



BV38

Wafer type swing check valves

GENERAL SPECIFICATIONS

- Belven wafer type swing check valve
- To be mounted between flanges
Available flange connections : PN6-PN10-PN16-PN25-PN40-A150-A300-JIS 10K
- Available sizes : DN32 up to DN1000
- Short face to face dimension according to our production standard
- Metal or plastic body with a range of different seat materials
- Low opening pressure and low pressure drops
- Suitable for use in pipeline systems for the transport of liquid or gaseous fluids
- The valves are not suitable for solids
- For spring loaded execution please consult BV39



CONNECTIONS

The BV38 is a wafer type check valves that has to be mounted between flanges

The BV38 will be centered between the flanges via the outer diameter of the valve and will be kept in position by tightening the flanges with the necessary tightening torques

An overview of the possible connections can be consulted in the dimension table on page 3 and page 4

Please check page 6 for an overview of the possible connections of our stock items

TESTING

The BV38 valve are tested according to EN 12266-1

The hydraulic test pressure of the body is 1,5x of the pressure class

The hydraulic test pressure of the leakage test is 1,1 of the pressure class

Leakage rate : tight shut-off according to EN 12266-1 A.5 Rate A for soft seat

EN 12266-1 A.5 Rate G for metal seat

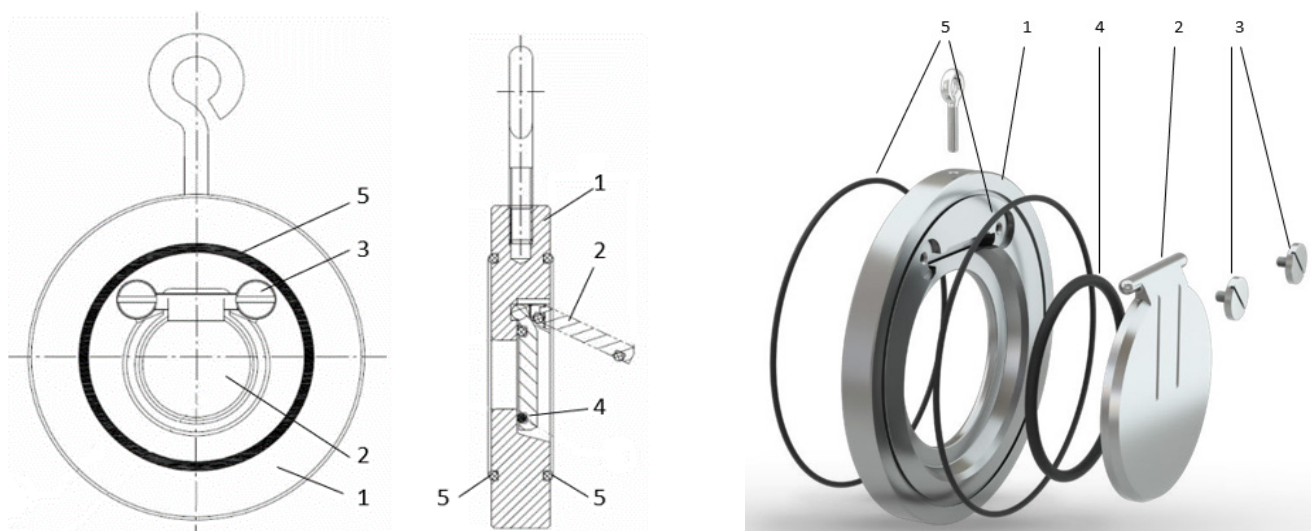
In order to achieve the specified leakage rate, a back pressure of 0,3 bar is required



KV-VALUES AND MINIMUM OPENING PRESSURE

SIZE		KV-VALUE	OPENING PRESSURE (mbar)	
DN	INCH		<- ->	↑
32	1 1/4"	16,2	~ 2	~ 10
40	1 1/2"	22,2	~ 2	~ 10
50	2"	54	~ 2	~ 10
65	2 1/2"	75	~ 2	~ 10
80	3"	112	~ 2	~ 10
100	4"	172	~ 2	~ 10
125	5"	342	~ 2	~ 10
150	6"	490	~ 2	~ 10
200	8"	1128	~ 4	~ 14
250	10"	1500	~ 4	~ 14
300	12"	2290	~ 4	~ 14
350	14"	2890	~ 6	~ 18
400	16"	3700	~ 6	~ 18
450	18"	5000	~ 6	~ 18
500	20"	6550	~ 6	~ 24
600	24"	9500	~ 6	~ 26

Information about larger sizes upon request when the application info is received



ITEM	NAME	AVAILABLE MATERIALS	TEMPERATURE RANGE*
1	Body	Zinc plated steel A105 (1.0460)	-10°C ... +400°C
		Stainless steel A351 CF8M (1.4408)	-196°C ... +400°C
		Stainless steel AISI 316 Ti (1.4571)	-273°C ... +500°C
		Alu-Bronze C958 (2.0975)	-10°C ... +250°C
		Superduplex A 890 Grade A (1.4469)	-10°C ... +250°C
		PVC	0°C ... +50°C
2	Disc	Zinc plated steel A105/A216 WCB	
		Stainless steel A351 CF8M for CF8M body	
		Stainless steel AISI 316 Ti for AISI 316 Ti body	
		Superduplex for Alu-bronze or Superduplex body	
		PVC for PVC body	
3	Disc holder	Stainless steel AISI 316 Ti (1.4571) for steel, stainless steel or PVC body	
		Alu-Bronze C958 (2.0975) for Alu-Bronze body	
		Superduplex 1.4410 or hastelloy 1.4539 for superduplex body	
4	Seat**	Metal seat (Leakrate G)	
		EPDM (Leakrate A)	-65°C ... +150°C
		NBR (Leakrate A)	-30°C ... +100°C
		FKM (Leakrate A)	-30°C ... +230°C
		PTFE (Leakrate A)	-200°C ... +250°C
5	Seal	Same material as the seat	
		The metal seated check valves are supplied without O-ring seals	

* The temperature range is limited by the part with the most limited temperature.
For example: a check valve with a zinc plated steel body and EPDM seat has a minimum temperature of -10°C (limited by the zinc plated steel body) and a maximum temperature of 150°C (limited by the EPDM seat).

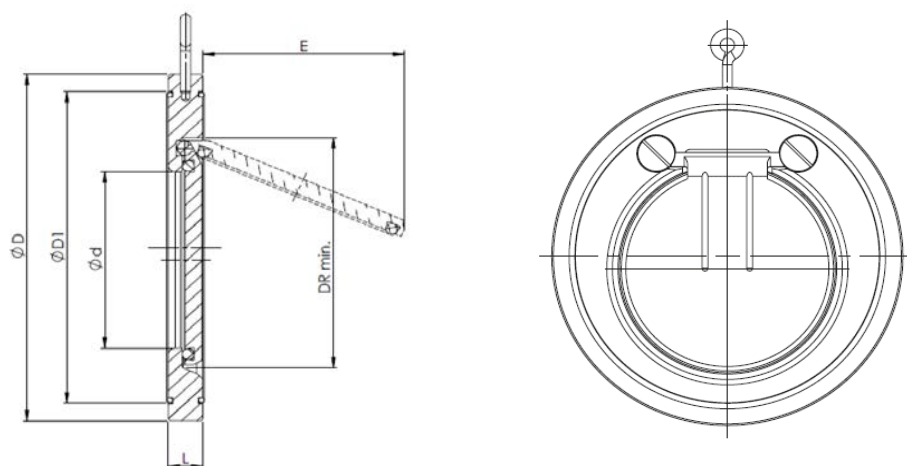
** Seats for valves up to and including DN 300 comply with the following approvals / conformities:

NBR: DIN EN 549, BAM, REACH, RoHS

EPDM: KTW UBA, DVGW W 270, WRAS, NSF, FDA, BfR XXI Kat. 4, ADI-free, 3A, USP Cl. 6, BAM, REACH, RoHS

FKM: DIN EN 549, ADI-free, REACH, RoHS

PTFE: KTW UBA, DVGW W 270, WRAS, FDA, BfR, ADI-free, EU 10/2011, 3A, USP Cl. 6, REACH, RoHS



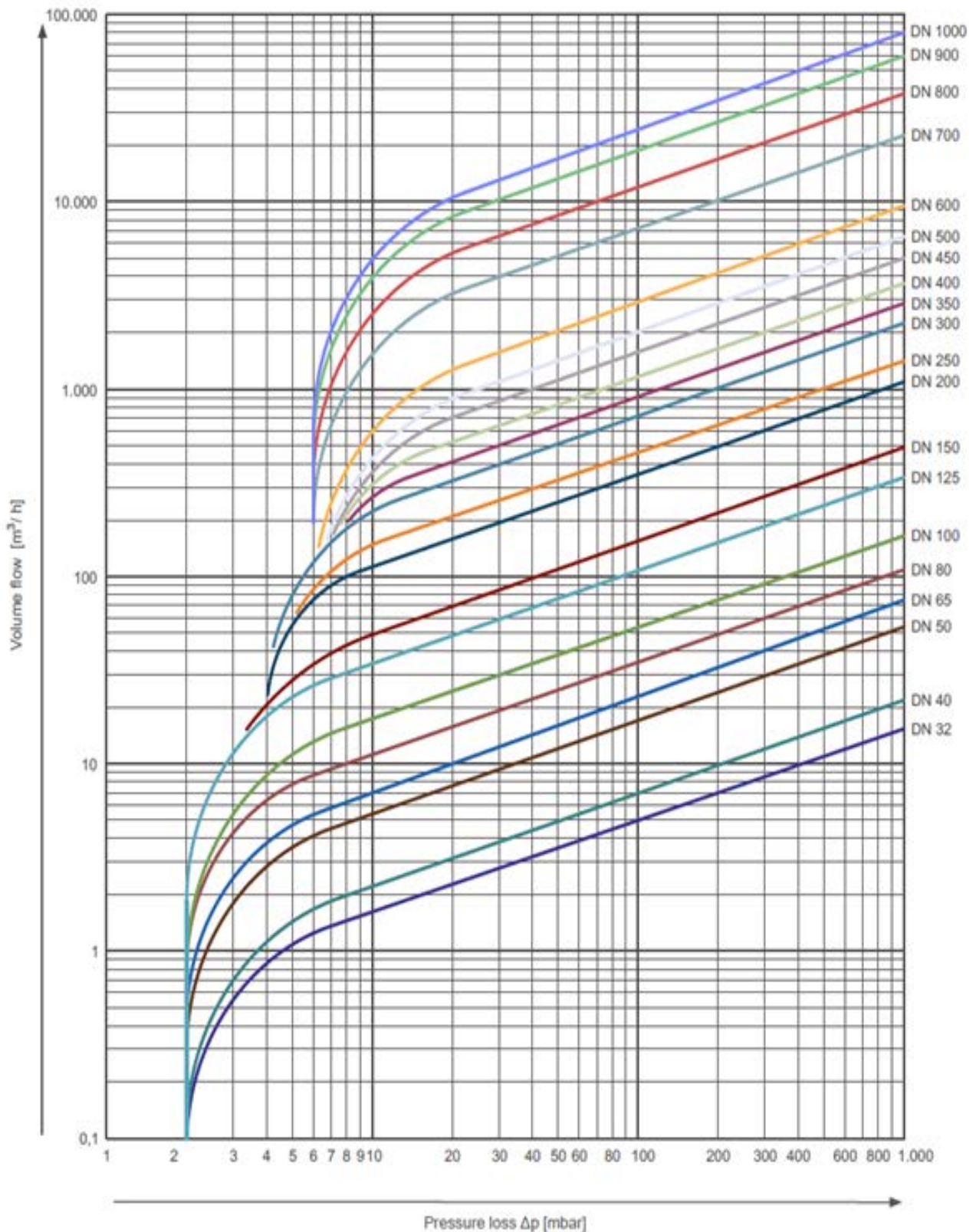
DN	INCH	L	$\varnothing d$	$\varnothing D1$	E	DR min	$\varnothing D1$ Flange connections*								
							PN6	PN10	PN16	PN25	PN40	PN63	A150	A300	JIS 10K
32	1 1/4"	16	18	59	22	37	79	85	85	85	85	91	74	85,9	85
40	1 1/2"	16	22	72	25	43	89	95	95	95	95	106	83	98,6	91
50	2"	14	32	86	37	54	98	109	109	109	109	115	105	114,4	105
65	2 1/2"	14	40	109	50	70	118	129	129	129	129	140	124	133,7	124
80	3"	14	54	119	61	82	134	144	144	144	144	150	137	152,4	135
100	4"	18	70	146	77	106	154	164	164	170	170	176	175	184,5	160
125	5"	18	92	173	98	131	184	195	195	196	196	214	197	219,3	191
150	6"	20	112	197	120	159	209	220	220	226	226	251	222	254	220
200	8"	22	154	255	160	207	264	275	275	286	294	313	279	311,2	271
250	10"	26	192	312	190	260	319	330	331	344	356	368	340	365	330
300	12"	32	227	363	220	309	375	380	386	404	421	428	410	423	380
350	14"	38	266	416	250	341	425	440	446	461	478	490	451	489	424
400	16"	44	310	467	290	392	475	491	499	518	550	547	514	543,1	487
450	18"	52	350	520	340	442	530	541	558	568	575	-	549	600,3	541
500	20"	58	400	550	390	493	580	596	621	628	632	-	606	657,4	596
600	24"	62	486	660	470	594	681	698	738	735	751	-	718	777,7	698
700	28"	67	564	770	563	693	785	813	807	836	-	-	-	-	-
800	32"	78	622	-	680	795	893	920	914	945	-	-	-	-	-
900	36"	85	720	-	750	889	993	1020	1014	1045	-	-	-	-	-
1000	40"	105	810	-	840	991	1093	1127	1131	1159	-	-	-	-	-

* In order to achieve the flange connection size, flange center rings may be used

WEIGHTS

DN	32	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
kg	0,67	0,85	0,91	1,24	1,51	2,44	3,36	4,71	7,73	13,3	21	33	46,3	67,3	88,5	128	190	292	412	550

The weights are for indication only and may vary depending on pressure class and material
Above mentioned weights refer to valves with PN10 flange connection and stainless steel body



The diagram values are valid for water at a temperature of 20 °C and for valves suitable for flanges in accordance with PN 10- PN 40. At the opening of the valve, the curves apply to operation in horizontal pipelines. For calculations for other fluids or temperatures, please contact your Belven representative.

BV38 - 66 66 E				TYPE	
				BV38	Wafer type swing check valve without spring
				BODY	
				45	Zinc plated steel A105 (1.0460)
				66	Stainless steel A351 CF8M (1.4408)
				67	Stainless steel AISI 316 Ti (1.4571)
				13	Alu-Bronze C958 (2.0975)
				89	Superduplex A 890 Grade A (1.4469)
				P1	PVC
				DISC	
				45	Zinc plated steel A105 (1.0460)
				66	Stainless steel A351 CF8M (1.4408)
				67	Stainless steel AISI 316 Ti (1.4571)
				89	Superduplex A 890 Grade A (1.4469)
				P1	PVC
				SEAT	
				M	Metal seated
				E	EPDM
				B	NBR
				V	FKM
				T	PTFE

CODIFICATION OF THE MOST USED VALVES

Belven code	BV38-4545B	BV38-4545E	BV38-6666B	BV38-6666E	BV38-6666T	BV38-6666M
Body	Steel A105	Steel A105	Stainless steel CF8M	Stainless steel CF8M	Stainless steel CF8M	Stainless steel CF8M
Disc	Steel A105	Steel A105	Stainless steel CF8M	Stainless steel CF8M	Stainless steel CF8M	Stainless steel CF8M
Seat	NBR	EPDM	NBR	EPDM	PTFE	Metal seated

Belven ref.	Belven code	Max. press.	Suitable for between flanges									
		(bar)	PN6	PN10	PN16	PN25	PN40	PN63	A150	A300	A600	JIS 10K
383055E00032	BV38-4545E-PN16 DN032	40	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
383055E00040	BV38-4545E-PN16 DN040	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055E00050	BV38-4545E-PN16 DN050	25	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055E00065	BV38-4545E-PN16 DN065	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055E00080	BV38-4545E-PN16 DN080	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055E00100	BV38-4545E-PN16 DN100	16	No	Yes	Yes	No	No	No	No	No	No	No
383055E00125	BV38-4545E-PN16 DN125	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055E00150	BV38-4545E-PN16 DN150	16	No	Yes	Yes	No	No	No	No	No	No	Yes
383055E00200	BV38-4545E-PN16 DN200	16	No	Yes	Yes	No	No	No	No	No	No	No
383055E00250	BV38-4545E-PN16 DN250	16	No	Yes	Yes	No	No	No	No	No	No	Yes
383077E00032	BV38-6666E-PN16 DN032	40	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
383077E00040	BV38-6666E-PN16 DN040	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077E00050	BV38-6666E-PN16 DN050	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077E00065	BV38-6666E-PN16 DN065	30	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077E00080	BV38-6666E-PN16 DN080	20	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077E00100	BV38-6666E-PN16 DN100	20	No	Yes	Yes	No	No	No	No	No	No	No
383077E00125	BV38-6666E-PN16 DN125	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077E00150	BV38-6666E-PN16 DN150	16	No	Yes	Yes	No	No	No	No	No	No	Yes
383077E00200	BV38-6666E-PN16 DN200	16	No	Yes	Yes	No	No	No	No	No	No	No
383077E00250	BV38-6666E-PN16 DN250	16	No	Yes	No	No	No	No	No	No	No	Yes
383077E00300	BV38-6666E-PN16 DN300	16	No	Yes	No	No	No	No	No	No	No	Yes
383077T00050	BV38-6666T-PN16 DN050	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077T00065	BV38-6666T-PN16 DN065	30	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077T00080	BV38-6666T-PN16 DN080	20	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077T00100	BV38-6666T-PN16 DN100	20	No	Yes	Yes	No	No	No	No	No	No	No
383077T00125	BV38-6666T-PN16 DN125	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077T00150	BV38-6666T-PN16 DN150	16	No	Yes	Yes	No	No	No	No	No	No	Yes

OPTIONS

- Cleaning: free of oil and grease / silicone
- Seals with additional approvals
- Seals glued in for vacuum applications up to 0.1 bara



Heavy duty :
with reinforced disc guides



With manual override
(longer Face to Face)



With lug type body

Belven ref.	Belven code	Max. press.	Suitable for between flanges									
		(bar)	PN6	PN10	PN16	PN25	PN40	PN63	A150	A300	A600	JIS 10K
383055B00250	BV38-4545B-PN16 DN250	16	No	Yes	Yes	No	No	No	No	No	No	Yes
382055B00300	BV38-4545B-PN10 DN300	10	No	Yes	No	No	No	No	No	No	No	Yes
382055B00350	BV38-4545B-PN10 DN350	10	No	Yes	No	No	No	No	No	No	No	No
382055B00400	BV38-4545B-PN10 DN400	10	No	Yes	No	No	No	No	No	No	No	No
382055E00300	BV38-4545E-PN10 DN300	10	No	Yes	No	No	No	No	No	No	No	Yes
382055E00350	BV38-4545E-PN10 DN350	10	No	Yes	No	No	No	No	No	No	No	No
382055E00400	BV38-4545E-PN10 DN400	10	No	Yes	No	No	No	No	No	No	No	No
383077B00250	BV38-6666B-PN16 DN250	16	No	Yes	Yes	No	No	No	No	No	No	Yes
382077B00300	BV38-6666B-PN10 DN300	10	No	Yes	No	No	No	No	No	No	No	Yes
382077B00350	BV38-6666B-PN10 DN350	10	No	Yes	No	No	No	No	No	No	No	No
382077B00400	BV38-6666B-PN10 DN400	10	No	Yes	No	No	No	No	No	No	No	No
382077E00300	BV38-6666E-PN10 DN300	10	No	Yes	No	No	No	No	No	No	No	Yes
382077E00350	BV38-6666E-PN10 DN350	10	No	Yes	No	No	No	No	No	No	No	No
382077E00400	BV38-6666E-PN10 DN400	10	No	Yes	No	No	No	No	No	No	No	No
383077T00250	BV38-6666T-PN16 DN250	16	No	Yes	Yes	No	No	No	No	No	No	Yes
382077T00300	BV38-6666T-PN10 DN300	10	No	Yes	No	No	No	No	No	No	No	Yes
382077T00350	BV38-6666T-PN10 DN350	10	No	Yes	No	No	No	No	No	No	No	No
382077T00400	BV38-6666T-PN10 DN400	10	No	Yes	No	No	No	No	No	No	No	No
383055B00032	BV38-4545B-PN16 DN032	40	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
383055B00040	BV38-4545B-PN16 DN040	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055B00050	BV38-4545B-PN16 DN050	25	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055B00065	BV38-4545B-PN16 DN065	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055B00080	BV38-4545B-PN16 DN080	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055B00100	BV38-4545B-PN16 DN100	16	No	Yes	Yes	No	No	No	No	No	No	No
383055B00125	BV38-4545B-PN16 DN125	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383055B00150	BV38-4545B-PN16 DN150	16	No	Yes	Yes	No	No	No	No	No	No	Yes
383055B00200	BV38-4545B-PN16 DN200	16	No	Yes	Yes	No	No	No	No	No	No	No
383055E00300	BV38-4545E-PN16 DN300	16	No	No	Yes	No	No	No	No	No	No	No
383077B00032	BV38-6666B-PN16 DN032	40	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
383077B00040	BV38-6666B-PN16 DN040	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077B00050	BV38-6666B-PN16 DN050	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077B00065	BV38-6666B-PN16 DN065	30	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077B00080	BV38-6666B-PN16 DN080	20	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077B00100	BV38-6666B-PN16 DN100	20	No	Yes	Yes	No	No	No	No	No	No	No
383077B00125	BV38-6666B-PN16 DN125	16	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077B00150	BV38-6666B-PN16 DN150	16	No	Yes	Yes	No	No	No	No	No	No	Yes
383077B00200	BV38-6666B-PN16 DN200	16	No	Yes	Yes	No	No	No	No	No	No	No
383077T00032	BV38-6666T-PN16 DN32	40	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
383077T00040	BV38-6666T-PN16 DN40	40	No	Yes	Yes	Yes	Yes	No	No	No	No	No
383077T00200	BV38-6666T-PN16 DN200	16	No	Yes	Yes	No	No	No	No	No	No	No



Blokhuisstraat 24 | 2800 Mechelen | Belgium

tel.: 0032 15 29 40 70

info@belven.com

www.belven.com

www.belven.be

