



CNS ENGINEERING AUSTRALIA S-GATE VALVE

Standard Compliance

AS4181-2013 Repair and Offtake Clamps for Water Industry Purposes

AS2638.2 Gate Valves for water works purposes

AS4020 Compliant

WSAA Appraised

Quality & Environmental Assurance

ISO 9001: 2008 Quality management Systems

ISO 14001:2015 Environmental Management Systems

Sizes & Applications

Under-Pressure installation of Resilient Seated Valve.

DN 100, 150, 200, 250, 300, 375 and 450

📍 1/31 Brownlee St, Pinkenba QLD 4008

☎ +61 401 547 791

🌐 www.civilnsupplies.com

✉ admin@civilnsupplies.com

S-GATE VALVE MARKET

About:

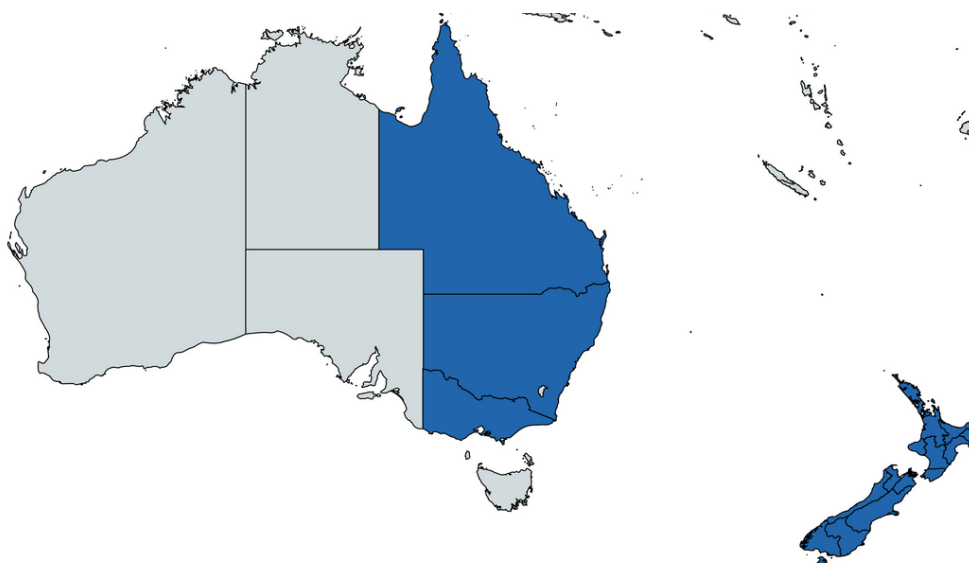
CNS Engineering Australia as a utilities contractor specialising in water infrastructure and maintenance. Since then, CNS Engineering Australia continued to grow as a specialised company in all aspects of pipeline installation ranging from water, drainage and sewer installations.

Along with our specialty in water utility installations, CNS Engineering Australia civil have continuously invested in innovative products which enabled the introduction of S-Gate valve to the Australian and New Zealand market.

Since the initial introduction of S-Gate Valve, the product underwent significant upgrades including

- Specialised rubber gate valve to improve the seal on various types of pipe conditions
- Re-casting of the valve based on Australia Standard / New Zealand Standard Pipes
- Improved hydraulic machine
- Development of scale removing device (for bottom of the pipe)

Current Location Use



Product Approved By:

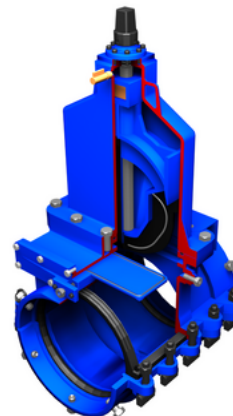


TECHNICAL DATA

S-Gate Valve is an innovative product where a resilient seated valve can be installed under pressure. Water isolation of the main is not required during any stages of the installation.

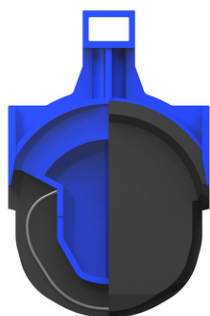
Key Components

- High durability and strength manufactured with Ductile Iron Grade JS/400/15 in accordance with ISO 1083.
- Ductile Iron Temporary Gate valve to allow installation of S-Gate Valve under Pressure
- Thermal bonded polymeric coating for corrosion resistance. Akzo Nobel Resicoat R-4ES applied in accordance with AS/NZS 4158



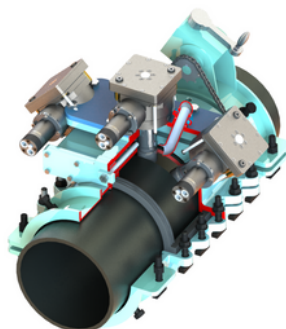
DN 80 - 300mm S-Gate Valve

INNOVATIVE TECHNOLOGY



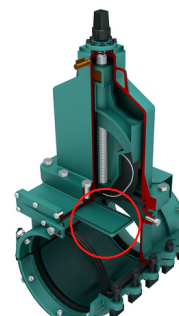
OUR GATE VALVE

Gate valve with embedded internal spring & two sealing points to allow greater adaptation to all types of internal pipe condition



OUR DRILL

Our hydraulically driven **compact** S-Gate valve drill has a full vertical height of 310 mm when fully extended.



IN-BUILT
TEMPORARY
DUCTILE IRON GATE

Built-in ductile iron gate allows the valve to be installed under pressure & gives further opportunity for under pressure maintenance in the future



S-GATE VALVE OVERVIEW

Size Range:

DN80, 100, 150, 225, 250, 300, 375, 450

Allowable Operating Pressures:

DN80 to DN 250 - 1600kPa

DN 300 to DN 450 - 1200 kPa

Maximum Temperature:

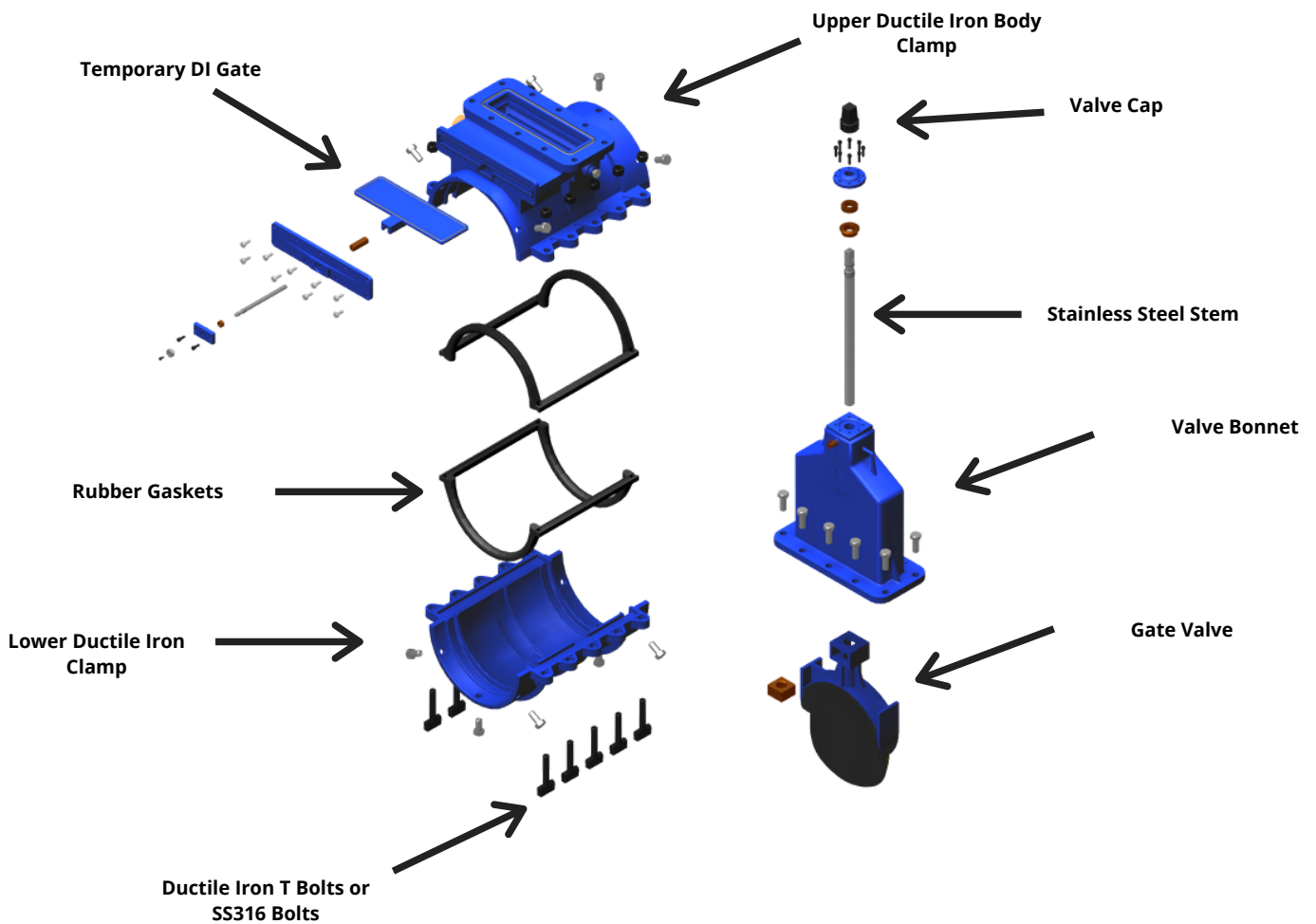
40 °C

Connection Type:

Clamp Type AS4181-2019

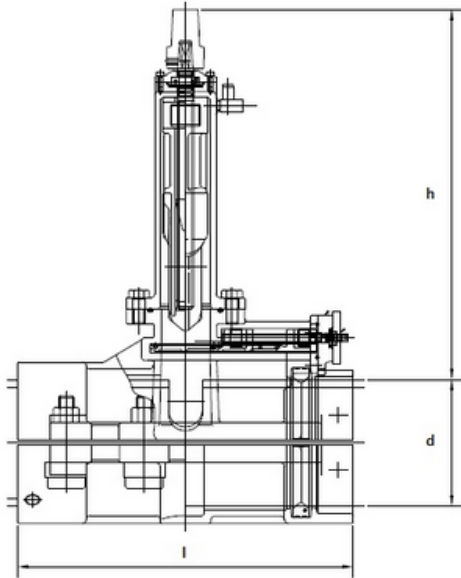
S-Gate Valve Core Parts:

- Body / Clamp
- Bonnet
- Temporary Valve
- Spindle Seal Retainer
- Valve Frames
- Valve Rubber
- Gate Nut
- Spindle Stem
- Spindle / Valve Cap
- Clamp Fasteners
- Clamp Seal
- O-Rings



VALVE SPECIFICATION

MPVC, POLYETHYLENE, DUCTILE IRON, CAST IRON, MSCL PIPELINE SYSTEM



S-GATE VALVE GEN II

DN	L	H	D	Install Range	ACC
100	400	440	122	+/- 4mm (d)	SGATEII-100
150	450	498	177	+/- 4mm (d)	SGATEII-150
200	450	562	232	+/- 4mm (d)	SGATEII-200
225	520	511	259	+/- 4mm (d)	SGATEII-225
250	520	638	286	+/- 4mm (d)	SGATEII-250
300	540	711	345	+/- 4mm (d)	SGATEII-300
375	680	970	426	+/- 4mm (d)	SGATEII-375
450	850	1167	507	+/- 4mm (d)	SGATEII-450

Upper Valve Component - AS2638.2 Gate Valves for water works purpose

Clamp Component - AS4181-2013 Repair and Offtake Clamps for Water Industry Purposes

ADVANTAGES OF S-GATE

Cost

- Use of S-Gate Valve eliminates many night shift operations, leading to substantial cost savings. - Concrete opening fees, additional labour cost and down-day cost
- Reduced community notifications, and reduction in trial shuts.

Water Saving

- Reduced water wastage with reduced shut area and reduction in number of trial shuts.

Customer Satisfaction

- Reduced night shift works & Reduced outage areas. (Often No outage)

Fatigue Management

- Reduced shift changes and reduction in night shifts

Program & Productivity

- Less delays associated with failed trial shuts. Allowing improved programming & Scheduling of works.



Fig 1.0 - Typical Installation Set Up for S-Gate Valve Installation

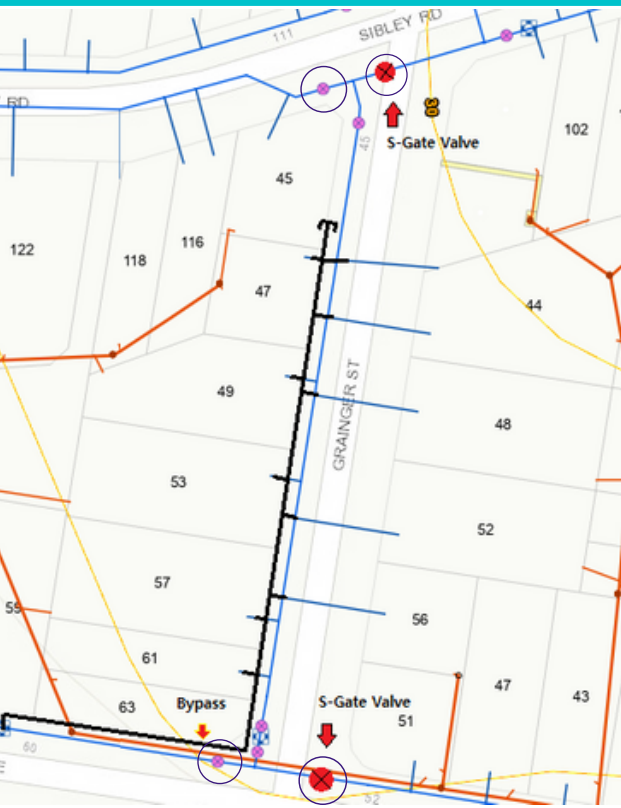
CASE STUDIES

Grainger St - Wynnum West, QLD

- Water main replacement without interrupting supply -

Through the use of S-Gate Valve;

- Night Shift was eliminated as all customers were on bypass
- Elimination of Concrete Plant Opening Fees
- Elimination of Down Day
- Elimination of Additional Plant Required on site
- Reduced community notification
- Elimination of additional trial shut
- Reduction in Crew Cost
- Water savings - with Reduced Shut
- Operation Valve left installed upon completion of works



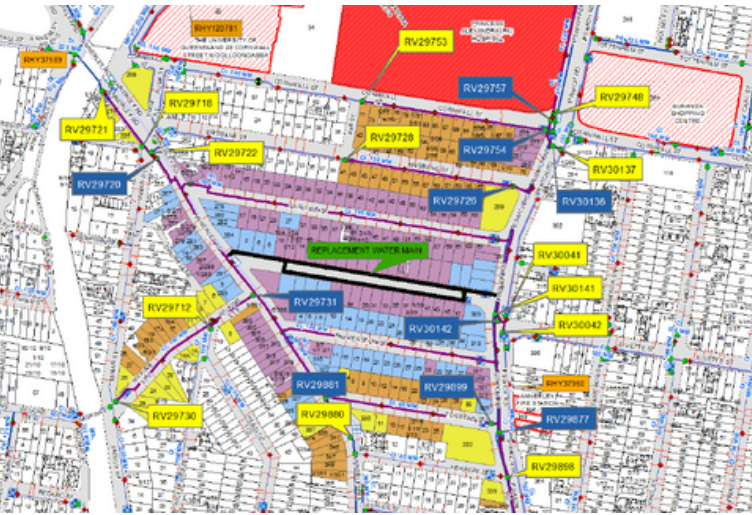
Operated Valve

Young St - Annerley, QLD

- Reducing affected customers -

Through the use of S-Gate Valve;

- Elimination of affecting critical customers
- Elimination of Water Tankering & Booster Isolations for High rise Buildings
- Avoided additional trial shuts
- Elimination of Night Shift
- Reduced community disruption



Initial Shut Plan - Customer Count: 1410 Properties



Shut plan with Utilisation of S-Gate Valve
- Customer Count: 47



Anchored S-Gate Valve on Young St

COMMON Q&A

Q: Is there requirement for water isolation at any point during the installation of S-Gate valve?

A: No. S-Gate valve can be installed on a live main, without interrupting supply during any stages of installation.

Q: What type of pipes can S-Gate Valve be installed on?

A: S-Gate Valves can be installed on the following Australia Pipes. DI, CI, AC and mPVC. (S-Gate Valve can also be installed on 125PE and 180 PE pipe)

Q: What is the minimum distance between the location of the S-Gate Valve and the cut in location?

A: Usually, we recommend to keep minimum 9m of undisturbed ground between the isolation point and the cut in location. If this cannot be achieved, the valve can be strapped in stainless steel and anchored as per the relevant standard. Upon the curing of the concrete, the distance between the S-Gate valve and the cut in location can be reduced.

Q: How long does the Installation of S-Gate Valve Take?

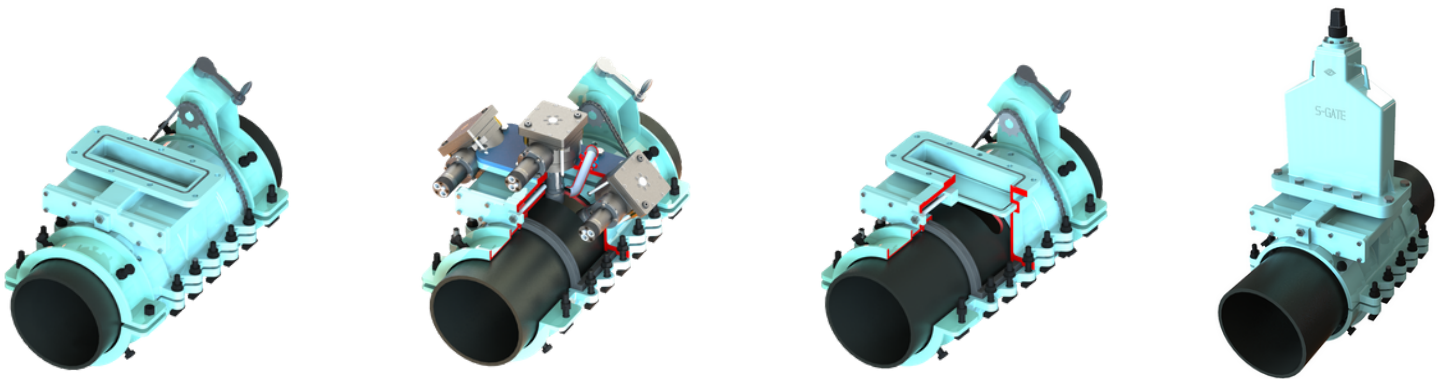
A: Under the circumstances that pipe is excavated and exposed, DN100mm to DN200mm will take around 1.5 Hours and DN250mm will take around 2 Hours.

Q: What sizes of S-Gate valve are currently available?

A: Currently, we have DN100, DN150, DN200 and DN250 S - Gate valves. We are currently developing larger sized valves and will have the capacity to install the S - Gate Valves on DN225, DN300, DN375 and DN450.

Q: Can S-Gate Valves be anchored.

A: Yes, S-Gate valves can be anchored using the stainless steel straps. Up to (375mm)



S-Gate Valves are continuously undergoing improvements in product design, specifications and materials. Any of the above may change without notice.

© Dahsian Pty Ltd, All Rights Reserved 2020

DAHSIAN PTY LTD T/A CNS ENGINEERING AUSTRALIA | 1/31 Brownlee St, Pinkenba QLD 4008 | T: (07) 3860 6335 | W: www.civilsupplies.com