GATE VALVE

# RESILIENT SEAT SOCKET FLANGE PN16

Version 2.0

**Clover Resilient Seat Socket Flange Gate Valves are suitable for use in pressure and non-pressure water supply and sewerage applications.**

## SPECIFICATIONS

**Diameter Range:** DN100 - DN150

**Nominal Pressure:** 1,600kPa

**End Connections:**
Flange AS/NZS4087 Fig. B5 x Socket AS/NZS2280 Series 2 (Series 1 seals can be fitted)

**Maximum Operating Temperature:** 40°

**Product/Watermark Certification:**
Australian Certification Services - 25731

**Compliance:**
- AS/NZS2638.2 "Gate valves for waterworks purposes - Resilient seated"
- AS/NZS4158 "Thermal-bonded polymeric coatings on valves and fittings for water industry purposes"
- AS1646 "Elastomeric seals for waterworks purposes"
- AS1831 "Ductile cast iron"
- AS/NZS4087 "Metallic flanges for waterworks purposes"
- AS/NZS4020 "Testing of products for use in contact with drinking water"
- ISO5211 "Industrial Valves - Part-turn actuator attachments"

**WSAA Product Appraisal:** PA1121

**WSAA Purchase Specification:**
WSA PS260 – Gate Valves, Resilient Seated for Pressure Applications – Water Supply and Sewerage

**Options & Accessories:**
- Anti-clockwise and clockwise closing models available
- Handwheel
- Gearbox Operator (Spur & Bevel)
- ISO5211 Top Mounting Flange
- Anchor legs and valve restraint straps
- Lilac key-cap available for recycled water applications
- Alternate flange drillings available

**Recommended Specifications:**
- Gate valves shall be Clover resilient seated non-rising spindle type conforming to AS/NZS2638.2
- Gate valves shall close in an anti-clockwise / clockwise direction
- Gate valves shall be fitted with a keycap / handwheel
- Gate valve allowable operating pressure shall be 1,600kPa
- Protective coatings of gate valves shall be thermally applied polymeric type in accordance with AS/NZS4158

## FEATURES

- 10 year manufacturers warranty
- Reduced weight for safe and easy handling
- Low operating torque for fast and efficient operation
- Full bore design eliminates debris build up
- Key cap or handwheel operable
- High strength and impact resistant ductile iton body
- Thermally bonded polymeric coating for long life corosion protection
- Intergrated cast-in foot design provides stability
- Isolated 316SS stainless steel fasteners encapsulated with hot-melt coating for long-life corrosion protection
- Ducitile iron wedge encapsulated with vulcanised EPDM elastomer and integrated guide rails
- Forged stainless steel stem with wedge stop and rolled threads for high strength
- Suitable for installation in either horizontal or vertical position

## APPLICATIONS

- Used to isolate flow within pipeline sections, pipeline equipment and offtakes
- Gate valves should not be used for the purposes of throttling or adjusting flow
- Potable and recycled water supply
- Irrigation and raw water
- Gravity and sewer rising mains
- Fire systems
- Stormwater and drainage
- Pressure and non-pressure
- Buried and above ground

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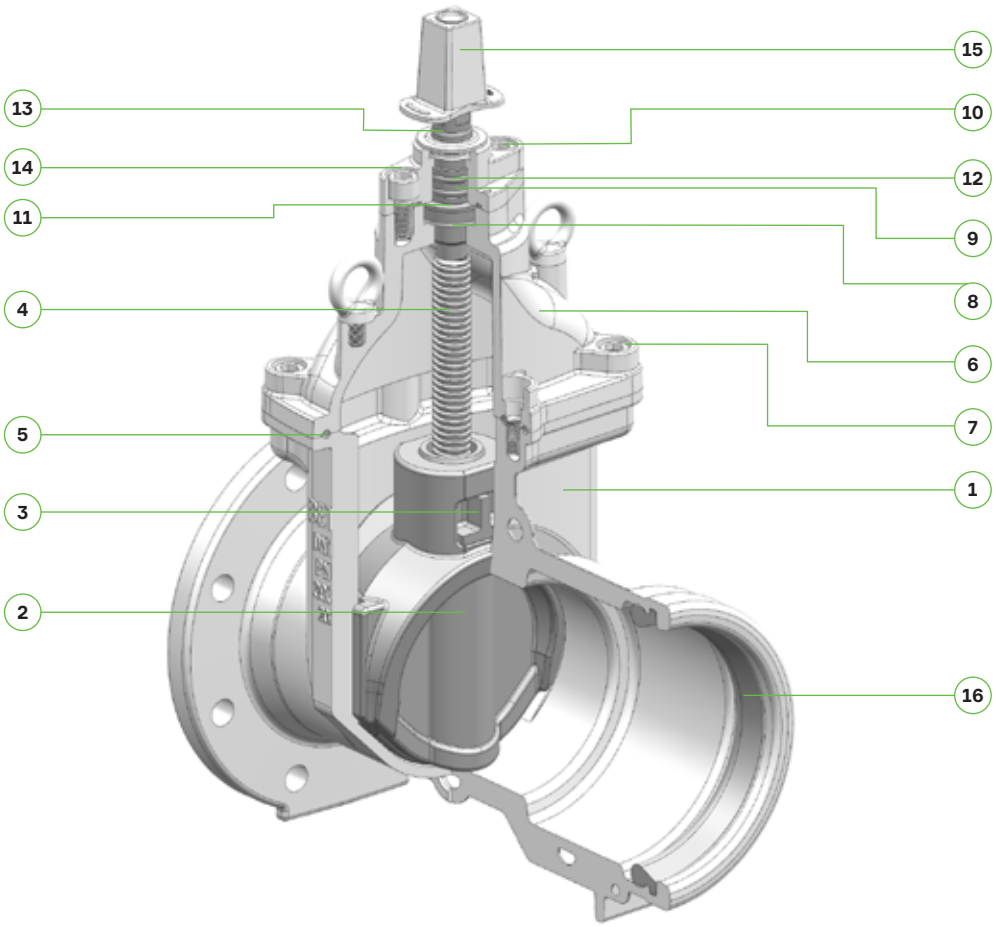


## COMPONENTS

| ITEM | PART NAME | MATERIAL | STANDARD/GRADE |
|---|---|---|---|
| 1 | **Body** | Ductile Iron/Polymeric Coating | AS1831 500-7/AS4158 |
| 2 | **Wedge** | Ductile Iron (EPDM Encapsulated) | AS1831 500-7/AS1646 EPDM |
| 3 | **Stem Nut** | Copper Alloy (Aluminium Bronze) | AS1565 C95210 |
| 4 | **Spindle** | Stainless Steel 431 | ASTM A276/431 |
| 5 | **Body Gasket** | EPDM Elastomer | AS1646/EPDM |
| 6 | **Bonnet** | Ductile Iron/Polymeric Coating | AS1831 500-7/AS4158 |
| 7 | **Body Bolt** | Stainless Steel 316 | ASTM A276/316 |
| 8 | **Thrust Washer** | POM | |
| 9 | **Thrust Collar** | DN50-300 POM. DN375+ (Dezincification Resistant) | AS1568 C48600 |
| 10 | **Bonnet Bolt** | Stainless Steel 316 | ASTM A276/316 |
| 11 | **O'Ring** | NBR Elastomer | AS1646/NBR |
| 12 | **Seal Kit** | NBR Elastomer | AS1646/NBR |
| 13 | **Dust Cover** | EPDM Elastomer | AS1646/EPDM |
| 14 | **Seal Retainer Housing** | Stainless Steel 316 | ASTM A276/316 |
| 15 | **Spindle Key Cap** | Ductile Iron | AS1831 500-7 |
| 16 | **Pipe Seal** | EPDM Elastomer | AS1646/EPDM |

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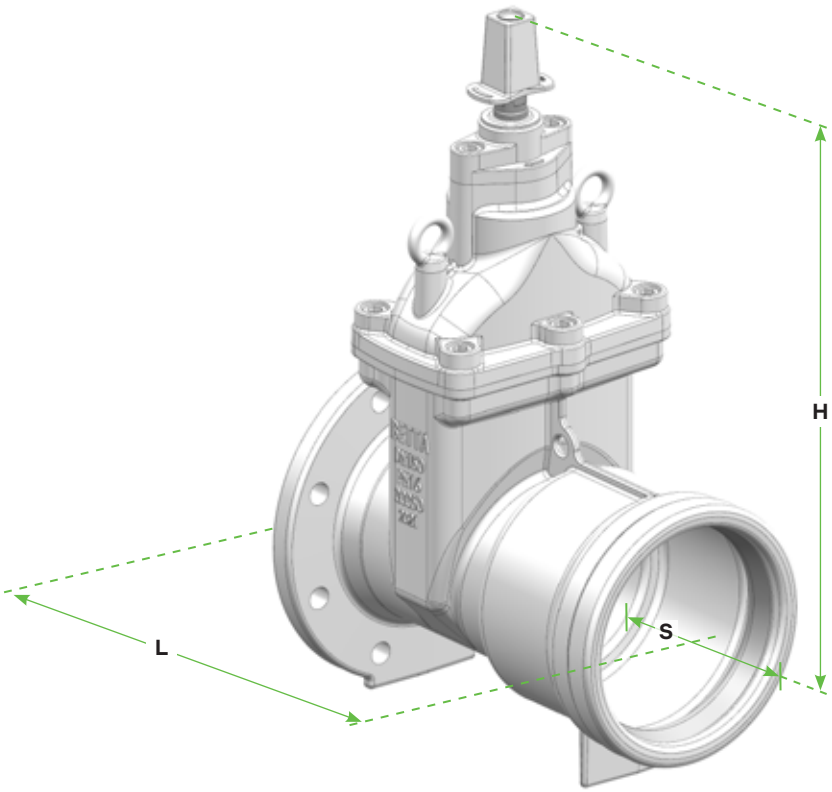
| SPECIFICATIONS | SYM | UNITS | DN100 | DN150 |
|---|---|---|---|---|
| LENGTH | L | mm | 320 | 365 |
| HEIGHT (CENTRE TO KEYCAP) | H | mm | 360 | 465 |
| FLANGE BOLT HOLES | N | mm | 4-Ø18 | 8Ø18 |
| PITCH CIRCLE DIAMETER | PCD | mm | 178 | 235 |
| SOCKET DEPTH | S | mm | 135 | 150 |
| WEIGHT OF UNIT (KEYCAP FITTED) | | kg | 24 | 45 |
| TURNS TO CLOSE (APPROX) | | Turns | 21 | 32 |
| ACTUAL TORQUE TO SEAL (APPROX) | | Nm | 60 | 110 |
| MAXIMUM OPERATING TORQUE | MOT | Nm | 100 | 150 |
| ISO5211 TOP MOUNTING FLANGE | | | F10 | F10 |
| PRODUCT CODE (ANTI-CLOCKWISE CLOSE) | | | VGSF100 | VGSF150 |
| PRODUCT CODE (CLOCKWISE CLOSE) | | | VGSF100C | VGSF150C |

All dimensions are in millimetres.

| PRESSURE | SYM | UNITS | |
|---|---|---|---|
| PRESSURE NOMINAL | PN | Nom | 16 |
| ALLOWABLE OPERATING PRESSURE | AOP | kPa | 1,600 |
| MAXIMUM ALLOWABLE OPERATING PRESSURE | MAOP | kPa | 1,920 |
| ALLOWABLE SITE TEST PRESSURE | ASTP | kPa | 2,000 |
| PRODUCTION TEST - BODY | | kPa | 2,400 |
| PRODUCTION TEST – SEAT | | kPa | 1,760 |

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