

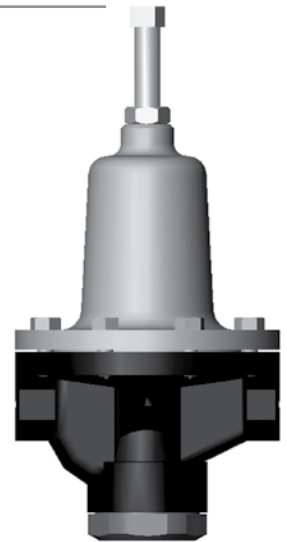
Steam Auxiliary Products

Model: PR3G

PRESSURE REGULATING VALVES

The PR3G is a hard seated pressure reducing and regulating valve suitable for steam applications with supply pressures up to 300 psig (20,7 bar). The PR3G offers exceptional performance, easy in-line maintenance, and heavy duty construction for reliable, long-term operation.

- **Bottom entry cage trim** – allows trim to be threaded out for quick inspection and maintenance
- **Downstream sensing port** – located to reduced droop and increase accuracy and rangeability
- **Larger diaphragm area** – for improved sensitivity and reduced droop or proportional band
- **Versatile application** – sizes from 1/2" through 2" (DN15 through DN50) with ranges available for reduced pressure setpoints from 5 psi to 200 psi (0,34 to 13,8 bar)
- **High capacities** – optimized orifice and body passage sizing leads to high flow capacities



ORDERING SCHEMATIC

MODEL				4	5	6	7
P	R	3	G				

4	MATERIAL
D	Ductile Iron
C	Carbon Steel (WCB)
S	Stainless Steel

5	SIZE
2	1/2"
3	3/4"
4	1"
6	1-1/2"
7	2"

6	CV/SELECTION	
Size	F	R
1/2"	2.9	1.6
3/4"	7	4.4
1"	7.7	5.6
1-1/2"	16.5	7.7
2"	19	13.5

Valves available with Full (F) or Reduced (R) in each size, seat configuration is 316 SST seat with 17-4 PH hardened Stainless Steel plug. ANSI Class IV shutoff

7	RANGE		
Size	L	M	H
1/2"	10-55	50-160	150-200
3/4"	15-45	60-105	130-180
1"	5-20	35-70	95-140
1-1/2"	10-25	20-65	90-160
2"	10-25	20-65	90-160

Additional springs may be available - consult factory

PRESSURE REGULATING VALVE
SPECIFICATIONS

Sizes: 1/2" (DN15), 3/4" (DN20), 1" (DN25), 1-1/2" (DN40), 2" (DN50)

End Connections:

- Threaded NPT (1/2" - 2"/DN15 - DN50)

Maximum Inlet Pressure: 300 psi (20,7 bar)

Maximum Outlet Pressure: 200 psi (13,8 bar)

Temperature Range: -15°F to +550°F (-26°C to +288°C)

Reduced Pressure Setpoint Ranges (PSI):

- 1/2": 10-55; 50-160; 150-200
- 3/4" to 1": 15-45; 60-105; 130-180
- 1": 5-20; 35-70; 95-140
- 1-1/2" to 2": 10-25; 20-65; 90-160

Service: Steam

MATERIALS

Body: Ductile Iron, Carbon Steel, Stainless Steel

Seat/Plug: 316/17-4 PH

Bottom Cap: SST

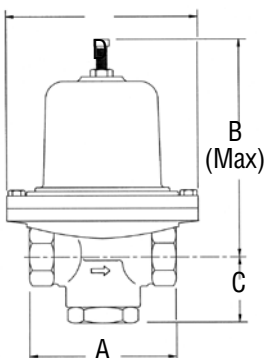
Spring Housing: Cast Iron

Diaphragm: Stainless Steel

Cv (Kv) Ratings:

Size (DN)	Cv (Kv)
1/2" (DN15)	1.6 (1,4); 2.9 (2,5)
3/4" (DN20)	4.4 (3,8); 7.0 (6,0)
1" (DN25)	5.6 (4,8); 7.7 (6,6)
1-1/2" (DN40)	7.7 (6,6); 16.5 (14,2)
2" (DN50)	13.5 (11,6); 19.0 (16,3)

Recover Factor (F_r): 0.9

DIMENSIONS


Size	A (mm)	B (mm)	C (mm)	D (mm)	Wt. (kg)
1/2"	5.0 (127)	7.6 (192)	2.6 (65)	5.0 (127)	11 (5)
3/4"-1"	5.0 (127)	9.4 (238)	2.63 (67)	6.9 (175)	20 (9)
1-1/2"-2"	7.5 (191)	16.8 (426)	3.9 (99)	9.4 (238)	68 (31)

CAPACITY CHARTS: MAXIMUM SATURATED STEAM FLOW IN POUNDS PER HOUR

P1	P2	Cv Value							
		2.2	2.6	2.9	7.0	7.7	15.5	16.5	19
5	3	41	48	54	131	144	291	309	356
	8	46	54	61	147	162	327	348	401
10	5	68	81	90	218	240	483	514	592
	3	77	91	101	246	170	544	580	667
15	12	61	72	80	195	214	432	460	529
	8	86	102	114	276	303	611	650	749
	3	102	120	134	325	357	720	756	882
25	20	89	105	117	248	313	530	571	772
	15	117	139	155	374	411	829	882	1016
	10	133	157	175	423	466	938	999	1150
	3	142	168	188	454	500	1006	1071	1233
50	40	156	185	206	498	547	1103	1174	1352
	30	201	238	266	642	706	1422	1514	1743
	20	223	263	294	710	781	1573	1675	1929
	10	230	272	303	732	806	1622	1727	1989
	8	230*	272*	303*	733*	806*	1624*	1728*	1990*
75	70	136	161	179	434	477	961	1023	1178
	50	268	317	353	853	939	1890	2012	2317
	40	295	349	389	941	1035	2083	2218	2554
	25	314	371	414	1000	1101	2216	2359	2716
	15	316*	374*	417*	1007*	1108*	2230*	2374*	2734*
100	90	212	251	280	677	745	1500	1597	1839
	75	312	369	411	993	1093	2200	2342	2697
	60	364	430	480	1159	1275	2566	2732	3146
	40	395	467	521	1259	1385	2789	2969	3419
	25	400*	473*	528*	1275*	1402*	2824*	3006*	3461*
125	100	351	414	462	1117	1228	2473	2633	3032
	80	431	510	569	1373	1511	3042	3238	3729
	60	471	557	621	1500	1651	3323	3537	4073
	50	481	568	634	1531	1684	3391	3610	4157
	35	485*	574*	640*	1546*	1700*	3423*	3644*	4196*
150	125	385	455	508	1227	1350	2718	2893	3332
	100	498	588	656	1584	1743	3509	3736	4302
	90	524	620	691	1670	1837	3697	3936	4532
	75	551	652	727	1756	1931	3888	4139	4766
	45	570*	674*	752*	1815*	1997*	4021*	4280*	4929*
175	150	417	493	550	1328	1491	2942	3132	3606
	125	546	645	720	1738	1912	3850	4098	4719
	100	615	727	810	1957	2153	4334	4614	5313
	75	647	765	854	2061	2267	4565	4859	5596
	55	655*	774*	864*	2085*	2294*	4618*	4915*	5660*
200	180	404	478	533	1288	1417	2852	3036	3497
	150	589	697	777	1877	2064	4156	4424	5095
	125	674	793	884	2135	2349	4729	5034	5796
	100	715	845	943	2277	2505	5043	5368	6181
	65	735*	869*	969*	2430*	2574*	5182*	5517*	6353*
250	200	670	792	883	2133	2346	4724	5028	5790
	150	841	994	1109	2678	2946	5931	6313	7270
	125	881	1042	1162	2805	3086	6212	6612	7614
	100	900	1064	1187	2865	3152	6345	6755	7778
	80	904*	1068*	1191*	2876*	3164*	6369*	6780*	7808*
300	200	954	1126	1256	3032	3335	6714	7147	8230
	150	1047	1238	1381	3334	3667	7382	7589	9049
	125	1067	1261	1407	3396	3735	7520	8005	9218
	100	1072*	1267*	1414*	3413*	3755*	7558*	8046*	9265*

Notes:

- P1 = inlet pressure; P2 = desired outlet pressure
- Sizing per ANSI/ISA S75.01, 1977 and S75.02, 1981
- Figures with asterisk (*) represent choked flow conditions. Further decreases in outlet pressure will not result in a flow rate increase