

## 1. USE:

- 1.1 Maximum results and long life of the valves can be maintained under normal working conditions and according with pressure/temperature rating and corrosion data chart.

## 2. MANUAL OPERATION:

- 2.1 To change flow pattern of the valve, turn the handle 1/4" (90 degree). Flow pattern is marked on handle of valve.
- 2.2 Both T port and L port are available.

## 3. GENERAL INFORMATION FOR ON-SITE INSTALLATION:

- 3.1 The valve may be fitted in any position on the pipeline. Note position of flow before installation (with handle or looking at small lines on top of stem of valve).
- 3.2 Before installation of the valves, the pipe line must be flushed clean of dirt, burrs and welding residues, or the seats and ball surface will be damaged.
- 3.3 The pipe must be free from tension.
- 3.4 After installation, cycle valve several times before putting into service.

## 4. DISASSEMBLING AND CLEANING THE VALVE:

**Caution: Ball valve can trap fluids in the ball cavity when closed.**

- 4.1 Before disassembly, be sure to discharge any hazardous media that might be entrapped in any valve cavity. It is recommended that the following steps are taken for safe removal and reassembly:
  - A. Relieve the line pressure.
  - B. All persons involved in the removal and disassembly of the valve should wear the proper protective clothing, such as face shield, gloves, etc.

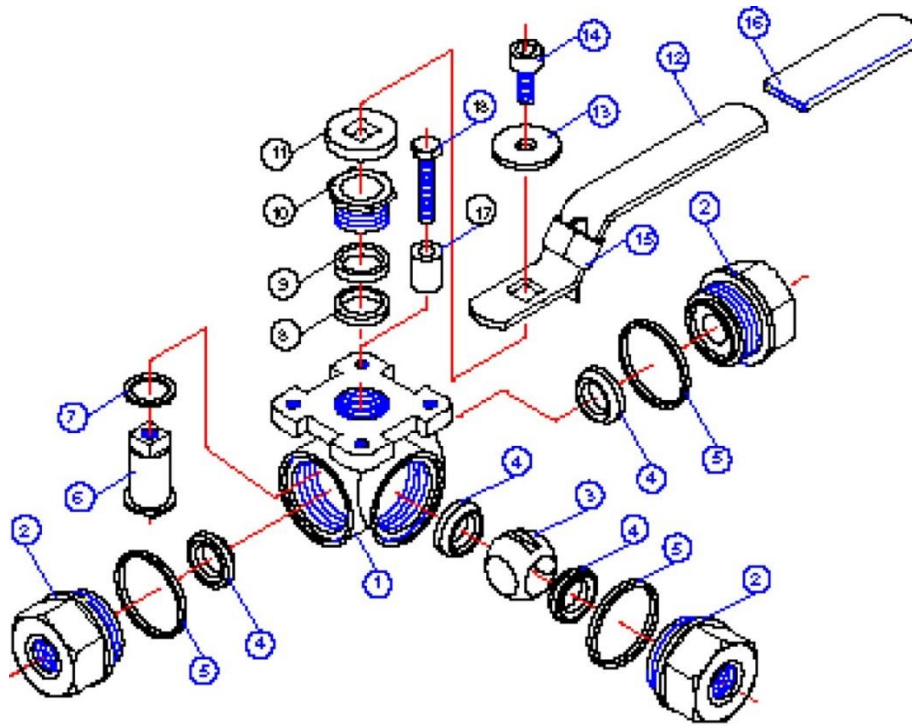
## 5. REPLACING THE THRUST WASHER, PACKING, AND SEATS

- 5.1 Before replacing the thrust washer and packing, the pipeline must be de-pressurized.
- 5.2 Stem leakage may be corrected without replacing the stem packing. Tighten the stem gland nut until leakage stops, if leakage continues or valve's operating torque becomes excessive, the stem seal is worn and must be replaced.
- 5.3 Remove valve from pipeline.
- 5.4 Remove end caps, body seal, seats, and ball.
- 5.5 Remove stem nut, gland, stop, etc. and push stem into valve cavity. Remove stem packing set and thrust washer.

## 6. ASSEMBLY

- 6.1 Put new thrust washer onto stem and insert through body cavity into stem hole. Assemble new stem packing set, gland, stop and stem nut. Tighten stem gland so that stem will feel snug and firm. **DO NOT OVERTIGHTEN.**
- 6.2 Assemble the back seat into body and install ball. Insert body gaskets on seal surface. Assemble second, third, and fourth seats into cavity of end caps and insert same into body.
- 6.3 Apply wrench on the hexagonal ends of the valve only. Tightening using the valve body or handle can seriously damage the valve.

**PARTS IDENTIFICATION AND MATERIALS OF CONSTRUCTION**



No.	Part Name	Material	Qty.
1	Body	EN 1.4408 (Stainless Steel)	1
2	End Cap	EN 1.4408 (Stainless Steel)	3
3	Ball	1/4" – 3/8" : ASTM A276 316SST	1
3	Ball	1/2" – 2" : ASTM A351 GRADE CF8M	1
4	Seat	RTFE	4
5	Joint Gasket	PTFE	3
6	Stem	ASTM A276 316SST	1
7	Stem Seal	RTFE	1
8	Stem Packing	RTFE	1
9	Stem Packing	PTFE	1
10	Gland Nut	AISI 304	1
11	Stem Spacer	AISI 304	1
12	Handle	AISI 304	1
13	Stem Disc	AISI 304	1
14	Stem Nut	AISI 304	1
15	Locking Device	AISI 304	1
16	Handle Sleeve	Vinyl	1
17	Stop Bolt Spacer	AISI 304	1
18	Stop Bolt	AISI 304	1

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