



Product Prospectus

PRESSURE



TEMPERATURE



CALIBRATION



DIGITAL



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Welcome to

Mechanical Services

Mechanical Services is an established and growing specialist-mechanical engineering company. We are an innovative company and our flexible approach to working with our clients enables us to provide bespoke solutions. We are a unique company that designs, develops, builds, and tests mechanical devices; we apply the principles of engineering, physics and material science in the design, analysis, manufacturing and maintenance of mechanical systems.

MECHANICAL SERVICES

PRESSURE & VACUUM GAUGES

POSITIVE, NEGATIVE & ABSOLUTE PRESSURES

These gauges can be positive and negative and very low pressures to extreme high pressures. Available in all types of mounting options, thread sizes, materials etc. Please call one of our friendly sales team to help find the correct gauge to suit your application.

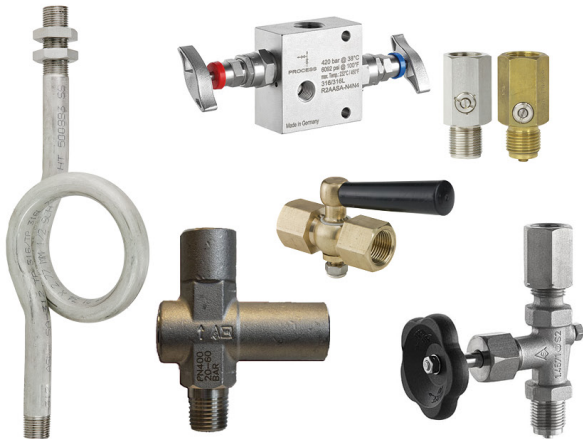
- Industrial
- Stainless Steel
- Liquid Filled
- Small Diameter
- Safety Pattern
- Absolute
- High Accuracy
- High Pressure
- Low Pressure
- Capsule
- Switch/Output
- Load/Force
- Industry Specific
- ATEX/NACE Approved



GAUGE PROTECTION & ISOLATION

SAFETY IS PARAMOUNT, ALWAYS USE PROTECTION

Instrumentation valves and protective devices to suit gauges, transmitters and switches. Designed to ensure safe working practice so the instrument can be safely isolated. Also, protection from pressure spikes or overpressure in the process.



- Snubbers
- Restrictors
- Flushing Rings
- Syphons
- Block & Bleed Manifolds
- Isolation Valves
- Over Range Protectors
- Gauge Cocks St /316L /Brass

HYGIENIC & DIAPHRAGM GAUGES

KEEP IT CLEAN

Specifically designed with a barrier between the process medium and Bourdon tube measuring system inside the gauge. This is to keep the process medium from blocking or corroding a standard Bourdon tube gauge.

- Chemical Seals
- Flush
- Flanged
- Tri-clamp
- Inline
- Screwed
- VARIVENT
- Homogeniser
- Gauge Guards
- Schaffer
- Hygienic: RJT, DIN, SMS, IDF
- Exotic Materials



TEMPERATURE INSTRUMENTS

BESPOKE THERMOMETERS MADE TO ORDER

Designed to measure the temperature of a process. They can be electronically, battery or mechanically driven with analogue or digital display. The sensors are often used in conjunction with a pocket or thermowell, this allows the instrument to be removed without the process media escaping.

- Dial Thermometers
- Digital Thermometers
- Thermocouples
- Temperature Switches
- RTD's
- Hand Held
- Thermowells/Pockets
- Dry Block Calibrators

DIGITAL INSTRUMENTS

HIGH RESOLUTION, PRECISION ACCURACY

Precision instruments designed for reading pressure, temperature or vacuum where precise measurement is needed with high resolution. They are often used as a reference gauge that enables easy viewing with a large digital display.

- Pressure Gauges
- Temperature Gauges
- Hand Held Indicators
- Switches
- Displays
- Manometers



TORQUE

TORQUING TO TIGHT TOLERANCES

Supply and calibration service of all types of torque instruments and measuring kit. Covering low ranges right up to 2000 Nm and a wide variety of high-quality brands such as Norbar, Gedore, Snap-on and many more.

- Wrenches
- Testers
- Screwdrivers
- Multipliers
- Drivers

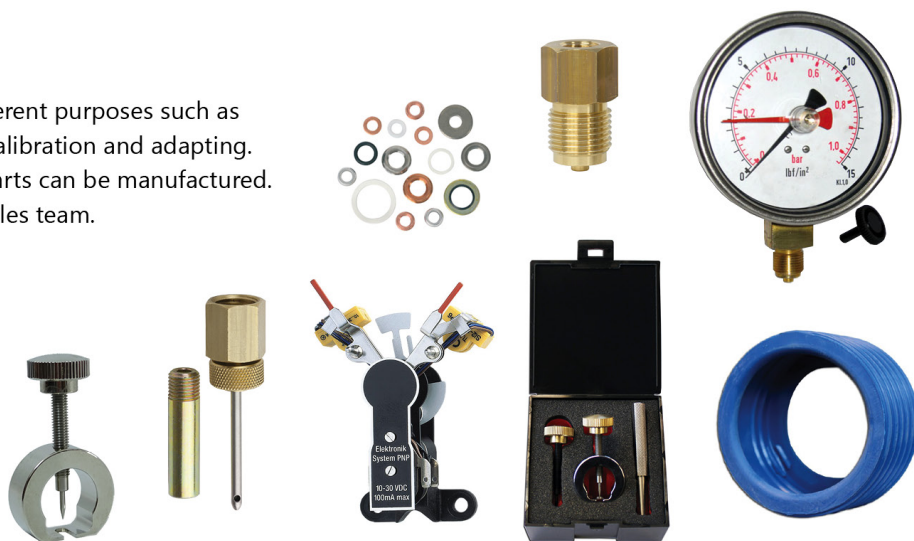


ACCESSORIES

ACCESSORISE TO PRESSURISE

Instrument accessories can be for many different purposes such as installation, external protection, switching, calibration and adapting. If you have a unique application, bespoke parts can be manufactured. Please feel free to discuss with one of our sales team.

- Pointer Puller Kit
- Gauge Adaptors
- Electrical Contact
- Max Drag & Indicating Pointers
- Protective Shrouds
- Sealing Washers
- Test Points



TANK CONTENTS & LEVEL MONITORING

MADE TO SUIT TANKS OF ALL SHAPES AND SIZES

Manufactured to suit individual tank shapes and sizes. These sensors can be analogue or digital and send a signal to trigger alarms etc. Different sensor types are available to suit all different process medium, they can be internal or external with displays remote mounted.

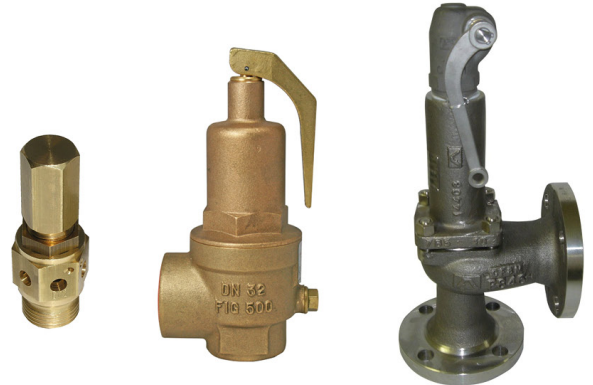
- Tank Contents Gauges
- Submersible Level Probes
- Ultrasonic Level Sensors
- Sensors
- Magnetic Level Indication
- Level Float Switches
- Level Transmitters & Alarms

VALVES

TRUST US TO RELIEVE THE PRESSURE

We have the ability to supply from stock many types of valves. Designed for relief, control and isolation to suit all types of applications. Our in house workshop and calibration laboratory allows us to offer a fast and efficient turn around.

- Safety Relief
- Pressure Reducing
- Flanged
- Butterfly
- Threaded
- Solenoid
- Recirculating



MAGNEHELIC & DIFFERENTIAL

SERVICE IS THE DIFFERENCE

Designed to measure the difference in pressure between two pressure sources. Magnehelic gauges are specifically designed for extreme low pressures with air or gases, usually reading in Pascals. Commonly used with clean rooms, fan extraction systems and isolation wards.

- Magnehelic
- Minihelic
- Digihelic
- Photohelic
- Hand Held Manometer
- Industrial
- Process
- Subsea



METROLOGY

MEASURE TWICE, CUT ONCE

Supply and calibration service covering a wide variety of metrology instruments. Suppliers of one of the industry's leading precision metrology brands Mitutoyo.

- Calipers
- Micrometers
- Depth Gauges
- Setting Rods
- Gauge Blocks
- Thread/Plug Gauges
- Rules/Tapes
- Levels
- Floor/Bench Scales
- Force/Load





ELECTRICAL

SHOCKINGLY SPEEDY SERVICE

Calibration certificates provided on all types of electrical equipment. Our in house calibration laboratory allows for a quick 4/5 days turn around and even sooner on request, without extra charges. Free collection and return available subject to number of units.

- Multifunction Testers
- PAT Testers
- Multimeters
- Clamp Meters
- Resistance Boxes
- Loop, RCD & Insulation Testers

DATA LOGGING

WE RECORD EVERYTHING

Data logging instruments are available in a digital or analogue format. Digital logging can be done real time via wi-fi or extracted from the unit using a data cable. They are available as a transmitter or digital gauge with local display.

- Pressure & Temperature Chart Recorders
- Pressure Transmitters
- Temperature & Humidity
- Pressure/Temperature Digital Gauges



TRANSMITTERS & DISPLAYS

YOU HAVE AN INPUT, WE OFFER THE OUTPUT

Industry specific transmitters are small and compact with high accuracy. They are designed to last with great stability and endurance. Various power supplies, output signals and electrical connections are available. Please call one of our friendly sales team to advise you correctly.



- Industrial
- Differential
- Diaphragm
- Local Display
- Extreme High/Low Pressure
- Precision
- LED Displays
- HART & Profibus Communication

PRESSURE GENERATION

GENERATING NEGATIVE & POSITIVE PRESSURE

There are many ways in which you can generate pressure with our range of pumps, subject to it being portable or static and the accuracy of the unit under test. Our range of handpumps are great in the field with their lightweight design and fine adjustment. Dead weight testers are usually static in a calibration lab or workshop.

- Portable Pneumatic or Hydraulic Handpumps
- Pneumatic or Hydraulic Comparison Bench Pumps
- Pneumatic or Hydraulic Dead Weight Testers
- Hand Held Pressure Calibrators





REGULATORS

REGULATING YOUR REQUIREMENTS

Designed for pressure control at low and high pressures. Available in one or two stage with wide input and output pressure range. Various mounting options and connections can be provided. These often vary subject to industry and gases, please contact one of our sales team to discuss your requirements.

- Single Stage
- Two Stage
- Gas Specific
- Regulator Gauges

HVAC

HEATING, VENTILATION & AIR CONDITIONING SPECIFIC

Specifically designed to accommodate the heating, ventilation and air conditioning industry (HVAC). These gauges are a good indication of the process pressure, temperature, or maybe even both with a combined gauge. Often seen installed with a cooling syphon and gauge cock for isolation.

- Temperature
- Pressure
- Combined Pressure & Temperature
- Magnetic Thermometers
- Spring Tension/Clip-on Thermometers
- Gauge Cocks
- Cooling Syphons



SUBSEA & MARINE

WE GO TO GREAT DEPTHS

For reliability when measuring process pressures or temperatures at extreme depths. These gauges come in two different models, one which takes the reading independent of depth with a solid drilled case. The other works using the external pressure around the case.

- Independent Depth Gauges
- Independent Depth Temperature Gauges
- Submersible Transmitters
- Differential Depth Gauges
- Compensated Depth Gauges



FLOWMETERS

GO WITH THE FLOW

Used for measuring the flow of almost any process medium from small diameter up to large diameter. Covering a wide range of mediums such as gas, air, oil, diesel, petrol, water, aggressive chemicals and many more. These can start from low pressures leading up to 1500 bar covering temperatures up to 400°C.

- Turbine
- Variable Area
- Electromagnetic
- Ultrasonic
- Coriolis

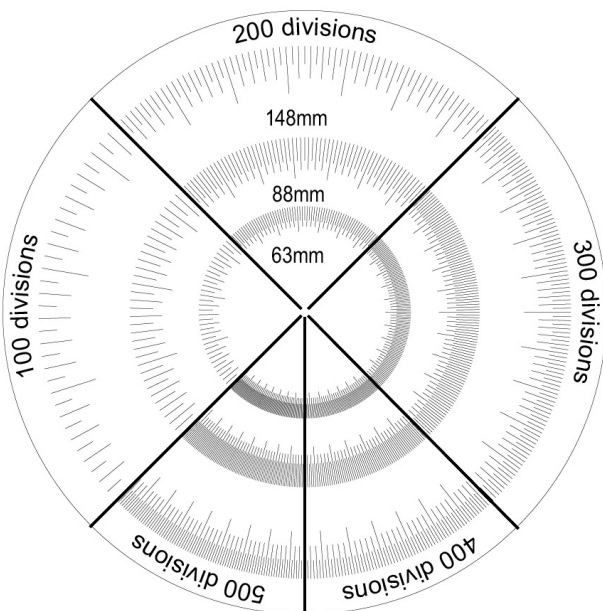
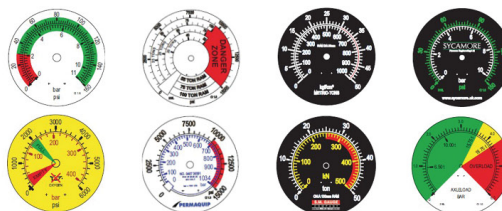


DIAL TECHNOLOGY

FACE THE CHALLENGE

Our in house dial-printing department utilises the latest printing technologies enabling us to produce dials to your design. This can include non-standard ranges, coloured sections or lines to indicate specific temperatures. We can even add your company logo in full colour.

- Your Logo
- Mirror Dial
- Test Dial
- Segmented Dial



REPAIR & CALIBRATION SERVICES

- Pressure
- Vacuum
- Temperature
- Level
- Electrical
- Metrology
- Scales
- Torque
- Flow
- Force/Load
- Conductivity
- Relief Valves
- Humidity
- Gas Monitoring
- Calibration Training
- Pressure Vessel Testing

ON-SITE SERVICES

- Calibration
- Installation
- Commissioning

INDUSTRIES

- Aerospace
- Pneumatic
- Hydraulic & Engineering
- Automotive
- Food & Beverage
- Oil & Gas
- Nuclear
- Shipping, Marine & Offshore
- Chemical & Petrochem
- Environmental Engineering
- Sewage & Water Treatment

UKAS ISO/IEC 17025 – Via our calibration partner

Via a third-party calibration partner, we will ensure your instrumentation is calibrated to national standards. This means you can be confident that your equipment is operating at its best, delivering accurate results.

Covering negative and positive pressure ranges from -1...+5000 bar.

Unlike many other labs, repair and adjustment can be offered where required.



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