

Edelstahlkugelhahn, 3-teilig, Gewindeende/ Stainless steel ball valve, 3-pc., threaded ends PA-013.566.P

Technische Daten

Specification

Bauform

3-teilig

Voller Durchgang

Mit Handhebel

Gehäuse: Edelstahl 1.4408

Kugel: Edelstahl 1.4408

Dichtung: R-PTFE

Design

3-piece

Full port

With handle

Body: 1.4408

Ball: 1.4408

Seat: R-PTFE

Anschluss

Beidseitig Gewindeende

1/4" - 4"

Connection

Female thread

1/4" - 4"

Betriebsdruck

PN 63

Pressure Range

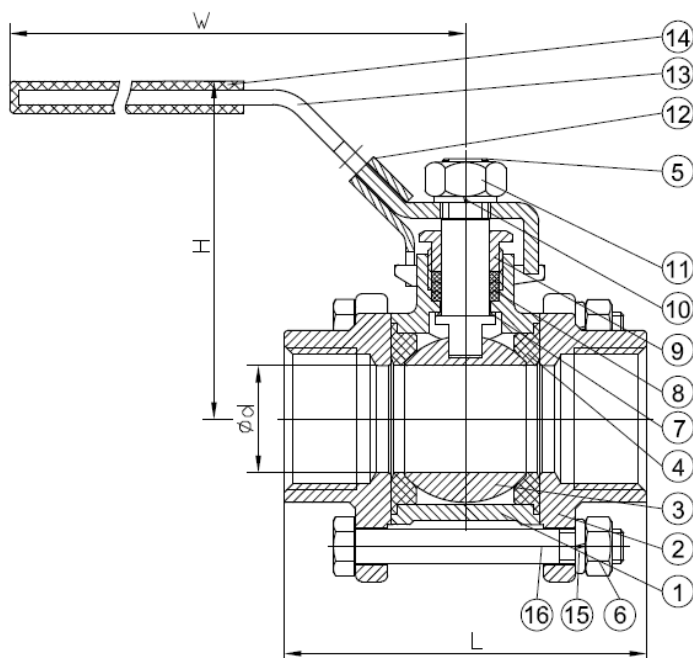
PN 63

Betriebstemperatur

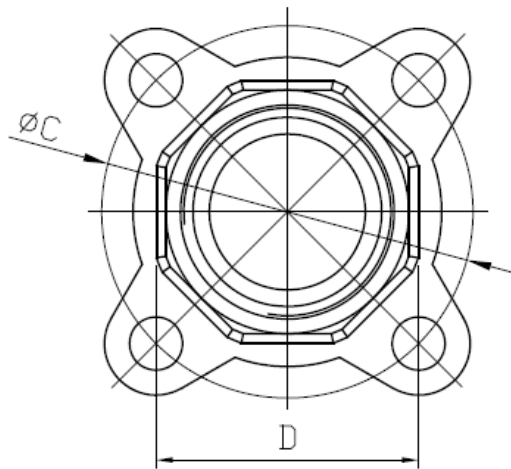
max. 180°C

Temperature Range

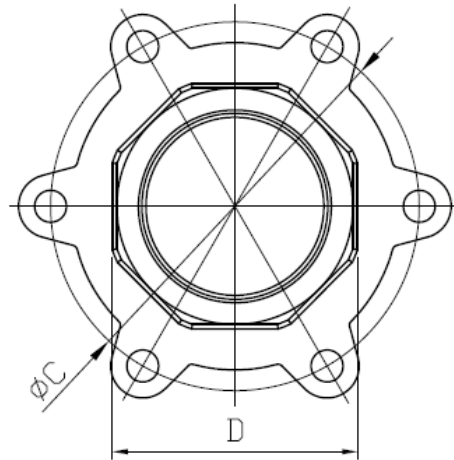
max. 180°C



NO.	Part Name	Materials
1	Body	1.4408 / CF8M
2	Cap	1.4408 / CF8M
3	Ball	1.4408 / CF8M
4	Seat	PTFE
5	Stem	SS316
6	Hex Nut	SUS304
7	Thrust Washer	PTFE
8	Packing	PTFE
9	Gland	SUS304
10	Spring Washer	SUS304
11	Stem Nut	SUS304
12	Locking Device	SUS304
13	Handle	SUS304
14	Plastic Cover	Plastic
15	Bolt Washer	SUS304
16	Plastic Cover	SUS304



1/4"-2 1/2"



3"-4"

Size		d	L	H	W	C	D
DN	NPS						
6	1/4"	11.6	58	52	102	37.5	20
10	3/8"	12.7	58	54	102	37.5	20
15	1/2"	15	63	62	123	45.5	25
20	3/4"	20	73	66	123	52.5	32
25	1"	25	85	77	153	57.5	37
32	1 1/4"	32	96	80	153	71.5	47
40	1 1/2"	38	114	91	183	79	52
50	2"	50	134	98	183	97	63
65	2 1/2"	65	180	138	246	124.5	80
80	3"	80	200	149	246	149	94
100	4"	100	228	175	246	180.6	123.5

Edelstahlkugelhahn, 3-teilig, Gewindeende/ Stainless steel ball valve, 3-pc., threaded ends PA-13D.566.P / auch tottraumarm lieferbar

Technische Daten

Bauform
 3-teilig
 voller Durchgang
 mit Handhebel
 mit ISO-Direktaufbauflansch
 Gehäuse: Edelstahl 1.4408
 Kugel: Edelstahl 1.4408
 Dichtung: TFM-1600

Specification

Design
 3-piece
 full port
 with handlelever
 with ISO – Directmountingpad
 body: stainless steel 1.4408
 ball: stainless steel 1.4408
 seat: TFM-1600

Anschluss

Beidseitig Gewindeende
 $\frac{1}{4}'' - 4''$

Connection

Female thread
 $\frac{1}{4}'' - 4''$

Betriebsdruck

PN 63

Pressure Range

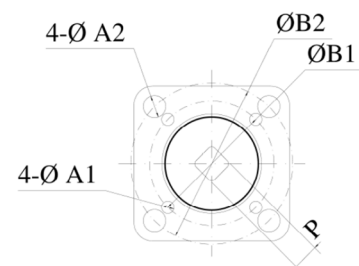
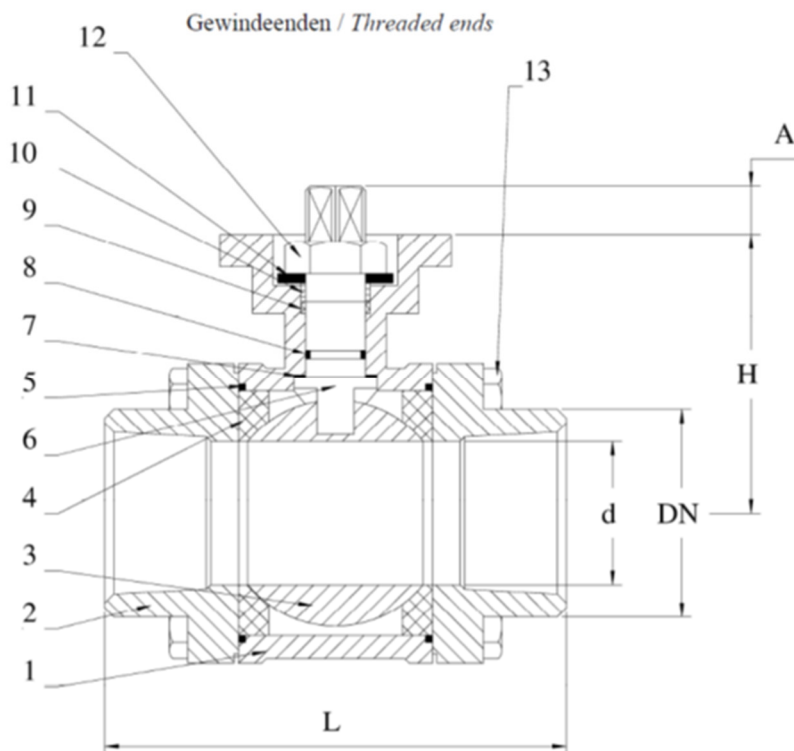
PN 63

Betriebstemperatur

max. 180°C

Temperature Range

max. 180°C



DN	∅ d	L	LE	H	B1	B2	A1	A2	P	A
8	11,6	75	70	42	36	42	6	6	9	9
10	12,7	75	70	42	36	42	6	6	9	9
15	15	75	75	42	36	42	6	6	9	9
20	20	80	90	48,5	36	50	6	7	9	9
25	25	90	100	58,5	42	50	6	7	11	11
32	32	110	110	3	42	70	6	9	11	11
40	38	120	125	71,3	50	70	7	9	14	14
50	50	140	150	78,2	50	70	7	9	14	14
65	65	185	190	100	70	102	9	11	17	17
80	80	205	220	108,5	70	102	9	11	17	17
100	100	240	270	140	-	102	-	11	22	22

Nr.	Bezeichnung	Material
No.	Part Name	
1	Gehäuse / Body	1.4408
2	Endkappe / Cap	1.4408
3	Kugel / Ball	1.4408
4	Kugelabdichtung / Ball Seat	TFM-1600
5	Gehäusedichtung / Body Gasket	PTFE
6	Welle / Stem	1.4401
7	Spindelring / Stem Ring	PTFE
8	O-Ring / O-Ring	FKM
9	Wellenabdichtung / Stem-Packing	PTFE
10	Buchsabdichtung / Bushing	50% SS 50% PTFE
11	Stopfbuchse / Gland	1.4401
12	Spindelmutter / Stem Nut	A194-8
13	Gehäuseschrauben / Bolt	A194-8

Drehmomente

DN	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Nm	4,5	4,5	5	6	11	17	24	35	54	90	135

Bei der Auslegung von Antrieben ist es erforderlich eine Sicherheit von ca. 25% einzurechnen!
 Bei schmierenden Medien ist dieses nicht nötig.

Edelstahlkugelhahn, 3-teilig, für Blücher-Rohre / Stainless steel ball valve, 3-pc., for Blücher-pipes Typ PA-018.566.P

Technische Daten

Specification

Bauform

Design

Voller Durchgang

Full bore

Gehäuse: 1.4408

Body: 1.4408

Kugel: 1.4408

Ball: 1.4408

Dichtung: R-PTFE

Seat: R-PTFE

mit Handhebel,

with handlever

Manometeranschluß: G ½" IG

manometer connection: G ½" female

Betriebsdruck

Pressure Range

PN 63

PN 63

Anschluss

Connection

Innengewinde

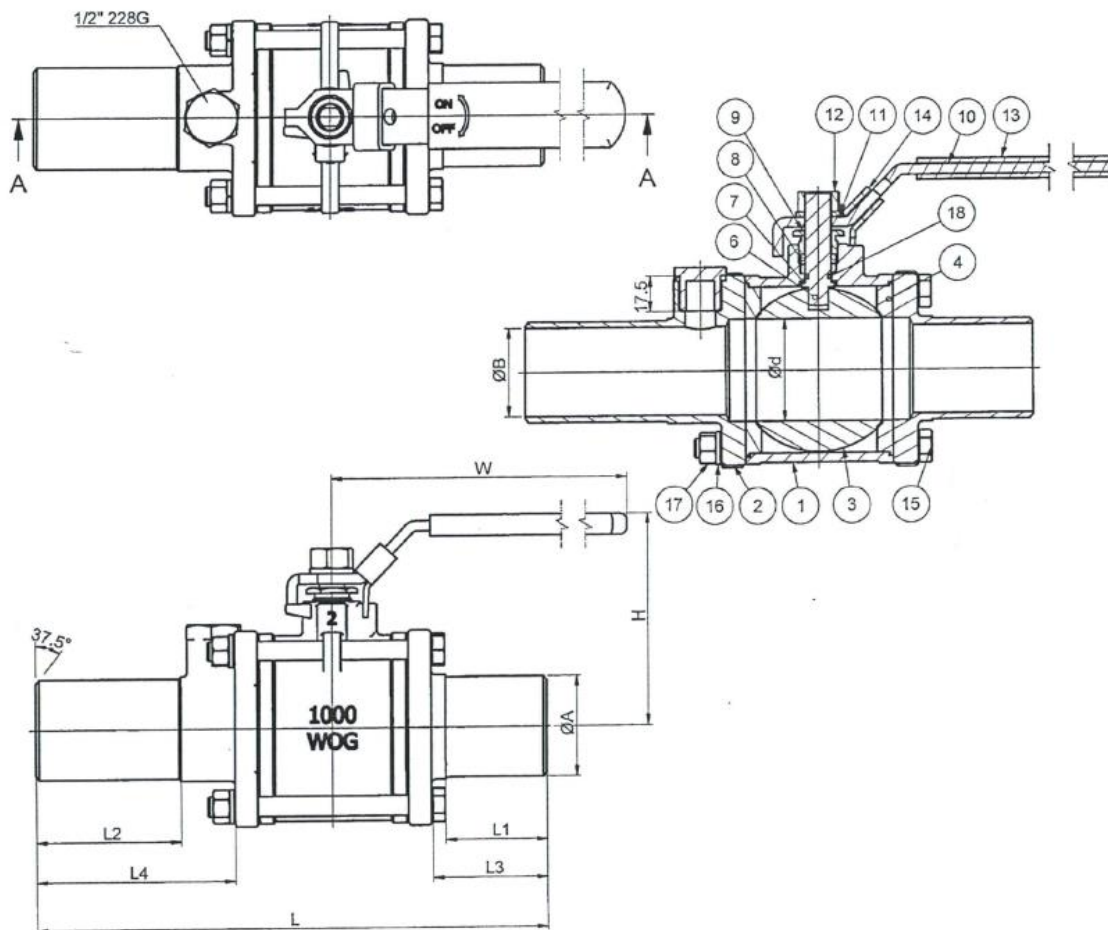
Female threads

Betriebstemperatur

Temperature Range

max. 180°C

max. 180°C



Size	Ød	ØA	ØB	L	L1	L2	L3	L4	H	W	Cv Factor	Torque (kgf-cm)
1 1/2"	42	42	39	210,3	50	50	55	75	92	190	80	200
2"	50,8	50	44	250	50	70	57	96,9	97	190	150	280
2 1/2"	65	75	68	290	60	80	70	107,9	130	246	265	500
4"	100	110	100	365	70	70	100	100	174	325	780	1100

Nr.	Bezeichnung	Material
1	Body	ASTM-CF8M-A351
2	Cap	ASTM-CF8M-A351
3	Ball	ASTM-CF8M-A351
4	Ball Seat	15% R-PTFE
5	Join Gasket	15% R-PTFE
6	Stem	AISI 316
7	Thrust Washer	PTFE
8	Stem Packing	PTFE
9	Gland Nut	AISI 304
10	Handle	AISI 430
11	Stem Washer	AISI 304
12	Stem Nut	AISI 304
13	Plastic Cover	AISI 304
14	Lock Device	AISI 304
15	Bolt	AISI 304
16	Spring Washer	AISI 304
17	Hex Nut	AISI 304
18	O-Ring	Viton

Edelstahlkugelhahn, 1-teilig/ Stainless steel ball valve, 1-pc PA-830.566.P

Technische Daten

Bauform	Design
1-teilig	1-piece
Reduzierter Durchgang mit Handhebel	Reduced port with handle
Gehäuse: Edelstahl 1.4408	Body: stainless steel 1.4408
Kugel: Edelstahl 1.4408	Ball: stainless steel 1.4408
Dichtung: PTFE	Seat: PTFE

Anschluss

Beidseitig Innengewinde	Female thread
1/4" - 2"	1/4" - 2"

Betriebsdruck

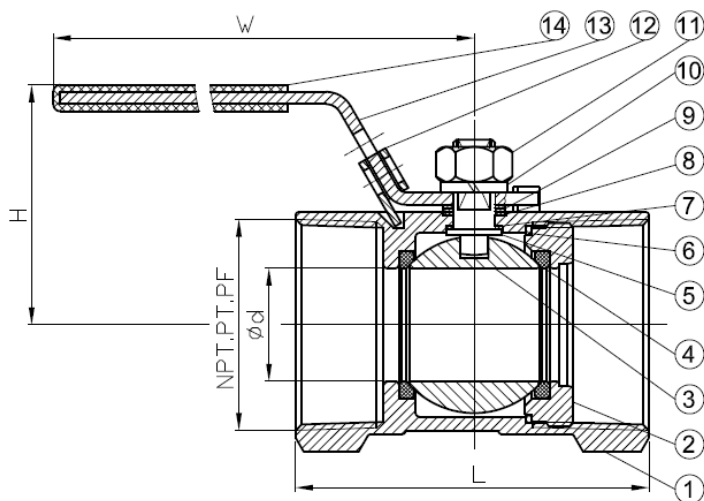
PN 63	Pressure Range
	PN 63

Betriebstemperatur

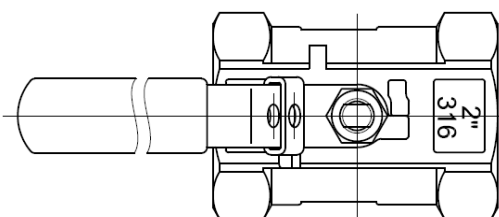
max. 180°C	Temperature Range
	max. 180°C



No.	Part name	Material
1	Body	1.4408
2	Cap	1.4408
3	Ball	CF8M
4	Seat	PTFE
5	Stem	SUS316
6	Gasket	PTFE
7	Thrust washer	PTFE
8	Packing	PTFE
9	Washer	SUS304
10	Spring washer	SUS304
11	Stem nut	SUS304
12	Locking device	SUS304
13	Handle	SUS304
14	Plastic cover	Plastic



Size		d	L	H	W	Cv Factor	Torque N.M	Weight Kg
DN	NPS							
8	1/4"	5	39	34	69	4.0	0.6	0.07
10	3/8"	7	44	38	81	4.0	0.9	0.11
15	1/2"	10	59	41	96	4.5	1.0	0.18
20	3/4"	13	60	45	96	9.0	2.0	0.26
25	1"	16	72	52	116	16.0	4.0	0.39
32	1 1/4"	20	77	57	116	24.0	5.5	0.59
40	1 1/2"	25	84	62	158	37.0	7.0	0.82
50	2"	32	100	68	158	68.0	9.0	1.23



Edelstahlkugelhahn, 2-teilig/ Stainless steel ball valve, 2-pc. PA-840.566.P

Technische Daten

Bauform	Design
2-teilig	2-piece
Voller Durchgang	Full port
Ausblasseichere Spindel	Blow-out proof stem
Handhebel mit Abschließvorrichtung	Handlever with locking device

Anschluss

Beidseitig Innengewinde	Female thread
1/4" - 4"	1/4" - 4"
Gewinde nach DIN 2999	Threads according to DIN 2999

Betriebsdruck

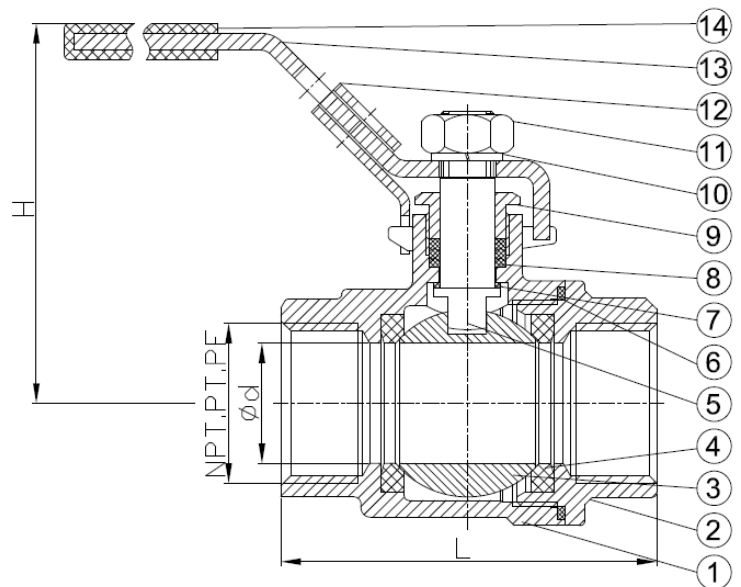
PN 63	Pressure Range
	PN 63

Betriebstemperatur

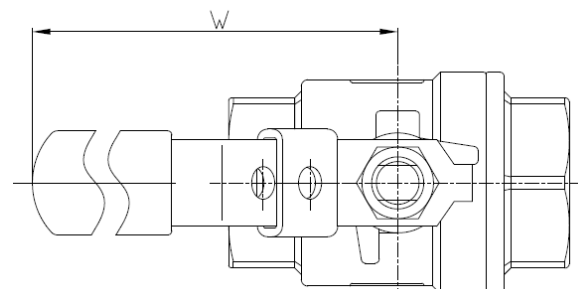
max. 180°C	Temperature Range
	max. 180°C



NO.	PART NAME	MATERIAL
1	BODY	CF8M
2	CAP	CF8M
3	BALL	CF8M
4	SEAT	PTFE
5	STEM	SUS316
6	GASKET	PTFE
7	THRUST WASHER	PTFE
8	PACKING	PTFE
9	GLAND	SUS304
10	SPRING WASHER	SUS304
11	STEM NUT	SUS304
12	LOCKING DEVICE	SUS304
13	HANDLE	SUS304
14	PLASTIC COVER	PLASTIC



SIZE		d	L	H	W
DN	NPS				
8	1/4"	11.6	52	56	102
10	3/8"	12.7	52	56	102
15	1/2"	15	58	60	108
20	3/4"	20	67	65	108
25	1"	25	78	74	128
32	1 1/4"	32	89.5	78	128
40	1 1/2"	38	104	86	183
50	2"	50	126	94	183
65	2 1/2"	65	150	138	246
80	3"	80	179	142	246



Edelstahlkugelhahn, 2-teilig/ Stainless steel ball valve, 2-pc PA-840IA.566.P

Technische Daten

Bauform
 2-teilig
 Voller Durchgang
 Mit Handhebel
 Gehäuse: Edelstahl 1.4408
 Kugel: Edelstahl 1.4408
 Dichtung: PTFE

Specification

Design
 2-piece
 Full port
 With handlelever
 Body: stainless steel 1.4408
 Ball: stainless steel 1.4408
 Seat: PTFE

Anschluss

Innengewinde
 Außengewinde
 1/4" - 2"

Connection

Female thread
 Male thread
 1/4" - 2"

Betriebsdruck

PN 63

Pressure Range

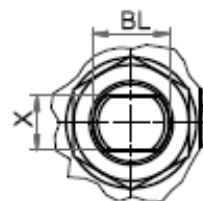
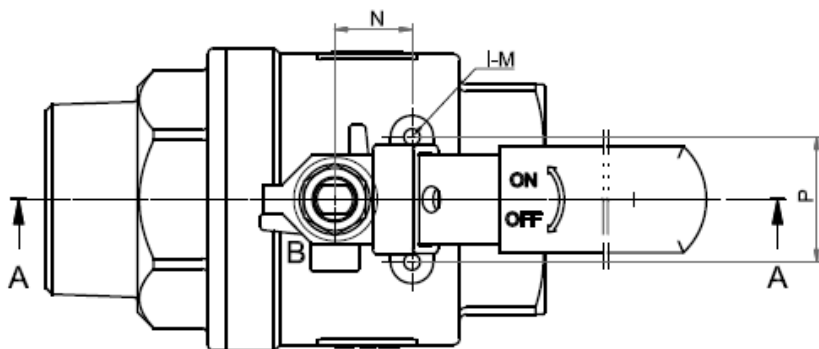
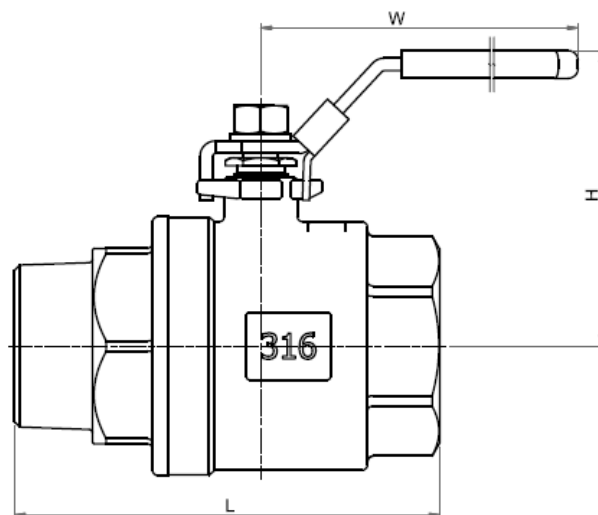
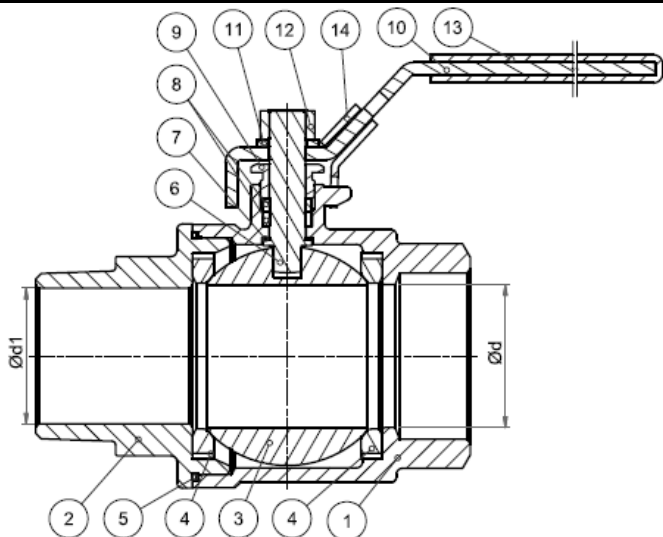
PN 63

Betriebstemperatur

max. 180°C

Temperature Range

max. 180°C



No.	Part name	Material
1	Body	ASTM-A351-CF8M
2	Cap	ASTM-A351-CF8M
3	Ball	ASTM-A351-CF8M
4	Ball Seat	PTFE
5	Joint Gasket	PTFE
6	Stem	AISI 316
7	Thrust washer	PTFE
8	Stem Packing	PTFE
9	Gland Nut	AISI304
10	Handle	AISI 430
11	Stem Washer	AISI304
12	Stem Nut	AISI304
13	Plastic Cover	Plastic
14	Lock Device	AISI 304

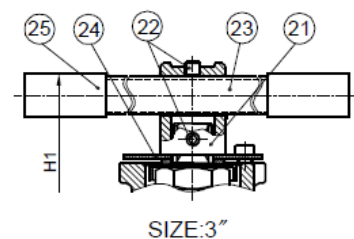
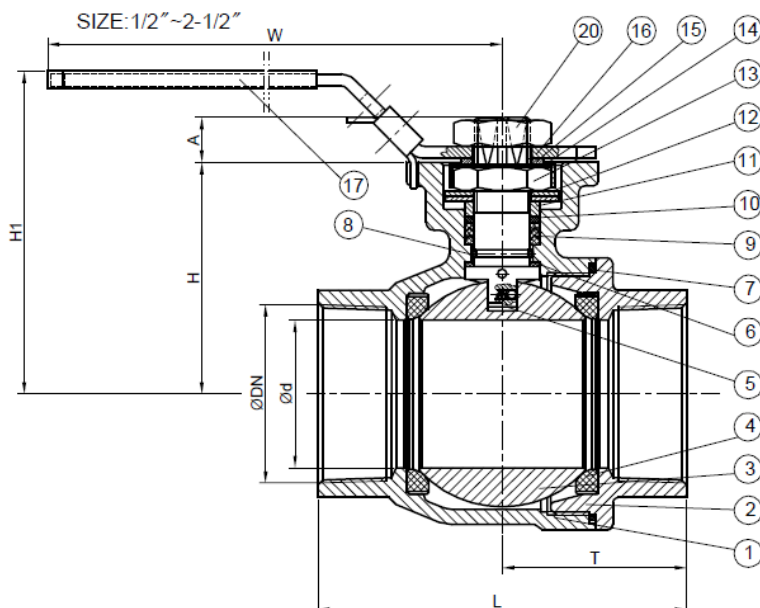
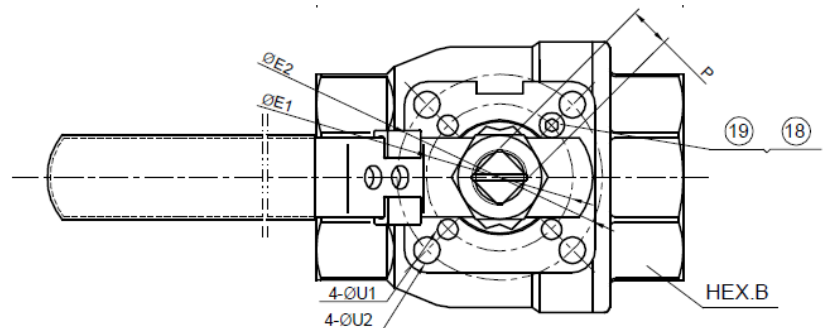
SIZE	Ød	Ød1	L	H	W	N	P	I-M	X	BL	Cv FACTOR	TORQUE(Kgf-cm)
1/4"	11,6	7	63	51	95	12,5	28,5	2-M6xP1,0	5	5/16"	6,6	40
3/8"	12,7	8,5	63,5	51	95	12,5	28,5	2-M6xP1,0	5	5/16"	7,9	40
1/2"	15	12,5	74	53	95	12,5	28,5	2-M6xP1,0	5	5/16"	11,2	54
3/4"	20	17,5	82	59	110	21	34,8	2-M6xP1,0	6,5	3/8"	21	74
1"	25	23,8	98,5	73	135	22,5	34,8	2-M6xP1,0	8	7/16"	35	104
1-1/4"	32	30,8	112,4	78	135	23,5	38,1	2-M6xP1,0	8	7/16"	57	135
1-1/2"	38	36,6	126,4	91	165	23,5	38,1	2-M6xP1,0	9	1/2"	80	180
2"	50	47,5	151,7	99	165	23,5	38,1	2-M6xP1,0	9	1/2"	148	250

Edelstahlkugelhahn, 2-teilig/ Stainless steel ball valve, 2-pc. PA-842D.566.P

Technische Daten	Specification
Bauform	Design
2-teilig	2-piece
Voller Durchgang	Full port
Mit Handhebel	With handlelever
Mit ISO-Direktaufbauflansch	With ISO-Directmountingpad
Gehäuse: Edelstahl 1.4408	Body: 1.4408
Kugel: Edelstahl 1.4408	Ball: 1.4408
Dichtung: TFM-1600	Seat: TFM-1600
Anschluss	Connection
Beidseitig Gewindeende	Threaded ends
¼" – 3"	¼" – 3"
Betriebsdruck	Pressure Range
PN 63	PN 63
Betriebstemperatur	Temperature Range
max. 180°C	max. 180°C



TA-LUFT
ATEX



NO.	Part Name	Materials
1	Body	1.4408 / CF8M
2	End Cap	1.4408 / CF8M
3	Ball	1.4408 / CF8M
4	Ball Seat	TFM1600
5	Stem	SUS316
6	Thrust Washer	TFM1600
7	Body Gasket	TFM1600
8	O-Ring	FKM (Viton)
9	V-Ring Packing	PTFE
10	Bushing	50% SS + 50% PTFE
11	Gland	SUS316
12	Belleville Washer	SUS301
13	Stem Nut	A194-8
14	Stop-Lock-Cap	SUS304
15	Handle Gland	SUS304
16	Handle + Lock Device	SUS304
17	Handle Sleeve	Vinyl Plastic
18	Stop Bolt	A193-B8
19	Stop Nut	194-8
20	Handle Nut	194-8
21	Handle Adapter	A351-CF8
22	Set Screwed	A193-B8
23	Pipe Hanle	SUS304
24	Triangle Stopper	SUS304
25	Handle Sleeve	Vinyl Plastic

SIZE	Ød	L	H	H1	W	ØE1	ØE2	T	ØU1	ØU2	A	P	HEX.B	ØDN
1/4 "	10.6	67	42.5	70.5	145	36	42	33.5	6	6	9	9	27	NPT
3/8 "	12.7	67	42.5	70.5	145	36	42	33.5	6	6	9	9	27	
1/2 "	15	67	42.5	70.5	145	36	42	33.5	6	6	9	9	27	
3/4 "	20	70.4	49	77	145	36	50	35.2	6	7	9	9	32	BSP
1 "	25	85	57.9	88	175	42	50	42.5	6	7	11	11	41	PT
1-1/4 "	32	94	62.5	93	175	42	70	47	6	9	11	11	50	DIN
1-1/2 "	38	105	71.5	103	190	50	70	52.5	7	9	14	14	56	etc.
2 "	50	125	78.4	110	190	50	70	62.5	7	9	14	14	70	
2-1/2 "	63.5	155	101.6	149.6	267.5	70	102	77.5	9	11	17	17	83	
3 "	76	173	110.6	175	300	70	102	86.5	9	11	17	17	102	

Edelstahlkugelhahn, 2-teilig/ Stainless steel ball valve, 2-pc PA-850.666.P

Technische Daten

Bauform
 2-teilig
 Voller Durchgang
 Mit Handhebel
 Baulänge nach DIN 3202-M3
 Gehäuse: Edelstahl 1.4408
 Kugel: Edelstahl 1.4408
 Dichtung: PTFE

Specification

Design
 2-piece
 Full port
 With handle
 Face to face according to DIN 3202-M3
 Body: stainless steel 1.4408
 Ball: stainless steel 1.4408
 Seat: PTFE

Anschluss

Beidseitig Innengewinde
 1/4" - 3"

Connection

Female thread
 1/4" - 3"

Betriebsdruck

PN 130

Pressure Range

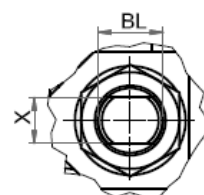
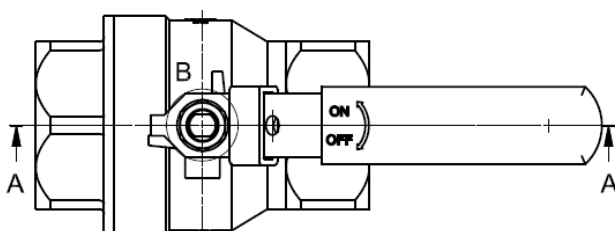
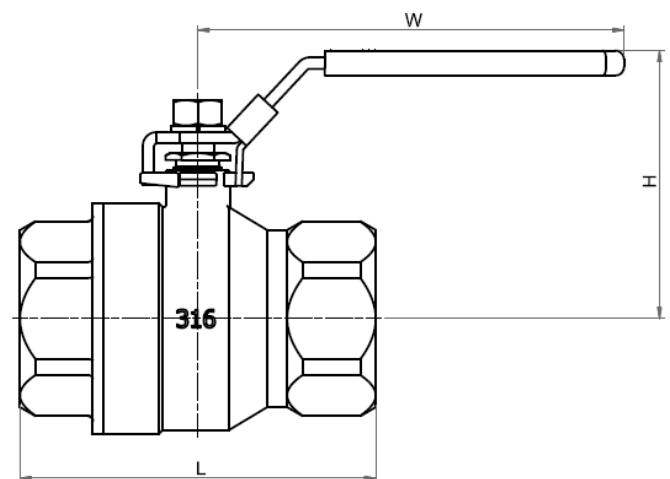
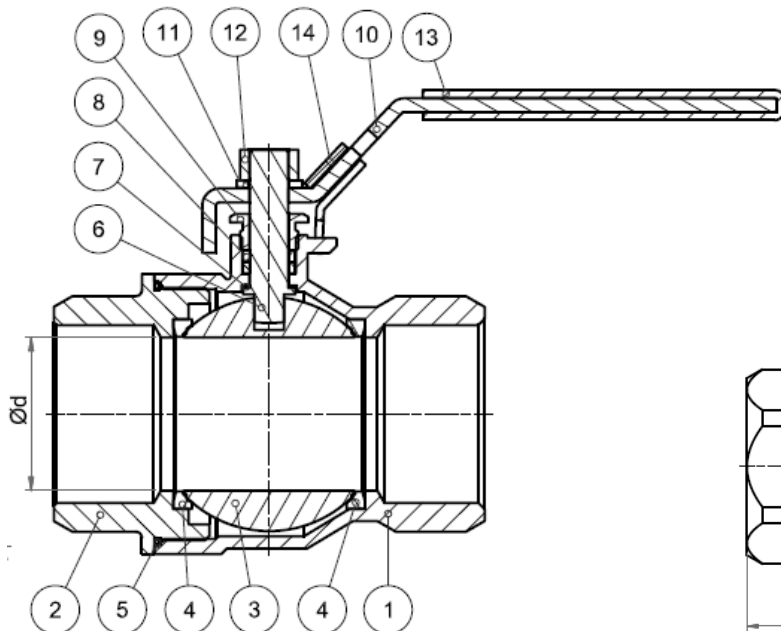
PN 130

Betriebstemperatur

max. 180°C

Temperature Range

max. 180°C



Item	Parts	Qty	Material V2X
1	Body	1	ASTM-A351-CF8M
2	Cap	1	ASTM-A351-CF8M
3	Ball	1	ASTM-A351-CF8M
4	Ball seat	2	PTFE
5	Joint gasket	1	PTFE
6	Stem	1	AISI 316
7	Thrust washer	1	PTFE
8	Stem packing	2	PTFE
9	Gland nut	1	AISI 304
10	Handle	1	AISI 430
11	Stem washer	1	AISI 304
12	Stem nut	1	AISI 304
13	Plastic cover	1	Plastic
14	Lock device	1	AISI 304

Size	Ød	L	H	W	X	BL	Cv Factor	Torque (Kgf-cm)
1/4"	11.6	60	51	95	5	5/16"	6.6	40
3/8"	12.7	60	51	95	5	5/16"	7.9	40
1/2"	15	75	53	95	5	5/16"	11.2	54
3/4"	20	80	59.5	110	6.5	3/8"	21	74
1"	25	90	73	135	8	7/16"	35	104
1 1/4"	32	110	79	135	8	7/16"	57	135
1 1/2"	38	120	90.5	165	9	1/2"	80	180
2"	50	140	98.5	165	9	1/2"	148	250
2 1/2"	65	185	130.5	215	12	3/4"	265	480
3"	80	205	142.5	215	12	3/4"	415	750

Edelstahlkugelhahn, 2-teilig, Federrückstellung/ Stainless steel ball valve, 2-pc., spring handle PA-850F.666.P

Technische Daten

Bauform
 2-teilig
 Voller Durchgang
 Mit Handhebel
 Baulänge nach DIN 3202-M3
 Gehäuse: Edelstahl 1.4408
 Kugel: Edelstahl 1.4408
 Dichtung: PTFE

Specification

Design
 2-piece
 Full port
 With handlelever
 Face to face according to DIN 3202-M3
 Body: stainless steel 1.4408
 Ball: stainless steel 1.4408
 Seat: PTFE

Anschluss

Beidseitig Innengewinde
 $\frac{1}{4}'' - 3''$

Connection

Female thread
 $\frac{1}{4}'' - 3''$

Betriebsdruck

PN 130

Pressure Range

PN 130

Betriebstemperatur

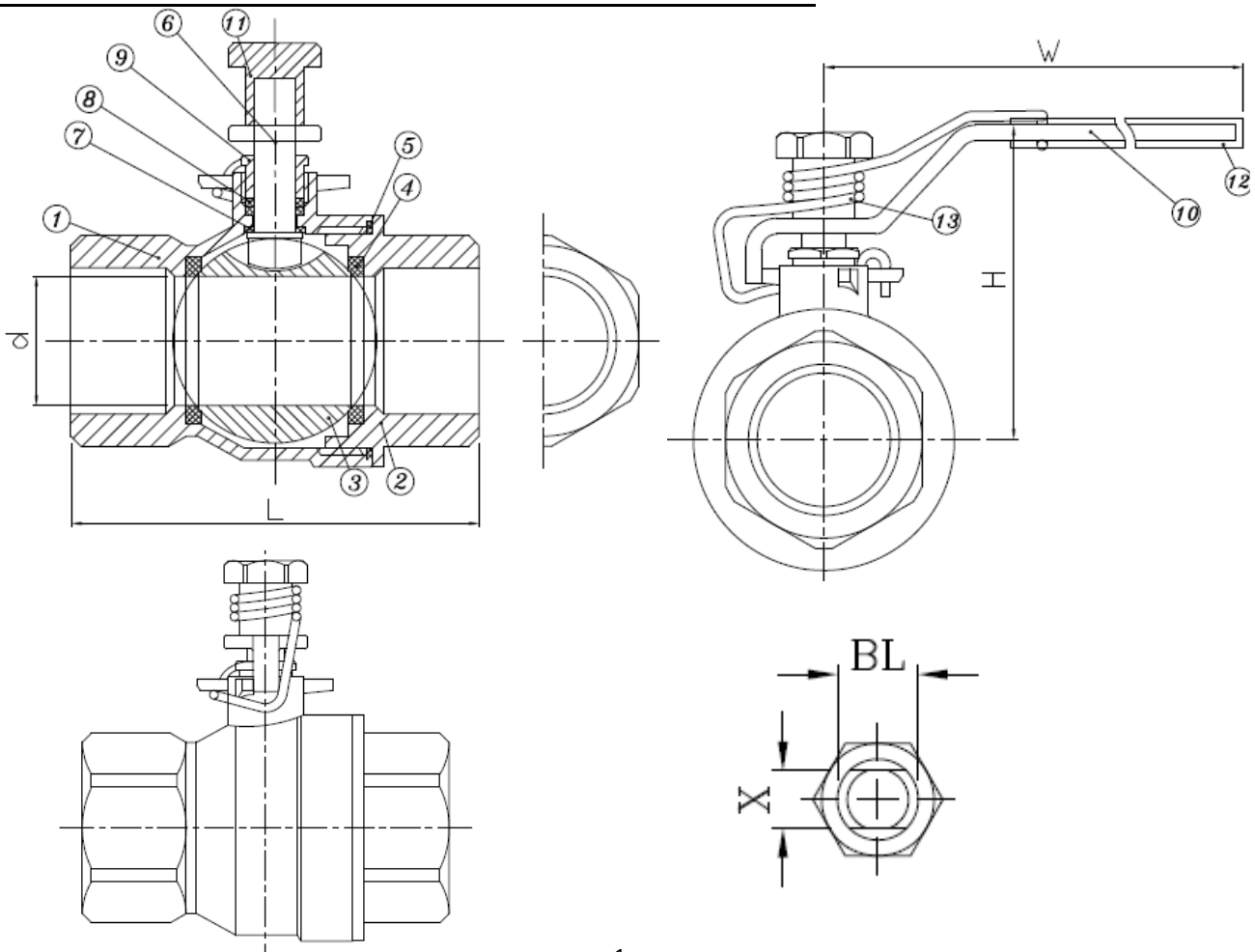
max. 180°C

Temperature Range

max. 180°C



mit Federrückstellung



Item	Parts	Qty	Material V2X
1	Body	1	ASTM-A351-CF8M
2	Cap	1	ASTM-A351-CF8M
3	Ball	1	ASTM-A351-CF8M
4	Ball seat	2	PTFE
5	Joint gasket	1	PTFE
6	Stem	1	AISI 316
7	Thrust washer	1	PTFE
8	Stem packing	2	PTFE
9	Gland nut	1	AISI 304
10	Handle	1	AISI 430
11	Stem washer	1	AISI 304
12	Stem nut	1	AISI 304
13	Plastic cover	1	Plastic
14	Lock device	1	AISI 304

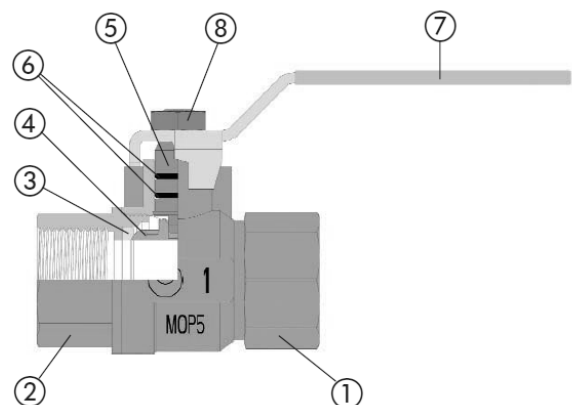
Size	Ød	L	H	W	X	BL	Cv Factor	Torque (Kgf-cm)
1/4"	11.6	60	51	95	5	5/16"	6.6	40
3/8"	12.7	60	51	95	5	5/16"	7.9	40
1/2"	15	75	53	95	5	5/16"	11.2	54
3/4"	20	80	59.5	110	6.5	3/8"	21	74
1"	25	90	73	135	8	7/16"	35	104
1 1/4"	32	110	79	135	8	7/16"	57	135
1 1/2"	38	120	90.5	165	9	1/2"	80	180
2"	50	140	98.5	165	9	1/2"	148	250
2 1/2"	65	185	130.5	215	12	3/4"	265	480
3"	80	205	142.5	215	12	3/4"	415	750

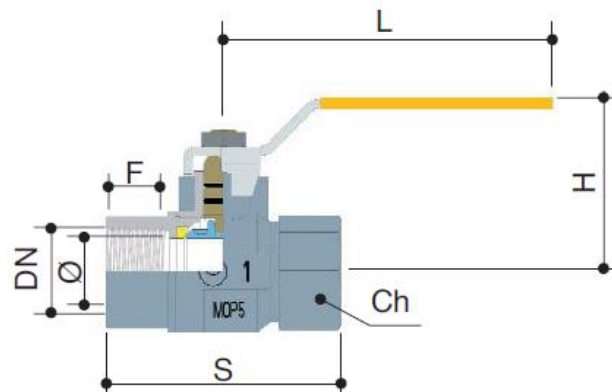
Gas-Kugelhahn, DIN-DVGW-Zulassung/ Ball valve, with DVGW certificate PA-078.388.P

Technische Daten	Specification
Bauform	Design
Voller Durchgang	Full port
Mit Handhebel	With handle
Gehäuse: Messing vernickelt	Body: brass nickel plated
Kugel: Messing hartverchromt	Ball: brass chrome plated
Dichtung: PTFE	Seat: PTFE
Anschluss	Connection
Beidseitig Innengewinde	Female threads
3/8" - 2"	3/8" - 2"
Betriebsdruck	Pressure Range
PN 20	PN 20
Gas PN 5	Gas PN 5
Betriebstemperatur	Temperature Range
min. -10 °C - max. 60°C	min. -10 °C - max. 60°C



NO	PARTS	MATERIAL	TREATMENT
1	Body	Brass CW617N - UNI EN12165/98	Nickel plated
2	Body End	Brass CW617N - UNI EN12165/98	Nickel plated
3	Seat	PTFE	
4	Ball	Brass CW617N UNI - EN12165/98	Chrome plated
5	Stem	Brass CW617N UNI - EN12164/98	
6	O-Ring	NBR	
7	Handle	Steel	Plastic coated
8	Nut	Steel	Zinc plated

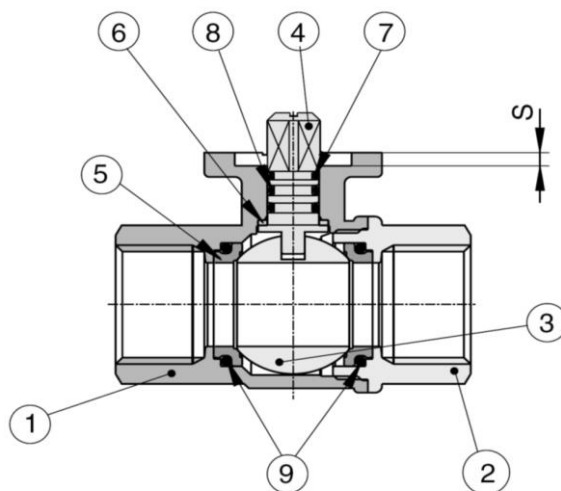




DN	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Ø	10	15	20	25	32	40	50
F	16	20	20	22	25	28	28
S	60	75	80	90	110	120	140
H	41	54	58	66	71	80	88
L	80	90	90	125	125	140	140
L1	52	62	62	72			
Ch	22	26	31	40	49	55	69

Messingkugelhahn, ISO-Direktaufbauflansch/ Ball valve, brass, ISO-Directmountingpad PA-34D.388.P

Technische Daten	Specification
Bauform 2 - teilig Voller Durchgang ISO-Direktaufbauflansch	Design 2 - pieces Full bore ISO-Directmountingpad
Anschluss Beidseitig Innengewinde ¼" - 4"	Connection Female threads ¼" - 4"
Betriebsdruck PN 16 – PN 32	Pressure Range PN 16 – PN 32
Betriebstemperatur min. -20°C - max. 130°C	Temperature Range min. -20°C - max. 130°C



Item	Part	Material
1	Body	Brass nickel plated
2	End connection	Brass nickel plated
3	Ball	Brass chrome plated
4	Stem	Brass chrome plated
5	Ball seat	PTFE
6	antifriction seat	PTFE
7	antifriction seat	PTFE
8	O-ring	FKM
9	O-ring	FKM

Size	I	Ch	ØH	L	A	ØB	ØC	ØD	S	E	F	N	Kv	Kg
1/4"	11	27	33,5	67	9	6	36	25	2	5,5	32,5	9	5,4	0,37
3/8"	11	27	33,5	67	9	6	36	25	2	5,5	32,5	9	6	0,35
1/2"	15	27	33,5	67	9	6	36	25	2	5,5	32,5	9	16,3	0,31
3/4"	16	32	40	76	9	6	36	25	3	5,5	34,5	9	29,5	0,40
1"	19	41	49	90	9	6	36	25	3	6	45,5	9	43	0,72
1 1/4"	21	50	58,5	102	9	6	36	25	3	6	49	9	89	1,06
1 1/2"	21	55	73	114	11	7	50	35	3	8	64	11	230	1,73
2"	26	70	91,5	138	11	7	50	35	3	8	73	11	265	2,94
2 1/2"	30	90	114,5	165	15	9	70	55	3	9	88,5	14	540	4,06
3"	33	105	136	188	15	9	70	55	3	9	98	14	873	6,41
4"	39	130	166	225	17,5	9	70	55	3	9	116,5	17	1390	10,20

Muffenkugelhahn, Messing/ *Ball valve, brass*

PA-150.388.P

Technische Daten

Bauform

2-teilig
 Voller Durchgang
 Ausblassichere Spindel

Specification

Design

2-piece
 Full bore
 Blow-out proof stem

Anschluss

Beidseitig Innengewinde
 nach ISO 228-1
 1/4" - 4"

Connection

Female threads
 to ISO 228-1
 1/4" - 4"

Betriebsdruck

PN 25

Pressure Range

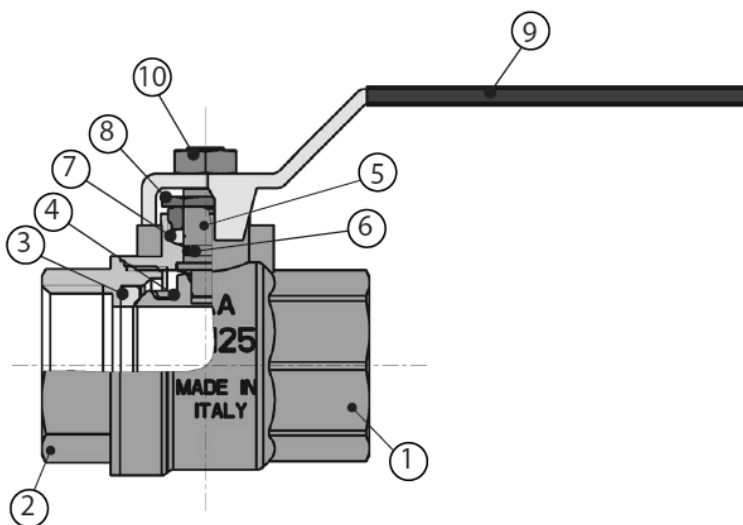
PN 25

Betriebstemperatur

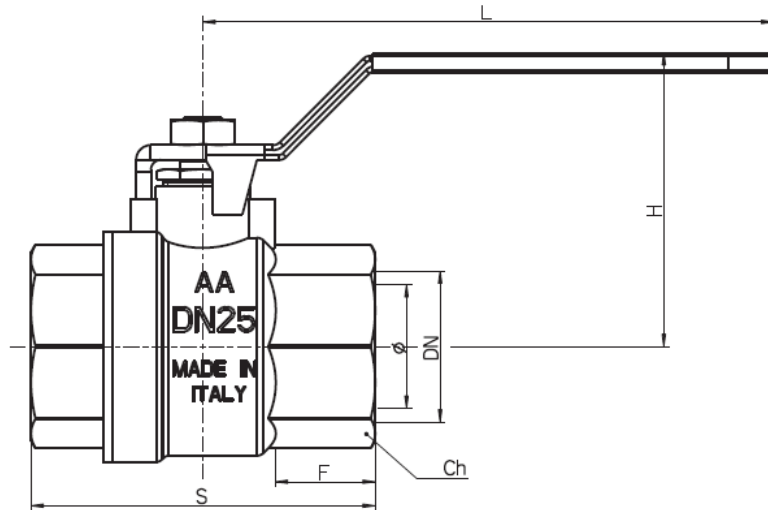
min. - 20°C / max. 130°C

Temperature Range

min. - 20°C / max. 130°C



Item	Part	Material
1	Body	Brass nickel plated
2	Body end	Brass nickel plated
3	Seat	PTFE
4	Ball	Brass chrome plated
5	Stem	Brass
6	O-ring	NBR
7	Seat	PTFE
8	Packing nut	Brass
9	Handlever	Steel
10	Nut	Steel



Size	Ø	F	F	S	H	L	Ch	Kg	KV
¼"	10	9,5	10	42	40	80	17	0,12	15
3/8"	10	10,5	10	44	40	80	20	0,12	15
½"	15	11	10,5	50	43	92	25	0,18	20
¾"	20	13	13	58	47	92	31	0,25	45
1"	25	15	15	70	59	115	38	0,46	60
1 ¼"	32	17	17	80	64	115	47	0,70	100
1 ½"	40	18	18	91	75	150	54	1,00	170
2"	50	20,5	20	108	82	150	66	1,57	265
2 ½"	60	20		132	107	220	84	3,00	510
3"	74	24		151	116	220	96	4,00	790
4"	94	27		179	153	250	123	7,00	1230

Trinkwasser-Kugelhahn, Messing/ Ball valve, brass PA-160.388.P

Technische Daten

Specification

Bauform

Voller Durchgang
 Mit Handhebel
 Gehäuse: Messing vernickelt
 Kugel: Messing hartverchromt
 Dichtung: PTFE

Design

Full port
 With handle
 Body: brass nickel plated
 Ball: brass chrome plated
 Seat: PTFE

Anschluss

Beidseitig Innengewinde
 3/8" – 2"

Connection

Female threads
 3/8" – 2"

Betriebsdruck

PN 25

Pressure Range

PN 25

Betriebstemperatur

min. -10 °C - max. 90°C

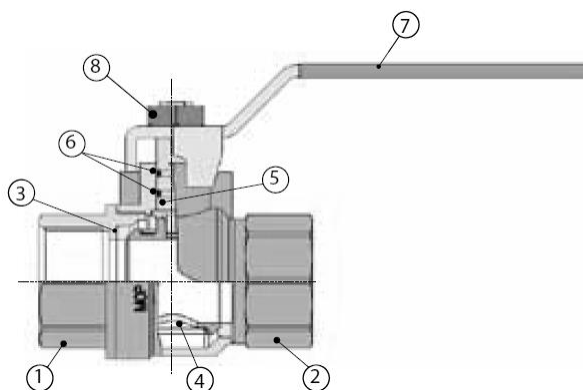
Temperature Range

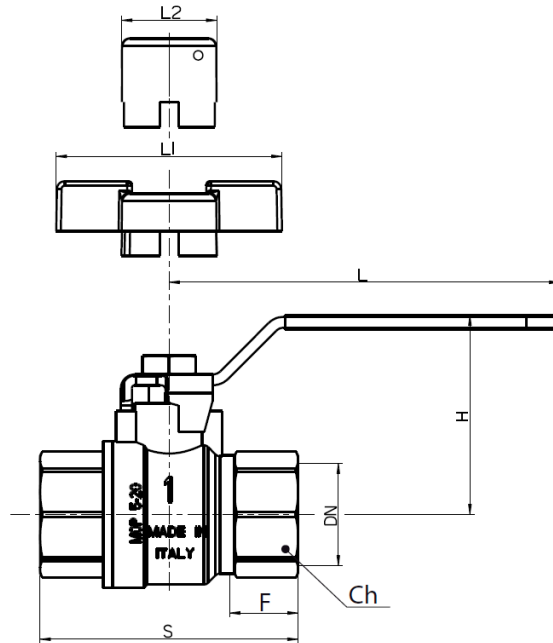
min. -10 °C - max. 90°C



Trinkwasser

NO	PARTS	MATERIAL	TREATMENT
1	Body	Brass CW617N-DW - UNI EN12165	
2	Body End	Brass CW617N-DW - UNI EN12165	
3	Seat	PTFE	
4	Ball	Brass CW614N-DW - UNI EN12165	Chrome plated
5	Stem	Brass CW614N-DW - UNI EN12164	
6	O-Ring	NBR	
7	Handle	Steel	Plastic coated
8	Nut	Steel	Zinc plated





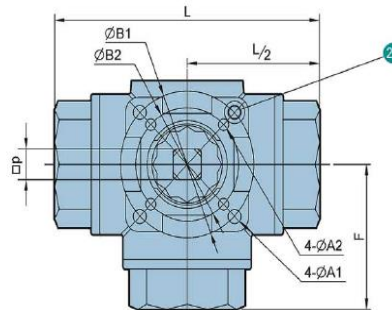
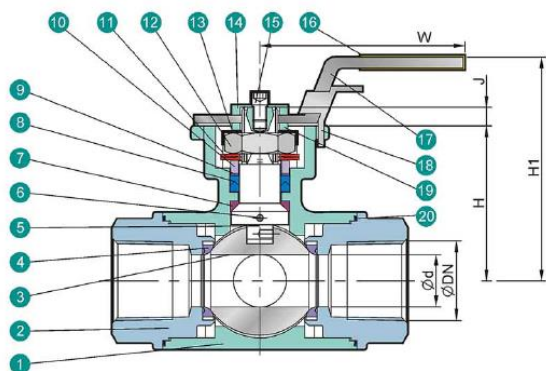
SIZE	Ø	F	S	H	L	L1	L2	Ch
3/8"	10	10	45	41	80	50		21
1/2"	15	15	63	54	90	61	29	26
3/4"	20	16	71	58	90	61	29	31
1"	25	19	83	66	125	72	33	38
1 1/4"	32	21	92	71	125		33	48
1 1/2"	40	21	104	80	140		44	55
2"	50	26	124	88	140		44	68

3-Wege Muffenkugelhahn, Edelstahl/ 3-way ball valve, stainless steel PA-58D.566.P

Technische Daten

Specification

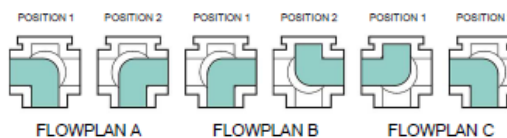
Bauform	Design
Ausblassichere Spindel	Blow-out proof stem
ISO-Direktaufbauflansch	ISO-Directmountingpad
Anschluss	Connection
Allseitig Innengewinde	Female threads
¼" - 2"	¼" - 2"
L - oder T - Bohrung	L - or T - bore
Betriebsdruck	Pressure Range
PN 63	PN 63
Betriebstemperatur	Temperature Range
max. 180°C	max. 180°C



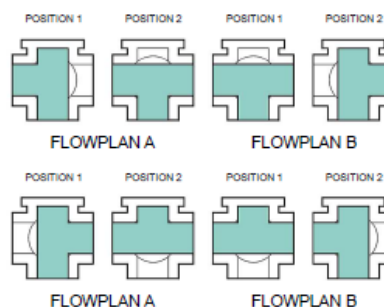
NO.	PART	MATERIAL
1	Body	A351-CF8M
2	End Cap	A351-CF8M
3	Ball	A351-CF8M
4	Ball Seat	RTFE
5	Stem	A276-316
6	Anti-static	SUS 316
7	Stem seal-ring	PTFE
8	V-ring Packing	PTFE
9	Bushing	50%SS + 50%PTFE
10	Gland	SUS 304
11	Belleville Washer	SUS 301
12	Stem Nut	SUS 304
13	Stop-lock-cap	SUS 304
14	Washer	SUS 304
15	Handle Nut	SUS 304
16	Handle Sleeve	Vinyl plastic
17	Handle	SUS 304
18	Lock Device	SUS 304
19	Handle Gland	SUS 304
20	Body Gasket	PTFE
21	Stop Bolt	SUS 304

FLOW PATTERNS FOR 3-WAY VALVES

L-PORT 90 TURN



T-PORT 90 TURN

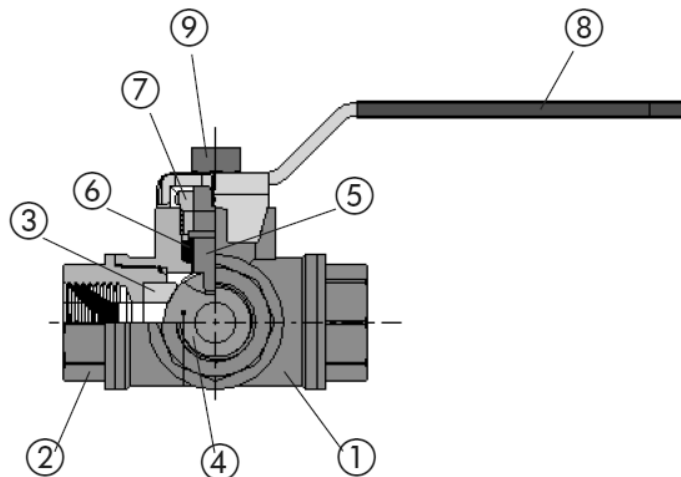


Unit: mm

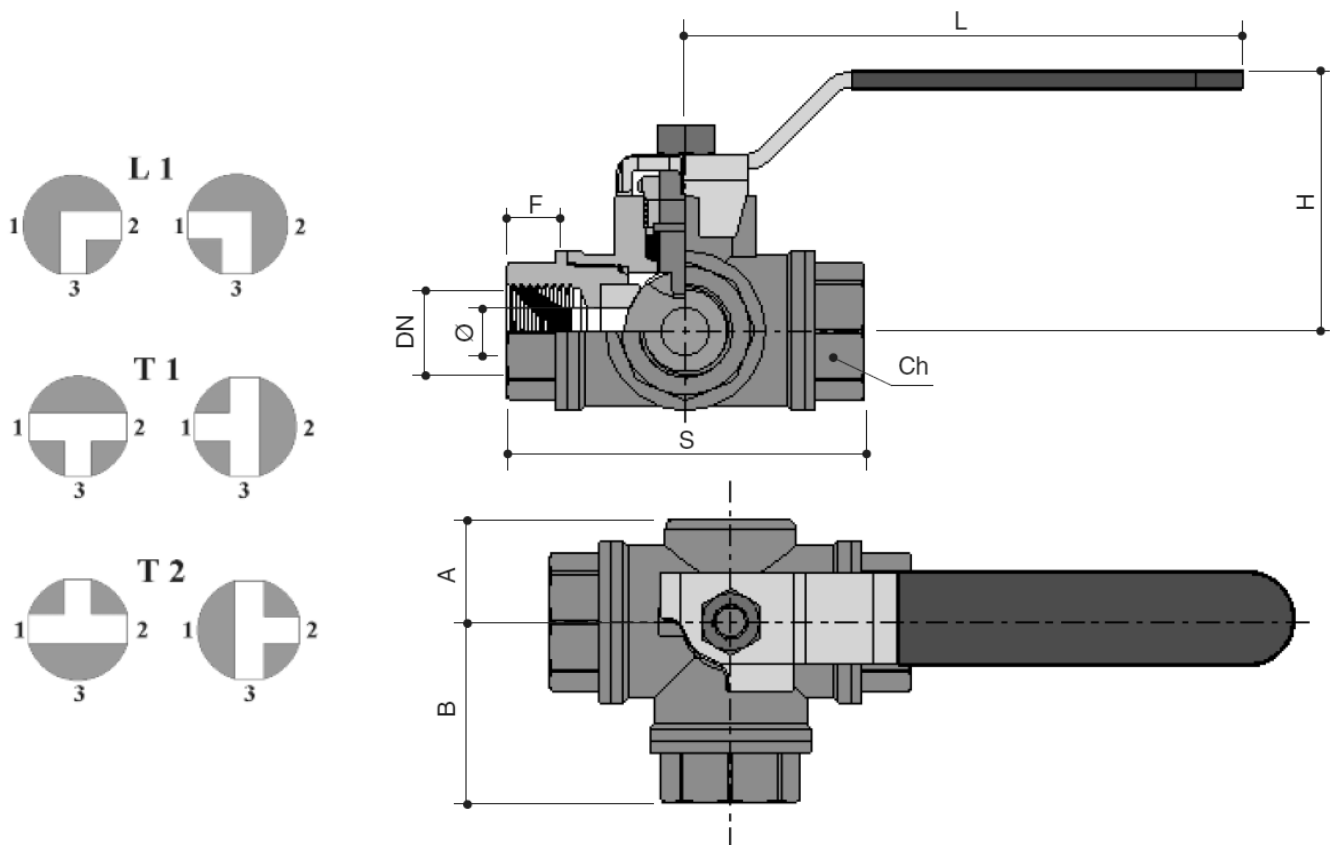
SIZE	φd	L	H	H1	W	J	F	φB1	φB2	φA1	φA2	P	φDN
1/4"	11.0	79.0	42.0	70.0	160.0	7.0	39.5	42.0	36.0	5.5	5.5	9.0	NPT
3/8"	11.0	79.0	42.0	70.0	160.0	7.0	39.5	42.0	36.0	5.5	5.5	9.0	BSP
1/2"	11.0	79.0	42.0	70.0	160.0	7.0	39.5	42.0	36.0	5.5	5.5	9.0	PT
3/4"	15.0	88.0	49.0	77.0	160.0	7.0	44.0	42.0	36.0	5.5	5.5	9.0	DIN
1"	20.0	108.0	59.0	87.0	175.0	9.0	54.0	50.0	42.0	5.5	5.5	11.0	etc...
1-1/4"	25.0	124.0	65.0	93.0	175.0	9.0	62.0	50.0	42.0	5.5	5.5	11.0	
1-1/2"	32.0	135.0	73.2	103.0	245.0	12.0	67.5	70.0	50.0	8.5	6.5	14.0	
2"	40.0	164.0	82.5	113.0	245.0	12.0	82.0	70.0	50.0	8.5	6.5	14.0	

3-Wege Muffenkugelhahn, Messing/ 3-way ball valve, brass PA-182.388.P

Technische Daten	Specification
Bauform	Design
Reduzierter Durchgang	Reduced Port
Anschluss	Connection
Beidseitig Innengewinde	Female threads
¼" - 2"	¼" - 2"
L - oder T - Bohrung	L - or T - bore
Betriebsdruck	Pressure Range
PN 25 - 32	PN 25 - 32
Betriebstemperatur	Temperature Range
min. - 20°C - max. 150°C	min. - 20°C - max. 150°C



N.	PART NAME	MATERIAL	TREATMENT
1	Body	Brass - CW 617N - UNI EN 12165/98	Nickel plated
2	Body end	Brass - CW 617N - UNI EN 12165/98	Nickel plated
3	Seat	PTFE	
4	Ball	Brass - CW 617N - UNI EN 12165/98	Chrome plated
5	Stem	Brass CW 614N - UNI EN 12164/98	
6	Stem seat	PTFE	
7	Packing nut	Brass - CW 614N - UNI EN 12164/98	
8	Handle	Steel	Plastic coated
9	Nut	Steel	Zinc plated



DN	¼"	3/8"	½"	¾"	1"	1 ¼"	1 ½"	2"
Ø	10	10	12	15	20	25	32	40
F	12	12	14	16	19	21	23	26
S	74	74	80	90	105	115	138	161
H	58	58	60	64	73	79	100	105
L	90	90	125	125	140	140	220	220
A	22	22	24	28	31	35	42	48
B	37	37	39	46	52	58	69	80
Ch	22	22	29	34	42	50	57	68

KW FACTOR	
¼" - 10	3
3/8" - 10	3
½" - 12	4
¾" - 15	6
1" - 20	12
1 ¼" - 25	21
1 ½" - 32	35
2" - 40	47

3-Wege Muffenkugelhahn, Messing/ 3-way ball valve, brass PA-182D.388.P

Technische Daten

Bauform	Design
Voller Durchgang	Full Port
ISO-Direktaufbauflansch	ISO-Directmountingpad

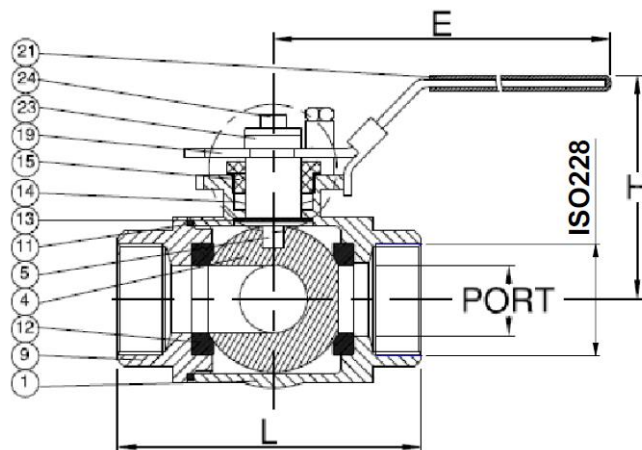
Anschluss	Connection
Beidseitig Innengewinde	Female threads
¼" - 2"	¼" - 2"
L - oder T - Bohrung	L - or T - bore

Betriebsdruck	Pressure Range
PN 10 – PN 30	PN 10 – PN 30

Betriebstemperatur	Temperature Range
min. -20°C - max. 160°C	min. -20°C - max. 160°C

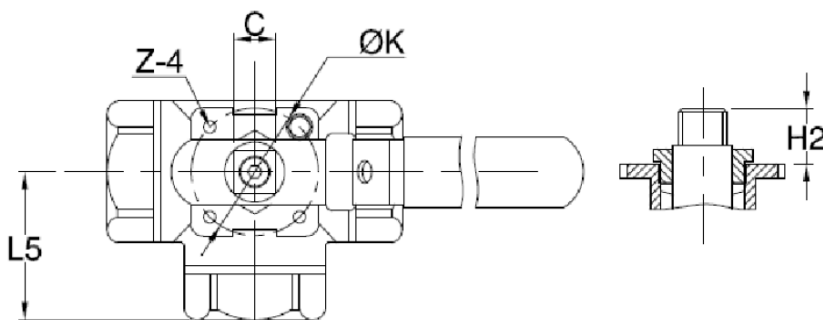


No.	Part Name	Material
1	Body	CW617N
4	Ball	CW614N
5	Stem	CW614N
9	End cap	EN1503-1
11	Body Seal	PTFE
12	Seat	RTFE
13	Thrust washer	PTFE
14	Stem packing	PTFE
15	Gland	SS304
19	Handle	SS304
21	Handle cover	Vinyl grip
23	Handle washer	SS304
24	Handle nut	SS304



TURN \ PORT	0°	90°	180°	270°
T				

TURN \ PORT	0°	90°	180°	270°
L				



Size		Port	L	L5	E	H	H2	C	ØK	Z-4
DN8	¼"	11.0	69.4	34.6	133.4	60.7	10.7	9.0	42.0	M5xP0.8
DN10	3/8"	11.0	69.4	34.6	133.4	60.7	10.7	9.0	42.0	M5xP0.8
DN15	½"	12.5	75.7	37.3	133.4	64.1	10.7	9.0	42.0	M5xP0.8
DN20	¾"	16.0	86.6	44.7	178.5	82.4	13.9	11.0	50.0	M6xP1.0
DN25	1"	20.0	102.4	51.4	178.5	86.1	20.0	11.0	50.0	M6xP1.0
DN32	1 ¼"	25.0	118.2	57.7	209.9	91.4	23.8	11.0	50.0	M6xP1.0
DN40	1 ½"	32.0	125.8	62.7	208.0	102.7	25.8	11.0	70.0	M8xP1.25
DN50	2"	38.0	149.0	74.6	229.9	110.7	25.3	14.0	70.0	M8xP1.25