

# 3-PCS BALL VALVE



Type 1210: STEEL  
Type 1310: STAINLESS STEEL



## GENERAL

Pressure/size: 125 bar (1/4" - 1 1/4")  
100 bar (1 1/2" - 2 1/2")  
(Pressure depends on packing material and temperature)

Material: Steel and stainless steel

ISO top flange: ISO 5211

Thread: BSPP - DIN259

Butt weld ends: Type 1210 - EN 12627  
Type 1310 - DIN 2463 /  
ISO 1127 line 1  
- SMS3008

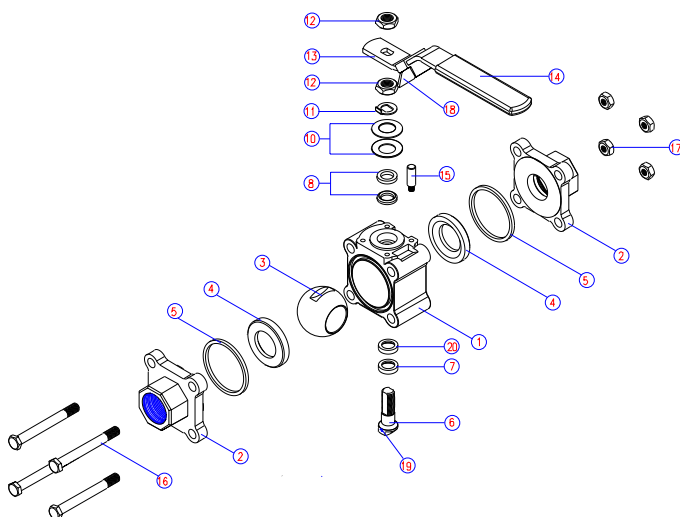
## OPTION

Type: Fire safe API 607 og BS 6755

Connection: BSPT, NPT, ANSI B 2.1, JISPT, etc.  
Sch. 10 and 40  
Socket weld ANSI B 16.11

Seat/packing: Various materials

## MATERIAL



NO.	DESCRIPTION	STAINLESS STEEL (1310)
1	BODY *	STAINLESS STEEL CF8M
2	CONNECTION*	STAINLESS STEEL CF3M / CF8M (THREAD)
3	BALL	STAINLESS STEEL CF8M
4	SEAT PACKING	PTFE WITH 25% GRAPHITE
5	JOINT GASKET	PTFE
6	STEM	STAINLESS STEEL AISI 316
7	PYRAMID SEGMENT	PTFE WITH 25% GRAPHITE
8	STEM SEAL	PTFE WITH 25% GRAPHITE
10	BELLEVILLE WASHER**	STAINLESS STEEL AISI 301
11	LOCK SADDLE	STAINLESS STEEL AISI 304
12	STEM NUT	STAINLESS STEEL AISI 304
13	HANDLE	STAINLESS STEEL AISI 304
14	HANDLE SLEEVE	VINYL
15	STOP BOLT	STAINLESS STEEL AISI 304
16	BOLT	STAINLESS STEEL AISI 304
17	NUT	STAINLESS STEEL AISI 304
18	LOCKING DEVICE	STAINLESS STEEL AISI 304
19	ANTI-STATIC DEVICE	STAINLESS STEEL AISI 304
20	O-RING	FPM

Type 1210:

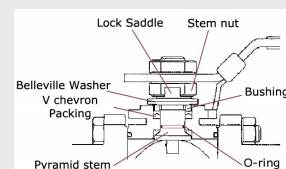
\* A216 Gr. WCB

\*\* 50CrV4

## DESCRIPTION

- **Solid ball valve for high performance tasks.** All ball valves are CE/Atex approved and pressure tested. Can on demand be delivered with certificate EN10204 - 3.1.
- **Bolt circle diameter and face to face dimensions** of the body is equal to Worchester, Valtac and Mecafrance from DN15 to DN65 RB. This means that our type 1210/1310 can be mounted between existing end caps.
- **Antistatic stem with pyramid segment.** Stem with 45° face of contact. This means larger contact area together with reinforced stem seat and a surface quality on Ra 0,2 ~ 0,3 um. These advantages will provide the possibility of a very long lifetime.
- **PTFE with 25% carbon filled** are used for seats and pyramid segment. This material is very suitable for high pressure and temperature and it is even more resistant to wear than traditional PTFE.

- **ISO 5211 flange** with recess centers bracket and actuator in order to avoid any dynamic load on the stem and stuffing box.
- **Maintenance free stuffing box** with belleville washers. Reinforced V-rings and FPM O-ring will provide optimum packing and longer lifetime - also at various temperatures.
- **Stainless steel butt weld end caps according to ISO 1127** is standard. From stock we can also deliver butt weld caps according to SMS 3008.

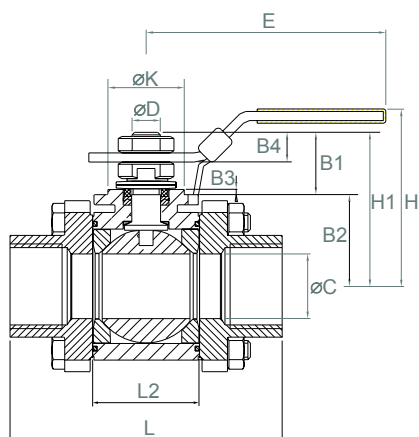


## DIMENSIONS

ISO 5211 (G)

F

M x 4



FB

RB

Dimension	valve with handle									iso top flange					stem			
[mm]	L [mm]			L2	B2	øC	E	H	H1	ISO 5211	G	K	Mx4	B3	øD	F	B1	B4
	Thread	BW	SMS	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
DN08FB	64.8	64.8	64.8	19.0	29.8	10	134	64.3	37.2	F03	36	25	M5	0.5	9.5	6.5	7.4	6.1
DN10FB / DN15RB	64.8	64.8	64.8	19.0	29.8	10	134	64.3	37.2	F03	36	25	M5	0.5	9.5	6.5	7.4	6.1
DN15FB / DN20RB	72.5	75.0	75.0	23.5	29.0	15	134	71.5	45.1	F03	36	25	M5	2.0	9.5	6.5	16.1	7.3
DN20FB / DN25RB	85.4	89.8	89.8	31.4	33.0	20	134	76.0	51.1	F03	36	25	M5	2.0	9.5	6.5	18.1	8.8
DN25FB / DN32RB	105.3	109.4	109.4	41.3	36.0	25	170	82.3	60.6	F04	42	30	M5	2.0	11.1	8.0	24.6	11.0
DN32FB / DN40RB	111.0	114.4	114.4	48.4	40.0	32	170	87.3	64.3	F04	42	30	M5	2.0	11.1	8.0	24.3	9.7
DN40FB / DN50RB	127.3	130.0	130.0	56.3	47.3	38	207	103.6	77.5	F05	50	35	M6	2.0	14.3	9.7	30.2	12.2
DN50FB / DN 65RB	145.0	145.0	145.0	71.4	69.5	50	207	121.6	95.0	F05	50	35	M6	2.0	14.3	9.7	30.2	12.2

Dimension		*) Torque		Weight		kv-values		Butt weld ends [R=reduce bore] [F=Full bore]					
[mm]	[inch]	FB [Nm]	RB [Nm]	FB [kg]	RB [kg]	FB 90° m³/t	RB 90° m³/t	Type 1210		Type 1310		Type 1310	
								EN 12627		ISO 1127		SMS3008	
								øG x mm (ød)		øG x mm (ød)		øG x mm (ød)	
DN08	1/4"	9.6	-	0.80	-	6.9	-	14 x 2 (10)	F	13.5 x 1.6 (10.3)	F	10.0 x 1.0 (8.0)	F
DN10	3/8"	9.6	9.6	0.80	0.66	6.9	6.9	17.5 x 3 (11.4)	F	17.2 x 1.6 (14.0)	F	12.0 x 1.0 (10.0)	F
DN15	1/2"	10.8	9.6	0.82	0.66	12.7	6.9	21.7 x 3.35 (15)	R/F	21.3 x 1.6 (18.1)	R/F	18.0 x 1.0 (16.0)	R
DN20	3/4"	14.4	10.8	1.28	0.87	29.2	12.7	27.2 x 3.35(20.5)	R/F	26.9 x 1.6 (23.7)	R/F	25.0 x 1.2 (22.6)	R/F
DN25	1"	19.2	14.4	2.07	1.36	48.2	29.2	34 x 4.15 (25.7)	R/F	33.7 x 2.0 (29.7)	R/F	32.0 x 1.2 (29.6)	R
DN32	1 1/4"	31.2	19.2	2.65	2.01	73.1	48.2	42.7 x 4.15(34.4)	R/F	42.4 x 2.0 (38.4)	R/F	33.7 x 1.2 (31.3)	R
DN40	1 1/2"	40.8	31.2	3.79	2.69	107.5	73.1	48.6 x 4.15(40.3)	R/F	48.3 x 2.0 (44.3)	R/F	38.0 x 1.2 (35.6)	R
DN50	2"	57.6	40.8	5.51	4.04	215.0	107.5	60.5 x 4.6 (51.3)	R/F	60.3 x 2.6 (55.1)	R/F	51.0 x 1.2 (48.6)	R
DN65	2 1/2"	-	57.6	-	6.78	-	215.0	76.3 x 4.6 (67.1)	R/F	76.1 x 2.6 (70.9)	R/F	63.5 x 1.6 (60.3)	R

\*) Torque figures include 30% safety factor. (TEST: 0bar diff. pressure, ambient temperature, non-lubricating)

When dimensioning the actuator following must be added:

MEDIA FACTOR	MULTIPLIER
Clean, particle free, non-lubricating (water, alcohol, etc)	1.00
Clean, particle free, lubricating (oils, hydraulic fluid, etc)	0.80
Slurries or heavily corroded, solvents and contaminated systems	2.00 #
Gas or saturated steam, clean and wet	1.00
Gas or superheated steam, clean and dry	1.30
Gas, dirty unfiltered e.g. natural gas, Chlorine	1.50

SERVICE FACTOR	MULTIPLIER
Simple On and Off Operations	1.00
Throttling	1.20
Positioner Control	1.00
Once per day Operations	1.20
Once every two days or a "Plant Critical" Operation	1.50
Max differential pressure	(DN08-32 PN125) 1.50 (DN40-65 PN100) 2.00

**Basic Torque \* Media Factor \* Service Factor = Sizing Torque**  
**# Using ball valves in contaminated systems will reduce life time**

## PRESSURE/TEMPERATURE

