

MANUAL

Ball valve AL 17-22

1. Use

1.1 Life of valve can be maximized if the valve is used within the rated range, in accordance with pressure, temperature, and corrosion data.

2. Manual operation

2.1 To open or close the valve, turn the handle $\frac{1}{4}$ turn (90 degrees).

A. Valve in Open Position – the handle is in parallel (in-line) with the valve or pipeline.

B. Valve in Closed Position – the handle is perpendicular (crossed) with the valve or pipeline.

3. Disassembling and cleaning

3.1 Ball valves can trap fluids in ball cavity when it is in closed position.

3.2 If the valve has been used in hazardous media, it must be decontaminated before disassembly.

A. Relieve the line pressure.

B. Place valve in half-open position and flush the line to remove any hazardous material from valve.

C. All persons involved in the removal and disassembly of the valve should wear the proper protective clothing, such as face shield, glove, apron, etc.

4. Replacing the thrust washer, packing, and seats

4.1 Before replacing the thrust washer and the packing, the pipeline must be de-pressurized.

4.2 Take-off the valve from the pipeline.

4.3 Place valve in its' fully open position.

4.4 Take-off end cap with proper equipment (machine).

4.5 Close the valve and remove the seat, body seals and ball.

4.6 Remove the valve stem nut, handle, gland nut and remove the valve stem through the body cavity.

4.7 Remove the stem thrust washer from the stem cavity.

4.8 Examine all metallic sealing surfaces such as ball, stem and end cap for damage, if the ball or stem is excessively damaged, ball and stem need to be replaced.

5. Re-assembling

Having assured that all critical surfaces and components have been inspected, cleaned and or replaced, re-assemble can be begun.

5.1 Place new thrust washer on stem and install the stem.

5.2 Re-install gland nut and tighten to the torques listed on Table A.

5.3 Lightly lubricate seats and body seals using a lubricant.

5.4 Re-install end cap.

5.5 Re-install handle and secure with stem nut.

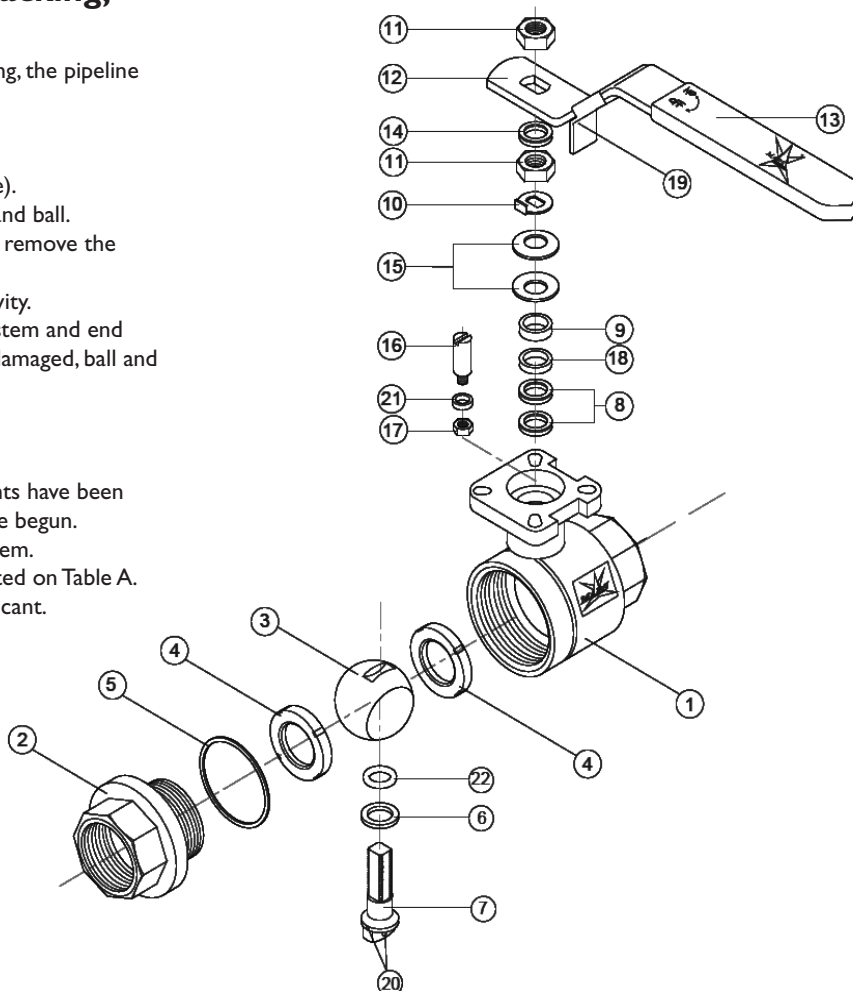
Table A - Bolts torque

Size	Nm
DN 8 - 1/4"	7.1
DN 10 - 3/8"	7.1
DN 15 - 1/2"	8.2
DN 20 - 3/4"	8.2
DN 25 - 1"	13.3
DN 32 - 1 1/4"	13.3
DN 40 - 1 1/2"	17.3
DN 50 - 2"	17.3
DN 65 - 2 1/2"	20.4
DN 80 - 3"	20.4

Parts / Material specification

No	Part	Qty	Material
1	Body	1	CF8M
2	End cap	1	CF8M
3	Ball	1	SS 316
4	Seat	2	PTFE /RTFE
5	Joint gasket	1	PTFE
6	Stem seal	1	RTFE
7	Stem	1	SS 316
8	Stem packing	*	PTFE
9	Gland	1	SS 304
10	Lock saddle	1	SS 304
11	Stem nut	2	SS 304
12	Handle	1	SS 304
13	Handle sleeve	1	Vinyl
14	Stem washer	1	SS 304
15	Belleville washer	2	SS 301
16	Stop pin	1	SS 304
17	Pin nut	1	SS 304
18	Stem packing	1	25 % glass fiber filled + PTFE
19	Locking device	1	SS 304
20	Antistatic device	2	SS 316
21	Washer	1	SS 304
22	O-ring	1	Viton

* 1/4" - 1/2": 1 pcs, 3/4" - 2": 2 pcs, 2 1/2" - 3": 3 pcs



AXEL LARSSON

Telephone +46 10 455 97 00 • sales@axel-larsson.se • www.axel-larsson.se

STOCKHOLM | GÖTEBORG | MOTALA | KARLSTAD | FALUN | SKELLEFTÅ

Head Office: Truckvägen 12, P.O. Box 805, SE-194 28 Upplands Väsby (Stockholm), Sweden.