# CAST IRON

IS 14846
CM/L-9700160620

# SLUICE VALVE

## INTRODUCTION

Leader Cast Iron Sluice Valves (Non-Rising Spindle) are best suited for services that require infrequent valve operation, and where the wedge is kept either fully opened or fully closed. It offers the ultimate in dependable service wherever minimum pressure drop is important.

## PRINCIPAL FEATURES

- Design Std.: IS:14846.
- Bolted Bonnet, inside screw, Non Rising Stem.
- Solid Wedge, Metal to Metal seating.
- Gun Metal Body & Wedge rings, Stainless Steel Stem.
- Flanged ends as per IS:1538 (FF).
- Compact & rigid structure.
- Provided full flow with minimal pressure drop.
- Small opening and closing torque.
- Using Non-Asbestos packing, reliable sealing, light and flexible operation.
- Robust construction of hand wheel in open spoke design.
- Provision for re-packing under pressure in the installed condition.
- Easy visual control of open / closed position marked on the hand wheel.
- Operation mode manual, gear, electric, pneumatic.
- Available with open-shut indicator & locking arrangement on request.
- Widely used in water distribution, power plants and pipeline for access or cut off the medium pipeline opening and closing devices.

## END CONNECTION

Flanged as per IS:1538 (FF).
Flange drilling as per other standards also available upon request.

## UTILISATION & SERVICE

"LEADER" Cast Iron Sluice valves are suitable for above-ground installations.
Best suited for potable water, treated fresh water, neutral liquids & some gases.

## WORKING PRESSURE

Maximum Working Pressure: (PN 1.0) 10 Bar, (PN 1.6) 16 Bar.
See Pressure / Temperature Diagram.

## TEMPERATURE LIMITS

Maximum Working temperature: 45ºC.
See Pressure / Temperature Diagram.

| | |
|---|---|
| **Item Code:** | CI0008, CI0043 |
| **Pressure Rating:** | PN–1.0, PN–1.6 |
| **Testing Standard:** | IS 14846 |
| **Size Range:** | 50mm to 600mm |
| **Product Standard:** | IS 14846 |

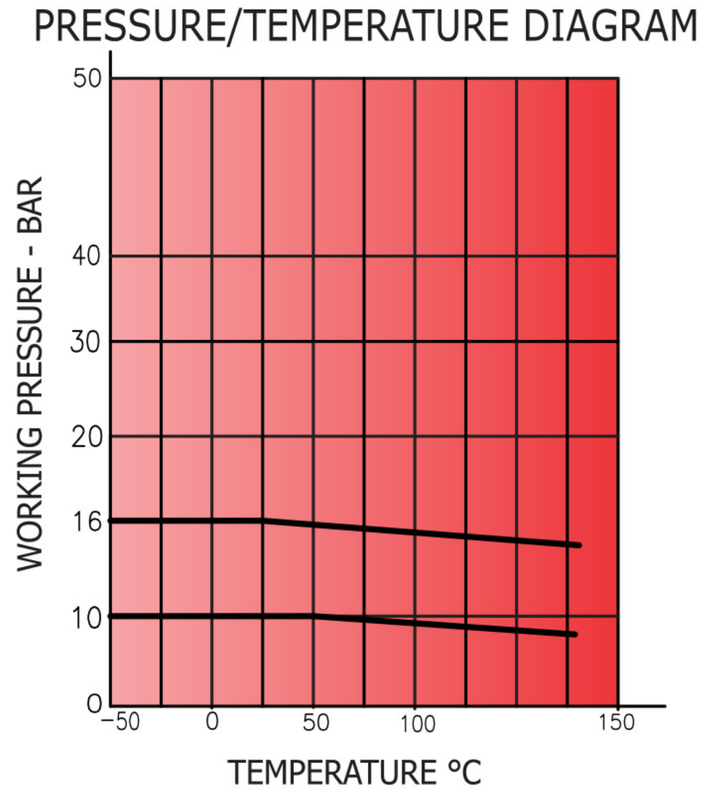
## SUITABLE FOR

| Water | Oil | Air | Gases |
|---|---|---|---|
| ✓ | ✓ | ✓ | |

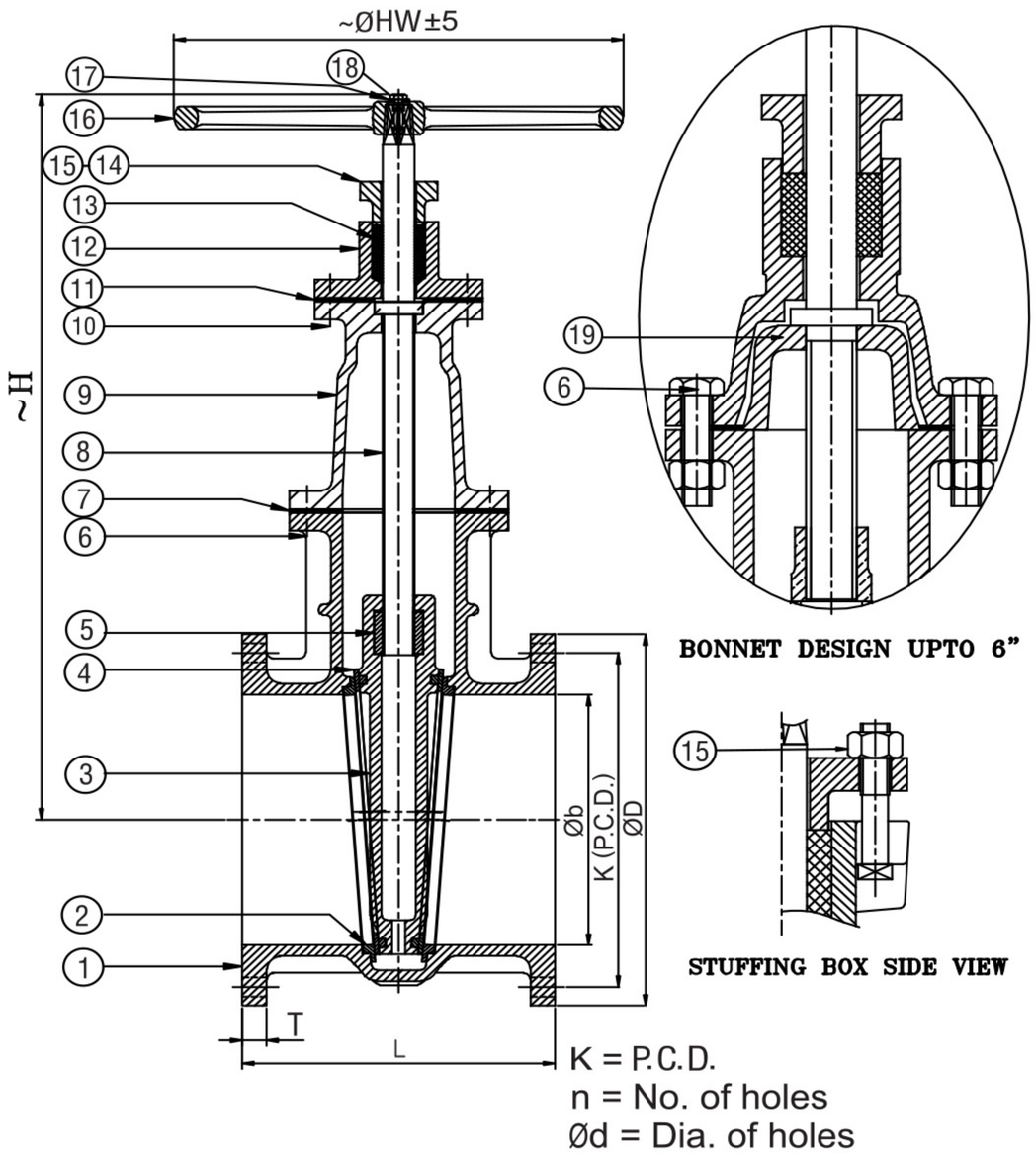
## TEST PRESSURE (Hydrostatic)

| Rating | PN-1.0 | PN-1.6 |
|---|---|---|
| Body (Hyd.) | 1.5 MPa | 2.4 MPa |
| Seat (Hyd.) | 1.0 MPa | 1.6 MPa |

PRESSURE/TEMPERATURE DIAGRAM




Note : The above data is subject to change without notice due to our continuing product improvement program.




## MATERIAL SPECIFICATION

| P.No. | NAME OF PART | MATERIAL |
|---|---|---|
| 1 | BODY | CAST IRON (IS 210 Gr. FG 200) |
| 2 | BODY RING | GUN METAL (IS 318 Gr. LTB2) |
| 3 | WEDGE | CAST IRON (IS 210 Gr. FG 200) |
| 4 | WEDGE RING | GUN METAL (IS 318 Gr. LTB2) |
| 5 | WEDGE NUT | GUN METAL (IS 318 Gr. LTB2) |
| 6 | BOLTS & NUTS | CARBON STEEL (IS 1363 CLASS 4 & 4.6) |
| 7 | GASKET | RUBBER (IS 638 TYPE B) |
| 8 | STEM | S.S. (IS 6603) / BRASS (IS 6912 Gr. FHTB1) |
| 9 | BONNET | CAST IRON (IS 210 Gr. FG 200) |
| 10 | BOLTS & NUTS | CARBON STEEL (IS 1363 CLASS 4 & 4.6) |
| 11 | GASKET | RUBBER (IS 638 TYPE B) |
| 12 | STUFFING BOX | CAST IRON (IS 210 Gr. FG 200) |
| 13 | PACKING | HEMP & JUTE (IS 5414) |
| 14 | GLAND | CAST IRON (IS 210 Gr. FG 200) |
| 15 | T-BOLTS & NUTS | CARBON STEEL (IS 1363 CLASS 4 & 4.6) |
| 16 | HAND WHEEL | CAST IRON (IS 210 Gr. FG 200) |
| 17 | WASHER | CARBON STEEL |
| 18 | SCREW FOR HAND WHEEL | CARBON STEEL |
| 19 | THRUST PLATE | CAST IRON (IS 210 Gr. FG 200) |

## DIMENSIONAL DATA

| SIZE (mm) | | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L | | 178 ±2 | 190 ±2 | 203 ±2 | 229 ±2 | 254 ±2 | 267 ±2 | 292 ±2 | 330 ±2 | 356 ±2 | 381 ±3 | 406 ±3 | 432 ±3 | 457 ±3 | 508 ±3 |
| ~H | | 341 | 360 | 366 | 432 | 504 | 510 | 684 | 784 | 869 | 975 | 1063 | 1200 | 1300 | 1500 |
| ~ØHW ±5 | PN 1.0 | 225 | 225 | 225 | 320 | 320 | 320 | 360 | 400 | 400 | 500 | 640 | 720 | 720 | 720 |
| | PN 1.6 | 280 | 280 | 280 | 360 | 360 | 360 | 450 | 640 | 640 | - | - | - | - | - |
| Øb | | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
| ØD | | 165 | 185 | 200 | 220 | 250 | 285 | 340 | 395 | 445 | 505 | 565 | 615 | 670 | 780 |
| T | | 16 | 16 | 21 | 22 | 22.5 | 23 | 24.5 | 26 | 27.5 | 29 | 30 | 31.5 | 33 | 36 |
| K | | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 350 | 400 | 460 | 515 | 565 | 620 | 725 |
| n | | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 12 | 12 | 16 | 16 | 20 | 20 | 20 |
| Ød | | 19 | 19 | 19 | 19 | 19 | 23 | 23 | 23 | 23 | 23 | 28 | 28 | 28 | 31 |

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