

# TA-BTV



## **Butterfly valves**

Wafer, fully lugged and grooved version  
– PN 16, PN 25



Engineering  
**GREAT** Solutions

# 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.

### 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

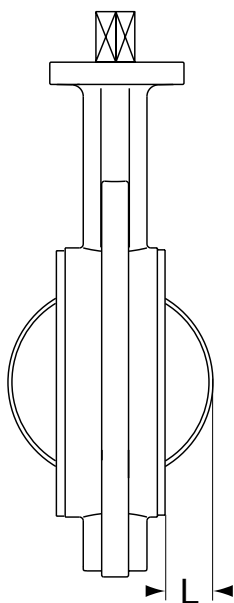
## Installation

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

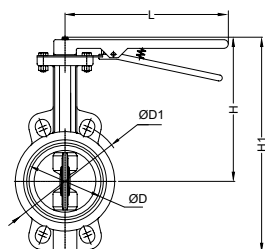
The test was performed under normal working conditions.

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	90	16
150	6	110	16
200	8	190	16
250	10	260	16
300	12	460	16
350	14	880	16
400	16	1325	16
450	18	1765	16
500	20	2250	16
600	24	3180	16

## Flanged valves with lever

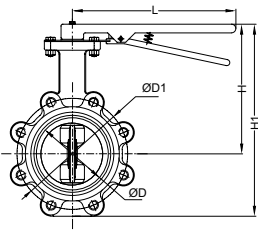


### Wafer version PN 16

DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	260	191	271	43	118	4,5	5902276801075	42450-038250
65	72	145	260	205	296	45	258	5,4	5902276801082	42450-038265
80	83	160	260	211	306	46	510	5,6	5902276801099	42450-038280
100	102	180	260	230	345	51,5	926	7,3	5902276801105	42450-038290
125	128	210	260	245	379	56	1500	10	5902276801112	42450-038291
150	151	240	260	255	393	56,5	2170	12	5902276801129	42450-038292
200	201	295	325	271	455	60	3842	14	5902276801136	42450-038293
250	251	355	325	326	524	68,5	5014	26,3	5902276801143	42450-038294
300	301	410	325	366	600	79,5	9230	36,3	5902276801150	42450-038295

### PN 25

DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	260	191	271	43	118	4,5	5902276800894	42450-028350
65	72	145	260	205	296	45	258	5,4	5902276800900	42450-028365
80	83	160	260	211	306	46	510	5,6	5902276800917	42450-028380
100	102	180	260	230	345	51,5	926	7,3	5902276800924	42450-028390
125	128	210	260	245	379	56	1500	10	5902276800931	42450-028391
150	151	240	260	255	393	56,5	2170	12	5902276800948	42450-028392
200	201	295	325	271	455	60	3842	14	5902276800955	42450-028393
250	251	355	325	326	524	68,5	5014	26,3	5902276800962	42450-028394
300	301	410	325	366	600	79,5	9230	36,3	5902276800979	42450-028395



**Fully lugged version  
PN 16**

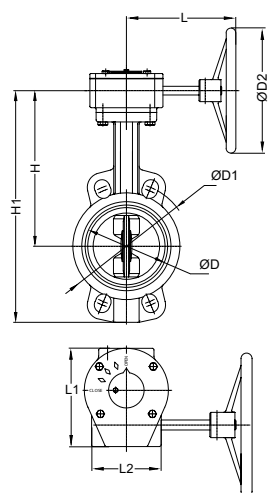
DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	260	170	238	43	118	4,6	5902276800986	42450-037250
65	72	145	260	182	258	45	258	5,6	5902276800993	42450-037265
80	83	160	260	190	275	46	510	65,92	5902276801006	42450-037280
100	102	180	260	210	310	51,5	926	7,7	5902276801013	42450-037290
125	128	210	260	221	341	56	1500	10,2	5902276801020	42450-037291
150	151	240	260	232	364	56,5	2170	12,5	5902276801037	42450-037292
200	201	295	325	267	431	60	3842	17,5	5902276801044	42450-037293
250	251	355	325	304	504	68,5	5014	28	5902276801051	42450-037294
300	301	410	325	343	573	79,5	9230	38	5902276801068	42450-037295

**PN 25**

DN	ØD	ØD1	L	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	260	170	238	43	118	4,6	5902276800801	42450-027350
65	72	145	260	182	258	45	258	5,6	5902276800818	42450-027365
80	83	160	260	190	275	46	510	5,9	5902276800825	42450-027380
100	102	180	260	210	310	51,5	926	7,7	5902276800832	42450-027390
125	128	210	260	221	341	56	1500	10,2	5902276800849	42450-027391
150	151	240	260	232	364	56,5	2170	12,5	5902276800856	42450-027392
200	201	295	325	267	431	60	3842	17,5	5902276800863	42450-027393
250	251	355	325	304	504	68,5	5014	28	5902276800870	42450-027394
300	301	410	325	343	573	79,5	9230	38	5902276800887	42450-027395

Kvs = m<sup>3</sup>/h at a pressure drop of 1 bar and fully open valve.

## Flanged valves with gearbox

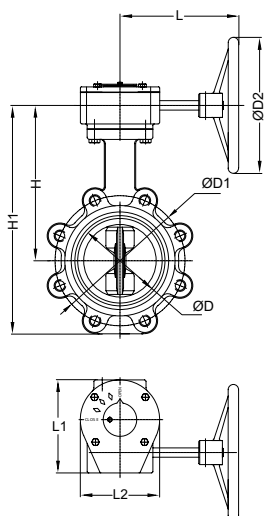


Wafer version  
PN 16

DN	ØD	ØD1	ØD2	L	L1	L2	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	186	162	126	105	194	274	43	118	7,9	5902276801686	42450-138250
65	72	145	186	162	126	105	208	299	45	258	8,8	5902276801693	42450-138265
80	83	160	186	162	126	105	213	308	46	510	9	5902276801709	42450-138280
100	102	180	186	162	126	105	233	348	51,5	926	11	5902276801716	42450-138290
125	128	210	186	162	126	105	248	382	56	1500	13	5902276801723	42450-138291
150	151	240	186	162	126	105	258	396	56,5	2170	16	5902276801730	42450-138292
200	201	295	294	246	176	152	282	456	60	3842	23	5902276801747	42450-138293
250	251	355	294	246	176	152	337	535	68,5	5014	30	5902276801754	42450-138294
300	301	410	294	236	197	161	384	618	79,5	9230	43	5902276801761	42450-138295
350	336	470	294	236	197	161	416	704	78	10790	67	5902276801778	42450-138296
400	394	525	387	279	279	253	463	778	88	14081	110	5902276801785	42450-138297
450	444	585	387	279	279	253	485	825	109	17842	131	5902276801792	42450-138298
500	501	650	387	393	300	265	536	924	127	22030	157	5902276801808	42450-138299
600	601	770	387	246	300	265	618	1068	154	31780	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	186	162	126	105	194	274	43	118	7,9	5902276801402	42450-128350
65	72	145	186	162	126	105	208	299	45	258	8,8	5902276801419	42450-128365
80	83	160	186	162	126	105	213	308	46	510	9	5902276801426	42450-128380
100	102	180	186	162	126	105	233	348	51,5	926	11	5902276801433	42450-128390
125	128	210	186	162	126	105	248	382	56	1500	13	5902276801440	42450-128391
150	151	240	186	162	126	105	258	396	56,5	2170	16	5902276801457	42450-128392
200	201	295	294	246	176	152	282	456	60	3842	23	5902276801464	42450-128393
250	251	355	294	246	176	152	337	535	68,5	5014	30	5902276801471	42450-128394
300	301	410	294	236	197	161	384	618	79,5	9230	43	5902276801488	42450-128395
350	336	470	294	236	197	161	416	704	78	10790	67	5902276801495	42450-128396
400	394	525	387	279	279	253	463	778	88	14081	110	5902276801501	42450-128397
450	444	585	387	279	279	253	485	825	109	17842	131	5902276801518	42450-128398
500	501	650	387	393	300	265	536	924	127	22030	157	5902276801525	42450-128399
600	601	770	387	246	300	265	618	1068	154	31780	222	5902276801396	42450-128300



Fully lugged version  
PN 16

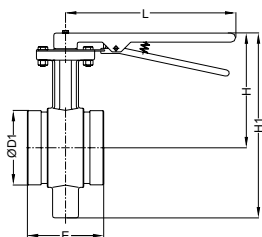
DN	ØD	ØD1	ØD2	L	L1	L2	H	H1	Face to face length	Kvs	kg	EAN	Article No
50	57	125	186	162	126	105	172,5	240,5	43	118	8	5902276801549	42450-137250
65	72	145	186	162	126	105	184,5	260,5	45	258	9	5902276801556	42450-137265
80	83	160	186	162	126	105	192,5	277,5	46	510	9,3	5902276801563	42450-137280
100	102	180	186	162	126	105	212,5	312,5	51,5	926	13	5902276801570	42450-137290
125	128	210	186	162	126	105	223,5	343,5	56	1500	15	5902276801587	42450-137291
150	151	240	186	162	126	105	234,5	366,5	56,5	2170	17	5902276801594	42450-137292
200	201	295	294	246	176	152	277,5	441,5	60	3842	33	5902276801600	42450-137293
250	251	355	294	246	176	152	314,5	514,5	68,5	5014	36	5902276801617	42450-137294
300	301	410	294	236	197	161	361	591	79,5	9230	51	5902276801624	42450-137295
350	336	470	294	236	197	161	416	704	78	10790	81	5902276801631	42450-137296
400	394	525	387	279	279	253	463	778	88	14081	120	5902276801648	42450-137297
450	444	585	387	279	279	253	485	825	109	17842	145	5902276801655	42450-137298
500	501	650	387	393	300	265	536	924	127	22030	180	5902276801662	42450-137299
600	601	770	387	246	300	265	618	1068	154	31780	248	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	186	162	126	105	172,5	240,5	43	118	8	5902276801266	42450-127350
65	72	145	186	162	126	105	184,5	260,5	45	258	9	5902276801273	42450-127365
80	83	160	186	162	126	105	192,5	277,5	46	510	9,3	5902276801280	42450-127380
100	102	180	186	162	126	105	212,5	312,5	51,5	926	13	5902276801297	42450-127390
125	128	210	186	162	126	105	223,5	343,5	56	1500	15	5902276801303	42450-127391
150	151	240	186	162	126	105	234,5	366,5	56,5	2170	17	5902276801310	42450-127392
200	201	295	294	246	176	152	277,5	441,5	60	3842	33	5902276801327	42450-127393
250	251	355	294	246	176	152	314,5	514,5	68,5	5014	36	5902276801334	42450-127394
300	301	410	294	236	197	161	361	591	79,5	9230	51	5902276801341	42450-127395
350	336	470	294	236	197	161	416	704	78	10790	81	5902276801358	42450-127396
400	394	525	387	279	279	253	463	778	88	14081	120	5902276801365	42450-127397
450	444	585	387	279	279	253	485	825	109	17842	145	5902276801372	42450-127398
500	501	650	387	393	300	265	536	924	127	22030	180	5902276801389	42450-127399
600	601	770	387	246	300	265	618	1068	154	31780	248	5902276801259	42450-127300

Kvs = m<sup>3</sup>/h at a pressure drop of 1 bar and fully open valve.

## Grooved valves with lever



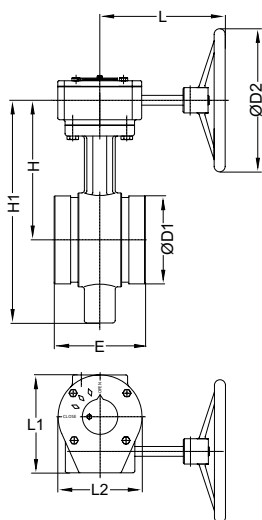
### PN 16

DN	ØD1	H	H1	E	L	Kvs	kg	EAN	Article No
50	60,3	152	229	84	260	118	3,8	5902276801167	42450-029250
65 <sup>1)</sup>	73,0	170	255	96	260	258	4,3	5902276802706	42450-025265
65	76,1	170	255	96	260	258	4,3	5902276801174	42450-029265
80	88,9	177	267	96	260	510	4,7	5902276801181	42450-029280
100	114,3	207	315	118	260	926	7	5902276801198	42450-029290
125	139,7	234	354	145	260	1500	8,5	5902276801204	42450-029291
125 <sup>1)</sup>	141,3	234	354	145	260	1500	8,5	5902276802713	42450-025291
150	168,3	245	390	145	260	2170	11,5	5902276801211	42450-029292
200	219,1	275	455	134	325	3842	15,6	5902276801228	42450-029293
250	237,0	325	555	160	400	5014	28,8	5902276801235	42450-029294
300	323,9	350	610	166	400	9230	35	5902276801242	42450-029295

Kvs = m<sup>3</sup>/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	154,5	231,5	84	162	126	105	118	7,2	5902276801815	42450-129250
65 <sup>1)</sup>	73,0	186	172,5	257,5	96	162	126	105	258	7,7	5902276802720	42450-125265
65	76,1	186	172,5	257,5	96	162	125	105	258	7,7	5902276801822	42450-129265
80	88,9	186	179,5	269,5	96	162	126	105	510	8,1	5902276801839	42450-129280
100	114,3	186	209,5	317,5	118	162	126	105	926	10,7	5902276801846	42450-129290
125	139,7	186	236,5	356,5	145	162	126	105	1500	12,2	5902276801853	42450-129291
125 <sup>1)</sup>	141,3	186	236,5	365,5	145	162	126	105	1500	12,2	5902276802737	42450-125291
150	168,3	186	247,5	392,5	145	162	126	105	2170	15,5	5902276801860	42450-129292
200	219,1	294	285,5	465,5	134	246	176	152	3842	24,6	5902276801877	42450-129293
250	237,0	294	335,5	565,5	160	246	176	152	5014	38,8	5902276801884	42450-129294
300	323,9	294	368	628	166	236	197	161	9230	45	5902276801891	42450-129295

Kvs = m<sup>3</sup>/h at a pressure drop of 1 bar and fully open valve.

1) Not conforming to ISO 4200.