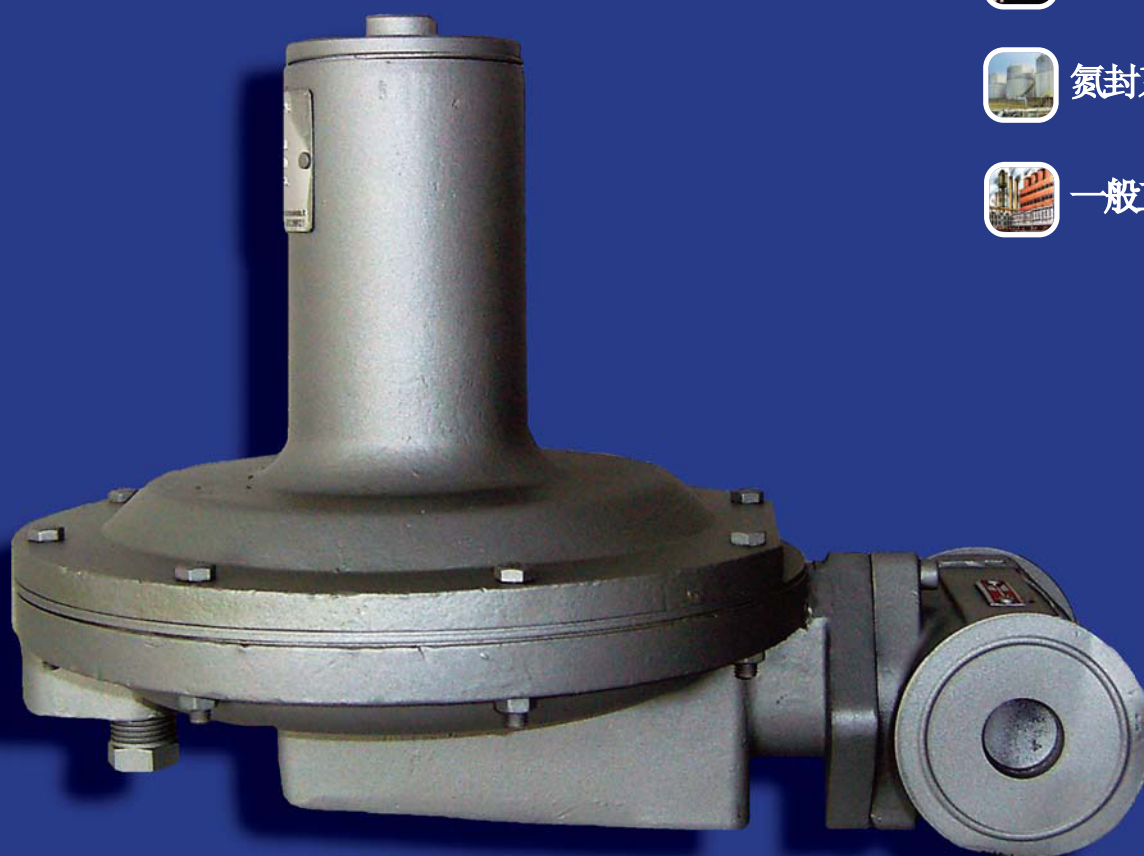


UBB 系列

自力式减压阀/泄压阀



适用于:



空气和处理气体

市场:



油气



氮封系统



一般工业

UBB系列:

阀门ID卡

功能
减压和泄压
阀座类型
单阀座
线性尺寸
阀体口径 $\frac{1}{2}$ "到 $1\frac{1}{2}$ "英尺
阀体材质
碳钢, 不锈钢
连接方式
螺纹 (F-NPT或燃气)
最大比率
ANSI 1500
CV值
从0, 04至4, 90
阀芯材质
不锈钢(std.)
隔膜材质
NBR

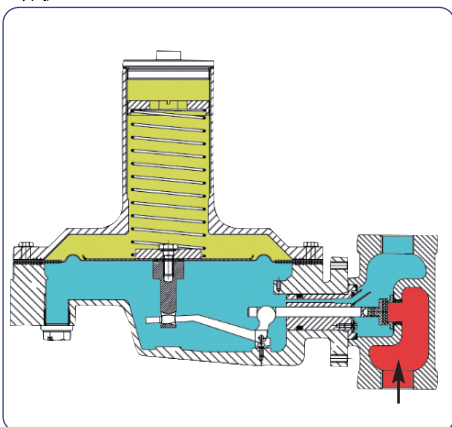
UBB系列的阀门具有两种不同的功能：它们能够用作自力式弹簧负载的减压阀或泄压阀。这系列的阀门在与所有处理气体有关（包括空气）的多种工业应用中进行减压和泄压控制。

大面积的膜片让阀门在低设定压力时能够进行更精确的控制，杠杆设计让其具有非常好的切断密封性。这系列阀门的阀体口径范围为 $\frac{1}{2}$ 至 $1\frac{1}{2}$ 英尺。简单结构使阀门具有灵活性和价格竞争优势，易于安装和维护。

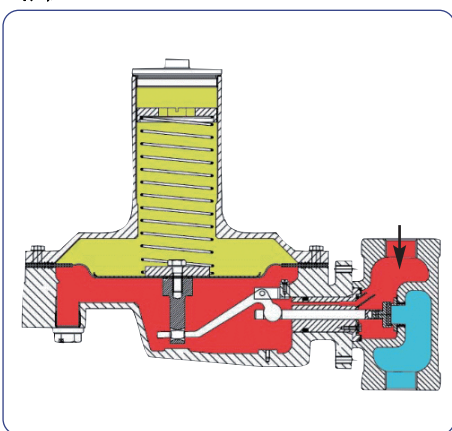
综合特性:

流-开式或流-闭式设计（取决于不同的功能）
阀内测压
具弹性的单阀座
合成橡胶隔膜
可随意转动阀体，简化安装
根据手杆的位置，此阀可用作减压或泄压

减压



泄压



■ 入口压力
■ 出口压力
■ 大气压

表格和规格索引

液体应用类型• 看表格1
容量和CV值• 看表格2 - 5
结构材质• 看表格6
最大入口压力• 看表格7
温度限定条件• 看表格8
弹簧弹性范围• 看表格9
重量• 13,5 kg (30 lbs)
阀体尺寸和连接方式• 看表格10

表格[1]-液体应用类型

燃气	空气, 惰性气体, 二氧化碳, 一氧化碳, 碳氢化合物, 氧气, 氢气, 氟气, 氨气, 制冷气体
----	---

表格[2]-减压阀中所有阀体尺寸的Cv值

流孔	阀体尺寸			
	½"	¾"	1"	1½"
1	0,04	0,04	0,04	0,04
2	0,10	0,10	0,10	0,10
3	0,34	0,34	0,34	0,34
4	0,75	0,75	0,75	0,75
5	0,94	0,94	0,94	0,94
6	1,38	1,38	1,38	1,38
7	1,90	1,90	1,90	1,90
8	2,45	2,45	2,45	2,45
9	2,80	2,80	2,80	2,80
10	3,14	3,14	3,14	3,14
11	3,55	3,55	3,55	3,55
12	3,82	3,82	3,82	3,82
13		4,00	4,00	4,00
14		4,50	4,50	4,50
15		4,95	4,90	4,90

标准流孔

表格[3]-泄压阀中所有阀体尺寸的Cv值

流孔	阀体尺寸			
	½"	¾"	1"	1½"
1	0,04	0,04	0,04	0,04
2	0,17	0,17	0,17	0,17
3	0,38	0,38	0,38	0,38
4	0,75	0,75	0,75	0,75
5	0,95	0,95	0,95	0,95
6	1,39	1,39	1,39	1,39
7	1,88	1,88	1,88	1,88
8	2,50	2,50	2,50	2,50
9	2,96	2,96	2,96	2,96
10	3,40	3,40	3,40	3,40
11	3,75	3,75	3,75	3,75
12	3,95	3,95	3,95	3,95
13		4,15	4,15	4,15
14		4,40	4,40	4,40
15		4,86	4,90	4,90

标准流孔

表格[4]- 口径DN15、DN20、DN25、DN40的流量|减压

口径DN15-DN20-DN25-DN40的流量									
出口压力范围 弹簧型号	设定点的 误差	出口压力 设定	最大设定 压力 barg (PSIG)	CAPACITIES IN Nm ³ /h (SCFH) OF AIR					
				流孔尺寸, (mm)					
				1	2	4	8	14	
3,4至5,5 mbar (1,4至2,2 inches w.c.), 43 12 UBB02	1 mbar (0,4 inches w.c.)	3,4 mbar (1,4 inches w.c.)	0,11 (1,6)	0,265 (9,89)	0,719 (26,85)	5,711 (213,15)	18,655 (696,30)	34,264 (1278,92)	
			0,30 (4,35)	0,508 (18,96)	1,284 (47,92)	9,630 (359,43)	31,457 (1174,15)		
			1,30 (18,85)	1,173 (43,77)	2,931 (109,42)	21,986 (820,63)			
			5,60 (81,22)	3,756 (140,20)	9,390 (350,50)				
		10,00 (145)	6,500 (242,60)						
		5,5 mbar (2,2 inches w.c.)	0,11 (1,6)	0,262 (9,78)	0,711 (26,55)	5,659 (211,24)	18,487 (690,051)	33,957 (1267,44)	
	0,30 (4,35)		0,506 (18,89)	1,281 (47,80)	9,604 (358,46)	31,372 (1170,98)			
	1,30 (18,85)		1,172 (43,76)	2,931 (109,42)	21,981 (820,44)				
	5,60 (81,22)		3,755 (140,18)	9,389 (350,44)					
	5,5至9,3 mbar (2,2至3,7 inches w.c.), 43 12 UBB03	2 mbar (0,8 inches w.c.)	5,5 mbar (2,2 inches w.c.)	0,13 (1,88)	0,292 (10,91)	0,792 (29,56)	6,183 (230,78)	20,198 (753,89)	37,098 (1384,69)
				0,40 (5,80)	0,597 (22,29)	1,493 (55,71)	11,195 (417,86)	36,570 (1365,00)	
				1,60 (23,2)	1,338 (49,94)	3,345 (124,85)	25,091 (936,53)		
6,50 (94,27)				4,316 (161,09)	10,790 (402,72)				
10,00 (145)			6,499 (242,58)						
9,3 mbar (3,7 inches w.c.)			0,13 (1,88)	0,287 (10,72)	0,779 (29,06)	6,098 (227,61)	19,920 (743,53)	36,588 (1365,66)	
		0,40 (5,80)	0,595 (22,21)	1,488 (55,53)	11,157 (416,45)	36,447 (1360,41)			
		1,60 (23,2)	1,338 (49,94)	3,345 (124,85)	25,086 (936,33)				
		6,50 (94,27)	4,315 (161,04)	10,786 (402,60)					
9,3至22 mbar (3,7至8,8 inches w.c.), 43 12 UBB05		5 mbar (2 inches w.c.)	9,3 mbar (3,7 inches w.c.)	0,21 (3,05)	0,396 (14,77)	1,053 (39,30)	7,896 (294,73)	25,794 (962,77)	47,377 (1768,36)
				0,60 (8,70)	0,744 (27,75)	1,859 (69,38)	13,941 (520,35)	45,540 (1699,81)	
				2,60 (37,71)	1,885 (70,35)	4,712 (175,87)	35,338 (1319,02)		
	10,00 (145)			6,498 (242,53)	16,244 (606,33)				
	22 mbar (8,8 inches w.c.)		0,21 (3,05)	0,382 (14,26)	1,024 (38,24)	7,683 (286,78)	25,098 (936,80)	46,099 (1720,66)	
			0,60 (8,70)	0,739 (27,58)	1,847 (68,94)	13,853 (517,06)	45,252 (1689,05)		
		2,60 (37,71)	1,880 (70,18)	4,700 (175,44)	35,252 (1315,78)				
		10,00 (145)	6,494 (242,38)	16,234 (605,94)					
	22至34 mbar (8,8至13,6 inches w.c.), 43 12 UBB06	8 mbar (3,15 inches w.c.)	22 mbar (8,8 inches w.c.)	0,25 (3,63)	0,432 (16,13)	1,131 (42,20)	8,480 (316,54)	27,703 (1034,02)	50,883 (1899,21)
				0,80 (11,60)	0,872 (32,55)	2,180 (81,38)	16,352 (610,33)	53,415 (1993,73)	
				3,20 (46,41)	2,255 (84,17)	5,638 (210,43)	42,284 (1578,26)		
				10,00 (145)	6,494 (242,38)	16,234 (605,94)			
34 mbar (13,6 inches w.c.)			0,25 (3,63)	0,420 (15,68)	1,106 (41,28)	8,295 (309,62)	27,097 (1011,41)	49,770 (1857,69)	
			0,80 (11,60)	0,869 (32,43)	2,172 (81,07)	16,289 (608,00)	53,211 (1986,11)		
		3,20 (46,41)	2,251 (84,01)	5,627 (210,04)	42,204 (1575,28)				
		10,00 (145)	6,490 (242,23)	16,224 (605,58)					
34至62 mbar (13,6至25 inches w.c.), 43 12 UBB07		17 mbar (6,8 inches w.c.)	34 mbar (13,6 inches w.c.)	0,30 (4,35)	0,480 (17,93)	1,231 (45,95)	9,233 (344,61)	30,160 (1125,74)	55,396 (2067,68)
				0,90 (13,05)	0,932 (34,78)	2,330 (86,96)	17,474 (652,21)	57,080 (2130,54)	
				3,70 (53,66)	2,563 (95,66)	6,407 (239,14)	48,052 (1793,56)		
				10,00 (145)	6,490 (242,23)	16,224 (605,58)			
	62 mbar (25 inches w.c.)		0,30 (4,35)	0,453 (16,92)	1,177 (43,95)	8,831 (329,63)	28,849 (1076,78)	52,987 (1977,77)	
			0,90 (13,05)	0,925 (34,52)	2,312 (86,30)	17,341 (647,26)	56,647 (2114,38)		
		3,70 (53,66)	2,553 (95,29)	6,382 (238,23)	47,868 (1786,69)				
		10,00 (145)	6,481 (241,89)	16,202 (604,73)					

62 to 98 mbar (25至39 inches w.c.), 43 12 UBB08	26 mbar (10,24 inches w.c.)	62 mbar (25 inches w.c.)	0,50 (7,25)	0,647 (24,16)	1,618 (60,41)	12,139 (453,08)	39,652 (1480,04)	72,831 (2718,45)	
			1,50 (21,76)	1,278 (47,69)	3,194 (119,23)	23,958 (894,23)	78,262 (2921,16)		
			6,30 (91,37)	4,172 (155,74)	10,431 (389,34)	78,233 (2920,07)			
		98 mbar (39 inches w.c.)	0,50 (7,25)	0,628 (23,45)	1,571 (58,63)	11,782 (439,75)	38,486 (1436,51)	70,689 (2638,49)	
			1,50 (21,76)	1,273 (47,53)	3,184 (118,83)	23,877 (891,21)	77,998 (2911,29)		
			6,30 (91,37)	4,160 (155,29)	10,401 (388,22)	78,006 (2911,63)			
98至190 mbar (1,4至2,8 psig), 43 12 UBB09	50 mbar (0,73 psig)	98 mbar (1,4 psig)	0,80 (11,60)	0,849 (31,69)	2,123 (79,23)	15,921 (594,26)	52,008 (1941,23)	95,525 (3565,52)	
			2,50 (36,26)	1,813 (67,68)	4,533 (169,19)	33,996 (1268,91)	111,053 (4145,11)		
			10,00 (145)	6,469 (241,45)	16,172 (603,63)	121,291 (4527,24)			
		190 mbar (2,8 psig)	0,80 (11,60)	0,815 (30,42)	2,037 (76,04)	15,280 (570,32)	49,913 (1863,02)	91,677 (3421,88)	
			2,50 (36,26)	1,811 (67,59)	4,527 (168,96)	33,951 (1267,23)	110,906 (4139,62)		
			10,00 (145)	6,439 (240,33)	16,097 (600,82)	120,726 (4506,16)			
190至300 mbar (2,8至4,4 psig), 43 12 UBB10	77mbar (1,12 psig)	190 mbar (2,8 psig)	0,80 (11,60)	0,815 (30,42)	2,037 (76,04)	15,280 (570,32)	49,913 (1863,02)	91,677 (3421,88)	
			2,70 (39,16)	1,916 (71,53)	4,791 (178,82)	35,931 (1341,15)	117,375 (4381,08)		
			10,00 (145)	6,439 (240,33)	16,097 (600,82)	120,726 (4506,16)			
		300 mbar (4,4 psig)	0,80 (11,60)	0,763 (28,48)	1,908 (71,21)	14,308 (534,05)	46,740 (1744,57)	85,848 (3204,32)	
			2,70 (39,16)	1,913 (71,39)	4,781 (178,47)	35,861 (1338,53)	117,146 (4372,53)		
			10,00 (145)	6,403 (238,98)	16,006 (597,44)	120,047 (4480,81)			
300至610 mbar (4,4至8,8 psig), 43 12 UBB12	180mbar (2,7 psig)	300 mbar (4,4 psig)	1,60 (23,2)	1,300 (48,50)	3,248 (121,24)	24,362 (909,32)	79,582 (2970,43)	146,171 (5455,90)	
			5,00 (72,52)	3,281 (122,46)	8,202 (306,15)	61,516 (2296,1)	200,951 (7500,59)		
			10,00 (145)	6,403 (238,98)	16,006 (597,44)	120,047 (4480,81)			
		610 mbar (8,8 psig)	1,60 (23,2)	1,217 (45,44)	3,044 (113,60)	22,827 (852,02)	74,567 (2783,26)	136,96 (5112,10)	
			5,00 (72,52)	3,171 (118,35)	7,927 (295,88)	59,452 (2219,09)	194,211 (7249,02)		
			10,00 (145)	6,300 (235,13)	15,748 (587,82)	118,113 (4408,62)			

表格[5]- 口径DN15、DN20、DN25、DN40的流量|减压

进口压力范围 弹簧型号	设定点 检测误差	进口压力 设定	空气流量为Nm ³ /h (SCFH)				
			流孔尺寸 (mm)				
			1	2	4	8	14
3,4至5,5 mbar (1,4至2,2 inches w.c.), 43 12 UBB02	1 mbar (0,4 inches w.c.)	3,4 mbar (1,4 inches w.c.)	0,031 (1,14)	0,161 (6,01)	0,843 (31,48)	3,124 (116,59)	5,718 (213,41)
		5,5 mbar (2,2 inches w.c.)	0,042 (1,56)	0,216 (8,06)	1,116 (41,66)	4,100 (153,02)	7,479 (279,17)
5,5至9,3 mbar (2,2至3,7 inches w.c.), 43 12 UBB03	2 mbar (0,8 inches w.c.)	5,5 mbar (2,2 inches w.c.)	0,042 (1,56)	0,216 (8,06)	1,116 (41,66)	4,100 (153,02)	7,479 (279,17)
		9,3 mbar (3,7 inches w.c.)	0,058 (2,18)	0,297 (11,07)	1,513 (56,48)	5,513 (205,77)	9,844 (367,45)
9,3至22 mbar (3,7至8,8 inches w.c.), 43 12 UBB05	5 mbar (2 inches w.c.)	9,3 mbar (3,7 inches w.c.)	0,058 (2,18)	0,297 (11,07)	1,513 (56,48)	5,513 (205,77)	9,844 (367,45)
		22 mbar (8,8 inches w.c.)	0,100 (3,73)	0,496 (18,53)	2,487 (92,83)	8,606 (321,22)	15,147 (565,35)
22至34 mbar (8,8至13,6 inches w.c.), 43 12 UBB06	8 mbar (3,15 inches w.c.)	22 mbar (8,8 inches w.c.)	0,100 (3,73)	0,496 (18,53)	2,487 (92,83)	8,606 (321,22)	15,147 (565,35)
		34 mbar (13,6 inches w.c.)	0,131 (4,88)	0,643 (24,01)	3,197 (119,33)	10,703 (399,48)	18,837 (703,09)
34至62 mbar (13,6至25 inches w.c.), 43 12 UBB07	17 mbar (6,8 inches w.c.)	34 mbar (13,6 inches w.c.)	0,131 (4,88)	0,643 (24,01)	3,197 (119,33)	10,703 (399,48)	18,837 (703,09)
		62 mbar (25 inches w.c.)	0,189 (7,06)	0,920 (34,34)	4,340 (161,99)	14,467 (539,97)	25,461 (950,35)
62至98 mbar (25至39 inches w.c.), 43 12 UBB08	26 mbar (10,24 inches w.c.)	62 mbar (25 inches w.c.)	0,189 (7,06)	0,920 (34,34)	4,340 (161,99)	14,467 (539,97)	25,461(950,35)
		98 mbar (39 inches w.c.)	0,251 (9,37)	1,211 (45,21)	5,464 (203,96)	18,214 (679,86)	32,057 (1196,55)
98至190 mbar (1,4至2,8 psig), 43 12 UBB09	50mbar (0,73 psig)	98 mbar (1,4 psig)	0,251 (9,37)	1,211 (45,21)	5,464 (203,96)	18,214 (679,86)	32,057 (1196,55)
		190 mbar (2,8 psig)	0,380 (14,19)	1,733 (64,67)	7,644 (285,31)	25,479 (951,03)	44,844 (1673,81)
190至300 mbar (2,8至4,4 psig), 43 12 UBB10	77mbar (1,12 psig)	190 mbar (2,8 psig)	0,380 (14,19)	1,733 (64,67)	7,644 (285,31)	25,479 (951,03)	44,844 (1673,81)
		300 mbar (4,4 psig)	0,511 (19,07)	2,192 (81,82)	9,671 (360,99)	32,238 (1203,30)	56,739 (2117,81)

表格[6]- 结构材质

* 标准结构

**特殊结构

阀体		
	碳钢(AS2)*	316 SS (IS1) **
	-18°C ≤ T ≤ 90°C	-18°C ≤ T ≤ 90°C
	(-0,4°F ≤ T ≤ 194°F)	(-0,4°F ≤ T ≤ 194°F)
阀体	ASME SA-216 WCC	ASME SA-351 CF8M
螺栓	CLASS 8.8 EN 20898 - 1	A4-70
阀芯		
阀座	ASTM A-479 316	ASTM A-479 316
活塞阀杆	ASTM A-479 316	ASTM A-479 316
活塞垫圈	NBR	NBR
导杆衬套	DELFIN	DELFIN
执行器		
弹簧外壳	ASME SA-216 WCC	ASME SA-216 WCC
执行器下部外壳	ASME SA-216 WCC	ASME SA-351 CF8M
弹簧	ASTM A-401	ASTM A-401
膜片	看表格[8]	

表格[7]-减压时最大入口压力

流孔尺寸	最大入口压力, barg (PSIG)			
	出口压力设定为 0,0034 to 0,0055 bar (0,049 to 0,080 Psig)	出口压力设定为 0,0055 to 0,0093 bar (0,080 to 0,135 Psig)	出口压力设定为 0,0093 to 0,0220 bar (0,135 to 0,319 Psig)	出口压力设定为 0,0220 to 0,0340 bar (0,319 to 0,493 Psig)
1	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)
2	5,60 (81,2)	6,50 (94,3)	10,00 (145,0)	10,00 (145,0)
4	1,30 (18,9)	1,60 (23,2)	2,60 (37,7)	3,20 (46,4)
8	0,30 (4,4)	0,40 (5,8)	0,60 (8,7)	0,80 (11,6)
14	0,11 (1,6)	0,13 (1,9)	0,21 (3,1)	0,25 (3,6)

流孔尺寸	最大入口压力, barg (PSIG)				
	出口压力设定为 0,034 to 0,062 bar (0,493 to 0,899 Psig)	出口压力设定为 0,062 to 0,098 bar (0,899 to 1,421 Psig)	出口压力设定为 0,098 to 0,190 bar (1,421 to 2,756 Psig)	出口压力设定为 0,190 to 0,300 bar (2,756 to 4,351 Psig)	出口压力设定为 0,300 to 0,610 bar (4,351 to 8,847 Psig)
1	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)
2	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)
4	3,70 (53,7)	6,30 (91,4)	10,00 (145,0)	10,00 (145,0)	10,00 (145,0)
8	0,90 (13,1)	1,50 (21,8)	2,50 (36,3)	2,70 (39,2)	5,00 (72,5)
14	0,30 (4,4)	0,50 (7,3)	0,80 (11,6)	0,80 (11,6)	1,60 (23,2)

表格[8]-橡胶阀瓣和膜片的温度限定条件

NBR	-18至90°C (-0,4至194°F)
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表格[9]-弹簧弹性范围

弹簧	弹簧弹性范围
UBB02	3,4至5,5 mbar (1,4 至2,2 inches w.c.)
UBB03	5,5至9,3 mbar (2,2 至3,7 inches w.c.)
UBB05	9,3至22,0 mbar (3,7 至8,8 inches w.c.)
UBB06	22,0至34,0 mbar (8,8至13,6 inches w.c.)
UBB07	34,0至62,0 mbar (13,6至25,0 inches w.c.)
UBB08	62,0至98,0 mbar (25,0至39,0 inches w.c.)
UBB09	0,098至0,190 bar (1,4至2,8 psig)
UBB10	0,190至0,300 bar (2,8至4,4 psig)
UBB12	0,300至0,610 bar (4,4至8,8 psig)

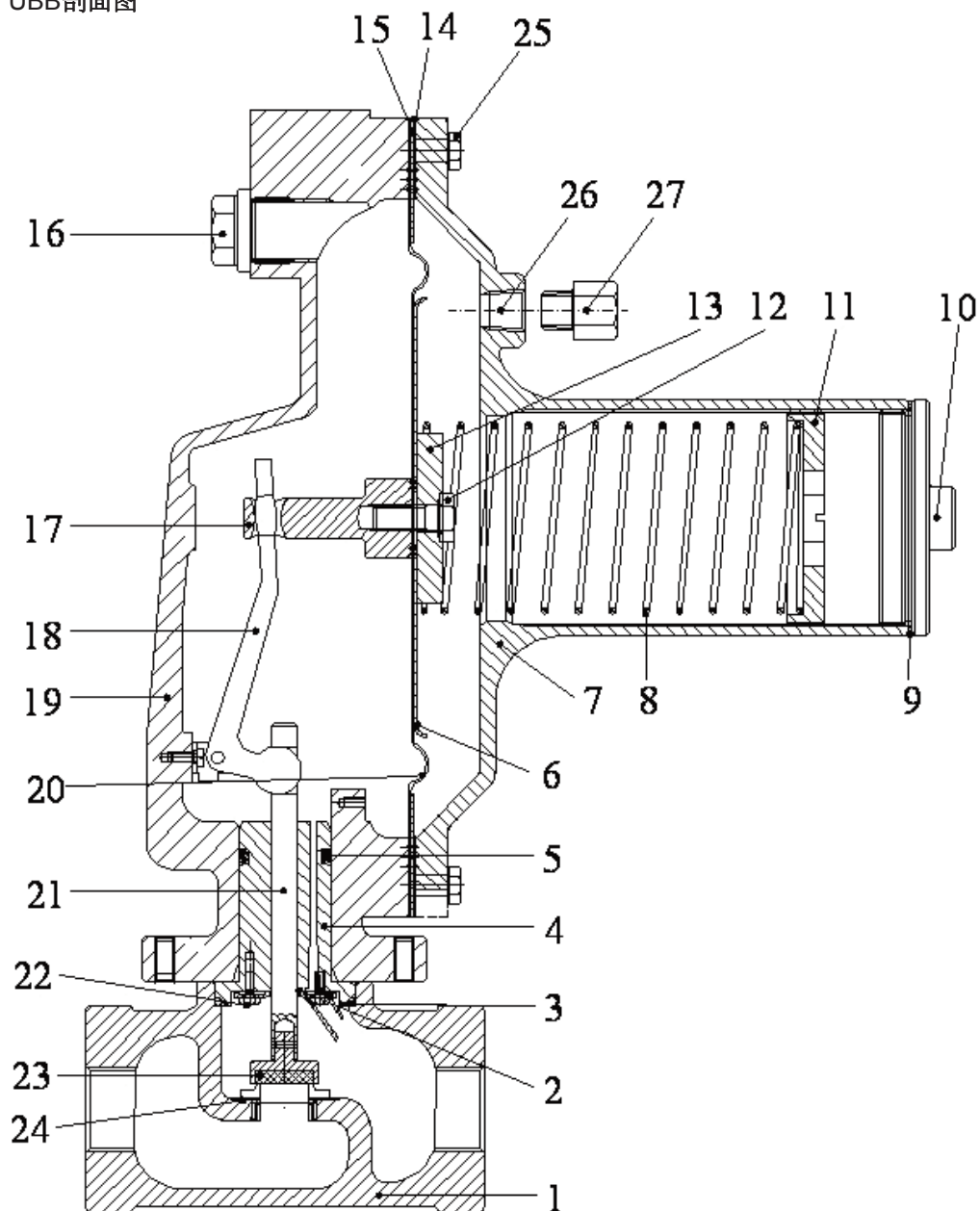
■ UB调节阀

部件列表:

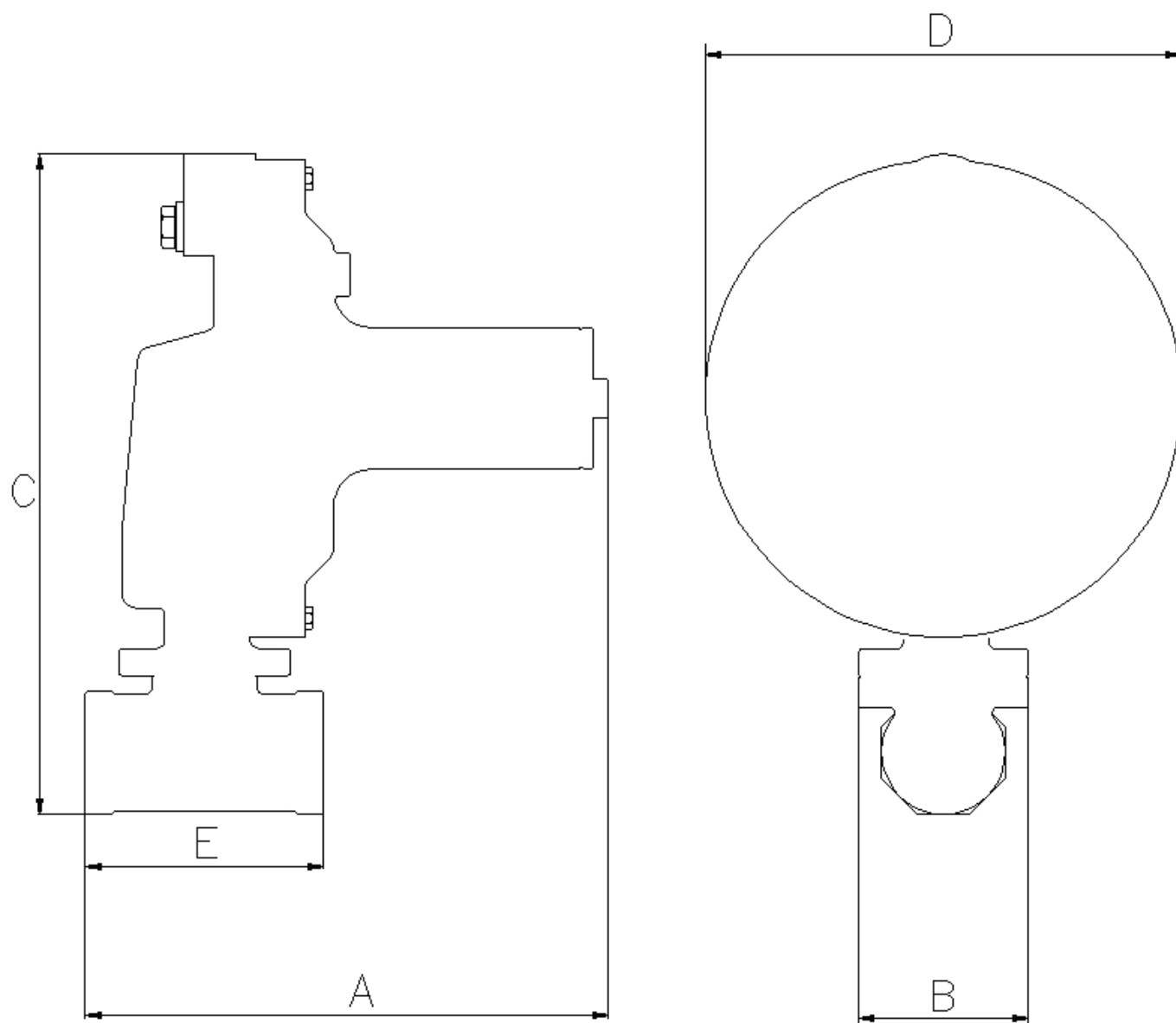
- 1 - 阀体
- 2 - 螺簧
- 3 - 压力检测(*)
- 4 - 阀杆导套
- 5 - O型密封圈
- 6 - 膜片压盘 (上部)(*)
- 7 - 弹簧外壳
- 8 - 弹簧
- 9 - 垫圈
- 10 - 弹簧外壳盖
- 11 - 调节螺丝密封圈
- 12 - 螺丝
- 13 - 弹簧扣 (下部)
- 14 - 垫圈(*)
- 15 - 膜片环(*)
- 16 - 螺丝
- 17 - 阀杆-膜片接口
- 18 - 杠杆
- 19 - 执行器膜片外壳
- 20 - 膜片(*)
- 21 - 阀杆
- 22 - 垫圈
- 23 - 旋塞
- 24 - 阀座
- 25 - 螺丝
- 26 - 通风孔
- 27 - 旋塞通风孔

(*)备品备件

UBB剖面图



UBB尺寸图



表格[10]- 阀体尺寸和面对面直径

尺寸(DN)	螺纹连接				
			NPT-F	BSP-F	
	A	B	C	∅D	E
1/2" (DN15)	305 mm (12")	89 mm (3 1/2")	345,5 mm (13 1/2")	250 mm (10")	122 mm (5")
3/4" (DN20)					
1" (DN25)					
1 1/2" (DN40)					