



APPLICATIONS DATA

- Tanks, pumps, pipe lines and other vessels containing non-corrosive liquid, and where large relieving capacities are not required.

FIGURE 770/775 SERIES RSL/RSL-S

770 BRONZE SIZES 1/2" – 2"
775 STAINLESS STEEL SIZES 1/2" – 1"
PRESSURES to 300 psig at 300°F

- Teflon® seat for improved seat tightness
- Cleaned and packaged for use in O₂ service in compliance with the CGA specification G-4.1

Additional cleaning specifications:

- 4WPI-SW 7003
- GS-38
- GS-40
- ES.660.503

OPTIONS

- BSP threads available on most sizes
- Lever operation
- Test reports available

MODELS

- 770 - Bronze Non ASME w/O₂ cleaning
- 775 - Stainless Steel Non ASME w/O₂ cleaning (1/2" x 3/4" through 1" x 1-1/4" Only)

CODE SELECTION CHART

Model			Cap	Orifice	Inlet Size	Outlet Size	Valve Service	Set Pressure		
7	7	0	N	B	D	E	- N	0	2	5
1	2	3	4	5	6	7	8	9	10	11

Model - Position 1, 2 & 3 770 = Bronze Non ASME w/O ₂ cleaning 775 = S.S. Non ASME w/O ₂ cleaning
Cap - Position 4 N = Plain Cap E = Open Lever

Orifice - Position 5 A B C D E

Inlet Size - Position 6 C = 1/2 D = 3/4 E = 1 F = 1 1/4 G = 1 1/2 H = 2

Outlet Size - Position 7 C = 1/2 D = 3/4 E = 1 F = 1 1/4 G = 1 1/2 H = 2 J = 2 1/2

Valve Service - Position 8 N = Air/Gas/Liquid Non Code Z = Other
Set Pressure - Position 9, 10 & 11 _ _ _ = Actual Setting

FIGURE 770/775 SERIES RSL/RSL-S

SPECIFICATION

The valve shall be used for liquid services. The valve shall have an adjustable blowdown ring. The valve shall have a Teflon[®] seat. The valve shall be cleaned and packaged for use in Oxygen service in compliance with CGA specification G-4.1. The spring shall be of stainless steel.

MATERIALS OF CONSTRUCTION

BRONZE

ShellCast Bronze, ASME SB-62
 Base.....Forged Brass, Alloy C37700
 Trim.....Copper Alloy
 SpringStainless Steel
 17-7 PH ASTM, A-313, Type 631

STAINLESS STEEL

ShellInvestment Cast 316SS, ASME SA-351
 BaseInvestment Cast 316SS, ASME SA-351
 Trim316SS, ASME SA-479
 SpringStainless Steel
 17-7 PH, ASTM, A-313, Type 631

WATER CAPACITY TABLE

Rate of discharge in gallons of water per minute at set pressure plus 25% accumulation or overpressure.

Inlet Sizes Inches	1/2	3/4	1	1 1/4	1 1/2
	3/4	1	1 1/4	1 1/2	2
Outlet Sizes	3/4	1	1 1/4	1 1/2	2
Seat Diameter Inches	A	B	C	D	E
Flow Area	.118	0.204	0.326	0.424	0.628
Set Pressure					
5	10.5	17.6	28.1	36.5	54.1
10	12.0	20.0	32.0	41.6	61.6
15	13.3	22.2	35.5	46.1	68.3
20	14.5	24.2	38.6	50.3	74.4
25	15.6	26.0	41.6	54.1	80.1
30	16.6	27.7	44.3	57.6	85.3
35	17.6	29.3	46.9	61.0	90.3
40	18.5	30.9	49.3	64.1	95.0
45	19.4	32.3	51.6	67.2	99.5
50	20.2	33.7	53.9	70.1	103.8
55	21.0	35.1	56.0	72.9	107.9
60	21.8	36.3	58.1	75.5	111.9
65	22.5	37.6	60.1	78.1	115.7
70	23.3	38.8	62.0	80.6	119.4
75	24.0	40.0	63.9	83.1	123.0
80	24.6	41.1	65.7	85.4	126.5
85	25.3	42.2	67.4	87.7	129.9
90	25.9	43.3	69.2	89.9	133.2
95	26.6	44.3	70.8	92.1	136.5
100	27.2	45.4	72.5	94.3	139.6
105	27.8	46.4	74.1	96.3	142.7
110	28.4	47.3	75.6	98.4	145.7
115	29.0	48.3	77.2	100.4	148.7
120	29.5	49.2	78.7	102.4	151.6
125	30.1	50.2	80.2	104.3	154.4
130	30.6	51.1	81.6	106.2	157.2
135	31.2	52.0	83.1	108.0	160.0
140	31.7	52.8	84.5	109.8	162.7
145	32.2	53.7	85.8	111.6	165.4
150	32.7	54.6	87.2	113.4	168.0

Inlet Sizes Inches	1/2	3/4	1	1 1/4	1 1/2
	3/4	1	1 1/4	1 1/2	2
Outlet Sizes	3/4	1	1 1/4	1 1/2	2
Seat Diameter Inches	A	B	C	D	E
Flow Area	.118	0.204	0.326	0.424	0.628
Set Pressure					
155	33.2	55.4	88.5	115.1	170.5
160	33.7	56.2	89.8	116.9	173.1
165	34.2	57.0	91.1	118.5	175.6
170	34.7	57.8	92.4	120.2	178.0
175	35.1	58.6	93.7	121.9	180.5
180	35.6	59.4	94.9	123.5	182.9
185	36.1	60.2	96.2	125.1	185.3
190	36.5	60.9	97.4	126.7	187.6
195	37.0	61.7	98.6	128.2	189.9
200	37.4	62.4	99.8	129.8	192.2
205	37.9	63.2	100.9	131.3	194.4
210	38.3	63.9	102.1	132.8	196.7
215	38.7	64.6	103.2	134.3	196.9
220	39.2	65.3	104.4	135.7	201.1
225	39.6	66.0	105.5	137.2	203.2
230	40.0	66.7	106.6	138.6	205.3
235	40.4	67.4	107.7	140.1	207.5
240	40.8	68.1	108.8	141.5	209.5
245	41.2	68.7	109.9	142.9	211.6
250	41.6	69.4	110.9	144.3	213.7
255	42.0	70.1	112.0	145.6	215.7
260	42.4	70.7	113.0	147.0	217.7
265	42.8	71.4	114.1	148.3	219.7
270	43.2	72.0	115.1	149.7	221.7
275	43.5	72.6	116.1	151.0	223.6
280	43.9	73.3	117.7	152.3	225.6
285	44.3	73.9	118.1	153.6	227.5
290	44.7	74.5	119.1	154.9	229.4
295	45.0	75.1	120.1	156.2	231.3
300	45.4	75.7	121.0	157.4	233.2

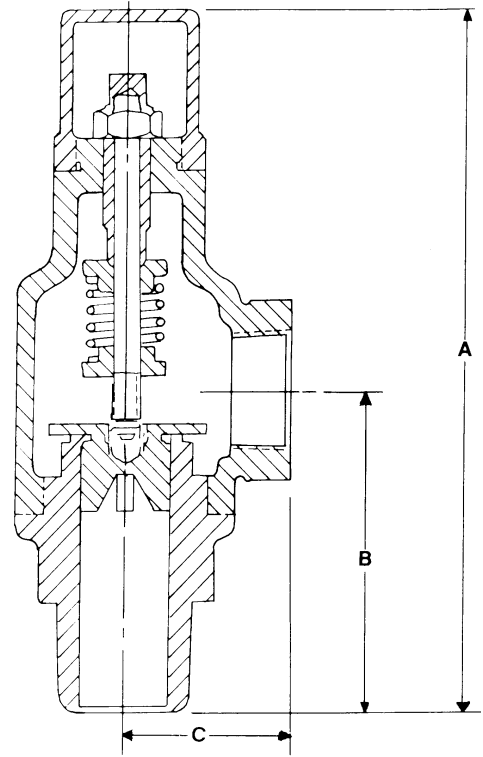
FIGURE 770/775
SERIES

DIMENSIONS AND WEIGHTS

RSL FIGURE 770 SERIES

DIMENSIONS inches (mm) **AND WEIGHTS** pounds (kg)

Inlet	Orifice	Outlet	Part #	Max PSI (barg)	Dimensions			Wgt.
					A	B	C	
1/2 (15)	A	1/2 (20)	770NACC	300 (20.7)	5 7/8 (150)	2 5/8 (65)	1 5/8 (34)	2 (.91)
1/2 (15)	A	3/4 (20)	770NACD	300 (20.7)	5 7/8 (150)	2 5/8 (65)	1 5/8 (34)	2 (.91)
3/4 (20)	A	3/4 (20)	770NADD	300 (20.7)	5 7/8 (150)	2 5/8 (65)	1 5/8 (34)	2 (.91)
1/2 (15)	A	1 (25)	770NACE	300 (20.7)	6 1/2 (166)	2 13/16 (71)	1 11/16 (43)	3 (1.36)
3/4 (20)	A	1 (25)	770NADE	300 (20.7)	6 1/2 (166)	2 13/16 (71)	1 11/16 (43)	3 (1.36)
1/2 (15)	B	1 (25)	770NBCE	300 (20.7)	7 3/8 (188)	2 7/8 (74)	1 11/16 (42)	4 (1.82)
3/4 (20)	B	1 (25)	770NBDE	300 (20.7)	7 3/8 (188)	2 7/8 (74)	1 11/16 (42)	4 (1.82)
1 (25)	B	1 (25)	770NBEE	300 (20.7)	7 3/8 (188)	2 7/8 (74)	1 11/16 (42)	4 (1.82)
1/2 (25)	B	1 1/4 (32)	770NBCF	300 (20.7)	7 1/2 (190)	3 (76)	1 7/8 (48)	5 (2.27)
3/4 (20)	B	1 1/4 (32)	770NBDF	300 (20.7)	7 1/2 (190)	3 (76)	1 7/8 (48)	5 (2.27)
1 (25)	B	1 1/4 (32)	770NBEF	300 (20.7)	7 1/2 (190)	3 (76)	1 7/8 (48)	5 (2.27)
3/4 (20)	C	1 1/4 (32)	770NCDF	300 (20.7)	8 11/16 (220)	3 1/2 (90)	2 1/4 (57)	6 (2.72)
1 (25)	C	1 1/4 (32)	770NCEF	300 (20.7)	8 5/8 (220)	3 1/2 (89)	2 1/4 (57)	6 (2.72)
1 1/4 (32)	C	1 1/4 (32)	770NCFE	300 (20.7)	8 5/8 (220)	3 1/2 (89)	2 1/4 (57)	6 (2.72)
3/4 (20)	C	1 1/2 (40)	770NCDG	300 (20.7)	9 1/8 (251)	3 3/8 (91)	2 5/8 (66)	7 (3.18)
1 (25)	C	1 1/2 (40)	770NCEG	300 (20.7)	9 1/8 (251)	3 3/8 (91)	2 5/8 (66)	7 (3.18)
1 1/4 (32)	C	1 1/2 (40)	770NCFG	300 (20.7)	9 1/8 (251)	3 3/8 (91)	2 5/8 (66)	7 (3.18)
1 (25)	D	1 1/2 (40)	770NDEG	300 (20.7)	9 13/16 (250)	3 3/8 (90)	2 5/8 (66)	7 (3.18)
1 1/4 (32)	D	1 1/2 (40)	770NDFG	300 (20.7)	9 13/16 (250)	3 3/8 (90)	2 5/8 (66)	7 (3.18)
1 1/2 (40)	D	1 1/2 (40)	770NDGG	300 (20.7)	9 13/16 (250)	3 3/8 (90)	2 5/8 (66)	7 (3.18)
1 (25)	D	2 (50)	770NDEH	300 (20.7)	9 11/16 (246)	3 11/16 (94)	2 3/4 (70)	8 (3.63)
1 1/4 (32)	D	2 (50)	770NDFH	300 (20.7)	9 11/16 (246)	3 11/16 (94)	2 3/4 (70)	8 (3.63)
1 1/2 (40)	D	2 (50)	770NDGH	300 (20.7)	9 11/16 (246)	3 11/16 (94)	2 3/4 (70)	8 (3.63)
1 1/2 (40)	E	2 (50)	770NEGH	300 (20.7)	9 11/16 (247)	3 11/16 (94)	2 3/4 (70)	9 (4.09)
2 (50)	E	2 (50)	770NEHH	300 (20.7)	9 11/16 (246)	3 11/16 (94)	2 3/4 (70)	9 (4.09)
1 1/2 (40)	E	2 1/2 (65)	770NEGJ	300 (20.7)	9 11/16 (247)	4 (102)	2 15/16 (75)	10 (4.54)
2 (50)	E	2 1/2 (65)	770NEHJ	300 (20.7)	9 11/16 (246)	4 (102)	2 15/16 (75)	10 (4.54)



SAFETY RELIEF VALVES

DIMENSIONS AND WEIGHTS

RSL-S FIGURE 775 SERIES

DIMENSIONS inches (mm) **AND WEIGHTS** pounds (kg)

Inlet	Orifice	Outlet	Part #	Max PSI (barg)	Dimensions			Wgt.
					A	B	C	
1/2 (15)	A	3/4 (20)	775NACD	300 (20.7)	5 7/8 (150)	2 5/8 (65)	1 5/8 (34)	2 (.91)
3/4 (20)	A	3/4 (20)	775NADD	300 (20.7)	5 7/8 (150)	2 5/8 (65)	1 5/8 (34)	2 (.91)
1/2 (15)	A	1 (25)	775NACE	300 (20.7)	6 1/2 (166)	2 13/16 (71)	1 11/16 (43)	3 (1.36)
3/4 (20)	A	1 (25)	775NADE	300 (20.7)	6 1/2 (166)	2 13/16 (71)	1 11/16 (43)	3 (1.36)
1/2 (15)	B	1 (25)	775NBCE	300 (20.7)	7 3/8 (188)	2 7/8 (74)	1 11/16 (42)	4 (1.82)
3/4 (20)	B	1 (25)	775NBDE	300 (20.7)	7 3/8 (188)	2 7/8 (74)	1 11/16 (42)	4 (1.82)
1 (25)	B	1 (25)	775NBEE	300 (20.7)	7 3/8 (188)	2 7/8 (74)	1 11/16 (42)	4 (1.82)
1/2 (25)	B	1 1/4 (32)	775NBCF	300 (20.7)	7 1/2 (190)	3 (76)	1 7/8 (48)	5 (2.27)
3/4 (20)	B	1 1/4 (32)	775NBDF	300 (20.7)	7 1/2 (190)	3 (76)	1 7/8 (48)	5 (2.27)
1 (25)	B	1 1/4 (32)	775NBEF	300 (20.7)	7 1/2 (190)	3 (76)	1 7/8 (48)	5 (2.27)

**SAFETY RELIEF
VALVES**