

For Steam, Air and Non-Corrosive Gas Service

The GD-45 is a compact, high-performance, direct-acting valve. Inexpensive to buy and use, it is ideal for those moderate flow applications that do not justify the higher cost of pilot-controlled valves.

The GD-45 is well-suited for laundry and dry-cleaning equipment, hospital equipment, tire molds, humidifiers, small heaters, and applications in food processing. It provides tight, quick, easy installation.

Quick, easy installation

- Lightweight and compact
- Piping supports the valve of ductile iron for greater durability and higher inlet pressure
- Screwed connections
- No external sensing lines or parts needed
- Maximum turndown ratio 10:1
- ANSI Class IV shutoff

Simple selection

- 1/2", 3/4" and 1"
- Match pipe size normally
- Three pressure range springs (for best control when ranges overlap, use smaller range spring)

Long life/easy maintenance

- Highly resilient phosphor-bronze bellows
- Hardened stainless-steel working parts
- Integral strainer (removable for cleaning) for protection from wear or dirt
- Teflon gaskets used at all joints for improved leakage prevention

For a fully detailed certified drawing, refer to CDY #1090.

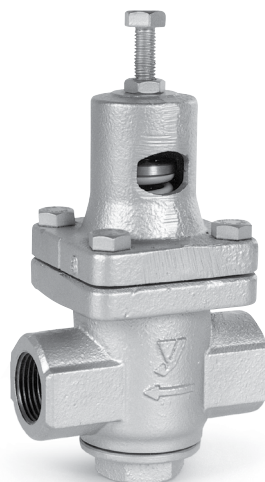
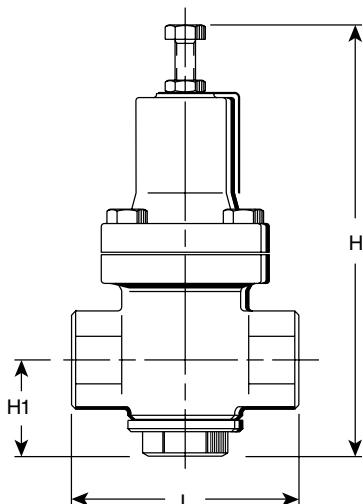
GD-45 Specifications

Service	Inlet Pressure psig (barg)	Reduced Pressure psig (barg)	Minimum Differential psig (barg)	Maximum Temperature °F (°C)	Materials		
					Body	Valve/Seat	Bellows
Steam, Air Non-Corrosive Gases	15 - 300 (1 - 20)	3 - 15 (.21 - 1.0) Yellow	7 (.48)	450 (232)	ASTM A536 Ductile Iron	Hardened Stainless Steel AISI 420	Phosphor Bronze ASTM B103
		7 - 60 (0.5 - 4.0) Blue					
		50 - 140 (3.4 - 9.6) Green					

GD-45 Dimensions and Weights

Symbol	Connection Size					
	in	mm	in	mm	in	mm
	1/2	15	3/4	20	1	25
L	4-3/8	111	4-3/8	111	4-3/8	111
H _i	1-7/8	47	1-7/8	47	1-7/8	47
H	8-1/2	216	8-1/2	216	8-1/2	216
Wt, lb (kg)	7 (3.2)					
Cv	1.3		1.5		2.5	

NOTE: GD-45 capacities cannot be determined with a formula—consult capacity tables. Reference note under formula key on page 275.



GD-45 Capacities—Steam

lb/hr				
Inlet	Outlet	Connection Size		
		in		
psig		1/2	3/4	1
C _v Factor		1.3	1.5	2.5
15	7	49	56	92
20	13	53	61	105
	7	42	55	63
30	23	62	71	112
	15	53	60	101
	3	33	40	60
40	32	99	121	187
	20	79	97	159
	4	40	55	77
50	40	130	143	242
	20	99	115	187
	5	48	62	88
60	48	137	154	265
	40	150	165	289
	18	90	104	170
	6	55	73	99
80	64	176	205	342
	54	187	225	353
	23	121	137	220
	8	60	77	108
100	80	203	242	397
	66	225	262	437
	40	198	231	375
	10	68	79	132
120	96	231	276	452
	70	276	311	518
	45	240	267	450
	12	110	121	198
150	120	287	333	551
	85	364	421	705
	55	298	353	595
	15	132	165	254
180	140	408	485	794
	115	430	507	860
	70	386	430	739
	18	165	187	309
200	140	461	518	871
	115	474	540	904
	80	430	496	827
	20	209	242	386
225	140	485	573	948
	115	496	584	961
	85	463	540	904
	23	254	298	496
250	140	525	606	1 014
	120	551	584	1 038
	70	463	529	893
	25	276	320	529
300	140	528	616	1 023
	120	551	627	1 038
	70	484	550	913
	30	319	352	583

kg/hr				
Inlet	Outlet	Connection Size		
		mm		
barg		15	20	25
C _v Factor		1.3	1.5	2.5
1.0	.5	22	25	42
1.4	.9	24	28	48
	.5	19	25	35
2.0	1.6	28	32	51
	1.0	24	27	46
	.2	15	18	27
2.8	2.2	45	55	85
	1.4	36	44	72
	.3	18	25	35
3.4	2.8	59	65	110
	1.4	45	52	85
	.3	22	28	40
4.0	3.3	62	70	120
	2.8	68	75	131
	1.2	41	47	77
	.4	25	33	45
5.5	4.4	80	93	155
	3.7	85	102	160
	1.6	55	62	100
	.5	27	35	49
6.9	5.5	92	110	180
	4.5	102	119	198
	2.8	90	105	170
	.7	31	36	60
8.3	6.6	105	125	205
	4.8	125	141	235
	3.1	109	121	204
	.8	50	55	90
10.3	8.3	130	151	250
	5.9	165	191	320
	3.8	135	160	270
	1.0	60	75	115
12.4	9.7	185	220	360
	8.0	195	230	390
	4.8	175	195	335
	1.2	75	85	140
13.8	9.7	209	235	395
	8.0	215	245	410
	5.5	195	225	375
	1.4	95	110	175
15.5	9.7	220	260	430
	8.0	225	265	436
	5.9	210	245	410
	1.6	115	135	225
17.2	9.7	238	275	460
	8.3	250	265	471
	4.8	210	240	405
	1.7	125	145	240
20	9.7	240	280	465
	8.3	250	285	477
	4.8	220	250	415
	2.0	145	160	265

NOTE: For air capacities scfm, multiply steam capacities (lb/hr) by 0.36. For air capacities m³/hr, multiply steam capacities (kg/hr) by 1.35. Maximum pressure reduction ratio 10:1.

Pressure and
Temperature Controls