

## Lockhopper Service

### Model: CA-1AS

Metal-seated floating ball valve  
ASME/ANSI B16.34 design  
3 to 24 inch (80 to 600 DN)  
ASME 600, 900 and 1500 Class

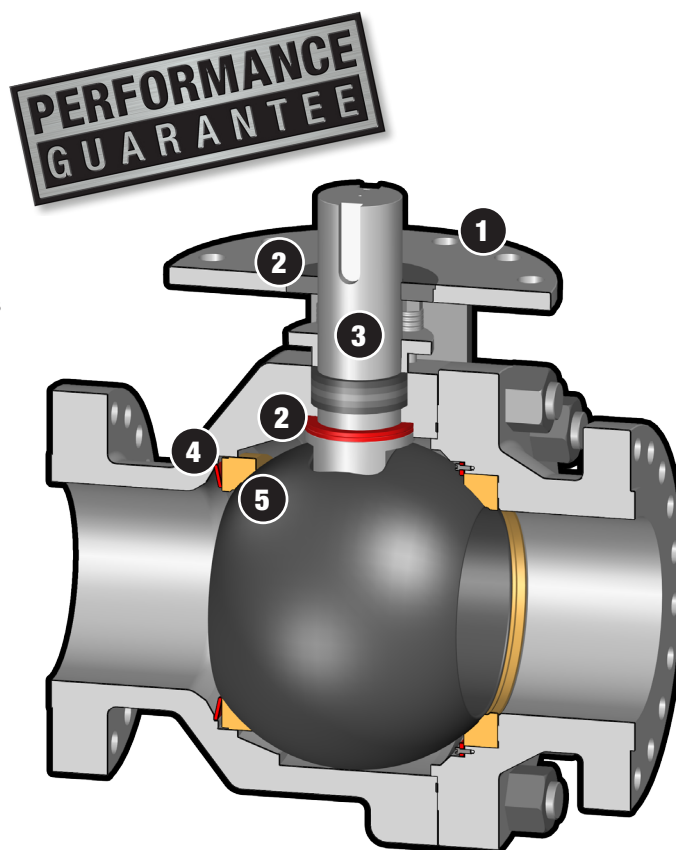
### Features

- Designed and built for high cycling
- True metal-to-metal sealing; no soft internal components
- Coatings optimized for lockhopper applications
- Performance Guarantee

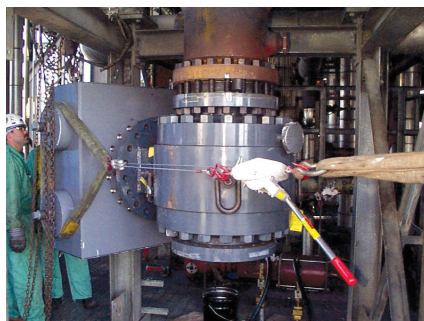
- 1 Heavy-duty mounting flange provides actuator support and allows body to absorb torque load
- 2 Dual-guided stem design ensures precise alignment and eliminates lateral movement
- 3 Blowout-proof stem design meets industry safety standards
- 4 Simple conical-disc spring design provides pressure-energized sealing
- 5 Metal seats wipe sealing surface of ball clean during operation

### Options

- Cast or forged body; 2 or 3-piece
- Process and customer-specific body & trim materials
- Process and customer-specific coatings
- Liners or inlays for through-bore or wetted surfaces
- Optimized purge system design
- Pneumatic or hydraulic actuation



### Sample Installations



*This 16-inch 600 ASME class valve was installed for 550° F at 1095 psig (290° C at 75 bar g) lockhopper isolation service. Several of these valves withstood over 50,000 cycles.*



*This 20-inch 900 ASME class valve with electrical-hydraulic actuator cycles every 30 minutes in operating conditions of 248° F at 1262 psig (120° C at 87 bar g.)*



*This 16-inch 900 ASME class valve was installed for slag water service, cycling every 30 minutes in operating conditions of 248° F at 943 psig (120° C at 65 bar g.)*

## Oxygen Service – Floating Ball Design

### Model: CA-1AS

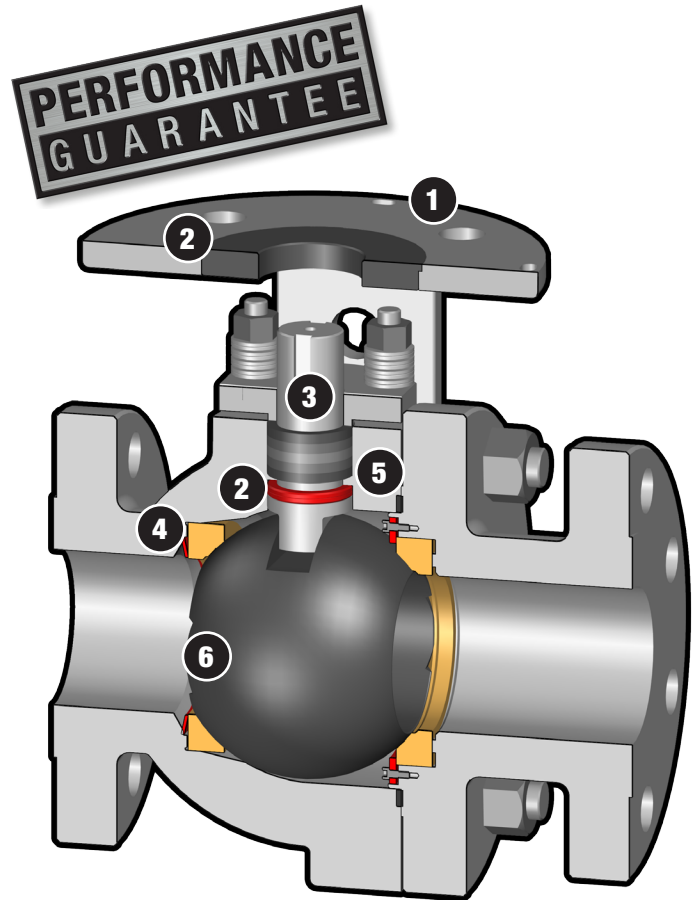
Metal-seated floating ball valve  
ASME/ANSI B16.34 design  
3 to 24 inch (80 to 600 DN)  
ASME 600, 900 and 1500 Class

### Features

- Suitable for temperatures  $>400^{\circ}\text{F}$  ( $>204^{\circ}\text{C}$ )
  - Fire safe design
  - Low fugitive emissions
  - In-house cleaning for oxygen service ensures quality control
  - Performance Guarantee
- 1 Heavy-duty mounting flange provides actuator support and allows body to absorb torque load
  - 2 Dual-guided stem design ensures precise alignment and eliminates lateral movement
  - 3 Blowout-proof stem design meets industry safety standards
  - 4 Simple conical-disc spring design provides pressure-energized sealing
  - 5 Body gaskets and stem packing are approved for oxygen service
  - 6 Double arcuate cut ball modifies velocity profile

### Options

- Cast or forged body; 2 or 3-piece
- Process and customer-specific body & trim materials
- Process and customer-specific coatings
- Pneumatic or hydraulic actuation



### Sample Installations



*Located at a gasification project in China, this 8-inch 1500 ASME Class valve is for high-temperature oxygen service.*

## Oxygen Service – Trunnion Ball Design

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### Model: TMS

Metal-seated trunnion ball valve  
API 6D design  
2 to 24 inch (50 to 600 DN)  
ASME 300 to 1500 Class

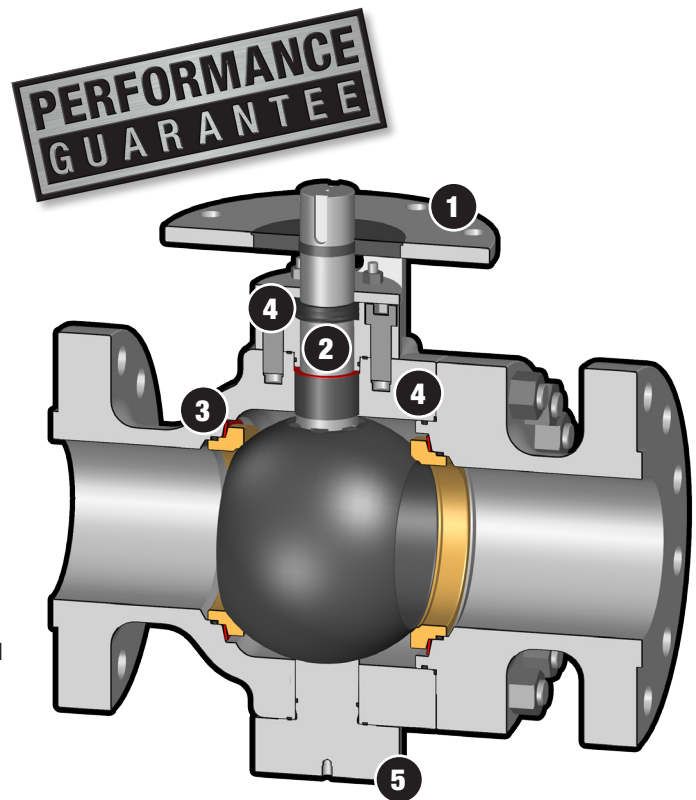
### Features

- Suitable for temperatures <400° F (<204° C)
- Fire safe design
- Low torques required
- Low fugitive emissions
- In-house cleaning for oxygen service ensures quality control
- Performance Guarantee

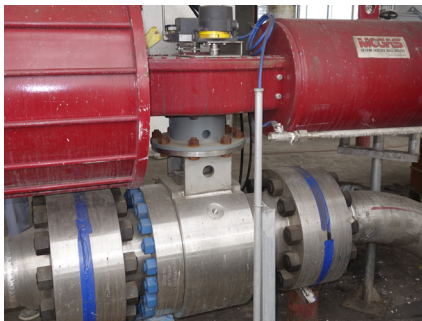
- 1 Independent actuator mounting pad allows body to absorb torque load
- 2 Blowout-proof and anti-static stem design with upper and lower stem bearings
- 3 Simple conical-disc spring design is particle tolerant and provides consistent support around seat circumference
- 4 Body gaskets and stem packing are approved for oxygen service
- 5 Plug style trunnion design enhances serviceability

### Options

- Cast or forged body; 2 or 3-piece
- Process and customer-specific body & trim materials
- Process and customer-specific coatings
- Pneumatic or hydraulic actuation



### Sample Installations



*Located at a gasification project in China, this pneumatically actuated 10-inch 1500 ASME Class valve operates in conditions of 77° F at 1262 psig (25° C at 87 bar g.)*