



# ARMSTRONG PISTON VALVES

THE IDEAL ISOLATION VALVE





## Armstrong Piston Valves

### Description

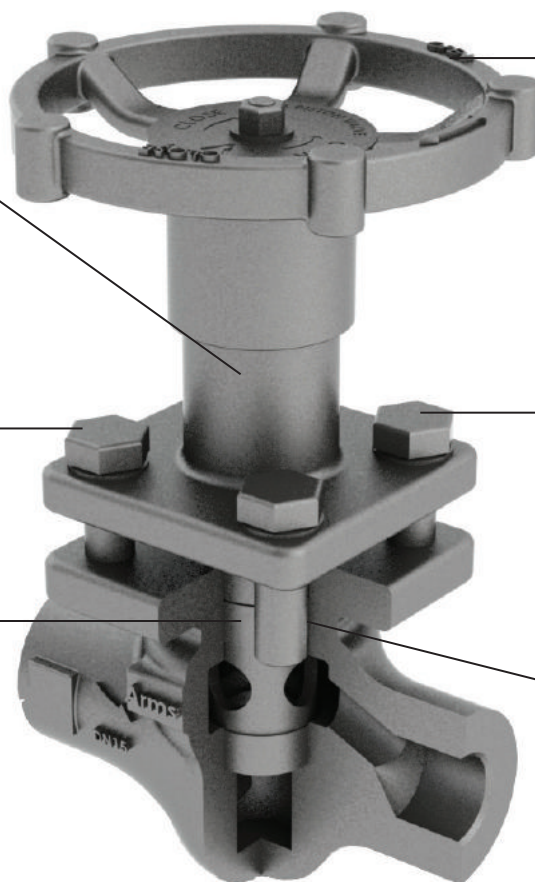
Armstrong Piston Valves are full port forged steel isolation valves with a maximum operating pressure of 1973 psig/136 Barg and a maximum operating temperature of 800°F/427°C. The burnished piston and metal reinforced graphite rings provide leak-proof shut off and allow Armstrong Piston Valves to be operated at higher temperatures, while also extending operating life.

Armstrong Piston Valves are available in Socket Weld, BSPT, and NPT end connections. Flanged ends can be supplied upon request.

Armstrong Piston Valves are ideal for saturated and superheated steam, and hot water applications.

### Armstrong Piston Valves Feature:

- Leak-proof isolation
- Sizes from 1/2"/15mm to 1-1/2"/40mm
- Choice of socket weld or threaded connections
- Compatible with ASME, IBR, and DIN standards
- Resistant to cavitation
- All sealing valve components may be easily replaced in-line
- Long-term operation. Piston valve design ensures actuation even after many years without operation
- Fire-proof performance



Ductile Iron hand wheel designed for easy operation.

Piston stem is fully enclosed to prevent dirt and corrosion.

Four-bolt mechanism with Belleville washers to ensure spring action even in high temperature applications.

ASTMA193 Gr. B7 bolts for high temperature operation.

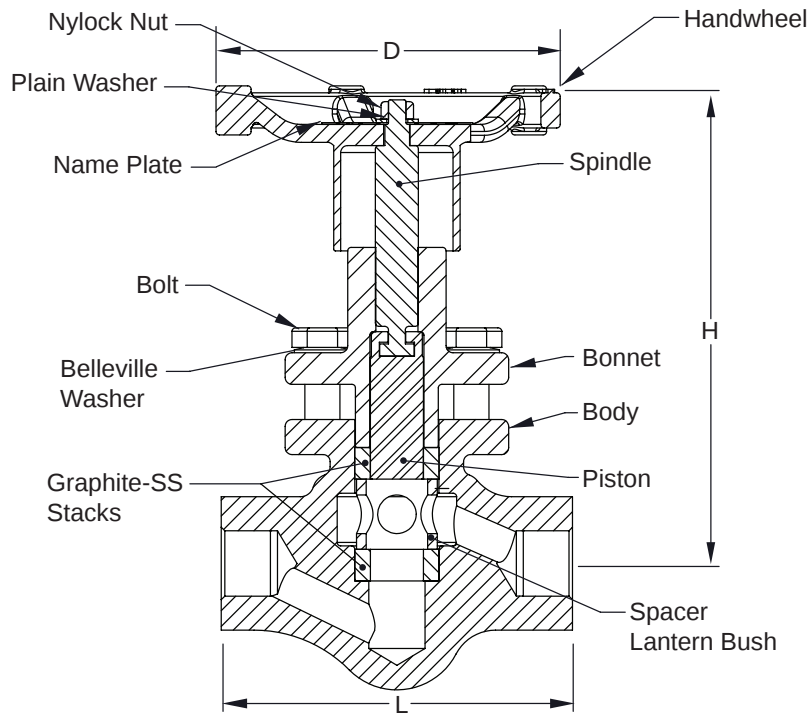
Precision burnished stainless steel pistons provide long-term operation, and ensures actuation even after many years without operation. The piston slides without rotating between the two valve sealing rings, preventing dirt from damaging the surfaces.

Flexible graphite reinforced ring stacks that withstand high temperatures and feature superior mechanical bonding.

Armstrong International

North America • Latin America • India • Europe / Middle East / Africa • China • Pacific Rim

[armstronginternational.com](http://armstronginternational.com)



## Forged Piston Valves ANSI Class 800

| Size   |    | Body Material | L   |     | H   |       | D   |     | CV   | Bolting Type | Approximate Weight |      |
|--------|----|---------------|-----|-----|-----|-------|-----|-----|------|--------------|--------------------|------|
| in     | mm |               | in  | mm  | in  | mm    | in  | mm  |      |              | lbs                | kg   |
| 1/2"   | 15 | A105/LF2      | 3.9 | 100 | 5.3 | 134   | 3.7 | 93  | 2.8  | 4B - SE/SW   | 4.2                | 1.9  |
| 3/4"   | 20 | A105/LF2      | 4.7 | 120 | 5.5 | 138.5 | 3.7 | 93  | 4.9  | 4B - SE/SW   | 7.5                | 3.4  |
| 1"     | 25 | A105/LF2      | 5.3 | 135 | 7.2 | 183   | 4.4 | 112 | 8.7  | 4B - SE/SW   | 10.6               | 4.8  |
| 1-1/2" | 40 | A105/LF2      | 7.3 | 185 | 8.9 | 226   | 4.4 | 112 | 21.1 | 4B - SE/SW   | 25.4               | 11.5 |

## Design Features Forged Steel Piston Valves Class 800

| End Connections * | Maximum Pressure at Temperature |      |     |    | Maximum Temperature at Operating Pressure |     |      |      | Hydro Test Pressure at Ambient Temperature |       |
|-------------------|---------------------------------|------|-----|----|-------------------------------------------|-----|------|------|--------------------------------------------|-------|
|                   | psig                            | barg | °F  | °C | °F                                        | °C  | psig | barg | psig                                       | barg  |
| Socketweld ends   | 1973                            | 136  | 100 | 38 | 800                                       | 427 | 1100 | 75.8 | 2962                                       | 204.3 |

\* Other end connections may have restricted pressure and temperature ratings due to applicable standards.

## Design features of Armstrong Piston Valves:

| Materials of Construction |                                    |
|---------------------------|------------------------------------|
| Body and Bonnet           | ASTM A105N / A350 LF2 Forged Steel |
| Spindle                   | SS T304                            |
| Ring Valve                | SS T3016 + Graphite                |
| Piston                    | SS 17-4 PH                         |
| Spacer                    | CA 40                              |
| Belleville Washer         | ASTM A231                          |
| Name Plate                | SS 304                             |

## Design Standards

- ASME (B16.34, B16.5)
- IBR 1950
- DIN (3202, 10226-1)
- Inspection and testing (API 598)
- Leak test (ANSI/FCI 70-2 )
- Fire test (API SPEC 6FA : 1999)