



*Let's move the medium!*

# ball valves



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# standard codes

ANSI - American National Standards Institute		
ANSI	B16.5	Pipe flanges & flange fittings
ANSI	B16.10	Face-to-face and end-to-end dimensions of valves
API - American Petroleum Institute		
API	607	Fire test for soft-seated quarter turn valves
API	6FA	Specification for fire test for Valves
API	6D	Specification for pipeline valves
BS - British Standard		
BS	5351	Steel ball valves for the petroleum, petrochemicals and allied industries
BS	5159	Specification for cast iron and carbon steel ball valves for general purposes
BS	5146	Part 1 : Specification for steel valves for the petroleum, petrochemical and allied industries Part 2 : Specification for pressure testing requirements for general purpose valves
BS	6755/2	Part 2 : Specification for fire type testing requirements
DIN - Deutsches Institut für Normung		
DIN	2505	Design of flanges according to DIN 2505 (partially replaced by 1591)
DIN	3202	Part 1 : Face-to-face and centre-to-face dimensions - Flanged valves
DIN	3840	Valve bodies, strength calculation in respect of internal pressure
DIN	2501	Flanges - connecting dimensions
DIN	7121	Flanged steel ball valves
DIN	3337	Part-turn valve actuator attachment - flange dimensions
DIN	2526	Flanges : Joint face shape
DIN	3357	Part 1 : Ball valves - general data on ball valves made of metallic materials Part 2 : Full bore steel ball valves Part 3 : Reduced bore steel ball valves Part 6 : Full bore cast iron ball valves Part 7 : Reduced bore cast iron ball valves
ISO - International Organisation for Standardisation		
ISO	5208	Industrial valves - pressure testing for valves
ISO	5211	Part-turn valve actuator attachment - flange dimensions
ISO	7121	Flanged steel ball valves
ISO	5752	Metal valves for use in flanged pipe systems. Face-to face and centre-to-face dimensions
ISO	10497	Testing of valves, fire type testing requirements
ISO	7268	Pipe components, definition of nominal pressure
ISO	2081	Metallic coatings, electroplated coatings of zinc on iron or steel
ISO	4520	Chromate conversion coatings on electroplated zinc and cadmium coatings
ISO	9227	Corrosion test in artificial atmospheres, salt spray tests
EN - European Norm		
EN	12516	Part 2 : Valves, shell design strength. Calculation method for steel valve shells Part 3 : Shell design strength. Experimental method
EN	1759	Flanges and their joint. Circular flanges for pipes, valves, fittings and accessories
EN	1983	Industrial valves - steel ball valves (draft document)
EN	13828	Building valves - Manually operated copper alloy and stainless steel ball valves for potable water supply
EN	19	Industrial valves - Marking of metallic valves
EN	12351	Industrial valves - Protective caps for valves with flanged connections
EN	558	Industrial valves - Face-to-face and centre-to dimensions of metal valves for use in flanged pipe systems
EN	10204 (DIN 50.049-3.1B)	Metallic products - Types of inspection documents
EN	1092	Flanges and their joint. Circular flanges for pipes, valves, fittings and accessories
EN	736	Part 1 : Definition of types of valves Part 2 : Definition of components of valves Part 3 : Definition of terms
EN	12570	Industrial valves - Method for sizing the operating element
EN	1503	Materials for bodies, bonnets and covers
EN	6708	Pipework components - definition and selection of DN (nominal size)
EN	1775	Gas supply - Gas pipework for buildings
IEC - International Electrotechnical Commission		
IEC	61508	Mean Time Between Failure (MTBF) values available

# overview products

BV 1



BV 4 - ANSI



BV 2



BV 6



BV 3



BV 7



BV 4 - DIN



BV 8



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ball valves



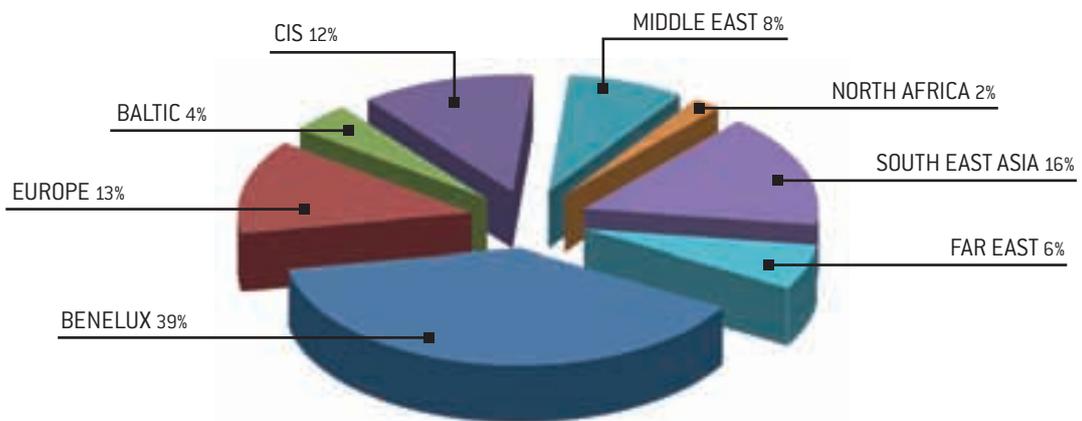
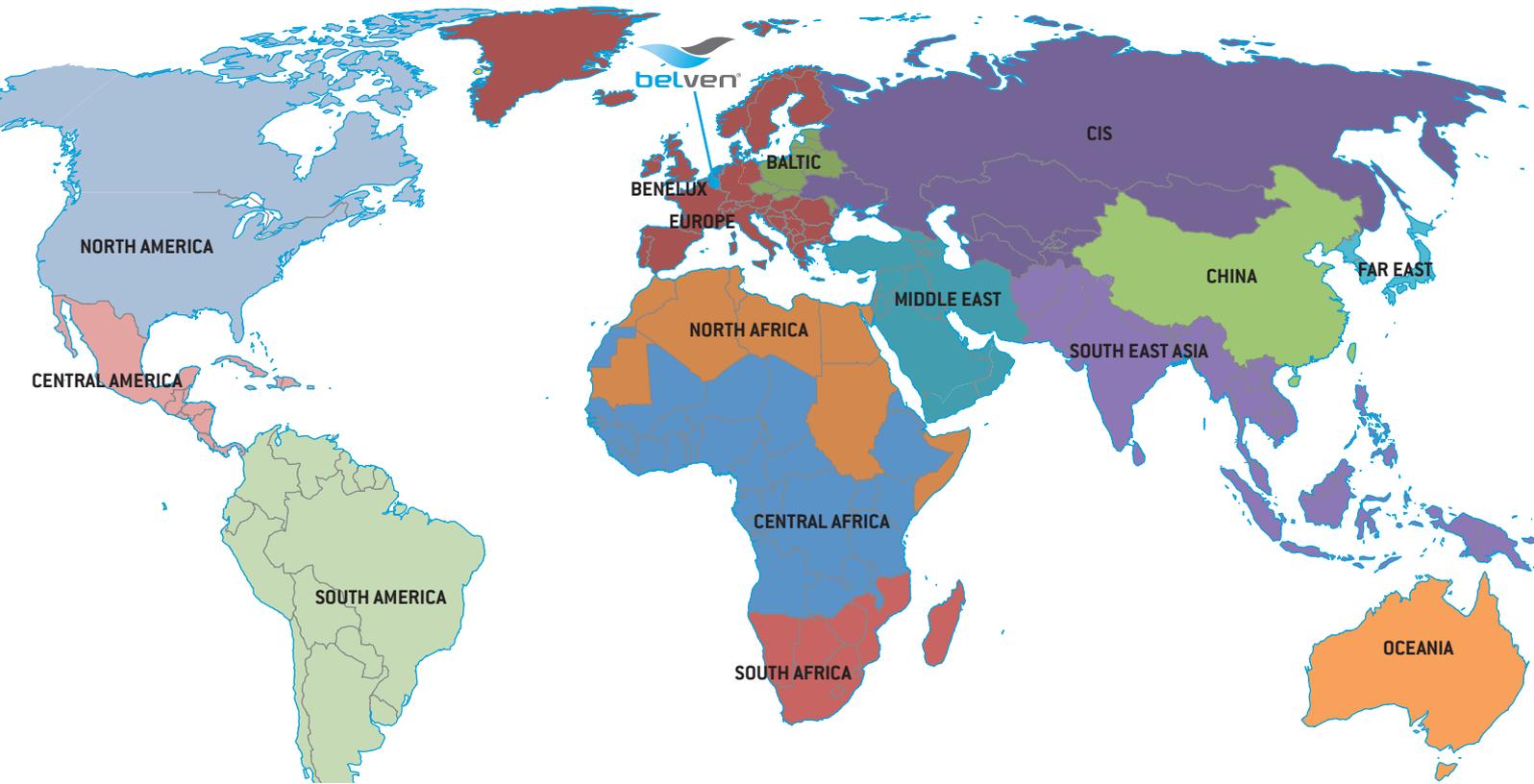
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butterfly valves



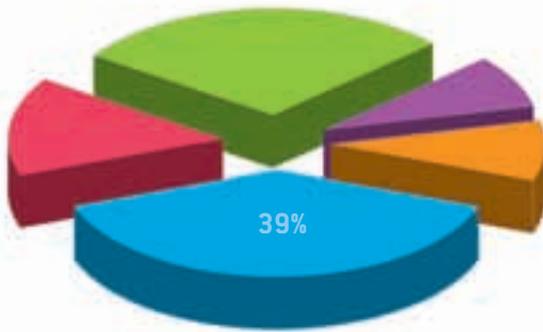
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check valves / gate valves /  
strainers



ball valves

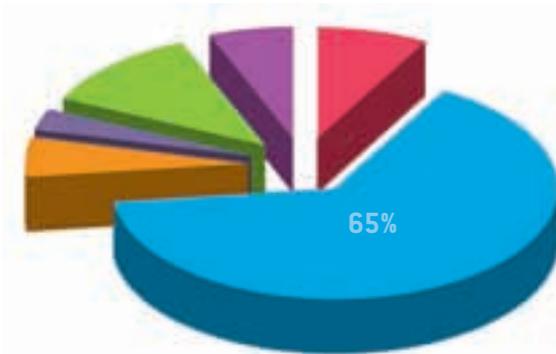
## MARKETS



- TANK STORAGE 39%
- PROCESS INDUSTRY 29%
- CONSTRUCTION & BUILDINGS 15%
- WATER TREATMENT 9%
- DISTRICT ENERGY 8%

ball valves

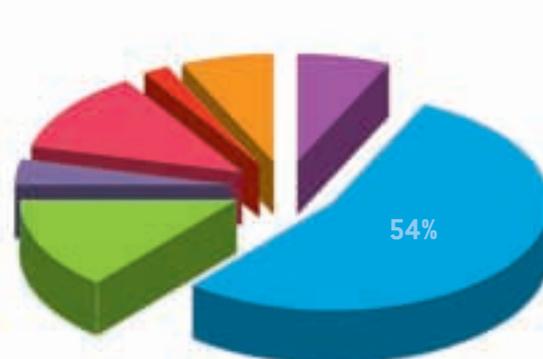
## PRODUCTS / MEDIUM



- CHEMICALS 65%
- OIL & GAS 12%
- WATER & AIR 8%
- GRANULATES 6%
- MINERALS 6%
- POWDER 3%

ball valves

## OUR CUSTOMERS / CLIENTS



- INDUSTRIAL END USERS 54%
- ENGINEERING COMPANIES 14%
- O.E.M. 12%
- CONTRACTORS & MAINTENANCE 7%
- PRINCIPALS 7%
- CONSULTANTS 4%
- GOVERNMENT, AUTHORITY & AGENCIES 2%

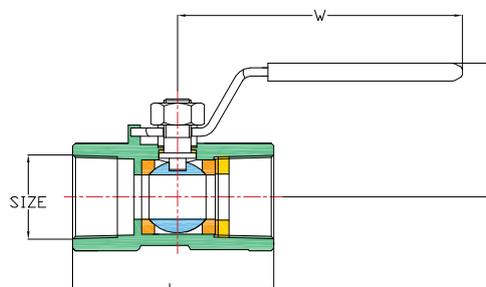
ball valves

# BV 1

## EXECUTION



- One-piece body ball valve
- Reduced bore
- End connections according to BSP or NPT
- Face to face dimensions according to our production standard



## MATERIAL

	STAINLESS STEEL
BODY	A351 CF8M
INSERT	ASTM A276 316
BALL	AISI 316
SEAT	PTFE
BV TYPE	<b>BV1-6666T</b>

Also available in other materials

## DIMENSIONS

	SIZE	L	W	H
DN 08	1/4"	40,0	70,0	32,0
DN 10	3/8"	44,5	78,0	38,0
DN 15	1/2"	57,0	90,0	43,5
DN 20	3/4"	59,5	90,0	46,0
DN 25	1"	72,5	120,0	51,0
DN 32	1 1/4"	78,8	130,0	54,0
DN 40	1 1/2"	84,5	150,0	58,0
DN 50	2"	101,8	150,0	62,0
<b>BV1-6666T</b>				

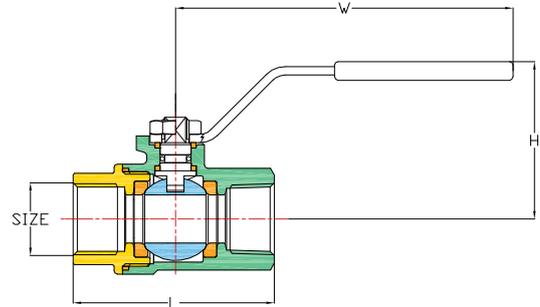
Dimensions in mm

# BV 2

## EXECUTION



- Two-piece body ball valve
- Full bore
- End connections according to BSP or NPT
- Face to face dimensions according to our production standard



**Also available with locking device, direct mounting pad, polished version, fire safe and antistatic device.**

## MATERIAL

	BRASS	CARBON STEEL	STAINLESS STEEL
BODY	CW617N UNI EN 12165	ASTM A105 WCB	A351 CF8M
CAP	CW617N UNI EN 12165	ASTM A105	A351 CF8M
BALL	CW617N UNI EN 12165	A351 CF8M	A351 CF8M
SEAT	PTFE	PTFE	PTFE
BV TYPE	<b>BV2-340</b>	<b>BV2-2466T</b>	<b>BV2-6666T</b>

## DIMENSIONS

SIZE		L	W	H	L	W	H	L	W	H	
DN 08	1/4"	51,5	96,0	42,0	66,0	110,0	53,0	55,0	110,0	50,0	
DN 10	3/8"	51,5	96,0	42,0	66,0	110,0	53,0	55,0	110,0	50,0	
DN 15	1/2"	55,0	96,0	47,0	66,0	110,0	53,0	66,0	110,0	53,0	
DN 20	3/4"	57,5	120,0	59,0	76,0	131,0	68,0	79,0	131,0	68,0	
DN 25	1"	69,5	120,0	63,0	90,0	174,0	79,0	93,0	174,0	79,0	
DN 32	1 1/4"	81,5	150,0	76,5	100,0	174,0	83,0	100,0	174,0	83,0	
DN 40	1 1/2"	95,0	150,0	82,5	110,0	250,0	100,0	110,0	250,0	100,0	
DN 50	2"	113,0	159,0	95,0	131,0	250,0	107,0	131,0	250,0	107,0	
DN 65	2 1/2"	152,0	206,0	123,0	U/R	U/R	U/R	159,0	321,0	126,0	
DN 80	3"	177,0	206,0	133,0	U/R	U/R	U/R	185,0	321,0	137,0	
DN 100	4"	214,0	261,0	165,0	U/R	U/R	U/R	222,0	381,0	156,0	
				<b>BV2-340</b>	<b>BV2-2466T</b>			<b>BV2-6666T</b>			

Dimensions in mm / U/R = Upon request

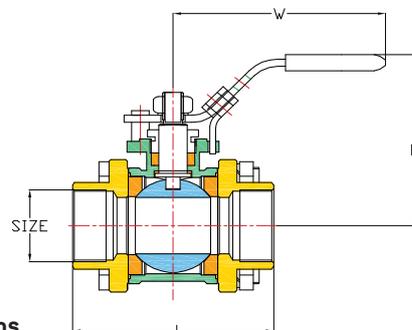
# BV 3

## EXECUTION



- Three-piece body ball valve
- Full bore
- End connections according to BSP, NPT, BW or SW
- Face to face dimensions according to our production standard

**Also available with locking device, integral seats, antistatic device, special version for steam applications.**



## MATERIAL

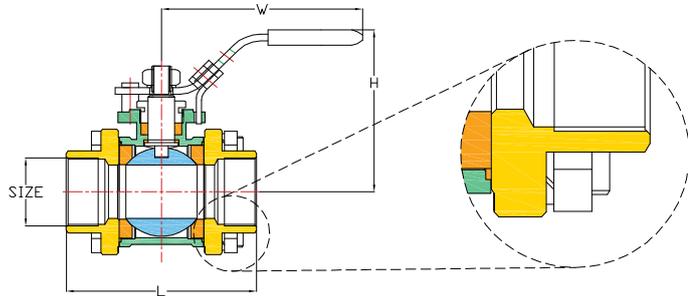
	CARBON STEEL	STAINLESS STEEL
BODY	ASTM WCB	A351 CF8M
CAPS	ASTM A105 WCB	A351 CF8M
BALL	A351 CF8M	A351 CF8M
SEAT	PTFE	PTFE
BV TYPE	<b>BV3-2466T</b>	<b>BV3-6666T</b>

## DIMENSIONS

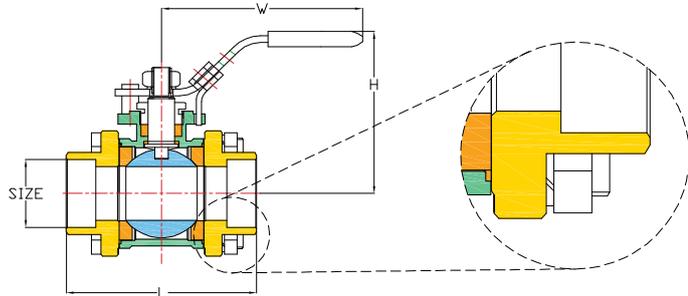
SIZE		L	W	H	L	W	H	
DN 08	1/4"	57,0	110,0	50,0	57,0	110,0	50,0	
DN 10	3/8"	57,0	110,0	50,0	57,0	110,0	50,0	
DN 15	1/2"	65,0	131,0	64,0	65,0	131,0	64,0	
DN 20	3/4"	76,0	131,0	68,0	76,0	131,0	68,0	
DN 25	1"	92,0	174,0	79,0	92,0	174,0	79,0	
DN 32	1 1/4"	106,0	174,0	83,0	106,0	174,0	83,0	
DN 40	1 1/2"	116,0	250,0	100,0	116,0	250,0	100,0	
DN 50	2"	136,0	250,0	107,0	136,0	250,0	107,0	
DN 65	2 1/2"	153,0	321,0	126,0	153,0	321,0	126,0	
DN 80	3"	180,0	321,0	137,0	180,0	321,0	137,0	
DN 100	4"	217,0	381,0	156,0	217,0	381,0	156,0	
				<b>BV3-2466T</b>	<b>BV3-6666T</b>			

Dimensions in mm

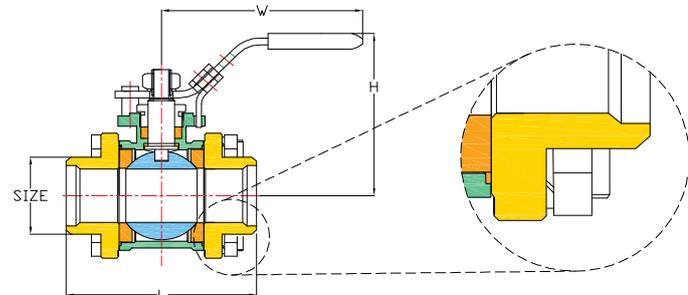
**Screwed ISO DIN 7/1  
Screwed F/F NPT B.1.20.1NPT**



**Socket Weld**



**Butt Weld**



Option with integral PTFE seats : Cavity filled seats that reduce dead space between the ball and valve body.

Option with CTFE seats : for saturated steam service.



**PTFE**

PolyTetraFluoro-Ethylene



**RTFE**

Reinforced TetraFluoro-Ethylene



**CTFE**

Carbon TetraFluoro-Ethylene

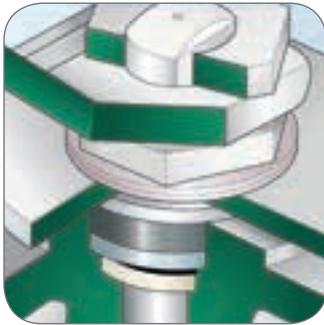


**PEEK**

PolyEtherEtherKetone

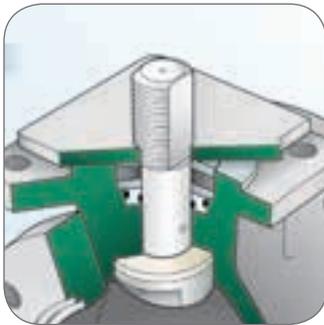


## EXECUTION



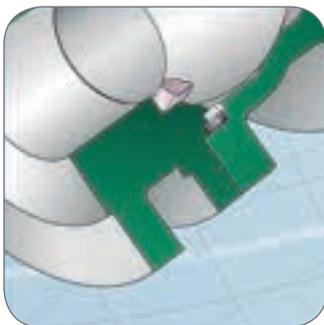
High pressed graphite stem packing between double glands

- Double nut locking with disc springs
- Non-contamination execution
- Heavy industrial stopper plate with locking device
- Centring point on top of stem
- Galvanised steel or stainless steel lever
- Double D oversized stem
- Triple stem packing
- Low friction finishing stem



Stem seats : primary PTFE seat, secondary graphite seat

- Double antistatic execution (ATEX certified)
- Anti blow-out stem (TA-luft certified)
- ISO-mounting flange - DIN 3337
- Complete machined ISO-top and flanges
- PTFE stem packing with double O-rings
- Pressure relieve hole in sleeve
- Separate PTFE trust
- Double cavity relieve seats



Body seats : primary PTFE seat, secondary graphite seat

- Separate chambered body seals
- Complete inside machined body and minimum dead spaces
- Double sealed body & stem
- Machined integral full bore
- Solid internal machined ball
- Chambered cavity relieve ball seats
- Fire safe metal/metal ball seats
- Maximum overlapping ball seats

## DESIGN

ANSI B16.5, ANSI B16.10, API 607, API 6FA, API 6D

BS 5351, BS 5159, BS 5146, BS 6755/2

DIN 2505, DIN 3202, DIN 3840, DIN 2501, DIN 7121, DIN 3337, DIN 2526, DIN 3357

ISO 5208, ISO 5211, ISO 7121, ISO 5752, ISO 10497, ISO 7268, ISO 2081, ISO 4520, ISO 9227

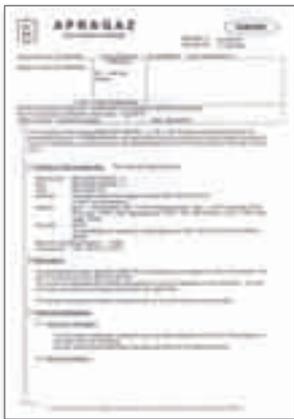
EN 12516, EN 1759, EN 1983, EN 13828, EN 19, EN 12351, EN 558, EN 10204 (DIN 50.049-3.1B), EN 1092, EN 736, EN 12570, EN 1503, EN 6708, EN 1775

## CERTIFICATES



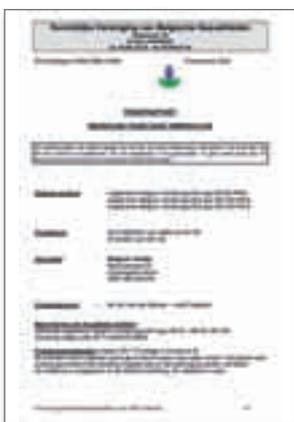
**PED 97/23/EC** (TÜV Süd Industrie Service - CE0036)  
 Pressure Equipment Directive  
 According to Module H (full quality assurance)

**TA Luft** approved (TÜV Süddeutschland)  
 Technische Anleitung zur Reinhaltung der Luft  
 According to TA Luft (27.02.86) punkt 3.1.8.4



**ADR** approved (Apragaz)  
 International Carriage of Dangerous Goods by Road  
 According to KB 09.03.2003 , Class 3, 4, 5, 6, 8 and 9

**Fire Safe** approved (TÜV Süddeutschland)  
 According to BS 6755/2 - API 6FA - ISO 10497



**GAS** approved (KVBG/ARGB)  
 Resistance to high temperature (RHT)  
 According to EN 1775

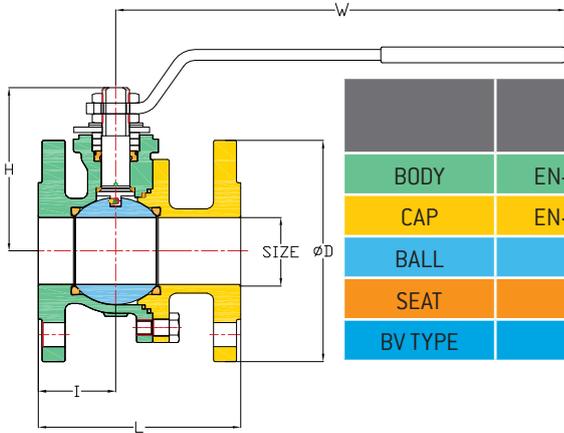
**ATEX** approved (TÜV Süd Product Service)  
 Equipment for use in potentially explosive atmospheres  
 According to Council Directive 94/9/EC,  
 article 8(1)b)ii)  
 Non-electric devices and components group II



To maintain a high quality standard of BV4, the product is casted in a certified foundry (AD - Merkblatt WO / TRD 100) and assembled in our European facilities.

# BV 4 - DIN

## MATERIAL



	CAST IRON	CARBON STEEL	STAINLESS STEEL
BODY	EN-GJL-250 (GG25)	DIN 1.0619	DIN 1.4408
CAP	EN-GJL-250 (GG25)	DIN 1.0619	DIN 1.4408
BALL	DIN 1.4308	DIN 1.4408	DIN 1.4408
SEAT	PTFE	PTFE	PTFE
BV TYPE	<b>BV4-2163T</b>	<b>BV4-4466T</b>	<b>BV4-6666T</b>

## DIMENSIONS

### DIN 10/16/40 – F4 – F5

SIZE	D	D	D	I	H	W	L
DN 15	95,0	95,0	95,0	49,0	52,0	131,0	115,0
DN 20	105,0	105,0	105,0	52,0	56,0	131,0	120,0
DN 25	115,0	115,0	115,0	53,0	73,0	174,0	125,0
DN 32	140,0	140,0	140,0	55,0	76,0	174,0	130,0
DN 40	150,0	150,0	150,0	51,0	107,0	250,0	140,0
DN 50	165,0	165,0	165,0	58,0	122,0	321,0	150,0
DN 65	185,0	185,0	185,0	61,0	133,0	321,0	170,0
DN 80	200,0	200,0	200,0	75,5	152,0	381,0	180,0
DN 100	220,0	220,0	235,0	80,0	165,0	381,0	190,0
DN 125	250,0	250,0	U/R	149,0	187,0	382,0	325,0
DN 150	285,0	285,0	300,0	157,0	305,0	700,0	350,0
DN 200	340,0	340,0	375,0	190,0	348,0	700,0	400,0
DN 250	395,0	405,0	450,0	225,0	367,0	1100,0	450,0
DN 300	445,0	460,0	515,0	250,0	403,0	1100,0	500,0
	<b>PN 10</b>	<b>PN 16</b>	<b>PN 40</b>	<b>PN 10 / 16 / 40</b>			

Dimensions in mm / U/R = Upon request / Larger sizes in process and on request

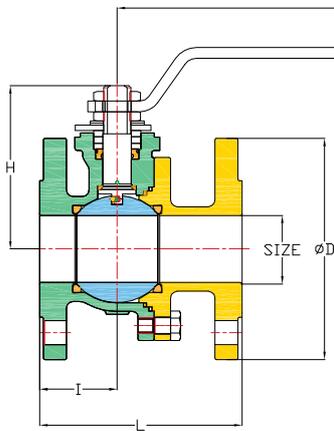
### DIN 10/16/40 – F1

SIZE	D	D	D	I	H	W	L
DN 15	95,0	95,0	95,0	49,0	52,0	131,0	130,0
DN 20	105,0	105,0	105,0	52,0	56,0	131,0	150,0
DN 25	115,0	115,0	115,0	53,0	73,0	174,0	160,0
DN 32	140,0	140,0	140,0	55,0	76,0	174,0	180,0
DN 40	150,0	150,0	150,0	51,0	107,0	250,0	200,0
DN 50	165,0	165,0	165,0	58,0	122,0	321,0	230,0
DN 65	185,0	185,0	U/R	61,0	133,0	321,0	290,0
DN 80	200,0	200,0	U/R	75,5	152,0	381,0	310,0
DN 100	220,0	220,0	U/R	80,0	165,0	381,0	350,0
	<b>PN 10</b>	<b>PN 16</b>	<b>PN 40</b>	<b>PN 10 / 16 / 40</b>			

Dimensions in mm / U/R = Upon request / Larger sizes in process and on request

# BV 4 - ANSI

## MATERIAL



	CARBON STEEL	STAINLESS STEEL
BODY	A216 WCB	A351 CF8M
CAP	A216 WCB	A351 CF8M
BALL	A351 CF8M	A351 CF8M
SEAT	PTFE	PTFE
BV TYPE	<b>BV4-4466T</b>	<b>BV4-6666T</b>

## DIMENSIONS

### ANSI 150

SIZE	D	I	H	W	L
1/2"	90,0	46,0	50,7	131,0	108,0
3/4"	100,0	50,0	52,5	131,0	117,0
1"	110,0	57,0	70,0	174,0	127,0
1 1/2"	130,0	60,0	107,0	250,0	165,0
2"	150,0	65,0	122,0	321,0	178,0
3"	190,0	78,0	151,0	382,0	203,0
4"	230,0	80,0	165,0	381,0	229,0
6"	280,0	157,0	288,0	700,0	394,0
8"	345,0	190,0	332,0	700,0	457,0
10"	406,4	225,0	367,0	1100,0	534,0
12"	482,6	250,0	403,0	1100,0	610,0

Dimensions in mm / Larger sizes in process and on request

### ANSI 300

SIZE	D	I	H	W	L
1/2"	95,0	61,5	52,0	131,0	140,0
3/4"	117,5	61,5	56,0	131,0	152,0
1"	125,0	70,5	72,0	174,0	165,0
1 1/2"	155,0	78,5	107,0	250,0	190,0
2"	165,0	86,0	122,0	321,0	216,0
3"	210,0	81,0	151,0	381,0	283,0
4"	255,0	88,5	165,0	381,0	305,0
6"	320,0	172,0	245,0	700,0	403,0
10"	444,5	225,0	1100,0	1100,0	568,0
12"	520,7	250,0	1100,0	1100,0	648,0

Dimensions in mm / Larger sizes in process and on request

## MATERIAL

**BV4 BALL VALVE** is widely used throughout the world in various industries such as chemical, petrochemical, food & beverage, pulp and paper, pharmaceutical and a variety of other industrial-product and processing plants. In these applications the mostly common requested material is steel and stainless steel. BV4 standard types are as such based on these two materials.

Type of sealing is depending on industrial process, herewith an overview of possible ball seats material for BV4



MATERIAL	COMPOSITION	
<b>Virgin PTFE</b>	PolyTetraFluoro-Ethylene	A synthetic fluoropolymer with numerous applications due to its outstanding resistance to chemical attack by most chemicals and solvents as well as its high temperature resistance and electrical isolating properties. This self lubricating compound is used as standard sealing material in our ball valves.
<b>RTFE</b>	PTFE + glassfiber	Glassfilling slightly increases PTFE's very low coefficient of friction, but considerably increases wear- and pressure-resistance.
<b>CTFE</b>	PTFE + carbon/graphite	Carbon is one of the best fillers for chemical use. It features high heat-conductibility and high wear- and pressure-resistance.
<b>MPTFE</b>	PTFE + SS metal core	When high pressure is the property to beat, the metal core provides a solution. The core is surrounded by virgin PTFE.
<b>PEEK</b>	PolyEtherEther-Ketone	PEEK is a semicrystalline thermoplastic with very interesting mechanical properties. It is highly resistant to thermal degradation and pressure thus providing a solution in high demanding processes.

## MATERIAL & CODES

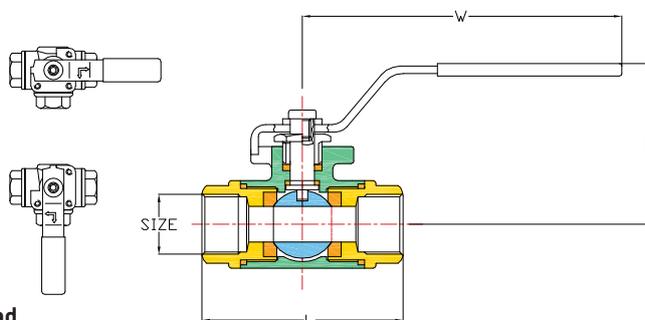
Description and explanation BV4	
Type	B V 4 = Split body ball valve produced by BELVEN NV
DIN	D = Flange connection - DIN 2501 1 0 = Flange connection - DIN 2501/DIN 2526 form C - PN10 1 6 = Flange connection - DIN 2501/DIN 2526 form C - PN16 4 0 = Flange connection - DIN 2501/DIN 2526 form C - PN40 4 = Face to face dimension - DIN 3202-F4, F18, EN 558-1/4/15 5 = Face to face dimension - DIN 3202-F5, F18, EN 558-1/4/15
ANSI	A = Flange connection - ANSI B16.5 1 5 0 = Face to face dimension - ANSI B16.10 - A-150 3 0 0 = Face to face dimension - ANSI B16.10 - A-300
Body	2 1 = Cast iron: GG-25 4 4 = Cast carbon steel: DIN 1.0619, A216-WCB 6 6 = Cast stainless steel: DIN 1.4408, A351-CF8M
Ball	6 3 = Stainless steel: DIN 1.4308, AISI F304 6 6 = Stainless steel: DIN 1.4408, AISI F316
Seats	T = PTFE C = CTFE R = RTFE M = MPTFE P = PEEK G = Gasexecution and certified KVBG/ARGB
Bore	F B = Integral full bore
Execution	F S = Fire safe execution, non contamination
Operation	B S = Bare shaft L E = Lever O L = Oval lever G B = Gearbox operated D A = Pneumatic double acting S A = Pneumatic single acting S A M = Pneumatic single acting + MOD E L = Electric operated

# BV 6

## EXECUTION



- Three-way ball valve, L or T-bore
- Reduced bore
- End connections according to BSP or NPT
- Face to face dimensions according to our production standard



Also available with direct mounting pad.

## MATERIAL

	BRASS	STAINLESS STEEL
BODY	CW617N UNI EN 12165	A351 CF8M
END CONNECTION	CW617N UNI EN 12165	A351 CF8M
BALL	CW617N UNI EN 12164	A182 F316
SEAT	PTFE	PTFE
BV TYPE L-PORT	<b>BV6-3600L</b>	<b>BV6-6666T-L</b>
BV TYPE T-PORT	<b>BV6-3500T</b>	<b>BV6-6666T-T</b>

## DIMENSIONS

SIZE		L	W	H	L	W	H
DN 08	1/4"	67,0	120,0	62,0	79,0	158,0	66,0
DN 10	3/8"	67,0	120,0	62,0	79,0	158,0	66,0
DN 15	1/2"	77,0	120,0	64,0	79,0	158,0	66,0
DN 20	3/4"	87,0	170,0	75,0	86,0	158,0	75,0
DN 25	1"	105,0	170,0	80,5	108,0	186,0	78,0
DN 32	1 1/4"	122,4	170,0	93,0	124,0	213,0	93,0
DN 40	1 1/2"	138,4	230,0	111,0	134,0	237,0	96,0
DN 50	2"	166,0	230,0	122,0	164,0	237,0	96,0
				<b>BV6-3600L / BV6-3500T</b>	<b>BV6-6666T-L / BV6-6666T-T</b>		

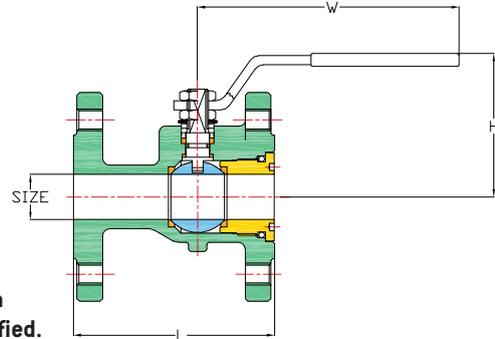
Dimensions in mm

## EXECUTION



- One-piece body ball valve
- Reduced or full bore
- Flange connections according to DIN 2501 / DIN 2526 – PN 10/16, ANSI B 16.5
- Face to face dimensions according to DIN 3202-F18 (F4/F5), EN 558-1-14/15, ANSI B 16.10 – A-150

**Also available with DVGW approval for gas, ball in stainless steel with antistatic device, ATEX certified.**



## MATERIAL

	CAST IRON	CAST STEEL	STAINLESS STEEL
BODY	EN-GJL-250 (GG25)	WCB	CF8M
END CONNECTION	ASTM A105	WCB	CF8M
BALL	CW617N UNI EN 12165	CF8M	CF8M
SEAT	PTFE	PTFE	PTFE
BV TYPE	<b>BV7-2111T</b>	<b>BV7-4466T</b>	<b>BV7-6666T</b>

## DIMENSIONS

SIZE		L	W	H	L	W	H
DN 15	1/2"	110,0	174,0	73,0	108,0	140,0	73,0
DN 20	3/4"	120,0	174,0	76,0	117,0	140,0	76,0
DN 25	1"	125,0	174,0	79,0	127,0	180,0	86,0
DN 32	1 1/4"	130,0	174,0	85,0	U/R	U/R	U/R
DN 40	1 1/2"	140,0	250,0	103,0	165,0	200,0	119,0
DN 50	2"	150,0	250,0	110,0	178,0	230,0	127,0
DN 65	2 1/2"	170,0	321,0	126,0	190,0	230,0	136,0
DN 80	3"	180,0	321,0	137,0	203,0	325,0	164,0
DN 100	4"	190,0	381,0	158,0	230,0	325,0	178,0
DN 125	5"	200,0	381,0	180,0	U/R	U/R	U/R
DN 150	6"	210,0	700,0	265,0	394,0	350,0	264,0
DN 200	8"	400,0	700,0	308,0	U/R	U/R	U/R
				<b>BV7-2111T PN 16</b>	<b>BV7-6666T / BV7-4466T ANSI 150</b>		

Dimensions in mm / U/R = Upon request

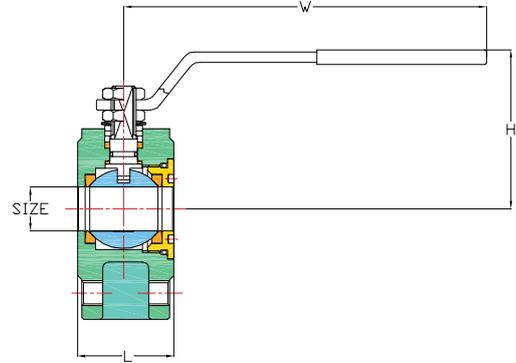
# BV 8

## EXECUTION



- Wafer one-piece body ball valve
- Reduced or full bore
- Flange connections according to DIN 2501 / DIN 2526 – PN 10/16, ANSI B 16.5
- Face to face dimensions according to our production standard

**Small face to face dimension, compact ball valve.**



## MATERIAL

	CARBON STEEL	STAINLESS STEEL
BODY	ASTM A105 - WCB	A351 CF8M / A182 F316
END CONNECTION	ASTM A105 - WCB	A351 CF8M / A182 F316
BALL	A351 CF8 / A182 F304	A351 CF8M / A182 F316
SEAT	PTFE	PTFE
<b>BV TYPE</b>	<b>BV8-2463T</b>	<b>BV8-6666T</b>

## DIMENSIONS

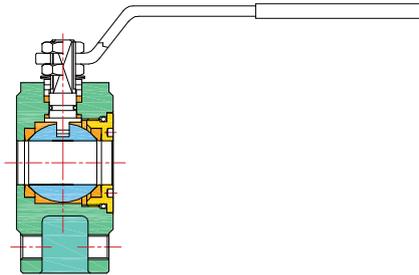
SIZE		L	L	L	W	H	H
DN 15	1/2"	35,0	35,0	35,0	131,0	65,0	65,0
DN 20	3/4"	40,0	40,0	40,0	131,0	69,0	69,0
DN 25	1"	46,0	46,0	46,0	174,0	80,0	80,0
DN 32	1 1/4"	54,0	54,0	54,0	174,0	84,0	84,0
DN 40	1 1/2"	63,5	63,5	63,5	250,0	102,0	102,0
DN 50	2"	82,0	82,0	82,0	250,0	111,0	111,0
DN 65	2 1/2"	103,0	103,0	103,0	321,0	128,0	128,0
DN 80	3"	122,0	122,0	122,0	321,0	138,0	138,0
DN 100	4"	152,0	152,0	152,0	381,0	156,0	156,0
DN 125	5"	196,0	196,0	U/R	381,0 (*)	178,0 (*)	178,0
DN 150	6"	232,0	232,0	232,0	700,0	266,0	266,0
DN 200	8"	400,0	457,0	317,0	700,0	332,0	348,0
		<b>PN16/40</b>	<b>A150</b>	<b>A300</b>	<b>PN16/40</b> <b>A150/300</b>	<b>PN16</b> <b>A150/300</b>	<b>PN40</b>

Dimensions in mm / U/R = Upon request / (\*) U/R for ANSI 300

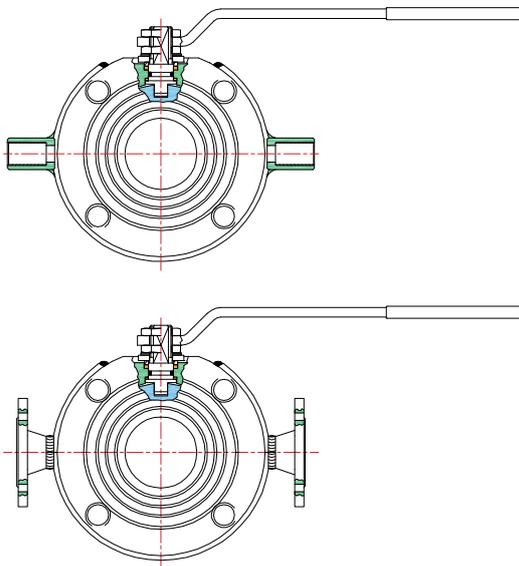
# BV 8

Also available with

- Integral or cavity filled seats



- Heating jacket (in end connection or flanged connection)



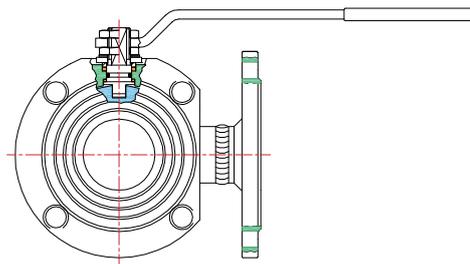
## BV8-3W



Option for 3-way :

The diverter valve reduces the number of valves in a system, thereby saving cost and giving the user easier control by using a single valve in place of multiple valves.

Body available in stainless steel and steel.



# operating options

Belven can supply ball valves for a wide range of applications; from brass material for usage with water up to flanged stainless steel for usage with corrosive media. Due to the quarter-turn control ball valves are easy to operate and suited for automated processes.

Upon customer's request the ball valves can be supplied beside manual steering with actuated OPEN/CLOSE or full position control, both supplied with the necessary accessories. Underneath you will find a brief overview of the possibilities.

## MANUAL



- LEVER in different materials (long – short model), adjustable, butterfly or oval lever for small sizes, T-lever (standard for big sizes), fail safe lever, ...
- GEARBOX in different materials such as cast iron or aluminium, standard/lockable/with chainwheel, with visual open/close indication

## PNEUMATIC

Double acting pneumatic actuator - DA

Single acting pneumatic actuator - SA

- Suitable for high duty cycles
- Fast opening and closing times
- Few moving parts: increases operational safety
- Namur design for easy mounting of accessories, as limit switches, (NAMUR) solenoid valves and bus communication systems
- Can be combined with emergency operation (manual override - MOD)

SA : Fail-safe function can easily be realized in spring closing or spring opening configuration, standard Belven chooses for operational safety – fail close position



# operating options

## ELECTRIC



Belven aims to find solutions suitable for the automation of ball valves for the industrial and construction sector. The usage of electronic components of last generation, together with precise mechanic, fruit of careful research and development, enables high performance and long-term reliability of the product.

- Wide range of voltage options
- Self-locking reduction gear
- The electronic circuit adjusts automatically the motor speed depending on the mechanical charge variations in order to drive the cycle always in the same time
- All actuators are provided with torque switch
- Thermal protection
- Usual required options, like extra limit switches, visual open/close indication, heater and even an emergency handwheel operator are (often) standard integrated in the actuator
- Open / close and modulating duty
- Different protection classes

For more information related to our standardisation on electric actuators and brands, kindly contact our sales department.

## ELECTRIC HYDRAULIC

- High operational safety
- Modular design for easy mounting of accessories, like limit switches or visual open/close indication
- Suitable for submerged purposes (IP68) as option
- Different oil pressures possible



## ACCESSORIES

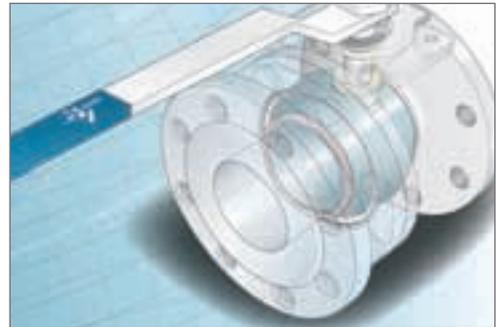
- Stem extension in steel or stainless steel
- Visual indicators
- Solenoid valves, steered by different voltages /currents and available in different ATEX protection classes
- Limit switches (mechanical, inductive, capacitive, ...)



# belven. your partner for ball valves

## DESIGN

Ball valves can be found in many different designs. Every Belven valve offers a specific solution for a customer's demand. When defining your requested valve, next to body construction, the material is also an important issue to tackle. The Belven ball valve range offers you different materials such as brass, bronze, cast iron, copper, ductile iron, metal alloys, steels and stainless steel. Within these different materials and body constructions, Belven has optimised its range by offering standard product codes.

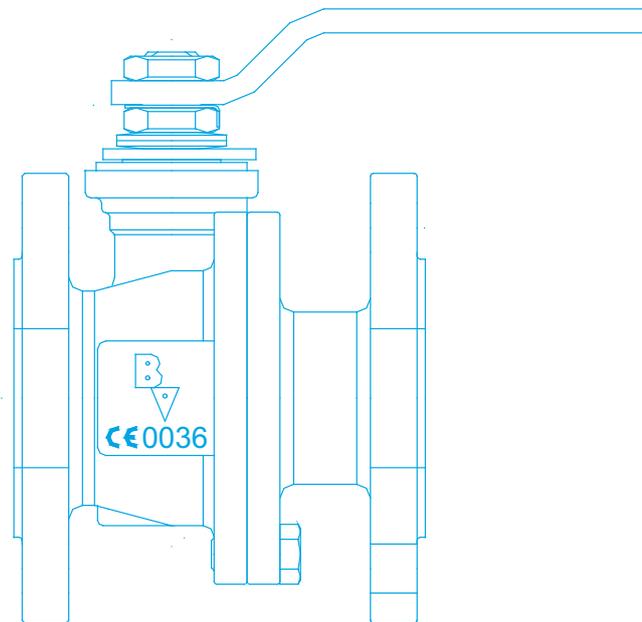


## RESEARCH & DEVELOPMENT

Every ball valve has been produced with preliminary thorough research and testing. Traceability of the product is a key factor for Belven, it can furnish you with the necessary certificates on pressure and materials. Belven continuously strives for innovation through product development and expanding its experience by daily testing its own quality system. Belven is ISO 9001 certified and has all relevant product certificates.

## SALES SUPPORT

Belven's partners are located worldwide and they can offer you the necessary support in your local market. Besides these local service points, the head offices has plenty of experienced people on each market to support you in finding the correct ball valve you require for.



## FOLLOW UP

At order placement, the Belven sales and logistic team follows your order carefully to ensure your goods are handled as quickly as possible. This way, you will be notified in due course when your goods can be expected your way.

# belven. your partner for ball valves

## DELIVERY

The central warehouse in Belgium carries a large stock of standard product types. Deliveries ex works, transport by road, cargo or air, express deliveries; all is possible through Belven's well organised logistic department. Belven supervises the transport through its contacts and will gladly organise all relevant export documentation you might require.



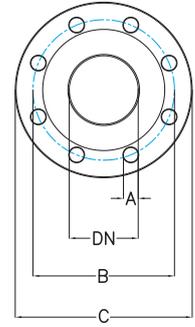
## REFERENCES

Belven is well organised in daily sales but has even more experience in handling large projects. If you have any questions related towards its experience in this field you are kindly requested to contact the sales departments.



For updated references in interviews and publications, check the Belven website : [www.belven.com](http://www.belven.com)

# flange connections



- A Diameter of holes      # bolts Number of bolts  
 B Bolt circle diameter      ⊙ bolts Diameter of bolts  
 C Diameter of flange

DN (mm)	15	20	25	32	40	50	65	80	100	125	150	200	250	300
inches	1/2"	3/4"	1"	5/4"	6/4"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"

BS EN 1092 – 2															
PN 6	A	11	11	11	14	14	14	14	18	18	18	18	18	18	22
	B	55	65	75	90	100	110	130	150	170	200	225	280	335	395
	C	80	90	100	120	130	140	160	190	210	240	265	320	375	440
	# bolts	4	4	4	4	4	4	4	4	4	8	8	8	12	12
	⊙ bolts	M10	M10	M10	M12	M12	M12	M12	M16	M16	M16	M16	M16	M16	M20
PN 10	A	14	14	14	18	18	18	18	18	18	18	22	22	22	22
	B	65	75	85	100	110	125	145	160	180	210	240	295	350	400
	C	95	105	115	140	150	165	185	200	220	250	285	340	395 (**)	445 (***)
	# bolts	4	4	4	4	4	4	4 (*)	8	8	8	8	8	12	12
	⊙ bolts	M12	M12	M12	M16	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20
PN 16	A	14	14	14	18	18	18	18	18	18	18	22	22	26	26
	B	65	75	85	100	110	125	145	160	180	210	240	295	355	410
	C	95	105	115	140	150	165	185	200	220	250	285	340	405 (**)	460 (***)
	# bolts	4	4	4	4	4	4	4 (*)	8	8	8	8	12	12	12
	⊙ bolts	M12	M12	M12	M16	M16	M16	M16	M16	M16	M16	M20	M20	M24	M24
PN 25	A	14	14	14	18	18	18	18	18	22	26	26	26	30	30
	B	65	75	85	100	110	125	145	160	190	220	250	310	370	430
	C	95	105	115	140	150	165	185	200	235	270	300	360	425	485
	# bolts	4	4	4	4	4	4	8	8	8	8	8	12	12	16
	⊙ bolts	M12	M12	M12	M16	M16	M16	M16	M16	M20	M24	M24	M24	M27	M27
PN 40	A	14	14	14	18	18	18	18	18	22	26	26	30	33	33
	B	65	75	85	100	110	125	145	160	190	220	250	320	385	450
	C	95	105	115	140	150	165	185	200	235	270	300	375	450	515
	# bolts	4	4	4	4	4	4	8	8	8	8	8	12	12	16
	⊙ bolts	M12	M12	M12	M16	M16	M16	M16	M16	M20	M24	M24	M24	M27	M30
PN 64	A	14	18	18	22	22	22	22	22	26	30	33	36	36	36
	B	75	90	100	110	125	135	160	170	200	240	280	345	400	460
	C	105	130	140	155	170	180	205	215	250	295	345	415	470	530
	# bolts	4	4	4	4	4	4	8	8	8	8	8	12	12	16
	⊙ bolts	M12	M16	M16	M20	M20	M20	M20	M20	M24	M27	M30	M33	M33	M33
PN 100	A	14	18	18	22	22	26	26	26	30	33	33	36	39	42
	B	75	90	100	110	125	145	170	180	210	250	290	360	430	500
	C	105	130	140	155	170	195	220	230	265	315	355	430	505	585
	# bolts	4	4	4	4	4	4	8	8	8	8	12	12	12	16
	⊙ bolts	M12	M16	M16	M20	M20	M24	M24	M24	M27	M30	M30	M33	M36	M39

A-B-C : Dimensions in mm

ANSI															
CLASS 125 / 150	A	5/8 (16)	5/8 (16)	5/8 (16)	5/8 (16)	5/8 (16)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)	7/8 (22)	1 (25)	1 (25)
	B	2 3/8 (60)	2 3/4 (70)	3 1/8 (79)	3 1/2 (89)	3 7/8 (98)	4 3/4 (121)	5 1/2 (140)	6 (152)	7 1/2 (191)	8 1/2 (216)	9 1/2 (241)	11 3/4 (298)	14 1/4 (362)	17 (432)
	C	3 1/2 (89)	3 7/8 (98)	4 1/4 (114)	4 5/8 (117)	5 (127)	6 (152)	7 (178)	7 1/2 (191)	9 (229)	10 (254)	11 (279)	13 1/2 (343)	16 (406)	19 (483)
	# bolts	4	4	4	4	4	4	4	4	8	8	8	8	12	12
	⊙ bolts	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)	5/8 (16)	5/8 (16)	5/8 (16)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)
CLASS 300	A	5/8 (16)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)	7/8 (22)	7/8 (22)	1 (25)	1 1/8 (29)
	B	2 5/8 (67)	3 1/4 (83)	3 1/2 (89)	3 7/8 (98)	4 1/2 (114)	5 (127)	5 7/8 (149)	6 5/8 (168)	7 1/8 (200)	9 1/4 (235)	10 5/8 (270)	13 (330)	15 1/4 (387)	17 3/4 (451)
	C	3 3/4 (95)	4 5/8 (117)	4 7/8 (124)	5 1/4 (133)	6 1/8 (156)	6 1/2 (165)	7 1/2 (191)	8 1/4 (210)	10 (254)	11 (279)	12 1/2 (318)	15 (381)	17 1/2 (445)	20 1/2 (521)
	# bolts	4	4	4	4	4	8	8	8	8	8	8	12	16	16
	⊙ bolts	1/2 (13)	5/8 (16)	5/8 (16)	5/8 (16)	3/4 (19)	5/8 (16)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	7/8 (22)	1 (25)
CLASS 600	A	5/8 (16)	3/4 (19)	3/4 (19)	3/4 (19)	7/8 (22)	3/4 (19)	7/8 (22)	7/8 (22)	1 (25)	1 1/8 (29)	1 1/8 (29)	1 1/4 (32)	1 3/8 (35)	1 3/8 (35)
	B	2 5/8 (67)	3 1/4 (83)	3 1/2 (89)	3 7/8 (98)	4 1/2 (114)	5 (127)	5 7/8 (149)	6 5/8 (168)	8 1/2 (216)	10 1/2 (267)	11 1/2 (292)	13 3/4 (349)	17 (432)	19 1/4 (489)
	C	3 3/4 (95)	4 5/8 (117)	4 7/8 (124)	5 1/4 (133)	6 1/8 (156)	6 1/2 (165)	7 1/2 (191)	8 1/4 (210)	10 3/4 (210)	13 (330)	14 (356)	16 1/2 (419)	20 (508)	22 (559)
	# bolts	4	4	4	4	4	8	8	8	8	8	12	12	16	20
	⊙ bolts	1/2 (13)	5/8 (16)	5/8 (16)	5/8 (16)	3/4 (19)	5/8 (16)	3/4 (19)	3/4 (19)	7/8 (22)	1 (25)	1 (25)	1 1/8 (29)	1 1/4 (32)	1 1/4 (32)
CLASS 900	A	7/8 (22)	7/8 (22)	1 (25)	1 (25)	1 1/8 (29)	1 (25)	1 1/8 (29)	1 (25)	1 1/4 (32)	1 3/8 (35)	1 1/4 (32)	1 1/2 (38)	1 1/2 (38)	1 1/2 (38)
	B	3 1/4 (83)	3 1/2 (89)	4 (102)	4 3/8 (111)	4 7/8 (124)	6 1/2 (165)	7 1/2 (191)	7 1/2 (192)	9 1/4 (235)	11 (279)	12 1/2 (318)	15 1/2 (394)	18 1/2 (470)	21 (533)
	C	4 3/4 (121)	5 1/8 (130)	5 7/8 (149)	6 1/4 (159)	7 (178)	8 1/2 (216)	9 5/8 (244)	9 1/2 (241)	11 1/2 (292)	13 3/4 (349)	15 (381)	18 1/2 (470)	21 1/2 (546)	24 (610)
	# bolts	4	4	4	4	4	8	8	8	8	8	12	12	16	20
	⊙ bolts	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)	1 (25)	7/8 (22)	1 (25)	7/8 (22)	1 1/8 (29)	1 1/4 (32)	1 1/8 (29)	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)
CLASS 1500	A	7/8 (22)	3/4 (19)	1 (25)	1 (25)	1 1/8 (29)	1 (25)	1 1/8 (29)	1 1/4 (32)	1 3/8 (35)	1 5/8 (41)	1 1/2 (38)	1 3/4 (44)	2 (51)	2 1/8 (54)
	B	3 1/4 (83)	3 1/2 (89)	4 (102)	4 3/8 (111)	4 7/8 (124)	6 1/2 (165)	7 1/2 (191)	8 (203)	9 1/2 (241)	11 1/2 (292)	12 1/2 (318)	15 1/2 (394)	19 (483)	22 1/2 (571)
	C	4 3/4 (121)	5 1/8 (130)	5 7/8 (149)	6 1/4 (159)	7 (178)	8 1/2 (216)	9 5/8 (244)	10 1/2 (267)	12 1/4 (311)	14 3/4 (375)	15 1/2 (394)	19 (438)	23 (584)	26 1/2 (673)
	# bolts	4	4	4	4	4	8	8	8	8	8	12	12	12	16
	⊙ bolts	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)	1 (25)	7/8 (22)	1 (25)	1 1/8 (29)	1 1/4 (32)	1 1/2 (38)	1 3/8 (35)	1 5/8 (41)	1 7/8 (48)	2 (51)

(\*) steel flanges can be supplied with 8 holes according to EN 1092-1.

A-B-C : Dimensions in inches (mm)

(\*\*) for ductile iron pipes and fittings the outside diameters shall be : for PN 10= 400mm, for PN 16 400 mm

(\*\*\*) for ductile iron pipes and fittings the outside diameters shall be : for PN 10= 455 mm, for PN 16 455 mm

We keep the right to change the mentioned values and text in this leaflet at any time without prior notice.

## OUR FIELD APPLICATIONS



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TANK  
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