

- **Severity Service**

Normal soft-seated valve cannot be used for abrasive service or/and for operation in high temperatures that prohibits the use of a resilient material. VIZA metal-to-metal seated trunnion mounted ball valve (series TM, range 2"~24" class 150lb~2500lb) is designed for this type of severity service has seating action provided by the metal-to-metal contact between the ball and the seat rings.

- **General Design**

Blow-out proof stem, anti-static device, double block & bleed, self relieving seats, Mechanical stops for ball seat alignment are designed as standard requirements; while for fire safe and sealant injection system will be supplied when service request.

- **Superior Sealing**

High precision machining and seat to ball rubbing result in superior ball and seat interfacing for reliable sealing conforming to ANSI/FCI 70-2 class V.

- **Reliable Operations**

Spring-loaded seats maintain close contact with the ball ensuring tight sealing even at low pressures. This also results in stable operating torques at high differential pressures over a wide range of temperatures or/and high frequency.

- **Material Selection**

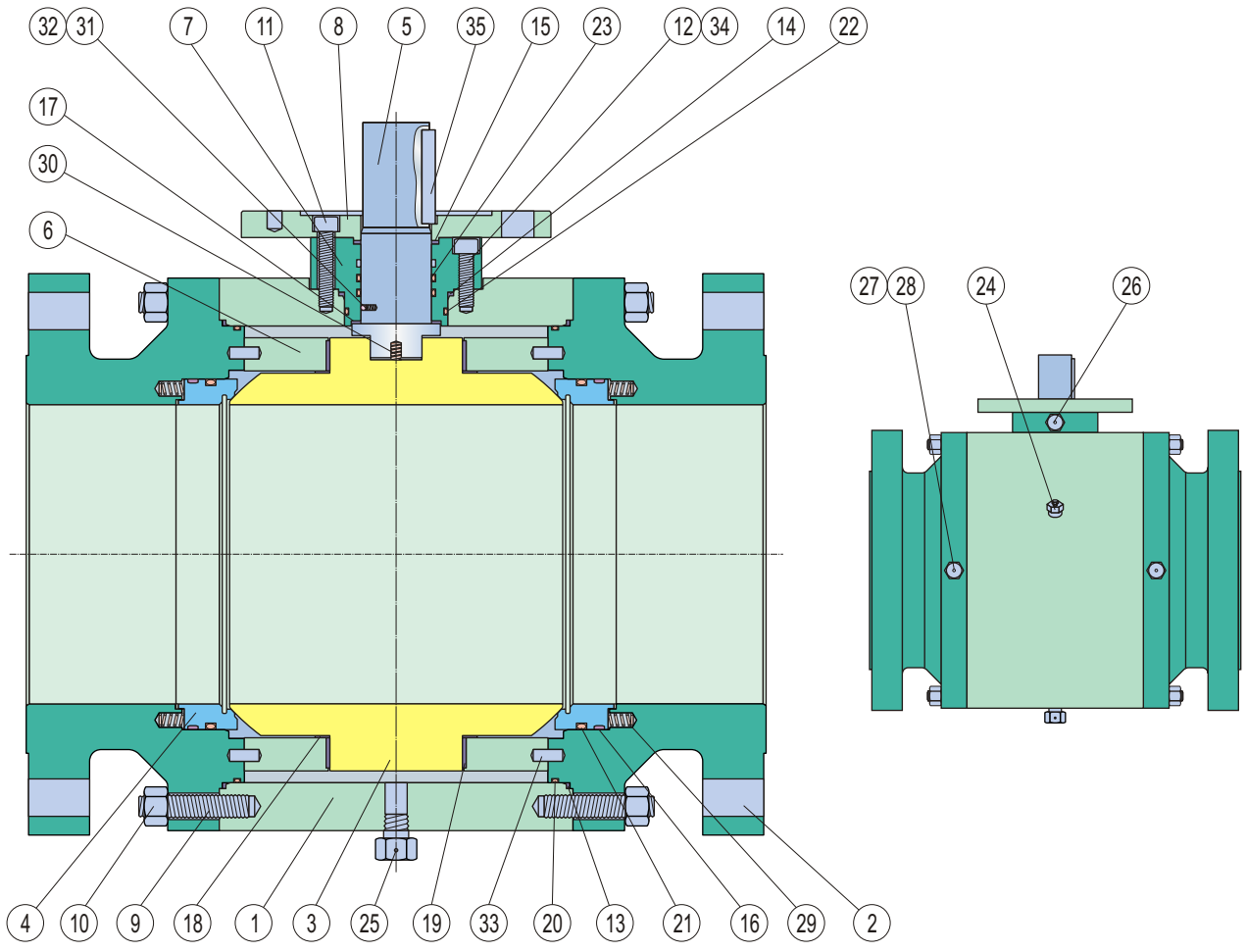
Various material components are available for a variety of service applicable up to 500°C. For service temperature above 300°C, the extension bonnet is required.

- **Applications**

Hard faced ball and seats (TCC as standard, other special coatings are available on request) allow use in more severe services such as slurries, pulp stock, mining and other abrasive media in long life.



Series TM Metal to Metal Seat Trunnion Mounted Ball Valve



Material Specifications

No.	Part	Standard Materials	No.	Part	Standard Materials
1	Body	ASTM A105N or A182-F316	19	Bearing	316SS+PTFE+MoS2
2	Adapter	ASTM A105N or A182-F316	20	* O-Ring	Viton
3	Ball	ASTM A105N+TCC or A182-F316+TCC	21	* O-Ring	Viton
4	Seat	ASTM A105N+TCC or A182-F316+TCC	22	* O-Ring	Viton
5	Stem	ASTM A105N/ENP or A182-F316/17-4PH	23	* O-Ring	Viton
6	Trunnion Supprot	ASTM A105N/ENP or A182-F316	24	Vent Valve	Stainless Steel
7	Gland Flange	ASTM A105N/ENP or A182-F316	25	Drain	Stainless Steel
8	Top Flange	ASTM A105N or A182-F316	26	Stem Injection	Stainless Steel
9	Body Stud	ASTM A193-B7 or A193-B8	27	Seat Injection	Stainless Steel
10	Body Nut	ASTM A194-2H or A194-8	28	Check Valve	Stainless Steel
11	Screw	Carbon Steel or Stainless Steel	29	Seat Spring	Inconel X-750
12	Screw	Carbon Steel or Stainless Steel	30	Antistatic Spring	Inconel X-750
13	* Body Gasket	Graphite	31	Antistatic Spring	Inconel X-750
14	* Gland Gasket	Graphite	32	Grounding Plunger	Stainless Steel
15	* Stem Firesafe Packing	Graphite	33	Alignment Pin	Stainless Steel
16	* Seat Firesafe Packing	Carbon Fibre+Graphite	34	Gland Pin	Carbon Steel or Stainless Steel
17	Thrust Washer	PTFE/316SS+PTFE+MoS2	35	Key	Carbon Steel or Stainless Steel
18	Washer	PTFE/316SS+PTFE+MoS2			

Note: 1. * Recommended Spare Parts
 2. TCC: Tungsten Carbide Coating.
 3. Customer shall order the valve according to service condition.