

CHALLENGER

VALVES AND ACTUATORS



**PRODUCT
PROFILE**



COMPANY OVERVIEW

INTRODUCTION

Challenger Valves is a leading manufacturer, supplier and distributor of valving and actuation, providing products and solutions to the water, power, mining, irrigation and general industries. We stock a wide range of products in various materials including ductile iron, stainless steel and bronze to handle a wide range of industrial applications. Challenger Valves are now the authorised representatives for Cla-Val Control Valves and for HKC Automation products including a world-leading range of pressure reducing, pressure sustaining and relief, altitude and tank filling valves, and pneumatic and electric actuation products.

The company head office is located in Shepparton, north of Melbourne in central Victoria, with a 2400m² purpose built facility, which includes production, storage and testing. The commitment by the directors to re-invest profits back into the company demonstrates Challenger's commitment to it's customers, employees and long term investment in the Australian market.

Challenger Valves also operate branches in Brisbane, Perth and Newcastle, supporting an Australia wide distributor network.

HISTORY

Established in 1984 Challenger Valves and Actuators has been providing high quality product lines of performance and reliability for more than 30 years, backed by a professional team delivering superior service and cost effective solutions to our clients.

QUALITY

Challenger Valves provides in house testing and distributes a range of products that meet or exceed the highest Australian and International Standards, many of which carry the coveted Australian Standard Mark. Customer testaments are available on request. Challenger are an ISO9001 accredited company.

OH&S

Challenger Valves management team are committed to ensuring the health, safety and welfare of it's employees, visitors and contractors by adhering to all statutory requirements.

NATIONAL CODE OF PRACTICE

Challenger Valves is a compliant participant in the National Code of Practice for the Building and Construction Industry, details available upon request.

AUSTRALIAN STANDARDS



- ✓ AS2638.2 Gate Valves
- ✓ AS4794 Swing Check Valves
- ✓ AS4795.1 Butterfly Valves
- ✓ AS5081 Hydraulic Control Valves
- ✓ AS4020 Water Quality
- ✓ AS1628 Tested Valves
- ✓ Australian Gas Association

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Cla-Val Fire Protection Control Valves

DUCTILE IRON BUTTERFLY VALVES












Valves	Description	Size Range (mm)	Disc Material	Available Options
	<p>Series BFL Concentric Disc Rubber Lined—PN16 Lugged to suit Table D or E ANSI#150 up to DN300</p>	DN50 - DN600	Stainless Steel Gr 316	Gearbox Extensions Actuation
	<p>Series BFW Concentric Disc Rubber Lined—PN16 Wafer to suit Table D, E & ANSI#150</p>	DN50 - DN600	Stainless Steel Gr 316	Gearbox Extensions Actuation
	<p>Series USSE Concentric Disc Design U-Flanged Butterfly Rubber Lined—PN16 Flanges AS4087 B5</p>	DN150 - DN1200	Stainless steel Gr 316 Duplex Disc	Extensions Actuators Gearbox Operators Buried Service Input Stops Torque Limiter
	<p>Series BFD Concentric Disc Design Double Flanged Butterfly Rubber Lined Body Design AS4795 PN16, PN21 Flanges AS4087 - AS2129</p>	DN50 - DN3000	Stainless Steel Gr 316 HALAR® Duplex Disc	Buried Service Input Stops Torque Limiter Dial Indicator Actuator Extensions
	<p>Series SSLSN Concentric Disc Design Stainless Steel Body PN16 Lugged Butterfly Rubber Lined - Nitrile Lugged to suit Table E & D</p>	DN50 - DN200	Stainless Steel Gr 316	Gearbox Extensions Actuation



50mm to 200mm
Manual




DUCTILE IRON GATE VALVES

Valves	Description	Size Range (mm)	Body Material	Available Options
	<p>Series GVR Gate Valve Resilient Seat—PN16 Design AS2638.2</p>  	DN50 - DN750	Ductile Iron AS1831	Clockwise Anti Clockwise Handwheel Anti Tamper Device Gearbox Operator Electric Actuator Extension Columns
	<p>Series GVR - ISO ISO Pad 5211 Gate Valve Resilient Seat—PN16 Design AS2638.2 WSAA Accreditation</p>  	DN80 - DN750	Ductile Iron AS1831	Clockwise Anti Clockwise Gearbox Operator Electric Actuator Extension Columns
	<p>Series GVR –BP Integral Bypass Gate Valve Resilient Seat—PN16 375-500mm c/w 100mm bypass 600-750mm c/w 150mm bypass</p>  	DN375 - DN750	Ductile Iron AS1831	Clockwise Anti Clockwise Handwheel Gearbox Operator Electric Actuator Extension Columns
	<p>Resilient OS & Y - GVR621 Gate Valve Outside Spindle & Yoke Rising Stem Design Resilient Seat—PN16 Clockwise Close Flange drilling to AS4087 B5 and AS2129 Table E Temperature -10°C to 120°C</p>	DN50 - DN300	Ductile Iron AS1831	Anti Clockwise P+F Sensors
	<p>Resilient OS & Y - GVR33 Gate Valve Outside Spindle & Yoke Rising Stem Design Resilient Seat—PN16 Clockwise Close Flange to AS2129 Table E Temperature -6°C to 52°C FM / UL Approved</p>	DN80 - DN300	Ductile Iron AS1831	Anti Clockwise P+F Sensors






KNIFE GATE VALVES

Valves	Description	Size Range (mm)	Body Material	Available Options
	<p>Series 98 & 99 Heavy Duty Knife Gate Valve Outside Screw & Yoke Rising Stem PN10 Fully Lugged Pattern AS4087 B5 Table D *Metal Seat Model 98 *Soft Seat Model 99 *Larger sizes available</p>	DN50 - DN600	Stainless Steel 316	Lever Operator Pneumatic Cylinder Electric Actuators Actuator Guards Proximity Switches Gearbox Operators Extension Spindle Deflection Cones *Full 316 Stainless Steel available on request
	<p>Series KGV432 Economical Design Heavy Duty Knife Gate Valve Outside Screw & Yoke Rising Stem Full Port Fully Lugged Pattern AS4087 B5 Table D *Metal Seat Model 432M *Soft Seat Model 432R</p>	DN50 - DN250 PN10 DN300 - DN400 PN8 DN450 PN7 DN500 - DN600 PN6	Stainless Steel 316	Pneumatic Cylinder Proximity Switches Deflection Cones
	<p>Series KGV6431 Economical Design Heavy Duty Knife Gate Valve Resilient or Metal Seat Full Port AS4087 B5 Table D Air Filter Regulator Open/Close Proximity Sensors Solenoid Pilot</p>	DN50 - DN300	Stainless Steel 316 Blade Pneumatic Cylinder: aluminium	Deflection Cones


DUCTILE IRON PLUG VALVES

Valves	Description	Size Range (mm)	Body Material	Available Options
	<p>Series PLVL Eccentric Plug Valve Encapsulated Plug Nickel Welded Seat PN16/10 Flanges AS4087 B5</p>	DN50 - DN400 PN16 DN450 - DN1600 PN10	Ductile Iron AS1831	Extensions Actuators

DUCTILE IRON CHECK VALVES

Valves	Description	Size Range (mm)	Body Material	Available Options
	<p>Series RSSC Swing Check c/w Lever and Weight Resilient Seat—PN16 Design AS4794 Flanges AS4087 B5</p>	DN80 - DN375	Ductile Iron AS1831	Free Acting No Flow Switch
	<p>Series K-RVZ & K-RVG Nozzle Check Flanges AS4087 B5 50mm - 250mm PN16 300mm - 1200mm PN16 (Larger valves are available upon request)</p>	DN50 - DN1200	Ductile Iron AS1831	Metal Seat Resilient Seat
	<p>Series BCV Tilting Disc Ductile Iron Disc PN16, PN21, PN35 Flanges AS4087 B5</p>	DN250 - DN1200	Ductile Iron AS1831	Lever & Weight Limit Switch Guard Damper
	<p>Series WCV1 Duo Check Stainless Steel Disc Resilient Seat—PN16 NBR Seals Wafer - AS2129 Table E - AS4087 B5 Table D/C - ANSI Class 125/150</p>	DN50 - DN600	Cast Iron DN50 - DN300 Ductile Iron DN350 - DN600	
	<p>Series WCR2 Duo Check Fully Rubber Lined Resilient Seat—PN10 Stainless Steel Disc Wafer - AS2129 Table E - AS4087 B5 Table D/C - ANSI Class 125/150</p>	DN50 - DN300	Ductile Iron	


EXPANSION JOINTS

Valves	Description	Size Range (mm)	Available Options
	<p>Series WRJ Flexible Rubber Joint Flanged Ends 40mm - 300mm PN16 350mm - 600mm PN10 Zinc Plated Flanges Flanges - AS2129 Table E - AS4087 Table D/C - AS2129 Table E/DIN 10/16</p>	DN40 - DN600	SS316 Flanges—T/D Tie Rods

STAINLESS STEEL VALVES

Valves	Description	Size Range (mm)	Body Material	Available Options
	<p>Threaded Ball Valves Full Bore and Reduced Manual Ball Valves 1 Piece Design - SS2017K 2 Piece Design - SS2006S 3 Piece Design - SS2013N Fire safe API607 - SS2013KMD Screwed BSP</p> <p>3-Way Ball Valves Reduced Bore Manual Ball Threaded - SS2057N ISO Pad Threaded - SS2057D L Port T Port</p>	DN8 - DN100	Stainless Steel Gr 316	ISO Direct Mount
	<p>Flanged Ball Valves Full Bore Manual Ball Valves 2 Piece Design - SS2020S Fire Safe API607 - SS2020D Flanged ANSI 150 ISO Direct Mount</p>	DN15 - DN250	Stainless Steel Gr 316	AS2129 Table E AS4087 PN16
	<p>Gate/Globe/Needle Valves Economical Screwed BSP Gate - SS2029 Globe - SS2028</p> <p>Needle Valves Tee Handle 6000 PSI Screwed BSP</p>	DN8 - DN80 DN8-DN25	Stainless Steel Gr 316	
	<p>Non Return Valve / Strainer Swing Check – SS2030 Spring Loaded Check - SS2026 Y Strainers - SS2049 Screwed BSP</p>	DN8 - DN100	Stainless Steel Gr 316	

BRONZE VALVES

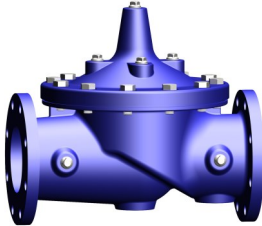





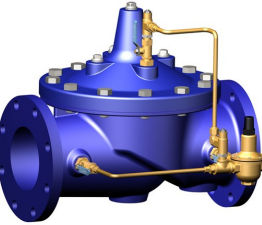





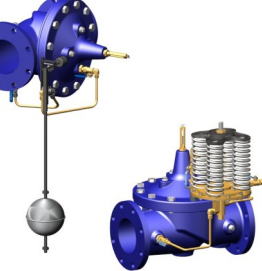


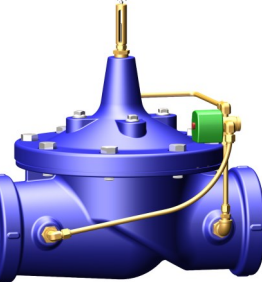


Valves	Description	Size Range (mm)	Body Material	Available Options
	<p>Gate/Swing Check Valve Design AS1628 Bronze Construction Gate Valve—Series BBRG021 PN25 Swing Check Valve—Series BBRG061 PN20</p>	DN15 - DN100	Bronze	




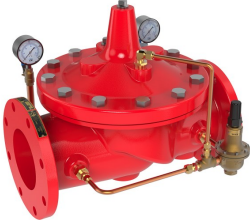

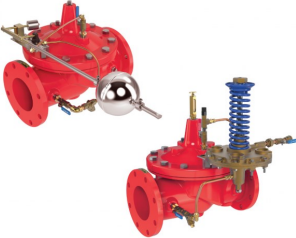


ACTUATORS QUARTER TURN & MULTI-TURN

Actuators	Description	Actuated Packages	Available Options
	<p>Series HQ Electric Quarter Turn Torque Nm 40 - 11,000 ISO Base 5211 Voltages 24VDC - 24VAC - 240VAC, 415VAC</p>	<p>Electric Actuators Open / Close—On / Off 4-20mA Modulating (PCU) Battery Back up to 300nm Integral Motor Starter</p>	<p>Options Local/Remote Control (LCU) Current Position Transmitter</p>
	<p>Series HP Rack & Pinion Pneumatic Double Acting Spring Return Travel Stops ISO Base Torques Nm 6 - 1408</p>	<p>Pneumatic Actuators Open / Close—On / Off 4-20mA Modulating Spring to Open Spring to Close Double Acting</p>	<p>Accessories Limit Switches APL Positioners PGEPR Solenoids SN400 Declutch Gearbox</p>
	<p>Series ETS/ETC Pneumatic Heavy Duty Scotch Yoke Double acting Spring Return Torque Nm 495 - 75000 ISO Base 5211 Integral Piping</p>	<p>Pneumatic Actuators Open / Close—On / Off 4-20mA Modulating Spring to Open Spring to Close Double Acting</p>	<p>Accessories Limit Switches APL Positioners PGEPR Solenoids SN400 Declutch Gearbox</p>
	<p>Series APL Weather Proof IP67 Solid and compact design NAMUR standard mounting 2SPDT (Standard)</p>	<p>Limit Switch Open / Close—On / Off</p>	<p>Options Explosion Proof Additional Switches 3 - Way Position Indicator Proximity Sensor Intrinsically Safe Potentiometer Signal Unit (4-20mA)</p>
	<p>Series PGSS2R 4-20mA Control Weatherproof IP66 Auto Calibration</p>	<p>Positioner 4-20mA Modulating</p>	<p>Options Rotary Input Only Input and Limits Input and Output Input/Output and Limits Linear Rotary Smart SS316 Case</p>
	<p>Series SN400 Weatherproof IP65 Direct Mount NAMUR interface DIN Plug 1/4" BSP</p>	<p>Solenoid Open / Close—On / Off</p>	<p>Options 24V DC 24V AC 110V AC 240V AC 12V DC</p>

CLA-VAL AUTOMATIC CONTROL VALVES

Valves	Descriptions	Available Options
	<p>Certified Product  Australian Standard </p> <p>Basic Hytrol Valve Ductile Iron Construction with FBE Coating Class #150 with Flanges to suit AS4087 PN16 Stainless Steel Trim Buna-N Diaphragm and Seat Disc Bronze Body Pilot—Many adjustable ranges available. Brass Fittings and Copper Tubing.</p> <p>The basic valve is used in nearly all Cla-Val Automatic Control Valves.</p>	Globe or Angle Type Body Full or Reduced Port S/S 316 Tube and Fittings X141 Pressure Gauges Valve Position Indicators X105 Limit Switches KO Trim (Anti-Cavitation) X144 e-FlowMeter X143 Power Generators Flange, Threaded or Grooved
	<p>Certified Product  Australian Standard </p> <p>Pressure Relief & Pressure Sustaining Valves The pressure relief valve is a hydraulically operated, pilot-controlled, modulating valve designed to maintain constant upstream pressure within close limits. This valve can be used for pressure relief, pressure sustaining, back pressure or unloading functions in a by-pass system.</p> <p>In operation the valve is actuated by line pressure through the pilot control system, opening fast to maintain steady line pressure but closing gradually to prevent surges. Operation is completely automatic and pressure setting may be easily changed.</p>	KO Trim (Anti-Cavitation) Include Surge Anticipator Combination Back Pressure Solenoid Shut Off Differential Pressure Relief W Series Stainless Steel Construction
	<p>Certified Product  Australian Standard </p> <p>Pressure Reducing Valves The pressure reducing valve automatically reduces a higher inlet pressure to a steady lower downstream pressure, regardless of changing flow rate and/or varying inlet pressure. This valve is an accurate, pilot-operated regulator capable of holding downstream pressure to a pre-determined limit. When the downstream pressure exceeds the pressure setting of the control pilot, the main valve and pilot valve close drip-tight.</p>	Check Feature Anti-Cavitation Trim Low Flow Bypass Pressure Sustaining Solenoid Shut Off Surge Control W Series Irrigation Valves Stainless Steel Construction
	<p>Certified Product  Australian Standard </p> <p>Rate of Flow Control Valves The rate of flow control valve prevents excessive flow by limiting flow to a preselected maximum rate, regardless of changing line pressure. It is a hydraulically operated, pilot controlled diaphragm valve. The pilot control responds to the differential pressure produced across an orifice plate installed downstream of the valve. Accurate control is assured as very small changes in the controlling differential pressure produce immediate corrective action of the main valve. Flow rate adjustments are made by turning an adjusting screw on the pilot control.</p>	Check Feature Solenoid Shut Off Pressure Reducing
	<p>Certified Product  Australian Standard </p> <p>Level Control Valves The Float Valve accurately controls the liquid level in tanks. This valve is designed to open when the liquid level reaches a pre-set low point and close drip-tight when the level reaches a preset high point.</p> <p>The Altitude Valve controls the high water level in reservoirs without the need for floats or other devices. It is a non-throttling valve that remains fully open until the shut-off point is reached.</p>	Check Feature Anti-Cavitation Trim Low Flow Bypass Pressure Sustaining Solenoid Shut Off Surge Control W Series Irrigation Valves Stainless Steel Construction
	<p>Certified Product  Australian Standard </p> <p>Solenoid Control Valves The Solenoid Control Valve is an on-off control valve that either opens or closes upon receiving an electrical signal to the solenoid pilot control. This valve consists of a Hytrol main valve and a thee-way solenoid valve that alternately applies pressure to or relieves pressure from the diaphragm, chamber of the main valve. It is either normally open (de-energize solenoid to open) or normally closed (energize solenoid to open).</p> <p>If the check feature option is added and a pressure reversal occurs, the downstream pressure is admitted into the main valve cover chamber the valve closes to prevent return flow.</p>	Normally Open Normally Closed Fail Open or Close Check Feature Pressure Reducing Pressure Sustaining W Series Irrigation Valves

CLA-VAL FIRE PROTECTION AUTOMATIC CONTROL VALVES

Valves	Descriptions	Available Options
	<p>Pressure Relief Valves</p> <p>The Cla-Val Globe Pattern Model 50B-4KG1KOL and Angle Pattern Model 2050B-4KG1KOL relief valve is designed to relieve excess pressure in a fire protection system, while eliminating the damaging effects of cavitation.</p> <p>The valve features an adjustable pressure setting, fast opening to maintain steady line pressure, and gradual closing for surge free operation.</p>	<p>KO Trim (Anti-Cavitation) KOL Trim (Anti-Cavitation) Wide range of materials for sea water specifications</p>
	<p>Pressure Reducing Valves</p> <p>Cla-Val 90-21 Pressure Reducing Valves are indispensable in any fire protection system. Available in globe (90G-21) and angle patterns (90A-21), our diaphragm actuated design is proven to be highly reliable and easy to maintain.</p> <p>Globe and angle pattern valves feature a full range of adjustments. These valves are also available in a variety of material options. Epoxy coating is strongly recommended for all fire system valves (excluding bronze valves). All configurations of the valve can be supplied with optional internal and external epoxy coating of the main valve wetted surfaces.</p>	<p>Check Feature KO Trim (Anti-Cavitation) Solenoid Shut Off Wide range of materials for sea water specifications</p>
	<p>Air Release Valves</p> <p>Cla-Val Series 34 Fire Protection System Air Release Valves are designed to vent entrained air that collects at high points in a pipeline.</p> <p>This valve continuously eliminates air from a system by releasing small quantities of air before large air pockets can occur. In many installations, continuing accumulations of air in the pipeline (lacking air release valves); cause flow capacity to slowly decrease; power consumption slowly increases; un-noticeable at first, until flow drops dramatically, even stopping due to air blocks in the piping.</p>	<p>Vacuum Check Feature</p>
	<p>Altitude and Level Control Valves</p> <p>The Float Valve accurately controls the liquid level in tanks. This valve is designed to open when the liquid level reaches a pre-set low point and close drip-tight when the level reaches a preset high point.</p> <p>The Altitude Valve controls the high water level in reservoirs without the need for floats or other devices. It is a non-throttling valve that remains fully open until the shut-off point is reached.</p>	<p>Check Feature KO Trim (Anti-Cavitation) Pressure Sustaining Pressure Reducing Solenoid Shut Off</p>
	<p>Solenoid Operated Deluge Valves</p> <p>The Cla-Val Model 134-05 Solenoid Control Valve is an on-off control valve which either opens or closes upon receiving an electrical signal to the solenoid pilot control.</p> <p>This valve consists of a 100G/2100G UL/ULC Listed Hytrol Main Valve, a three-way solenoid valve and an auxiliary pilot valve. This pilot control system alternately applies pressure to/or relieves pressure from the diaphragm chamber of the main valve. It is furnished either normally open (de-energize solenoid to open) or normally closed (energize solenoid to open).</p>	<p>Normally Open Normally Closed Fail Open or Close Check Feature</p>
	<p>Pump Casing Relief Valves</p> <p>The Cla-Val Model 55L-60 (UL listed, Fm Approved) Pressure Relief Valve is a direct-acting, spring loaded, diaphragm type relief valve. The valve may be installed in any position and will open and close within very close pressure limits. The bottom plug may be removed and installed in the inlet to convert it to an angle pattern flow path.</p>	<p>Available Sizes: 1", 3/4", 1/2" Adjustment range: 0-75PSI 20-200PSI 100-300PSI</p>



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