GATE VALVE

RESILIENT SEAT DOUBLE FLANGED PN16

Version 2.0

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

SPECIFICATIONS

Diameter Range: DN50 – DN600

Nominal Pressure: 1,600kPa

End Connections:
- Flange AS/NZS4087 Fig. B5 (DN80 – DN600)
- Flange AS2129 Table E (DN50 - DN65)

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"
- AS2129 "Flanges for pipes, valves and fittings"
- 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 coloured key-cap available for recycled water applications
- Alternate flange drillings available upon request

Recommended Specifications:
- Gate valves shall be Clover resilient seated non-rising spindle type conforming to AS2638.2
- 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 1600kPa
- Protective coatings of gate valves shall be thermally applied polymeric type in accordance with AS/NZS4158
- Flanges shall be raised face type in accordance with AS/NZS4087 Fig. B5 (DN80-DN600) / AS2129 Table E (DN50-DN65)

FEATURES

- 10-year manufacturer's warranty
- Reduced weight design 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 iron body and bonnet
- Thermally bonded polymeric coating for long life corrosion protection
- Integrated cast-in foot design provides stability
- Isolated 316 stainless steel fasteners encapsulated with hot-melt silicon coating for long-life corrosion protection
- Ductile 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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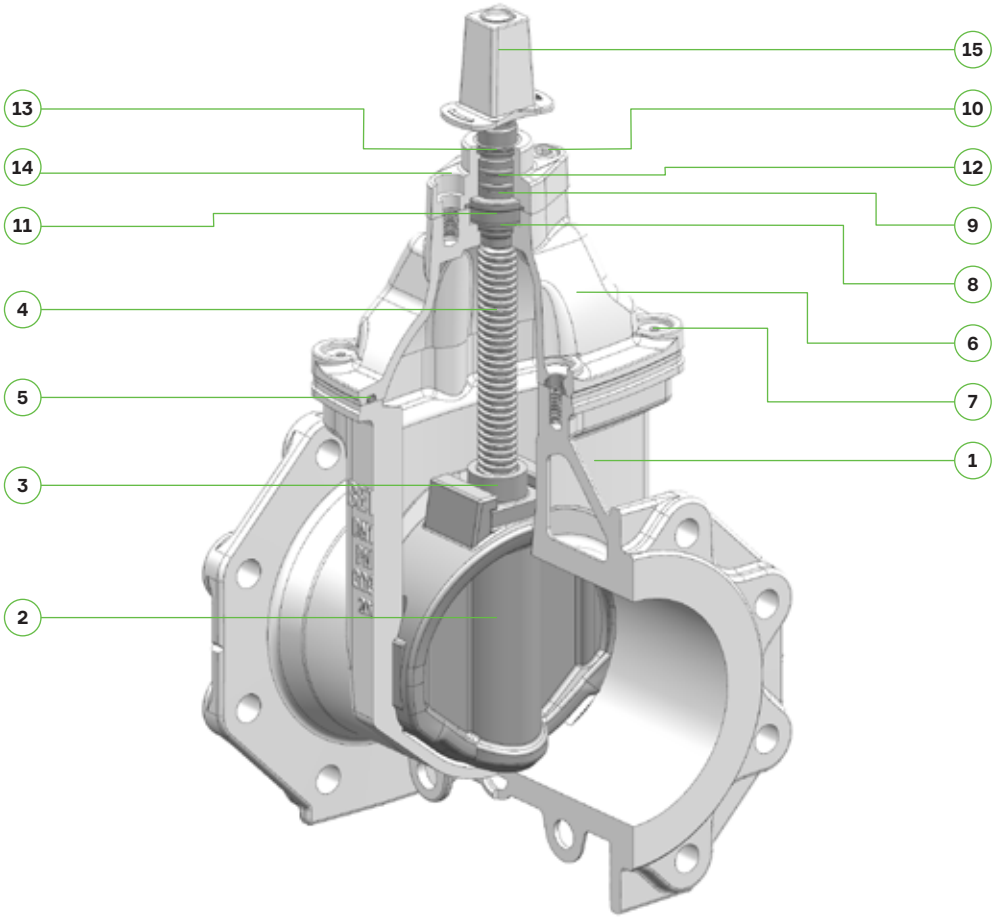

COMPONENTS

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 (Dezincification Resistant)	AS1568 C48600
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**	EPDM Elastomer	AS1646/EPDM
13	**Dust Cover**	EPDM Elastomer	AS1646/EPDM
14	**Seal Retainer Housing**	Stainless Steel 316	ASTM A276/316
15	**Spindle Key Cap**	Ductile Iron	AS1831 GJS/500-7

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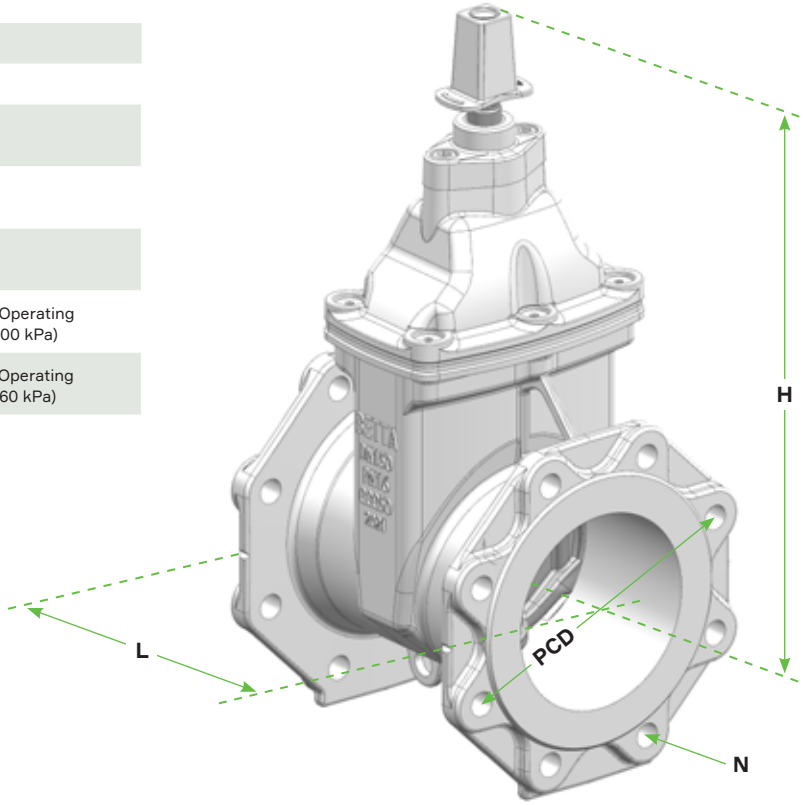
SPECIFICATIONS	SYM	UNITS	DN50	DN65	DN80	DN100	DN150	DN 200	DN 225	DN250	DN300	DN375	DN450	DN500	DN600
LENGTH (FACE TO FACE)	L	mm	178	190	203	229	267	292	305	330	356	381	432	457	508
HEIGHT (CENTRE TO KEYCAP)	H	mm	260	270	310	340	450	580	670	670	780	885	1100	1200	1365
FLANGE BOLT HOLES	N	mm	4-Ø18	4-Ø18	4-Ø18	4-Ø18	8Ø18	8Ø18	8Ø18	8Ø22	12Ø22	12Ø26	12Ø26	16Ø26	16Ø30
PITCH CIRCLE DIAMETER	PCD	mm	114	127	146	178	235	292	324	356	406	495	584	641	756
WEIGHT OF UNIT (KEYCAP FITTED)		kg	12	15	19	24	45	68	90	95	140	235	395	510	780
TURNS TO CLOSE (APPROX)		Turns	13	17	21	21	32	35	43	43	44	55	58	64	68
ACTUAL TORQUE TO SEAL (APPROX)		Nm	40	50	55	60	110	140	160	160	180	310	400	480	500
MAXIMUM OPERATING TORQUE	MOT	Nm	50	65	75	100	150	200	200	250	300	500	600	660	800
ISO5211 TOP MOUNTING FLANGE			F10	F10	F10	F10	F10	F14	F14	F14	F14	F14/F16	F16	F16	F16
PRODUCT CODE (ANTI-CLOCKWISE CLOSE)			VGFF050	VGFF065	VGFF080	VGFF100	VGFF150	VGFF200	VGFF225	VGFF250	VGFF300	VGFF375	VGFF450	VGFF500	VGFF600
PRODUCT CODE (CLOCKWISE CLOSE)			VGFF050C	VGFF065C	VGFF080C	VGFF100C	VGFF150C	VGFF200C	VGFF225C	VGFF250C	VGFF300C	VGFF375C	VGFF450C	VGFF500C	VGFF600C

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	MPa	2,000
PRODUCTION TEST - BODY		kPa	1.5 x Allowable Operating Pressure (2,400 kPa)
PRODUCTION TEST – SEAT		kPa	1.1 x Allowable Operating Pressure (1,760 kPa)



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