



**CLASS T**  
Bronze  
Pressure Reducing Valve  
High Capacity, Direct Acting  
For Water, Air & Gases  
BSPB Threaded

**Bailey Birkett**



The Class T pressure reducing valve is designed for use on installations that have a varying inlet pressure and capacity and which require positive shut off under no load conditions.

Suitable for controlling air, potable water, oils and other gases or liquids which are compatible with the valve materials.

For high inlet pressure applications above 17.2 bar or outlet pressure above 8.2 bar, a PTFE main valve disc must be specified.

This valve should be installed in a horizontal position.

**Approvals, Features & Benefits**

- High capacity
- Direct acting
- Reliable performance
- Balanced valve
- Positive shut-off
- Oil trim available

**Pressure & Temperature**

Maximum Inlet Pressure:-  
40 bar.\*

\*PTFE seat for inlet pressures above 17.2 bar or outlets pressure above 8.2 bar.

Reduced Pressure range:-  
0.35 to 13.8 bar

Temperature Range:-

Water & Air : -20°C to 100°C  
Oil : -20°C to 90°C

DN	15 (½")	20 (¾")	25 (1")	32 (1¼")	40 (1½")	50 (2")
<b>A</b>	76	89	111	124	133	165
<b>B</b>	45	48	56	68	68	79
<b>C</b>	162	184	222	232	292	324
<b>Weight Kg</b>	2	3	4	6	8	11

**MATERIALS**

<b>Body</b>	Bronze
<b>Valve Disc</b> (inlet pressure up to 17.2 bar)	Rubber*
<b>Valve Disc</b> (inlet pressure over 17.2 bar or outlet pressure above 8.2 bar)	PTFE
<b>H.P Seal</b>	Rubber*
<b>Rolling Diaphragm</b>	Rubber*

\* Nitrile rubber when valve is supplied for oil duty.

SPRING SELECTION (DEAD END PRESSURE SETTING BAR)	COLOUR CODE
0.35 to 0.7	Dark Green
0.7 to 1.4	Light Green
1.4 to 2.8	Orange
2.8 to 5.5	Brown
5.5 to 8.3	Blue
8.3 to 13.8	Red

**AVAILABLE SPARES**

**Set of Seals & Disc.**

Containing:-  
Rolling diaphragm, valve disc, H.P. seal, bottom plug joint & valve stem joint.

## CLASS T

### Capacity Charts/Sizing

AIR CAPACITY (l/s) at 15°C								
Inlet (bar)	Outlet (bar)	Rise to Dead End (bar)	15	20	25	32	40	50
0.70	0.35	0.35	8.3	16.3	25.0	53.2	76.1	124
1.00	0.65	0.35	8.4	16.6	25.6	53.3	76.2	124
	0.55	0.35	9.3	18.3	28.2	58.7	83.9	137
5.00	0.35	0.35	10.6	20.7	32.0	66.5	95.0	155
	4.64	0.35	11.7	22.4	35.7	62.7	89.8	151
	4.20	0.7	23.8	45.6	72.7	128	183	308
	4.00	1	34.0	65.2	104	183	262	441
	2.50	1	46.4	88.8	142	249	357	601
10.00	0.35	1	46.4	88.8	142	249	357	601
	9.65	0.35	16.9	32.1	51.8	85.6	123	209
	9.30	0.7	20.2	38.4	61.9	102	147	250
	9.00	1	44.5	84.6	136	226	323	551
	5.00	1	78.2	149	240	396	567	968
	4.50	1	78.2	149	240	396	567	968
20.70	0.50	1	78.2	149	240	396	567	968
	12.80	1	142	267	434	687	985	1699
	10.00	1	146	276	449	710	1017	1753
	5.00	1	146	276	449	710	1017	1753
	4.50	1	146	276	449	710	1017	1753
30.00	1.04	1	146	276	449	710	1017	1753
	12.80	1	205	387	631	983	1408	2435
40.00	3.00	1	205	387	631	983	1408	2435
	12.80	1	217	432	709	1110	1584	2709
	4.00	1	217	432	709	1110	1584	2709

To calculate capacities at a different rise at dead end multiply capacity by the figures below.  
 0.35 bar - 0.54 • 0.70 bar - 0.77 • 1.00 bar - 1 Note: Only the capacity shown at 1 bar rise can be adjusted.

WATER CAPACITY (l/s) - Rise to dead end 1 Bar							
Pressure Differential (bar)	15	20	25	32	40	50	
1.00	0.98	1.28	1.90	2.60	3.22	4.87	
2.00	1.32	1.72	2.56	3.51	4.34	6.53	
3.00	1.51	1.98	2.94	4.02	4.99	7.50	
4.00	1.61	2.11	3.15	4.29	5.31	7.98	
5.00	1.71	2.24	3.32	4.54	5.63	8.47	
6.00	1.78	2.32	3.45	4.73	5.86	8.80	
7.00	1.85	2.41	3.59	4.91	6.08	9.14	
8.00	1.92	2.50	3.72	5.09	6.31	9.47	
9.00	1.98	2.59	3.85	5.27	6.53	9.82	
10.00	2.05	2.68	3.99	5.46	6.76	10.16	
15.00	2.12	2.77	4.12	5.64	6.98	10.50	
20.00	2.19	2.86	4.25	5.82	7.21	10.84	
25.00	2.26	2.95	4.38	6.00	7.43	11.18	
30.00	2.33	3.04	4.52	6.18	7.66	11.51	
35.00	2.40	3.13	4.65	6.37	7.88	11.85	

To calculate capacities at a different rise at dead end multiply capacity by the figures below.  
 0.35 bar - 0.625 • 0.70 bar - 0.813 Note: The capacity is unaffected by changes in temperature.