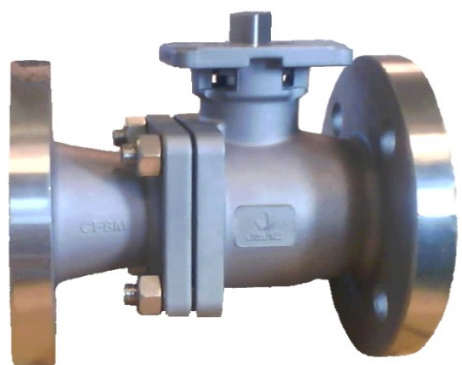


## Ball valve

2-pieces

PN10-CLASS 900  
DN40-DN1200



### General characteristics

This 2-pieces ball valve has a *Unique design* with several patent which reduces the problems with of both external and internal leakage. The patens also decreases the wear of the stem and stem packing and reduces the open/close torque.

### Features

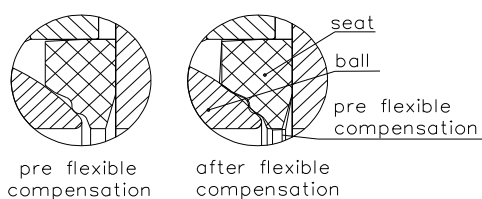
- 2-pieces full bore ball valve
- Cast steel
- Stainless steel and carbon steel
- Floating ball
- Ball-to-body anti-static device
- Patented Radical bearing gland
- Patented coaxial ring
- Patented Unloaded stem with dynami flexible compensation
- Dual, metal or soft seat
- Fire-safe design
- According to TA-luft requirement
- **CE**-certified according to PED97/23/EC

**Table 1**

Pressure:	PN16-PN40
Size:	DN15 to DN250
Design:	EN12519
Face to Face:	EN558-1, serie 48
Flanged End:	EN1092-1
Inspections&Tests:	EN12266
Work Temperature:	Soft Seat -29(-46)~180°C Metal Seat -29(-46)~425°C

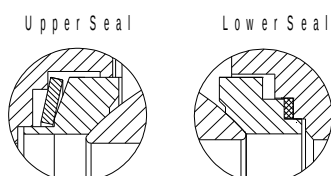
### Applications

- Water, steam, gas, oil and other fluids that are not aggressive to the materials in the valve
- The Ball valves can be used both as a control valve or shut-off valve.



### Soft seat

The soft seat, made of PTFE, R-PTFE and PEEK are designed to be dual flexible compensated trim.



### Metal Seats

The seat made in S5316, keeps close contact to the ball by spring washer. The high wear resistance and anticorrosion process QPQ (Quench Polish Quench) together with jey soldering of hard alloy, applied on the seat surface, gives highly perfect wear resistance And corrosion proof of the seat, thus achiving long term service.

# Ball valve

2-pieces

PN10-CLASS 900  
DN40-DN1200

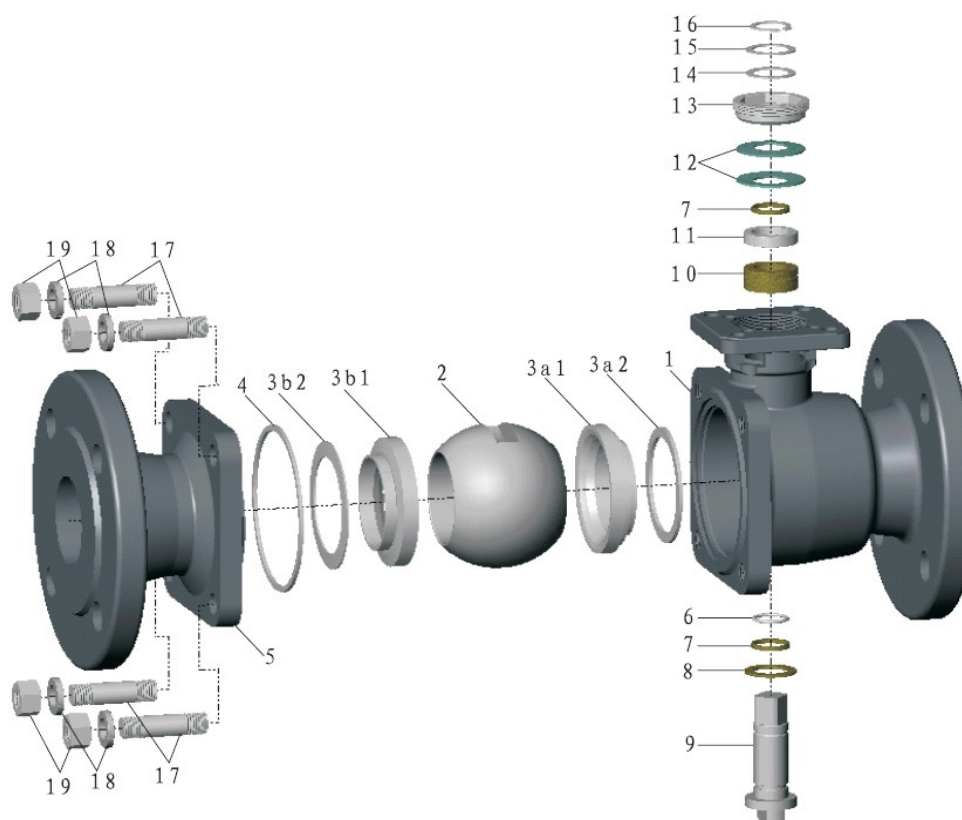
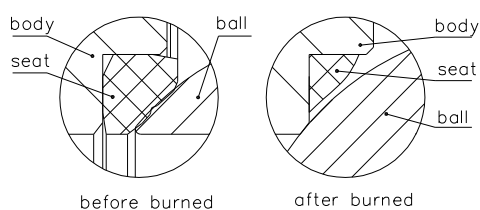
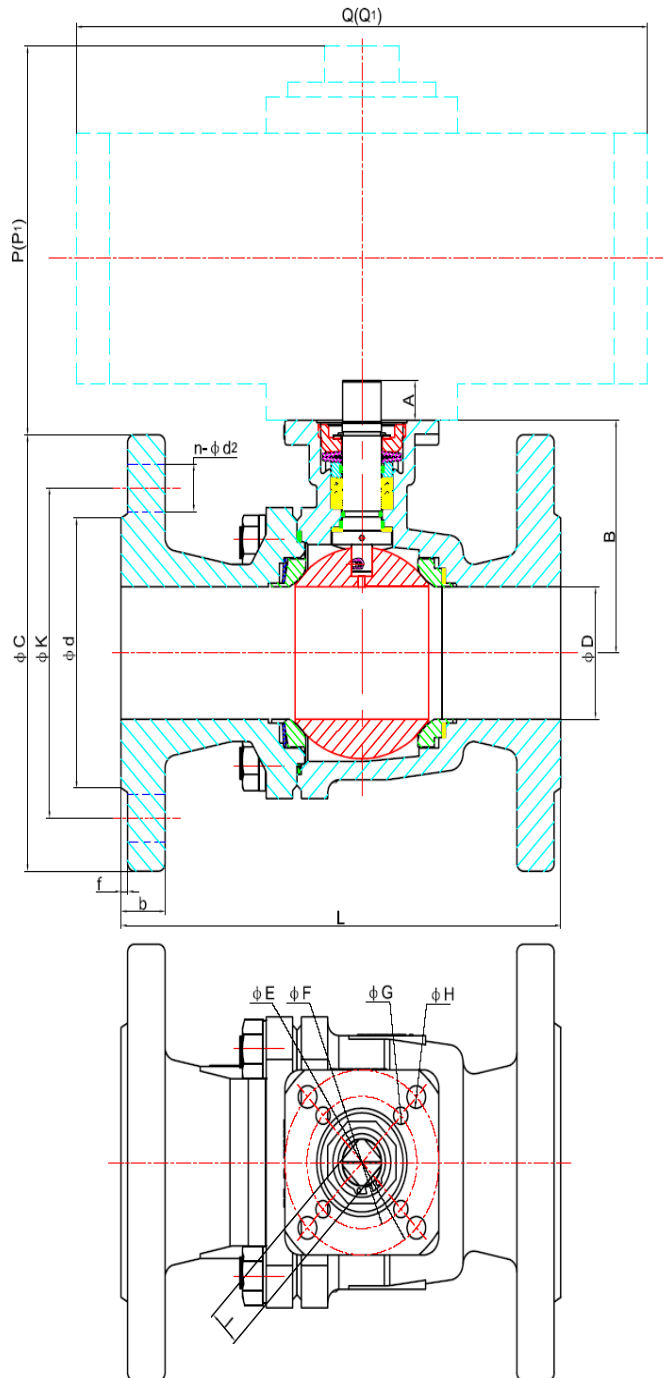


Table 2 - Material specification

Pos	Detail	Material
1	Body	ASTM A216 WCB      ASTM A351 CF8M
2	Ball	ASTM A351 CF8M
3a1	Bottom seat	PTFE, RPTFE, PEEK, ANSI316+STELLITE
3a2	Gasket	PTFE, Graphite
3b1	Upper seat	PTFE, RPTFE, PEEK, ANSI316+STELLITE
3b2	Washer	ASTM A276 316
4	Gasket	PTFE, RPTFE, Graphite
5	End cap	ASTM A351 CF8M
6	O-ring	Fluorous Rubber
7	Radial bearing	PTFE, RPTFE, ANSI316+QPQ
8	Axial bearing	PTFE, RPTFE, PEEK, ANSI316+QPQ
9	Stem	ANSI316      17-4PH
10	Stem packing	PTFE, Graphite
11	Gland	ASTM A276 304, ANSI304+QPQ
12	Washer	SS304
13	Lock nut	ASTM A351 CF8
14	Washer	PTFE, ANSI304+QPQ
15	Washer	ASTM A276 304, ANSI304+QPQ
16	C-ring	SS304
17	Bolt	ASTM A193 B8
18	Washer	SS304
19	Nut	ASTM A194 8

Ball valve  
2-pieces

PN10-CLASS 900  
DN40-DN1200



**Fire-safe design**

The seat is formed by PTFE. When high temperature occurs, the PTFE seat is melted, the ball come in contact with the body directly by the fluid pressure and thus keep sealing

# Ball valve

## 2-pieces

PN10-CLASS 900  
DN40-DN1200



Tabell 3. Pressure/temperature range according to EN 1092-1

Body material	PN	-30-RT	100	150	200	250	300	350	400	425
Carbon steel 3EO, 1.0619	16	15,6	13,6	12,7	11,4	10,4	9,4	8,8	8,4	
Carbon steel 3EO, 1.0619	25	16	14,9	13,9	12,4	11,4	10,3	9,6	9,2	
Carbon steel 3EO, 1.0619	40	16	14,9	13,9	12,4	11,4	10,3	9,6	9,2	
Stainless steel CF8, 2C1	16	14,7	12,1	11	10,2	9,6	9	8,7	8,4	8,2
Stainless steel CF8, 2C1	25	23	18,9	17,2	16	15	14,2	13,7	13,2	12,9
Stainless steel CF8, 2C1	40	36,8	30,3	27,5	25,5	24,1	22,7	21,9	21,2	20,6
Stainless steel CF8M, 2C2	16	14,7	12,5	11,4	10,6	9,8	9,3	9	8,7	8,5
Stainless steel CF8M, 2C2	25	23	19,5	17,8	16,5	15,5	14,6	14,1	13,6	13,5
Stainless steel CF8M, 2C2	40	36,8	31,3	28,5	26,4	24,7	23,4	22,6	21,8	21,6

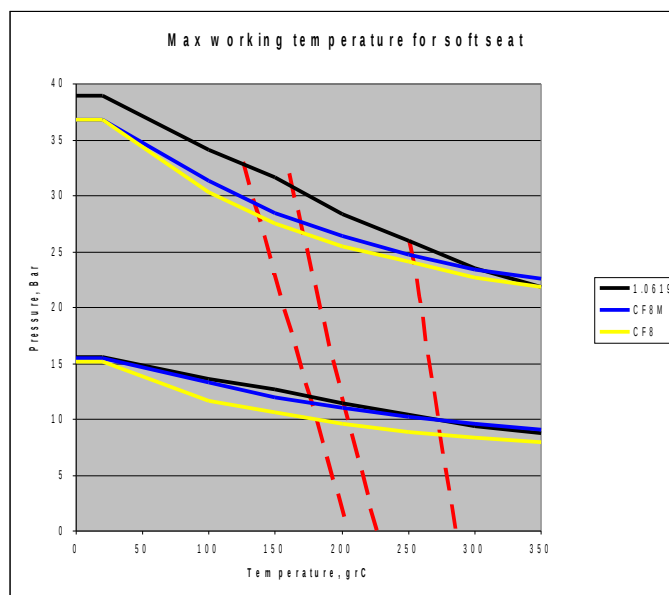


Table 4. Dimensioner and weight.

Face to face: acc. to EN 558-1 serie 1 upto DN32 and above serie 48. Flange acc. to EN1092-1, type B1,

DN mm	PN	A mm	B mm	L mm	ΦC mm	ΦE	ΦF	ΦG	ΦH	l	ΦK mm	b mm	Φd	n-Φd2 stxmm	Weight mm	Actuator Flanges
15	16-25/40	7,5	48,5	130	95	42	36	5,6	5,6	9	65	16	45	4x14	2,3	F04/F03
20	16-25/40	9,5	53,5	150	105	42	36	5,6	5,6	9	75	18	58	4x14	2,93	F04/F03
25	16-25/40	11	59	160	115	50	42	5,6	7	11	85	18	68	4x14	3,92	F05/F04
32	16-25/40	11	71	180	140	50	42	5,6	7	11	100	18	78	4x18	5,8	F05/F04
40	16-25/40	15	80	180	150	70	50	6,5	8,5	14	110	18	88	4x18	7,3	F05/F04
50	16-25/40	15	88	200	165	70	50	7	9	14	125	20	102	4x18	10,5	F07/F05
65	16	18	101	240	185	102	70	9	11	17	145	18	122	8x18	16,5	F10/F05
80	16	18	110	260	200	102	70	9	11	17	160	20	138	8x18	21,8	F10/F07
100	16	24	135	300	220	125	102	12	-	22	180	20	158	8x18	32,3	F07/F12
65	25/40	18	101	240	185	102	70	9	11	17	145	22	122	8x18	18,5	F10/F07
80	25/40	18	110	260	200	102	70	9	11	17	160	24	138	8x18	24,7	F10/F07
100	25/40	20	135	300	235	-	102	12	-	22	190	24	162	8x22	37,8	F10
150	16	28	198	400	285	-	125	14	-	27	240	22	212	8x22	72,5	F12/F10
200	16	28	252	500	340	-	140	18	-	36	295	24	268	12x22	103	F14/F12
250	16	28	295	600	405	-	140	18	-	36	355	26	320	12x26	128	F14/F12

>250 on request

# Ball valve

## 2-pieces

PN10-CLASS 900  
DN40-DN1200



Table 5 - Torque for valve with PTFE-seat\* Nm/Lbft

DN	Inch	Pressure Bar/Psi				
		5/75	10/150	20,7/300	48,3/700	69/1000
10	3/8	3,1/2,4	3,1/2,4	3,1/2,4	3,1/2,4	3,1/2,4
15	1/2	3,9/3,1	3,9/3,1	3,9/3,1	3,9/3,1	3,9/3,1
20	3/4	5,1/4,0	5,1/4,0	5,1/4,0	5,1/4,0	5,1/4,0
25	1	8,6/6,7	8,6/6,7	8,6/6,7	9,3/7,3	9,3/7,3
32	1 1/4	10,1/7,9	10,1/7,9	11,7/9,2	13,1/10,3	14,0/11,0
40	1 1/2	14,0/11,0	14,0/11,0	18,6/14,6	21,8/17,1	24,8/19,4
50	2	22,2/17,4	26,1/20,4	28,5/22,3	32,5/25,4	35,6/27,9
65	2 1/2	36,3/28,4	42,2/32,9	46,8/36,6	58,2/45,6	-
80	3	50,1/39,2	58,2/45,6	64,7/50,7	92,9/72,7	-
100	4	80,8/63,3	97,0/76,0	121,2/94,9	161,6/126,5	-
125	5	174,4/136,6	184,4/144,4	212,2/166,2	294,6/230,7	-
150	6	229,5/179,7	248,9/194,9	276,6/216,6	414,5/324,6	-
200	8	322,3/252,4	350,0/274,1	395,8/310,0	607,9/476,0	-
250	10	672,4/526,5	782,5/612,7	893,5/699,6	1308,0/1024,2	-

\*PEEK and RPTFE-seat increases by 15%

\* Metal seat increases by 20%

Table 6 - Flow capacity, Kv, m<sup>3</sup>/h

DN	15	20	25	32	40	50	65	80	100	125	150	200	250
Kv, m <sup>3</sup> /h	26	45	83	135	210	397	670	1012	1940	2950	4700	8350	13050

Table 7 - Product code

PN	Body Carbon steel 1.0619			Body CF8M
	Ball/Stem			
	CF8/17-4PH	CF8/SS304	CF8M/SS316	CF8M/SS316
10	B20J3X*3F010H**-zzz	B20J3X*2F010H**-zzz	B20J3X*8F010H**-zzz	B20J8X*8F010H**-zzz
16	B20J3X*3F016H**-zzz	B20J3X*2F016H**-zzz	B20J3X*8F016H**-zzz	B20J8X*8F016H**-zzz
25	B20J3X*3F025H**-zzz	B20J3X*2F025H**-zzz	B20J3X*8F025H**-zzz	B20J8X*8F025H**-zzz
40	B20J3X*3F040H**-zzz	B20J3X*2F040H**-zzz	B20J3X*8F040H**-zzz	B20J8X*8F040H**-zzz

Table 8 - Product code , Seat material (X in table 7)

X= C	P	R	E	N	Y	6	7	8	9
Rubber	PTFE	RPTFE	EPDM	PEEK	Incoloy 825	SS304	SS304 + PTFE	SS316	SS316 + PTFE

Address:  
EF Valves,  
Teknikringen 1F  
583 30 Linköping  
Sweden

Tele:  
+46 (0) 703 225 636  
+46 (0) 725 025 125

info@efvalves.se  
www.efvalves.se