CUSTOM CONTROLS

Your trusted partner in delivering innovative, world class solutions

Product Catalogue

Valves • Measurement • Automation

Auckland | New Plymouth | Christchurch

www.customcontrols.co.nz | sales@customcontrols.co.nz

Markets and Industries We Serve


Food & Beverages


Power


Oil & Gas


Tank Management


Chemical


Factory Automation


Pulp & Paper


Water & Wastewater

CUSTOM CONTROLS

Custom Controls has proudly supported New Zealand industries since 1980.
We deliver innovative, intuitive, and reliable solutions to keep your operations safe and efficient.
This catalogue offers an overview of the products and solutions we provide to meet diverse process needs.

Customer Focus

3 Offices
Auckland
New Plymouth
Christchurch

23 x Engineers
6 x Service Techs

Valve Connect
Services

Education
Services

Control Valves

Regulators

Pressure Relief
Management

Isolation
Valves

Industrial
Automation

Measurement
Instrumentation

Networking

Industrial Sensors
& Systems

Auckland

Custom Controls Ltd
3 Mahunga Drive, Mangere Bridge
Manukau 2022
NEW ZEALAND
T: +64 9 634 1391 | F: +64 9 636 5976

New Plymouth

Custom Controls Ltd
38 Young Street
New Plymouth 4310
NEW ZEALAND
T: +64 6 753 4444

Christchurch

Custom Controls Ltd
2-11 Radius Loop, Rolleston
Christchurch 7675
NEW ZEALAND
T: +64 3 390 0086

www.customcontrols.co.nz | sales@customcontrols.co.nz | https://www.linkedin.com/company/custom-controls-ltd

Control Valves

Globe Valve

Globe Valves use a linear motion to move a closure member into and out of a seating surface. They have a body distinguished by a globular-shaped cavity around the port region. Many single-seated valve bodies use cage or retainer-style constructions to retain the seat ring, provide valve plug guiding, and provide a means for establishing particular valve flow characteristics. Cage or retainer style single-seated valve bodies can also be easily modified by the change of trim parts to provide reduced capacity flow, noise attenuation, or reduction or elimination of cavitation.

FISHER > ED | ES | ET | EZ | EW | easy-e Cryogenic | HP & EH | GX | Baumann | D | D3 | D4 | RSS DA | FB | D2T FloPro

Three-Way Valves are a type of globe valve that have three pipeline connections to provide converging (flow-mixing) or diverging (flow-splitting) service. Variations include cage-, port-, and stem-guided designs, selections for high-temperature service, and end connections can be specified to mate with most piping schemes.

FISHER > YD and YS 3-way | GX

Angle Valves

Angle Valves are a globe valve design in which the inlet and outlet ports are perpendicular to each other. Angle valves are commonly used in boiler feedwater and heater drain service and in piping schemes where space is at a premium and the valve can also serve as an elbow. The valve can have cage-style construction or expanded outlet connections, restricted trim, or outlet liners for reduction of erosion, lashing, or cavitation damage. Angle valves achieve excellent control of liquid services in high-pressure applications.

FISHER > HP | EH | DA | FB | D2T FloPro | 461

Segmented Ball Valves

Segmented Ball Valves provide high capacity, precise control across a broad range of applications. They are similar to a conventional ball valve, but with a contoured V-notch segment in the ball. This control valve has good rangeability, control, and shut-off capability. The V-notch ball provides positive shearing action and produces an inherent equal percentage flow characteristic. It provides non clogging, high capacity flow control. The V-notch ball has been specially contoured to maximise capacity and enhance seal life and shut-off integrity

FISHER > Vee-Ball V150 | Vee-Ball V200 | Vee-Ball V300 | Vee-Ball V150S Slurry | Vee-Ball V150E

High Performance Butterfly Valves

High-Performance Butterfly Valves are used in throttling applications requiring large flow capacities and small installed footprints. They use a rotating eccentric disk to control flow through a pipe. The disk is generally operable through 90 degrees and provides a linear flow characteristic. Their advantages include a straight-through flow path, very high capacity, and ability to pass solids and viscous media. These valves have nominal sizes from DN50 to DN1800 (from NPS 2 to 72) and pressure class up to PN420 (CL2500 according to ASME) depending on the model.

FISHER > Control-Disk | A11 | 8532 | 8560 | 8580 | 8590

Eccentric Plug Valves

Eccentric Plug Valves combine globe valve ruggedness with the efficiency of a rotary valve so they're also referred to as rotary globe. They have a plug-shaped, flow restricting member that follows an eccentric path as it rotates.

FISHER > V500 | CV500

Steam Conditioning Valves and Desuperheaters

Steam Conditioning Valves represent state-of-the-art control of steam pressure and temperature by combining both functions within one integral control unit.

FISHER > TBX | TBX-T

Desuperheaters inject a controlled, predetermined amount of water into a steam flow to lower the temperature of the steam.

FISHER > DMA | DMA/AF | DSA | DFA | DV
YARWAY > CIRC-Temp | Cryogenic | Probe Style | Venturi Style

Control Valves

Cavitation Control Trims

Clean and Dirty Service Anti-Cavitation Trims prevent cavitation as the liquid undergoes a portion of the total pressure drop in each stage. This prevents the liquid in any stage from falling to or below its vapour pressure, avoiding cavitation. Cavitation is a concern for plant operators and maintenance personnel because it not only decreases flow capability through control valves, but it may also cause material damage, excessive noise, and excessive vibration. A wide range of cavitation-control technologies are available for clean and dirty service.

FISHER > Cavitrol III | CAV III Micro-Flat | DST | NotchFlo DST| Micro-Flat | CAV4

Fisher™ Cavitrol™ Hex Trim
Fisher Cavitrol Hex trim provides improved performance for severe service applications and maintains the efficiency of a rotary valve. Cavitrol Hex reduces cavitation and noise effects that cause pipeline vibration.

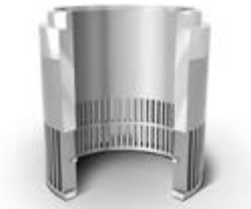
Whisper Trim Solutions

Fisher Whisper trim solution leverages additive manufacturing to implement optimised process designs, providing 20% more valve capacity with 10 fewer decibels of noise.

This next generation of Fisher Whisper Trim technology addresses noise issues by using additive manufacturing and other advanced techniques to create trim designs with increased capabilities.

Fisher™ Whisper™ NXV Trim
Fisher Vee-Ball Series valves (V150, V200, and V300) with the Whisper Trim combines the efficiency of a rotary valve with the acoustical attenuation capability of Whisper technology.

Fisher™ Whisper™ NXG Trim
Fisher Whisper NXG trim for globe control valves allows you to use smaller valves where previously capacity limited without reduction in noise abatement, providing 20% more flow capacity than the market.



Fisher™ Whisper Trim™ I Cage
Fisher Whisper Trim I cages offer proven aerodynamic noise control that is effective for vapour, gas, or steam flow applications. The Whisper Trim I cage utilises multiple orifices of a special shape, size, and spacing to minimise noise generated by the flow of vapour, gas, or steam through a control valve. Using a Whisper Trim I cage, in conjunction with a properly sized valve body, can substantially reduce the noise level below that of valves with standard trim.

Noise Control Trim

Aerodynamic and Hydrodynamic Noise Control Trims are trusted and tested to protect your personnel and the surrounding environment from excessive noise risks. High pressure drops and high mass flows involving liquids, gases, vapours, or steam can lead to unwanted and dangerous noise levels. Allowing this noise to continue puts you at risk of fenceline noise regulation fines or potential employee hearing loss. High noise levels can also lead to equipment damage through vibration and process control issues. Mitigate your risk by choosing Fisher products.

FISHER > Whisper Trim I | Whisper Trim III | WhisperFlo | Inline Diffusers | Vent Diffusers

Fisher™ 6060 WhisperTube Modal Attenuator

The WhisperTube is a passive reactive silencer designed for installation downstream of the control valve or other equipment contributing to system noise. Requiring negligible pressure drop across the device, the WhisperTube achieves system noise reduction across a wide range of conditions without impacting the flow capacity or process.

FISHER > WhisperTube™

EMERSON | AMS BAUMANN FISHER TOPWORX YARWAY | amot

Control Valve Accessories

Digital Valve Controllers & Traditional Positioners

Digital Valve Controllers are microprocessor-based instruments that are compatible with HART, FOUNDATION fieldbus and PROFIBUS communication protocols. The microprocessor enables diagnostics and 2-way communication to simplify setup and troubleshooting. FIELDVUE digital valve controllers have logged billions of operating hours and have sold over 2 million products since being introduced in 1994. They can be used in Safety Instrumented System to control the safety shut-down function of the valves.

FISHER > DVC7K | DVC6200 | DVC6200-SIS | DVC6200p | DVC2000

Traditional Positioners deliver pressurised air to the valve actuator so that the position of the valve stem or shaft corresponds to the set point from the control system. They are typically pneumatic or analogue I/P.

FISHER > 3570 | 3582 | 3852i | 3610J | 3610JP | 3620J | 3620JP | 3660 | 3661 | 3710 | 3720

Level Products

Level Products use HART or FOUNDATION fieldbus communication protocols to measure, sense, or control liquid level, liquid level interface, or specific gravity (density).

FISHER > 249 | 2100 | 2500 | **FISHER FIELDVUE** > DLC3100 | DLC3100 SIS | **FISHER** > L2 | L2e | L2sj

Transducers

Electro-Pneumatic (I/P) Transducers convert an electronic signal to a pneumatic signal. They are routinely used in control loops that require an electronic control signal from a programmable logic controller or distributed control system to be converted to a usable pneumatic signal for operation of a control valve. I/P transducers operate by using a current to pneumatic converter to produce a proportional pneumatic output. **FISHER** > i2P100 | 846 | 646

Pneumatic and Process Valve Controllers

Pneumatic Controllers are mechanical devices designed to measure temperature or pressure and transmit a corrective air signal to the final control element. Bourdon tubes, bellows, temperature elements, or displacers are used as the sensing elements. The power supply and output of a pneumatic controller is compressed air or natural gas.

The Fisher FIELDVUE DPC2K digital process controller is an electro-pneumatic PID controller that can replace pneumatic controllers to meet your single continuous PID loop needs.

FISHER > C1 | 4194 | 4195K | 4196 | 4600 | DPC2K

Volume Boosters

Volume boosters amplify or boost the volume of air supplied to the valve actuator.

The Fisher VBL volume booster is used in conjunction with a positioner on a throttling control valve to increase stroking speed. **FISHER** > 2625 | 377 | SS-263 | VBL

Discrete Valve Controllers

TopWorx discrete valve controllers enable valve position monitoring via internal limit switches, or automated on/off valves to communicate via FOUNDATION Fieldbus, DeviceNet, AS-Interface, Profibus, HART and Wireless HART protocols.

TopWorx™> DXP | TXP | DVR | TXS | DXR | TVL | DXS | TVF | ESD | TVH

Emerson's TopWorx™ GO™ Switch is an extremely versatile sensing solution designed for the most challenging environments and applications. It detects like a proximity switch and functions like a limit switch, providing higher reliability when conventional switches fail.

TopWorx™ GO™ Switch > 11 | 21|31 | 81 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 7G | 7H | 7L

Solenoid Valves ASCO Solenoid Valves

ASCO offers the world's largest selection of 2-way, 3-way and 4-way solenoid valves, designed to control the flow of air, gas, water, oil or steam, in the most demanding fluid control applications ASCO range also includes cylinders, angle body piston valves, regulators, valve manifolds, filters, lubricators and valve accessories.

EMERSON

ASCO™
TOPWORX™
FISHER™

Regulators

Air

Manufacturing and process plants use compressed air as a power supply for many devices within the plant. Instrument air is used to power instruments, such as controllers, positioners, switching valves, panel loaders and volume boosters. Plant air or shop air runs from compressor throughout the plant. Pressure reducing regulators control the pressure to devices at each point of use of the air line. Instrument air can come from the plant air line or there may be separate air lines throughout the plant. In either case, the air supplied to the instruments must be cleaned and dried before it enters the instruments.

FISHER > Pressure Reducing MR95 | 67C | 67D| 627 | 1301 Series
FISHER > Relief/Backpressure MR98| 63EG Series

Steam

Steam is used throughout industries for process and space heating. To minimise piping cost, steam is generated and distributed at much higher pressures and temperatures than required by the process load. Fisher™ regulators are utilized in these applications to reduce the steam pressure to a usable level and to accurately maintain process fluid temperatures.

FISHER > 92B | 92S| SR5 | MR95 | 92C | MR98 Series

Liquids

Any substance that is capable of flowing or of being poured is known as a liquid. Liquids differ from gases as they are incompressible and viscous. Because of these characteristics, special consideration must be given when selecting a regulator. All regulator parts that touch the fluid must be compatible with the fluid. The regulator design may require modifications or special materials.

FISHER > MR105 | MR108| 92W| 63EG-98HM| MR95| MR98 | LR125| LR128 | 1098-EG
JEON > DG Series

Process Gas

Gases are used in chemical and industrial processes, such as analytical instrumentation, environmental compliance, electronic manufacturing, chemical production, reference gases and medical uses. All the devices in these systems must be compatible to prevent complications, such as corrosion, unwanted chemical reactions, ignition or explosion. Also, some of these process systems operate at very high or very low temperatures. Regulators must be constructed to withstand these temperatures. The regulators and relief/backpressure regulators covered in this section are available in materials that are chemically compatible with most process gases.

FISHER > 1098-EGR | MR95 | MR98 |EZR | 299H | 627
JEON > DG Series

Fuel Gas

Natural gas (methane) is a clean-burning fuel gas used for many residential, commercial and industrial applications. This colourless, naturally occurring gas can be found in many countries around the world. For industrial applications, natural gas is used as a feedstock for making chemicals, such as anhydrous ammonia and as a fuel for boilers and furnaces.

FISHER > 310A | EZR | Y600A | 1098-EGR | EZH and EZHSO Series | 99 | 627 | OSE Slam Shut
TARTARINI > FL | Cronos

Regulators

Tank Protection and Solutions

Maintaining product quality and safety is critical to your operation. Take control of your Tank Farm with our product range below to maintain a fixed and safe pressure in the space above the liquid inside the tank for total tank protection.

FISHER | YARWAY | ENARDO | VAREC | AMAL

Vent Valves / Pressure & Vacuum Relief Valves

Emergency Pressure Relief Vents

Flame Arrestors

Emergency Pressure Relief Vents

Tank Blanketing Regulators

Pressure Controls

Our trusted brands TESCOM and CASH deliver reliable and precise pressure control solutions across multiple industries. Below is a selection of models tailored to specific applications, ensuring optimal performance and safety.

Aerospace Designed for critical operations, our aerospace pressure controls are engineered for reliability in extreme environments. > 26-1000 | 26-1200 | 26-2000 | VA/VG Series | 30 Series

Alternative Energy Efficient and sustainable solutions for energy generation, suited for renewable energy applications. > 20-1000 | 20-1100 | 20-1200 | 44-2600 |VA/VG Series

Medical & Life Support Precise controls for life-saving medical devices and systems, ensuring safety and consistency. > 26-2900 | 44-1100 | 44-1300 | BB-1

Energy & Environmental Reliable performance in environmental and energy management, focusing on sustainability and control. > 26-1500 | 44-2200 | 44-2600 | 44-3400 | NA-4 Changeover System

Oil & Gas Exploration & Extraction Durable and compliant solutions for high-pressure environments in the oil and gas industry. > 50-2000 | 20-2200 | 54-2000 | 54-2100 | 54-2200

Manufacturing & Testing Accurate controls for critical manufacturing processes, providing consistency and safety. > SG | 26-1700 | 26-2000 | 23-2300 | 44-1100 | DH | |ER3000

Laboratory & R&D Precision control in experimental and research settings, ideal for laboratory applications. > 26-1700 | 26-2000 | 44-2200 | 44-3400 | WEGA 1&2

Life Science High-Purity, high-performance models for biotechnology and pharmaceutical applications. > PH-1600 | PH-1800 | PH-2200 | PH-2600 | PH-3200 Series

Cryogenic Designed for extremely low temperatures, our cryogenic controls ensure safe and efficient handling. > CP / CP2| SY-70C| A-32 | E-55| LTC | FR | C-776

TESCOM | CASH

Level & Flow

Penberthy Multiview™ product line offers an extensive range of models and accessories to meet the needs of both simple and stringent level measurement applications in petrochemical processing, refining, compressors, water treatment, storage tanks and oil water separators.

YARWAY | PENBERTHY | ROSEMOUNT

Speciality Gas Panels

> Pressure Staging Panels
> Changeover Pressure Regulator Panels
> Over Pressure Protection Panels
> ESD Panels

EMERSON

ENARDO™ FISHER™ PENBERTHY™
SEMPELL™ TARTARINI™
TESCOM™ VAREC™ YARWAY™

CASH VALVE

Pressure Relief Valves

Spring Loaded Pressure Relief Valves

Emerson manufactures a complete range of spring loaded pressure relief valves from general pressure protection to extreme conditions. Designed, certified and tested in accordance to most codes and standards around the world such as ASME, PED, CU-TR, AD-2000, API, EN. They are available in a large array of materials, from carbon steels to nickel alloys, duplex, titanium, brass, with cast, forged or HIPS bodies. With metal or soft seats, threaded, flanged, welded or hub connections, the largest range of pressure relief valves builds on many decades of experience from our main brands.

ANDERSON GREENWOOD > Series 60 | Series 81 & 83 | 81P |

CROSBY > Style JOS-E & JBS-E | Style 900 OMNI-Trim | Style BP OMNI-Trim

SEMPELL > Type S | Type MAXI S | Type Mini S | Type VSEO

Pilot Operated Pressure Relief Valves

With the broadest range of pilot operated pressure relief valves, Emerson is able to solve the most demanding pressure protection challenges, providing reliable protection at low operating costs. With pop or modulating action, from cryogenics to high temperatures, designed, certified and tested in accordance to most codes and standards around the world. Our pilot operated pressure relief valves are available in many materials and configurations to suit all applications, including dirty fluids, while reducing weight, enabling in-line checking and maintenance for lower cost of ownership. The configurations and options available provide the perfect match for any application that requires highly reliable protection and flexibility.

ANDERSON GREENWOOD > Series 200 | Series 400 | Series 400 ISO-DOME | Series 500 & 800

The Crosby J-Series with Balanced Diaphragm

The Crosby J-Series with Balanced Diaphragm technology eliminates the need for bellows in pressure relief valves, providing lower costs and improved performance.

The Crosby J-Series Bellows Leak Detection Solution

The Crosby J-Series Bellows Leak Detection solution ensures balanced operation, reduces fugitive emissions and provides instant notification of a bellows failure.

Steam & Power Safety Valves

Protecting steam processes against over-pressure has always been one of the most challenging duties for engineers. Spring loaded, pilot operated or power assisted, with certifications from ASME I & VIII, PED, TÜV, CU-TR, SELO, LRS and others, Emerson has built on more than 140 years of experience to provide the safety valve that will fit your exact requirements to reliably protect assets from low pressure steam to super -critical boilers, each safety valve is supported with some of the largest steam testing facilities in the world. Also available is a complete range of portable test equipment to maintain protection and reduce operation costs.

CROSBY > Style HSJ | Style HE ISOFLEX | Style HCI ISOFLEX | Style HCA-I ISOFLEX

ANDERSON GREENWOOD > Series 727 | Series 5200

SEMPELL > Type SOH /SOT | Type EPRV

Low Pressure Relief Valves

Designed for extremely accurate low pressure protection with configuration flexibility for ease of maintenance and enhanced reliability. The soft seats are specially designed to provide extreme tightness even under the lowest pressures. These valves feature very large capacities for the most economical configuration. Type 9000 valves can provide protection for both pressure and vacuum, while the 96A vacuum breaker brings unrivalled extra large capacities for protecting the largest storage tanks. Designed, certified and tested in accordance to most codes and standards like ASME VIII, PED, CU-TR and API 2000.

ANDERSON GREENWOOD > Type 9300 & 9300H | Type 9200 | Type 93 | Type 96A | Type MLCP

Pressure Relief Valves

Speciality Valves

In addition to pressure relief valves, Emerson's portfolio has been complemented over the years with safety devices further enhancing the safety of your assets and personnel.

ANDERSON GREENWOOD > SSV (Safety Selector Valves) | ITV | Type RCRV

Fike Rupture Disk - Pressure Protection

Leading Industry Specialists in Bursting Disks, Panels, Vents & Indicators. Rupture Disk

FIKE > Metal Rupture Disks | Graphite Rupture Disks | Rupture Disk Holders.

PRV Wireless Monitoring Solutions Overview

Immediate notification of events to reduce severity of releases, monitoring relief valves real time without manual rounds, keeps employees safe.

Acoustic Transmitter:
Rosemount 708 Wireless
Installation:
Non-intrusive, install on pipe
Detection Principle:
Acoustic and Pipe temperature

Position Transmitter:
Fisher FIELDVUE 4400 Digital position transmitter, SIL 2 capable, (wireless connection with 775 THUM™ adapter)
Installation:
OEM Mounting Kit
Detection Principle:
Movement of Valve Stem

Differential Pressure Transmitter:
Rosemount 2051/3051 Wireless
Installation:
OEM Mounting Kit
Detection Principle:
Differential pressure between inlet & dome.

Certification and Approvals

ASME Code Section I (V)
ASME Code Section VIII (UV)
ATEX 2014/34/34/EU (replaces 94/9/EC)
PED 2014/68/EU (replaces 97/23/EC)

EMERSON | ANDERSON GREENWOOD CROSBY SEMPELL | Fike

Isolation Valves

Triple Offset Butterfly Valves

The Vanessa Triple Offset Valve is a premium process valve made to the highest standards
The triple offset geometry and the special features reduce torque and provide increased valve life. Guaranteed 100% zero-leakage performance even during extreme temperature variations and pressure peaks. Anti blow-out shaft design and fugitive emissions control. Double block and bleed designs are available as are SIL 3. **VANESSA**

Floating Ball Valves

Our **floating ball valve portfolio** includes a diverse range that can be configured to suit most process applications or project packages. Soft seated designs that provide superior sealing; metal-seated valves that maintain tight shut-off and valves designed to maintain the performance of your process. Jacketed high temperature and lined options are also available.

KTM | RMT | K-BALL

Trunnion Ball Valves

Our **trunnion mounted ball valves** are utilised in virtually every industry and for some of the most demanding process conditions. An extensive range includes soft-seated designs, providing excellent leak-resistance; top entry valves with a one-piece body design allowing for in-line maintenance and metal-seated valves for superior operation at high temperatures as well as providing abrasion resistance in challenging applications. For buried service applications we offer a Welded body design, decreasing potential leak points and reducing the potential of fugitive emissions from flanges. **KTM | RMT**

Butterfly Valves

Designed and manufactured to perform in a broad range of applications. With a Ductile Iron body material, the **Keystone butterfly valve** is able to be full rated for bi-directional dead-end service; these valves also meet or exceed the design requirements of MSS SP-67 and API 609. Wafer options together with Lever and gear operators are available. The Fisher range of high-performance Butterfly valves for throttling or on-off applications, with carbon steel, stainless or alloy materials and connection options of flanged, single flanged, double flanged, lugged or wafer. **FISHER | KEYSTONE**

Gate Globe Check

Complementing our suite of valves & actuators is our Gate Globe and Check valves suitable for Power, Oil & Gas, Geothermal, and mining applications.

SEMPELL | YARWAY

Knife Gate Valves

Ideal for slurry service in Mining, Water & Waste Water, Power, Pulp and Paper, Chemical and Cement applications the knife gate valve offers a solution for wet or dry abrasive & corrosive media. The SU10R knife gate valve offers isolation with field replaceable snap-in liner.

CLARKSON

Pinch Valve

The Jindex Pinch Valve range has been designed to solve process problems associated with controlling the flow of abrasive or corrosive fluids. Industries such as mineral processing, pulp and paper, power generation, chemical handling, effluent treatment, water and waste water use the Jindex Pinch Valve.

Jindex

Cryogenic Valves

AEV Rotary ²XC Double Eccentric C-ball "no contact type" is designed to meet the most stringent services. The two vectors movement (rotation/translation) provided by the double eccentricity design allow to open and close the valve without friction or wearing at the seat & "C" contact. Additionally during the closure end, seat is cleaned by sweeping. Rotary ²XC Double Eccentric "C" ball does not have dead cavity as ball valve. No risk to trap over pressure and/or product in the body cavity. Reliable dual anti-friction bearing with metallic shield arrangement offer the best protection against particles Hence ***No cavity, No spring, No Problem*** **AEV**

Actuation

Rack and Pinion - Pneumatic

Rack and Pinion actuators are ideal for common quarter-turn valve designs, such as butterfly, ball and plug valves – and also half-turn (180°) applications. Custom Controls is able to supply modular designs that are field convertible from double acting to spring return and vice versa. Variable design options are available with powder coated body and high corrosion resistant aluminium pinion design with stainless steel fasteners, also high strength LM25 body options for rugged heavy-duty applications. Offering a turnkey solution, the Bettis VOS includes an actuator, air filter regulators, relief valves, solenoid valves, limit switches, positioners, as well as the piping and engineering.

EL-O-MATIC | HYTORK | BETTIS | KEYSTONE | BIFFI | MORIN

Scotch Yoke - Pneumatic, Hydraulic

Offering a wide range of **Scotch Yoke Actuators** for ball, butterfly or plug valves. The compact Bettis CB series to the larger G series, available with SIL3 packages; the G series canted yoke option provides greater torque for applications where there is increased valve break torque. Full Stainless-Steel actuators offer a solution for harsh corrosive and erosive environments. All actuators available as double acting or single acting spring return.

BETTIS | BIFFI | MORIN

Electric Actuated

For a range of applications where hydraulic or pneumatic actuation is unsuitable, we are able to select from a suite of electric actuation packages. Whether rising stem (linear) or rotary valve applications and regardless of the application; water, power, food and beverage, Oil and gas or metals and mining. Also offering a range of supply voltages, from +24 to 415v, ac or dc supply, as well as hazardous area models that meet the necessary certification requirements.

BETTIS | BIFFI | FISHER

Hydraulic

Incompressible fluids are used for applications that require higher torques. We are able to provide a range of Hydraulic actuation options; Rack and Pinion, Scotch Yoke, Helical Spline or Rotary Vane. Suitable for a range of process and environment needs, such as remote sites, Automatic Line Break Valves and emergency shut down applications, these actuators are also available with hand pump operability in case of loss of power. Electro-hydraulic options are also available.

Shafer ECAT is a Valve Operating System™ for critical pipeline applications where dependability of the equipment is essential and emissions control desired.

BETTIS | SHAFER | BIFFI

Valve Automation Integration Centre

Together with support from the world leading valve and actuator controls manufacturers, Custom Controls has the valve automation experience, know-how and product range to meet the needs of almost any applications in the industries we serve. Custom Controls can supply standard valve packages from our local inventory or provide bespoke solutions like HIPPS system that are tested in our workshop and shipped with the appropriate test certificates. We are committed to meet our customer`s demands and expectations and agreed-upon requirements for all products and related services.

EMERSON

AEV BETTIS BIFFI
CLARKSON FISHER KEYSTONE
LUNKENHEIMER SEMPELL
SHAFER VANESSA YARWAY Morin

JINDEX

Measurement Instrumentation

Flow & Density Measurement

Coriolis Meter

With Micro **Motion Coriolis meters**, Emerson provides a breadth of products that are tailored to your application needs. Our Coriolis flow meters are composed of a sensor, which contains the measurement tubes, and transmitter, which displays the outputs and allows the meter to be configured to your process. Read below to meet our Coriolis family – our sensors, transmitters, and software options that provide the ultimate solution for your most critical flow measurement needs. **MICRO MOTION** > Sensors and Transmitters

Magnetic Flow Meter

Magnetic flow meters, also known as electromagnetic flow meters or mag meters, are often selected because they are obstruction less, cost-effective for aggressive chemicals and slurries and provide highly accurate volumetric flow measurement. A range of liner materials, electrode options and line sizes accommodate a wide variety of process applications. Mag meters can measure fluids bi-directionally, are effective for both very low and high-volume flow rates.

Vortex

Vortex flow meters offer many advantages for flow measurement including easy installation without impulse lines, no moving parts to maintain or repair, less leak potential and a wide flow turndown range. Vortex meters also offer very low power consumption, allowing for use in remote areas. Additionally, Vortex meters are unique in that they can accommodate liquids, gasses, steam and corrosive applications. Vortex flow meters are also able to withstand high process pressures and temperatures. **ROSEMOUNT** > Vortex Flow Meters

Ultrasonic Flow Meters

The **Rosemount Gas and Liquid Ultrasonic Flow Meters** provide higher accuracy, greater rangeability, advanced flow meter diagnostics, with no moving parts practically eliminating pressure loss common to other types of flow measurement devices. This advanced ultrasonic measurement technology can be applied to custody transfer, allocation measurement, check metering, leak detection and inventory control applications. **Rosemount** >

Non-Intrusive Ultrasonic Flow Meters

Flexim Non-Intrusive Ultrasonic Flow Meters measure virtually any liquid or gas without interrupting operations or risking leakage. These clamp-on meters ensure accurate, safe, and reliable flow measurement, meeting the highest industrial standards.
Advanced Meter Verification (AMV) allows you to check the health of your Flexim flow measurement device directly on-site without the need of process interruption.
Flexim > Non-intrusive Ultrasonic Flowmeters -

DP Flow

As one of the most common technologies for measuring flow, differential pressure (DP) flow has a long history of achieving high accuracy and durability. This measurement technology enables compensated flow, pressure, and temperature readings from a single flowmeter solution, in some cases eliminating the need for impulse lines. Rosemount flowmeters can be delivered pre-configured, leak tested, and ready-to-install, reducing installation time and costs while increasing overall plant productivity. Emerson offers native wireless DP flow meters with WirelessHART. **ROSEMOUNT** > Differential Pressure Flow Meters

Multiphase Flow Measurement

Operators today are looking for flexible, scalable and accurate multiphase meters that meet field requirements, yet also provide value for money in the most challenging of fields. Through developments in signal processing and field electronics alongside a modular approach, multiphase meters are rising to the challenge, delivering increased flow assurance and production optimisation and meeting all field and cost requirements. Actionable insights from the Roxar 2600 Multiphase Flow Meters, enable proactive maintenance and help mitigate costly downtime. **ROXAR**

Measurement Instrumentation

Density| Pressure | Liquid Analytical | Gas Analytical

Density / Viscosity Meters

Density & viscosity meters provide robust concentration measurement of liquids and gases in the most critical applications. When measuring density, these meters use a vibrating-element principle where vibrating frequency is inversely proportional to fluid density. The viscometers measure the bandwidth of the same frequency signal as densitometers to calculate viscosity of liquids. Each density & viscosity meter is designed to optimise performance for your concentration measurement.

A high performance, multivariable Fork Viscosity Meter that delivers reliable viscosity, density and temperature measurement in pipelines, bypass loops and tanks

Micro Motion

Process Refractometers

Process Analytics by Inline Refractometry
Flexim Process Refractometers are advanced instruments used for measuring the refractive index of fluids in industrial processes. They ensure precise monitoring and control of fluid composition and concentration, vital for quality assurance and process optimisation. Ideal applications include the chemical industry and hygienic applications

Flexim >

Optical Turbidity, Solids & Concentration Measurement

LUMINA™ Optical transmitters are divided in two different technologies, Consistency and Turbidity.
LUMINA™ Consistency transmitters are a product family for measuring the consistency and other variables like ash content, brightness, freeness, kappa and fibre length in pulp and paper processes.
LUMINA™ Turbidity sensors are a product family for measuring turbidity in different liquids like white water applications in the dairy industry, effluent monitoring, and outlet of reverse osmosis. **Satron**

Pressure Measurement

Pressure technology solutions include capacitive, piezoresistive and other sensors to provide essential process data in differential, gage and absolute pressure applications. These sensors measure pressure, level, flow and derivatives by physically responding to the changes in process pressure, converting the physical movement into an electrical signal. **ROSEMOUNT**

Liquid Analytical

Optimise operations with reliable liquid measurement
Rosemount™ liquid transmitters and sensors provide the most complete range of continuous inline measurement for pH, ORP, conductivity, dissolved oxygen, ozone,chlorine and turbidity. Applications are in chemical process, power, refining, food & beverage, pharmaceutical and water & wastewater.
Choose from a variety of analytical sensors that meet your demanding needs, while providing continuous inline measurement. **ROSEMOUNT**

Combustion Analysis

Meet regulatory requirements while improving combustion efficiency and uptime. Rosemount combustion analysers provide accurate measurement of the oxygen remaining in flue gases. By maintaining an ideal oxygen level, the lowest levels of NOx, CO and CO2 are produced. **ROSEMOUNT**

Gas Analysis

Achieve precision analysis with the most reliable, repeatable and comprehensive measurement solutions for your gas analysis needs
Rosemount™ Natural Gas Chromatographs are engineered to deliver precise and reliable performance in natural gas custody transfer and analysis. Emerson's Rosemount gas chromatographs (GCs) are equipped with the user-friendly MON software, giving operators the ability to easily configure, operate and manage the analyser locally or remotely. **ROSEMOUNT**

EMERSON | FLEXIM | MICRO MOTION | ROSEMOUNT | ROXAR | SATRON

Measurement Instrumentation

Level | Temperature Measurement

Level Measurement

Wide range of level transmitters, detectors, switches and accessories for liquids and solids measurement will help you to optimise processes and improve safety at your plan

Meet all your continuous level measurement requirements

Get full insight into your tank with Rosemount™ continuous level measurement products. Tracking level throughout your process is key for total control. With the Rosemount™ portfolio you will find reliable and accurate devices for level measurement to optimise your processes even in challenging applications.
Guided Wave Radar Level Transmitters utilise microwave technology to measure continuous level and interface level of liquids, solids, and slurries.
Non-contacting radar level transmitters measure the continuous level of liquids or solids in small and large tanks, vessels and open-air applications across many different industries.
Differential Pressure (DP) Level Measurement uses pressure readings and specific gravity to output level.
Magnetic level technology provides robust, low maintenance measurement in oil and gas, petrochemical and power applications.
Solids Level Measurement| Vibrating Fork | Magnetic Level Indicators

ROSEMOUNT >Radar Level Measurement, Inventory Tank Gauging | **FISHER** > level controllers

Point

Point level detection is ideal for high and low level alarms, overfill prevention, pump protection, and pump control. It can also be used to simply indicate a full or empty state. Emerson's portfolio of point level measurement devices offers flexible installation options, ensuring the right fit for your application. **ROSEMOUNT**

Flame and Gas Detection

No matter how extreme or demanding the conditions, your people and facilities come first. That is why Emerson is dedicated to offering the most comprehensive and advanced flame and gas detection technologies available. Our integrated flame and gas monitoring systems are designed to excel under the toughest conditions to help you streamline day-to-day operations and, more importantly, keep your people safe. **ROSEMOUNT**

Temperature Measurement

Temperature measurement products provide innovative solutions for your most challenging applications.
Temperature is the most measured variable in process industries and is often the most critical factor. An inaccurate measurement, however small, can have a detrimental effect on efficiency, energy consumption and product quality. Measurements are typically made with a resistance temperature detector or thermocouple sensor and signal conditioning circuit (either a transmitter or input card channel to a Distributed Control System or Programmable Logic Controller), to amplify the signal to 4-20mA.

Select the Right Temperature Transmitter for Your Needs:

- Reduce downtime and protect against sensor failures with Advanced Diagnostics.
- Measure temperature without a thermowell using Rosemount X-well™ Technology.
- Ensure thermowell integrity in tough conditions with the Rosemount Twisted Square Thermowell.

ROSEMOUNT > Transmitters and Sensors

EMERSON | FISHER ROSEMOUNT

Networking

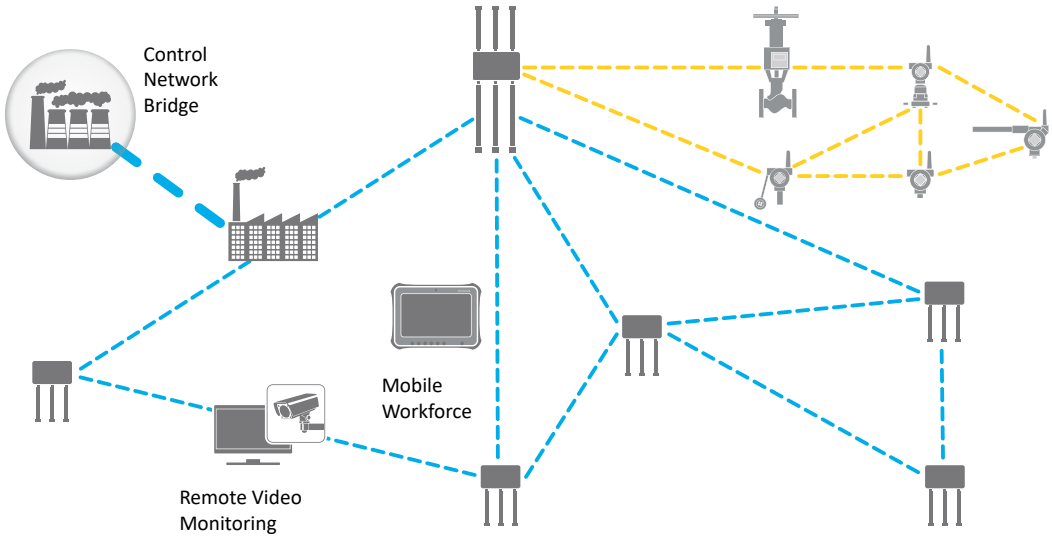
Wireless Input/Output (I/O), Gateways & Modems

Wireless I/O, or Radio Telemetry, is a method of transmitting information over wireless links. Signals such as switch status or analogue signals can be transmitted from a remote location to a monitoring or control system. Wireless I/O connects directly to analogue, discrete and pulse transducer signals. The signals are transmitted by radio using ELPRO's intelligent wireless protocol. The signals are either re-created as output signals, or output via serial link or field-bus.

ELPRO > 415U| 215U | 245U | 641M| 645M| 905U-L | DNP3

Emerson Wireless Technology

Our wireless solutions provide your facility with reliable, continuous data that improves safety, efficiency and the environment through monitoring of process measurement. And now you'll be able to monitor points that previously were too costly or unsafe to access.



Beamex Calibration Solutions

We offer various calibrators, calibration software and related services. For calibrators we make pressure calibrators, temperature calibrators and electrical calibrators. Our calibrators come as portable calibrators or calibration benches for workshops. For calibration in hazardous Ex areas we make dedicated Ex calibrators. We combine field communicators in selected calibrators for you to have less to carry out in the field. Our calibrators are documenting calibrators enabling paperless calibration when used together with calibration software.

BEAMEX > MC6 | MC6-Ex | MC6-T | FB | MB | Software | Beamex ePG electrical pressure generator

Spartan Compressor Control Panels

Compressor Controls Solutions are available in various Hardware Platforms/Configurations

REMVue®

- Sixnet/RedLion PLC platform
- Pro-face HMI
- Shutdown and advanced process control
- Full suite of Spartan advanced applications available i.e. SlipStream, AFR

Spartan AB PLC

- Allen-Bradley CompactLogix, ControlLogix, and MicroLogix PLC platform
- AB PanelView Plus or Pro-face HMI
- Shutdown and advanced process control
- Full suite of Spartan advanced applications available i.e. SlipStream, AFR etc.

EMERSON

ELPRO Technologies

beamex

Industrial Sensors & Systems

5G-Ready Industrial Mobility with Proven Safety and Reliability

Pepperl+Fuchs' Enterprise Mobility range includes 5G-enabled smartphones, tablets, and handhelds, all engineered for hazardous industrial zones.
Certified to global ATEX/IECEx standards these rugged devices provide high-speed, low-latency data for real-time monitoring, diagnostics, and decision-making. With industrial-grade displays and enclosures, these mobile solutions enable reliable, connected operations even in the most challenging environments.

Pepperl+Fuchs Explosion Protection

As a trusted leader in automation and safety, **Pepperl+Fuchs** offers a comprehensive range of products for hazardous environments. Solutions include intrinsic safety isolators, Zener barriers, fieldbus systems, HART interfaces, purge and pressurization systems, HMIs, and custom cabinets and junction boxes, all designed to ensure safe operations in hazardous zones

Pepperl+Fuchs Industrial Sensors

Pepperl+Fuchs' extensive sensor portfolio combines innovation and quality for automation. With solutions like inductive, photoelectric, capacitive, and ultrasonic sensors, as well as rotary encoders, RFID, Data Matrix, barcode systems, and industrial vision sensors, these sensors meet diverse automation needs and support optimal performance in complex applications

BEKA Process Display Instrumentation

Process display instrumentation for use in hazardous and safe areas.

BEKA > Loop Powered Indicators | Panel Meters Set Point Stations
Rate Totalisers | Counters | Tachometers | Timers or Clocks
Serial Text Displays | Fieldbus Indicators | Displays Flow Batch Controllers
Indicating Temperature | Sounders & Beacons | LED Cluster Lamps

PEPPERL+FUCHS

BEKA

Health Condition Monitoring Education Services

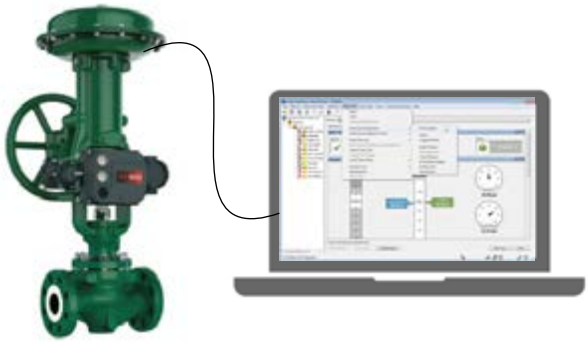
Valve Condition Monitoring

Optimisation of control valve assets depends on an effective maintenance philosophy and program. Three of the most basic approaches are Reactive, Preventive and Predictive. Although both reactive and preventive programs work, they do not optimise valve potential. Today, plant operators often extend the time between turnarounds to three or four years, and even longer, in order to maximise plant uptime. These extended run times offer less opportunity for traditional, out-of-service valve diagnostics.

Preventive maintenance represents a significant improvement, especially the use of micro-processor based valve instruments like Fisher FIELDVUE™ DVC6200 Digital Valve Controller. Leveraging in-service diagnostics capabilities has allowed companies to redesign their control valve maintenance work practices.

At Custom Controls, we can offer our valve condition monitoring services to assist you with gathering valve data, digesting information, and interpreting conditions into actionable items. We can help you move from Reactive, Preventive maintenance to Predictive maintenance using AMS valvelink software which can be plugged-in to Emerson or other DCS.

Stranded Diagnostics



Diagnostics Tools & Analysis

> Valve signature
> Dynamic error band
> Step Response
> Friction
> Supply air check
> Actuator leakage
> Partial Stroke Test
> Sol Test
> Drive Signal

Field Diagnostic Alerts (NE107)

- Normal
- Maintenance required
- Out of specification
- Check function
- Failed

VL AMS

Reactive to Predictive

Interpreting conditions into actionable items.

Machinery Health Management

AMS Machinery Manager integrates multiple predictive maintenance techniques with comprehensive analysis tools to provide easy and accurate assessment of the machinery health across different types of mechanical assets in your facility.

AMS Trex Device Communicator. The Trex handheld provides in-field diagnostics for Fieldbus devices and valve assembly conditions without impacting the process.

Education Services

Train new hires, improve your current workforce skills, or help your team adapt to new technology or products. Courses are offered through our head office or at your facility. Contact us to learn more.

Control Valves

Course 1300 - Control Valve Engineering I (Basic)

Course 1400 - Control Valve Technician

FIELDVUE & Instrument Training

Course 1751 - Fundamentals of FIELDVUE™® Digital Instruments & the Handheld Communicators

Course 1752 - ValveLink Software for ValveLink™ & Diagnostics for FIELDVUE™® Operation

Course 1759 - ValveLink™ & Diagnostics for FIELDVUE™® Data Interpretation

Course 1765 - DVC6200-SIS (Safety Instrumented System, Partial Stroke, Solenoid Testing)

Energy & Transportation Service & Support

SCADA Solutions & Software for Energy and Transportation

Future-proof your operations with agile and secure technologies by using Emerson's modern SCADA solutions. These integrated systems, including reliable flow computers, RTUs, and host systems, enhance reliability by accurately measuring, remotely monitoring, and controlling operations. They also help safely optimise aging assets, ensuring compliance and mitigating environmental impacts while efficiently managing a diverse energy mix, including hydrogen, biofuels, and renewables.

Hardware Solutions for Energy & Transportation

- Flow Computers for Gas & Liquids
- Remote Terminal Units (RTUs) for Gas & Liquids
- Configuration Software for Flow Computers & RTUs
- Networking & Wireless Solutions for Flow Computers & RTUs
- Software Applications for RTUs
- Preset Controller

Modern SCADA OT Platform

- SCADA Platform & Software Apps for Pipelines
- Software for Energy Transportation & Storage

Software Apps for Terminals

- Site Management Software for Loading & Unloading
- Scheduling Software
- Order-to-Cash Cycle Management Software

Our Service Capabilities

Custom Controls aims to be your one-stop headquarters for instrument and valve repair, equipment start-up services & commissioning, diagnostic services, and calibration. Through Custom Controls Life cycle Services we service valves, regulators, instruments, and almost any other control equipment in your operation. Either at your site or our service centre, we can service your control equipment whether that equipment is manufactured by Emerson or by other major manufacturers.

We handle large planned outages & turnarounds and are standing by 24 hours a day, 365 days a year with factory-certified technicians in case of any planned or unscheduled events. We know that your repairs must be done safely, correctly and quickly so that your process is up and running with a minimum of lost production. Your Choice For a Service Partner 24 x 7 / 365. Whether your process is Power Production, Water or Wastewater, Oil and Gas, Chemical, Pulp & Paper or Food & Beverage processing, we will send qualified technicians with the experience and training to correct the problem.

Start Up & Commissioning

- ✓ Shut-down, Turnaround & Outages
- ✓ On-site Troubleshoot
- ✓ 24 x 7 / 365 - After Hours Support
- ✓ Service and Repair
  - » Control Valves & Regulators
  - » Isolation Valves
  - » Actuators
  - » Instrumentation

Fisher Authorised Repair Associate

Support > Engineering | Service Centres | Local Inventory

At Custom Controls, we're dedicated to delivering technical support at any time and place you might need it. Whether it's start-up services, comprehensive maintenance, or on-demand troubleshooting, our knowledgeable, results-oriented staff will help keep you operating at peak efficiency 24 hours a day, 365 days a year.

Spares Parts > Local Inventory on Parts and Full Valve Assembly
QuickShip Program> Local Inventory | QuickShip | ANZ Fisher LBP Inventory Network

Prolong the Reliability of your Control Valves with **Genuine Fisher Parts**.
Genuine Fisher control valve parts have proprietary specifications for material properties and design tolerances. They will seamlessly fit into your installed Fisher control valves the same way, every time.

CUSTOM CONTROLS

Valves Measurement Automation

EMERSON.

Local Business Partner

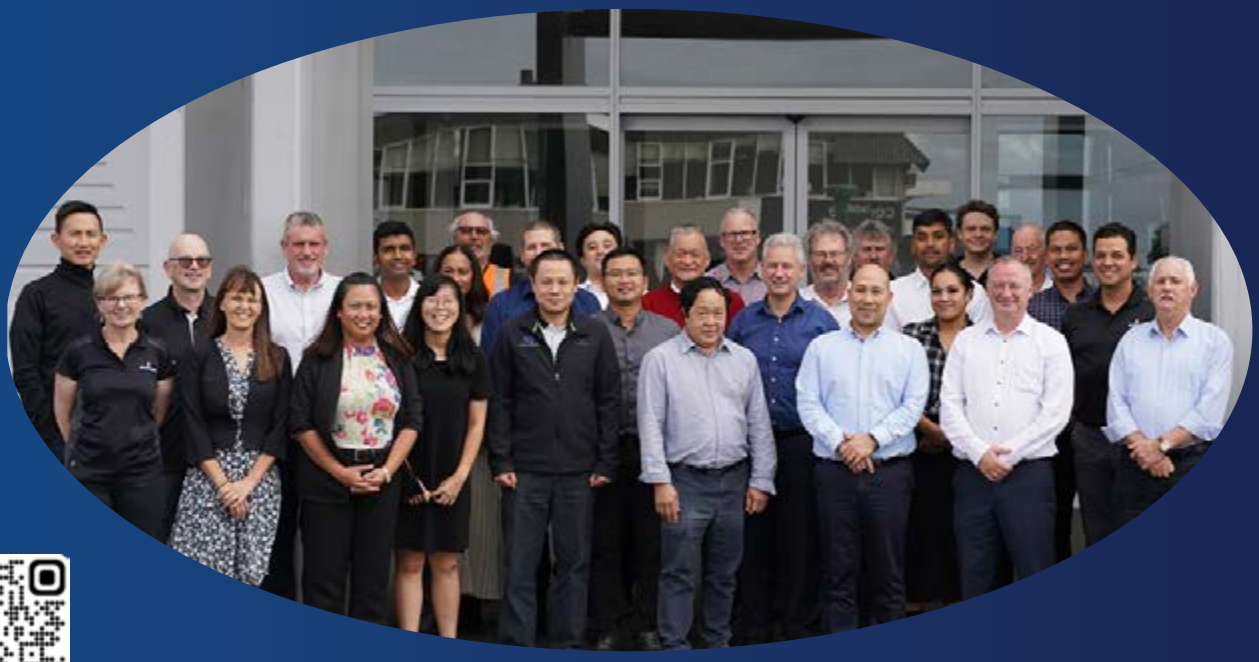
Thank you for exploring our catalogue.

For tailored product recommendations and engineered solutions, please contact us directly. Our offerings extend well beyond this brief catalogue, providing a comprehensive range to meet your specific needs.

We welcome the opportunity to collaborate with you to optimise your processes and drive efficiency.

Best regards,

The Custom Controls Ltd Team



Auckland

Custom Controls Ltd
3 Mahunga Drive, Mangere Bridge
Manukau 2022
NEW ZEALAND
T: +64 9 634 1391
F: +64 9 636 5976

New Plymouth

Custom Controls Ltd
38 Young Street
New Plymouth 4310
NEW ZEALAND
T: +64 6 753 4444

Christchurch

Custom Controls Ltd
2-11 Radius Loop, Rolleston
Christchurch 7675
NEW ZEALAND
T: +64 3 390 0086

www.customcontrols.co.nz | sales@customcontrols.co.nz | https://www.linkedin.com/company/custom-controls-ltd