

TYPE D50 STAINLESS STEEL STEAM PRESSURE REDUCING VALVE

Pressures To 300 PSIG (21 barg)
Temperatures to 420°F (216°C)

Tight Shutoff—Spherical seating surface on floating stainless steel disc ensures ANSI/FCI 70-2 Class IV Shutoff.

Unique Adjustable Aspirator—Allows valve to be adjusted to suit service requirements.

Three Spring Ranges—Provide for wide range of controlled pressures.

External Adjusting Screw—Allows for quick, accurate change of reduced pressure set point.

High Grade Stainless Steel Spring—Accommodates wide range of adjustment without dangerous spring overload.

Large Area Diaphragm—Assures high sensitivity and accurate control.

External Body Cap—Provides easy access to internal screen for cleaning.

Models

- **D50SS**—Stainless Steel D50

Applications

- Clean steam systems utilizing deionized steam
- In-line sterilization of liquid storage tanks and distribution equipment
- Cleaning and sterilizing process piping systems
- Powering sterilizers and autoclaves

Canadian Registration # 0C0591.9

Operation

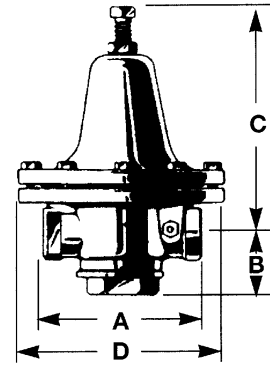
Regulator is actuated by changes in the downstream pressure. Any increase in the downstream pressure above the set point (due to decreased fluid demand) will force the diaphragm up and overcome the resis-

tance of the spring, allowing the valve to close. Any decrease in the downstream pressure (due to an increased fluid demand) will decrease the pressure on the diaphragm and permit the spring to open the valve.

TYPE D50 STAINLESS STEEL STEAM PRESSURE REDUCING VALVE

Specification

Valve shall be self operated, requiring no external energy source. Valve shall operate quickly and provide dead end shutoff. Valve shall have a stainless steel body and be rated 300 psi at 420°F. Valve trim material shall be stainless steel. Valve shall have a standard aspirator to allow for adjustment of operation.



Connections: 1/2" – 1" Screwed

Maximum Operating Conditions

PMO: Max. Operating Pressure 300 psig (20.7 barg)
TMO: Max. Operating Temperature 420°F (116°C)
PMA: Max. Allowable Pressure 300 psig (20.7 barg)
TMA: Max. Allowable Temperature 420°F (116°C)

Materials of Construction

Body ASTM 743 CF-8M
Stem 304 St. Stl ASTM 276 Cond. A
Disc 316 St. Stl. ASTM 276 Cond. A
Seat 304 St. Stl ASTM 276 Cond. A
Gasket Teflon
Diaphragm 304 St. Stl ASTM 276 Cond. A
Spring 302 St. Stl.

Spring Ranges

3 - 15 psig
10 - 30 psig
30 -140 psig

Dimensions

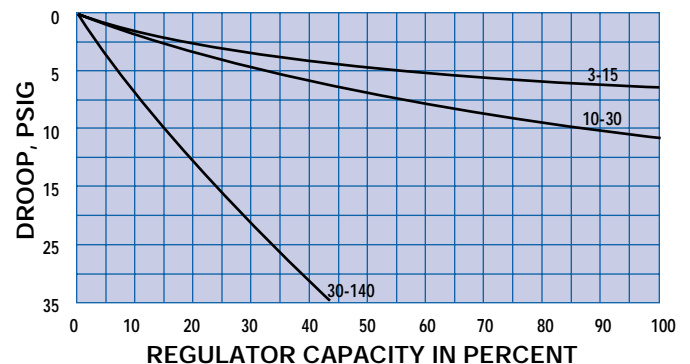
Size	Dimensions, Inches (mm)				Weight lbs (kg)
	A	B	C	D	
1/2" (13)	5 (127)	1 5/8 (41)	5 1/2 (140)	4 7/8 (124)	8 (3.6)
3/4", 1" (19, 25)	5 5/8 (143)	2 1/4 (57)	6 1/2 (165)	7 7/16 (191)	22 (10)

Rated Flow Coefficients (Cv)

VALVE SIZE

1/2"	3/4"	1"
2.2	3.3	4.9

3/4" VALVE DROOP CHART*



*Droop for other sizes similar

Rated Steam Capacity Tables (lbs./hr)

PSI IN	10	20	30	40	50	75	100	125	150	175	200	250	60	75	85	100	125	150	175	200	250
PSI OUT	5	10	10	30	30	30	30	30	30	30	30	30	50	50	50	50	50	50	50	50	50
1/2"	41	68	100	87	130	200	255	315	370	425	480	595	115	190	230	280	340	405	465	525	650
3/4"	59	97	145	125	185	290	370	450	530	615	695	855	165	275	335	410	500	590	675	765	945
1"	80	130	195	170	250	390	495	605	715	825	930	1150	250	420	510	625	760	895	1030	1170	1440

PSI IN	85	100	125	150	175	200	225	250	110	125	150	200	225	250	135	150	175	200	225	250	160	175	200	225	250
PSI OUT	75	75	75	75	75	75	75	75	100	100	100	100	100	100	125	125	125	125	125	125	140	140	140	140	140
1/2"	130	215	325	405	465	525	585	650	190	310	460	675	755	830	210	340	500	635	755	830	315	425	580	710	835
3/4"	190	315	470	590	675	765	855	945	310	500	745	1095	1220	1350	340	550	810	1030	1230	1350	510	690	940	1150	1350
1"	290	480	720	895	1030	1170	1300	1440	380	620	920	1350	1510	1670	420	680	995	1270	1510	1670	630	855	1160	1420	1670