Floating Ball Valve Features

General
MECCO floating ball valves are designed in accordance with API 608 or BS 5351 for ASME Class 150 to 2500, nominal size from 1/2" to 12" with various combinations materials such as:
Carbon Steel, Low Carbon Steel, Special Alloy, Stainless Steel, Monel and Inconel.

Body Joint Construction
The 1-piece Unibody and Side Entry Design, graphite ring or o-ring viton (on request) seals ensure absolute seal integrity.
The 2-piece bolted body designs include a tight tolerance overlapping metal fit between the body and the adapter to minimize any possibility of movement due to pipeline stress. A special high temperature spiral wound stainless steel/grafoil filled gasket is utilized for absolute seal. This gasket is encapsulated by body and adapted on all four sides. Body and adaptors are dimensioned for metal contact to ensure correct gasket crush.

Seat
Pressure loaded PTFE seats and seals in a low torque design gives ball valves a bubble-tight seal even in bi-directional flow. Other materials as well as complete seat/seat replacement kits are also available.

Blow - Out Proof Stem
An internal entry anti-blow out stem maintains maximum operating safety at high operating pressure. The integral flange also functions as the back seat to ensure stem seating. Self adjusting stem packing assembly compensates for temperature fluctuations and is secured by a lock. Washer(Fig.1)

Anti - Static Design
An integral Anti-Static Design provided by means of spring-loaded devices which maintain contact between ball and stem, and stem and body to ensure electrical continuity, assuring stem seating and tested to BS 5351 and BS 5146. (Fig. 2)

Live Loaded Gland Flange
Live loading is designed to provide gland load retention, compensating for expected in-service consolidation of the packing. A set of Belleville Spring Washers are used on each gland stud to help exert a continuous compressive force on the gland flange and therefore fugitive emissions from the stem packing. (Fig. 3)

Locking Device
Facility for mounting a locking device for prevention of accidental valve operation is provided upon customer request. Stop limiting device is standard. (Fig. 4)
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**Fire Safe Seating**
In case PTFE seals are decomposed due to prolonged exposure to extremely high temperatures in fire accidents, the edge of the floating seal retainer come into metal to metal contact with the ball to shut off the fluid and minimize internal fluid leakage through the valve bore to stop the flow of hazardous on flammable fluids until a new seal is installed.

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**Mecco soft seated fire safe designed as foolows:**

- Contact between stem and valve shell (Fig. 5 & 6)
- Contact between ball and valve shell (Fig. 7 & 8)
- Valve shell coupling flanges of split body design (Fig. 9 & 10)

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**Longevity of Life**
Speical consideration devoted to the attainment of enhanced life and operation of our valve throughout design, development, testing and manufacturing stages.

Valve designs combined with the selection of advanced materials are such that long periods of inactivity should not affect the operations of effciency.