

BOISWOOD

GAS AND LIQUID CONTROL TECHNOLOGIES

Pressure & Vacuum

Flow

Level & Temperature

Tube & Fittings

HVAC/R

Custom Services

Oil & Gas

Products and Services Catalogue





WE'RE KNOWN FOR SELLING SOLUTIONS

Our journey started in 1989, when Boiswood was founded. As our knowledge and expertise grew, so did our vast range of products and services, and today, we are one of the country's most well respected and trusted suppliers of gas and liquid control technologies.

We are partnered with several high-quality, globally reputable manufacturers with a distinct range of products and services that offer unique features and benefits to EPC's, System Integrators, OEM's and End Users....our customers.

Our whole business culture centres around our genuine commitment to hands-on service and support, whenever and wherever this is required. We offer unparalleled advice and support, and our 'one stop shop' approach removes all the headache and hassle from our customers, ensuring you always get what you need on-time, on-budget and the perfect fit for your application.

We have over 30 years of successful experience in an extensive range of applications and processes within the markets we serve. Our visionary, technically astute and customer focused approach ensures we consistently add value. Working closely with our customers and supply partners ensures we stay up to date with the latest technologies, using our insight to facilitate the niche and specialist markets we serve.

You can rely on us to specify, supply and support all your gas and liquid control needs.

BOISWOOD

GAS AND LIQUID CONTROL TECHNOLOGIES

Providing vital products and components to the oil and gas industry since 1989, we have served customers who operate everything from platforms and refineries to pipelines and well control systems. As a result, we fully understand that reliability, durability and ease of operation are crucial to the safe operation of these assets and for the protection of hydrocarbon resources around the world.

NOT JUST A LOT OF HOT AIR

With this industry involving high pressure environments, it is imperative that the monitoring of oil and gas pressure and flow is accurate and dependable, which is why we partner with global leaders to offer unbeatable quality.

The products we supply are expertly designed and engineered with a keen eye on quality and ease of maintenance in the field as we understand keeping downtime low is of paramount importance in this industry. We offer a comprehensive range of pressure reducing valves, filters, heated pressure regulators, auto changeover manifolds, differential pressure transmitters, magnetic inductive flow meters and temperature probes that can all be used to cover a range of applications, from storage tank level monitoring and gas analysers/cabinets, to skids and wellhead automation.

WE'RE TRUSTED BY...



Product Solutions

PR1 SERIES

Instrumentation Pressure Regulators



GO REGULATOR

In Stock

The PR1 Series is a versatile pressure reducing regulator designed to fulfil a wide range of needs in instrumentation sample systems and other applications.

TECHNICAL DATA:

Gas or Liquid Service • Inlet Pressures up to 6,000 PSIG • Outlet Pressures from 10 to 750 PSIG • -40°C to +260°C Temperature Ranges • Five Seat Material Options • 20 Micron Inlet Filter • Range of CV values up to 0.50

FEATURES & BENEFITS:

Range of standard configurations in stock • Easily field maintainable • Long-life span • Training Services available

DM505 SERIES

Universal Process Pressure Regulators



MANKENBERG

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The DM505 Series is a self-acting pressure reducer offering simple and accurate control, whilst being extremely easy install and maintain.

TECHNICAL DATA:

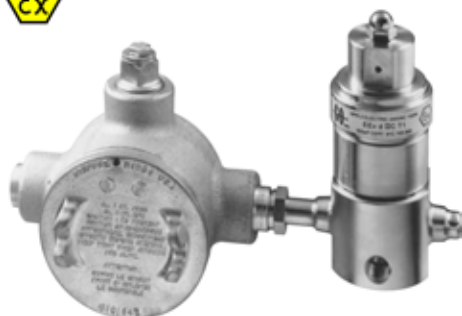
Gas and Liquid Service • Up to 3,600 PSIG Inlet Pressure • Adjustable Outlet Pressures of up to 290 PSIG and down as low as 0.07 PSIG • Operating Temperatures from -35°C to +130°C

FEATURES & BENEFITS:

Fast Delivery • Fully Customisable • Ease of Maintenance • Long Life Span • Precise Control Ranges • Adjusting Screw Externally Visible • BGV Compliant for Combustible and Aggressive Media

HPR2 SERIES

Heated Pressure Regulators



GO REGULATOR

The HPR2 series electrically or steam heated pressure regulator is designed to supply heat to samples entering instrumentation systems.

TECHNICAL DATA:

Gas or Liquid Service • Inlet Pressures up to 6,000 PSIG • Outlet Pressures from 10 to 500 PSIG • Five seat material options • Range of CV values up to 0.20 • Available in 120 or 240 VAC • CSA and ATEX Approved

FEATURES & BENEFITS:

Unique spiral wrapped heat exchange element provides up to 100 square inches of transfer area • Modular pressure control and heat exchanger assemblies for easy maintenance

3100 SERIES

Thin Film Pressure Transducers



The 3100 Series is ideal for OEMs that require consistent high levels of performance, reliability and stability utilising the sputtered thin film technology.

TECHNICAL DATA:

Pressure Ranges from 0 – 7 BAR up to 2,200 BAR • High Proof Pressures • Broad Choice of Outputs and Pressure Ports • Pressure and Temperature Measurement Combination • RoHS Compliant • From -40 to +125°C Temperature Ranges

FEATURES & BENEFITS:

Unbeatable Price/Performance Ratio • Compact Design • OEM Discount Available

PAD SERIES

Differential Pressure Transmitters



The PAD series is a micro-processor based high performance transmitter, with flexible calibration and output configurations.

TECHNICAL DATA:

Up to 413.7 BAR Measuring Range • 310 BAR Max. Static Pressure • Up to +120°C Temperature • Various Output and Connection options • Differential, Gauge or Absolute pressure types • $\pm 0.075\%$ High Accuracy

FEATURES & BENEFITS:

Digital communication with HART® Protocol • ATEX Version Available

PAS SERIES

Standard Pressure Transmitters



The PAS series is available as a piezo-resistive pressure transmitter capable of measuring gauge and absolute pressures.

TECHNICAL DATA:

Up to 600 BAR Measuring Range • Up to +120°C Temperature Range • Various output and connection options • Gauge or Absolute pressure types • $\pm 0.075\%$ High Accuracy

FEATURES & BENEFITS:

Digital communication with HART® Protocol • ATEX Version Available • Self-diagnostic function (sensor, memory A/D converter, power)

Product Solutions

MICRASTEEL SERIES

Filter Housing & Elements



MICRAFILTER

The MicraSteel series is a range of high pressure filter housing, manufactured from 316L Stainless Steel, specifically designed for specialist gas applications.

TECHNICAL DATA:

Available in 100 and 350 BARG pressure ranges • NPT Taper Threads as standard • Filtration down to 0.3 Micron • Viton or PTFE Seal Materials • Up to +200°C Temperature

FEATURES & BENEFITS:

Corrosion, high temperature and broad chemical resistance • Materials compliant with NACE MR-01-75 and ISO 15156

UV5.1 SERIES

Back Pressure/Overflow Valves



MANKENBERG



The UV5.1 series is a self-acting back pressure regulator offering accurate and balanced proportional control with its spring-loaded diaphragm design.

TECHNICAL DATA:

Gas and Liquid Service • DN15 to DN50 or G1/2 to G2" Connections • 16 BAR Nominal Pressure • 0.02 to 12 BAR Inlet Pressure Ranges • 3.5 to 22 m³/h KVS Values • Up to +130°C Temperature

FEATURES & BENEFITS:

Fast Delivery • Fully Customisable • Ease of Maintenance • Long Life Span • Precise Control Ranges • Adjusting Screw Externally Visible • BGV Compliant for Combustible and Aggressive Media

CT76 SERIES

Modular Systems



GO REGULATOR



The CT76 series modular platform, combined with diaphragm valve technology, provides a low dead-volume and compact design system, fully customised according to your requirements.

TECHNICAL DATA:

Completely bespoke designs according to your requirements • Utilises our full range of valves and fittings • 0.231cc very low internal volume • No Dynamic O-rings • Pressures from Vacuum to 500 PSIG • Wide choice of materials for virtually all applications

FEATURES & BENEFITS:

Drop and Drop Microsoft Visio Design Tool • Surface Mount ANSI/ISA-76 Compliant • Metal-to-Metal Seals to Prevent Leakage • Stacked Diaphragms for Extended Service Life

500 SERIES Safety Relief Valves



The 500 series threaded and flanged safety relief valves were designed for process and thermal expansion applications.

TECHNICAL DATA:

Up to 300 BAR Set Pressure • Available in Carbon Steel, Stainless Steel or Brass • DN08 to DN50 Connections • Plug Tight With/Without Lever Design • Range of soft seat options suitable for any media

FEATURES & BENEFITS:

Fast Delivery • Available with PTFE Internal Parts or Electropolishing • Special designs available • ATEX and PED Approved v Technical/Quality File provided Free of Charge with each valve

22IC/26IC SERIES Intrinsically Safe Pressure Transducers



The 22IC/26IC series industrial pressure transducers are certified to the latest harmonised standards of ATEX and CSA and are designed to withstand the rigours of the most difficult applications.

TECHNICAL DATA:

From -1 to 400 BAR Pressure Ranges • Gauge and Absolute Pressure Types • Voltage and Current Output Models • All Stainless Steel Wetted Parts • ATEX and CSA Approved • -40 to +125°C Temperature Ranges • Range of Pressure Ports and Electrical Connections

FEATURES & BENEFITS:

Unbeatable Price/Performance Ratio • OEM Discount Available • High Stability achieved through CVD Sensing Element • Submersible, General Purpose and Wash Down Enclosures

NV93/94 SERIES Tank Float Valves



The NV93/NV94 series are compact stainless steel float valves designed for installation inside tanks or pipelines. These units will automatically control liquid levels in sealed or open environments.

TECHNICAL DATA:

DN15 to DN80 or G3/8 to G1-1/2 Connections • 16 BAR Nominal Pressure • 0 – 8 BAR Operating Pressure Range • 0.5 – 81 m³/h KVS Values • For use on Liquids • Range of soft seal materials suitable for different media • Up to +300°C Temperature

FEATURES & BENEFITS:

All Stainless Steel construction • Long operational life span • Rugged and time-tested design

Product Solutions

EPS SERIES

Magnetic Inductive Flowmeters



The EPS magnetic inductive flow sensor is used to measure the volume flow of liquids, slurries, pastes and other electrically conductive media without any pressure drop.

TECHNICAL DATA:

0.05 to 40,715 m³/h Flow Rate Measuring Ranges • DN10 to DN1200 or ANSI 1/2 to 48" Connections • -20 to +150°C Temperature Range • 40 BAR Nominal Pressure • Accuracy of ±0.3% of Reading • Analogue/Pulse Output • Status Display, Totaliser and HART®

FEATURES & BENEFITS:

No Pressure Drop • Maintenance-Free • Numerous Lining and Electrode Material options • Low-Cost Grounding Electrode

PG SERIES

Packing Glands and Wire Seals



The PG Series packing glands provide pressure/vacuum sealing for tubes, probes, pipe, cable or any single element assembly.

TECHNICAL DATA:

-240°C to +870°C Temperature • Vacuum to 10,000 PSIG Pressure • Range of Tube/Probe Diameters and Bore Sizes • Various seal materials suitable for any media

FEATURES & BENEFITS:

Fast Delivery • Economical Cost

XM/XT-800 SERIES

Compact Analogue Level Sensors



The XM/XT-800 Series compact level transmitters provide an analogue output and feature the rugged durability of stainless steel or brass construction.

TECHNICAL DATA:

Lengths up to 144 inches (366cm) • Stainless Steel or Brass Construction • Range of Mounting Types, Floats & Signal Conditioners • From -40 to +110°C Temperature Ranges • Up to 21 BAR Pressure

FEATURES & BENEFITS:

Broad Choice of Custom Configurations • Compact Design • High Resolution of 1/4" • OEM Configurations Available

CYL-20 SERIES Dual Stage Pressure Regulators



GO REGULATOR

In Stock

The CYL-20 Series offers precision pressure control with less than 0.01% outlet pressure change with varying inlet pressures, and is designed for use in gas calibration systems and cylinder applications.

TECHNICAL DATA:

Gas or Liquid Service • Inlet Pressures up to 6,000 PSIG • Outlet Pressures from 10 to 500 PSIG • -40°C to +260°C Temperature Ranges • Five Seat Material Options • 20 Micron Inlet Filter • Range of CV values up to 0.50

FEATURES & BENEFITS:

Range of standard configurations in stock • Easily field maintainable • Long-life span • Training Services available

DM762 SERIES Millibar Control Valves



MANKENBERG

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The DM762 pressure reducing valve is a diaphragm-controlled spring-load proportional control valve, for low outlet pressures and large volumes, perfect for tank blanketing applications.

TECHNICAL DATA:

Gas and Liquid Service • Up to 16 BAR Inlet Pressure • Control ranges from 0.002 – 0.52 BAR • Sizes from DN15-50 and G1/2-2 • KVS Values from 0.2 – 28 m³/h • Temperatures up to +130°C • ATEX Version Available

FEATURES & BENEFITS:

Long Operational Lifespan • Highly Accurate Control • Tight Valve Closure at Low Pressures • Easy to Clean • Minor Control Deviation • BGV Compliant for Combustible and Dangerous Media

EB1.12 SERIES Bleeding and Venting Valves



MANKENBERG

Pg. 21

The EB1.12 is a compact and continuous bleeding and venting valve that removes any air or gases from systems or pipelines, without requiring an external energy input.

TECHNICAL DATA:

DN25 to DN100 or G1/2 to G2 Connections • 16 BAR Nominal Pressure • Up to +130°C Temperature • For Use on Liquids • Up to 248 Nm³/h Flow Rates

FEATURES & BENEFITS:

Fast Delivery • Huge Global Install Base • DVWG and FDA Certified • Long life span • Easy to maintain • Resistant to pressure and corrosion • Reliable functionality • Suitable for Ozone

Product Solutions

MV2 SERIES Miniature Vaporising Regulators



GO REGULATOR



The MV2 series miniature vaporising pressure regulator is one of the smallest envelopes in the industry.

TECHNICAL DATA:

Gas or Liquid Service • Inlet Pressures up to 3,600 PSIG • Outlet Pressures from 10 to 500 PSIG • Five seat material options • Cv of 0.025 or 0.06 • Available in 12 or 24 VDC • CSA and ATEX Approved

FEATURES & BENEFITS:

Modbus and CANbus Communications • Perfect for CO2 applications • Unique spiral wrapped heat exchange element • Optional TCO heating cartridge and proportional controller

ELS-1150 SERIES Electro-Optic Level Switches



Gems
Sensors & Controls

The ELS-1150 compact electro-optic level switch can be used for critical fluid level monitoring in beverage storage tanks.

TECHNICAL DATA:

Nickel-Plated and Stainless Steel Housing • Wet and Dry Probe Condition at Current Sink • FM Explosion Proof version available • 2500 PSI Rated • -40°C to +100°C Temperature Range

FEATURES & BENEFITS:

OEM Discount Available • Unbeatable Price/Performance Ratio

BP3 SERIES Instrumentation Pressure Regulators



GO REGULATOR

In Stock

The BP3 Series is a versatile back pressure regulator designed to fulfil a wide range of needs in instrumentation sample systems and other applications.

TECHNICAL DATA:

Gas or Liquid Service • Control Pressures up to 1,000 PSIG • -40°C to +260°C Temperature Ranges • Six Seat Material Options • Range of CV values up to 0.50

FEATURES & BENEFITS:

Range of standard configurations in stock • Easily field maintainable • Long-life span • Training Services available

LNG SERIES Sample Vaporisers



GO REGULATOR



The LNG sample vaporiser assembly has been used in many successful applications requiring heating of a process stream sample prior to analysis to prevent freeze up.

TECHNICAL DATA:

Inlet Pressures up to 6,000 PSIG • Outlet Pressures from 10 to 500 PSIG
• Four seat material options • Standard Cv of 0.06 (0.025 or 0.20 also available) • Range of Heater Wattage capacities • Electric or Steam Heated
• CSA and ATEX Approved

FEATURES & BENEFITS:

Unique spiral wrapped heat exchange element provides up to 100 square inches of heat transfer area • Optional TCO heating cartridge and proportional controller • Modular pressure control

UCL-510 SERIES Ultrasonic Level Transmitters



Gems
Sensors & Controls

The UCL-510 is a general purpose ultrasonic level sensor providing non-contact detection as a continuous transmitter or multi-point switching combination.

TECHNICAL DATA:

49" (1.25m) Measuring Range • 1" NPT Mounting • 4 – 20 mA Output • -7 to +60°C Temperature Range • USB 2.0 PC (Windows) Configuration Software • 30 PSI Max. Operating Pressure • 48" (1.2m) Cable Length • 24VDC Loop Supply Power

FEATURES & BENEFITS:

Compact Design • 2" Dead Band • Beam Width Optimised for Small Tanks
• Reliable alternative to float and conductivity • Designed for use on corrosive or dirty media • Provides full pump or valve control

RP814 SERIES Pilot Operated Pressure Reducing Valves



MANKENBERG



The RP814 pressure reducing valves are pilot-controlled control valves of tubular design.

TECHNICAL DATA:

DN100 to DN800 Connections • 16 to 25 BAR Nominal Pressure • Up to +130°C Temperature • 60 to 2,100 m³/h KVS Values • Min. 2 BAR Differential Pressure • Up to 25 BAR Inlet Pressure • 1 to 20 BAR Outlet Pressures • For Use on Liquids and Gases

FEATURES & BENEFITS:

Long operational life span • Very high control accuracy without auxiliary energy • Optimal control behaviour using throttle units • Compact design
• Special designs for extreme applications

Product Solutions



PRESSURE GAUGES

Including Mechanical and Digital Pressure Gauges and Indicators



INSTRUMENTATION VALVES

Including Ball, Needle, Plug, Check, Toggle, Relief and Quick Connects



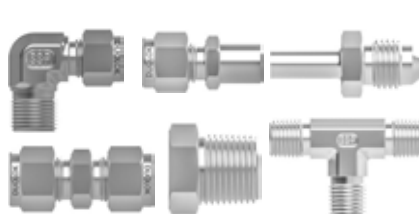
MANIFOLD VALVES

Including Block, Bleed, Vent and Gauge Manifolds



CONTROL VALVES

A range of pneumatic and electric Globe, Bellows and Control Valves



INSTRUMENTATION FITTINGS

Including Twin Ferrule Compression Tube, Pipe and Weld Fittings



HIGH PURITY FITTINGS

Including FaceSeal™, Microweld and PFA/PTFE Fittings



FILTERS, STRAINERS & SEPARATORS

A range of filters, strainers and separators for process and vacuum



BURSTING DISKS

Including forward and reverse acting bursting disks and holders



TUBING, PIPING AND HOSES

A selection of metal tubing, hoses and PTFE/PFA piping.



PRESSURE SWITCHES

Including Mechanical and Digital Pressure Switches and Sensors



SOLENOID VALVES

Including miniature, latching and cryogenic versions.



WIRES & SEALS

Including feedthroughs, sealing glands and packing glands.

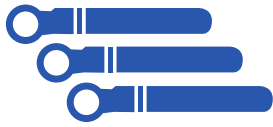


CUSTOM SOLUTIONS

Boiswood have been involved in several custom build projects to meet our customers' specific requirements, please visit our website to read our application successes or feel free to ask for more details.

Many of our customers call upon us for subassembly, service, repair and testing solutions from within our manufacturer-certified headquarters.

Value Added Services



In-House Service Centre

We can offer manufacturer certified in-house evaluation, repair, testing, servicing and assembly of our products from within our Boiswood HQ.



Local Technical Support

We offer a technical helpline from our HQ as well as having a “man on the ground” for on-site support whenever and wherever this is required.



Fast Turnaround

Our local stocks allow us to quickly respond to requirements. We hold a vast range of products in stock so that they're always readily available.



Training Services

We provide a range of educational classes and training seminars that can be delivered from Boiswood HQ or on-site.



Design Services

Over the years we have been involved in many bespoke product designs and system build solutions for our customer base.



Response Times

We endeavour to provide all our customers with unrivalled fast service with quick responses to both technical and commercial queries.



Products in Focus

SR6.2 Surge Relief Valve

Self-acting for extremely high flow rates • Straight-way valve with optimised design and minimum flow losses • Directly acting or pilot-operated • Very fast response times • Usable for any liquid • Valve made

of welded steel, CrNiMo steel or special stainless steels • Can be designed for any application, any problem regarding pressure relief can be solved • For vertical or horizontal installation

Connections (DN): 100 – 400
CVS Values: 1,760 – 10,500 US GPM
Nominal Pressure: 16 – 160 BAR
Design Type: Piston or Pilot

Media: Liquids
KVS Value: 400 – 2,400 m³/h
Set Pressure: Up to 160 BAR
Temperature: -30 to +130°C



Pipeline Protection

The SR6.2 surge relief valves are often found installed in oil and natural gas pipelines as protection equipment. They are installed for the decay of pressure surges and permanent overpressures within pipeline systems.

They are self-actuated valves with extremely low responses times. Face-to-face length, connections and materials can be completely designed from scratch, according to individual requirements.



Recommended Process Installations

For our selection of process pressure reducing valves, we recommend installation as outlined

below. We can help you from start to finish with all of your process requirements.



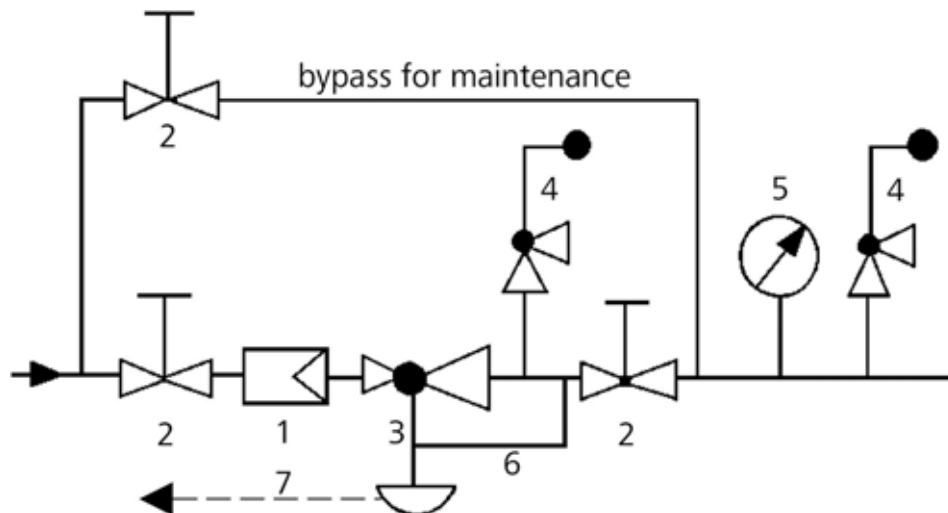
1. Filter Strainer



2. Shut-Off Valves



3. Pressure Reducer



4. Safety Valves



5. Pressure Indicators



6. Sense & Leakage Lines

Products in Focus

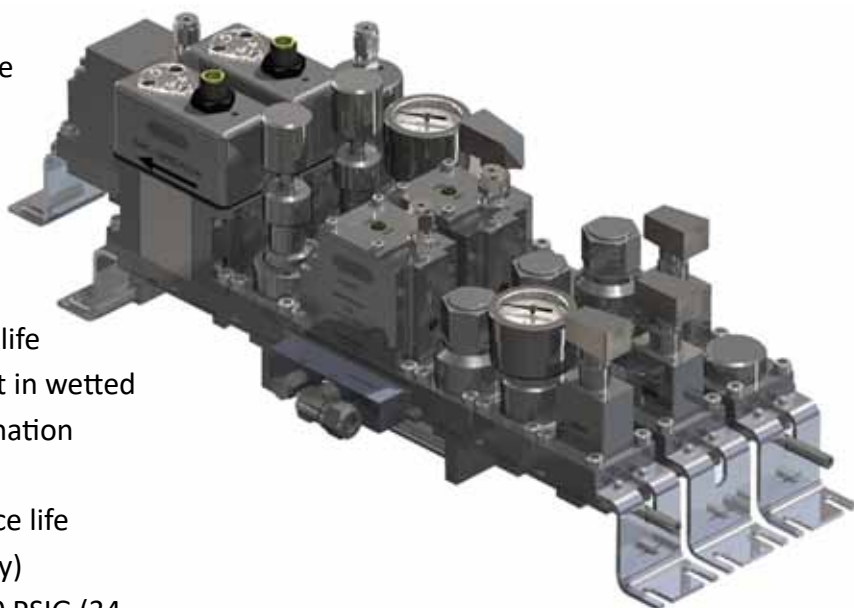
CT76 Modular Systems

The CT76 modular platform, combined with the diaphragm valve technology, provides a low dead-volume and compact design system. Compliant with ANSI/ISA 76.00.02, this platform provides the end

user with the most flexible system for design, visible tube sets for flow tracing and a simple drag and drop Microsoft Visio design tool.

Features and Benefits:

- GC fast loop with atmospheric reference
- Surface mount to ANSI/ISA-76
- Metal-to-Metal seals to atmosphere to prevent leakage
- Wide choice of materials for virtually all applications
- Replaceable seats for extended service life
- No dynamic o-rings, springs or lubricant in wetted flow path to eliminate sample contamination
- Very low internal volume 0.231cc
- Stacked diaphragms for extended service life
- Pneumatic actuation (top actuation only)
- Pressures from Vacuum (50 Torr) to 500 PSIG (34 BARG)
- Compact Package sized to your requirements
- Interlocking pins between valve body and manifold baseplate to ensure 100% correct reassembly



Diaphragm Valve Technology

All of our CT76 modular platforms are assembled using our time-tested diaphragm valves. Some of the standard options available are:

- DV1 2-Way Diaphragm Valves (Manual and Actuated)
- DV5 3-Way Switching Diaphragm Valves
- DBB Double Block & Bleed Diaphragm Valves
- GC Manifold Assembly Diaphragm Valves
- DSV Atmospheric Reference Valves



MTD Digital Flow, Pressure & Temperature Transmitter

In addition to the CT76 modular platform, this MTD digital combined flow, pressure and temperature transmitter is a state of the art 5-in-1 flow meter for liquid and gases applications.



Features and Benefits:

- Provides fluid upstream and differential pressures, volumetric and mass flowrates and fluid temperature in a single compact unit
- Innovative design provides ease of mounting and maintenance
- 50:1 turndown ratio with 0.25% repeatability
- 1/4" Female NPT and ANSI/ISA-76 compliant versions available
- Digital protocol includes Modbus RTU Intrinsically safe digital bus and CANbus intrinsically safe digital bus (Class 1, Division 1, and ATEX Zone 0)
- Robust industrial design, all stainless steel construction, IP65 for corrosive and high temperature environments
- Cleanable flow elements clog resistant design use flow configuration modules (FCM)
- Status indication LED's, field addressable and embedded electronic datasheet
- Factory calibrated unit delivered plug-and-play



Pressure Regulation Technology

Offering some of the smallest envelopes available on the market, our line of compact and ultra miniature pressure regulators can be incorporated into the CT76 modular systems.

- CPR1 and CBP3 Compact Pressure Regulators (Forward and Back Pressure Regulators)
- MR1 Ultra-Miniature Pressure Regulators

Products in Focus

How to Switch Fitting Supplier

Customers seek out new tube fitting suppliers for many reasons such as delays, the inability to meet production specifications and inconsistent product performance. When deciding to switch, effective evaluation of other suppliers and switching seamlessly can be difficult. Selecting the correct

supplier that you trust is important to keeping your instrumentation systems running smoothly. In this short article, we will guide you in the right direction on how to assess tube fitting suppliers based on their resource availability, product performance, safety assurance and overall reliability.



1. Assess Safety and Resource Availability

Safety should be your top priority when looking to switch suppliers. Material quality and ample resources to help with the right installation of tube fittings are some of the considerations that should be made.

Make sure that there are clear and easy instructions for the installation of each tube fitting that include the product's material, size and type. These instructions should avoid malfunctions or leaks. Your supplier should assist you from start to finish to guide you through the installation process.

The supplier should provide installation courses and data sheets that provide some additional help and training, along with more in-depth explanations.

It is important that you go for a supplier who are flexible and offer fittings that are exact to each of your design specifications and materials. The supplier must meet high production standards, such as maintaining a low Defects Per Million Opportunities (DPMO) count across individual product lines, having top quality safety protocols and benchmarking quality to six sigma measurements.

Before finalising your decision, look at the supplier's interchange and intermix policy.



TREATMENT PROCESSES 1

Patented and proprietary Expanite surface treatment process.



LOWER MAKE-UP TORQUE 2

Lower initial make-up torque versus leading competitor brands.



MARKING OF NUTS 3

All nuts are marked with the tubing size to avoid mixing imperial and metric.



PRODUCT PACKAGING 4

Fittings individually bagged for cleanliness and quality control.



LIFETIME WARRANTY 5

Guarantee that every single component is free from defects in material.



PROVEN TO INTERCHANGE 6

Designed to be totally interchangeable with competitor brands.

2. Product Quality

Look for these indications of high-quality production:

- In-house testing to find and remove poor quality products or designs.
- Full reports of products performance during endurance tests, pressure tests, hydraulic impulse pressure tests and vibration stress tests.
- Internal, in-house resolution processes, such as tracking RMA response times and corrective action reports to improve production and raise standards.
- Have third-party testing services.
- Trusted companies always have testimonials and references to prove and support their track record.

3. Evaluate Reliability

Finally, it is important to consider whether a supplier offers quick and reliable delivery and can help answer your questions in a timely manner.

Businesses that need consistency and transparency should be going with a supplier who can meet delivery targets.



Product Gaugeability

Consistently gaugeable and work to geometry to ensure each fitting installed is completely leak-tight.



Heatcode Traceability

All of our tube fittings are fully traceable with each component marked with a 3-digit code.



Valve End Connections

All tube fitting end connections are available on our full range of instrumentation valves.



Working Pressures

When correctly installed, our tube fittings will hold the burst pressure of your tubing without leakage.

I SS D 4 UT

I (Instrumentation), SS (Stainless Steel), D (Duolok Twin Ferrule), 4 (1/4" Size), UT (Union Tee)

Easy Part Numbering

Ordering our tube fittings with part numbers is easier and more logical than leading competitor brands.



Applied Teflon Tape

All tube fittings with male tapered threads are available to purchase with pre-applied factory PTFE tape.



MAKE YOUR SWITCH TO BOISWOOD

Safety, product quality and reliability are the three most important factors Boiswood provides. Our ethos is based on a genuine commitment to hands-on service and support, whenever and wherever this is required. We work hard to provide high-quality services whilst being transparent and connected to our clients.

Products in Focus

Choices can become overwhelming when selecting a valve for an instrumentation system. To name a few, there are; check valves, excess flow valves, needle valves, ball valves, relief valves, control valves, diaphragm and bellows valves. All of these are available in many configurations, materials, sizes and actuation types, making thousands of possible combinations.

Have you matched the valve type to its function?

Matching the required function to the valve type is the vital first step in the safe selection process. It can be detrimental for systems and end users if the correct valve is not specified. For example, if a check valve is not installed downstream of a critical pressure regulator or control valve, a burst of back pressure could cause major damage to the equipment.

Valve packing prevents the process media from

escaping into the atmosphere where the valve body meets the stem. The cylindrical stem is surrounded by a packing material. Valves that require packing must be replaced or serviced regularly, however some valves last longer than others depending on the seal material and process conditions. Always ensure you correctly choose a seal material by checking the chemical compatibility with your media.

On the contrary, the “packless” **diaphragm valve** provides swift shut-off and rigorous actuation speeds. Usually, diaphragm valves are specified in high-purity applications in the pharmaceutical and semiconductor industries. Each valve holds a thin film plastic or metallic diaphragm ensuring a leak-tight seal.

Similarly, there is also the “packless” **bellows valve**. This is a great choice when an atmospheric seal is vital and access for maintenance is restricted. You would often find these valves operating in nuclear power plants. The inlet is entirely sealed by a metal bellows that moves up and down, fixed to a non-rotating stem.



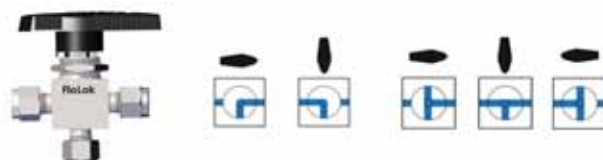
Is directional control required?

Check valves or 3-way ball valves should be considered for directional control of flow. Within check valves, a spring-loaded poppet is opened by the upstream fluid force, allowing flow through. In the event of a back pressure build up (increase in downstream pressure), the reverse flow is stopped by the poppet being forced back into the seat.

In many **3-way ball valves**, the media enters through a

single inlet and is directed to the outlets based on the selected flow path. Common flow paths include quarter turn switching, tee flow on/off and tee flow switching.

Excess flow valves stop the uncontrolled release of expensive or hazardous media into the atmosphere in the event of downstream equipment failure. Our excess flow valves utilise magnets to operate a reed switch and can be easily adjusted to the required flow set point. Utilising magnets to operate the unit allows for a completely unimpeded right-angle flow.



Is flow control essential?

Flow control valves have a rotating handle that allows the operator to control the system flow rate. The operator can adjust the valve to accurately hold at the desired flow rate. Needle, metering and plug valves are all frequently used for reliable flow control in systems.

Needle valves provide exceptional flow control and leak-tight shut-off characteristics. They have a long stem and are available with a few different highly engineered stem tips, including metering, regulating and shut-off (vee type).

Our needle valves are often used for severe service in harsh oil and gas, chemical and petrochemical and power applications. Depending on construction materials and operating pressures, these can also be used for cryogenic service.

Fine metering valves should be considered for the most precise flow control. They have a thin stem that lowers through a narrow channel, making it perfect for controlling fine graduations of flow. These are typically found in laboratory environments.



Stem Type
1. V-Type Shutoff Stem
2. Metering Stem
3. Soft Seal Stem (PCTFE)
4. Regulating Stem

Something more standard?

Quarter-turn plug valves and standard **2-way ball valves** are both economically priced utility valves. Applications with either simple on/off functionality or pressure throttling commonly will use these valves.

Pressure relief valves can be found in almost any application and are used to protect sensitive equipment. These can either vent to atmosphere or be piped away safely.



Still unsure what you need?

Once the valve type has been matched to function, you are on the right path in the valve selection process. However, many details remain.

We have over 30 years experience with sizing, selection and specifying instrumentation and control valves, so you can rely on us to support you every step of the way.

If you need advice and guidance on selecting the right valve, contact us today and we'd be more than happy to help.

Products in Focus

With the growing global demand for fossil fuels and energy sources, the oil and gas industry is focusing on particularly efficient energy systems.

Even oil deposits in extreme climate zones and harsh environments are exploited despite the greater effort involved, because the raw material is scarce. Most deposits contain both oil and natural gas. Initially, the gas was considered a useless by-product of oil production and was flared on site. Today it is also used commercially and is pumped to the surface via separate pipelines. While at the beginning of the oil age the oil was still stored just below the surface, production methods today must be much more complex. This applies to oil production facilities on land (onshore) as well as to drilling platforms or floating production systems (FPSO).

The oil production value chain can be divided into three main processes:

- **Upstream** describes the exploration of oil fields and the extraction of fossil fuels.
- **Midstream** is where the oil is transported and stored.
- **Downstream** comprises of processing and refining. Here, the oil is split down in the refineries using the cracking process. In addition to diesel and gasoline, intermediate products for the petrochemical industry and various end products such as liquefied gases (propane, butane) as well as lubricants, bitumen, sulfur, and much more are produced.



Pressure Reducing Valves DM 652



Pressure Regulation of Cleaning
Steam in a Bottle Filling Plant

Pressure Reducing Valves DM 618Z ASME



Steam Pressure Reduction for a
Honey Tank Heater

Millibar Control Valves DM 762



Tank Blanketing in the Foodstuffs
Industry

Bleeding & Venting Valves EB 1.12



Water disinfection with Ozone in
Food Production

Gas & Liquid Separators AS 2



Corrosion Resistance in Clean Steam
Systems

Pressure Reducing Valves DM 582



Controlled Sterile Air Supply into
Beer Tanks

Pressure Reducing Valves DM 652



CO2 Regulation for Beer Barrels for
the Munich Oktoberfest

Bleeding & Venting Valves EB 1.12



Ozonisation for Cold Sterilisation of
Water

Gas & Liquid Separators AS 2



Draining Excess Liquids from a
Steam Flow

Pressure Reducing Valves DM 462



Regulation of the Water Supply for a
Centrifuge Test Stand

Pressure Reducing Valves DM 555



Pressure Reducing Unit for a Drink-
ing Water Supplier

Pressure Reducing Valves DM 505 Special



Reducing Sterile Air Pressure in a
Filling Machine

Products in Focus

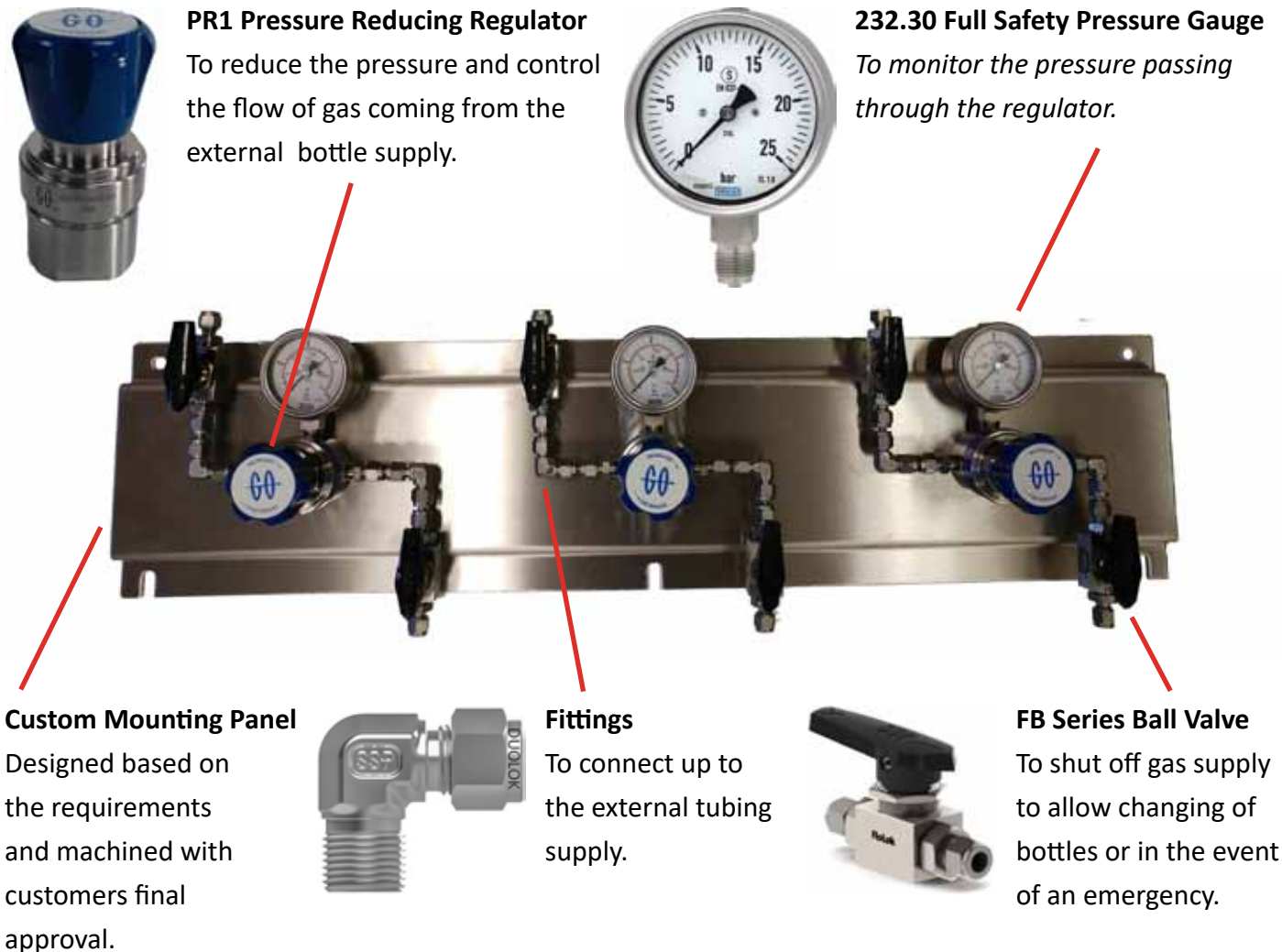
Gas Feed Control Panels



Our customer is a leader in their industry of designing and building gas analysers. This specific application required 2 instrumentation panels in order to connect up multiple gas supplies and distribute throughout the room.

We designed, assembled and supplied 2 custom instrumentation panels that would be able to feed in multiple gas lines, regulate the pressure within the line and shut off if necessary.

We offered an all-in-one solution – to procure, supply, assemble and test these panels all in-house at our headquarters. Utilising multiple suppliers and the testing facilities at Boiswood we were able to provide the best engineered solution at a great price.



PR1 Pressure Reducing Regulator
To reduce the pressure and control the flow of gas coming from the external bottle supply.

232.30 Full Safety Pressure Gauge
To monitor the pressure passing through the regulator.

Custom Mounting Panel
Designed based on the requirements and machined with customers final approval.

Fittings
To connect up to the external tubing supply.

FB Series Ball Valve
To shut off gas supply to allow changing of bottles or in the event of an emergency.

Liquid CO2 Process Solution



Our LNG sample vaporiser solution, designed specifically for our customer as a complete “plug and play” package for direct fitting to a test rig sampling liquified CO₂, which is vaporised and regulated down to around 5 PSIG.

At the heart of this assembly is our well-known HPR2 electronically heated pressure regulator,

contained in a painted metal enclosure pre-fitted with an insulated inlet line, pressure indicating gauge, over-pressure relief valve and bypass line. Combine this with an inlet metering valve, flexible hose with quick connect stem and ¼” bulkhead tube fittings, we have delivered our customer their solution ready for installation.



Products in Action



Assembly & Testing

Our stocks allow us to assemble and test a variety of pressure regulators on a next-day delivery services.



Service & Repair

We can offer manufacturer certified service, repair and certification for our range of pressure regulators.



Subassembly

We can take special requests for component subassembly and control panel design solutions according to your requirements.



Pressure Regulators and Valve Selection Seminar

Selecting the correct pressure regulators and instrumentation valves to suit your needs can be a complex exercise with several factors to consider. Our seminar has been developed to help you understand more about our products and during this you will learn more about:

- The basic functions of pressure regulators and valves
- Analysis of different models and types
- How to correctly size and specify units
- Identifying problems and ways to rectify performance issues
- Build and repair training exercises



Tube Fittings Safe Installation Course

This challenging course will explore the many benefits of our tube fittings range and focuses on each aspect needed to achieve right-first-time installations. You will typically learn more about:

- How the Tube Fitting works
- Hands-on Tube Fitting Installation Exercises
- Typical Health & Safety Considerations
- How to Avoid Installation Problems
- Selection and Correct Handling of Tubing
- Tube Burst and Bending Exercises (Practical and Theoretical Examinations)



Our calculation tools allow you to correctly select the required flow coefficient (Cv) value for your pressure reducing or back pressure regulator. These software tools will utilise your process data to calculate the Cv so that you can achieve your required flow rate. Basic operating parameters you will need to have on hand are as follows:

- ✓ Inlet/Supply Pressure
- ✓ Outlet/Control Pressure
- ✓ Flow Rate (Maximum in SCFM)
- ✓ Media
- ✓ Temperature

GO Regulator Calculation Tool

From entering the above required information, this calculation tool will produce a recommend Cv value (that must be doubled as a safety factor) for your pressure.

The calculation software can also do the reverse of this – allowing you to use a pre-selected Cv value to calculate your maximum possible flow rate.



ValvePilot by Mankenberg

This calculation and design software calculates KV/KVS values, as well as indicating noise pressure level, nominal diameter, reduction ratio and velocity limits.

The software can also provide warnings about potential hazards such as cavitation, flashing or excess noise pressure levels. You will also receive recommends surrounding pipe size extensions.





Pressure Regulators, Self Acting Control Valves,
Pressure Sensors & Switches, Safety Relief Valves,
Gauges & Manometers

Flow Meters, Switches & Control Valves, Solenoid
Valves, UHP & Cryogenic Valves, Excess Flow
Valves, Filters, Strainers, Pumps & Mixers

Level Sensors, Indicators & Switches, Submersible
Transducers, Float Valves, Bleeding & Venting
Valves, Steam & Condensate Traps, Thermocouples

Tube, Pipe, Weld and UHP Fittings, Quick Connects,
Instrumentation Valves, Bottle Connectors,
Tubing, Piping & Flexible Hoses

Differential Pressure Sensors, Room Condition
Monitors, Power Meters, Particle Counters,
Humidity Sensors & Calibrators

Installation Training, Subassemblies, Valve Sizing,
Servicing & Repairs, Site Surveys

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