



VALVES
SPECIFICATION

De la Pinilla, 91 3º A, 28023 Madrid SPAIN – Tel +34 617 481 349

www.asmain.com

asmain@asmain.com

Hong Kong • Madrid • Shanghai

Forged Check Valves Class 150/300

Fig. R150RF & R300RF

Size ½" – 2" (DN 15 – 50)



FIG. R150RF

FIG. R300RF

CHECK VALVE

BS5352, MSS SP 118 & ASME B16.34

Connections according to:

ASME B16.5

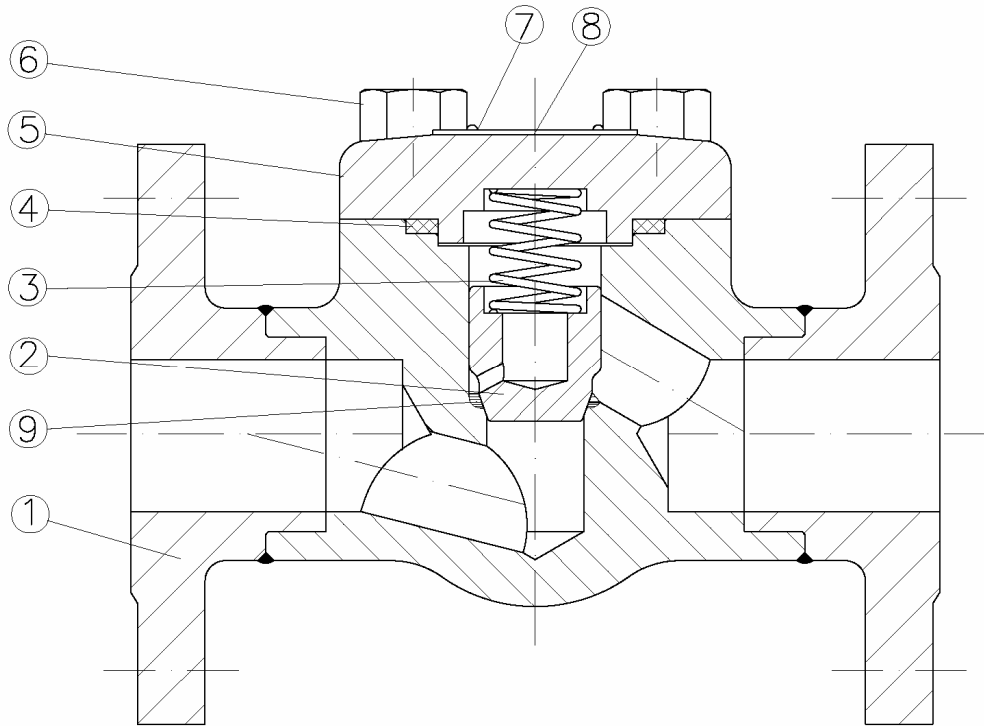
CE

Forged Check Valves Class 150/300

Fig. R150RF & R300RF

Parts and Materials

Parts and materials



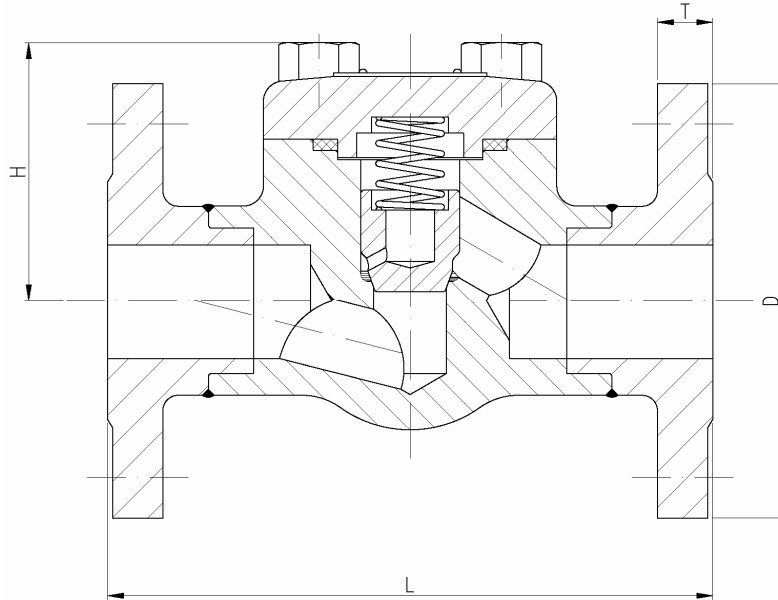
Item	Description	Material	
		Carbon Steel	Stainless Steel
1	Body	A 105	A 182 F316L
2	Piston disc	A 276 420	A 182 F316L
3	Spring	17-4 PH	
4	Gasket	AISI 304 + Graphite	AISI 316 + Graphite
5	Bonnet	A 105	A 182 F316L
6	Bolt	A 193 B7	A 193 B8M
7	Ribet	A 182 F304	A 182 F316
8	Nameplate	Aluminium	
9	Seat	A 105 + STL	A 182 F316L + STL

Forged Check Valves Class 150/300

Fig. R150RF & R300RF

Dimensions

Dimensions



Series R150RF (Class 150)

SIZE	L	D	T	H	WEIGHT
½" (DN 15)	108	89	11,5	61	2,56
¾" (DN 20)	117	98	13	61	3,37
1" (DN 25)	127	108	14,5	78	4,37
1¼" (DN 32)	140	118	16	84	8,17
1½" (DN 40)	165	127	17,5	103	8,94
2" (DN 50)	203	152	19,5	118	12,64

(*) Dimensions in mm and weight in kg.

Series R300RF (Class 300)

SIZE	L	D	T	H	WEIGHT
½" (DN 15)	152	95	14,5	61	2,73
¾" (DN 20)	178	118	16	61	3,37
1" (DN 25)	203	124	17,5	78	4,74
1¼" (DN 32)	216	133	19,5	84	8,17
1½" (DN 40)	229	156	21	103	9,6
2" (DN 50)	267	165	22,5	118	13,7

(*) Dimensions in mm and weight in kg.

Forged Check Valves Class 150/300

Fig. R150RF & R300RF

General Characteristics, Kv, P&T Rating

GENERAL CHARACTERISTICS	Forged Check Valve	Fig. R800		
DESIGN STANDARDS				
Valves design	BS 5352	MSS SP 118	ASME B 16.34	
Connections	ANSI B 1.20.1	ANSI B 16.11		
Face to face dimensions	ASME B16,10			
TESTS AND CERTIFICATES	API 598			
Quality Assurance	ISO 9001			
Pressure testing	EN 12266-1			
Marking	EN 19			

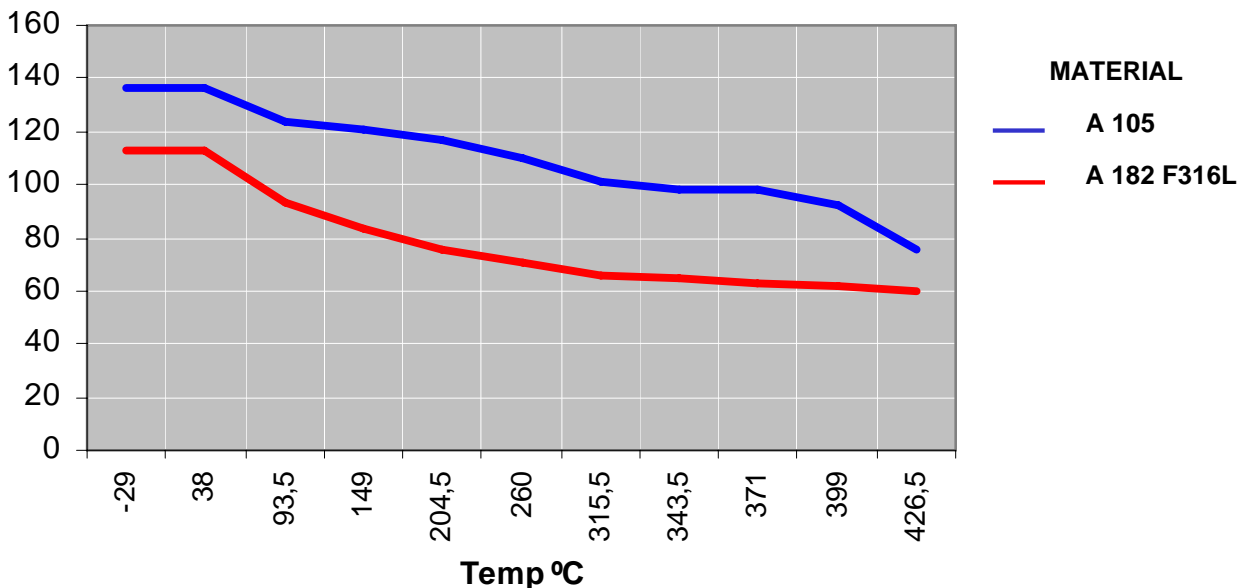
(*) Welded flanges

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
½" (DN 15)	22,3	1¼" (DN 32)	642,7
¾" (DN 20)	42,8	1½" (DN 40)	1114
1" (DN 25)	80,5	2" (DN 50)	1970

Pressure-Temperature

P Bar



Flanged "Y" type Strainer

PN 10, PN 16 & PN 20 (Class 150)
DN 250 – 600 (10"- 24")
Carbon Steel & Stainless Steel

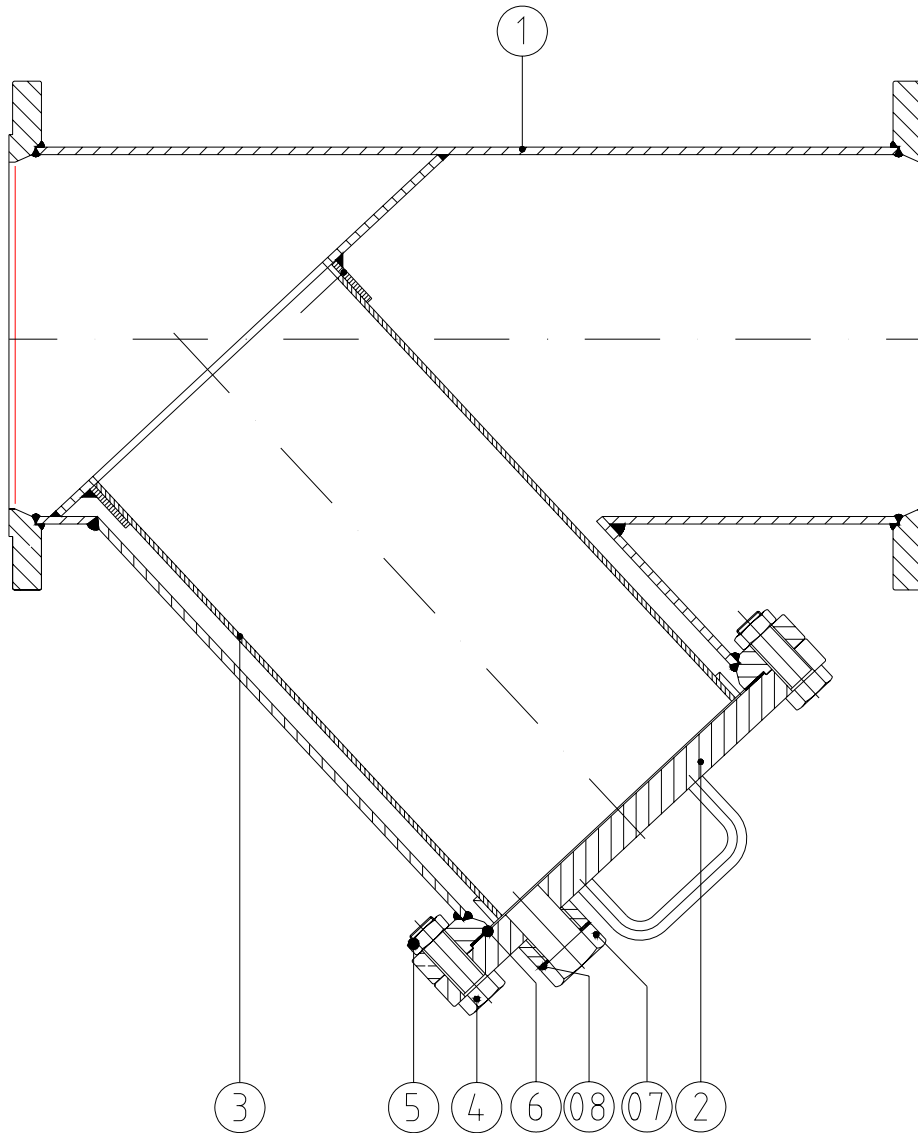


Fig. WS2 _____

CE

Flanged "Y" type strainer

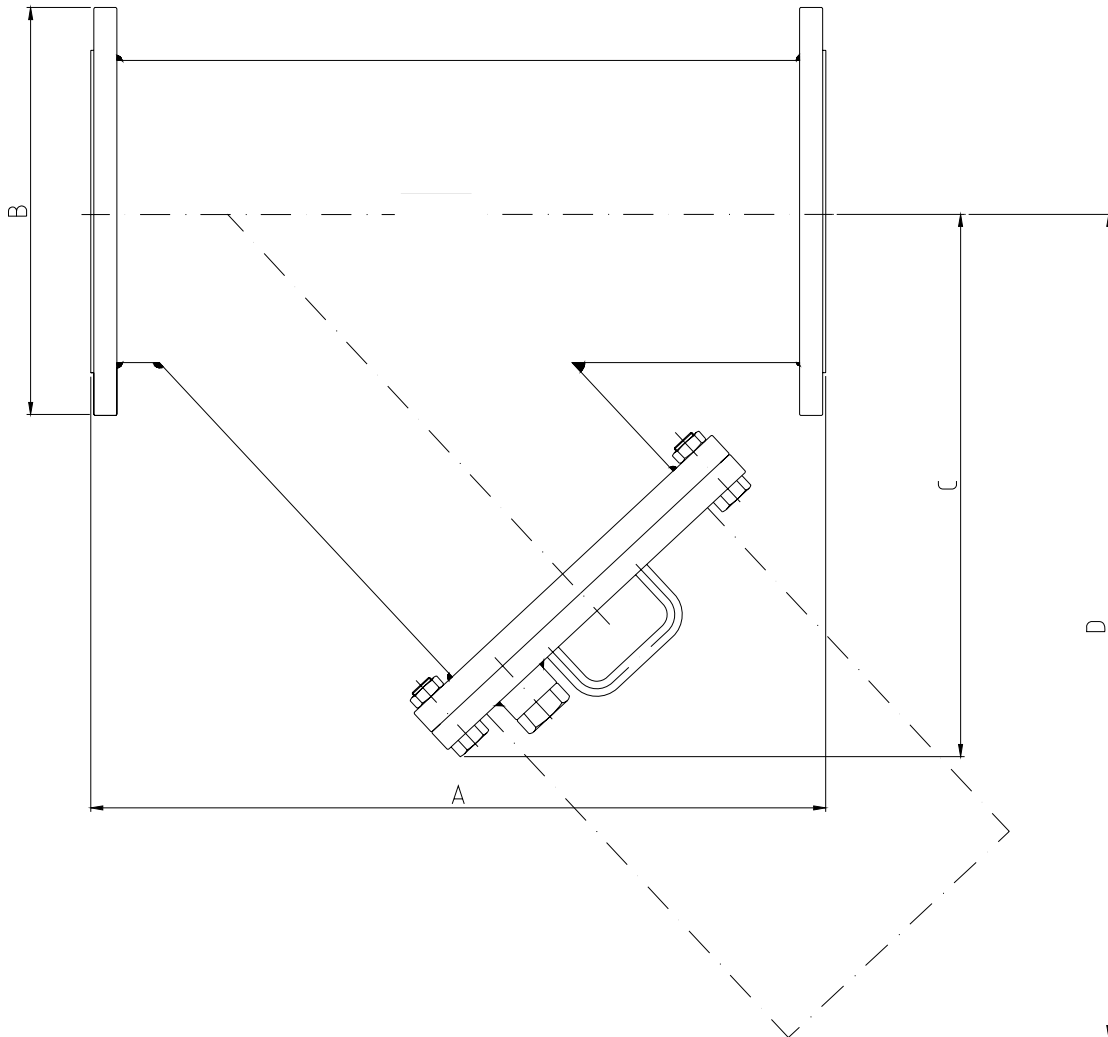
Parts and materials



Item	Description	Carbon Steel	Stanleis Steel
1	Body	1.0570 (St 52.3)	1.4401 (AISI 316)
2	Cap	1.0421 (St.52)	1.4401 (AISI 316)
3	Strainer screen	1.4301 (AISI 304)	
4	Bolt	8.8	A2
5	Nut	8	A2
6	Cap Gasket	Syntethic Fiber	PTFE
7	Drain plug	1.0401 (C15)	1.4401 (AISI 316)
8	Drain plug gasket	Synthetic fiber	PTFE

Flanged "Y" type strainer

Dimensions



SIZE	A	ØB			C	D	Weight		
		PN 10	PN 16	PN 20 (Class 150)			PN 10	PN 16	PN 20 (Class 150)
250 (10")	730	395	405	406.4	530	920	130	190	192
300 (12")	850	445	460	482.5	630	1020	190	240	243
350 (14")	980	505	520	533.4	770	1200	250	340	342
400 (16")	1100	565	580	596.9	830	1350	330	400	403
450 (18")	1200	615	640	635	920	1500	450	490	492
500 (20")	1250	670	715	698.5	1000	1650	520	550	553
600 (24")	1450	780	840	812.8	1250	1800	670	700	702

(*) Dimensions in mm and weight in kg

Flanged "Y" type strainer

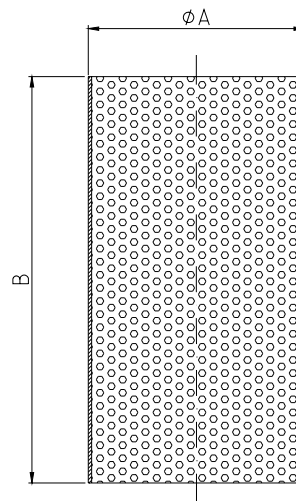
General Characteristics

GENERAL CHARACTERISTICS	Fig. WS216CS, WS210CS, WS215CS, WS216SS, WS210SS & WS215SS		
DESIGN STANDARDS			
Strainer design	AD Merkblatt TRD 301		
Face to face Dimensions	EN 558-1 SERIES 1		
Flanged Dimensions	EN 1092-1 & ASME B16.5 Class 150		
Visual Inspection	MSS SP-55		
Marking	EN 19		
TESTS AND CERTIFICATES			
Pressure testing	EN 12266-1 P10		

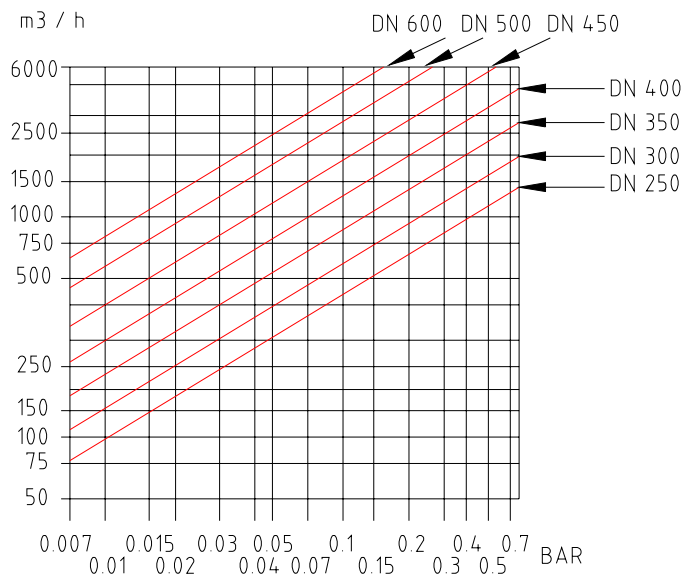
Strainer Screen Dimensions:

DN	ϕA	B	Perforation	Area
250	250	470	$\phi 1,5$	1: 1,71
300	300	580	$\phi 1,5$	1: 1,76
350	350	690	$\phi 1,5$	1: 1,79
400	400	800	$\phi 1,5$	1: 1,81
450	450	850	$\phi 1,5$	1: 1,71
500	500	890	$\phi 1,5$	1: 1,61
600	600	1000	$\phi 1,5$	1: 1,50

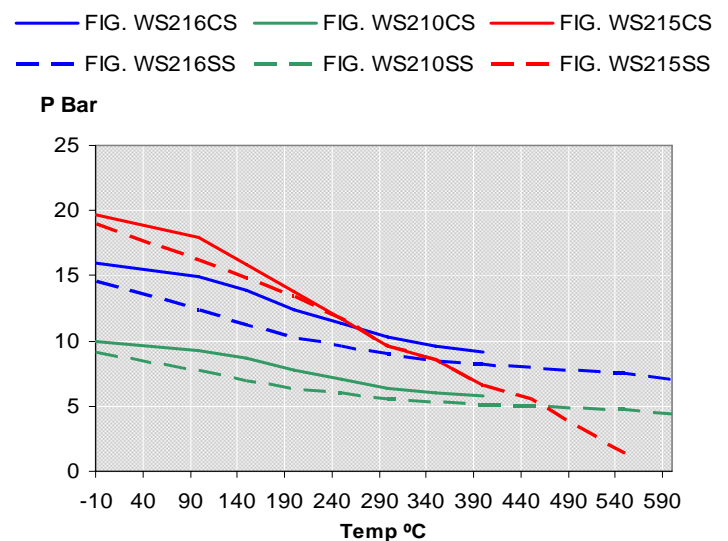
(*) Dimensions in mm



Pressure drop:



Pressure / Temperature:



Flanged "Y" type Strainer

DN 15 - 200 PN16/40 & Class 150

Cast Iron, Carbon Steel and Stainless Steel



Fig. S__

Cast Iron: Fig. S116

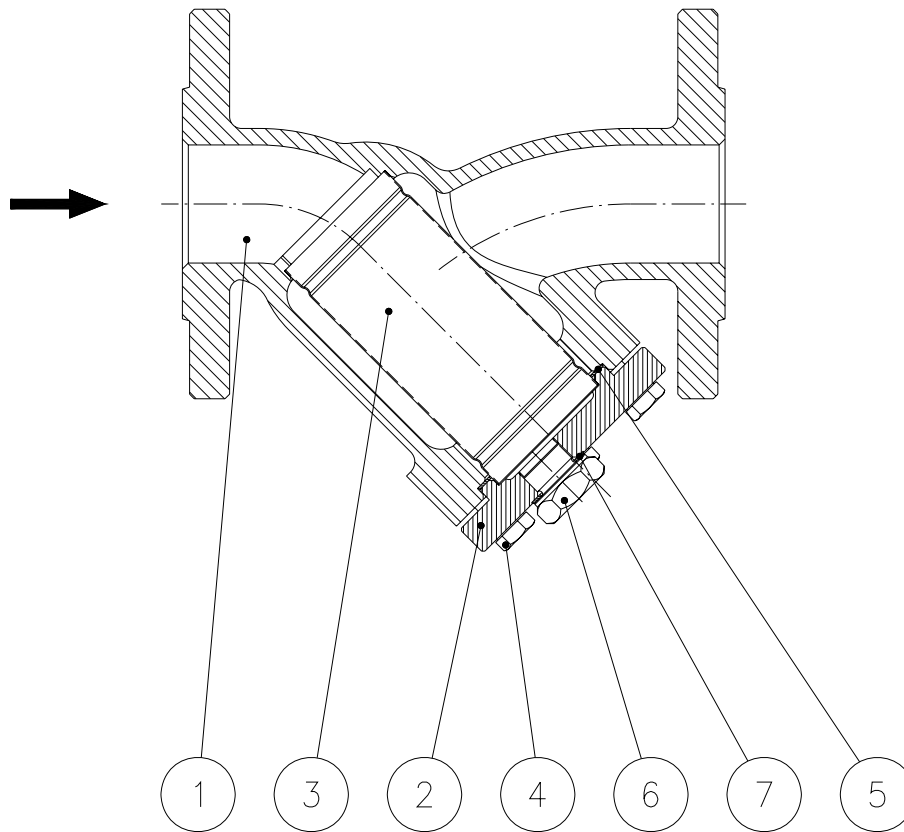
Carbon Steel: Fig. S315 & S340

Stainless Steel: Fig. S415 & S416

CE

Flanged "Y" type strainer

Parts and materials



ICP STRAINER				
Item	Description	Material		
		Cast Iron	Carbon Steel	Stainless Steel
1	Body	EN-GJL-250	1.0619	1.4408
2	Cap	EN-GJL-250	1.0619	1.4408
3	Strainer Screen		1.4301	
4	Body Bolt	8.8	8.8	A2
5	Cap Gasket		Synthetic Fiber	PTFE
6	Drain Plug		1.0401	1.4401
7	Drain Plug Gasket		Synthetic Fiber	

(*) Other materials under request.

Flanged "Y" type strainer

Dimensions

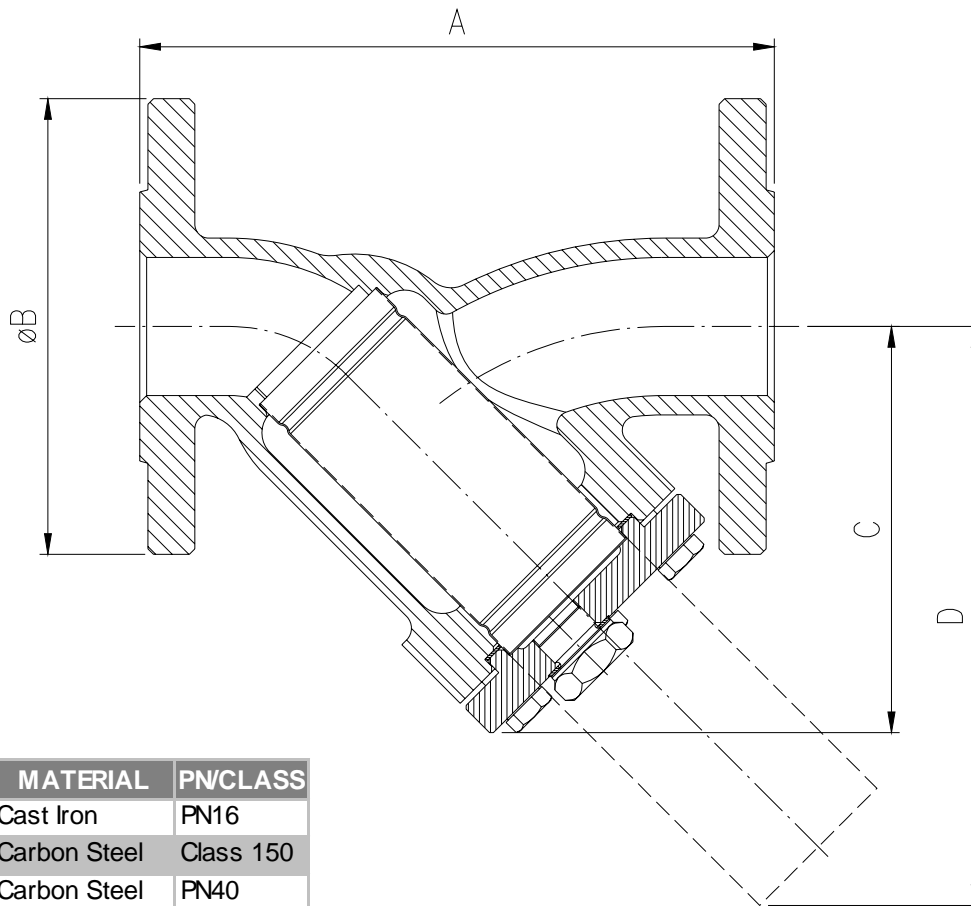


FIG	MATERIAL	PN/CLASS
S116	Cast Iron	PN16
S315	Carbon Steel	Class 150
S340	Carbon Steel	PN40
S415	Stainless Steel	Class 150
S416	Stainless Steel	PN16

General dimensions & Weight

DN	A	C	D	S116		S315		S340		S415		S416	
				øB	WEIGHT	øB	WEIGHT	øB	WEIGHT	øB	WEIGHT	øB	WEIGHT
15	130	74	105	95	2,0	89	1,8	95	2,5	89	1,8	95	2,0
20	150	86	122	105	2,8	98,5	2,6	105	3,4	98,5	2,6	105	2,8
25	160	93	136	115	3,5	108	3,2	115	4,2	108	3,2	115	3,5
32	180	115	161	140	5,6	117	5,3	140	8,0	117	5,3	140	5,6
40	200	128	177	150	7,0	127	6,5	150	9,5	127	6,5	150	7,0
50	230	147	210	165	9,7	152	9,0	165	12,5	152	9,0	165	9,7
65	290	181	252	185	14,5	178	14,0	185	17,0	178	14,0	185	14,5
80	310	197	268	200	19,2	191	18,5	200	23,0	191	18,5	200	19,2
100	350	219	303	220	27,0	229	26,0	235	33,5	229	26,0	220	27,0
125	400	261	371	250	46,0	254	45,0	270	62,0	254	45,0	250	46,0
150	480	348	512	285	74,5	279	73,5	300	85,0	279	73,5	285	74,5
200	600	416	625	340	125,0	343	122,0	375	151,0	343	122,0	340	125,0

(*) Dimensions in mm and weight in kg.

Flanged "Y" type strainer

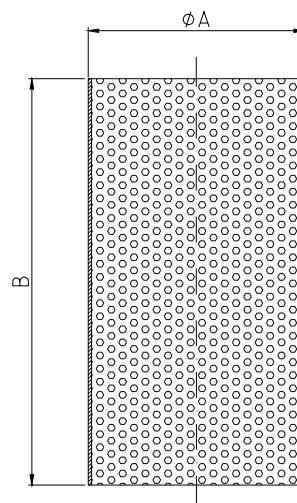
General Characteristics

GENERAL CHARACTERISTICS	Fig.S116, S315, S340, S415 & S416		
DESIGN STANDARDS			
Valves design	DIN 3840		
Face to face Dimensions	EN 558 Series 1		
Flanged Dimensions	EN 1092 & ASME B16.5		
Visual Inspection	MSS SP- 55		
Marking	EN 19		
TESTS AND CERTIFICATES			
Pressure testing	EN 12266-1 P10		

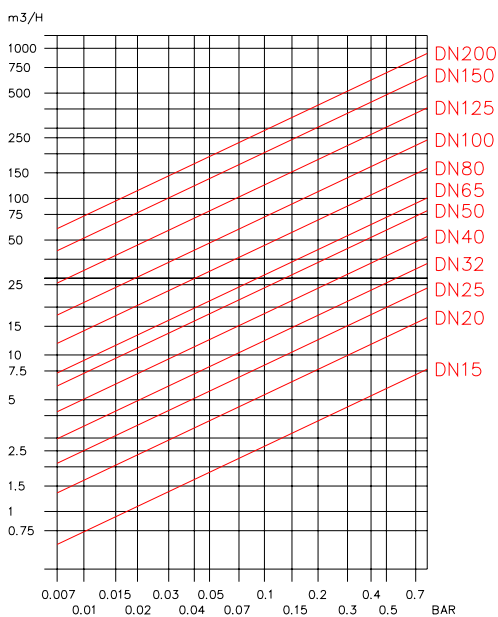
Strainer Screen Dimensions:

DN	øA	B	Perforation	Area
15	25	55	ø1	1: 6,05
20	30	64	ø1	1: 4,70
25	35	73	ø1	1: 3,97
32	40	96	ø1	1: 3,58
40	50	100	ø1	1: 2,98
50	60	125	ø1	1: 2,83
65	68	142	ø1,5	1: 2,13
80	83	152	ø1,5	1: 1,83
100	94	172	ø1,5	1: 1,50
125	120	222	ø1,5	1: 1,56
150	155	300	ø1,5	1: 1,89
200	206	370	ø1,5	1: 1,74

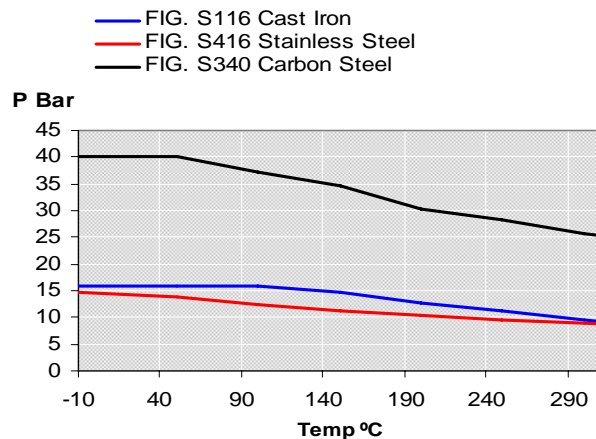
(*) Dimensions in mm



Pressure Drop



Pressure-Temperature



Forged Check Valves
Fig. R800 Class 800
Size ½" – 2" (DN 15 – 50)



FIG. R800
CHECK VALVE

BS5352, MSS SP 118 & ASME B16.34

Connections according to:

ANSI B 1.20.1 (NPT)

ANSI B 16.11 (SW)

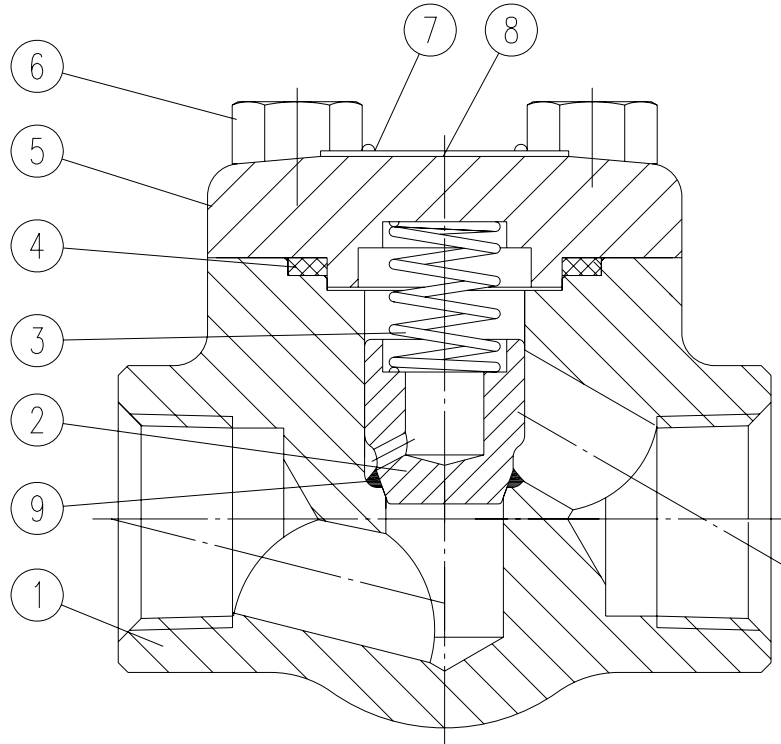
CE

Forged Check Valves

Fig. R800 Class 800

Parts and Materials

Parts and materials

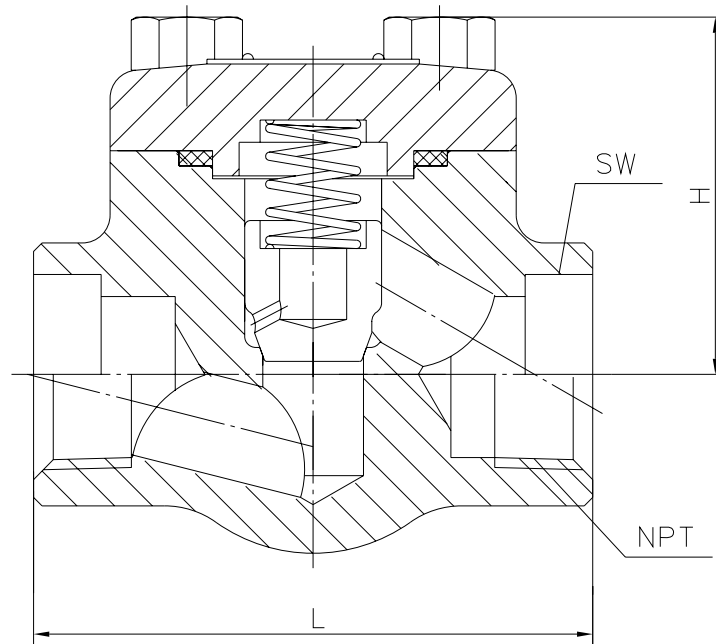


Item	Description	Material	
		Carbon Steel	Stainless Steel
1	Body	A 105	A 182 F316L
2	Piston disc	A 276 420	A 182 F316L
3	Spring	17-4 PH	
4	Gasket	AISI 304 + Graphite	AISI 316 + Graphite
5	Bonnet	A 105	A 182 F316L
6	Bolt	A 193 B7	A 193 B8M
7	Ribet	A 182 F304	A 182 F316
8	Nameplate	Aluminium	
9	Seat	A 105 + STL	A 182 F316L + STL

Forged Check Valves

Fig. R800 Class 800

Dimensions



Dimensions

SIZE	L	NPT	H	Weight
½" (DN 15)	79	½"	51	1,5
¾" (DN 20)	92	¾"	55	3,1
1" (DN 25)	111	1"	68	3,9
1¼" (DN 32)	152	1¼"	97	5,6
1½" (DN 40)	152	1½"	97	8,9
2" (DN 50)	172	2"	103	12,5

(*) Dimensions in mm and weight in kg.

Forged Check Valves

Fig. R800 Class 800

General Characteristics, Kv, P&T Rating

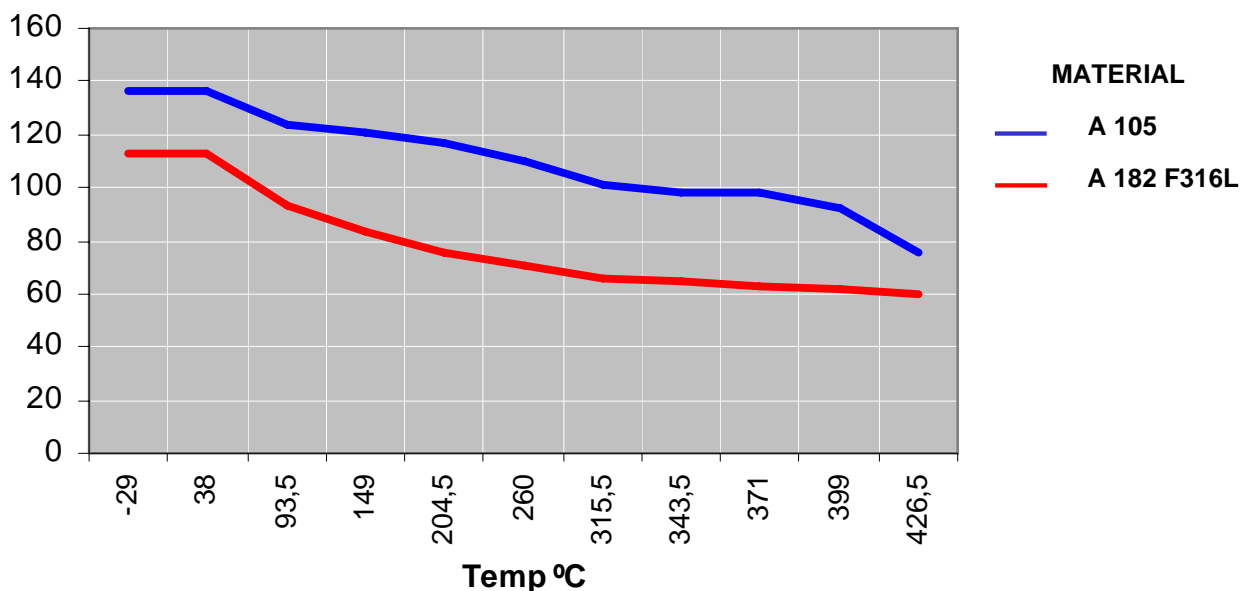
GENERAL CHARACTERISTICS	Forged Check Valve	Fig. R800		
DESIGN STANDARDS				
Valves design	BS 5352	MSS SP 118	ASME B 16.34	
Connections	ANSI B 1.20.1	ANSI B 16.11		
Face to face dimensions	Manufacturer's standard			
TESTS AND CERTIFICATES	API 598			
Quality Assurance	ISO 9001			
Pressure testing	EN 12266-1			
Marking	EN 19			

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
½" (DN 15)	22,3	1¼" (DN 32)	642,7
¾" (DN 20)	42,8	1½" (DN 40)	1114
1" (DN 25)	80,5	2" (DN 50)	1970

Pressure-Temperature

P Bar



GLOBE VALVES

PN16 & PN40

DN 15 - 200



GLOBE VALVES

Cast Iron & Carbon Steel

DN 15 - 200 PN16 & (PN40 Carbon Steel)

Fig. GV116 & GV340

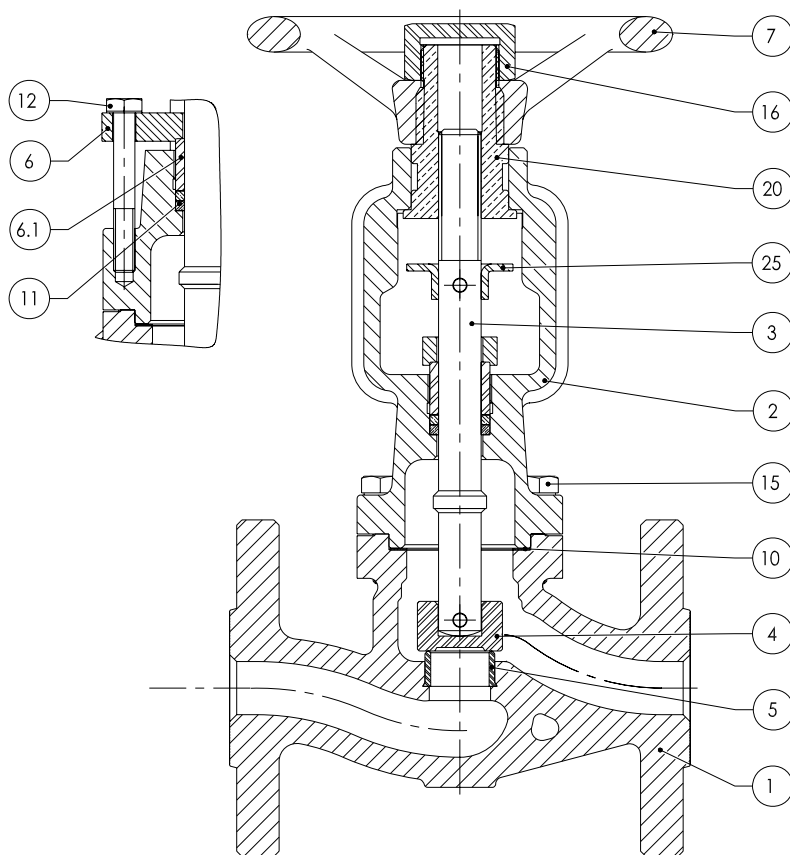


GLOBE VALVES

PN16 & PN40

Parts and materials

Parts and Materials



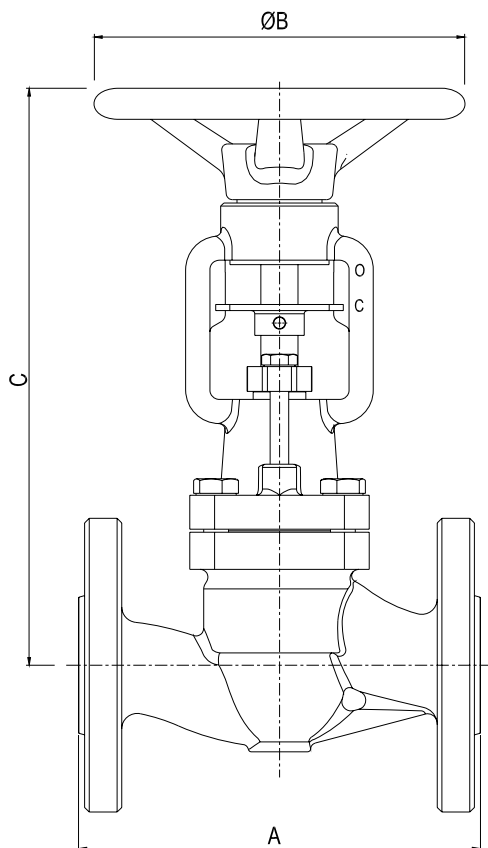
Item	Description	Material
1	Body	EN-GJL250 (Fig.GV 116) // 1.0619 (Fig.GV 340)
2	Bonnet	EN-GJL250 (Fig.GV 116) // 1.0619 (Fig.GV 340)
3	Spindle	X 12 CrNi S 18 8
4	Disc	X 20 Cr 13
5	Seat	X 22 CrNi 17
6	Gland	EN-10025
6.1	Gland Retainer	EN-10087
7	Handw heel	EN-GJS 400
10	Gasket	Graphite
11	Packing	Graphite
12	Gland Bolts	5.6
15	Bolts	Fig. GV 116: 5,6 // Fig,340: 8,8
16	Handw heel nut	EN-10087
20	Threader Bushing	EN-10087
25	Anti Turn Device	EN-10025

GLOBE VALVES

PN16 & PN40

General dimensions

General Dimensions



DN	A	C	ØB	Kvs	Weight	
					B116	B340
15	130	190	140	4	3	3,5
20	150	195	140	7	3,9	4,3
25	160	220	140	11	4,3	6,3
32	180	219	140	19	5,6	7,3
40	200	254	180	30	10,5	12,5
50	230	265	180	46	12,5	15
65	290	328	200	70	20,5	22,5
80	310	341	200	115	26	27,5
100	350	376	250	150	39	42
125	400	488	330	220	52,5	67
150	480	531	330	310	80	99
200	600	663	400	675	152	200

(*) Dimensions in mm and weight in kg.

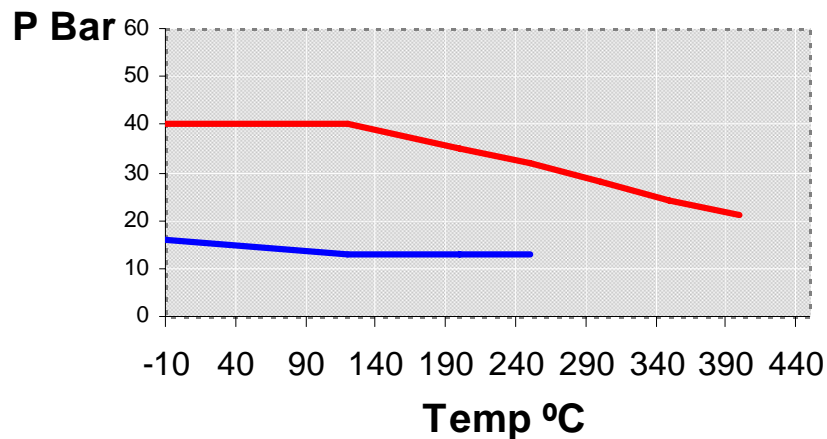
GLOBE VALVES PN16 & PN40

General Characteristics, P&T Rating

General Characteristics

Figure	Material	PN
G116	EN-GJL-250	16
G340	10.619	40
DESIGN STANDARDS		
Valve Design	DIN 3840	
Flanged dimensions	EN 1092	
Face to Face Dimensions	EN 558 Series1	
Visual Inspection	MSS SP-55	
Marking	EN 19	

— EN-GJL-25 — 1.0619



Main Characteristics:

- *Asbestos Free packing and seals
- **Non-rising spinle!!*
- *Position Indicator
- *"Back" seat device!!

- Applications:**
- No corrosive or no toxic fluids
 - Steam
 - Hydrocarbons

Options:
(On request)

- A Throttling plug
- B Disc with soft seat
- C Throttling plug+Soft seat
- D Conical seat disc

Forged Globe Valves
Fig. G800 Class 800
Size ½" – 2" (DN 15 – 50)



FIG. G800
GLOBE VALVE

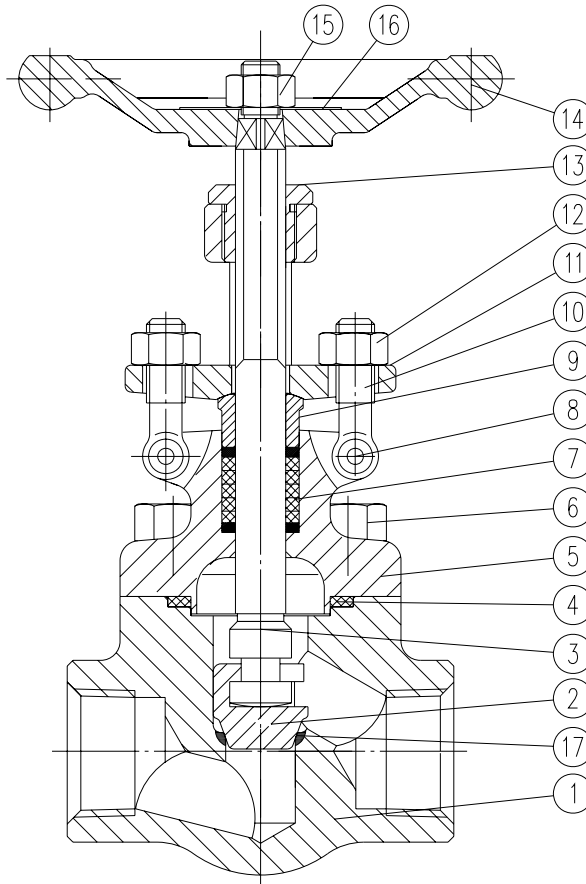
BS 5352, ASME B16.34
Connections according to:
ANSI B 1.20.1 (NPT)
ANSI B 16.11 (SW)
CE

Forged Globe Valves

Fig. G800 Class 800

Parts and Materials

Parts and materials

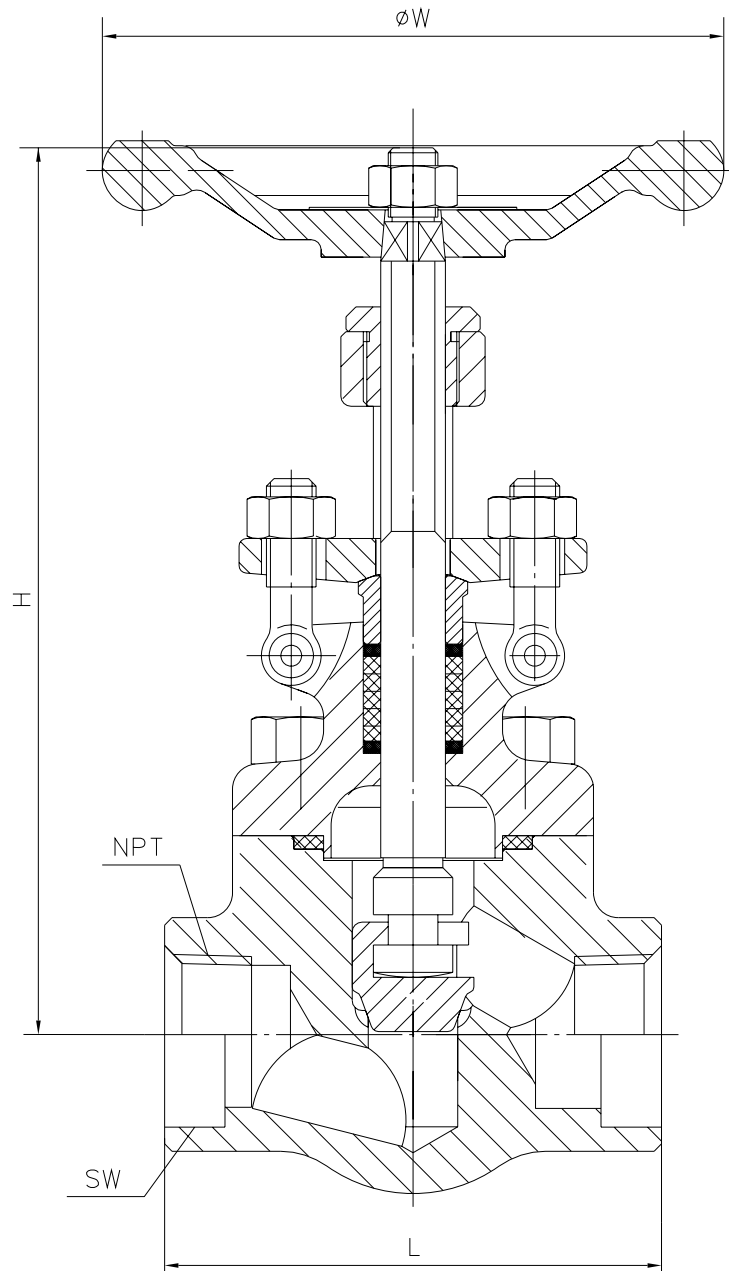


Item	Description	Material	
		Carbon Steel	Stainless Steel
1	Body	A 105	A 182 F316L
2	Disc	AISI 420 + STL	A 182 F316L
3	Stem	AISI 410	A 182 F316L
4	Gasket	AISI 304 + Graphite	AISI 316 + Graphite
5	Bonnet	A 105	A 182 F316L
6	Bolt	A 193 B7	A 193 B8M
7	Packing	Flexible Graphite + Carbon Fibre	
8	Pin	AISI 420	AISI 304
9	Packing Gland	AISI 420	AISI 316L
10	Eye Bolt	A 193 B8	A 193 B8M
11	Gland Flange	A 105	A 182 F316L
12	Hex Nut	A 194 8	A 194 8M
13	Yoke Nut	AISI 410	
14	Handwheel	A 197	
15	Hex Nut	1035 Zinc Plated	
16	Nameplate	Aluminium	
17	Seat	A 105 + STL	A 182 F316L + STL

Forged Globe Valves

Fig. G800 Class 800

Dimensions



Dimensions

SIZE	L	NPT	ϕW	H	Weight
½" (DN 15)	79	½"	100	158	2,1
¾" (DN 20)	92	¾"	100	163	3,5
1" (DN 25)	111	1"	125	193	6
1¼" (DN 32)	152	1¼"	160	250	7,5
1½" (DN 40)	152	1½"	160	250	11,4
2" (DN 50)	172	2"	180	291	14,6

(*) Dimensions in mm and weight in kg.

Forged Globe Valves

Fig. G800 Class 800

General Characteristics, Torque, KV, P&T Rating

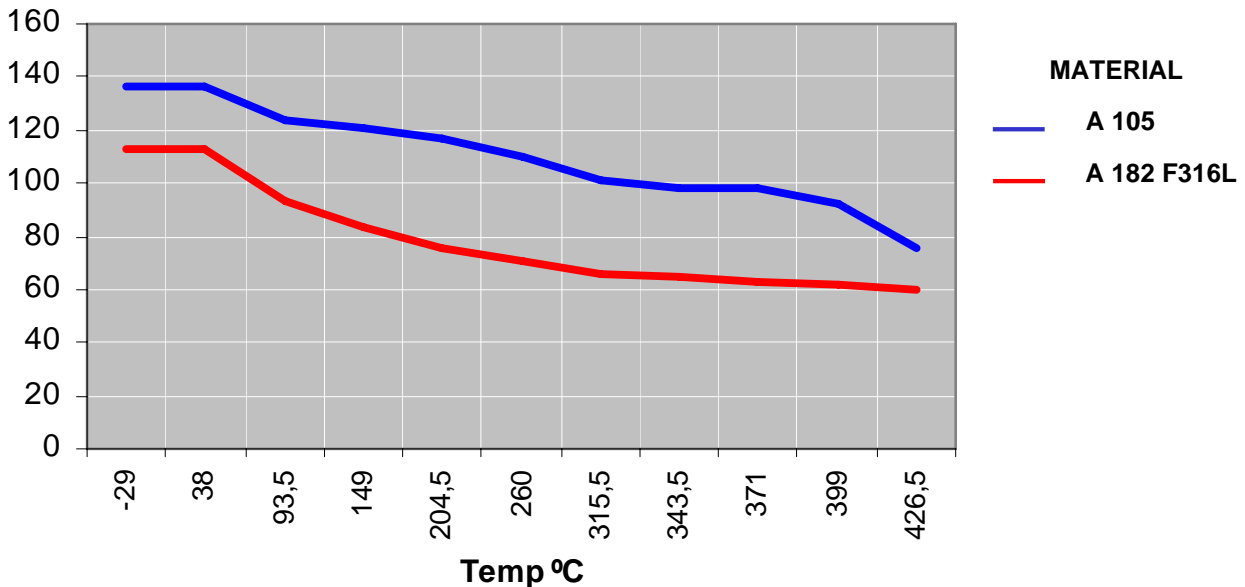
GENERAL CHARACTERISTICS	Forged Globe Valve		
DESIGN STANDARDS			
Valves design	BS 5352	ASME B16.34	
Connections	ANSI B 1.20.1	ANSI B 16.11	
Face to face dimensions	Manufacturer's standard		
TESTS AND CERTIFICATES	API 598		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		
Marking	EN 19		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
½" (DN 15)	22,3	1¼" (DN 32)	642,7
¾" (DN 20)	42,8	1½" (DN 40)	1114
1" (DN 25)	80,5	2" (DN 50)	1970

Pressure-Temperature

P Bar



CHECK VALVES

PN16 & PN40

DN 15 - 200



CHECK VALVES

Cast Iron & Carbon Steel

DN 15 - 200 PN16 & (PN40 Carbon Steel)

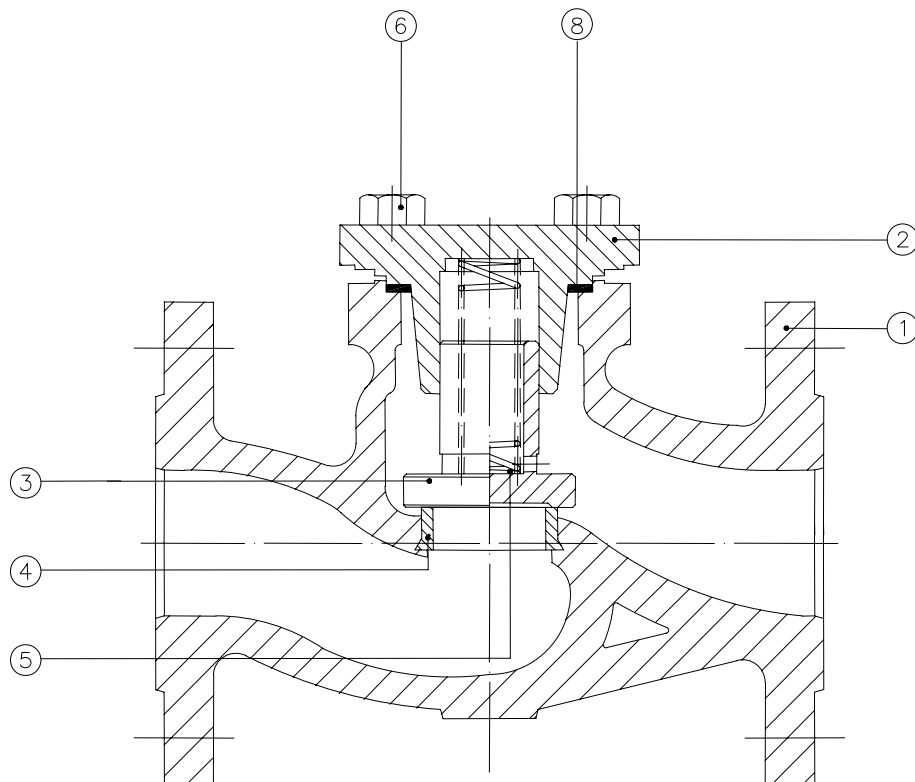
Fig. CHV116 & CHV340



CHECK VALVES PN16 & PN40

Parts and materials

Parts and Materials



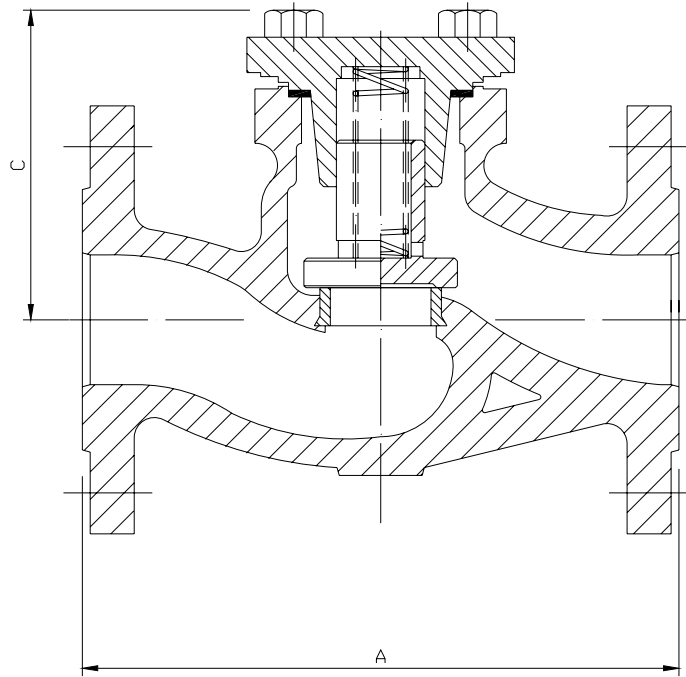
Item	Description	Material
1	Body	EN-GJL250 (Fig.C116) // 1.0619 (Fig.C340)
2	Cap	EN-GJL250 (Fig.C116) // 1.0619 (Fig.C340)
3	Disc	X 20 Cr 13
4	Seat	X 22 CrNi 17
5	Spring	X 12 Cr Ni 17.7
6	Bolts	Fig.C116: 5,6 // 1Fig.C340: 8,8
8	Gland Retainer	Graphite

CHECK VALVES

PN16 & PN40

General dimensions

General Dimensions



DN	A	C	Kvs	Weight	
				C116	C340
15	130	65	3,5	2,9	3,9
20	150	70	6,5	3,9	4,9
25	160	80	10,5	3,9	6,4
32	180	85	17	5,9	7,6
40	200	120	26	10,9	12,9
50	230	130	42	12,9	15,4
65	290	160	69	21,4	23,4
80	310	165	109	26,9	28,4
100	350	185	171	39,9	42,9
125	400	210	260	54,1	68,1
150	480	250	374	80,9	99,9
200	600	275	662	149,8	200,9

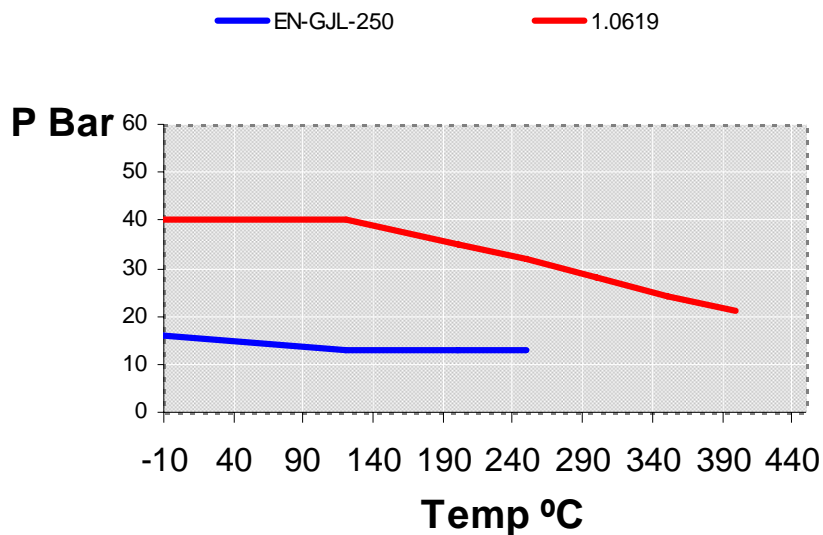
(*) Dimensions in mm and weight in kg.

CHECK VALVES PN16 & PN40

General Characteristics, P&T Rating

General Characteristics

Figure	Material	PN
C116	EN-GJL-250	16
C340	1.0619	40
DESIGN STANDARDS		
Valve Design	DIN 3840	
Flanged dimensions	EN 1092	
Face to Face Dimensions	EN 558 Series1	
Visual Inspection	MSS SP-55	
Marking	EN 19	



Applications:

- No corrosive or no toxic fluids
- Steam
- Hydrocarbons

Forged Gate Valves
Fig. C800 Class 800
Size ½" – 2" (DN 15 – 50)



FIG. C800
GATE VALVE

API 602, MSS SP 118 & ASME B16.34

Connections according to:

ANSI B 1.20.1 (NPT)

ANSI B 16.11 (SW)

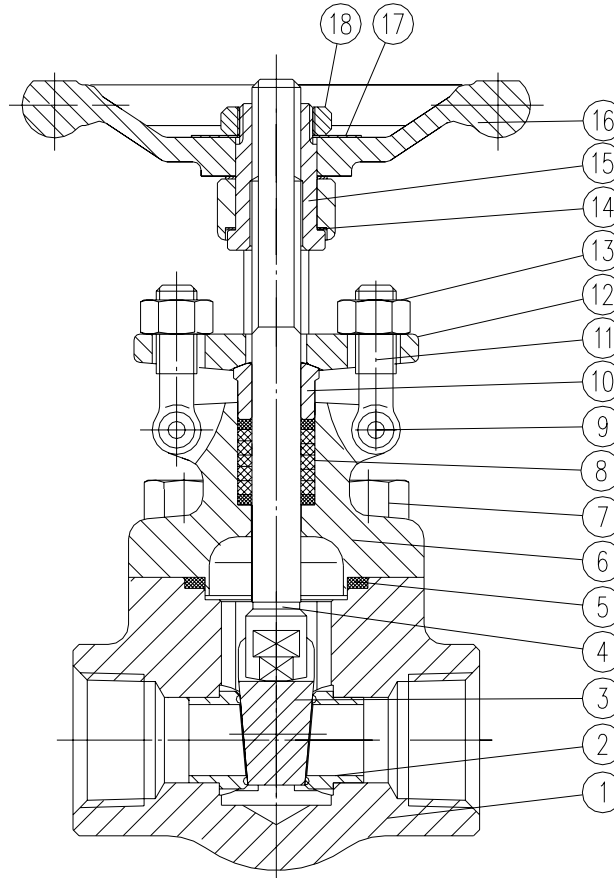
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Forged Gate Valves

Fig. C800 Class 800

Parts and Materials

Parts and materials

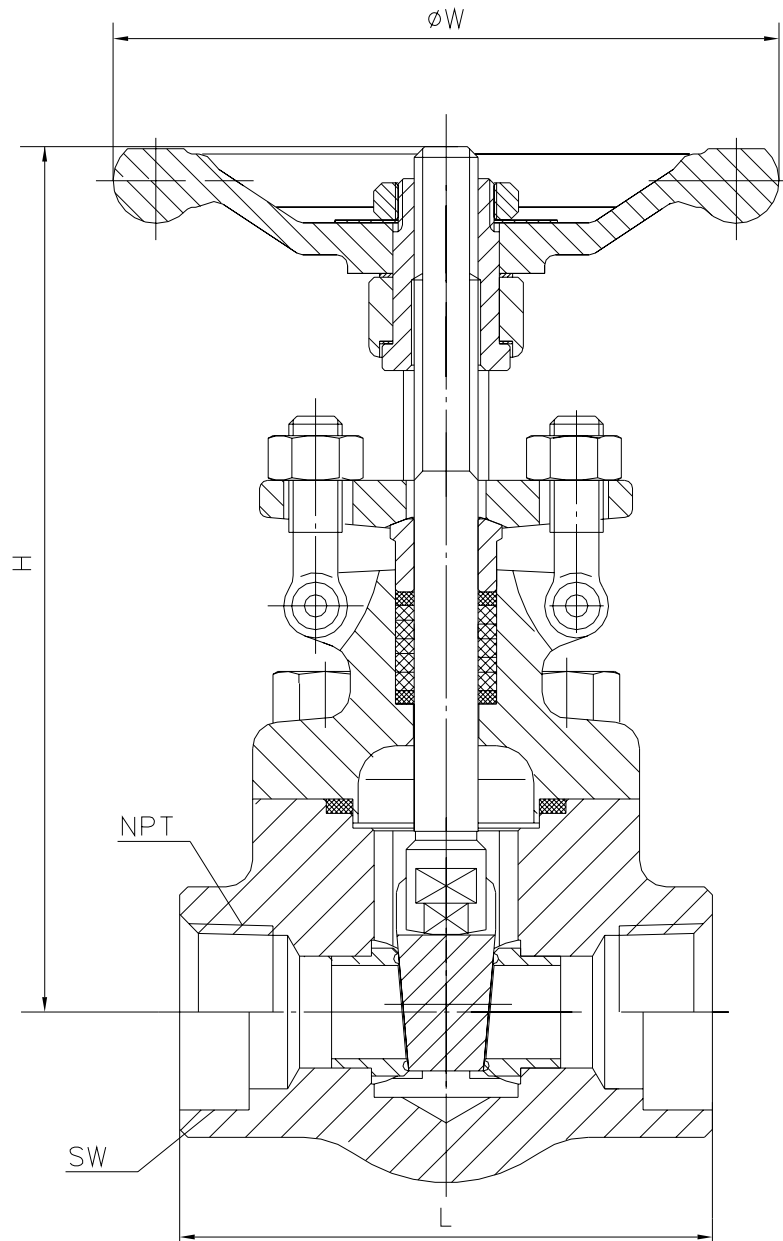


Item	Description	Material	
		Carbon Steel	Stainless Steel
1	Body	A 105	A 182 F316L
2	Seat	A 182 F6A + STL	A 182 F316L + STL
3	Gate	A 182 F6A + STL	A 182 F316L
4	Stem	AISI 410	A 182 F316L
5	Gasket	AISI 304 + Graphite	AISI 316 + Graphite
6	Bonnet	A 105	A 182 F316L
7	Bolt	A 193 B7	A 193 B8M
8	Packing	Flexible Graphite + Carbon Fibre	
9	Pin	AISI 420	AISI 304
10	Packing Gland	AISI 420	AISI 316L
11	Eye Bolt	A 193 B8	A 193 B8M
12	Gland Flange	A 105	A 182 F316L
13	Hex Nut	A 194 8	A 194 8M
14	Washer	AISI 410	
15	Yoke Nut	AISI 410	
16	Handwheel	A 197	
17	Nameplate	Aluminium	
18	Hex Nut	1035 Zinc Plated	

Forged Gate Valves

Fig. C800 Class 800

Dimensions



Dimensions

SIZE	L	NPT	ϕW	H	Weight
1/2" (DN 15)	79	1/2"	100	151	2,3
3/4" (DN 20)	92	3/4"	100	158	4,3
1" (DN 25)	111	1"	125	185	5,9
1 1/4" (DN 32)	120	1 1/4"	160	239	6,9
1 1/2" (DN 40)	120	1 1/2"	160	243	11,1
2" (DN 50)	140	2"	180	279	15,2

(*) Dimensions in mm and weight in kg.

Forged Gate Valves

Fig. C800 Class 800

General Characteristics, Torque, KV, P&T Rating

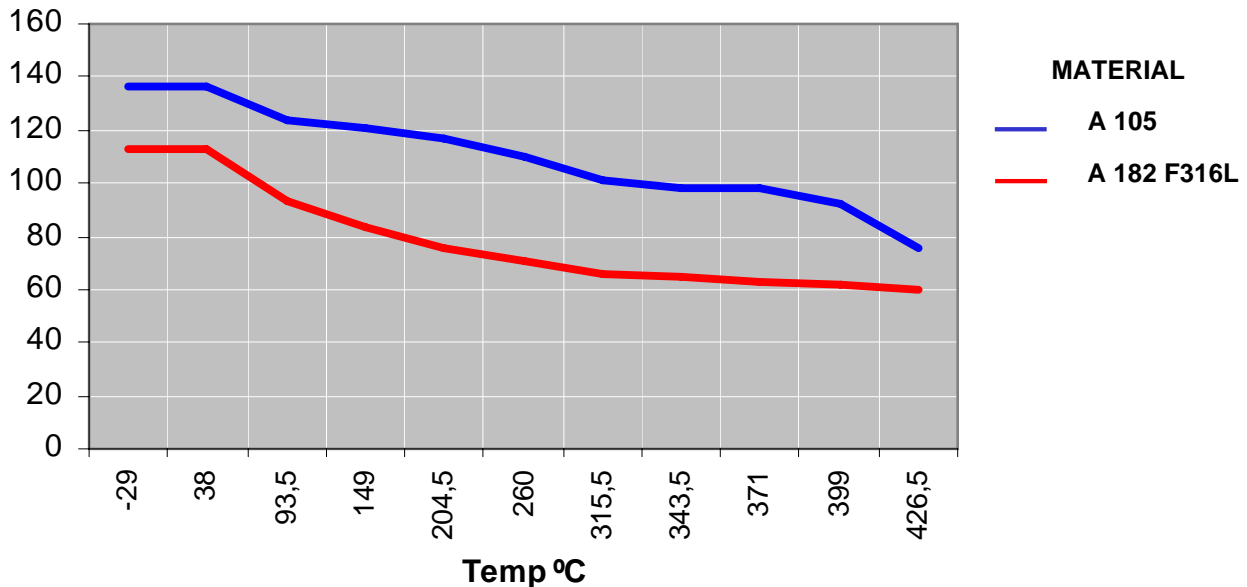
GENERAL CHARACTERISTICS	Forged Gate Valve		
DESIGN STANDARDS			
Valves design	API 602	ASME B 16.34	
Connections	ANSI B 1.20.1	ANSI B 16.11	
Face to face dimensions	Manufacturer's standard		
TESTS AND CERTIFICATES	API 598		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		
Marking	EN 19		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
½" (DN 15)	15	1¼" (DN 32)	80
¾" (DN 20)	15	1½" (DN 40)	80
1" (DN 25)	29	2" (DN 50)	135

Pressure-Temperature

P Bar



Butterfly Valves Type Wafer & Lug

7 bar (100 psi) - 10 bar (150 psi)
DN 40 - 300 (Size 1½" – 12")



Fig. NP

TYPE WAFER

(Assembly between flanges PN-10/PN-16)

TYPE LUG

(Assembly between flanges PN-10/PN-16 (only DN-40 to DN-200))

PTFE Seat

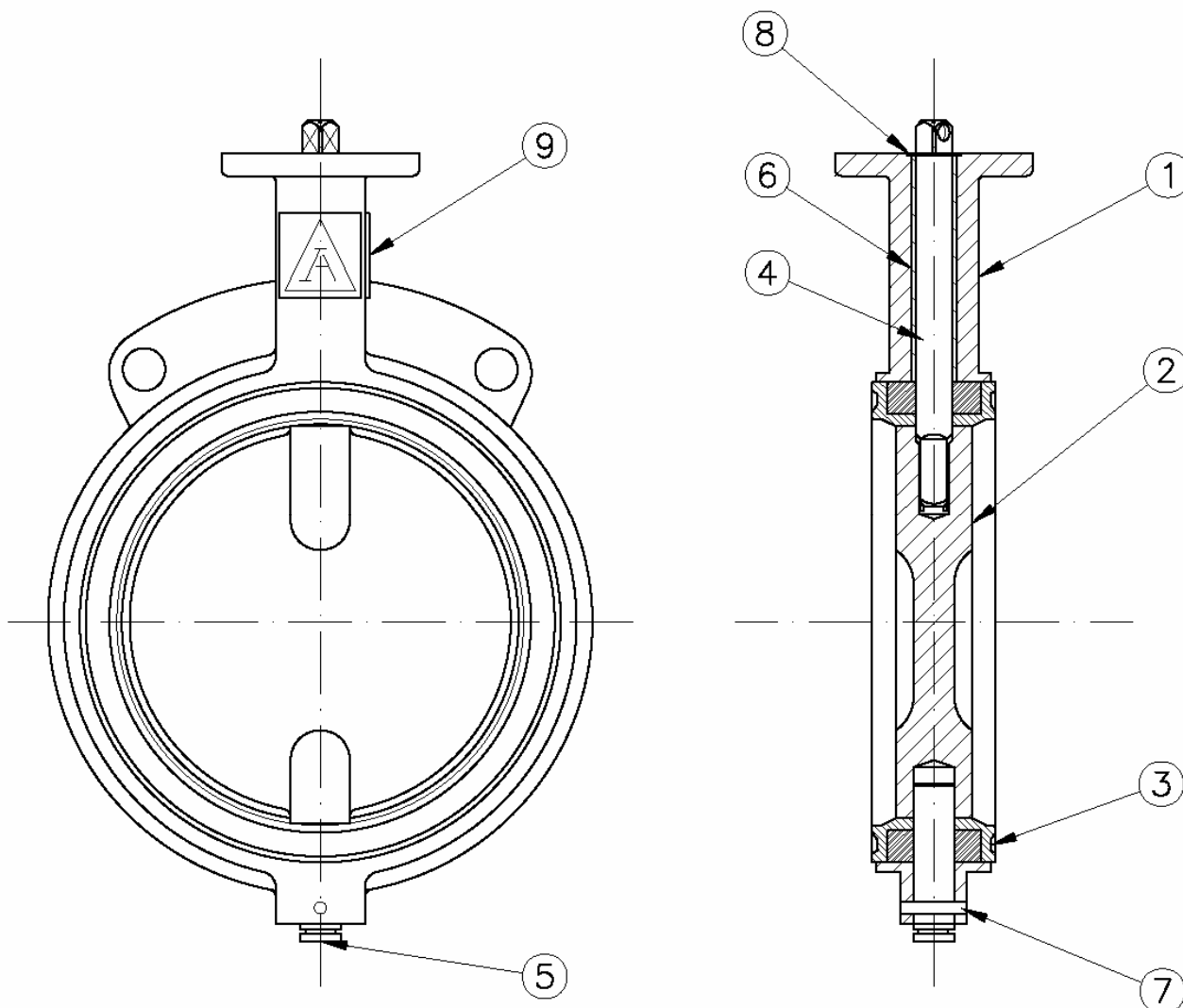
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Butterfly Valves Type Wafer & Lug

7 bar (100 psi) - 10 bar (150 psi)

Parts and materials

Parts and materials



Item	Description	Material
1	Body	ASTMA 536 Gr. 65-45-12
2	Disc	ASTMA 351 Gr. CF8M *
3	Seat	PTFE
4	Upper stem	ASTMA 276 Type 410
5	Lower stem	ASTMA 276 Type 410
6	Bearing	Polypropylene
7	Pin	Carbon Steel
8	Retainer ring	Carbon Steel
9	Identification plate	Aluminium

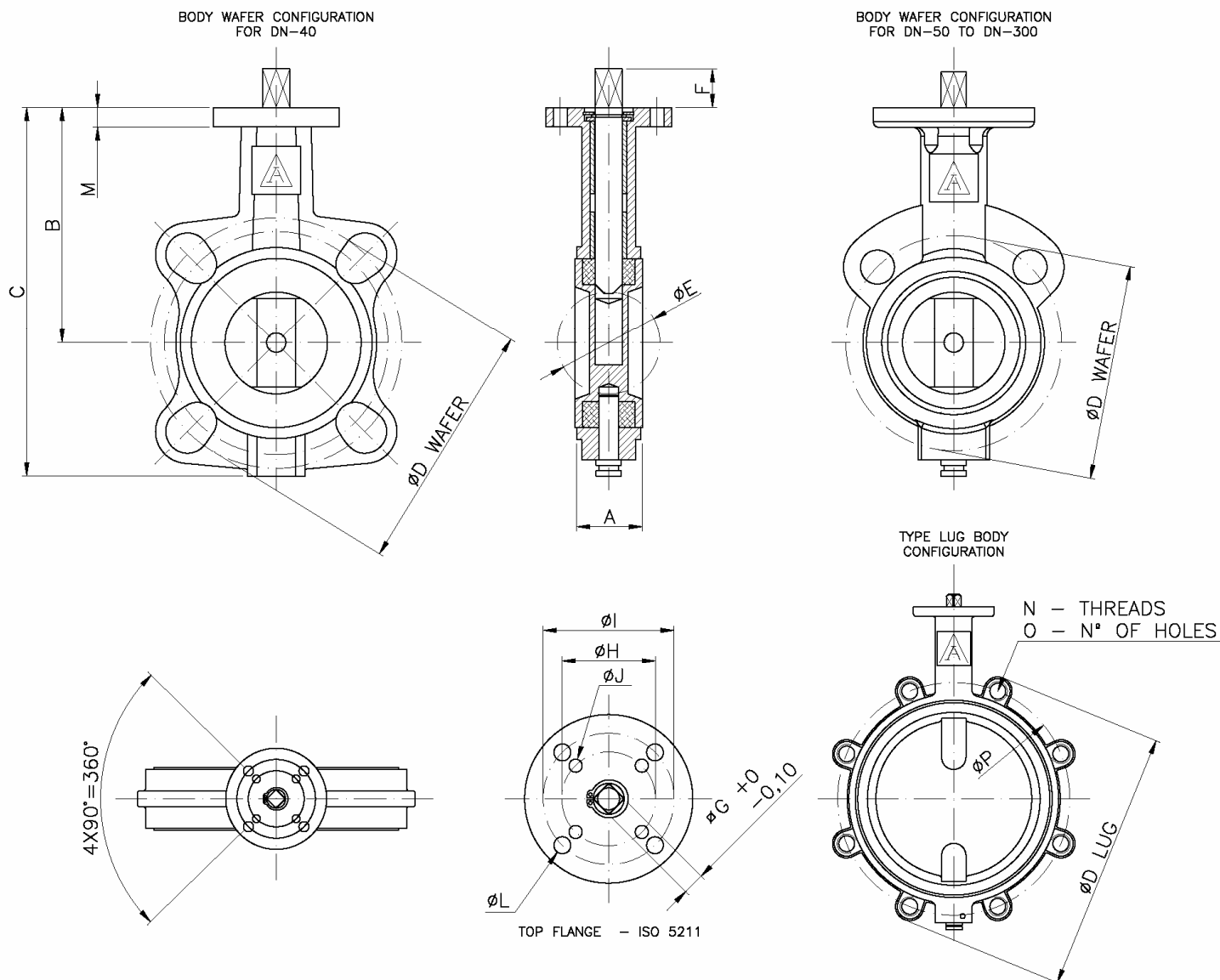
* On request E-CTFE (Halar) lined

Butterfly Valves Type Wafer & Lug

7 bar (100 psi) - 10 bar (150 psi)

Dimensions

Dimensions



SIZE	A	B	C	ØD WAFER	ØD LUG	ØE	ØF	G	ØH	ØI	ØJ	ØL	M	N	O	ØP
DN 40 (1½")	33	130	191	110	138	37,3	20	11	--	50	--	7	10	M16	4	110
DN 50 (2")	44	142,9	216,2	125	136	58,3	15	14	50	70	7	9	12,2	M16	4	125
DN 65 (2½")	47	155,6	235,2	145	175	72,5	15	14	50	70	7	9	12,2	M16	8	145
DN 80 (3")	47	161,9	247,8	160	195	84,7	15	14	50	70	7	9	12,2	M16	8	160
DN 100 (4")	53,5	181	281,1	180	226	106,6	15	14	50	70	7	9	12,2	M16	8	180
DN 125 (5")	57	196,9	309,5	210	257	129,8	20	17	--	70	--	9	12,2	M16	8	210
DN 150 (6")	57	209,6	334,3	240	280	153,9	20	17	--	70	--	9	12,2	M20	8	240
DN 200 (8")	63	239,7	397,1	295	336	199,4	20	17	70	102	9	11	12,2	M20	8	295
DN 250 (10")	71	285,8	475,9	355	384	248,2	25	17	--	102	--	11	12,2	M20	12	350
DN 300 (12")	81	309,6	551,7	410	476	300	25	22	--	102	--	11	12,2	M20	12	400

(*) Dimensions in mm.

Butterfly Valves Type Wafer & Lug

7 bar (100 psi) - 10 bar (150 psi)

Torque, KV, CWP & Speed limits

GENERAL CHARACTERISTICS	Fig. NP Type Wafer & Lug		
DESIGN STANDARDS			
Flange assembly betw een flanges	EN 1092 PN10 / PN16		
Face to face dimensions	EN 558-1 Series 20		
Actuator mounting flange	DIN 3337	ISO 5211	
Marking	EN 19		
TESTS AND CERTIFICATES	EN 10204		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		

Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL		VALVE SIZE	AT DIFFERENTIAL	
	10 bar			10 bar	
DN 40 (1½")	16		DN 125 (5")	140	
DN 50 (2")	20		DN 150 (6")	170	
DN 65 (2½")	25		DN 200 (8")	300	
DN 80 (3")	30		DN 250 (10")	470	
DN 100 (4")	95		DN 300 (12")	550	

Note: With water at ambient temperature and maximum working pressure

KV Values

APERTURE ANGLE	VALVE SIZE									
	DN 40 (1½")	DN 50 (2")	DN 65 (2½")	DN 80 (3")	DN 100 (4")	DN 125 (5")	DN 150 (6")	DN 200 (8")	DN 250 (10")	DN 300 (12")
90	54	112	173	260	476	973	1687	2811	4325	6488
80	50	91	138	208	411	865	1427	2357	3720	5234
75	46	78	112	177	346	718	1168	1903	3114	4325
70	42	61	91	138	264	541	891	1514	2379	3503
60	28	46	72	108	203	424	692	1125	1860	2682
50	16	23	36	54	104	216	355	606	995	1384
40	10	15	22	33	63	134	216	363	580	865
30	5	8	13	19	36	76	125	216	337	476
25	4	5	9	13	24	52	85	147	225	329

Cold Work Pressure (CWP)

SIZE DN	Pressure	
	(psi)	(bar)
50 - 300 *	100	7
50 - 300	150	10

Maximum Working Conditions

Temperature	Pressure
130°C	10 bar

Speed limits ON-OFF service

Liquid	Gas
9 m/s	54 m/s

(*) For disc coated with E-CTFE (Halar)

Applications in service end of line

Maximum pressure	Service
150 psi (10 bar)	Valve betw een 2 flanges w ith stainless steel disc
100 psi (7 bar)	Valve bolted to one flange (only Lug)

Butterfly Valves Type Wafer & Lug

10 bar (150 psi)
DN 350 - 600 (Size 14" – 24")



Fig. NF

TYPE WAFER

TYPE LUG

EPDM Seat

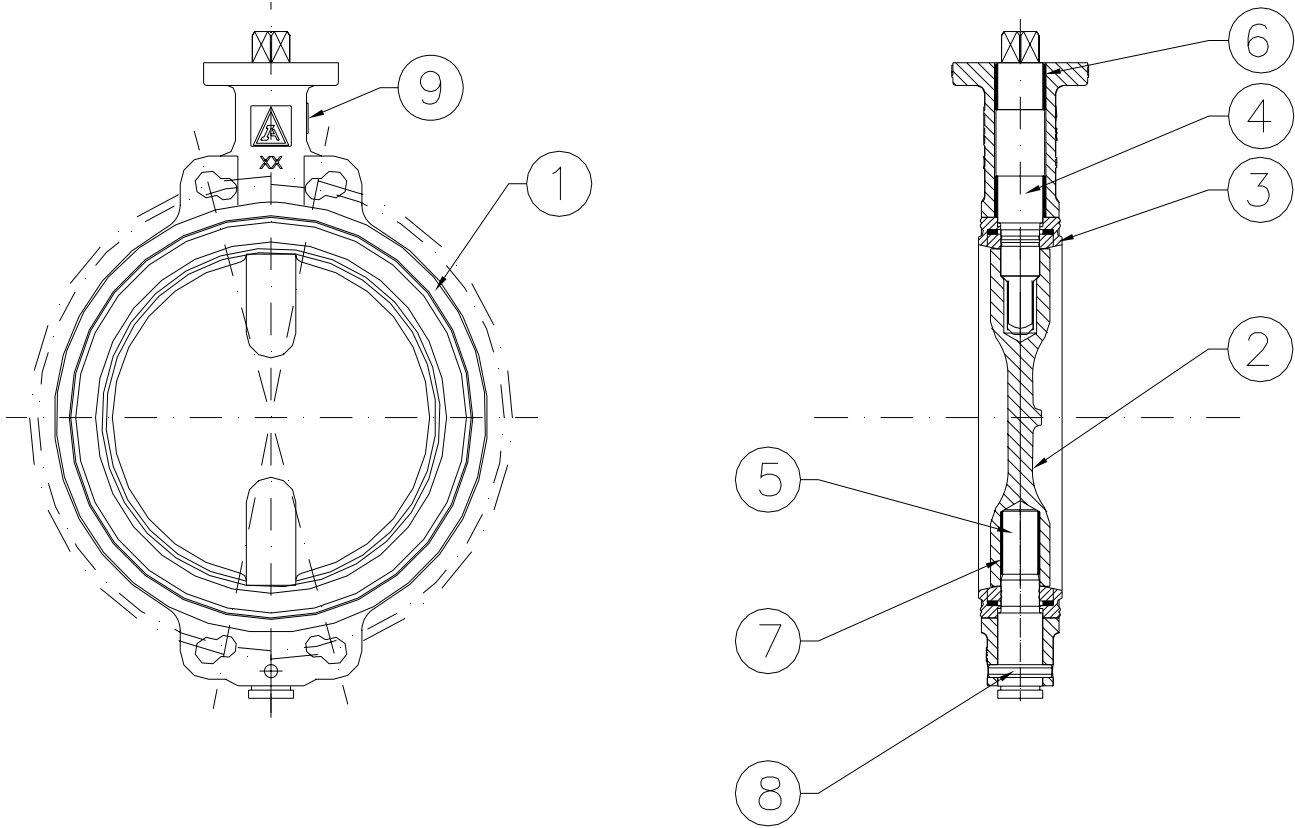
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Butterfly Valves Type Wafer & Lug

10 bar (150 psi)

Parts and materials

Parts and materials



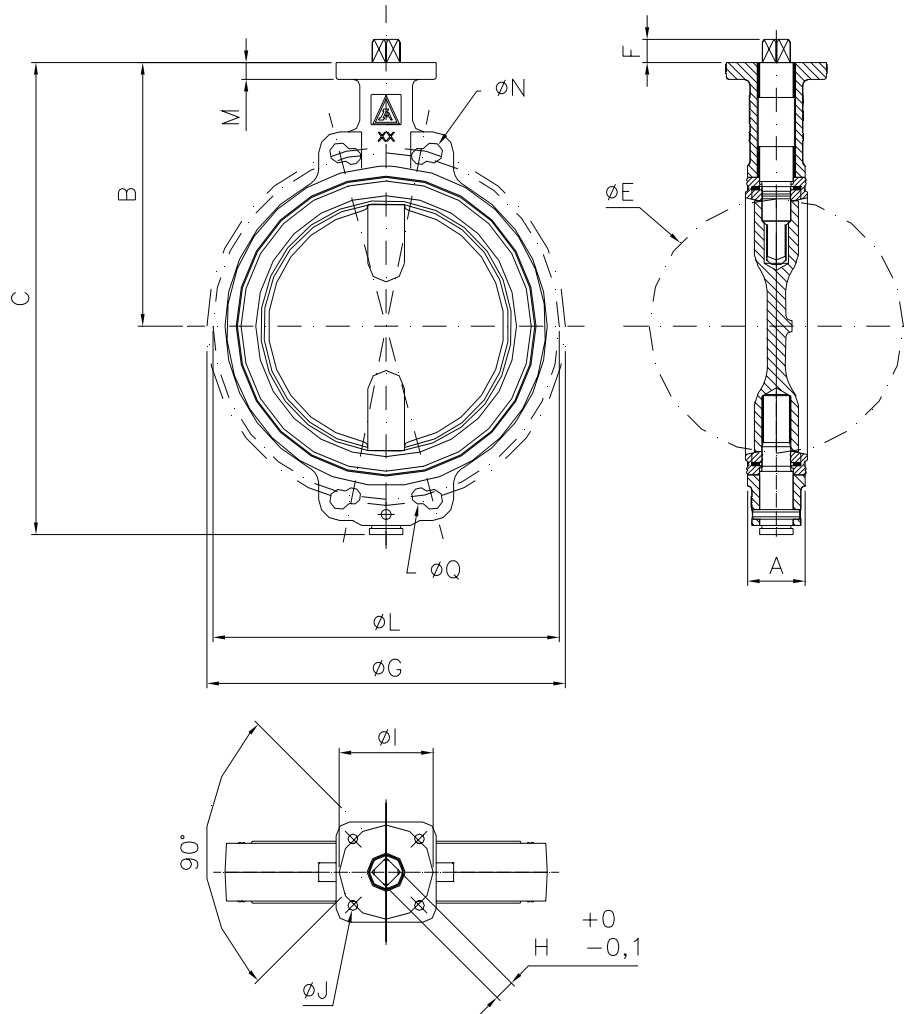
Item	Description	Material
1	Body	ASTMA 536 Gr. 65-45-12
2	Disc	ASTMA 536 Gr. 65-45-12 or ASTMA 351 Gr. CF8M
3	Seat	EPDM
4	Upper stem	ASTMA 276 Type 410
5	Lower stem	ASTMA 276 Type 410
6	Upper bearing	Bronze TM 23
7	Lower bearing	Bronze TM 23
8	Retainer ring	Carbon Steel
9	Identification plate	Aluminium

Butterfly Valves Type Wafer & Lug

10 bar (150 psi)

Dimensions

Dimensions



Series NF Type Wafer

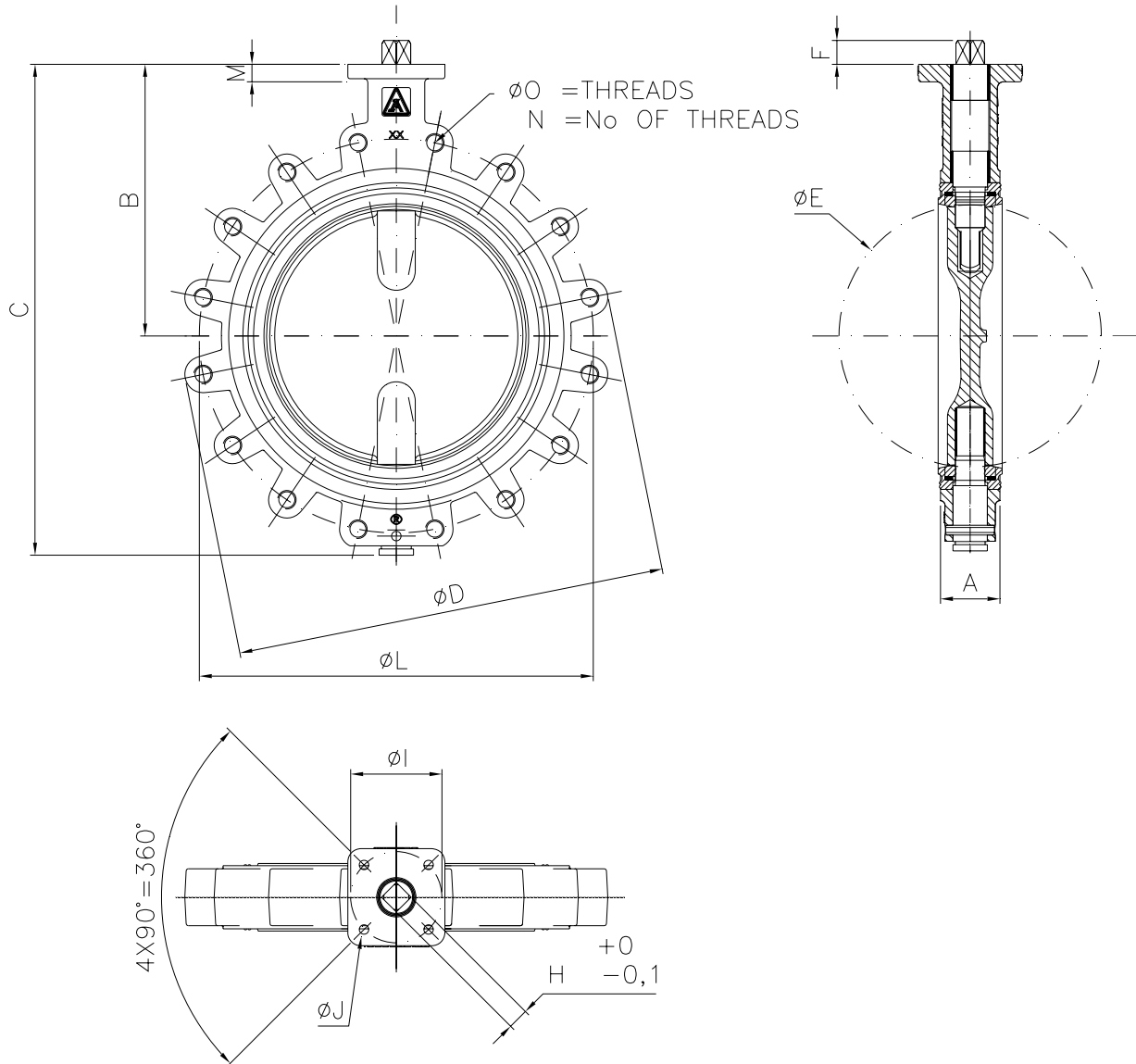
SIZE	A	B	C	ϕE	F	ϕG	H	ϕI	ϕJ	ϕL	M	ϕN	ϕQ
DN 350 (14")	76,5	350	627,1	335,8	30,7	476,2	27	125	13	460	22,2	28,6	22
DN 400 (16")	99	374,7	676,3	381,7	30,7	539,7	27	125	13	515	22,2	28,6	26
DN 450 (18")	112	401,6	743	436	39,7	577,9	36	140	17	565	22,2	31,7	26
DN 500 (20")	124,5	427	793,8	486,7	39,7	635	36	140	17	620	22,2	31,7	26
DN 600 (24")	152	490,5	914,4	593,3	50,1	749,3	46	165	23	725	22,2	35	30

(*) Dimensions in mm.

Butterfly Valves Type Wafer & Lug

10 bar (150 psi)

Dimensions



Series NF Type Lug

SIZE	A	B	C	ØD	ØE	F	H	ØI	ØJ	ØL	M	N	O
14" (DN 350)	76,5	350	641,3	431,8	335,8	30,7	27	125	13	460	22,2	16	M20
16" (DN 400)	99	374,7	676,3	485,8	381,7	30,7	27	125	13	515	22,2	16	M24
18" (DN 450)	112	401,6	743	546,1	436	39,7	36	140	17	565	22,2	20	M24
20" (DN 500)	124,5	427	793,8	603,3	486,7	39,7	36	140	17	620	22,2	20	M24
24" (DN 600)	152	490,5	914,4	717,6	593,3	50,1	46	165	23	725	22,2	20	M27

(*) Dimensions in mm.

Butterfly Valves Type Wafer & Lug

10 bar (150 psi)

Torque, KV, CWP & Speed limits

GENERAL CHARACTERISTICS	Fig. NF Type Wafer & Lug		
DESIGN STANDARDS			
Flange assembly betw een flanges	EN 1092 PN10		
Face to face dimensions	EN 558-1 Series 20		
Actuator mounting flange	DIN 3337	ISO 5211	
Marking	EN 19		
TESTS AND CERTIFICATES	EN 10204		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		

Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL PRESSURE		VALVE SIZE	AT DIFFERENTIAL PRESSURE	
	10 bar			10 bar	
14" (DN 350)	509		20" (DN 500)	1220	
16" (DN 400)	735		24" (DN 600)	2220	
18" (DN 450)	950				

Note: With water at ambient temperature and maximum working pressure

KV Values

APERTURE ANGLE	VALVE SIZE				
	DN 350 (14")	DN 400 (16")	DN 450 (18")	DN 500 (20")	DN 600 (24")
90	8651	10813	15138	1903	24221
80	7007	9343	12111	15138	20761
75	5796	7785	10381	12976	17734
70	4412	5623	7958	9948	14273
60	3547	4412	6142	7526	10164
50	1903	2292	3201	3979	5277
40	1125	1471	1990	2422	3287
30	649	779	1081	1384	1903
25	433	562	779	973	1298

Cold Work Pressure (CWP)

SIZE DN	Pressure	
	(psi)	(bar)
350 - 600	150	10

Maximum Working Conditions

Temperature	Pressure
120°C	10 bar

Speed limits ON-OFF service

Liquid	Gas
9 m/s	54 m/s

Applications in service of end line

Maximum pressure	Service
150 psi (10 bar)	Valve betw een 2 flanges
75 psi (5 bar)	Valve bolted to one flange (only Lug)

Butterfly Valves Type Wafer & Lug

10 bar (150 psi)
DN 40 - 300 (Size 1½" – 12")



Fig. NE

TYPE WAFER

(Assembly between flanges PN-10/PN-16)

TYPE LUG

(Assembly between flanges PN-10/PN-16 (only DN-40 to DN-200))

EPDM Seat

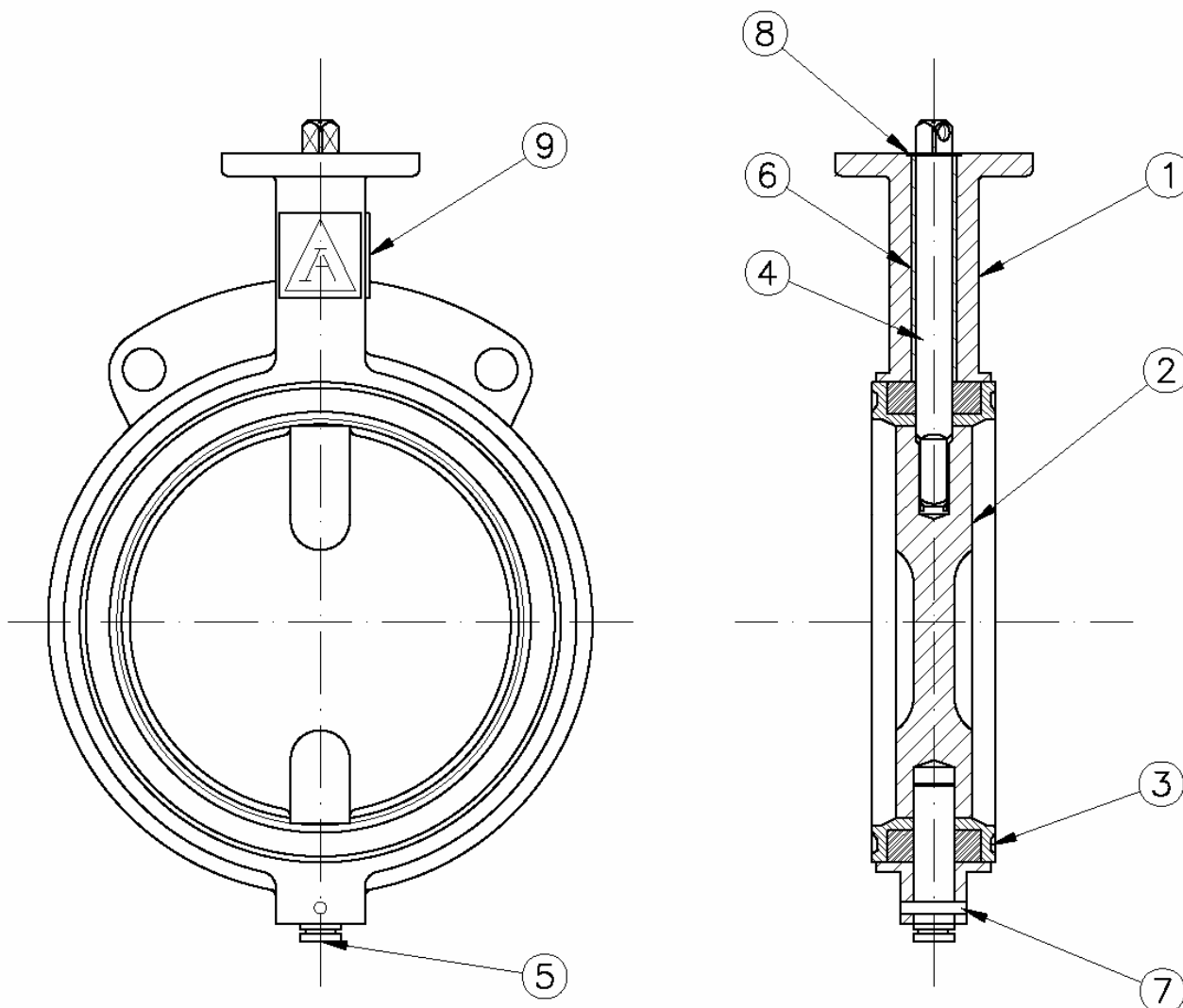
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Butterfly Valves Type Wafer & Lug

10 bar (150 psi)

Parts and materials

Parts and materials



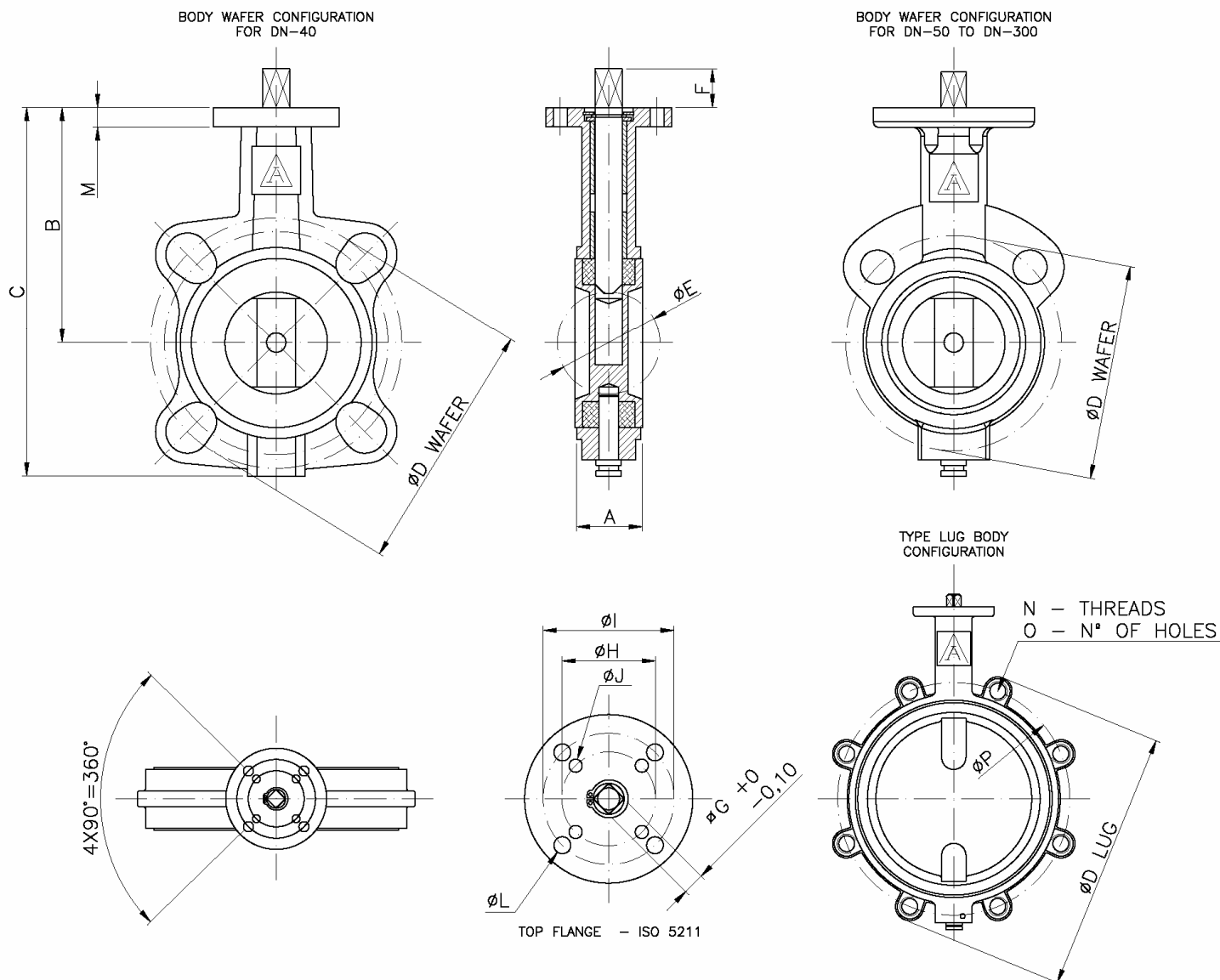
Item	Description	Material
1	Body	ASTMA 536 Gr. 65-45-12
2	Disc	ASTMA 536 Gr. 65-45-12 or ASTMA 351 Gr. CF8M
3	Seat	EPDM
4	Upper stem	ASTMA 276 Type 410
5	Lower stem	ASTMA 276 Type 410
6	Bearing	Polypropylene
7	Pin	Carbon Steel
8	Retainer ring	Carbon Steel
9	Identification plate	Aluminium

Butterfly Valves Type Wafer & Lug

10 bar (150 psi)

Dimensions

Dimensions



SIZE	A	B	C	ØD WAFER	ØD LUG	ØE	ØF	G	ØH	ØI	ØJ	ØL	M	N	O	ØP
DN 40 (1½")	33	130	191	110	138	37,3	20	11	--	50	--	7	10	M16	4	110
DN 50 (2")	44	142,9	216,2	125	136	58,3	15	14	50	70	7	9	12,2	M16	4	125
DN 65 (2½")	47	155,6	235,2	145	175	72,5	15	14	50	70	7	9	12,2	M16	8	145
DN 80 (3")	47	161,9	247,8	160	195	84,7	15	14	50	70	7	9	12,2	M16	8	160
DN 100 (4")	53,5	181	281,1	180	226	106,6	15	14	50	70	7	9	12,2	M16	8	180
DN 125 (5")	57	196,9	309,5	210	257	129,8	20	17	--	70	--	9	12,2	M16	8	210
DN 150 (6")	57	209,6	334,3	240	280	153,9	20	17	--	70	--	9	12,2	M20	8	240
DN 200 (8")	63	239,7	397,1	295	336	199,4	20	17	70	102	9	11	12,2	M20	8	295
DN 250 (10")	71	285,8	475,9	355	384	248,2	25	17	--	102	--	11	12,2	M20	12	350
DN 300 (12")	81	309,6	551,7	410	476	300	25	22	--	102	--	11	12,2	M20	12	400

(*) Dimensions in mm.

Butterfly Valves Type Wafer & Lug

10 bar (150 psi)

Torque, KV, cwp & Speed limits

GENERAL CHARACTERISTICS	Fig. NE Type Wafer & Lug		
DESIGN STANDARDS			
Flange assembly betw een flanges	EN 1092 PN10 / PN16		
Face to face dimensions	EN 558-1 Series 20		
Actuator mounting flange	DIN 3337	ISO 5211	
Marking	EN 19		
TESTS AND CERTIFICATES	EN 10204		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		

Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL		VALVE SIZE	AT DIFFERENTIAL	
	10 bar			10 bar	
DN 40 (1½")	12		DN 125 (5")	51	
DN 50 (2")	12		DN 150 (6")	62	
DN 65 (2½")	12		DN 200 (8")	113	
DN 80 (3")	22		DN 250 (10")	203	
DN 100 (4")	30		DN 300 (12")	339	

Note: With water at ambient temperature and maximum working pressure

KV Values

APERTURE ANGLE	VALVE SIZE									
	DN 40 (1½")	DN 50 (2")	DN 65 (2½")	DN 80 (3")	DN 100 (4")	DN 125 (5")	DN 150 (6")	DN 200 (8")	DN 250 (10")	DN 300 (12")
90	54	112	173	260	476	973	1687	2811	4325	6488
80	50	91	138	208	411	865	1427	2357	3720	5234
75	46	78	112	177	346	718	1168	1903	3114	4325
70	42	61	91	138	264	541	891	1514	2379	3503
60	28	46	72	108	203	424	692	1125	1860	2682
50	16	23	36	54	104	216	355	606	995	1384
40	10	15	22	33	63	134	216	363	580	865
30	5	8	13	19	36	76	125	216	337	476
25	4	5	9	13	24	52	85	147	225	329

Cold Work Pressure (CWP)

SIZE DN	Pressure	
	(psi)	(bar)
50 - 300	150	10

Maximum Working Conditions

Temperature	Pressure
120°C	10 bar

Speed limits ON-OFF service

Liquid	Gas
9 m/s	54 m/s

Applications in service of end line

Maximum pressure	Service
150 psi (10 bar)	Valve betw een 2 flanges
75 psi (5 bar)	Valve bolted to one flange (only Lug)

BELLOWS SEALED TYPE GLOBE VALVES

PN16, PN25 & PN40

DN 15 - 200



BELLOWS SEALED TYPE GLOBE VALVES

Cast Iron, Nodular Cast Iron & Carbon Steel

DN 15 - 200 PN16, PN25 & (PN40 Carbon Steel)

Fig. BGV116, BGV216, BGV225 & BGV340



BELLOWS SEALED TYPE GLOBE VALVES PN16, PN25 & PN40

General description

General Description

The range of bellows sealed type globe valves provides an environmentally sound solution to on/off stop valve needs

The bellows sealed design ensures stem seal leaks are totally eliminated, meeting the most stringent worldwide emissions legislations.

This capability is vital to maintain plant safety. Save energy and promote a cleaner environment.

Main Characteristics

- * Two ply bellows
- * Non-rising spindle
- * Position Indicator
- * Anti-turn device to avoid the risk of torsion of bellows
- * Bellows welded on to the spindle
- * **Long Life**

The bellows sealed type globe valves offers
"No Problems" in operation and the fatigue life of the bellows is designed with the latest international standards.

In the unlikely event of a bellows failure, a precautionary second seal exists to prevent leaks.

- * **Free Maintenance**

Not only do bellows sealed valves cut out stem seal emissions, they are virtually maintenance free.

Should you wish to change the internals, the procedure is rapid and simple.

All gaskets in our valves are asbestos free.

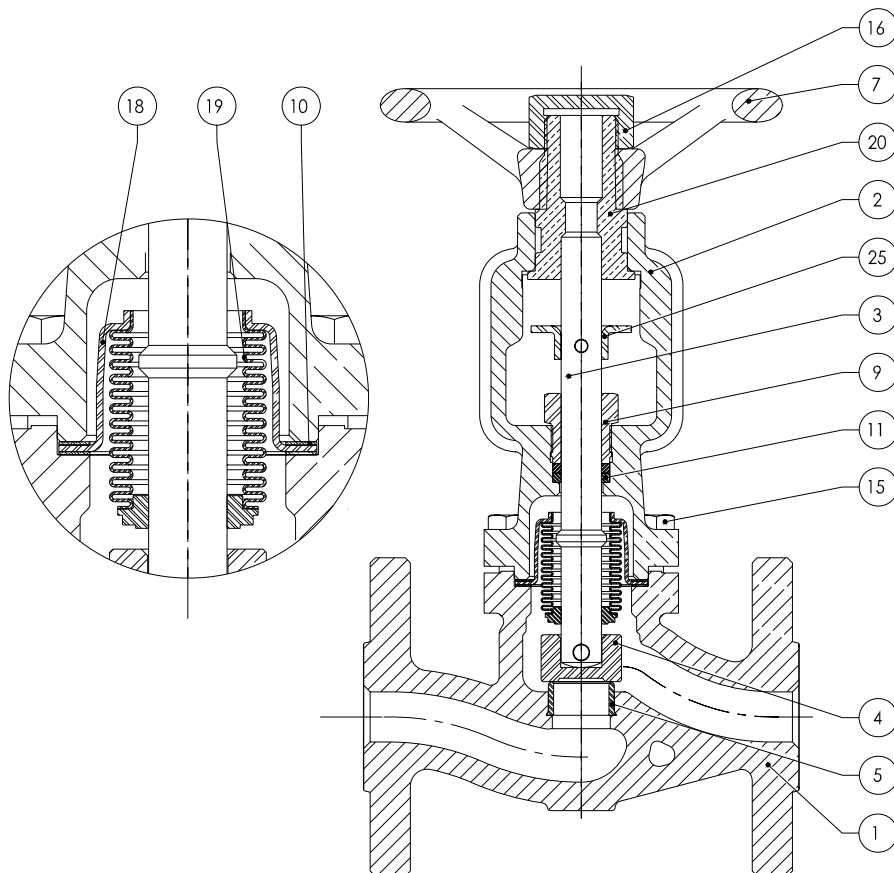
User Benefits

****Eliminates fugitive emissions.... *Easy to operate....*Long valve life....*No ongoing maintenance required***

BELLOWS SEALED TYPE GLOBE VALVES PN16, PN25 & PN40

Parts and materials

Parts and Materials



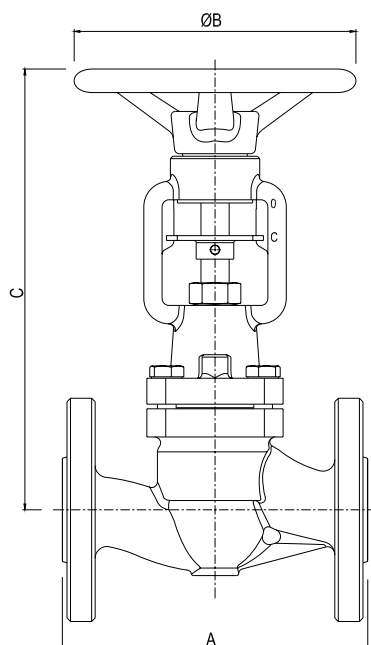
Item	Description	Material			
		BGV116	BGV216	BGV225	BGV340
1	Body	EN-GJL250	EN-GJS400-18		1.0619
2	Bonnet	EN-GJL250	EN-GJS400-18		1.0619
3	Spindle		x 12 CrNi S 18.8		
4	Disc		X 20 Cr 13		
5	Seat		X 22 CrNi 17		
7	Handw heel		EN-GJS 400		
9	Gland Nut		EN-10087		
10	Gasket		Graphite		
11	Packing		Graphite		
15	Bolts	5.6		8,8	
16	Handw heel nut		EN-10087		
18	Hood		X 12 CrNi S 18 8		
19	Bellow		1.4571		
20	Threader Bushing		EN-10087		
25	Anti Turn Device		EN-10025		

BELLOWS SEALED TYPE GLOBE VALVES

PN16, PN25 & PN40

General dimensions

General Dimensions



DN	A	C	ØB	Kvs	Weight			
					BGV116	BGV216	BGV225	BGV340
15	130	190	140	3,8	3,2	3,2	3,7	
20	150	195	140	7	4,4	4,4	4,8	
25	160	220	140	10	4,8	4,8	6,8	
32	180	219	140	19	6,1	6,3	7,8	
40	200	254	180	35	11	11	13	
50	230	265	180	43	13	13	15,5	
65	290	328	200	60	21	21,3	21,3	23
80	310	341	200	110	26,4	26,4	27	28
100	350	376	250	146	40	40	41	43
125	400	488	330	210	53,5	53,5	54,5	68
150	480	531	330	300	81	84	85	100
200	600	663	400	670	154	157	162	202

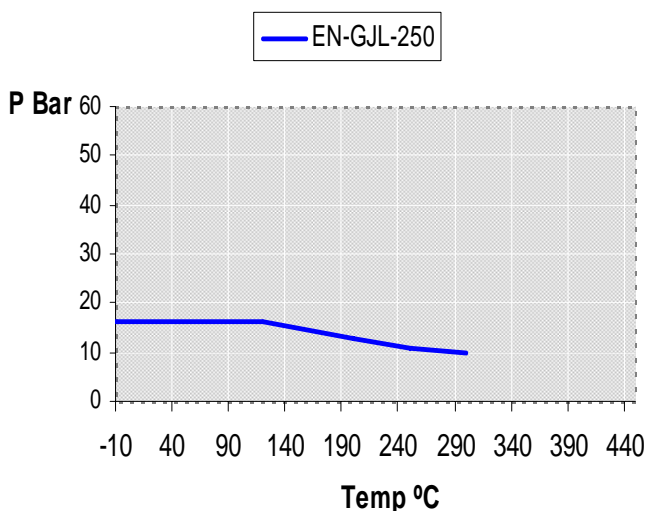
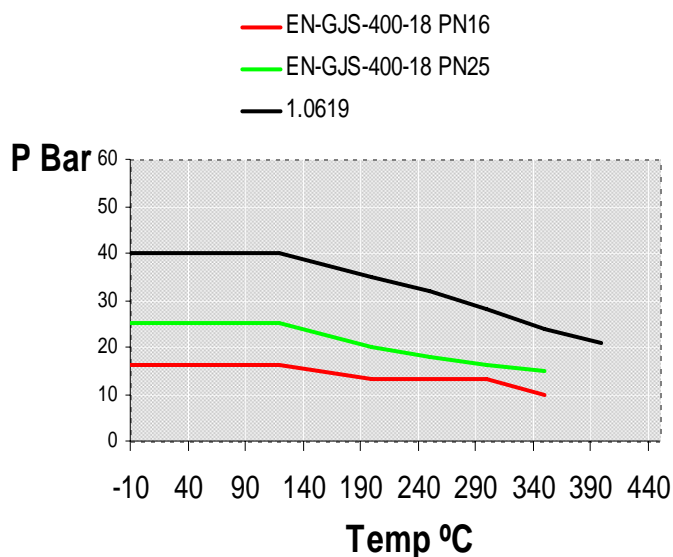
(*) Dimensions in mm and weight in kg.

BELLOWS SEALED TYPE GLOBE VALVES PN16, PN25 & PN40

General Characteristics, P&T Rating

General Characteristics

Figure	Material	PN
B116	EN-GJL-250	16
B216	EN-GJS-400-18	16
B225	EN-GJS-400-18	25
B340	1.0619	40
DESIGN STANDARDS		
Valve Design	DIN 3840	
Flanged dimensions	EN 1092	
Face to Face Dimensions	EN 558 Series1	
Visual Inspection	MSS SP-55	
Marking	EN 19	



Applications:

- Hot and cold water systems
- Steam and condensate
 - Process fluids
 - Hot oil systems
- Compressed air and other gases
 - Toxic fluids
- Water / glycol systems

Options:

(On request)

- A Throttling plug
- B Disc with soft seat
- C Throttling plug+Soft seat
- D Conical seat disc

Two Pieces Ball Valves

1000 WOG (69 bar)

Size ¼" – 3" (DN 10 - 80) Stainless Steel



Serie 2001

FULL BORE

Threaded according:
DIN 259/2999 (GAS)

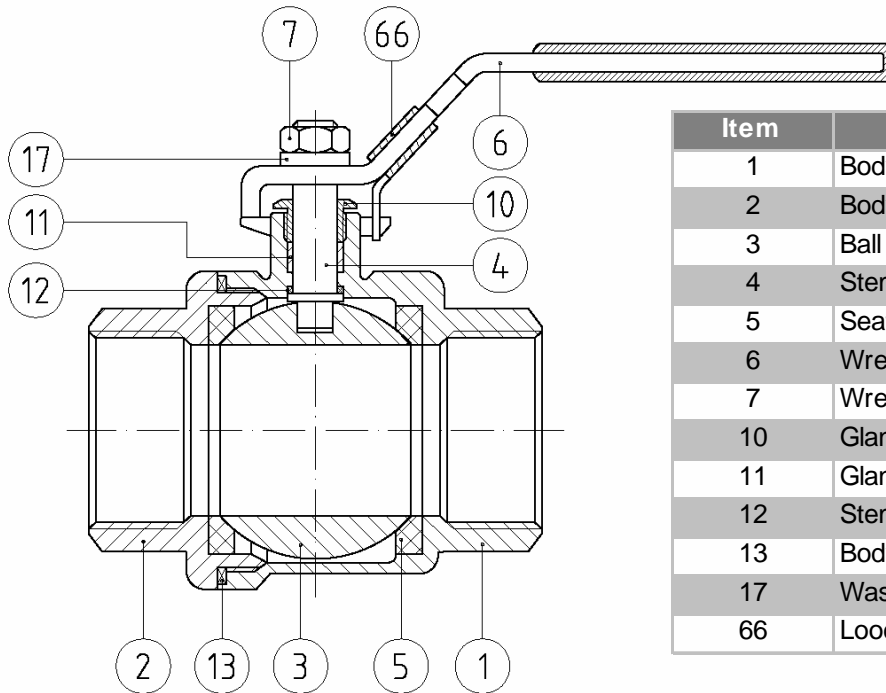


Two Pieces Ball Valves

1000 WOG (69 bar)

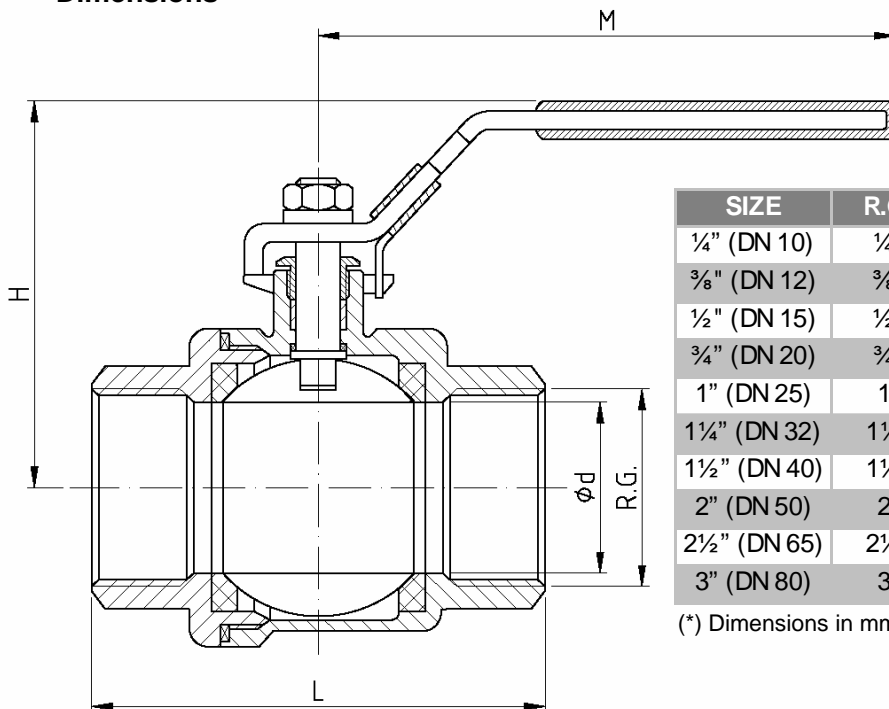
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	ASTMA351 CF8M
2	Body connector	ASTMA351 CF8M
3	Ball	ASTMA351 CF8M
4	Stem	AISI 316
5	Seat ring	PTFE
6	Wrench	AISI 304
7	Wrench Nut	AISI 304
10	Gland	AISI 304
11	Gland packing	PTFE
12	Stem thrust seal	PTFE
13	Body connector seal	PTFE
17	Washer	AISI 304
66	Locking device	AISI 304

Dimensions



SIZE	R.G.	Ød	L	M	H	WEIGHT
¼" (DN 10)	¼"	11,2	50	100	50	0,23
⅜" (DN 12)	⅜"	12,5	50	100	50	0,22
½" (DN 15)	½"	15	58	100	52	0,26
¾" (DN 20)	¾"	20	65	115	57	0,47
1" (DN 25)	1"	25	80	150	75	0,65
1¼" (DN 32)	1¼"	32	92	150	80	1,15
1½" (DN 40)	1½"	40	105	180	95	1,65
2" (DN 50)	2"	50	125	180	102	2,75
2½" (DN 65)	2½"	65	155	245	120	4,9
3" (DN 80)	3"	80	187	245	130	7,7

(*) Dimensions in mm and weight in kg.

Two Pieces Ball Valves

1000 WOG (69 bar)

Torque, Kv, P&T Rating

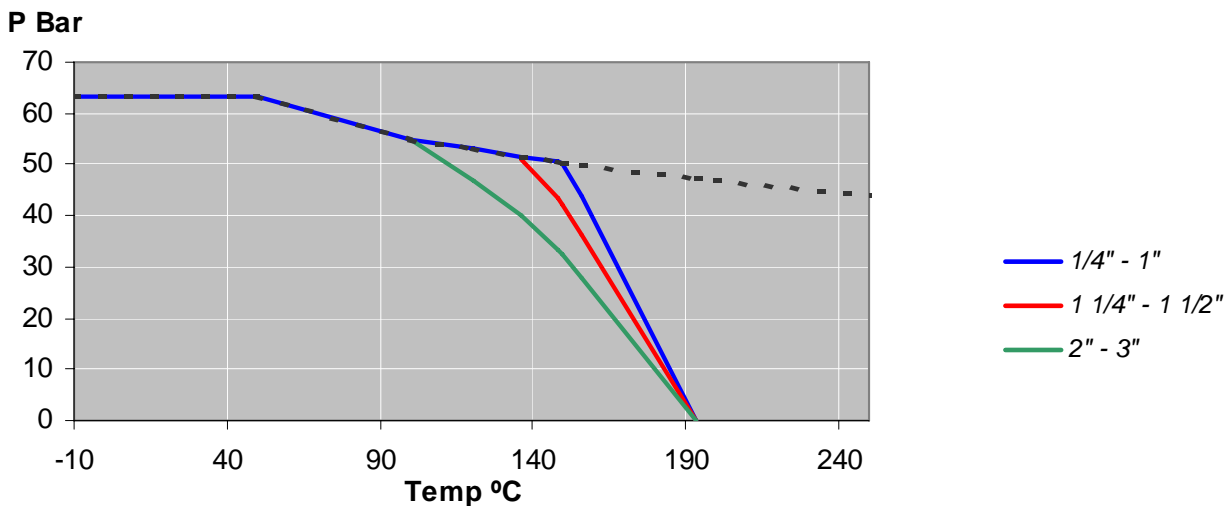
Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL PRESSURE 69 bar	VALVE SIZE	AT DIFFERENTIAL PRESSURE 69 bar
1/4" (DN 10)	4	1 1/4" (DN 32)	13,8
3/8" (DN 12)	4,1	1 1/2" (DN 40)	18,4
1/2" (DN 15)	5,5	2" (DN 50)	25,5
3/4" (DN 20)	7,5	2 1/2" (DN 65)	49
1" (DN 25)	10,6	3" (DN 80)	76,5

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
1/4" (DN 10)	5,7	1 1/4" (DN 32)	49,4
3/8" (DN 12)	6,8	1 1/2" (DN 40)	69,3
1/2" (DN 15)	9,7	2" (DN 50)	128,1
3/4" (DN 20)	18,2	2 1/2" (DN 65)	229,4
1" (DN 25)	30,3	3" (DN 80)	359,3

Pressure-Temperature



Brass Ball Valves 2 ways

Size 1/4" – 3" (DN 10 - 80)



Serie 2000

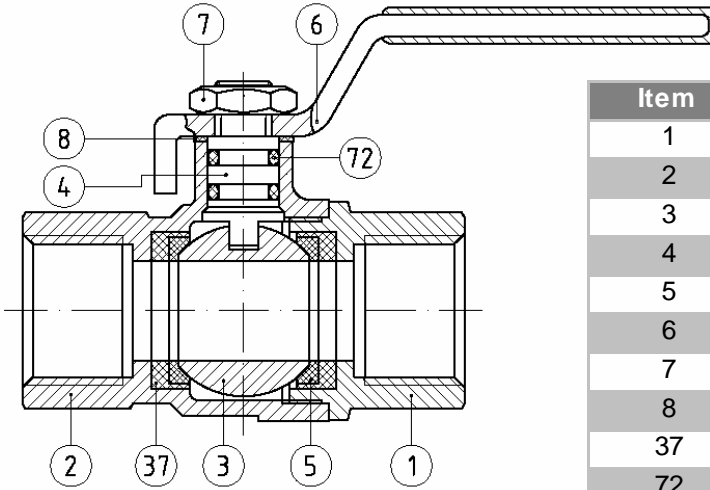
FULL BORE

Threaded according: DIN 259/2999 (GAS)

Brass Ball Valves 2 ways

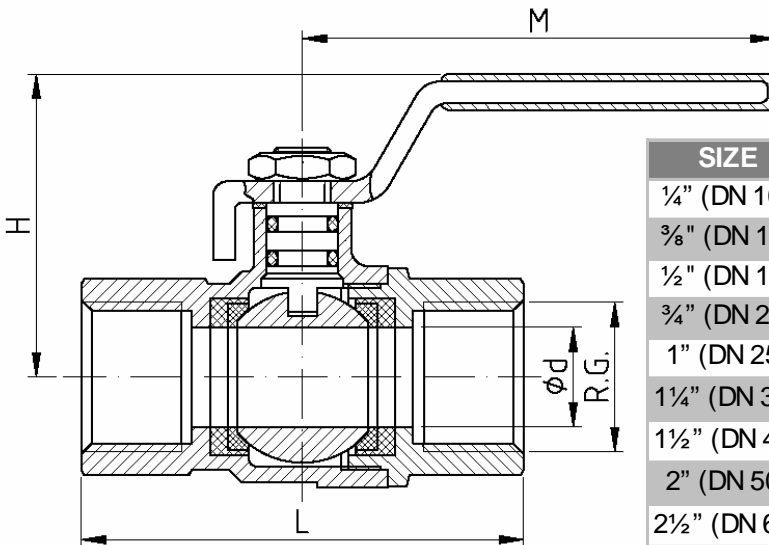
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body Connector	NICKEL PLATED BRASS 58
2	Body	NICKEL PLATED BRASS 58
3	Ball	Cr-Ni PLATED BRASS 58
4	Stem	PLATED BRASS 58
5	Seat ring	PTFE
6	Wrench	Fe 50 DACROMET
7	Gland Nut	NICKEL PLATED BRASS 58
8	Seal Ring	PTFE
37	Seal Cover	NBR
72	"O" Ring	NBR

Dimensions



SIZE	R.G.	Ød	L	M	H	WEIGHT
1/4" (DN 10)	1/4"	9,8	51,5	85	43	0,12
3/8" (DN 12)	3/8"	9,8	51,5	85	43	0,13
1/2" (DN 15)	1/2"	14	62	95	46,3	0,2
3/4" (DN 20)	3/4"	19	70	95	50	0,36
1" (DN 25)	1"	24	84	110	58	0,53
1 1/4" (DN 32)	1 1/4"	31	98	110	70	0,87
1 1/2" (DN 40)	1 1/2"	38	106	140	78	1,1
2" (DN 50)	2"	49	126	160	94	1,8
2 1/2" (DN 65)	2 1/2"	64	149	210	122	4
3" (DN 80)	3"	74	173,4	210	130	5,5

(*) Dimensions in mm and weight in kg.

Brass Ball Valves 2 ways

Torque, Kv, P&T Rating

Torque Values in Nm

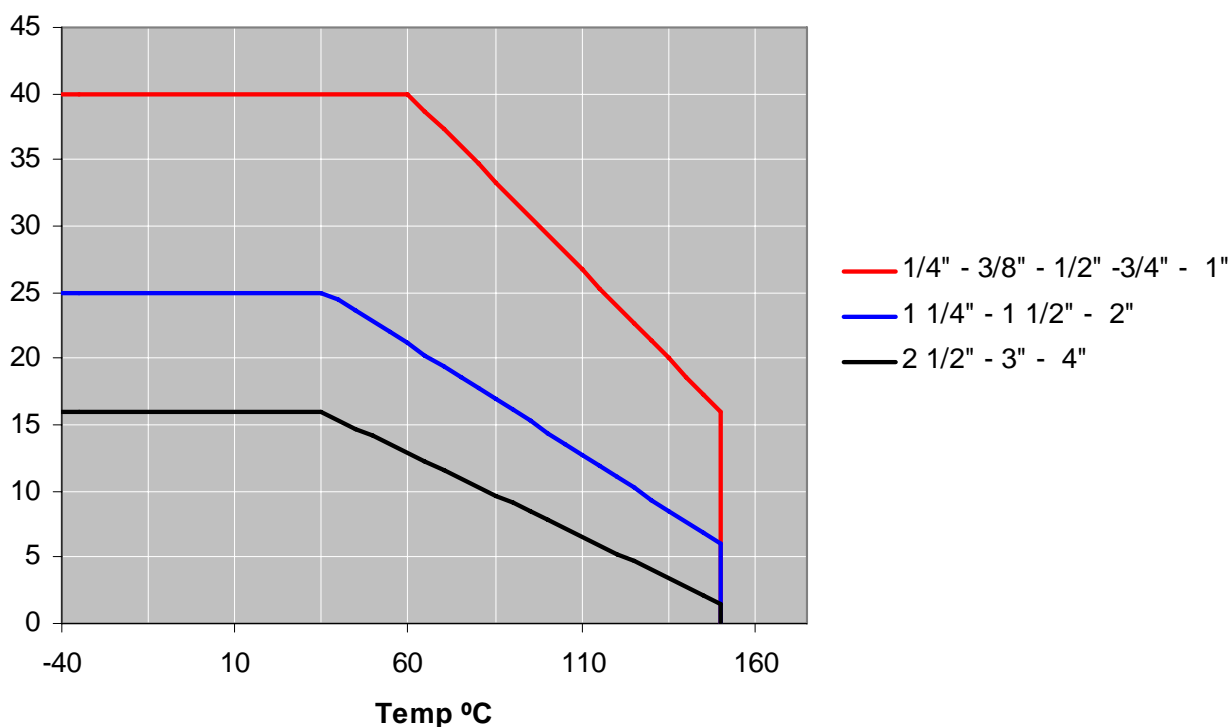
VALVE SIZE	AT DIFFERENTIAL PRESSURE	VALVE SIZE	AT DIFFERENTIAL PRESSURE
¼" (DN 10)	2 (40 bar)	1½" (DN 40)	20 (25 bar)
⅜" (DN 12)	2,7 (40 bar)	2" (DN 50)	33 (25 bar)
½" (DN 15)	5,4 (40 bar)	2½" (DN 65)	47,4 (16 bar)
¾" (DN 20)	8 (40 bar)	3" (DN 80)	80 (16 bar)
1" (DN 25)	10 (40 bar)	4" (DN 100)	105 (16 bar)
1¼" (DN 32)	14 (25 bar)		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
¼" (DN 10)	5,2	1½" (DN 40)	133,3
⅜" (DN 12)	5,6	2" (DN 50)	173,2
½" (DN 15)	15,6	2½" (DN 65)	334,2
¾" (DN 20)	25,1	3" (DN 80)	519,5
1" (DN 25)	44,2	4" (DN 100)	831,2
1¼" (DN 32)	66,7		

Pressure-Temperature

P Bar



Brass Ball Valves 3 ways 4 seats "T" port DN 10 - 65 (1/4" - 2 1/2")



Serie 2000

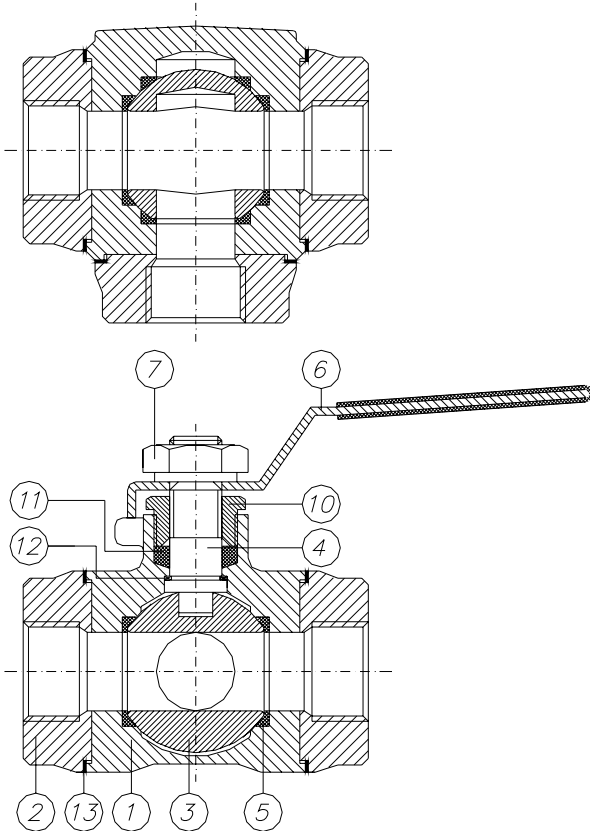
FULL BORE

**Threaded according:
DIN 259/2999 (GAS)**

Brass Ball Valves 3 ways 4 seats "T" port

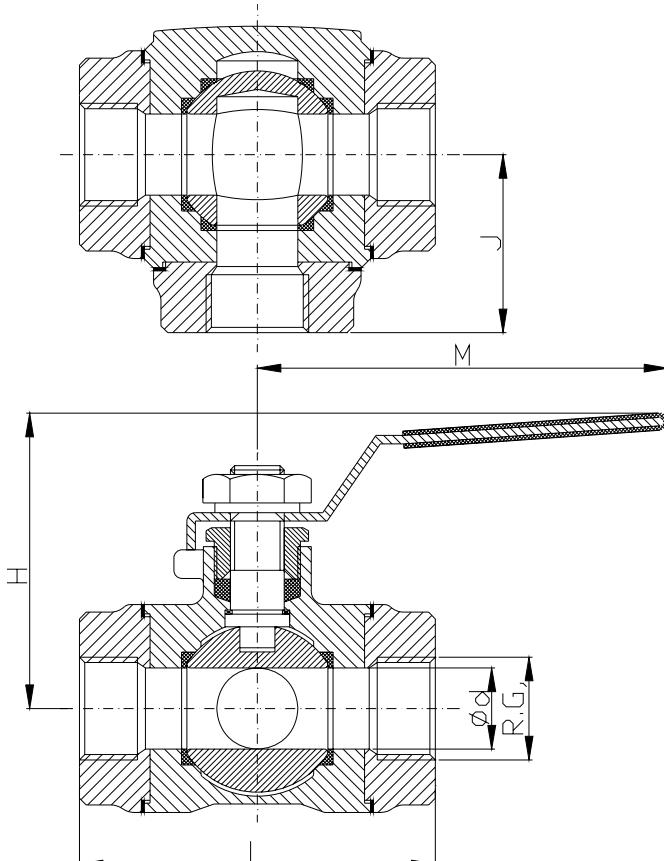
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	NICKEL PLATED BRASS 58
2	Body connector	NICKEL PLATED BRASS 58
3	Ball	Cr-Ni PLATED BRASS 58
4	Stem	PLATED BRASS 58
5	Seat ring	PTFE
6	Wrench	ALUMINIUM
7	Wrench Nut	NICKEL PLATED BRASS 58
10	Gland	NICKEL PLATED BRASS 58
11	Gland packing	PTFE
12	Stem thrust seal	PTFE
13	Body connector seal	PTFE

Dimensions



SIZE	R.G.	Ød	L	J	M	H	WEIGHT
¼" (DN 10)	¼"	10	44	23	95	40,5	0,155
⅜" (DN 12)	⅜"	10	49	26	95	40,5	0,19
½" (DN 15)	½"	14	62	33	95	43	0,3
¾" (DN 20)	¾"	19	70	38	115	53	0,48
1" (DN 25)	1"	24	84	45	115	57	0,84
1¼" (DN 32)	1¼"	30	98	55	155	72,5	1,29
1½" (DN 40)	1½"	38	106	60	155	78,5	1,92
2" (DN 50)	2"	47	126	70	175	94	2,98
2½" (DN 65)	2½"	62	152	90	215	112	6,9

(*) Dimensions in mm and weight in kg.

Brass Ball Valves 3 ways 4 seats "T" port

Torque, Kv, Port combinations, P&T Rating

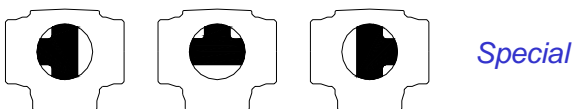
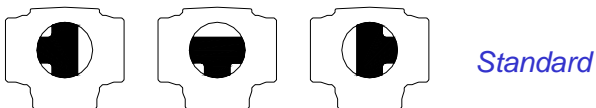
Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL PRESSURE		VALVE SIZE	AT DIFFERENTIAL PRESSURE	
	16 bar			16 bar	
¼" (DN 10)	2,04		1¼" (DN 32)	14,7	
⅜" (DN 12)	2,84		1½" (DN 40)	21	
½" (DN 15)	5,67		2" (DN 50)	34,65	
¾" (DN 20)	8,4		2½" (DN 65)	49,8	
1" (DN 25)	10,5				

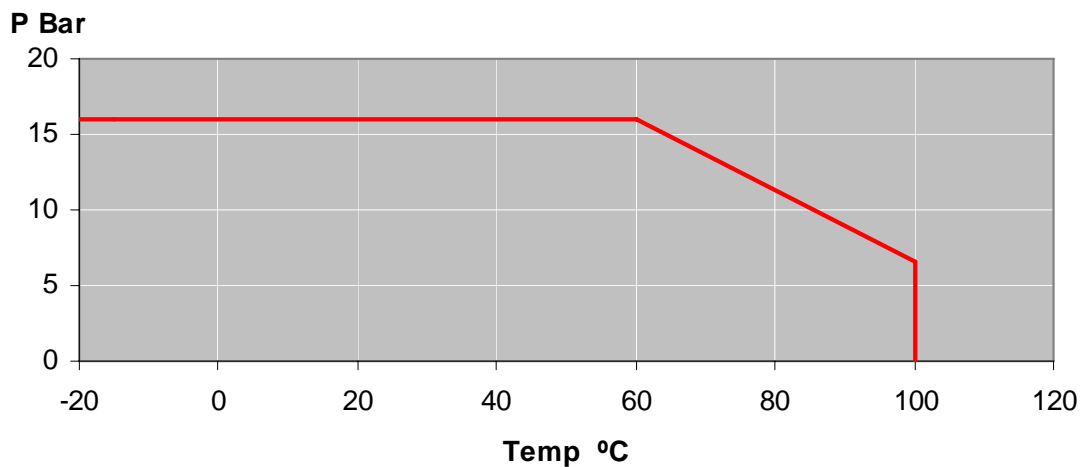
Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
¼" (DN 10)	5,2	1¼" (DN 32)	66,7
⅜" (DN 12)	5,6	1½" (DN 40)	133,3
½" (DN 15)	15,6	2" (DN 50)	173,2
¾" (DN 20)	25,1	2½" (DN 65)	334,2
1" (DN 25)	44,2		

Port combinations



Pressure-Temperature



Brass Ball Valves 3 ways 4 seats "L" port Size 1/4" – 2 1/2" (DN 10 - 65)



Serie 2000

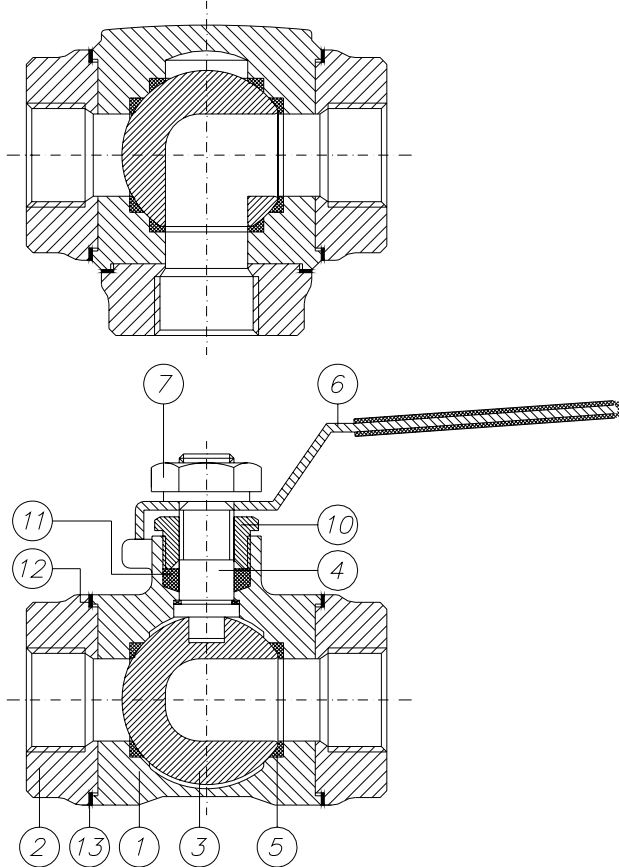
FULL BORE

**Threaded according:
DIN 259/2999 (GAS)**

Brass Ball Valves 3 ways 4 seats "L" port

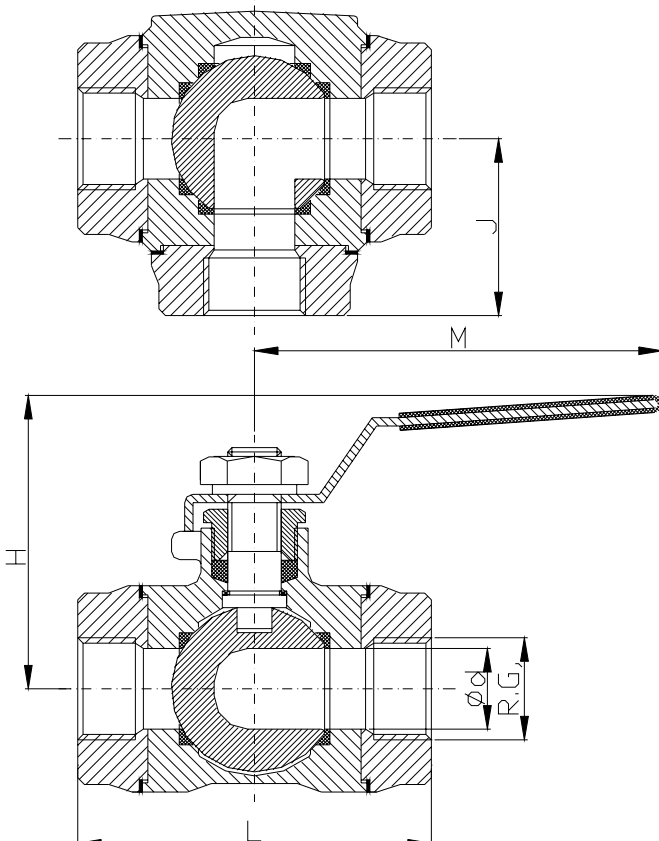
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	NICKEL PLATED BRASS 58
2	Body connector	NICKEL PLATED BRASS 58
3	Ball	Cr-Ni PLATED BRASS 58
4	Stem	PLATED BRASS 58
5	Seat ring	PTFE
6	Wrench	ALUMINIUM
7	Wrench Nut	NICKEL PLATED BRASS 58
10	Gland	NICKEL PLATED BRASS 58
11	Gland packing	PTFE
12	Stem thrust seal	PTFE
13	Body connector seal	PTFE

Dimensions



SIZE	R.G.	Ød	L	J	M	H	WEIGHT
1/4" (DN 10)	1/4"	10	44	23	95	40,5	0,155
3/8" (DN 12)	3/8"	10	49	26	95	40,5	0,19
1/2" (DN 15)	1/2"	14	62	33	95	43	0,3
3/4" (DN 20)	3/4"	19	70	38	115	53	0,48
1" (DN 25)	1"	24	84	45	115	57	0,84
1 1/4" (DN 32)	1 1/4"	30	98	55	155	72,5	1,29
1 1/2" (DN 40)	1 1/2"	38	106	60	155	78,5	1,92
2" (DN 50)	2"	47	126	70	175	94	2,98
2 1/2" (DN 65)	2 1/2"	62	152	90	215	112	6,9

(*) Dimensions in mm and weight in kg.

Brass Ball Valves 3 ways 4 seats "L" port

Torque, Kv, Port combinations, P&T Rating

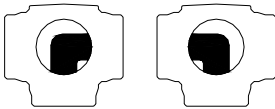
Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL PRESSURE		VALVE SIZE	AT DIFFERENTIAL PRESSURE	
	16 bar			16 bar	
¼" (DN 10)	2,04		1¼" (DN 32)	14,7	
⅜" (DN 12)	2,84		1½" (DN 40)	21	
½" (DN 15)	5,67		2" (DN 50)	34,65	
¾" (DN 20)	8,4		2½" (DN 65)	49,8	
1" (DN 25)	10,5				

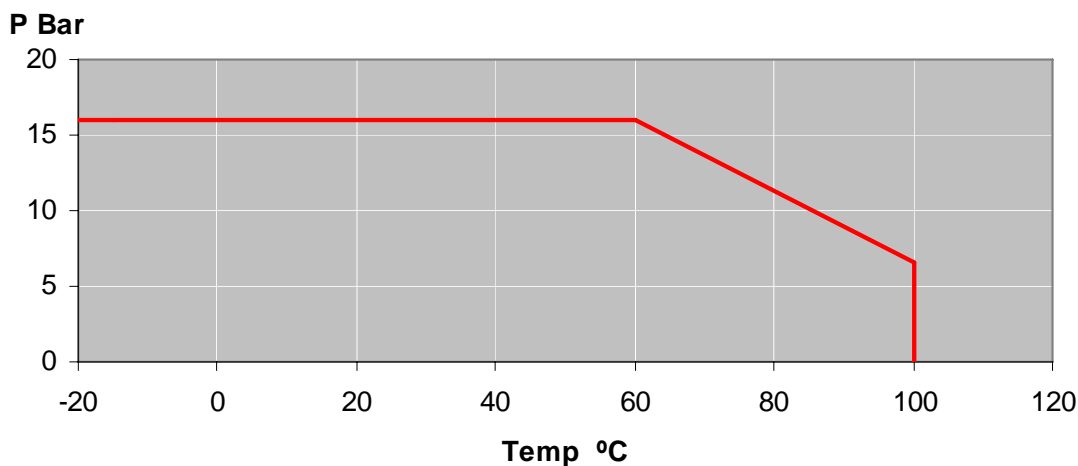
Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
¼" (DN 10)	5,2	1¼" (DN 32)	66,7
⅜" (DN 12)	5,6	1½" (DN 40)	133,3
½" (DN 15)	15,6	2" (DN 50)	173,2
¾" (DN 20)	25,1	2½" (DN 65)	334,2
1" (DN 25)	44,2		

Port combinations



Pressure-Temperature



Disk Check Valve PN 40 DN 15 - 150 (1/2" - 6") Stainless Steel Construction



Fig. VR-316
WAFER
Face to face dimensions
EN 558-1 Series 49



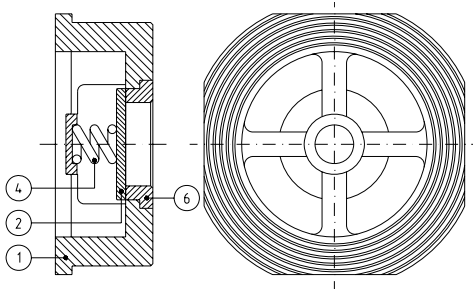
Disk Check Valve PN 40

DN 15 - 150 (1/2" - 6")

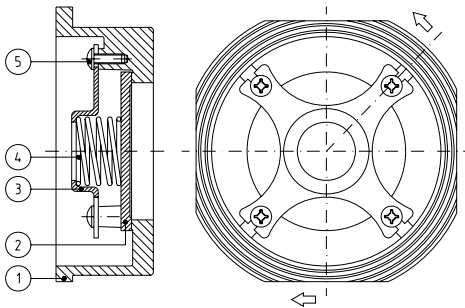
Parts and materials, Dimensions

Parts and materials

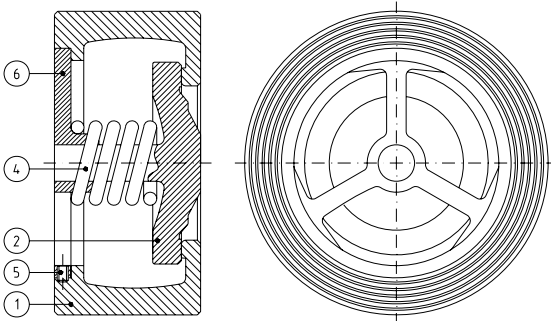
DN 15 to DN 50



DN 65 to DN 100

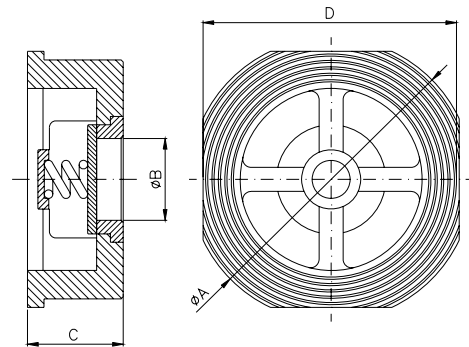


DN 125 & DN 150

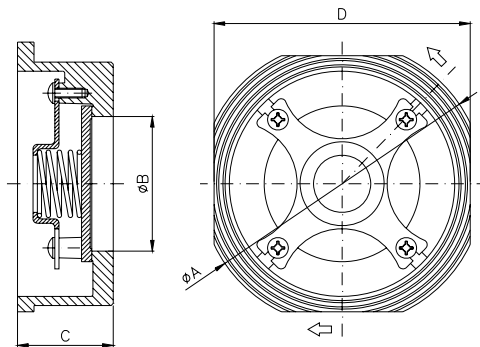


Dimensions

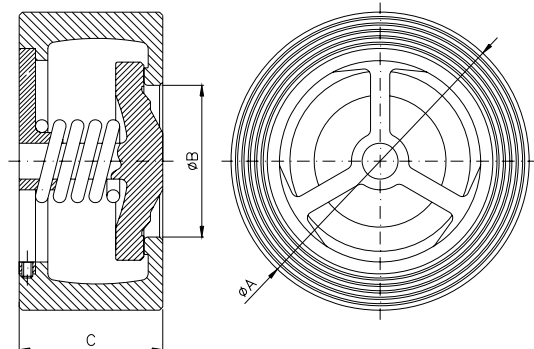
DN 15 to DN 50



DN 65 to DN 100



DN 125 & DN 150



Item	Description	Material
1	Body	1.4408
2	Disc	1.4408
3	Cap	1.4408
4	Spring	AISI 316
5	Screw	AISI 316
6	Insert	1.4408

DN	ØA	ØB	C	D	WEIGHT	ASSEM. BETWEEN FL. ANSI-150
15 (1/2")	53	15	16	45	0,1	OK
20 (3/4")	63	20	19	55	0,16	OK
25 (1")	73	25	22	65	0,28	OK
32 (1 1/4")	84	32	28	78	0,52	--
40 (1 1/2")	94	38	31,5	89	0,7	NO
50 (2")	107	50	40	98	1,1	OK
65 (2 1/2")	126	62	46	118	1,58	OK
80 (3")	144	77	50	134	1,76	OK
100 (4")	162	96	60	154	3,3	OK
125 (5")	194	112	90	---	8	--
150 (6")	220	132	106	---	12	OK

(*) Dimensions in mm and weight in kg.

Disk Check Valve PN 40

DN 15 - 150 (1/2" - 6")

Opening Pressure, KV, P&T Rating

Opening pressure in mbar

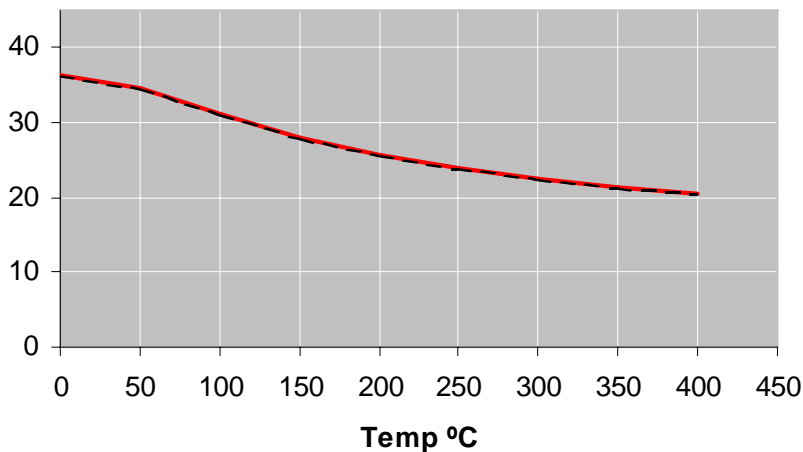
VALVE SIZE	Direction of the fluid			VALVE SIZE	Direction of the fluid		
	↑	↓	→		↑	↓	→
DN 15 (1/2")	25	21	23	DN 65 (1 1/2")	31	21	25
DN 20 (3/4")	25	21	23	DN 80 (3")	32	21	26
DN 25 (1")	25	21	23	DN 100 (4")	33	21	27
DN 32 (1 1/4")	27	21	24	DN 125 (5")	31	10	20,5
DN 40 (1 1/2")	29	21	25	DN 150 (6")	33	10	21,2
DN 50 (2")	29	21	25				

Kv Values in m3/h

VALVE SIZE	Kv	VALVE SIZE	Kv
DN 15	8	DN 65	162
DN 20	21	DN 80	223
DN 25	32	DN 100	373
DN 32	45	DN 125	2552
DN 40	67	DN 150	3726
DN 50	109		

Pressure-Temperature

P Bar



Ball Valves PN 40 / PN 16 IIT Construction (Stainless Steel)



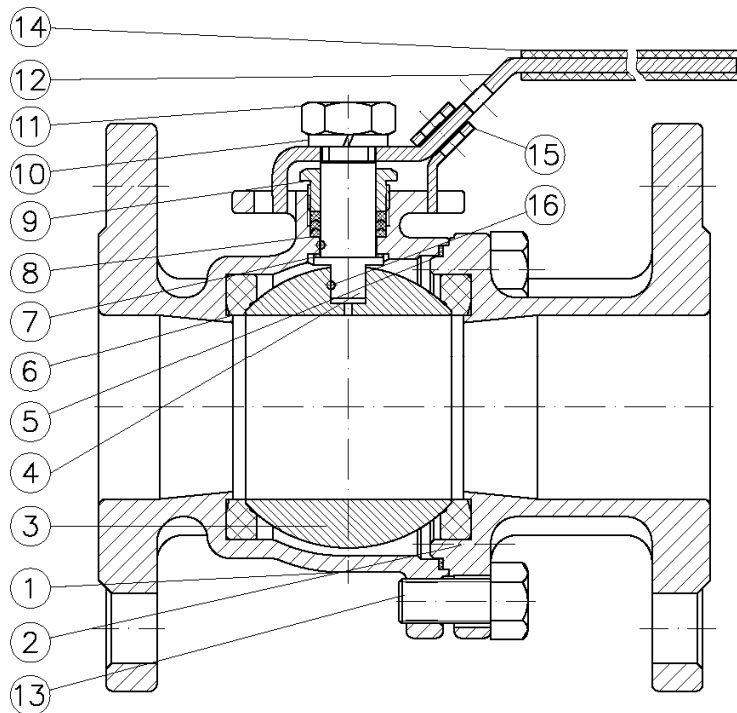
Fig. 156 PN16 IIT
Fig. 154 PN40 IIT



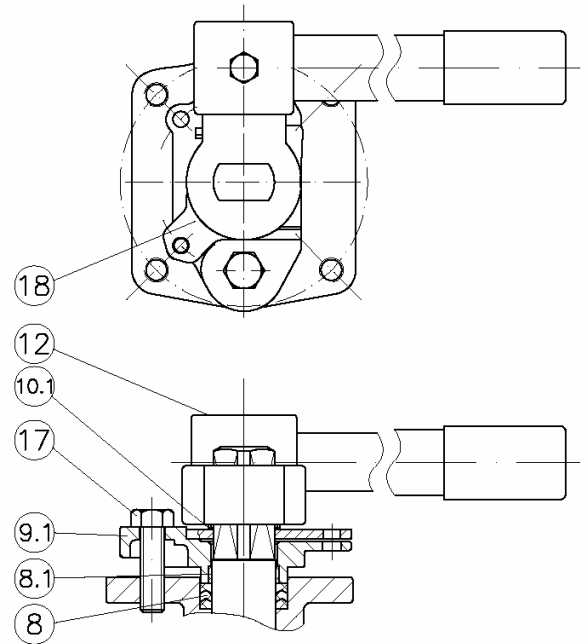
Ball Valves PN 40 / PN 16

IIT Construction

Parts and materials



ONLY DN-125 TO DN-200



Item	Description	Material
1	Body	1.4408
2	Cap	1.4408
3	Ball	1.4408
4	Stem	AISI 316
5	Gasket	PTFE
6	Seat	RPTFE
7	Thrust washer	PTFE
8	Packing	PTFE
8.1	Stem Packing (DN-125 TO DN-200)	PTFE
9	Gland	AISI 304
9.1	Gland (DN-125 TO DN-200)	14.308
10	Stem washer	AISI 304
10,1	Snap ring (DN-125 TO DN-200)	AISI 304
11	Stem nut	AISI 304
12	Handle	AISI 304
13	Bolt	AISI 304
14	Handle sleeve	Plastic
15	Locking device	AISI 304
16	Antistatic device	Stainless Steel
17	Gland Bolt (DN-125 TO DN-200)	ASTM 193 Gr.B8
18	Stopper (DN-125 TO DN-200)	AISI 304

Ball Valves PN 40 / PN 16

IIT Construction

Dimensions

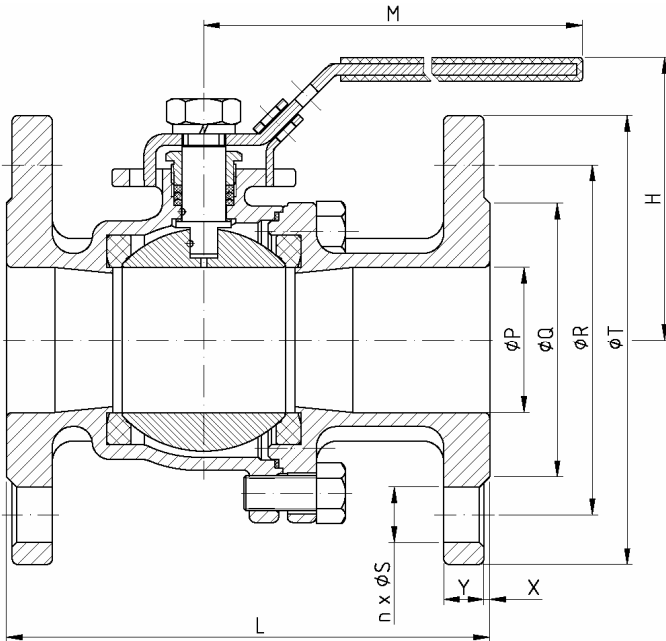


Fig. 154 (PN 40)

DN	øP	L	øQ	øR	n x øS	øT	X	Y	H	M	Weight
15	15	115	45	65	4 x 14	95	2	14	72	123	2,38
20	20	120	58	75	4 x 14	105	2	16	76	123	3
25	25	125	68	85	4 x 14	115	2	16	92	182	3,7
32	32	130	78	100	4 x 18	140	2	16	95	152	5,6
40	40	140	88	110	4 x 18	150	3	15	125	246	9,24
50	50	150	102	125	4 x 18	165	3	17	132	246	9,42

(*) Dimensions in mm and weight in kg.

Fig. 156 (PN 16)

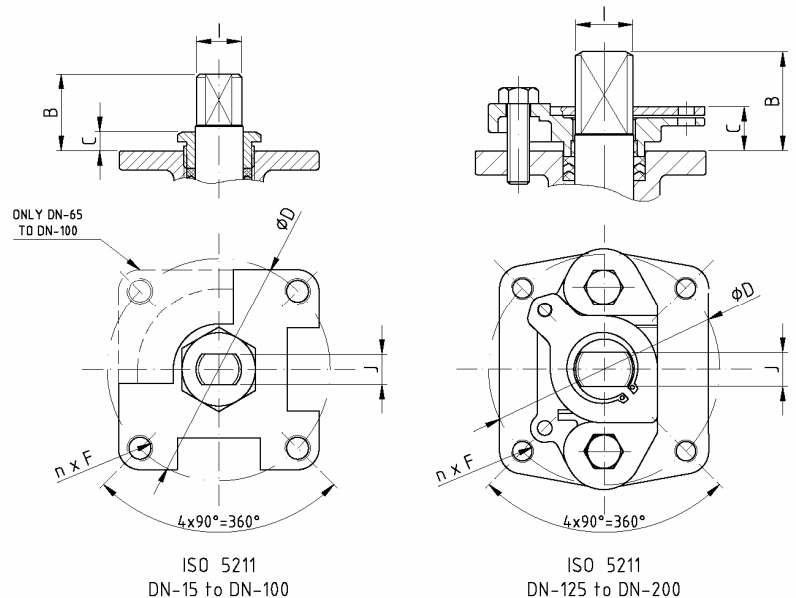
DN	øP	L	øQ	øR	n x øS	øT	X	Y	H	M	Weight
65	65	170	122	145	4 x 18	185	2	16	135	301	12,8
80	80	180	138	160	8 x 18	200	2	18	153	301	16,4
100	98	190	158	180	8 x 18	220	2	18	194	285	23,7
125	125	325	188	210	8 x 18	250	3	19	260	750	43,5
150	150	350	212	240	8 x 22	285	3	19	280	750	54,8
200	200	400	268	295	12 x 22	340	3	21	340	1000	93

(*) Dimensions in mm and weight in kg.

Actuator connection

DN	ISO	B	C	øD	n x F	I	J
15	F04	16,5	4	36	4 x M5	9,5	6,5
20	F04	16,5	4	36	4 x M5	9,5	6,5
25	F04	23,5	8	42	4 x M5	14,5	9,5
32	F05	21	4,5	42	4 x M5	11	8
40	F05	9,5	37,5	70	4 x M8	19	12
50	F07	9,5	11,5	70	4 x M8	19	12
65	F07	47	9,5	102	4 x M10	25	16
80	F07	47	9,5	102	4 x M10	25	16
100	F10	47	9,5	102	4 x M10	25	16
125	F12	63	26,5	125	4 x M12	32	24
150	F12	59	26,5	125	4 x M12	32	24
200	F12	74	26,5	125	4 x M12	42	32

(*) Dimensions in mm.

ISO 5211
DN-15 to DN-100ISO 5211
DN-125 to DN-200

Ball Valves PN 40 / PN 16

IIT Construction

General Characteristics, Torque, Kv, P&T Rating

GENERAL CHARACTERISTICS	Fig.154 & 156 Series SFF Split Body	Floating Ball	Full Bore
DESIGN STANDARDS			
Valves design	DIN 3357		
Body design	DIN 3840		
Flanges	EN 1092-2 (DIN 2501)		
Face to face dimensions	EN 558-1 Series 27 (DIN 3202 F4 / F5 / F18)		
Actuator mounting flange	DIN 3337	ISO 5211	
Marking	EN 19		
TESTS AND CERTIFICATES	2.2		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		

Torque Values in Nm

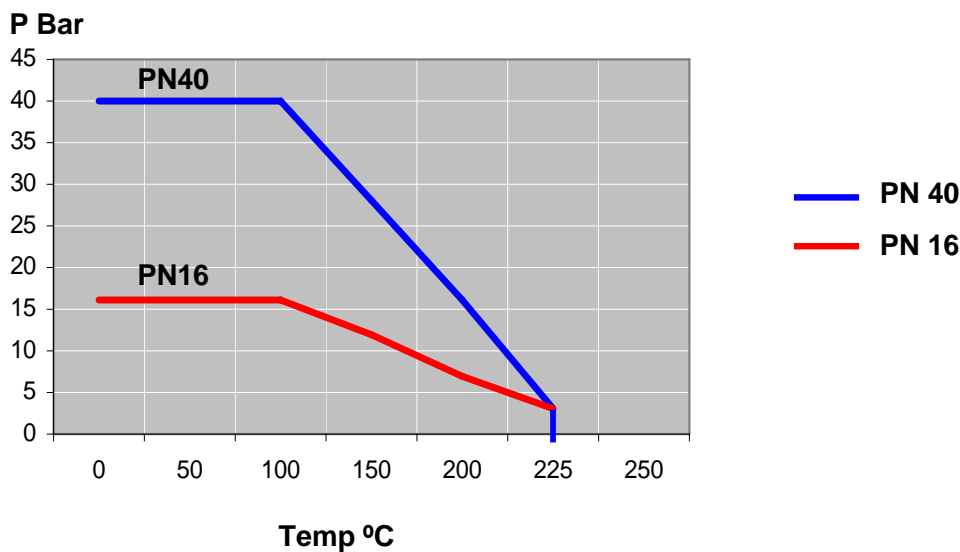
VALVE SIZE	AT DIFFERENTIAL PRESSURE		VALVE SIZE	AT DIFFERENTIAL PRESSURE	
	40 bar			16 bar	
DN 15	7		DN 65	66	
DN 20	7		DN 80	71,5	
DN 25	11		DN 100	77	
DN 32	17,6		DN 125	143	
DN 40	38,5		DN 150	176	
DN 50	55		DN 200	495	

Given torques with clean water at ambient temperature.

Kv Values in m3/h

VALVE SIZE	Kv	VALVE SIZE	Kv
DN 15	22,3	DN 65	642,7
DN 20	42,8	DN 80	1114
DN 25	80,5	DN 100	1970
DN 32	102,8	DN 125	3856
DN 40	222,8	DN 150	4627
DN 50	411,3	DN 200	8568

Pressure-Temperature



Ball Valves PN 16 HIT Construction (Cast Iron)



Fig. 150

Manufacturing program:



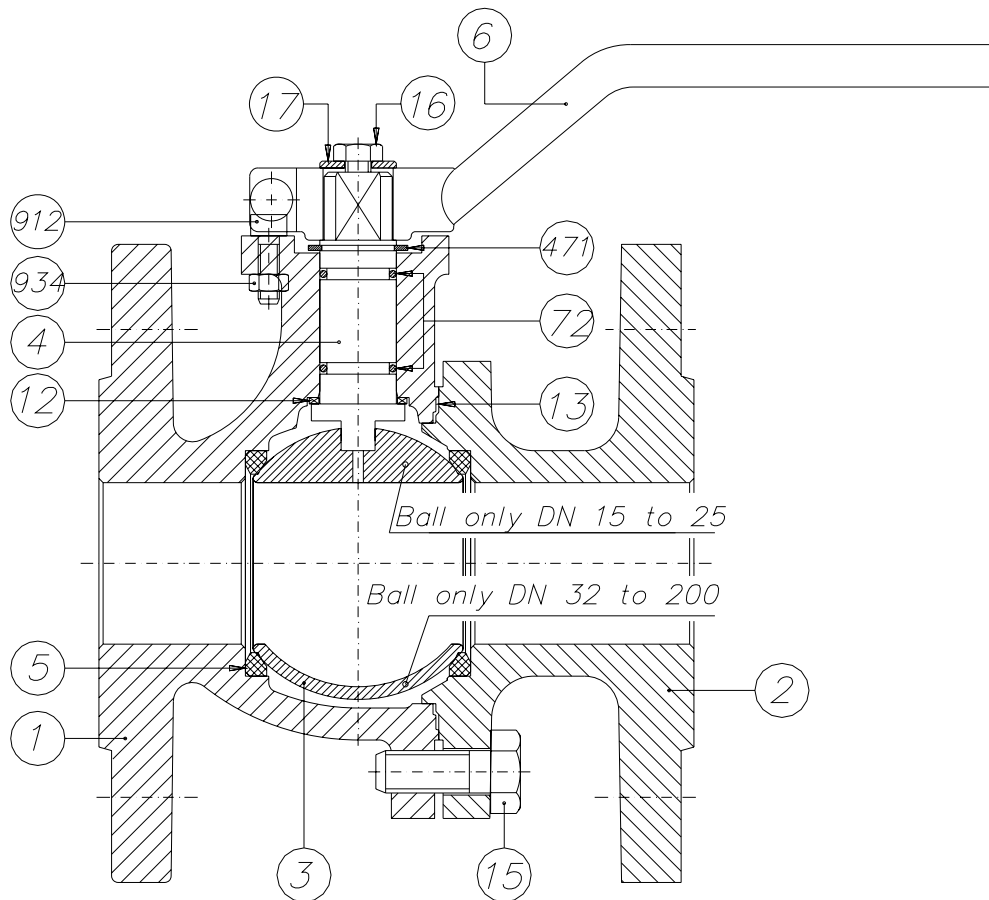
Quality & Environmental Management:



Ball Valves PN 16

HIT Construction

Parts and materials

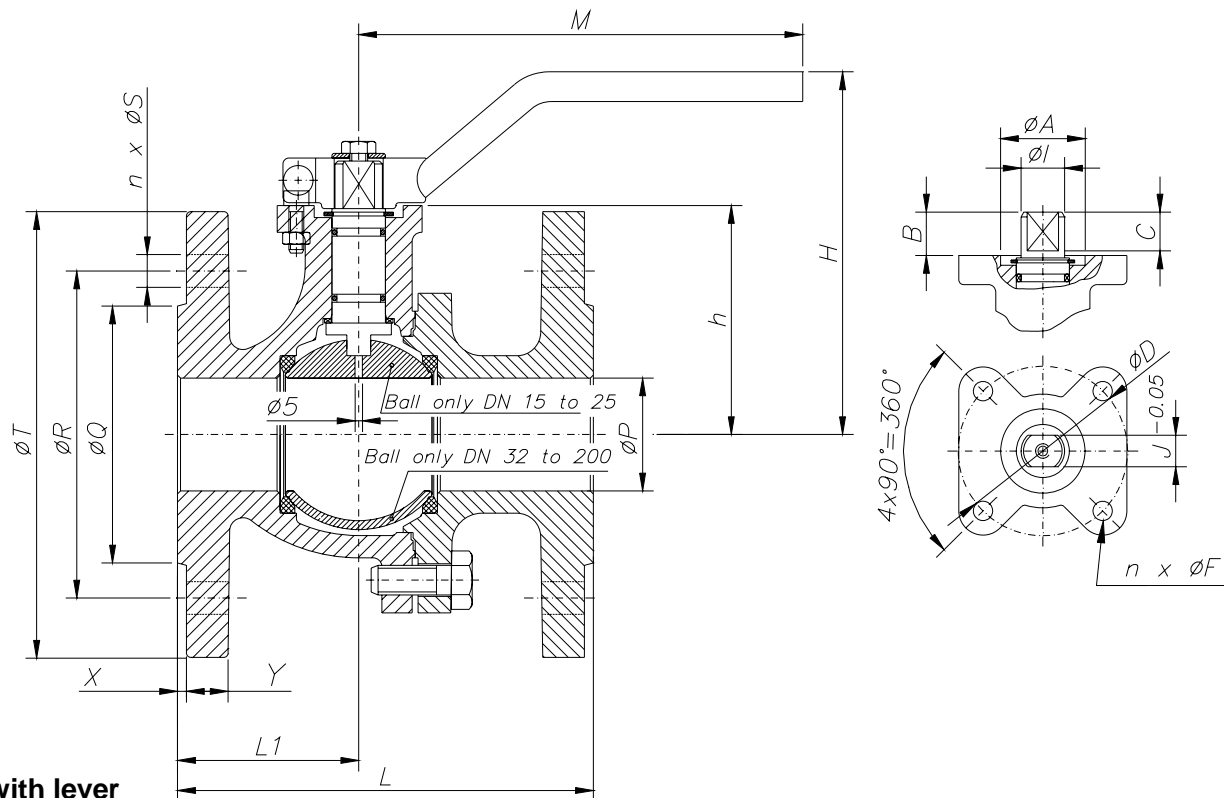


Item	Description	Material
1	Body	EN-GJL-250
2	Body connector	EN-GJL-250
3	Ball	DN 15 to 25: AISI 303 DN 32 to 200: AISI 304
4	Stem	AISI 304
5	Seat ring	PTFE
6	Wrench	Carbon steel
12	Stem thrust seal	PTFE
13	Body connector seal	PTFE
15	Bolt	DIN 933 5.6
16	Bolt	DIN 933 5.6
17	Washer	Zinc plated carbon steel
72	"O" Ring	FKM
471	Washer	DIN 471 Carbon St.
912	Bolt	DIN 912 8.8
934	Nut	DIN 934 8

Ball Valves PN 16

HIT Construction

Dimensions



Valve with lever

DN	ØP	L	L1	ØQ	ØR	n x ØS	ØT	X	Y	h	M	H	WEIGHT
15 (½")	13	115	49	45	65	4x14	95	2	12	48,5	170	92	2,12
20 (¾")	17	120	55,5	58	75	4x14	105	2	14	53	170	95,5	2,72
25 (1")	24	125	51,5	68	85	4x14	115	2	14	59,5	170	102,2	3,62
32 (1¼")	31	130	53	78	100	4x18	140	2	14	72	170	114,7	5,32
40 (1½")	38	140	61	88	110	4x18	150	3	13	77	302,5	119	6,9
50 (2")	50	150	62	102	125	4x18	165	3	15	85	302,5	127	9
65 (2½")	65	170	81,5	122	145	4x18 (**)	185	3	15	98	224	141	11,68
80 (3")	80	180	79	138	160	8x18	200	3	17	108,5	335	151,5	14,68
100 (4")	100	190	94	158	180	8x18	220	3	17	134	350	176,5	20,23
125 (5")	125	325	120,5	188	210	8x18	250	3	19	165	350	208	33,73
150 (6")	150	350	155	212	240	8x22	285	3	19	190	500	254,5	49,77
200 (8")	200	400	190	268	295	12x22	340	3	21	229	500	293,5	81,77

(*) Dimensions in mm and weight in kg.

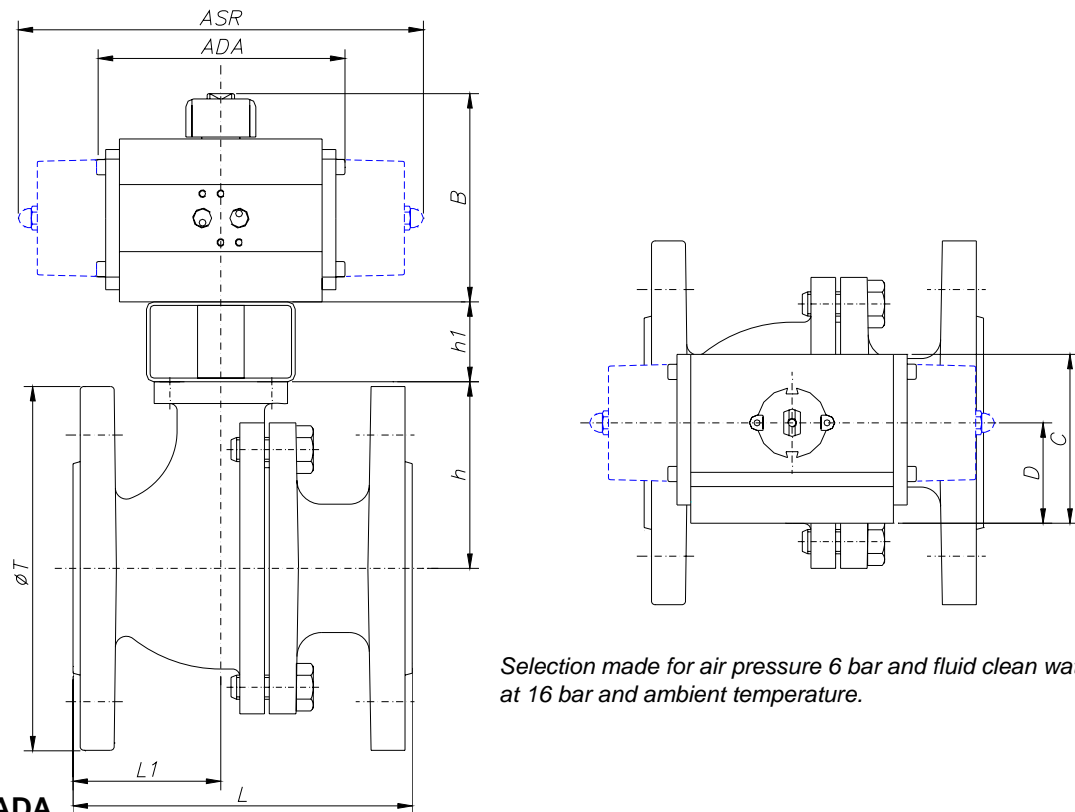
(**) According to UNE-EN 1092-2 we can supply with 8 holes under client demand

Free stem dimensions

DN	ISO 5211	ØA	B	C	ØD	n x ØF	ØI	J	WEIGHT
15 (½")	F04	19	7,5	5,5	42	4x5	10	7	2
20 (¾")	F04	19	6	5	42	4x5	10	7	2,6
25 (1")	F04	21	6,2	5	42	4x5	10	7	3,5
32 (1¼")	F04	21	6,7	5,5	42	4x5	10	7	5,2
40 (1½")	F04	30	15	16	42	4x5	16	12	6,5
50 (2")	F04	30	15	16	42	4x5	16	12	8,6
65 (2½")	F07	35	18	19	70	4x8	18	13	11
80 (3")	F07	35	18	19	70	4x8	18	13	14
100 (4")	F07	38	19	20	70	4x8	22	16	19,5
125 (5")	F07	38	19,5	20	70	4x8	22	16	33
150 (6")	F10	50	24,5	27	102	4x10	28	20	47,5
200 (8")	F10	50	24,5	27	102	4x10	28	20	79,5

(*) Dimensions in mm and weight in kg.

Ball Valves PN 16 HIT Construction Dimensions



Selection made for air pressure 6 bar and fluid clean water at 16 bar and ambient temperature.

Valve with ADA

DN	MODEL	ADA	B	C	D	L	L1	ØT	h	h1	WEIGHT
15 (½")	ADA-20	130	96	76	48	115	49	95	48,5	50	3,22
20 (¾")	ADA-20	130	96	76	48	120	55,5	105	53	50	3,82
25 (1")	ADA-20	130	96	76	48	125	51,5	115	59,5	50	4,72
32 (1¼")	ADA-20	130	96	76	48	130	53	140	72	50	6,42
40 (1½")	ADA-40	144	115	90	56	140	61	150	77	50	8,6
50 (2")	ADA-80	162	137	111	66	150	62	165	85	50	11,6
65 (2½")	ADA-80	162	137	111	66	170	81,5	185	98	50	14,28
80 (3")	ADA-130	182	146	121	71	180	79	200	108,5	50	18,1
100 (4")	ADA-200	211	165	135	78	190	94	220	134	50	25,33
125 (5")	ADA-500	275	199	172	96	325	120,5	250	165	60	44,23
150 (6")	ADA-500	275	199	172	96	350	155	285	190	60	60,27
200 (8")	ADA-850	336	217	192	106	400	190	340	229	70	97,77

(*) Dimensions in mm and weight in kg.

Valve with ASR

DN	MODEL	ASR	B	C	D	L	L1	ØT	h	h1	WEIGHT
15 (½")	ASR-20	215	96	76	48	115	49	95	48,5	50	3,62
20 (¾")	ASR-20	215	96	76	48	120	55,5	105	53	50	4,22
25 (1")	ASR-40	232	115	90	56	125	51,5	115	59,5	50	5,92
32 (1¼")	ASR-40	232	115	90	56	130	53	140	72	50	7,62
40 (1½")	ASR-80	270	137	111	66	140	61	150	77	50	10,9
50 (2")	ASR-130	297	146	121	71	150	62	165	85	50	14,5
65 (2½")	ASR-130	297	146	121	71	170	81,5	185	98	50	17,11
80 (3")	ASR-200	332	165	135	78	180	79	200	108,5	50	23,1
100 (4")	ASR-300	371	182	151	86	190	94	220	134	60	32,33
125 (5")	ASR-850	474	217	192	106	325	120,5	250	165	70	57,73
150 (6")	ASR-850	474	217	192	106	350	155	285	190	70	73,77
200 (8")	ASR-1750	614	280	242	131	400	190	340	229	80	179,6

(*) Dimensions in mm and weight in kg.

Ball Valves PN 16 HIT Construction

General Characteristics, Torque, Kv, P&T Rating

GENERAL CHARACTERISTICS	Fig.150 Series SFF	Split Body	Floating Ball	Full Bore
DESIGN STANDARDS				
Valves design	DIN 3357			
Body design	DIN 3840			
Flanges	EN 1092-2 (DIN 2501)			
Face to face dimensions	EN 558-1 SERIE 27 (DIN 3202 F18)			
Actuator mounting flange	DIN 3337	ISO 5211		
Marking	EN 19	CE ≥ DN50		
TESTS AND CERTIFICATES				
Quality Assurance	ISO 9001			
Pressure testing	EN 12266-1			

Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL PRESSURE		VALVE SIZE	AT DIFFERENTIAL PRESSURE	
	16 bar			16 bar	
15 (½")	6		65 (2½")	41	
20 (¾")	6		80 (3")	71	
25 (1")	11		100 (4")	119	
32 (1¼")	12		125 (5")	190	
40 (1½")	26		150 (6")	220	
50 (2")	41		200 (8")	450	

Given torques with clean water at ambient temperature.

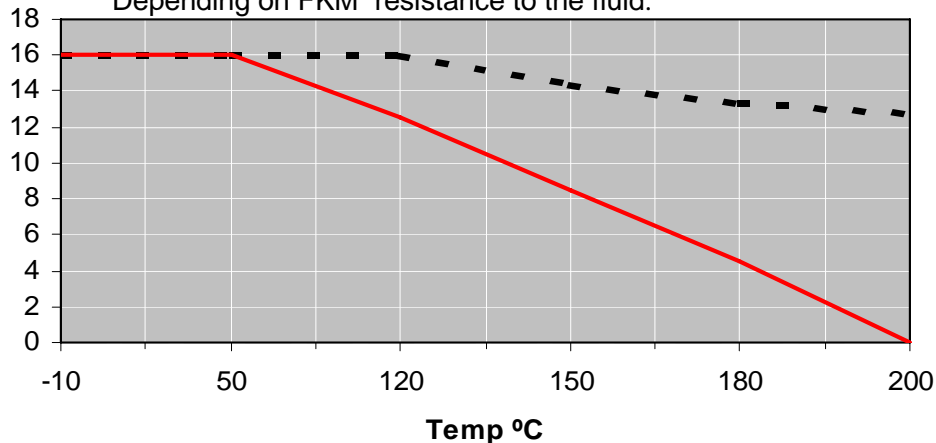
Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
15 (½")	37,4	65 (2½")	660
20 (¾")	74,8	80 (3")	1200
25 (1")	105	100 (4")	1980
32 (1¼")	176	125 (5")	3600
40 (1½")	223	150 (6")	5040
50 (2")	416	200 (8")	10890

Pressure-Temperature

P (bar)

* Depending on FKM resistance to the fluid.



Three Pieces Ball Valves

1000 WOG (69 bar)

Size ¼" – 4" (DN 10 -100) Stainless Steel



Fig. 143

FULL BORE

Butt Weld according:

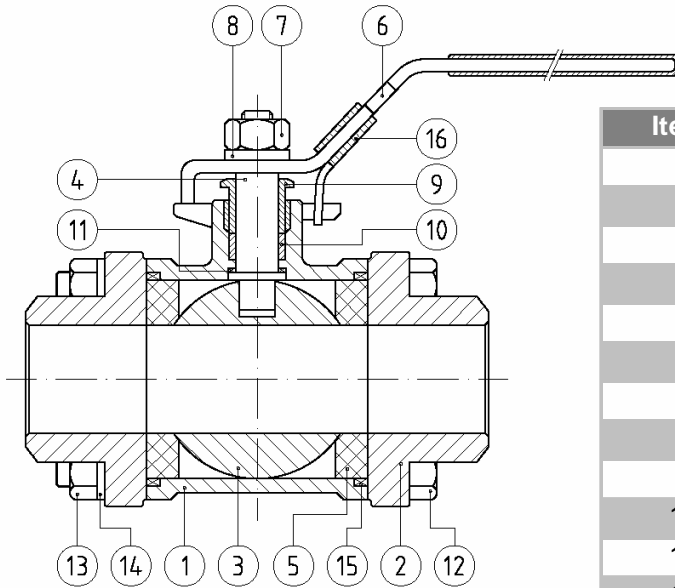
ASME B16.25 & DIN 3239 part 1



Three Pieces Ball Valves 1000 WOG (69 bar)

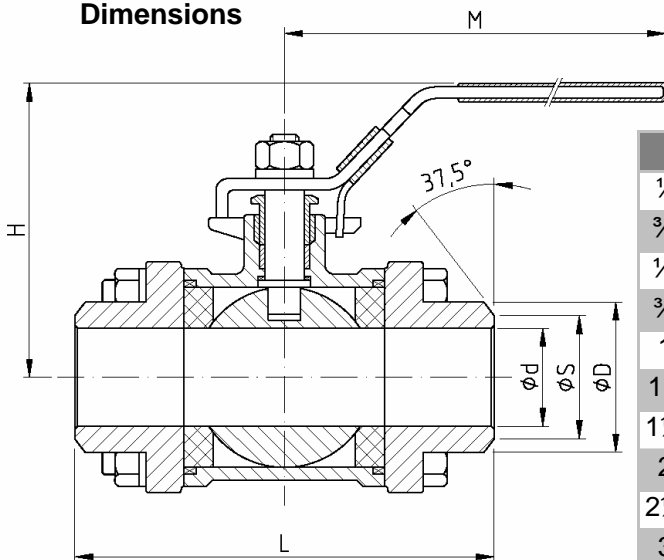
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	ASTMA351 CF8M
2	Body connector	ASTMA351 CF8M
3	Ball	ASTMA351 CF8M
4	Stem	AISI 316
5	Seat ring	PTFE
6	Wrench	AISI 304
7	Wrench Nut	AISI 304
8	Wrench Washer	AISI 304
9	Gland	AISI 304
10	Gland packing	PTFE
11	Stem thrust seal	PTFE
12	Bolt	AISI 304
13	Nut	AISI 304
14	Washer	AISI 304
15	Seat Gasket	PTFE
16	Lock Device	AISI 304

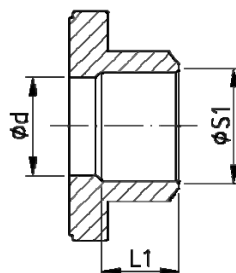
Dimensions



SIZE	ØD	Ød	ØS	L	M	H	WEIGHT
¼" (DN 10)	17,6	11,6	15	59	105	50	0,31
⅜" (DN 12)	22,5	12,7	19,5	59	105	50	0,35
½" (DN 15)	22,5	15	19	68,5	105	55	0,41
¾" (DN 20)	30,7	20	26	84	125	60	0,7
1" (DN 25)	34,5	25	29,5	89	158	72	1,2
1¼" (DN 32)	43,5	32	37	112	158	78	2
1½" (DN 40)	49,5	38	43	121	195	91	2,5
2" (DN 50)	61,5	53	57	146	195	105	3,7
2½" (DN 65)	76	65	70	165	245	127	7,4
3" (DN 80)	92	80	86	183	245	137	12,8
4" (DN 100)	115	100	106	232	320	172	23

(*) Dimensions in mm and weight in kg.

Detail only
DN-1/4" & DN-3/8"



SIZE	L1	ØS1
¼" (DN 10)	15	12
⅜" (DN 12)	12,5	17,5

Three Pieces Ball Valves

1000 WOG (69 bar)

Torque, Kv, P&T Rating

Torque Values in Nm

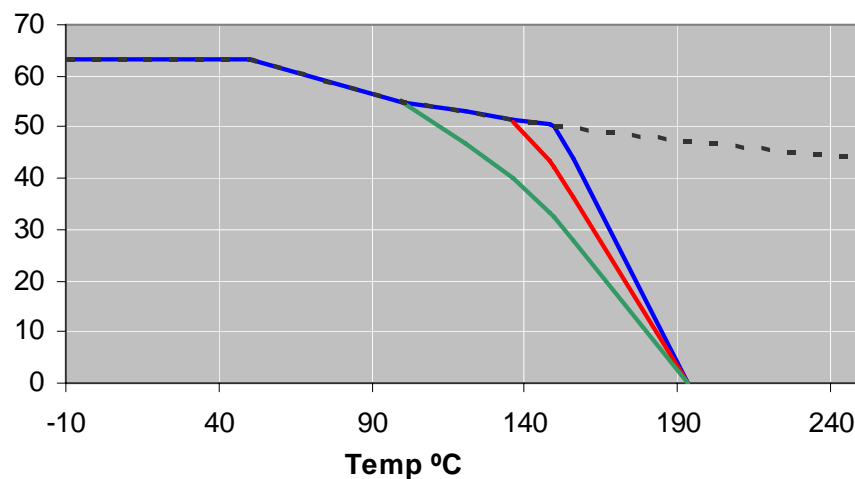
AT DIFFERENTIAL PRESSURE		AT DIFFERENTIAL PRESSURE	
VALVE SIZE	69 bar	VALVE SIZE	69 bar
1/4" (DN 10)	5,6	1 1/2" (DN 40)	24,9
3/8" (DN 12)	5,6	2" (DN 50)	45,2
1/2" (DN 15)	9	2 1/2" (DN 65)	73,2
3/4" (DN 20)	11,3	3" (DN 80)	128,8
1" (DN 25)	14,7	4" (DN 100)	165,4
1 1/4" (DN 32)	19,2		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
1/4" (DN 10)	5,2	1 1/2" (DN 40)	69,3
3/8" (DN 12)	6,0	2" (DN 50)	95,2
1/2" (DN 15)	8,7	2 1/2" (DN 65)	268,4
3/4" (DN 20)	21,6	3" (DN 80)	311,7
1" (DN 25)	30,3	4" (DN 100)	710,0
1 1/4" (DN 32)	39,8		

Pressure-Temperature

P Bar



PTFE SEATS

— 1/4" - 1"

— 1 1/4" - 1 1/2"

— 2" - 4"

Three Pieces Ball Valves

1000 WOG (69 bar)

Size ¼" – 4" (DN 10 -100) Stainless Steel



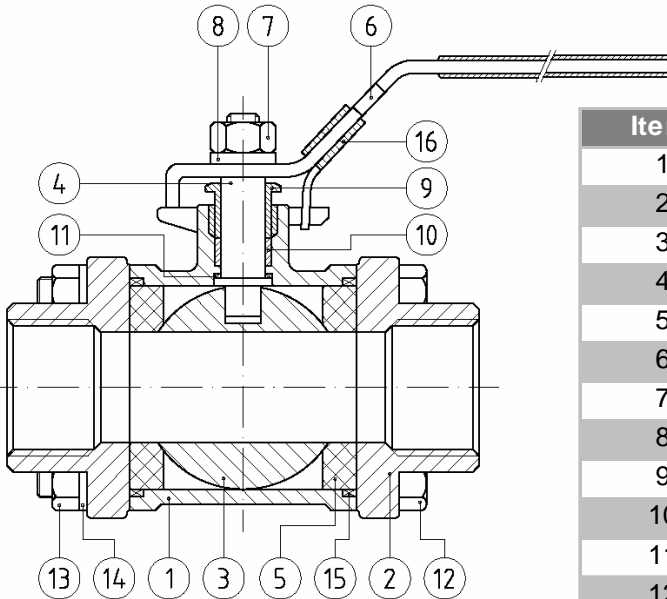
Fig. 141
FULL BORE
Threaded according:
ASME B1.20.1 (NPT)



Three Pieces Ball Valves 1000 WOG (69 bar)

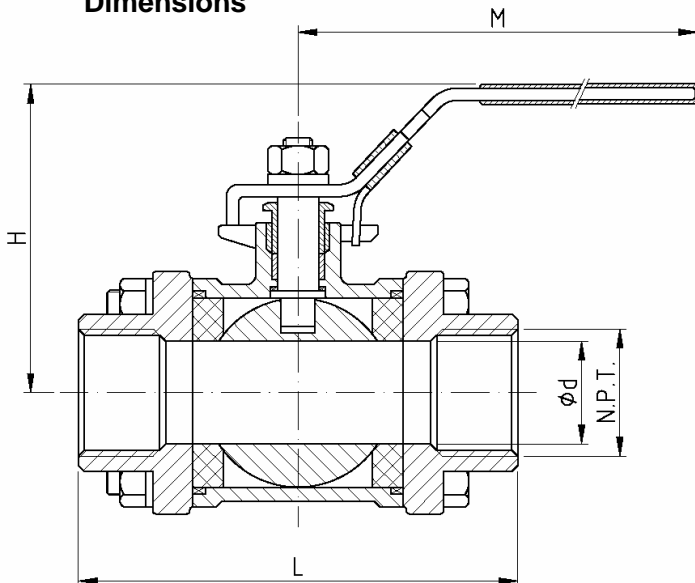
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	ASTMA351 CF8M
2	Body connector	ASTMA351 CF8M
3	Ball	ASTMA351 CF8M
4	Stem	AISI 316
5	Seat ring	PTFE
6	Wrench	AISI 304
7	Wrench Nut	AISI 304
8	Wrench Washer	AISI 304
9	Gland	AISI 304
10	Gland packing	PTFE
11	Stem thrust seal	PTFE
12	Bolt	AISI 304
13	Nut	AISI 304
14	Washer	AISI 304
15	Seat Gasket	PTFE
16	Lock Device	AISI 304

Dimensions



SIZE	N.P.T.	Ød	L	M	H	WEIGHT
¼" (DN 10)	¼"	11,6	59	105	50	0,31
⅜" (DN 12)	⅜"	12,7	59	105	50	0,35
½" (DN 15)	½"	15	68,5	105	55	0,41
¾" (DN 20)	¾"	20	84	125	60	0,7
1" (DN 25)	1"	25	89	158	72	1,2
1¼" (DN 32)	1¼"	32	112	158	78	2
1½" (DN 40)	1½"	38	121	195	91	2,5
2" (DN 50)	2"	53	146	195	105	3,7
2½" (DN 65)	2½"	65	165	245	127	7,4
3" (DN 80)	3"	80	183	245	137	12,8
4" (DN 100)	4"	100	232	320	172	23

(*) Dimensions in mm and weight in kg.

Three Pieces Ball Valves

1000 WOG (69 bar)

Torque, Kv, P&T Rating

Torque Values in Nm

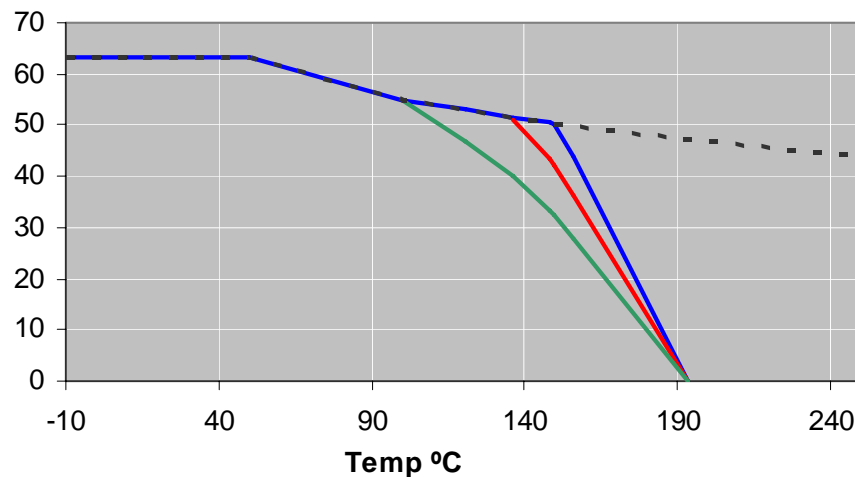
AT DIFFERENTIAL PRESSURE		AT DIFFERENTIAL PRESSURE	
VALVE SIZE	69 bar	VALVE SIZE	69 bar
1/4" (DN 10)	5,6	1 1/2" (DN 40)	24,9
3/8" (DN 12)	5,6	2" (DN 50)	45,2
1/2" (DN 15)	9	2 1/2" (DN 65)	73,2
3/4" (DN 20)	11,3	3" (DN 80)	128,8
1" (DN 25)	14,7	4" (DN 100)	165,4
1 1/4" (DN 32)	19,2		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
1/4" (DN 10)	5,2	1 1/2" (DN 40)	69,3
3/8" (DN 12)	6,0	2" (DN 50)	95,2
1/2" (DN 15)	8,7	2 1/2" (DN 65)	268,4
3/4" (DN 20)	21,6	3" (DN 80)	311,7
1" (DN 25)	30,3	4" (DN 100)	710,0
1 1/4" (DN 32)	39,8		

Pressure-Temperature

P Bar



PTFE SEATS

— 1/4" - 1"

— 1 1/4" - 1 1/2"

— 2" - 4"

Brass Ball Valves 3 ways "T" port

Size 1/4" – 2 1/2" (DN 10 - 65)



Serie 2000

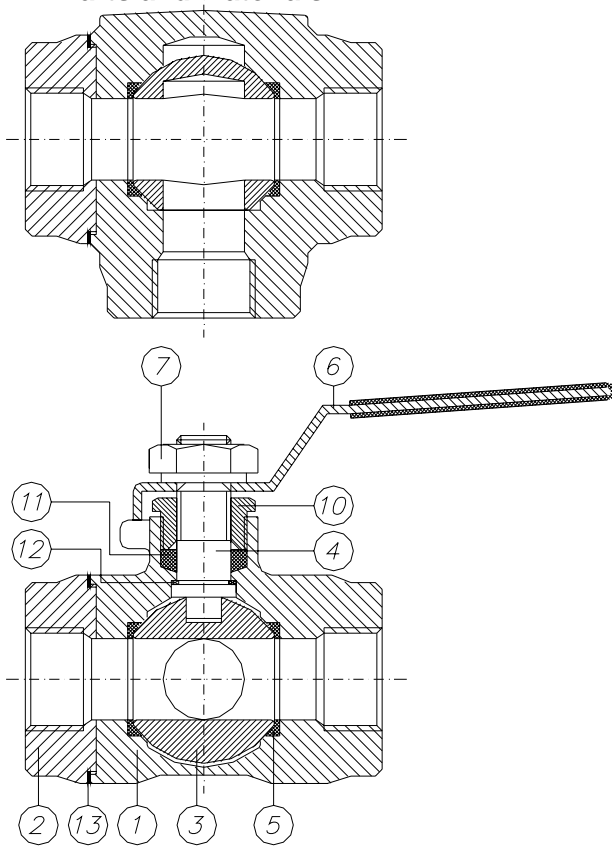
FULL BORE

Threaded according: DIN 259/2999 (GAS)

Brass Ball Valves 3 ways "T" port

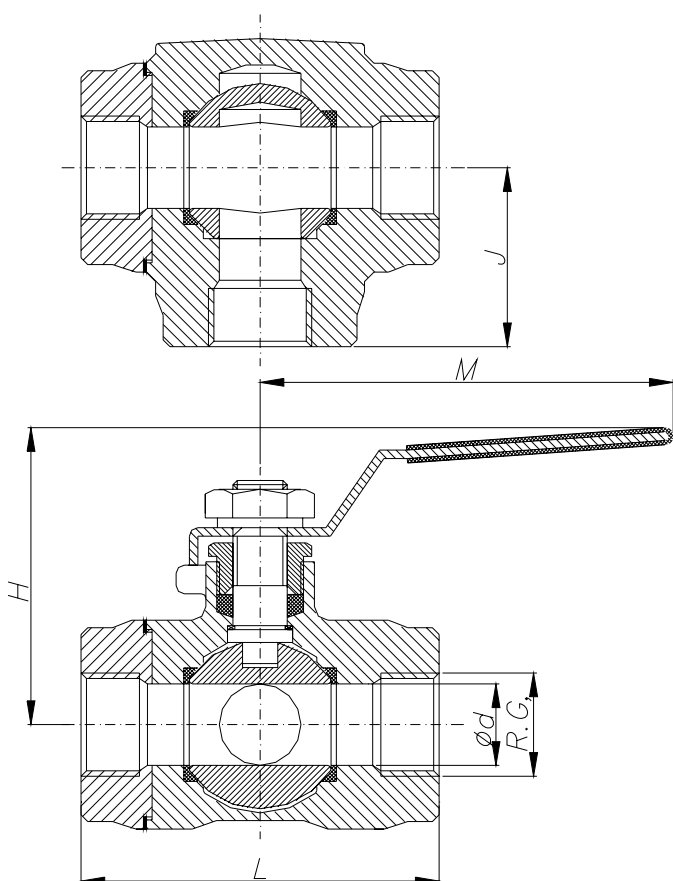
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	NICKEL PLATED BRASS 58
2	Body connector	NICKEL PLATED BRASS 58
3	Ball	Cr-Ni PLATED BRASS 58
4	Stem	PLATED BRASS 58
5	Seat ring	PTFE
6	Wrench	ALUMINIUM
7	Wrench Nut	NICKEL PLATED BRASS 58
10	Gland	NICKEL PLATED BRASS 58
11	Gland packing	PTFE
12	Stem thrust seal	PTFE
13	Body connector seal	PTFE

Dimensions



SIZE	R.G.	Ød	L	J	M	H	WEIGHT
¼" (DN 10)	¼"	10	44	23	95	40,5	0,155
⅜" (DN 12)	⅜"	10	49	26	95	40,5	0,19
½" (DN 15)	½"	14	62	33	95	43	0,3
¾" (DN 20)	¾"	19	70	38	115	53	0,48
1" (DN 25)	1"	24	84	45	115	57	0,84
1¼" (DN 32)	1¼"	30	98	55	155	72,5	1,29
1½" (DN 40)	1½"	38	106	60	155	78,5	1,92
2" (DN 50)	2"	47	126	70	175	94	2,98
2½" (DN 65)	2½"	62	152	90	215	112	6,9

(* Dimensions in mm and weight in kg.

Brass Ball Valves 3 ways "T" port

Torque, Kv, Port combinations, P&T Rating

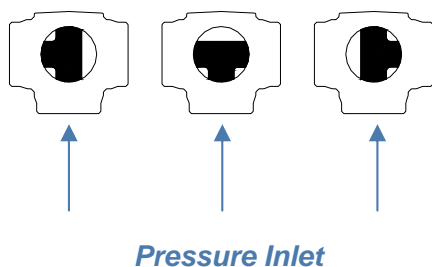
Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL PRESSURE 16 bar	VALVE SIZE	AT DIFFERENTIAL PRESSURE 16 bar
¼" (DN 10)	2	1¼" (DN 32)	14
⅜" (DN 12)	2,7	1½" (DN 40)	20
½" (DN 15)	5,4	2" (DN 50)	33
¾" (DN 20)	8	2½" (DN 65)	47,4
1" (DN 25)	10		

Kv Values in m³/h

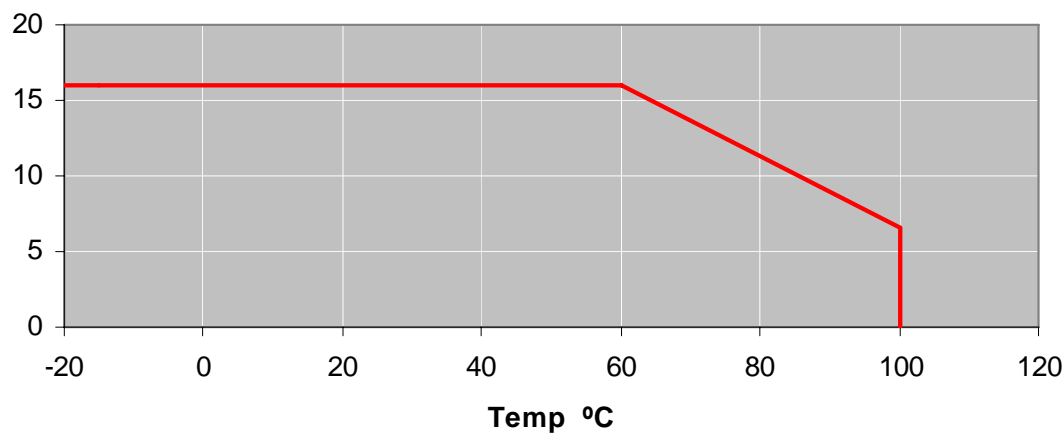
VALVE SIZE	Kv	VALVE SIZE	Kv
¼" (DN 10)	5,2	1¼" (DN 32)	66,7
⅜" (DN 12)	5,6	1½" (DN 40)	133,3
½" (DN 15)	15,6	2" (DN 50)	173,2
¾" (DN 20)	25,1	2½" (DN 65)	334,2
1" (DN 25)	44,2		

Port combinations



Pressure-Temperature

P Bar



Brass Ball Valves 3 ways "L" port Size 1/4" – 2 1/2" (DN 10 - 65)



Serie 2000

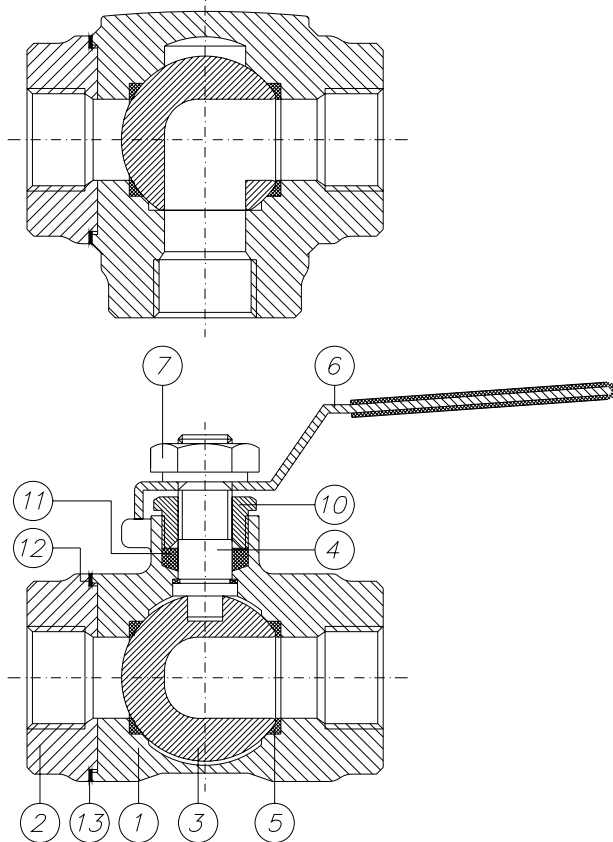
FULL BORE

Threaded according: DIN 259/2999 (GAS)

Brass Ball Valves 3 ways "L" port

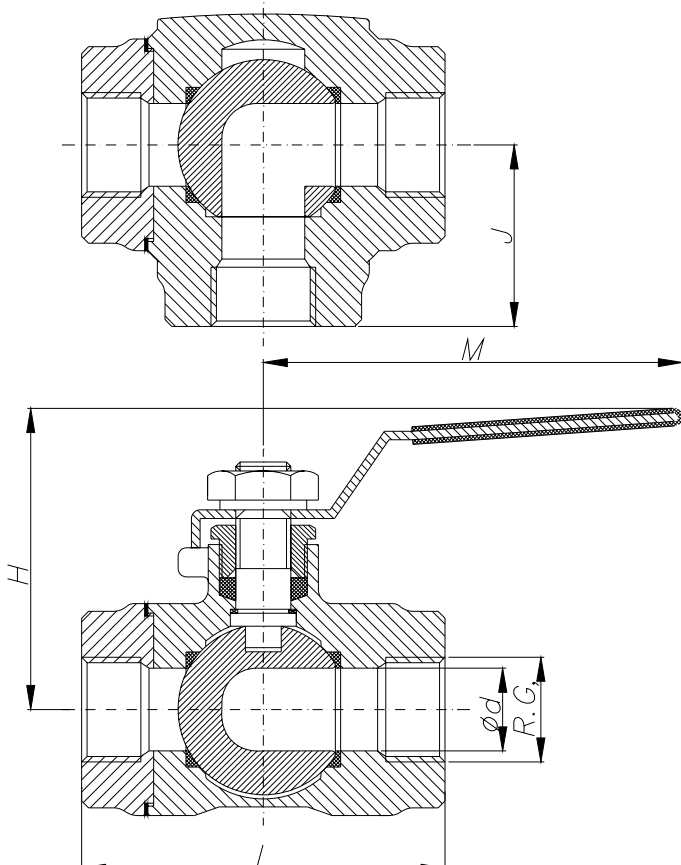
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	NICKEL PLATED BRASS 58
2	Body connector	NICKEL PLATED BRASS 58
3	Ball	Cr-Ni PLATED BRASS 58
4	Stem	PLATED BRASS 58
5	Seat ring	PTFE
6	Wrench	ALUMINIUM
7	Wrench Nut	NICKEL PLATED BRASS 58
10	Gland	NICKEL PLATED BRASS 58
11	Gland packing	PTFE
12	Stem thrust seal	PTFE
13	Body connector seal	PTFE

Dimensions



SIZE	R.G.	Ød	L	J	M	H	WEIGHT
¼" (DN 10)	¼"	10	44	23	95	40,5	0,155
⅜" (DN 12)	⅜"	10	49	26	95	40,5	0,19
½" (DN 15)	½"	14	62	33	95	43	0,3
¾" (DN 20)	¾"	19	70	38	115	53	0,48
1" (DN 25)	1"	24	84	45	115	57	0,84
1¼" (DN 32)	1¼"	30	98	55	155	72,5	1,29
1½" (DN 40)	1½"	38	106	60	155	78,5	1,92
2" (DN 50)	2"	47	126	70	175	94	2,98
2½" (DN 65)	2½"	62	152	90	215	112	6,9

(* Dimensions in mm and weight in kg.

Brass Ball Valves 3 ways "L" port

Torque, Kv, Port combinations, P&T Rating

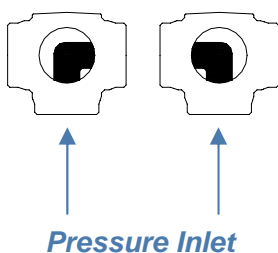
Torque Values in Nm

VALVE SIZE	AT DIFFERENTIAL PRESSURE 16 bar	VALVE SIZE	AT DIFFERENTIAL PRESSURE 16 bar
¼" (DN 10)	2	1¼" (DN 32)	14
⅜" (DN 12)	2,7	1½" (DN 40)	20
½" (DN 15)	5,4	2" (DN 50)	33
¾" (DN 20)	8	2½" (DN 65)	47,4
1" (DN 25)	10		

Kv Values in m³/h

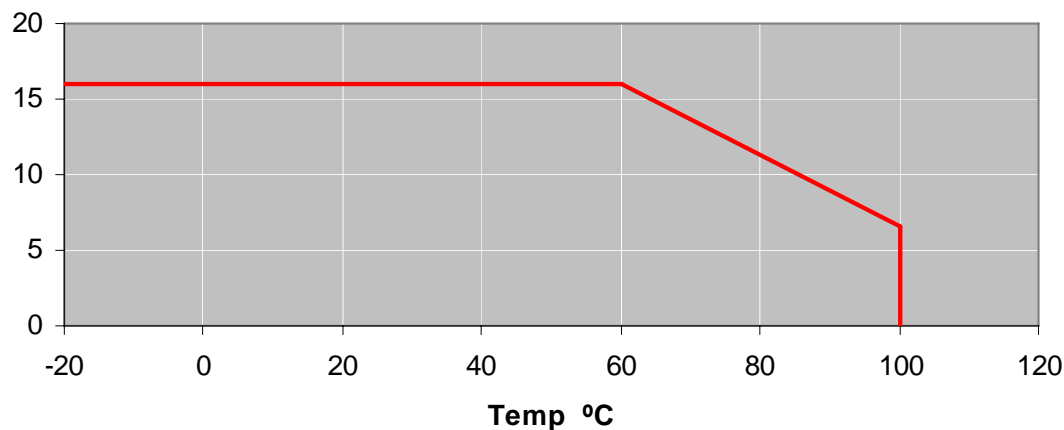
VALVE SIZE	Kv	VALVE SIZE	Kv
¼" (DN 10)	5,2	1¼" (DN 32)	66,7
⅜" (DN 12)	5,6	1½" (DN 40)	133,3
½" (DN 15)	15,6	2" (DN 50)	173,2
¾" (DN 20)	25,1	2½" (DN 65)	334,2
1" (DN 25)	44,2		

Port combinations



Pressure-Temperature

P Bar



Wafer Type Full Port Ball Valve

IIT Construction

Size DN 15 - DN 100 PN16



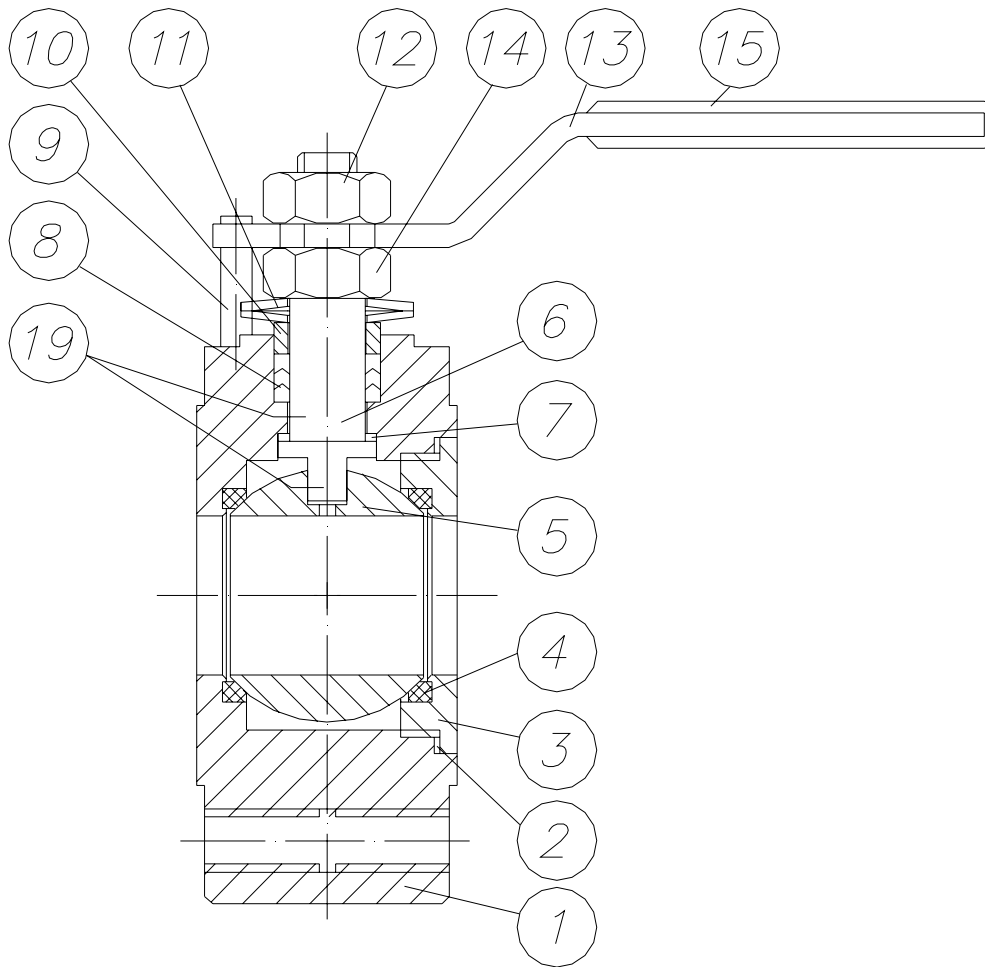
Fig. 176



Wafer Type Full Port Ball Valve

IIT Construction

Parts and materials



Item	Description	Material
1	Body	1.4408
2	Seal	PTFE
3	Retainer	1.4408
4	Seat	PTFE
5	Ball	1.4408
6	Stem	AISI 316
7	Thrust Washer	PTFE
8	Stem w asher	PTFE
9	Stop pin	AISI 304
10	Gland ring	AISI 304
11	Belleville disc	AISI 301
12	Handle nut	AISI 304
13	Handle	AISI 304
14	Stem nut	AISI 304
15	Handle sleeve	Plastic
19	Antistatic device	Stainless Steel

Wafer Type Full Port Ball Valve IIT Construction Dimensions

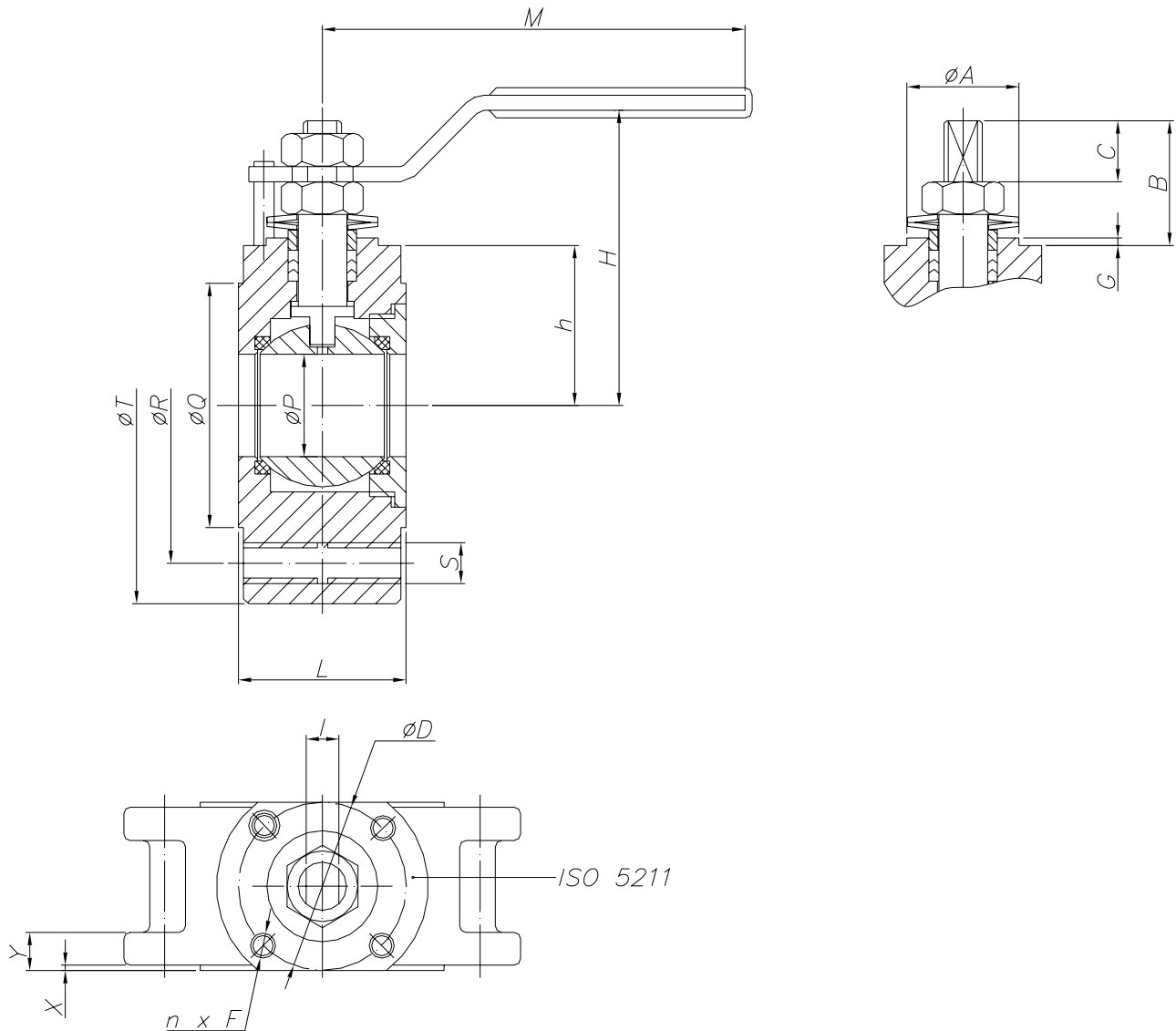


Fig. 176 (PN16)

DN	øP	L	øQ	øR	øS	øT	X	Y	h	H	M	Weight
15	16	35	45	65	M12	90	2	14	32	57	116	0,95
20	20	38	58	75	M12	100	2	16	35	64	116	1,5
25	25	44	65	85	M12	110	2	16	40	68	165	1,93
32	32	54	78	100	M16	130	2	16	49	85	165	3,2
40	38	62	88	110	M16	150	3	16	52	89	193	4,8
50	50	80	102	125	M16	150	3	18	62	98	193	5,52
65	64	101	122	145	M16	178	3	18	80	129	235	9,28
80	76	118	138	160	M16	190	3	20	88	138	235	12,6
100	96	150	158	180	M16	220	3	20	105	164	329	19

(*) Dimensions in mm and weight in kg.

Actuator connection

DN	ISO 5211	øA	B	C	øD	n x F	G	I
15	F03	26	18,5	10	36	4 x M5	1	6,5
20	F03	26	21	13	36	4 x M5	1	6,5
25	F03	46	23	13	36	4 x M5	1	6,5
32	F04	33	31	18	42	4 x M5	1,5	8,5
40	F05	35	31	18	50	4 x M6	1,5	8,5
50	F05	37	31	18	50	4 x M6	1,5	8,5
65	F07	50	42	25	70	4 x M8	2	12
80	F07	55	42	25	70	4 x M8	3	12
100	F10	58	47	20	102	4 x M10	3	16

(*) Dimensions in mm.

Wafer Type Full Port Ball Valve IIT Construction

General Characteristics, Torque, Kv, P&T Rating

GENERAL CHARACTERISTICS	Fig.176 EFF	End Entry Body	Floating Ball	Full Bore
DESIGN STANDARDS				
Valves design	DIN 3357			
Body design	DIN 3840			
Flanges	EN 1092-1			
Face to face dimensions	Manufacture's standar			
Actuator mounting flange	ISO 5211			
Marking	EN 19			
TESTS AND CERTIFICATES	2.2			
Quality Assurance	ISO 9001			
Pressure testing	EN 12266-1			

Torque Values in Nm

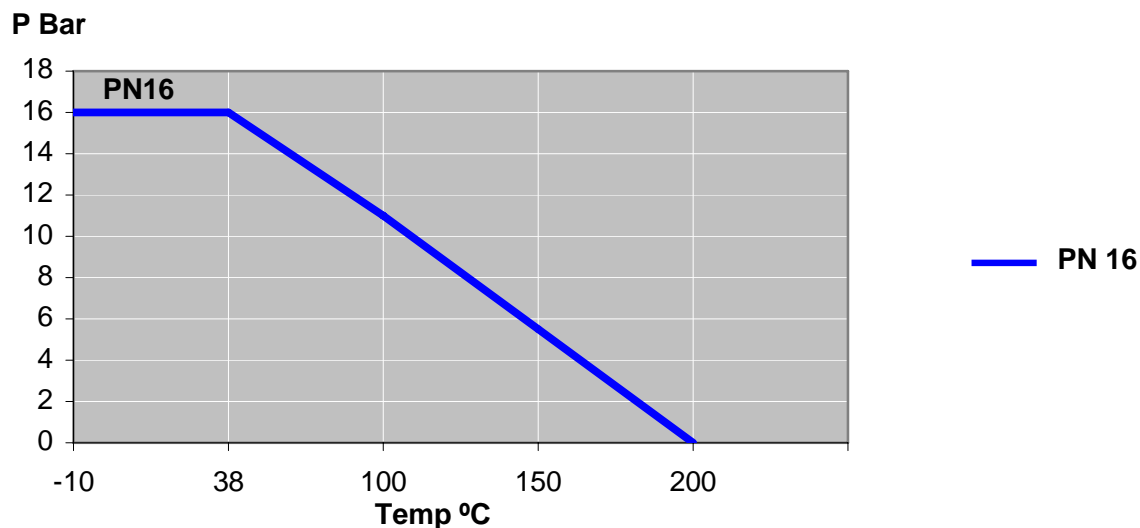
VALVE SIZE	AT DIFFERENTIAL PRESSURE		VALVE SIZE	AT DIFFERENTIAL PRESSURE	
	16 bar			16 bar	
15	4		50	20	
20	7,4		65	23	
25	8		80	33	
32	10,8		100	61,3	
40	15,7				

Given torques with clean water at ambient temperature.

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
15	10	50	110
20	25	65	310
25	35	80	350
32	46	100	720
40	80		

Pressure-Temperature



Three Pieces Ball Valves

1000 WOG (69 bar)

Size ¼" – 4" (DN 10 -100) Stainless Steel



Fig. 142

FULL BORE

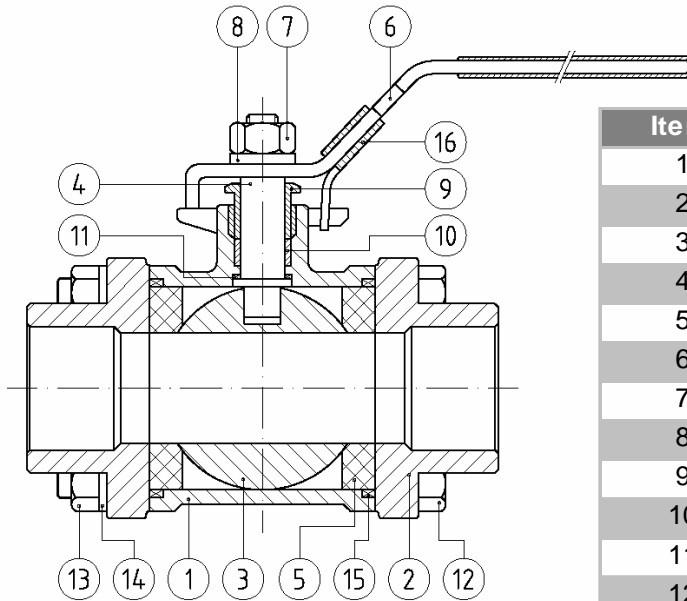
**Socket Weld according:
ASME B16.11 & DIN 3239 part 2**



Three Pieces Ball Valves 1000 WOG (69 bar)

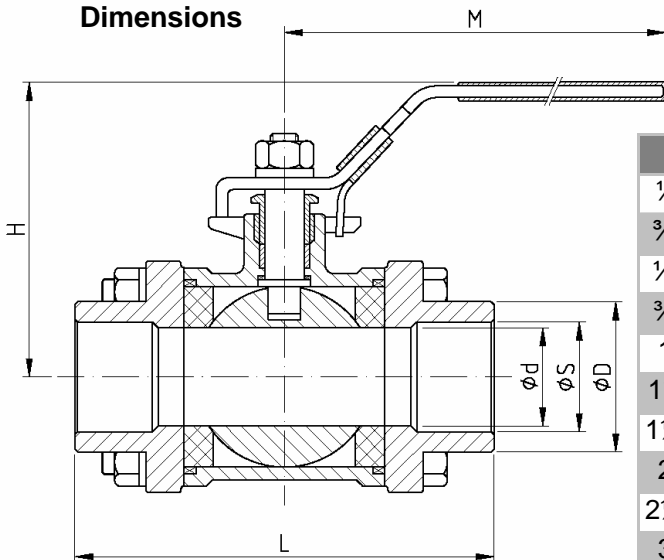
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	ASTMA351 CF8M
2	Body connector	ASTMA351 CF8M
3	Ball	ASTMA351 CF8M
4	Stem	AISI 316
5	Seat ring	PTFE
6	Wrench	AISI 304
7	Wrench Nut	AISI 304
8	Wrench Washer	AISI 304
9	Gland	AISI 304
10	Gland packing	PTFE
11	Stem thrust seal	PTFE
12	Bolt	AISI 304
13	Nut	AISI 304
14	Washer	AISI 304
15	Seat Gasket	PTFE
16	Lock Device	AISI 304

Dimensions



SIZE	ØD	Ød	ØS	L	M	H	WEIGHT
¼" (DN 10)	19	11,6	14	59	105	50	0,31
⅜" (DN 12)	22,5	12,7	18	59	105	50	0,35
½" (DN 15)	27	15	21,7	68,5	105	55	0,41
¾" (DN 20)	33	20	27,1	84	125	60	0,7
1" (DN 25)	40	25	34	89	158	72	1,2
1¼" (DN 32)	48,8	32	42,8	112	158	78	2
1½" (DN 40)	55	38	48,9	121	195	91	2,5
2" (DN 50)	67,2	53	61,4	146	195	105	3,7
2½" (DN 65)	86,4	65	76,9	165	245	127	7,4
3" (DN 80)	103	80	89,8	183	245	137	12,8
4" (DN 100)	130,7	100	115,4	232	320	172	23

(*) Dimensions in mm and weight in kg.

Three Pieces Ball Valves

1000 WOG (69 bar)

Torque, Kv, P&T Rating

Torque Values in Nm

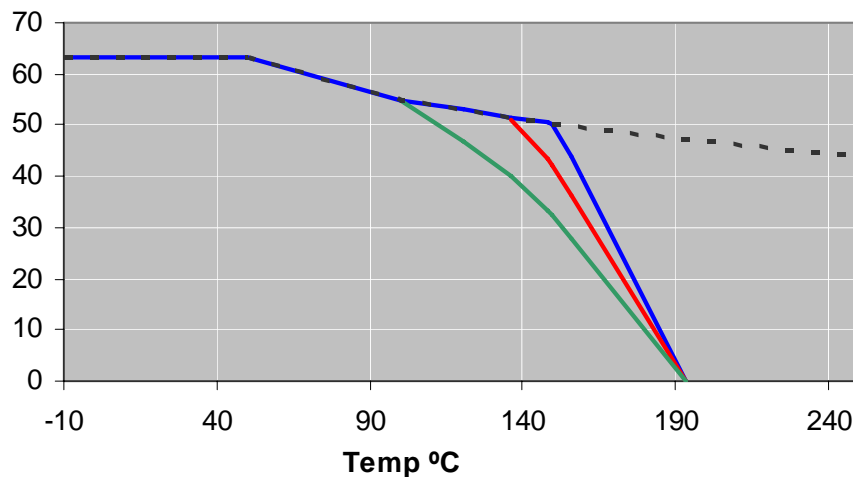
AT DIFFERENTIAL PRESSURE		AT DIFFERENTIAL PRESSURE	
VALVE SIZE	69 bar	VALVE SIZE	69 bar
1/4" (DN 10)	5,6	1 1/2" (DN 40)	24,9
3/8" (DN 12)	5,6	2" (DN 50)	45,2
1/2" (DN 15)	9	2 1/2" (DN 65)	73,2
3/4" (DN 20)	11,3	3" (DN 80)	128,8
1" (DN 25)	14,7	4" (DN 100)	165,4
1 1/4" (DN 32)	19,2		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
1/4" (DN 10)	5,2	1 1/2" (DN 40)	69,3
3/8" (DN 12)	6,0	2" (DN 50)	95,2
1/2" (DN 15)	8,7	2 1/2" (DN 65)	268,4
3/4" (DN 20)	21,6	3" (DN 80)	311,7
1" (DN 25)	30,3	4" (DN 100)	710,0
1 1/4" (DN 32)	39,8		

Pressure-Temperature

P Bar



PTFE SEATS

— 1/4" - 1"

— 1 1/4" - 1 1/2"

— 2" - 4"

Three Pieces Ball Valves

1000 WOG (69 bar)

Size ¼" – 4" (DN 10 -100) Stainless Steel



Fig. 140
FULL BORE
Threaded according:
DIN 259/2999 (GAS)

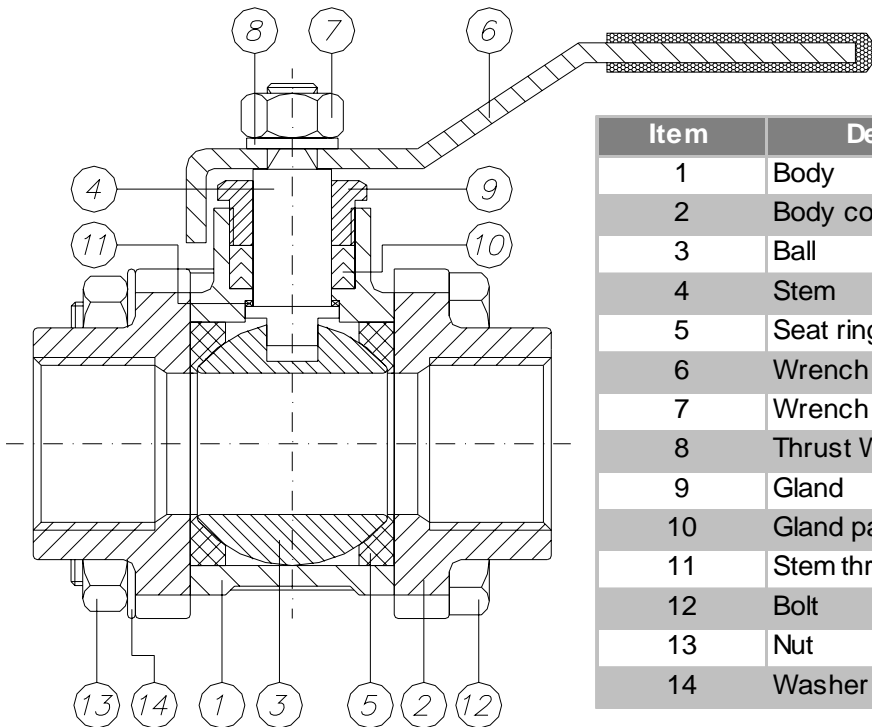


Three Pieces Ball Valves

1000 WOG (69 bar)

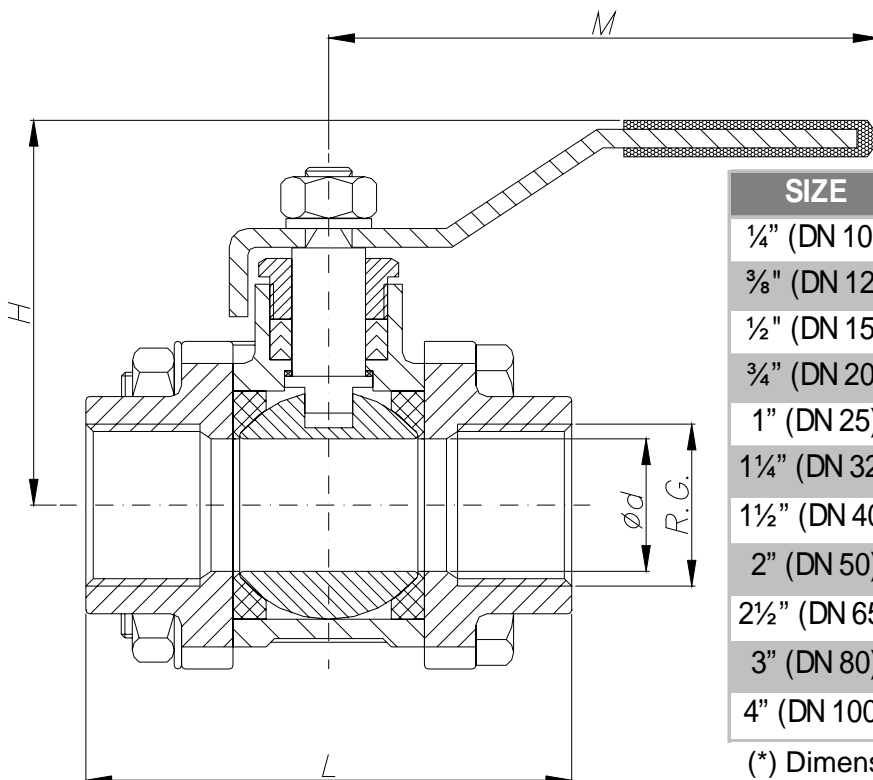
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	ASTMA351 CF8M
2	Body connector	ASTMA351 CF8M
3	Ball	ASTMA351 CF8M
4	Stem	AISI 316
5	Seat ring	PTFE + 15% G.F.
6	Wrench	AISI 304
7	Wrench Nut	AISI 304
8	Thrust Washer	AISI 304
9	Gland	AISI 304
10	Gland packing	PTFE + 15% G.F.
11	Stem thrust seal	PTFE + 15% G.F.
12	Bolt	AISI 304
13	Nut	AISI 304
14	Washer	AISI 304

Dimensions



SIZE	R.G.	Ød	L	M	H	WEIGHT
¼" (DN 10)	¼"	12	58	95	52	0,57
⅜" (DN 12)	⅜"	13	58	95	52	0,57
½" (DN 15)	½"	15	69	95	55	0,7
¾" (DN 20)	¾"	20	84	115	70	0,95
1" (DN 25)	1"	25	90	140	74	1,15
1¼" (DN 32)	1¼"	32	112	145	80	2,15
1½" (DN 40)	1½"	38	121	170	100	2,65
2" (DN 50)	2"	51	146	170	105	4,1
2½" (DN 65)	2½"	65	165	220	130	8,5
3" (DN 80)	3"	80	183	220	140	13
4" (DN 100)	4"	100	227,5	292	184	22

(*) Dimensions in mm and weight in kg.

Three Pieces Ball Valves

1000 WOG (69 bar)

Torque, Kv, P&T Rating

Torque Values in Nm

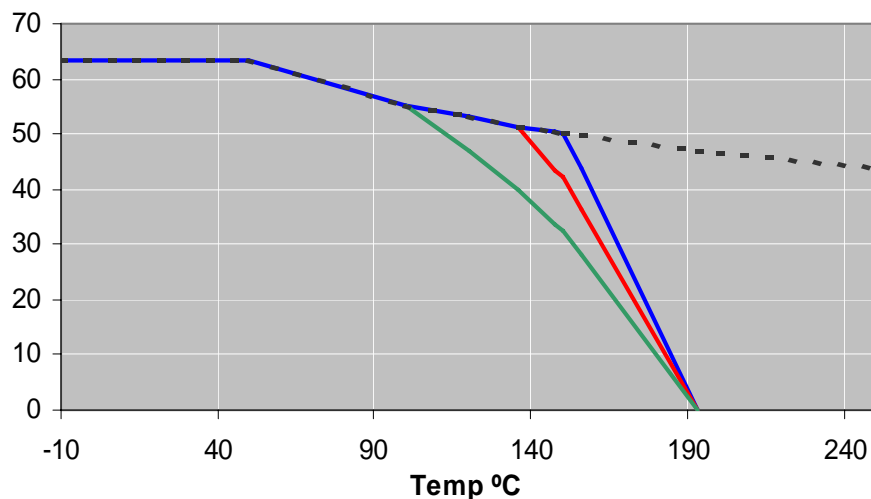
AT DIFFERENTIAL PRESSURE		AT DIFFERENTIAL PRESSURE	
VALVE SIZE	69 bar	VALVE SIZE	69 bar
¼" (DN 10)	5,6	1½" (DN 40)	24,9
⅜" (DN 12)	5,6	2" (DN 50)	45,2
½" (DN 15)	9	2½" (DN 65)	73,2
¾" (DN 20)	11,3	3" (DN 80)	128,8
1" (DN 25)	14,7	4" (DN 100)	165,4
1¼" (DN 32)	19,2		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
¼" (DN 10)	5,2	1½" (DN 40)	69,3
⅜" (DN 12)	6,0	2" (DN 50)	95,2
½" (DN 15)	8,7	2½" (DN 65)	268,4
¾" (DN 20)	21,6	3" (DN 80)	311,7
1" (DN 25)	30,3	4" (DN 100)	710,0
1¼" (DN 32)	39,8		

Pressure-Temperature

P Bar



PTFE+15%G.F. SEATS

- 1/4" - 1"
- 1 1/4" - 1 1/2"
- 2" - 4"

Brass Ball Valves 2 ways

Size ¼" – 4" (DN 10 - 100)



Serie 2000

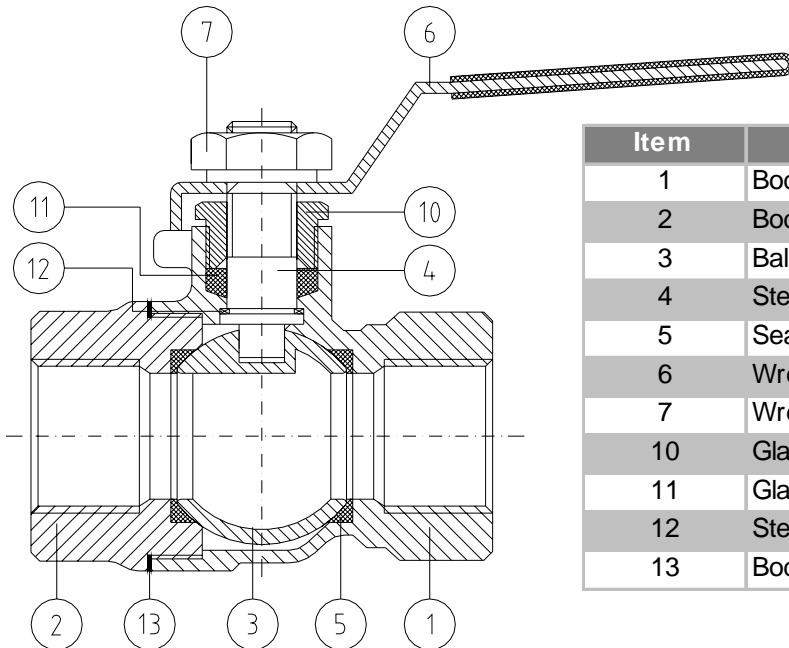
FULL BORE

Threaded according: ASME B1.20.1 (NPT)

Brass Ball Valves 2 ways

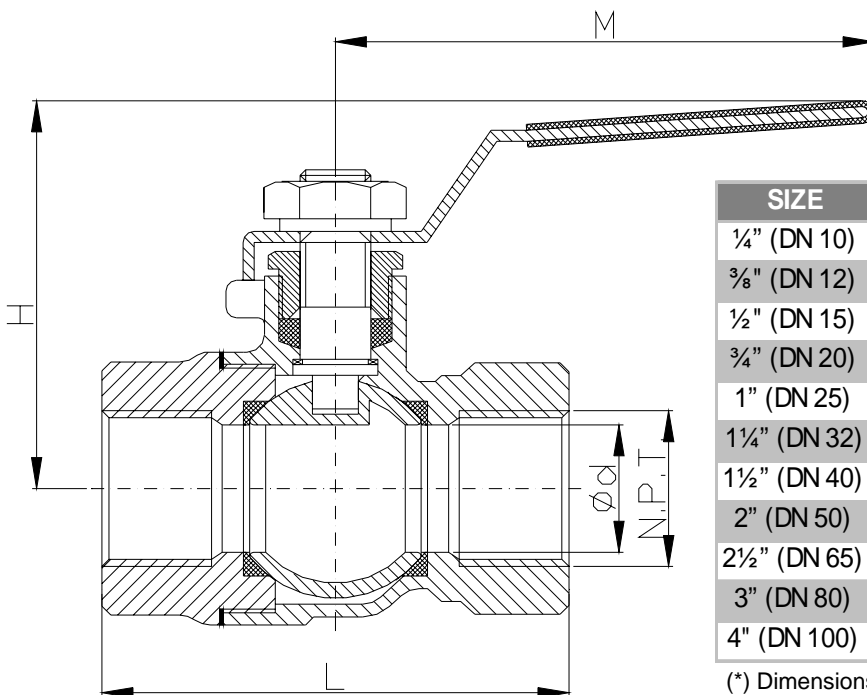
Parts and materials, Dimensions

Parts and materials



Item	Description	Material
1	Body	BRASS 58
2	Body connector	BRASS 58
3	Ball	Cr-Ni PLATED BRASS 58
4	Stem	PLATED BRASS 58
5	Seat ring	PTFE
6	Wrench	Fe 50 DACROMET
7	Wrench Nut	NICKEL PLATED BRASS 58
10	Gland	NICKEL PLATED BRASS 58
11	Gland packing	PTFE
12	Stem thrust seal	PTFE
13	Body connector seal	PTFE

Dimensions



SIZE	N.P.T.	Ød	L	M	H	WEIGHT
¼" (DN 10)	¼"	10	44	95	40,5	0,13
⅜" (DN 12)	⅜"	10	49	95	40,5	0,13
½" (DN 15)	½"	14	62	95	43	0,2
¾" (DN 20)	¾"	19	70	115	53	0,36
1" (DN 25)	1"	24	84	115	57	0,53
1¼" (DN 32)	1¼"	30	98	155	72,5	0,87
1½" (DN 40)	1½"	38	106	155	78,5	1,12
2" (DN 50)	2"	47	126	175	94	1,81
2½" (DN 65)	2½"	62	152	215	111,5	4
3" (DN 80)	3"	76	176	232	134	5,505
4" (DN 100)	4"	98	222	232	155	10,5

(*) Dimensions in mm and weight in kg.

Brass Ball Valves 2 ways

Torque, Kv, P&T Rating

Torque Values in Nm

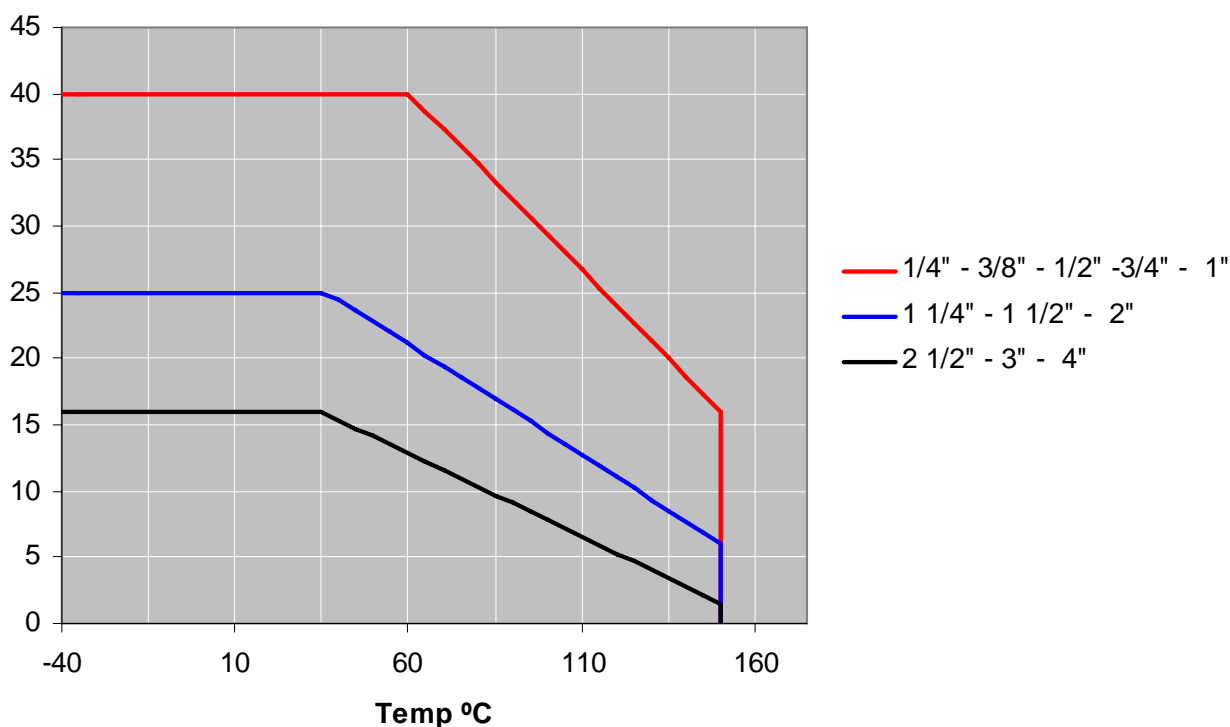
VALVE SIZE	AT DIFFERENTIAL PRESSURE	VALVE SIZE	AT DIFFERENTIAL PRESSURE
¼" (DN 10)	2 (40 bar)	1½" (DN 40)	20 (25 bar)
⅜" (DN 12)	2,7 (40 bar)	2" (DN 50)	33 (25 bar)
½" (DN 15)	5,4 (40 bar)	2½" (DN 65)	47,4 (16 bar)
¾" (DN 20)	8 (40 bar)	3" (DN 80)	80 (16 bar)
1" (DN 25)	10 (40 bar)	4" (DN 100)	105 (16 bar)
1¼" (DN 32)	14 (25 bar)		

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
¼" (DN 10)	5,2	1½" (DN 40)	133,3
⅜" (DN 12)	5,6	2" (DN 50)	173,2
½" (DN 15)	15,6	2½" (DN 65)	334,2
¾" (DN 20)	25,1	3" (DN 80)	519,5
1" (DN 25)	44,2	4" (DN 100)	831,2
1¼" (DN 32)	66,7		

Pressure-Temperature

P Bar



Forged Globe Valves Class 150/300

Fig. G150RF & G300RF

Size ½" – 2" (DN 15 – 50)



FIG. G150RF

FIG. G300RF

GLOBE VALVE

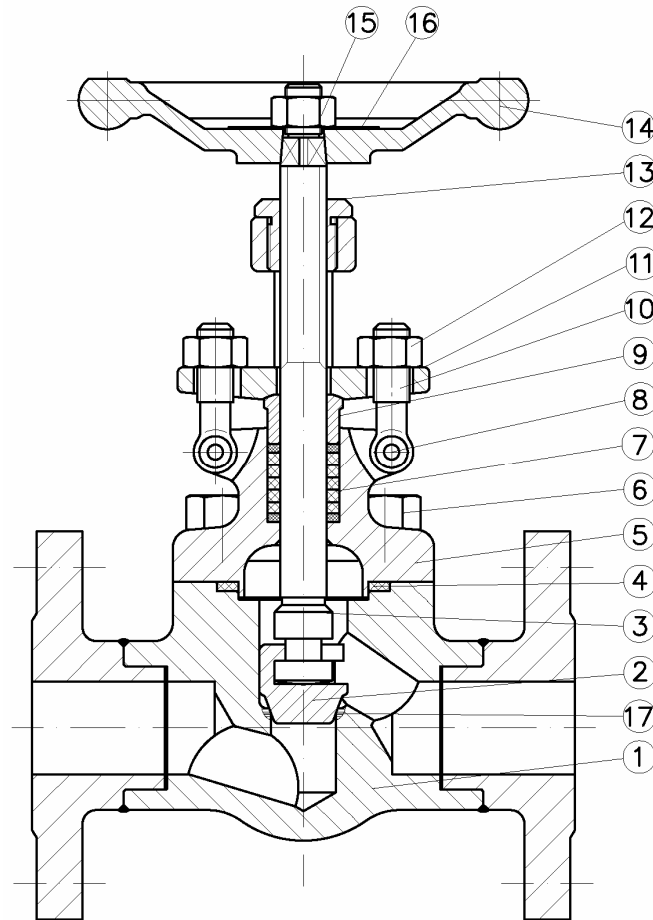
BS 5352, ASME B16.34
Connections according to:
ASME B16.5
CE

Forged Globe Valves Class 150/300

Fig. G150RF & G300RF

Parts and Materials

Parts and materials



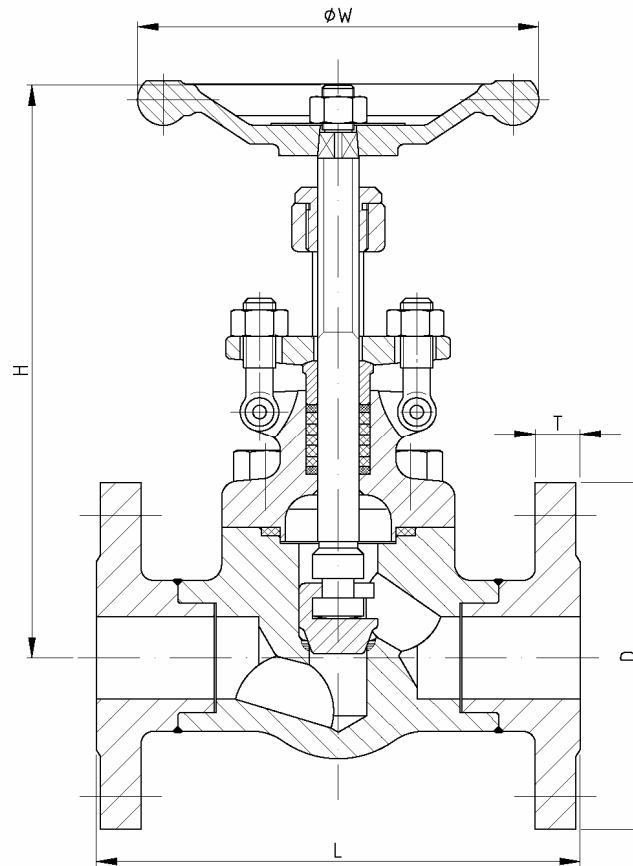
Item	Description	Material	
		Carbon Steel	Stainless Steel
1	Body	A 105	A 182 F316L
2	Disc	AISI 420 + STL	A 182 F316L
3	Stem	AISI 410	A 182 F316L
4	Gasket	AISI 304 + Graphite	AISI 316 + Graphite
5	Bonnet	A 105	A 182 F316L
6	Bolt	A 193 B7	A 193 B8M
7	Packing	Flexible Graphite + Carbon Fibre	
8	Pin	AISI 420	AISI 304
9	Packing Gland	AISI 420	AISI 316L
10	Eye Bolt	A 193 B8	A 193 B8M
11	Gland Flange	A 105	A 182 F316L
12	Hex Nut	A 194 8	A 194 8M
13	Yoke Nut	AISI 410	
14	Handw heel	A 197	
15	Hex Nut	1035 Zinc Plated	
16	Nameplate	Aluminium	
17	Seat	A 105 + STL	A 182 F316L + STL

Forged Globe Valves Class 150/300

Fig. G150RF & G300RF

Dimensions

Dimensions



Series G150RF (Class 150)

SIZE	L	D	T	W	H	WEIGHT
½" (DN 15)	108	89	11,5	100	158	4,5
¾" (DN 20)	117	98	13	100	163	6,9
1" (DN 25)	127	108	14,5	125	193	9,8
1¼" (DN 32)	140	118	16	160	250	13,5
1½" (DN 40)	165	127	17,5	160	250	19,5
2" (DN 50)	203	152	19,5	180	291	28

(*) Dimensions in mm and weight in kg.

Series G300RF (Class 300)

SIZE	L	D	T	W	H	WEIGHT
½" (DN 15)	152	95	14,5	100	158	4,8
¾" (DN 20)	178	118	16	100	163	7,7
1" (DN 25)	203	124	17,5	125	193	11
1¼" (DN 32)	216	133	19,5	160	250	16,8
1½" (DN 40)	229	156	21	160	250	21,5
2" (DN 50)	267	165	22,5	180	291	32,6

(*) Dimensions in mm and weight in kg.

Forged Globe Valves Class 150/300 Fig. G150RF & G300RF

General Characteristics, Torque, KV, P&T Rating

GENERAL CHARACTERISTICS	Forged Globe Valve		
DESIGN STANDARDS			
Valves design	BS 5352	ASME B16.34	
Connections	ANSI B 1.20.1	ANSI B 16.11	
Face to face dimensions	ASME B16,10		
TESTS AND CERTIFICATES	API 598		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		
Marking	EN 19		

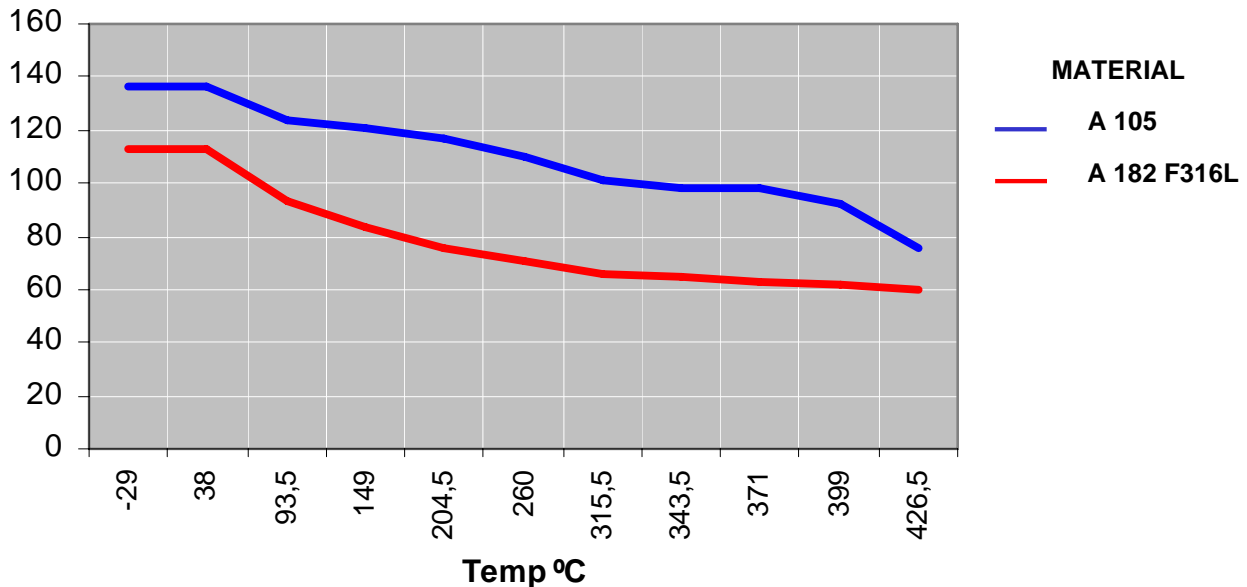
(*) Welded flanges

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
½" (DN 15)	22,3	1¼" (DN 32)	642,7
¾" (DN 20)	42,8	1½" (DN 40)	1114
1" (DN 25)	80,5	2" (DN 50)	1970

Pressure-Temperature

P Bar



Forged Gate Valves Class 150/300

Fig. C150RF & C300RF

Size ½" – 2" (DN 15 – 50)



FIG. C150RF

FIG. C300RF

GATE VALVE

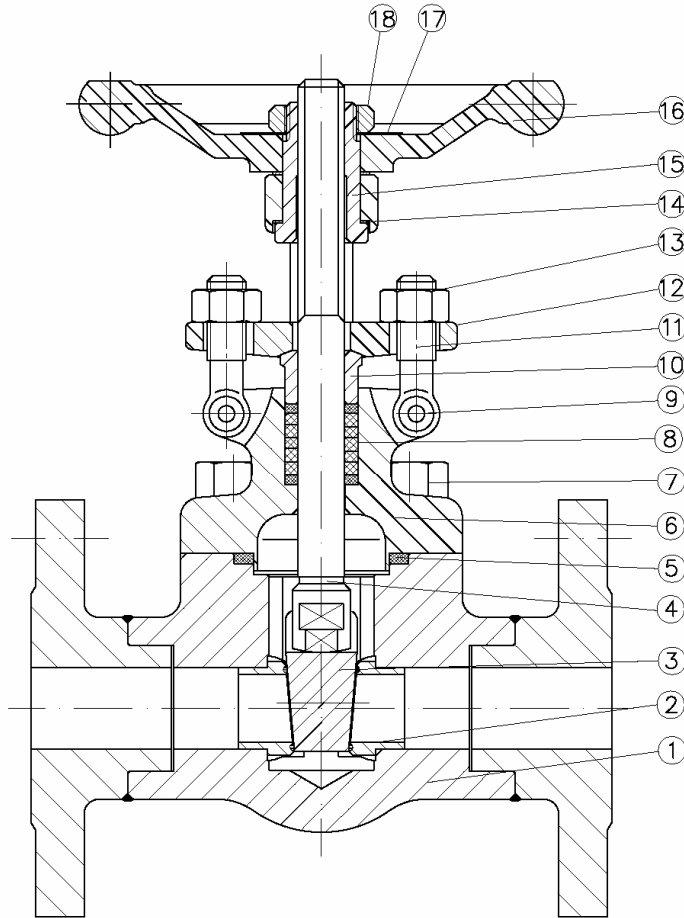
API, MSS SP & ASME B16.34
Connections according to:
ASME B16.5
CE

Forged Gate Valves Class 150/300

Fig. C150RF & C300RF

Parts and Materials

Parts and materials



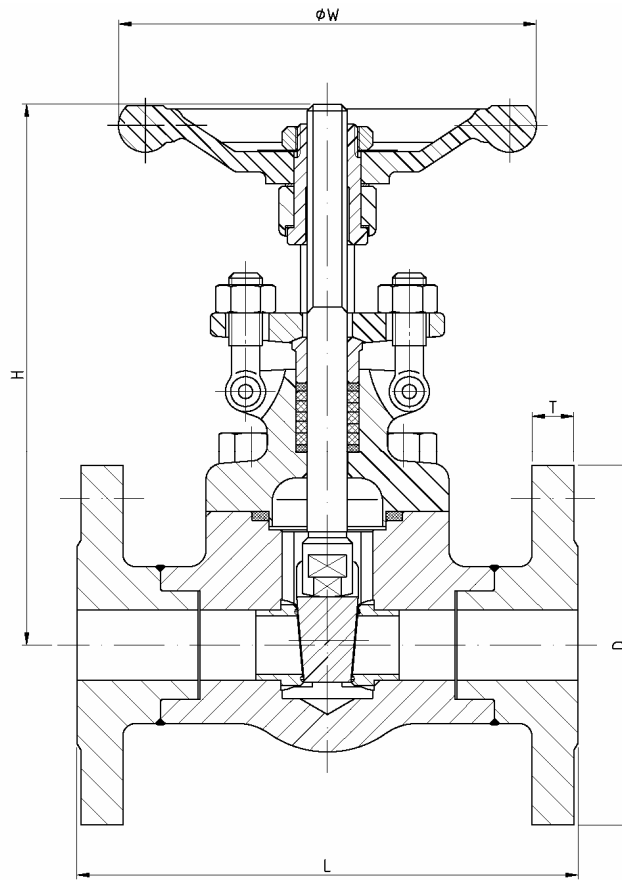
Item	Description	Material	
		Carbon Steel	Stainless Steel
1	Body	A 105	A 182 F316L
2	Seat	A 182 F6A + STL	A 182 F316L + STL
3	Gate	A 182 F6A + STL	A 182 F316L
4	Stem	AISI 410	A 182 F316L
5	Gasket	AISI 304 + Graphite	AISI 316 + Graphite
6	Bonnet	A 105	A 182 F316L
7	Bolt	A 193 B7	A 193 B8M
8	Packing	Flexible Graphite + Carbon Fibre	
9	Pin	AISI 420	AISI 304
10	Packing Gland	AISI 420	AISI 316L
11	Eye Bolt	A 193 B8	A 193 B8M
12	Gland Flange	A 105	A 182 F316L
13	Hex Nut	A 194 8	A 194 8M
14	Washer	AISI 410	
15	Yoke Nut	AISI 410	
16	Handwheel	A 197	
17	Nameplate	Aluminium	
18	Hex Nut	1035 Zinc Plated	

Forged Gate Valves Class 150/300

Fig. C150RF & C300RF

Dimensions

Dimensions



Series C150RF (Class 150)

SIZE	L	D	T	W	H	WEIGHT
½" (DN 15)	108	89	11,5	100	166	4,5
¾" (DN 20)	117	98	13	100	163	5,2
1" (DN 25)	127	108	14,5	125	193	8,2
1¼" (DN 32)	140	118	16	160	230	11,5
1½" (DN 40)	165	127	17,5	160	246	12,5
2" (DN 50)	178	152	19,5	180	263	20,3

(*) Dimensions in mm and weight in kg.

Series C300RF (Class 300)

SIZE	L	D	T	W	H	WEIGHT
½" (DN 15)	140	95	14,5	100	166	4,8
¾" (DN 20)	152	118	16	100	163	6,2
1" (DN 25)	165	124	17,5	125	193	9,3
1¼" (DN 32)	178	133	19,5	160	230	14
1½" (DN 40)	190	156	21	160	246	17,5
2" (DN 50)	216	165	22,5	180	263	23,4

(*) Dimensions in mm and weight in kg.

Forged Gate Valves Class 150/300

Fig. C150RF & C300RF

General Characteristics, Torque, KV, P&T Rating

GENERAL CHARACTERISTICS	Forged Gate Valve		
DESIGN STANDARDS			
Valves design	API 602	ASME B 16.34	
Connections	ANSI B 1.20.1	ANSI B 16.11	
Face to face dimensions	ASME B16,10		
TESTS AND CERTIFICATES	API 598		
Quality Assurance	ISO 9001		
Pressure testing	EN 12266-1		
Marking	EN 19		

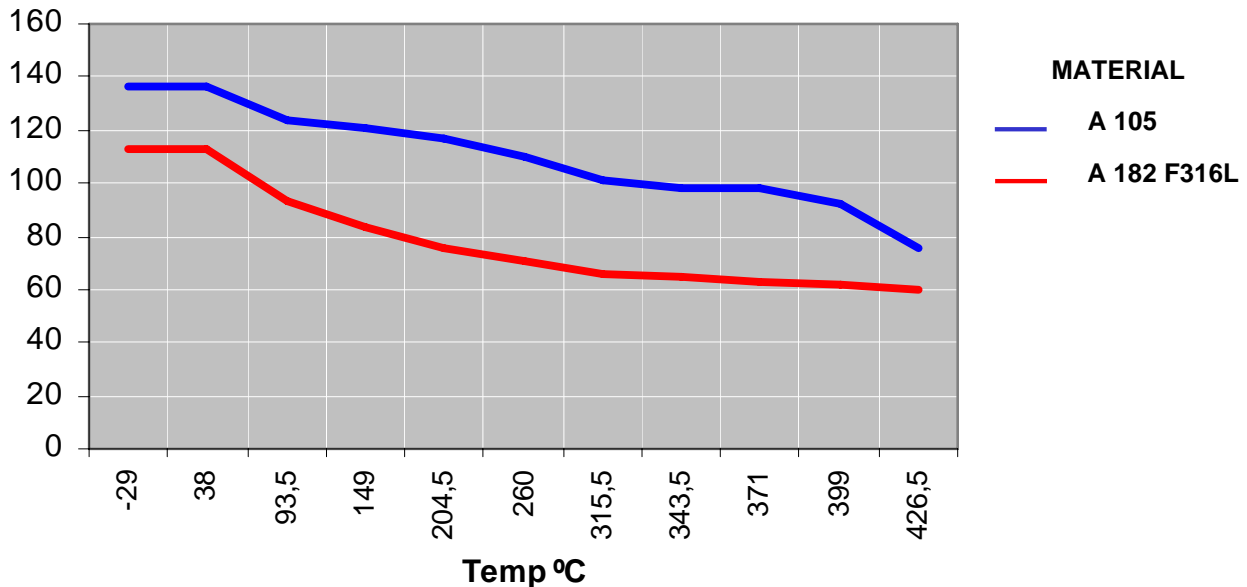
(*) Welded flanges

Kv Values in m³/h

VALVE SIZE	Kv	VALVE SIZE	Kv
½" (DN 15)	15	1¼" (DN 32)	80
¾" (DN 20)	15	1½" (DN 40)	80
1" (DN 25)	29	2" (DN 50)	135

Pressure-Temperature

P Bar



One Piece Ball Valves

1000 WOG (69 bar)

Size ¼" – 2" (DN 10 - 50) Stainless Steel



Fig. 160

REDUCED BORE

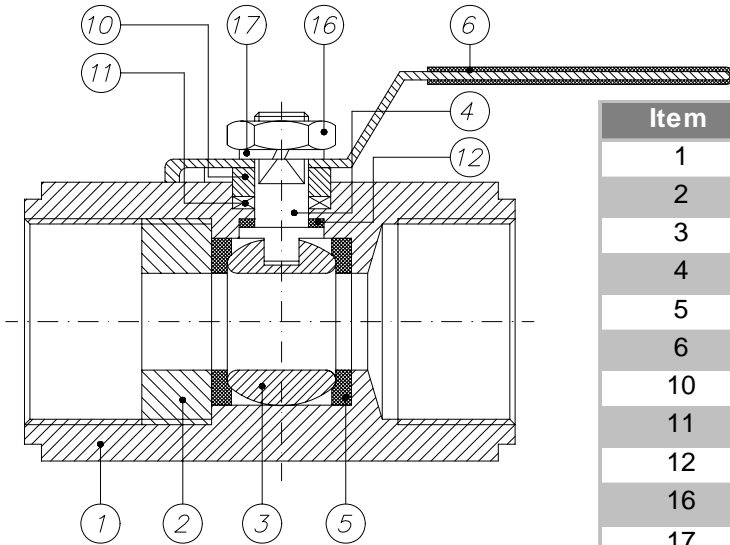
Threaded according:
DIN 259/2999 (GAS)



One Piece Ball Valves 1000 WOG (69 bar)

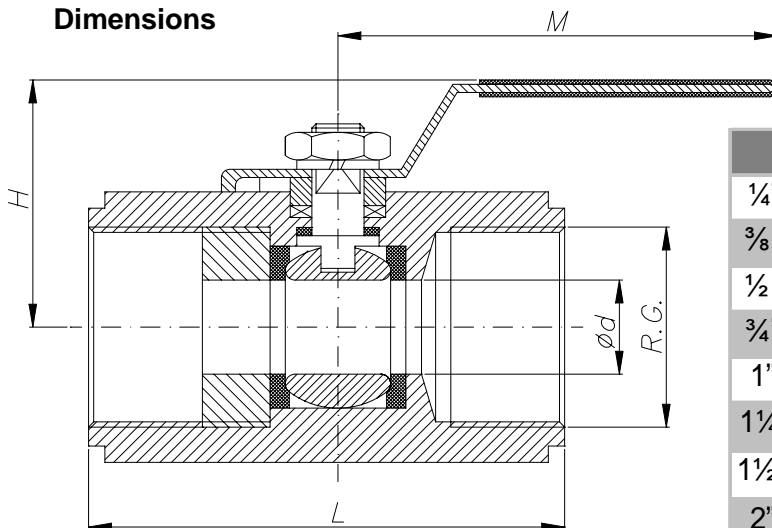
Parts and materials, Dimensions, KV, P&T Rating

Parts and materials



Item	Description	Material
1	Body	ASTMA351 CF8M
2	Insert	AISI 316
3	Ball	ASTMA351 CF8M
4	Stem	AISI 316
5	Seat ring	PTFE + 15% G.F.
6	Wrench	AISI 304
10	Gland	AISI 304
11	Gland packing	PTFE + 15% G.F.
12	Stem thrust seal	PTFE
16	Wrench Nut	AISI 304
17	Thrust Washer	AISI 304

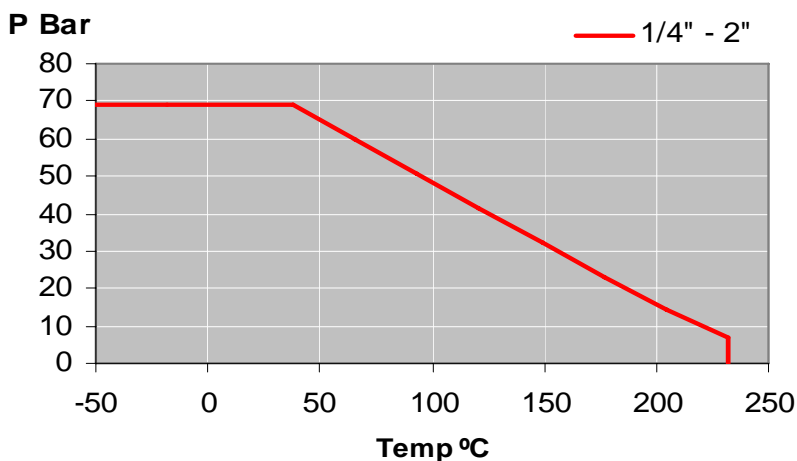
Dimensions



SIZE	R.G.	Ød	L	M	H	WEIGHT
¼" (DN 10)	¼"	5	38,3	61	28,8	0,07
⅜" (DN 12)	⅜"	7,2	43,5	86	33,5	0,12
½" (DN 15)	½"	9	55,9	110	63,3	0,20
¾" (DN 20)	¾"	13	58,3	110	62	0,29
1" (DN 25)	1"	15	69,8	121	6,7	0,43
1¼" (DN 32)	1¼"	20	77,1	146	82,6	0,71
1½" (DN 40)	1½"	25	82,7	146	82,6	0,84
2" (DN 50)	2"	32	96,9	152	87,4	1,35

(*) Dimensions in mm and weight in kg.

Pressure-Temperature



Kv Values in m³/h

VALVE SIZE	Kv
¼" (DN 10)	3,24
⅜" (DN 12)	3,41
½" (DN 15)	3,81
¾" (DN 20)	7,67
1" (DN 25)	13,65
1¼" (DN 32)	20,47