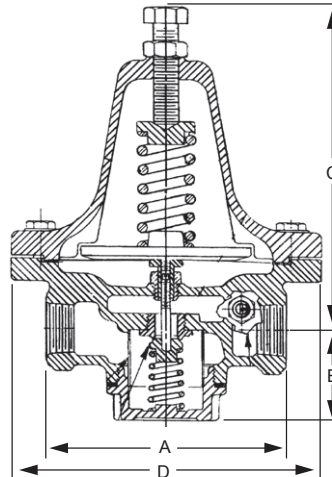




# Direct Acting Pressure Reducing Valve

Type D50



- Direct Acting
  - Steam, Water or Gas
  - Spherical Seating Surface on Floating Stainless Steel Disc for Tight Shutoff
  - Unique Adjustable Aspirator
  - Five Spring Ranges
  - Integral Stainless Steel Strainer
  - ANSI/FCI 70-2 Class IV Shutoff
- Option**
- Teflon Disc for Dead-end Service for Liquid and Gas

### Specification

The valve shall be self operated, requiring no external energy source. The valve shall operate quickly and provide dead end shutoff. The body materials and rating shall be cast iron for 200 psig and 400°F Bronze or Stainless Steel for 300 psi and 420°F Valve trim material is to be stainless steel. Valve to have a standard aspirator to allow for adjustment of operation.

Materials	
Part	Materials
Body	Cast Iron ASTM 126 Cl. B
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.

Dimensions inches(mm)					
Size	A	B	C	D	Weight
½, ¾"	4.5/8 (143)	1.3/4(44)	6.7/8 (175)	6 (152)	12 (5.5)
1", 1¼"	5.5/8 (143)	2 (51)	7.1/4 (184)	7.1/2(191)	19 (8.6)
1½", 2"	6.5/8 (168)	2.3/4(70)	11.1/2(292)	9 (229)	30 (13.6)

Capacity Chart																						
Valve Size		½"			¾"			1"			1¼"			1½"			2"					
PSI		Cv			2.2			3.3			4.9			5.0			10.1			10.8		
IN	OUT	S	A	W	S	A	W	S	A	W	S	A	W	S	A	W	S	A	W			
10	15	41	14	3	59	20	4.2	80	27	5.7	91	30	6.5	105	35	7.4	120	40	8.5			
20	10	68	23	4.2	97	33	6.0	130	44	3.1	150	50	9.2	170	37	10	230	77	14			
30	10	100	35	5.9	145	50	8.5	195	67	11	220	76	13	250	87	15	290	100	17			
40		87	29	4.2	125	42	6.0	170	57	8.1	190	64	9	250	85	12	265	89	13			
50		130	43	5.9	185	63	8.5	250	84	11	285	95	13	375	125	17	395	130	18			
75		200	72	8.8	290	105	13	390	140	17	440	160	19	580	210	25	610	220	27			
100		255	98	11	370	140	16	495	190	21	565	215	24	740	285	32	780	295	33			
125	30	315	105	13	450	175	19	605	240	25	690	270	28	900	355	37	950	375	39			
150		370	145	15	530	210	21	715	285	28	810	325	32	1065	425	42	1120	445	44			
175		425	170	16	615	245	23	825	330	31	935	375	35	1230	495	46	1290	520	48			
200		480	195	17	695	280	25	930	375	33	1060	430	38	1390	560	50	1460	590	52			
250		595	240	20	855	350	28	1150	470	38	1305	535	43	1710	700	56	1800	735	60			
60		115	38	4.6	165	55	6.6	250	85	10	260	87	10	355	120	14	395	130	16			
75		190	63	7.2	275	92	10	420	140	16	430	145	17	585	195	23	655	220	25			
85		230	77	8.5	335	110	12	510	170	19	525	175	20	715	240	27	800	270	30			
100		280	96	10	410	140	15	625	215	23	645	220	23	875	300	32	1000	335	35			
125	50	340	125	12	500	185	18	760	280	28	785	290	29	1070	390	39	1190	435	43			
150		405	155	14	590	225	21	895	340	32	925	350	33	1260	480	45	1400	535	50			
175		465	180	16	675	265	23	1030	400	36	1065	415	37	1450	565	50	1620	630	56			
200		525	205	18	765	305	26	1170	460	39	1205	475	40	1640	650	55	1830	720	61			
250		650	260	20	945	380	30	1440	580	45	1485	595	47	2020	815	65	2260	905	71			
85		130	44	4.6	190	64	6.6	290	98	10	300	100	10	410	140	14	455	155	16			
100		215	72	7.2	315	105	10	480	160	16	495	165	17	675	225	23	750	250	25			
125		325	110	10	470	160	15	720	240	23	740	250	23	1010	340	32	1130	380	35			
150		405	140	12	590	205	18	895	310	28	925	320	29	1260	440	39	1400	485	43			
175		465	170	14	675	245	21	1030	375	32	1065	390	33	1450	530	45	1620	590	50			
200		525	200	16	765	290	23	1170	440	36	1205	455	37	1640	620	50	1830	685	56			
225		585	225	18	855	330	26	1300	500	39	1345	515	40	1830	705	55	2040	785	61			
250		650	250	19	945	370	28	1440	560	42	1485	580	44	2020	790	60	2250	880	66			
110		190	65	6	310	105	9	380	125	12	400	135	12	465	155	14	515	170	16			
125		310	105	9	500	170	15	620	210	19	655	220	20	755	255	23	840	280	25			
150		460	155	13	745	250	21	920	310	26	970	325	28	1120	375	32	1250	415	35			
200	100	675	235	19	1095	385	30	1350	475	37	1430	500	39	1650	575	45	1830	640	50			
225		755	275	21	1220	445	34	1510	550	41	1590	580	44	1840	665	50	2040	740	56			
250		830	310	23	1350	505	37	1670	620	45	1760	655	48	2030	760	55	2250	840	61			
135		210	70	5.9	340	115	9.5	420	140	12	440	150	12									
150		340	115	9.3	550	185	15	680	225	19	715	240	20									
175		500	165	13	810	270	21	995	335	26	1050	350	28									
200	125	635	210	16	1030	345	26	1270	425	32	1340	450	34									
225		755	255	19	1230	410	30	1510	505	37	1500	535	39									
250		830	295	21	1350	475	34	1670	585	41	1760	615	44									
160		315	105	8.3	510	170	13	630	210	17	665	225	17									
175		425	145	11	690	230	18	855	285	22	900	300	23									
200	140	580	195	14	940	315	23	1160	390	29	1220	410	30									
225		710	240	17	1150	385	28	1420	475	34	1500	505	36									
250		835	280	19	1350	455	31	1670	560	39	1760	590	41									

S - Steam (#/hr.)  
A - Air (SCFM)  
W - Water (GPM)

Adjusting Spring Range	Valve Size
3 psi - 15 psi	All
10 psi - 30 psi	All
25 psi - 80 psi	½" thru 1¼"
75 psi - 140 psi	½" thru 1¼"
30 psi - 100 psi	1½" thru 2"