

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 ¼ 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 & CLEANING THE VALVE:

- 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 stem seal 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.
- 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 trust 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-assembly can begin.

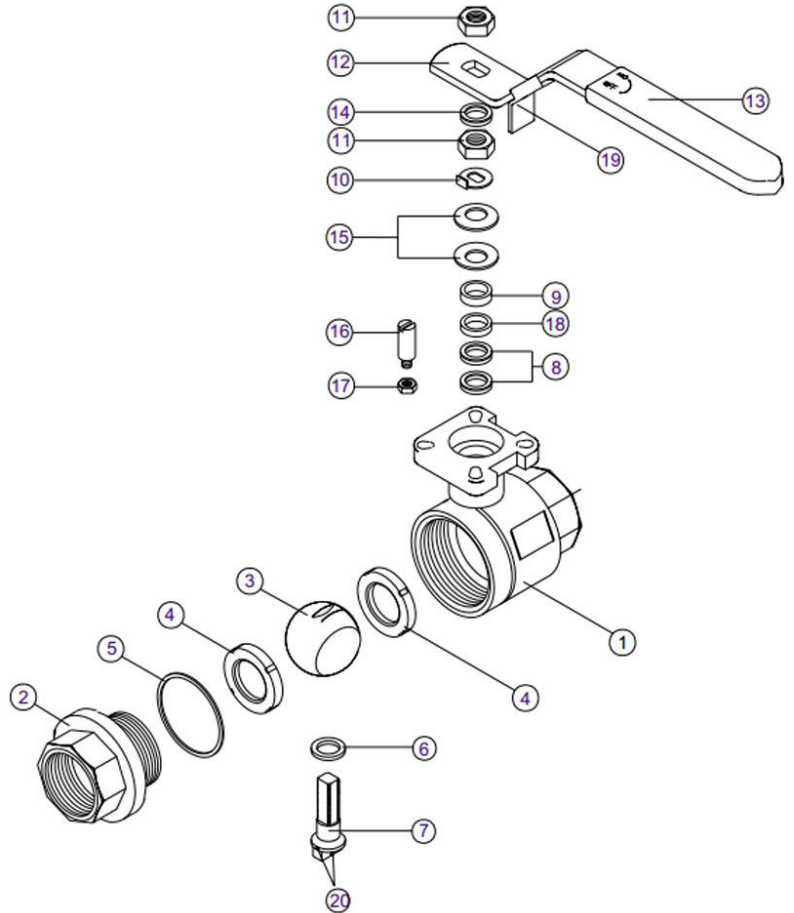
- 5.1 Place new stem seal on stem and install the stem.
- 5.2 Install new gland packing, bushing, gland bush, belleville washer and stem nut
- 5.3 Tighten stem nut to torque specification in Table 1.
- 5.4 Lightly lubricate seats and body seals using a lubricant.
- 5.5 Re-install end cap.

Table 1

Valve Size	Stem Nut Torque (In-Lbs.)
½" ~ ¾"	90
1"	120
1-1/2"	225
2" ~ 2-1/2"	310
3"	400

MATERIALS LIST

	PART NAME	MATERIAL		Q'TY
1	Body	CF8M	WCB	1
2	End Cap	CF8M	WCB	1
3	Ball	SUS316		1
4	Seat	PTFE/RTFE		2
5	Joint Gasket	PTFE		1
6	Stem Seal	PTFE/RTFE		1
7	Stem	SUS 316		1
8	Gland Packing	MG1241		2
9	Gland Bush	SUS 304		1
10	Stop Washer	SUS 304		1
11	Stem Nut	SUS 304		2
12	Handle	SUS 304		1
13	Handle Sleeve	Vinyl		1
14	Stem Washer	SUS 304		1
15	Belleville Washer	SUS 301		2
16	Stop Pin	SUS 304		1
17	Pin Nut	SUS 304		1
18	Bushing	25% RTFE		1
19	Locking Device	SUS 304		1
20	Anti-static Device	SUS 304		2



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