

## **FIRE SAFE BALL VALVES**

### **MIRROR FINISHED STAINLESS STEEL BALLS**

The stainless steel balls are manufactured to very close sphericity tolerances and mirror finished which result in considerably reducing the operating torque. This also ensures that the sealing is bubble tight.

### **BLOWOUT PROOF STEM**

The stem is bottom entry, providing maximum safety. An integral shoulder on the stem comes up against a shoulder in the body. Internal pressure works to help make the seal, rather than to break it as is the case in a top entry design. This design ensures that stem blowout does not take place, safe guarding personnel working in its vicinity. In smaller sizes, opposed Belleville washers are provided which act as a spring to compensate for wear and thermal expansion and contraction.

### **BUBBLE TIGHT DOWNSTREAM SEALING**

The ball is floated downstream under pressure and forced against the downstream seat to effect and maintain a seal. Since only one seat is in tight contact with the ball, the valve can operate even at higher pressure differential with lower torques.

### **ANTISTATIC FEATURE**

Due to the rubbing of the ball against the PTFE seats there can be a build up of static electricity, which can be a potential fire hazard especially while handling inflammable fluids. The 35% carbon filled PTFE stem seal and the graphite gland packing provides electrical continuity with the body and discharges any build up of static electricity. In the larger sizes where there is a possibility of play between the stem and ball, an additional spring and plunger arrangement is provided on the stem to ensure that electrical continuity is maintained at all times.

### **SECONDARY METAL SEATS**

The secondary metal seats make the valve fire safe. The metal seats are machined into the seat area of the body cavity in the form of raised metal lips. If the valve is subjected to a fire, the lip prevents the softening downstream seat from being forced into the port and creating a leak. When the seat is totally sublimated in a fire, the ball goes and rests against the lip forming a metal-to-metal seal ensuring leak tightness.