

Climate
Control

IMI TA

TA-BTV



Butterfly valves

Wafer, fully lugged and grooved version –
DN 50-600

TA-BTV

Butterfly valve for heating and cooling systems.
Available in pressure class PN 16, PN 25.



Technical description

Applications:

Heating and cooling systems
Tap water systems

Function:

Shut-off

Dimensions:

DN 50-600

Pressure class:

PN 16 and PN 25

Temperature:

Max. working temperature: 120°C
Min. working temperature:
Flanged: PN16: -10°C, PN25: -20°C
Grooved: PN16: -20°C

Media:

Water and neutral fluids, water-glycol mixtures (up to 30%).

Material:

Body PN 16: Cast Iron EN-JL 1040
Body PN 25: Ductile Iron EN-JS 1050
Shaft: Stainless Steel BS970 420S37
Disc: Stainless Steel BS970 304S15
Bushing: PTFE Commercial
Liner: EPDM Commercial
O-Ring: EPDM Commercial
Lever/gear: DN 50-200 pressed steel trigger lever, DN 50-600 cast iron gear operator.

Surface treatment:

Internally and externally liquid epoxy painted or fusion bonded epoxy powder coated (FBE).

Fusion bonded epoxy coating 150 -300 microns.

Marking:

IMI, PN, DN, and flow direction arrow.

Colour:

Blue RAL5015

Connections:

Flanged: According to EN 1092-2
Grooved ends: According to ISO 4200
Standard of workmanship: EN 593
Lengths: BS 5155 / MSS SP-67

Approvals:

WRAS

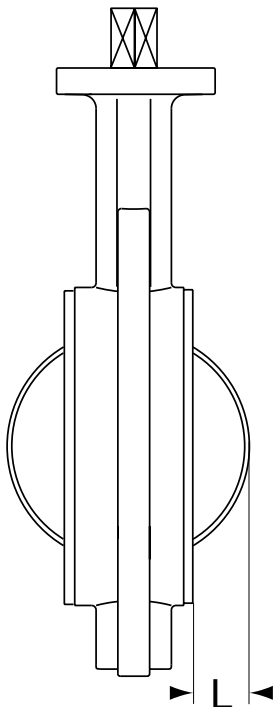
Installation

The distance between the flanges must be taken in consideration before installation of the valve. Place the valve in the centre and open the valve before mounting of the bolts. Tighten the bolts in the right order when assembly the valve between the flanges to keep an even pressure against the valve.

NOTE!

- The valve must be open at installation.
- Do not weld a flange after the valve is installed. The heat can damage the sealings of the valve.
- Blind flanges must be used if the valve is installed in the end of a piping system.

Wafer version



DN	No of bolt holes
50	4
65	4
80	4
100	4
125	4
150	4
200	4
250	4
300	4
350	4
400	4
450	4
500	4
600	4

Fully lugged version

DN	No of bolt holes
50	4 x M16
65	4 x M16
80	8 x M16
100	8 x M16
125	8 x M16
150	8 x M20
200	12 x M20
250	12 x M24
300	12 x M24
350	16 x M24
400	16 x M27
450	20 x M27
500	20 x M30
600	20 x M33

DN	L*
50	7
65	14
80	19
100	25
125	36
150	48
200	71
250	92
300	111
350	129
400	153
450	167
500	187
600	223

*) Excess disc length when fully open.

Tightening torque

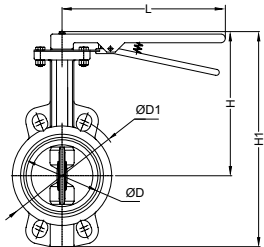
The test was performed under normal working conditions.

Media: Water at normal room temperature. Under certain working conditions it is necessary to increase the tightening torque with 30%.

Tightening torque during operation

DN	Size [inch]	Nm.	Max working pressure [bar]
50	2	30	16
65	2 1/2	48	16
80	3	60	16
100	4	60	16
125	5	75	16
150	6	90	16
200	8	155	16
250	10	215	16
300	12	380	16
350	14	670	16
400	16	1000	16
450	18	1100	16
500	20	1330	16
600	24	2000	16

Flanged valves with lever

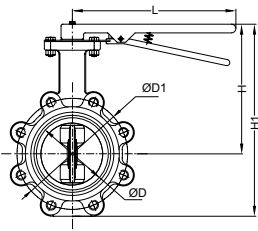


Wafer version PN 16

DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	263	196	276	43	110	3,5	5902276801075	42450-038250
65	72	145	263	210	301	45	299	4	5902276801082	42450-038265
80	83	160	263	216	311	46	534	5	5902276801099	42450-038280
100	102	180	263	235	350	51,5	726	6	5902276801105	42450-038290
125	128	210	263	250	384	56	873	8	5902276801112	42450-038291
150	151	240	263	260	398	56,5	1206	9,5	5902276801129	42450-038292
200	201	295	325	283	457	60	2140	14	5902276801136	42450-038293
250	251	355	414	338	536	68,5	6747	27	5902276801143	42450-038294
300	301	410	414	378	612	79,5	8627	31,5	5902276801150	42450-038295

PN 25

DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	263	196	276	43	110	3,5	5902276800894	42450-028350
65	72	145	263	210	301	45	299	4	5902276800900	42450-028365
80	83	160	263	216	311	46	534	5	5902276800917	42450-028380
100	102	190	263	235	350	51,5	726	6	5902276800924	42450-028390
125	128	220	263	250	384	56	873	8	5902276800931	42450-028391
150	151	250	263	260	398	56,5	1206	9,5	5902276800948	42450-028392
200	201	310	325	283	457	60	2140	14	5902276800955	42450-028393
250	251	370	414	338	536	68,5	6747	27	5902276800962	42450-028394
300	301	430	414	378	612	79,5	8627	31,5	5902276800979	42450-028395


**Fully lugged version
PN 16**

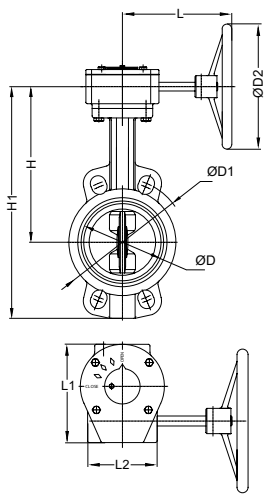
DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	263	175	243	43	110	4	5902276800986	42450-037250
65	72	145	263	187	263	45	299	5	5902276800993	42450-037265
80	83	160	263	195	278	46	534	6	5902276801006	42450-037280
100	102	180	263	215	315	51,5	726	8	5902276801013	42450-037290
125	128	210	263	226	346	56	873	9,5	5902276801020	42450-037291
150	151	240	263	238	370	56,5	1206	12	5902276801037	42450-037292
200	201	295	325	279	443	60	2140	23	5902276801044	42450-037293
250	251	355	414	316	516	68,5	6747	29	5902276801051	42450-037294
300	301	410	414	355	585	79,5	8627	48	5902276801068	42450-037295

PN 25

DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	263	175	243	43	110	4	5902276800801	42450-027350
65	72	145	263	187	263	45	299	5	5902276800818	42450-027365
80	83	160	263	195	278	46	534	6	5902276800825	42450-027380
100	102	190	263	215	315	51,5	726	8	5902276800832	42450-027390
125	128	220	263	226	346	56	873	9,5	5902276800849	42450-027391
150	151	250	263	238	370	56,5	1206	12	5902276800856	42450-027392
200	201	310	325	279	443	60	2140	23	5902276800863	42450-027393
250	251	370	414	316	516	68,5	6747	29	5902276800870	42450-027394
300	301	430	414	355	585	79,5	8627	48	5902276800887	42450-027395

Kvs = m³/h at a pressure drop of 1 bar and fully open valve.

Flanged valves with gearbox



Wafer version

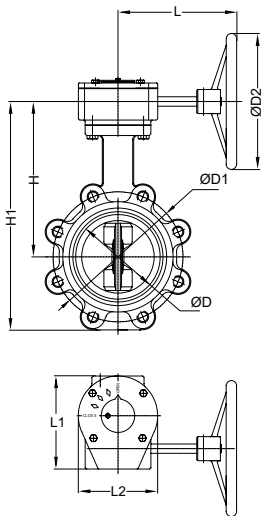
PN 16

DN	ØD	ØD1	ØD2	L	L1	L2	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	195	162	126	105	194	274	43	110	9	5902276801686	42450-138250
65	72	145	195	162	126	105	208	299	45	299	10	5902276801693	42450-138265
80	83	160	195	162	126	105	213	308	46	534	10,3	5902276801709	42450-138280
100	102	180	195	162	126	105	233	348	51,5	726	11,7	5902276801716	42450-138290
125	128	210	195	162	126	105	248	382	56	873	14,7	5902276801723	42450-138291
150	151	240	195	162	126	105	258	396	56,5	1206	15,2	5902276801730	42450-138292
200	201	295	294	238	176	152	277	451	60	2140	25,5	5902276801747	42450-138293
250	251	355	294	238	176	152	333	531	68,5	6747	33,7	5902276801754	42450-138294
300	301	410	294	226	197	161	384	618	79,5	8627	46	5902276801761	42450-138295
350	336	470	294	226	197	161	416	704	78	10283	67	5902276801778	42450-138296
400	394	525	387	266	279	253	463	778	90	13281	110	5902276801785	42450-138297
450	444	585	387	266	279	253	485	825	109	15930	130,5	5902276801792	42450-138298
500	501	650	387	241	300	265	536	924	127	19532	157,3	5902276801808	42450-138299
600	601	770	387	241	300	265	618	1068	154	29146	222	5902276801679	42450-138200

PN 25

DN	ØD	ØD1	ØD2	L	L1	L2	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	195	162	126	105	194	274	43	110	9	5902276801402	42450-128350
65	72	145	195	162	126	105	208	299	45	299	10	5902276801419	42450-128365
80	83	160	195	162	126	105	213	308	46	534	10,3	5902276801426	42450-128380
100	102	190	195	162	126	105	233	348	51,5	726	11,7	5902276801433	42450-128390
125	128	220	195	162	126	105	248	382	56	873	14,7	5902276801440	42450-128391
150	151	250	195	162	126	105	258	396	56,5	1206	15,2	5902276801457	42450-128392
200	201	310	294	238	176	152	277	451	60	2140	25,5	5902276801464	42450-128393
250	251	370	294	238	176	152	333	531	68,5	6747	33,7	5902276801471	42450-128394
300	301	430	294	226	197	161	384	618	79,5	8627	46	5902276801488	42450-128395
350	336	490	294	226	197	161	416	704	78	10283	67	5902276801495	42450-128396
400	394	550	387	266	279	253	463	778	90	13281	110	5902276801501	42450-128397
450	444	600	387	266	279	253	485	825	109	15930	130,5	5902276801518	42450-128398
500	501	660	387	241	300	265	536	924	127	19532	157,3	5902276801525	42450-128399
600	601	770	387	241	300	265	618	1068	154	29146	222	5902276801396	42450-128300

Kvs = m³/h at a pressure drop of 1 bar and fully open valve.



Fully lugged version

PN 16

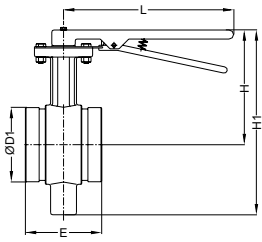
DN	ØD	ØD1	ØD2	L	L1	L2	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	195	162	126	105	172,5	240,5	43	110	8,5	5902276801549	42450-137250
65	72	145	195	162	126	105	184,5	260,5	45	299	9,5	5902276801556	42450-137265
80	83	160	195	162	126	105	192,5	277,5	46	534	10,5	5902276801563	42450-137280
100	102	180	195	162	126	105	212,5	312,5	51,5	726	12,6	5902276801570	42450-137290
125	128	210	195	162	126	105	223,5	343,5	56	873	14	5902276801587	42450-137291
150	151	240	195	162	126	105	234,5	366,5	56,5	1206	16,5	5902276801594	42450-137292
200	201	295	294	238	176	152	277,5	437	60	2140	31	5902276801600	42450-137293
250	251	355	294	238	176	152	314,5	514,5	68,5	6747	36,5	5902276801617	42450-137294
300	301	410	294	226	197	161	361	591	79,5	8627	58	5902276801624	42450-137295
350	336	470	294	226	197	161	416	704	78	10283	71	5902276801631	42450-137296
400	394	525	387	266	279	253	463	778	90	13281	101,7	5902276801648	42450-137297
450	444	585	387	266	279	253	485	825	109	15930	145	5902276801655	42450-137298
500	501	650	387	241	300	265	536	924	127	19532	180	5902276801662	42450-137299
600	601	770	387	241	300	265	618	1068	154	29146	233,3	5902276801532	42450-137200

PN 25

DN	ØD	ØD1	ØD2	L	L1	L2	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	195	162	126	105	172,5	240,5	43	110	8,5	5902276801266	42450-127350
65	72	145	195	162	126	105	184,5	260,5	45	299	9,5	5902276801273	42450-127365
80	83	160	195	162	126	105	192,5	277,5	46	534	10,5	5902276801280	42450-127380
100	102	190	195	162	126	105	212,5	312,5	51,5	726	12,6	5902276801297	42450-127390
125	128	220	195	162	126	105	223,5	343,5	56	873	14	5902276801303	42450-127391
150	151	250	195	162	126	105	234,5	366,5	56,5	1206	16,5	5902276801310	42450-127392
200	201	310	294	238	176	152	277,5	437	60	2140	31	5902276801327	42450-127393
250	251	370	294	238	176	152	314,5	514,5	68,5	6747	36,5	5902276801334	42450-127394
300	301	430	294	226	197	161	361	591	79,5	8627	58	5902276801341	42450-127395
350	336	490	294	226	197	161	416	704	78	10283	71	5902276801358	42450-127396
400	394	550	387	266	279	253	463	778	90	13281	101,7	5902276801365	42450-127397
450	444	600	387	266	279	253	485	825	109	15930	145	5902276801372	42450-127398
500	501	660	387	241	300	265	536	924	127	19532	180	5902276801389	42450-127399
600	601	770	387	241	300	265	618	1068	154	29146	233,3	5902276801259	42450-127300

Kvs = m³/h at a pressure drop of 1 bar and fully open valve.

Grooved valves with lever



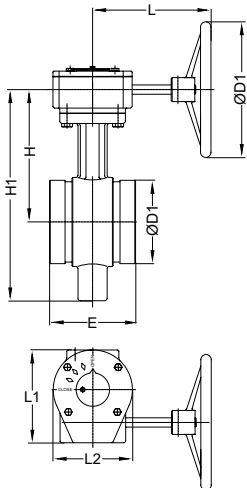
PN 16

DN	ØD1	H	H1	E	L	Kvs	kg	EAN	Article No
50	60,3	138	220	84	263	110	4	5902276801167	42450-029250
65 ¹⁾	73,0	148	240	96	263	299	4,5	5902276802706	42450-025265
65	76,1	148	240	96	263	299	4,5	5902276801174	42450-029265
80	88,9	155	250	96	263	534	5,5	5902276801181	42450-029280
100	114,3	185	300	118	263	726	7	5902276801198	42450-029290
125	139,7	210	354	145	263	873	9	5902276801204	42450-029291
125 ¹⁾	141,3	210	354	145	263	873	9	5902276802713	42450-025291
150	168,3	225	375	145	263	1206	11	5902276801211	42450-029292
200	219,1	257	395	134	325	2140	17	5902276801228	42450-029293
250	237,0	305	465	160	414	6747	28,5	5902276801235	42450-029294
300	323,9	335	500	166	414	8627	39,5	5902276801242	42450-029295

Kvs = m³/h at a pressure drop of 1 bar and fully open valve.

1) Not conforming to ISO 4200.

Grooved valves with gearbox



PN 16

DN	ØD1	ØD2	H	H1	E	L	L1	L2	Kvs	kg	EAN	Article No
50	60,3	186	130	210	84	162	126	105	110	8	5902276801815	42450-129250
65 ¹⁾	73,0	186	145	240	96	162	126	105	299	9,5	5902276802720	42450-125265
65	76,1	186	145	240	96	162	125	105	299	9,5	5902276801822	42450-129265
80	88,9	186	155	250	96	162	126	105	534	10	5902276801839	42450-129280
100	114,3	186	185	300	118	162	126	105	726	11,5	5902276801846	42450-129290
125	139,7	186	210	358	145	162	126	105	873	13,5	5902276801853	42450-129291
125 ¹⁾	141,3	186	210	358	145	162	126	105	873	13,5	5902276802737	42450-125291
150	168,3	186	220	370	145	162	126	105	1206	18	5902276801860	42450-129292
200	219,1	294	250	385	134	236	176	152	2140	26	5902276801877	42450-129293
250	237,0	294	302	462	160	236	176	152	6747	38,5	5902276801884	42450-129294
300	323,9	294	340	505	166	236	197	161	8627	45	5902276801891	42450-129295

Kvs = m³/h at a pressure drop of 1 bar and fully open valve.

1) Not conforming to ISO 4200.

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