

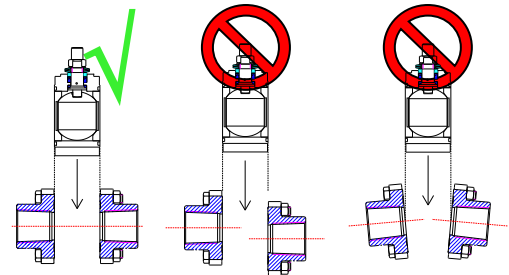
Installation manual

TYPE 1210-1310 / 1211-1311 / 1213-1313



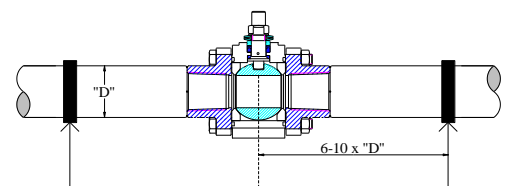
General information

1. It is important that the piping is accurate. Tensions and displacements in the piping may cause high torque values and leakage between the body and the connection. Furthermore, the spacing between the pipe endings must correspond to the face-to-face dimensions of the ball valve. The pipeline should be supported.
2. The ball valve can be installed in any position on the pipeline, but be aware that deposited dirt may damage the seal if turned downward.
3. Before installation of the valves the pipes must be flushed free of dirt, burrs and welding residues or the seat and ball surface may be damaged. During this procedure the valve must be in the open position and not be operated until the flushing has been finished.



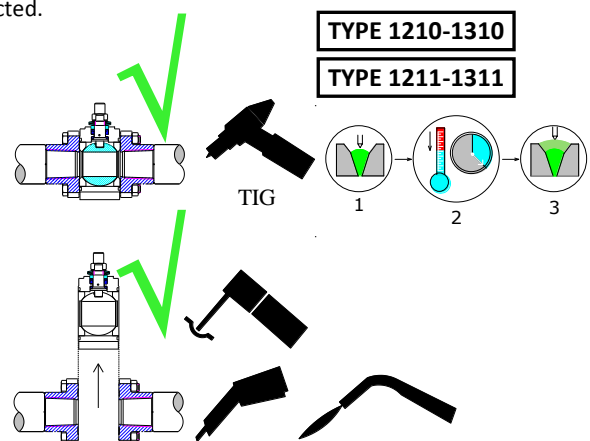
Installation of threaded valves

1. Do not disassemble the valve before installation.
2. Sealant is applied to the pipe thread (Packing yarn, Teflon tape, Loctite etc.).
3. Apply wrench only to the hexagon part of the valve end that is to be connected.



Installation of weld-end valves

1. Align the **open** ball valve between the pipes and spot weld four places on each weld connection end. **TYPE 1210/1310** and **TYPE 1210/1311** should not be separated during **TIG** welding. With the ball valve **open** complete the welding. Other welding methods: See item 2-7. **TYPE 1213/1313** : See item 2-7.
2. With the ball valve **open**, disassemble the body from the spot welded connection ends and place the body in a clean and safe place.
3. Make sure that the connection ends are aligned. Complete the welding of both connection ends to the pipe.
4. Carefully place the **open** ball valve (body) between the cleaned and cooled connection ends. Make sure that the joint gasket (13) is not scratched against the connection ends, which may cause leaks during operation.
5. With the ball valve **open** carefully tighten the bolts evenly in a star pattern with a torque wrench until the below torques are obtained.
6. With the ball valve **open** flush the pipes.
7. Ball valve function test. Gradually open and close the valve until a full 90° turn is obtained. In this way you make sure that the seat is shaped against the ball. This is particularly important when installing new seats.



TYPE 1210-1310

TYPE 1211-1311

TIG

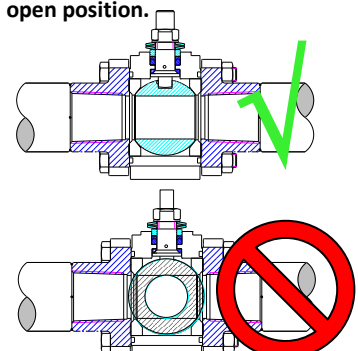
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2

3

Dimension RB		Dimension FB		Bolts Nm
DN 15	1/2"	DN 10	3/8"	
DN 20	3/4"	DN 15	1/2"	11
DN 25	1"	DN 20	3/4"	14
DN 32	1 1/4"	DN 25	1"	19
DN 40	1 1/2"	DN 32	1 1/4"	22
DN 50	2"	DN 40	1 1/2"	37
DN 65	2 1/2"	DN 50	2"	41
DN 80	3"	DN 65	2 1/2"	46
DN 100	4"	DN 80	3"	48
		DN100	4"	54

Important: The ball valve must be in the open position.

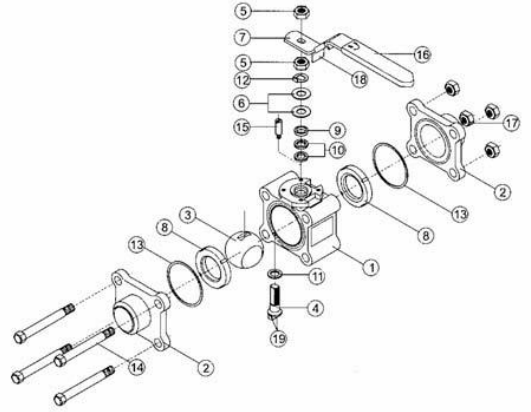


TYPE 1210-1310: DN15-65RB; DN10-50FB
TYPE 1211-1311: DN15-100RB; DN10-100FB
TYPE 1213-1313: DN15-100FB

Materials

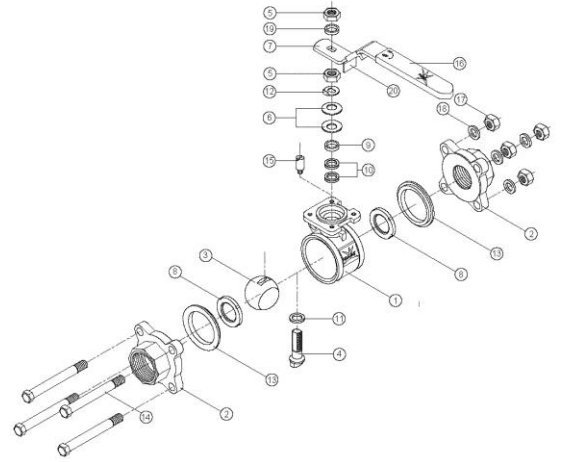
NO.	DESCRIPTION 1310	STEEL	STAINLESS STEEL
1	BODY	A216 Gr. WCB	Stainless steel CF8M
2	END CAP	A216 Gr. WCB	Stainless steel CF8M/CF3M
3	BALL	Stainless steel AISI 316	Stainless steel CF8M
4	STEM	Stainless steel AISI 316	Stainless steel AISI 316
5	STEM NUT	Stainless steel AISI 304	Stainless steel AISI 304
6	WASHER	50CrV4	Stainless steel AISI 301
7	HANDLE	Stainless steel AISI 304	Stainless steel AISI 304
8	SEAT	PTFE with 25% Carbon fiber	PTFE with 25% Carbon fiber
9	GLAND	Stainless steel AISI 304	Stainless steel AISI 304
10	V-SHAPED PACKING	75% PTFE/ 20% Glass fiber/ 5% Graphite	75% PTFE/ 20% Glass fiber/ 5% Graphite
11	STEM SEAL	PTFE with 25% Carbon fiber	PTFE with 25% Carbon fiber
12	LOCK SADDLE	Stainless steel AISI 304	Stainless steel AISI 304
13	JOINT GASKET	PTFE	PTFE
14	BOLT	Stainless steel AISI 304	Stainless steel AISI 304
15	STOP PIN	Stainless steel AISI 304	Stainless steel AISI 304
16	HANDLE SLEEVE	Vinyl	Vinyl
17	BOLT NUT	Stainless steel AISI 304	Stainless steel AISI 304
18	LOCKING DEVICE	Stainless steel AISI 304	Stainless steel AISI 304
19	ANTISTATIC DEVICE	Stainless steel AISI 304	Stainless steel AISI 304

TYPE 1210-1310



NO.	DESCRIPTION 1311	STEEL	STAINLESS STEEL
1	BODY	A216 Gr. WCB	Stainless steel CF8M
2	END CAP	A216 Gr. WCB	Stainless steel CF8M/CF3M
3	BALL	Stainless steel AISI 316	Stainless steel CF8M
4	STEM	Stainless steel AISI 316	Stainless steel AISI 316
5	STEM NUT	Stainless steel AISI 304	Stainless steel AISI 304
6	WASHER	Stainless steel AISI 301	Stainless steel AISI 301
7	HANDLE	Stainless steel AISI 304	Stainless steel AISI 304
8	SEAT	PTFE mit 25% Carbon fiber	PTFE with 25% Carbon fiber
9	GLAND	Stainless steel AISI 304	Stainless steel AISI 304
10	V-SHAPED PACKING	75% PTFE/ 20% Glass fiber / 5% Graphite	75% PTFE/ 20% Glass fiber/ 5% Graphite
11	STEM SEAL	PTFE mit 25% Carbon fiber	PTFE with 25% Carbon fiber
12	LOCK SADDLE	Stainless steel AISI 304	Stainless steel AISI 304
13	JOINT GASKET	PTFE	PTFE
14	BOLT	Stainless steel AISI 304	Stainless steel AISI 304
15	STOP PIN	Stainless steel AISI 304	Stainless steel AISI 304
16	HANDLE SLEEVE	Vinyl	Vinyl
17	BOLT NUT	Stainless steel AISI 304	Stainless steel AISI 304
18	PLATE	Stainless steel AISI 304	Stainless steel AISI 304
19	BUSHING	RTFE	RTFE
20	LOCKING DEVICE	Stainless steel AISI 304	Stainless steel AISI 304
21	ANTISTATIC DEVICE	Stainless steel AISI 304	Stainless steel AISI 304
22	PLATE	Stainless steel AISI 304	Stainless steel AISI 304
23	ANTISTATIC DEVICE	Stainless steel AISI 304	Stainless steel AISI 304

TYPE 1211-1311



NO.	DESCRIPTION 1313	STEEL	STAINLESS STEEL
1	BODY	A216 Gr. WCB	Stainless steel CF8M
2	END CAP	A216 Gr. WCB	Stainless steel CF8M/CF3M
3	BALL	Stainless steel AISI 316	Stainless steel CF8M
4	STEM	Stainless steel AISI 316	Stainless steel AISI 316
5	STEM NUT	Stainless steel AISI 304	Stainless steel AISI 304
6	WASHER	50CrV4	Stainless steel AISI 301
7	HANDLE	Stainless steel AISI 304	Stainless steel AISI 304
8	SEAT	PTFE with 25% Carbon fiber	PTFE with 25% Carbon fiber
9	GLAND	Stainless steel AISI 304	Stainless steel AISI 304
10	V-SHAPED PACKING	PTFE	PTFE
11	STEM SEAL	PTFE with 25% Carbon fiber	PTFE with 25% Carbon fiber
12	LOCK SADDLE	Stainless steel AISI 304	Stainless steel AISI 304
13	JOINT GASKET	PTFE	PTFE
14	BOLT	Stainless steel AISI 304	Stainless steel AISI 304
15	STOP PIN	Stainless steel AISI 304	Stainless steel AISI 304
16	HANDLE SLEEVE	Vinyl	Vinyl
17	BOLT NUT	Stainless steel AISI 304	Stainless steel AISI 304
18	LOCKING DEVICE	Stainless steel AISI 304	Stainless steel AISI 304
19	ANTISTATIC DEVICE	Stainless steel AISI 304	Stainless steel AISI 304
20	SPRING WASHER	Stainless steel AISI 304	Stainless steel AISI 304

TYPE 1213-1313

