

# BRONZE OVERFLOW VALVE TYPE 617

## MAIN CHARACTERISTICS

The 617 valve is intended for the discharge of fluids overflow when an upstream limitation of pressure is looked for, for example downstream to a pump. This valve also works in presence of downstream pressure allowing to operate in a loop. The standard construction is body and bonnet bronze, and disc NBR or PTFE. The functioning of the valve 617 is in proportional opening. The pressure of beginning of opening can be set with means of an outside screw which can be if necessary sealed.



## AVAILABLE MODELS

Type 617N (Seal NBR) : G 3/8" to G 2"

Type 617P (Seal PTFE) : G 3/8" to G 2"

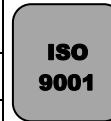
BSP Screwed end connections.

Pressure range NBR : 0,2-0,8 bar / 0,5-2,5 bar / 2-12 bar

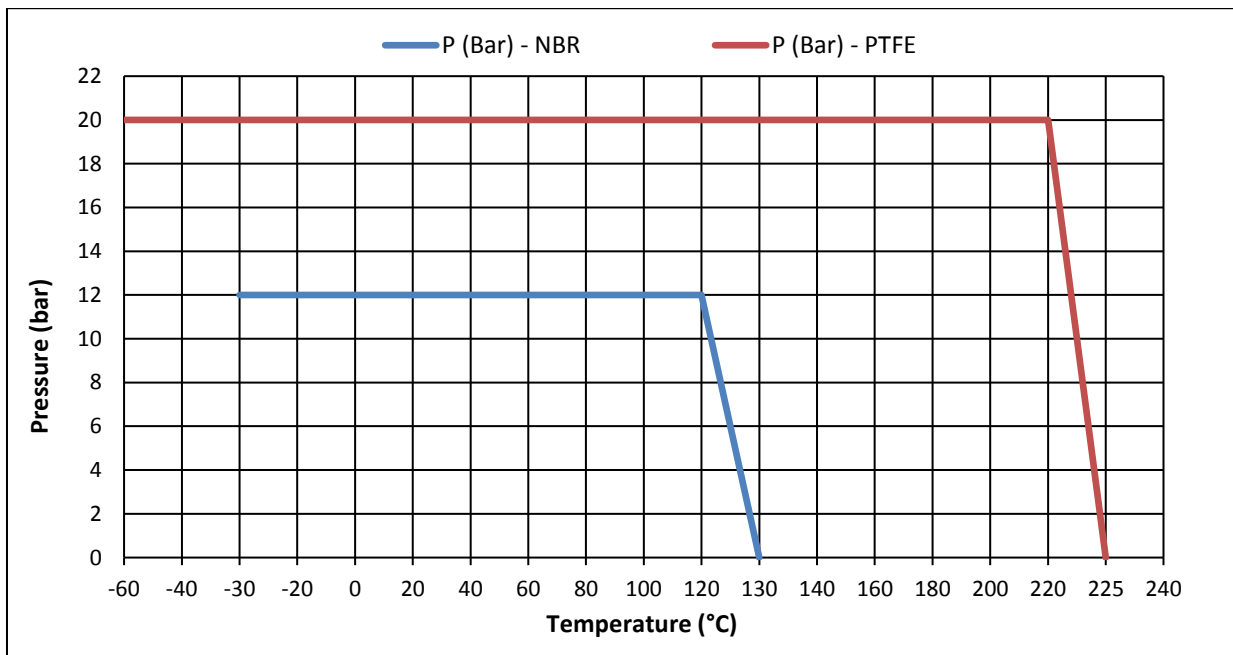
Pressure range PTFE : 0,5-2,5 bar / 2-12 bar / 12-20 bar

## LIMITS OF USE

Max allowed fluid pressure : PS	0,2 - 20 bar	
Max allowed fluid temperature : TS	NBR	PTFE
	-30 °C / +130 °C	-60 °C / +225 °C



On request



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# BRONZE OVERFLOW VALVE TYPE 617

## REGULATIONS AND STANDARDS OF CONSTRUCTION

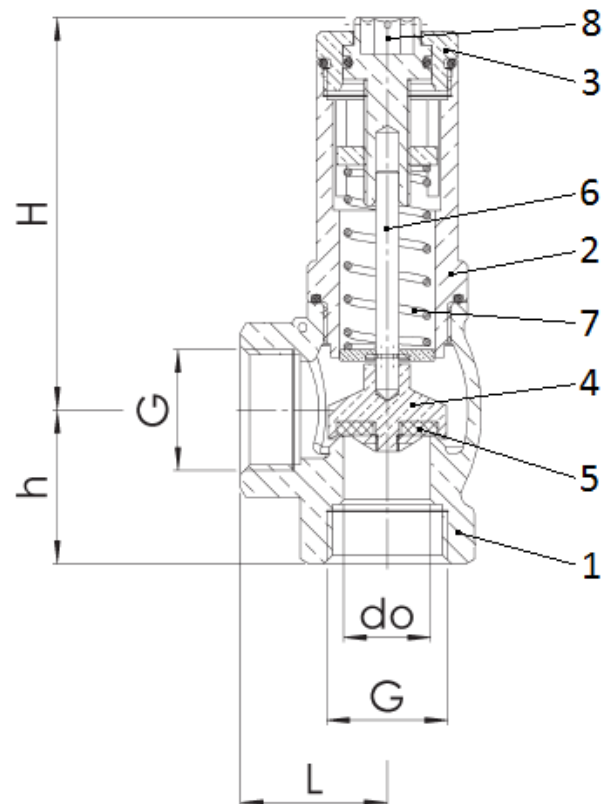
Item	Standard	ON
Pressure Equipment Directive 2014/68	<b>3/8" to 1"</b> : A4 § 3 excluded	
	<b>1"1/4 to 2"</b> : category III	0036
Bronze materials	EN 1503-4	
BSP thread	ISO 228	

## DIMENSIONS (mm) AND CONNECTIONS

DN (G)	L	H	h	do	Weight (kg)
G 3/8"	27	60	26	10	0,3
G 1/2"	30	69	30	13	0,4
G 3/4"	33	86	35	19	0,7
G 1"	40	101	41	25	1,2
G 1" 1/4	45	118	45	30	1,9
G 1" 1/2	50	139	51	38	2,5
G 2"	60	149	60	50	3,8

## CONSTRUCTION

N°	Item	Material
1	Body	Bronze CC499K
2	Bonnet	Brass CW614N
3	Cover	Brass CW614N
4	Disc	Brass CW614N
5	Seal	NBR/PTFE
6	Axis	Brass CW614N
7	Spring	Stainless steel 1.4310
8	Adjusting screw	Brass CW614N



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# BRONZE OVERFLOW VALVE TYPE 617

## FLOWRATE OF DISCHARGE FOR AIR

FLOW COEFFICIENT (Kv) in Nm <sup>3</sup> /h for an overtaking pressure of 1 bar												
DN	G 3/8"				G 1/2"				G 3/4"			
Pressure range	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
bar												
0,2	24				53				177			
0,5	28	83			61	147			200	209		
0,8	32	90			67	153			220	220		
1		95				158				228		
1,5		101				173				257		
2		111	48			180	86			287	159	
2,5		119	50			202	89			306	168	
3			51				95				188	
4			62				101				213	
5			80				105				242	
6			90				111				250	
7			96				118				257	
8			114				117				314	
9			115				123				324	
10			122				133				331	
11			121				138				339	
12			126	96			138	112			354	221
13				109				103				206
14				116				94				166
15				120				85				140
16				122				76				132
17				124				57				115
18				129				56				84
19				134				44				50
20				140				36				45

FLOW COEFFICIENT (Kv) in Nm <sup>3</sup> /h for an overtaking pressure of 1 bar																
DN	G 1"				G 1" 1/4				G 1" 1/2				G 2"			
Pressure range	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
bar																
0,2	200				600				930				1500			
0,5	220	375			680	717			970	847			1620	1376		
0,8	245	384			700	771			1050	878			1740	1478		
1		390				808				899				1546		
1,5		433				901				1033				1734		
2		462	302			977	233			1104	426			1904	788	
2,5		495	311			1031	257			1205	447			1953	802	
3			322				272				481				821	
4			341				311				527				878	
5			361				352				566				942	
6			380				397				597				994	
7			391				437				764				1050	
8			347				492				910				1123	
9			301				546				949				1187	
10			288				600				1023				1280	
11			274				569				1070				1358	
12			261	305			538	594			1095	682			1480	1237
13				291				625				758				1277
14				282				656				834				1388
15				269				687				911				1499
16				257				716				987				1609
17				245				737				954				1821
18				233				758				922				2033
19				220				779				889				2245
20				208				801				851				2357

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# BRONZE OVERFLOW VALVE TYPE 617

## FLOWRATE OF DISCHARGE FOR WATER

FLOW COEFFICIENT (Kv) in Nm <sup>3</sup> /h for an overtaking pressure of 1 bar												
DN	G 3/8"				G 1/2"				G 3/4"			
Pressure range	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
bar												
0,2	2,7				4,4				5,6			
0,5	2,9	2,7			4,6	4,3			5,6	6,1		
0,8	2,9	2,8			4,9	4,5			5,6	6,3		
1		3,0				4,6				6,5		
1,5		3,2				4,8				6,7		
2		3,4	1,6			5,0	1,8			6,9	3,7	
2,5		3,7	1,7			5,2	1,8			7,3	3,8	
3			1,9				1,8				4,1	
4			2,2				1,7				4,6	
5			2,5				1,6				5,1	
6			2,8				1,5				6,1	
7			2,9				1,5				6,5	
8			3,1				1,4				7,1	
9			3,2				1,4				7,3	
10			3,4				1,4				8,3	
11			3,5				1,4				9,1	
12			3,7	1,7			1,3	0,4			9,3	2,8
13				1,4				0,4				2,4
14				1,3				0,5				2,2
15				1,1				0,5				1,7
16				0,8				0,5				1,4
17				0,6				0,5				1,1
18				0,4				0,6				0,9
19				0,2				0,6				0,7
20				0,2				0,6				0,7

FLOW COEFFICIENT (Kv) in Nm <sup>3</sup> /h for an overtaking pressure of 1 bar																
DN	G 1"				G 1" 1/4				G 1" 1/2				G 2"			
Pressure range	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
bar																
0,2	6,0				18,3				29,0				41,0			
0,5	6,4	10,8			19,5	16,0			29,0	21,7			44,4	31,6		
0,8	7,1	11,5			20,0	16,4			29,0	22,6			47,0	34,0		
1		11,9				16,7				23,3				35,6		
1,5		12,6				17,5				24,0				37,7		
2		13,0	4,2			18,1	6,2			25,2	8,8			40,6	17,9	
2,5		13,7	4,3			18,9	6,2			26,1	9,1			43,0	19,4	
3			4,3				6,1				9,3				21,1	
4			4,5				6,1				9,7				24,7	
5			4,6				6,0				10,3				28,9	
6			4,7				5,9				10,6				30,1	
7			5,0				5,8				11,9				31,7	
8			5,1				5,6				13,1				34,2	
9			5,3				5,5				14,3				37,4	
10			5,5				5,3				15,7				39,3	
11			5,8				5,2				17,2				42,4	
12			5,9	2,2			5,0	6,8			17,6	10,1			43,9	18,9
13				2,2				6,5				10,3				21,2
14				1,9				6,3				10,5				24,1
15				1,6				6,1				10,6				25,7
16				1,3				6,0				10,9				27,6
17				1,1				5,8				11,0				29,3
18				1,0				5,6				11,3				31,8
19				0,8				5,1				11,4				34,6
20				0,7				5,0				11,5				36,6

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# BRONZE OVERFLOW VALVE TYPE 617

## FLOWRATE OF DISCHARGE FOR STEAM

FLOW COEFFICIENT (Kv) in kg/h for an overtaking pressure of 1 bar												
DN	G 3/8"				G 1/2"				G 3/4"			
Pressure range	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
bar												
0,2	18				41				138			
0,5	22	65			47	113			156	163		
0,8	25	70			52	120			172	173		
1		74				125				181		
1,5		81				135				200		
2		86	40			143	73			221	126	
2,5		93	45			157	79			235	141	
3			43				80				156	
4			53				79				160	
5			66				82				176	
6			75				88				200	
7			81				93				198	
8			89				96				190	
9			89				98				193	
10			97				106				192	
11			94				106				189	
12			101	79			105	78			204	183
13				84				68				174
14				90				57				162
15				95				54				123
16				94				51				130
17				99				46				110
18				96				32				87
19				101				28				61
20				105				21				32

FLOW COEFFICIENT (Kv) in kg/h for an overtaking pressure of 1 bar																
DN	G 1"				G 1" 1/4				G 1" 1/2				G 2"			
Pressure range	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20	0,2-0,8	0,5-2,5	2-12	12-20
bar																
0,2	156				468				726				1172			
0,5	172	295			531	509			757	665			1265	1100		
0,8	191	305			547	541			820	700			1359	1173		
1		313				553				724				1222		
1,5		345				615				798				1345		
2		373	218			642	194			862	311			1451		
2,5		384	244			619	218			940	349			1535	663	
3			258				223				387				698	
4			308				244				428				670	
5			322				283				455				740	
6			326				323				518				859	
7			298				363				635				816	
8			279				402				645				916	
9			250				441				707				1015	
10			273				480				770				1002	
11			262				472				833				1090	
12			282	247			406	457			814	570			1179	987
13				189				489				610				1056
14				201				521				650				1125
15				213				552				590				1022
16				180				584				728				1261
17				142				615				768				1140
18				150				576				693				1399
19				105				604				606				1678
20				165				632				634				1537

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## MOUNTING

- 1 - Carry out pressure adjustment with hexagonal key. Turning clockwise increases pressure. Turning anticlockwise decreases pressure. The valves can be set when backpressure prevails or when medium is flowing through the valve. The setting can be secured by means of a seal.
- 2 - Tighten counter-nut.

## USE

- 1 - To ensure a satisfactory operation of the valves they must be assembled in such a way that the safety valve is not exposed to any impermissible static, dynamic or thermal loads.
- 2 - The installation has to be flushed before installing the valve. If an installation is not sufficiently cleaned or the valve is installed improperly, the valve may leak even the first time it responds.
- 3 - Appropriate safety measures must be taken at the place of installation of the valves if the medium that discharges upon actuation of the valve can lead to direct or indirect hazards to people or the environment. In particular, it is advised to channel the exit.
- 4 - The stainless overflow and pressure control valve type 417 can be installed in any position. The function of the valves is guaranteed in every position.
- 5 - During assembly always make sure not to apply any force when fastening the connecting thread and not to screw it in too far, as this could otherwise damage the seat of the valve. Do not allow sealing material such as hemp or Teflon to penetrate into the valve.



## MAINTENANCE

The operating pressure of the plant is to be at least 5% lower than the closing pressure of the valve if it is used as a pressure limiting valve. In this way, the valve can satisfactorily close again after blowing off. If this does not remove the leak the valve has to be overhauled. After long periods of non-use the function of the valve must be tested.

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