" NPT
2. ( ) DIMENSIONS IN MILLIMETERS.

FOR CERTIFIED DIMENSIONAL DRAWING, REFER TO A17-75

PRINCIPLE OF OPERATION

Turning the adjusting screw changes the force exerted by the range spring on the diaphragm assembly. In equilibrium, the force exerted by the range spring is balanced by the force from the output pressure acting underneath the diaphragm assembly.
An unbalance between the output pressure and the set pressure causes a corresponding reaction in the diaphragm and nozzle assemblies. If the output pressure rises above the set pressure, the diaphragm set is lifted from the ball venting the excess pressure to atmosphere until equilibrium is reached. If the output pressure drops below the set pressure, the unbalanced force from the range spring acts through the diaphragm assembly unseating the nozzle ball. This allows supply pressure to flow to the downstream port increasing the output pressure. The output pressure increases until it balances the force on the diaphragm assembly by the range spring. At equilibrium, the ball assumes a position which supplies the required flow while maintaining the output pressure at the set pressure.

A no bleed/no relief diaphragm assembly is used to prevent the process media from exhausting to atmosphere. This option is typically used with liquids and toxic gases. The principle of operation is the same as above except that excess output pressure is not vented to atmosphere. Instead, as the diaphragm seat lifts off the ball and the ball is forced against its seat by the nozzle spring, the excess pressure is relieved downstream.

INSTALLATION

CAUTION: Maximum Supply Pressure is 300 PSI(2068kPa)
Unit has four 1/4" N.P.T. connections. Two are marked "IN" and two are marked "OUT". The second "OUT" connection can be used as a gauge connection or as an additional regulated air pressure supply port. **IT IS RECOMMENDED THAT A FILTERED AIR SUPPLY BE USED.**

Check all connections for leakage after installation. Adjusting knob should be kept well lubricated with grease.

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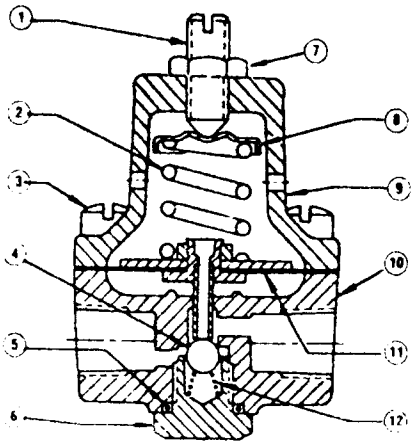
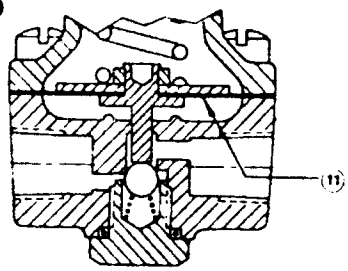
C-8025



GH04XSKEXXX__
RELIEF - NO BLEED



GH04XSKMXXX__
NO BLEED - NO RELIEF

MAINTENANCE

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

Periodic replacement of the diaphragm assembly and ball valve is recommended for services where the unit is on stream continuously. The frequency of replacements will depend on the nature of the service, cleanliness of air, humidity of the air, etc.

To replace the diaphragm assembly, loosen adjusting screw (1) until spring tension is relieved. Remove four screws (3), and lift off bonnet (9), spring plate (8), spring (2) and diaphragm assembly (11). Inspect the diaphragm for wear and check the condition of the ball seating surface on the lower tube. Reassemble by placing diaphragm seat tube in pilot hole of body (10), orienting diaphragm over tapped holes. Place spring (2) and spring plate (8) on diaphragm assembly (11), re-install bonnet (9) and tighten four screws (3).

To replace ball (4), remove cap (6). Care should be exercised not to drop ball (4) or nozzle spring (12). Inspect ball for wear and accumulation of foreign matter in recess. Reassemble by placing nozzle spring (12) and ball (4) into cap (6). Tighten cap until secure.

ITEM NO.	DESCRIPTION	QTY. REQ'D	GH04XSKEXXXF GH04XSKMXXXF
1	Adjusting Screw	1	6019756
2	Range Spring		
	0-60 PSI(0-414kPa)	1	6019657
3	Fill. Hd. Screw 1/4"-20 x 1/2" Lg.	4	6900089
4(1)	Ball Valve	1	6077291
5(1)	O-Ring	1	6076640
6	Cap	1	6019699
7	Locknut (Palnut)	1	6075949
8	Spring Plate	1	6018857
9	Bonnet	1	6019632
10	Body		
	KEXXX__	1	6019665
	KMXXX__	1	6019863
11(1)	Diaphragm Assembly		
	KEXXX__	1	6019749
	KMXXX__	1	6019855
12(1)	Nozzle Spring	1	6019681

NOTES: 1. Recommended Spare Parts can be purchased individually or as a spare parts kit under number (Consists of items 4, 5, 11 and 12).
6385339
Spare Parts Kit - GH04XXKE
6385340
Spare Parts Kit - GH04XSKM
2. For definition of catalog number, refer to Sales Bulletin C-2009.
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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ITT Industries
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P. O. Box 768
5154 Highway 78
St. George, SC 29477-0768
Telephone: (843) 563-9281
Fax: (843) 563-2131
e-mail: conoflow_info@fluids.ittind.com
world wide web: http://www.ittconoflow.com

WARNING: MANUFACTURED WITH (1, 1, 1-TRICHLOROETHANE), A SUBSTANCE WHICH HARMS PUBLIC HEALTH AND ENVIRONMENT BY DESTROYING OZONE IN THE UPPER ATMOSPHERE.