Original Minimess® test points, microbore hose, gauges & pressure test kits

Discover more at www.hydrotechnik.co.uk
**Microbore Hose, Fittings & Assemblies**
- 2mm (Dn2) & 4mm (Dn4) microbore hose material options
- Polyamide synthetic braided & stainless steel braided PTFE bore materials
- Microbore hose end fittings for all major thread variants
- Zinc Nickel plated steel, 316Ti stainless steel, brass & monel materials

**MINIMESS® Test Points & Adaptors**
- 1620, 1620p/T, 1215, 1615 & 1604 male threaded test points
- In line test point tee adaptors for BSP, JIC, ORFS & Metric pipe systems
- Gauge, bulkhead & compact 90° adaptors
- Special application test points
- Zinc Nickel plated steel & 316Ti stainless steel materials
- Hose assembly accessories & services

**MINIMESS® Pressure Test Kits & Pressure Gauges**
- 63 & 100mm analogue & 75mm digital pressure gauges
- Pressure gauge accessories
- BSP, JIC, Metric & Universal Minimess pressure test kits
- JCB style, Caterpillar style & Customer specific pressure test kits
- 700 bar hydraulic calibration hand pump kits

**MINIMESS® Nitrogen Accumulator Charging Valves & Kits**
- Minimess 1620 & 1615 series gas charging valves
- Nitrogen accumulator Minimess test kits
- Charging & testing devices for accumulator or bottle connection
- Adaptors for connection to leading accumulator brands

**The original MINIMESS®... ...still the market leader**

Developed by Hydrotechnik more than 50 years ago, Minimess test points & associated products are found worldwide in hydraulic, process and gas systems. Minimess pressure test points offer the most advanced sealing system available with working pressures up to 630 bar. A lifetime leak free guarantee and suitability with almost any fluid or gas makes Minimess the most versatile test point available.

**Backup ring 1**
**Secondary sealing 2**
**Primary sealing 3**
**Poppet valve 4**
**Anti-vibration O ring 5**
**Cap fixing ring 6**
**Housing 7**
**Compression spring 8**
**Sealing according to DIN 9**

**One product, many applications**
- Hydraulic testing
- Bleeding
- Filling
- Gas testing
- Oil sampling
- Gas charging
- Mobile hydraulics
- Industrial hydraulics
- Offshore & subsea
- Process plant
- Pneumatics
- Automotive

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Test points & adaptors

Minimess test points offer a uniquely simple method of accessing low or high pressure systems for the purpose of pressure testing, oil sampling or gas charging. Manufactured in steel, stainless steel, brass or monel with buna nitrile, viton or EPDM sealing options, ensures compatibility with most systems and media.

**MINIMESS® 1620**
- Or ‘Test 20’ is the most commonly used test point across all industries.
- Available in steel, stainless steel & monel with a wide choice of connection threads, making this the most versatile range available.
- Connection threads: BSP, BPT, Metric, NPT & UNF
- Standard sealing materials: Buna Nitrile, Viton & EPDM
- Working pressures: up to 630 bar

**MINIMESS® 1215**
- Or ‘Test 15’ is commonly used in the construction and gas industries.
- Small and compact in design with a 12mm threaded cap, the 1215 is available in steel, stainless steel and brass.
- Connection threads: BSP, BPT, Metric, NPT, UNF
- Standard sealing materials: Buna Nitrile, Viton & EPDM
- Working pressures: up to 630 bar

**MINIMESS® 1615**
- Materials available are steel, stainless steel or monel.
- Connection threads: BSP, Metric & NPT
- Standard sealing materials: Buna Nitrile, Viton
- Working pressures: up to 630 bar

**MINIMESS® PT 1620**
- In a larger bore (nominal 4mm) test point, used for higher flow requirements or for highly viscous fluids. 1604 test points are available in steel or stainless steel.
- Connection threads: BSP & Metric
- Standard sealing materials: Buna Nitrile & Viton
- Working pressures: up to 400 bar

**MINIMESS® PT 1604**
- Has been developed to accept a temperature probe which gets in contact with the medium for accurate dynamic temperature and/or pressure measurement.
- Connection threads: BSP & Metric
- Standard sealing materials: Buna Nitrile, Viton & EPDM
- Working pressures: up to 430 bar

**MINIMESS® Gas Charging Valve**
- Or ‘Test 15’ coupling is used most commonly in the defense, gas and marine industries. The 1615 has an M16 connection thread and male and female options.
- Connection threads: BSP, Metric & NPT
- Standard sealing materials: Buna Nitrile, Viton, EPDM
- Working pressures: up to 630 bar

Specials are our speciality

At Hydrotechnik, we manufacture to specific customer requirements such as special fitting requirements, body or seal materials as seen here:

**In line test point tee adaptors and media**
- BSP male x swivel female (40° cone sealing) test point tee adaptor
- JIC male x swivel female (27° cone sealing) test point tee adaptor
- ORFS male x swivel female (O-Ring face seal) test point tee adaptor
- Metric DHO male x swivel female (24° cone sealing) test point tee adaptor
- Metric DHO compression test point tee adaptor

**MINIMESS® 1620 subsea test point**

**MINIMESS® 1604 & 1604 gear box oil sampling probes**

**MINIMESS Gas Charging Valve**

**Test point with internal burst disc**

**Standpipe, bulkhead, gauge and 90° adaptors**
- JIC fixed female standpipe (24° cone sealing) test point adaptors
- Test Point female to pressure gauge female adaptors
- Test Point bulkhead adaptors
- 90° compact Test Points & gauge adaptors

Microbore Hose Options

<table>
<thead>
<tr>
<th>Hose Options</th>
<th>Size</th>
<th>ID &amp; OD</th>
<th>Working Pressure</th>
<th>Burst Pressure</th>
<th>Temp</th>
<th>Min Bend Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dn2 - 400 bar Hose</td>
<td>2mm ID x 5mm OD</td>
<td>400 bar</td>
<td>1950 bar</td>
<td>-20°C to +100°C</td>
<td>20mm</td>
<td></td>
</tr>
<tr>
<td>Dn2 - 630 bar Low Temp Hose</td>
<td>2mm ID x 5mm OD</td>
<td>630 bar</td>
<td>1500 bar</td>
<td>-34°C to +100°C</td>
<td>20mm</td>
<td></td>
</tr>
<tr>
<td>Dn2 - 630 bar Hose</td>
<td>2mm ID x 5mm OD</td>
<td>630 bar</td>
<td>1500 bar</td>
<td>-20°C to +100°C</td>
<td>20mm</td>
<td></td>
</tr>
<tr>
<td>Dn4 - 315 bar Hose</td>
<td>4mm ID x 8mm OD</td>
<td>315 bar</td>
<td>810 bar</td>
<td>-20°C to +100°C</td>
<td>40mm</td>
<td></td>
</tr>
<tr>
<td>Dn4 - 450 bar Hose</td>
<td>4mm ID x 8mm OD</td>
<td>450 bar</td>
<td>1500 bar</td>
<td>-20°C to +100°C</td>
<td>40mm</td>
<td></td>
</tr>
<tr>
<td>Dn4 - 450 bar Stainless Steel Hose PTFE bore</td>
<td>4mm ID x 8mm OD</td>
<td>450 bar</td>
<td>1500 bar</td>
<td>-20°C to +100°C</td>
<td>40mm</td>
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Microbore Hose End Fittings

<table>
<thead>
<tr>
<th>Hose Options</th>
<th>Size</th>
<th>ID &amp; OD</th>
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<th>Burst Pressure</th>
<th>Temp</th>
<th>Min Bend Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dn2 - 630 bar Low Temp Hose</td>
<td>2mm ID x 5mm OD</td>
<td>630 bar</td>
<td>1500 bar</td>
<td>-34°C to +100°C</td>
<td>20mm</td>
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<td>Dn4 - 450 bar Hose</td>
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**Microbore Hose, Fittings & Assemblies**

The microbore hose assembly, most commonly used to connect to a Minimess® test point for pressure testing, has many other diverse applications. The hose is available in 2mm and 4mm internal diameter up to 630 bar working pressure. The hose material is extremely flexible, light weight and can be specified for a large range of uses.
MINIMESS® Pressure Test Kits
Hydrotechnik offer a huge range of hydraulic pressure test kits that are catered to a wide variety of users & thread variants. Each kit contains all the necessary equipment, including analogue pressure gauges that are suitable for all test point sizes and a large selection of pipe adaptors tailored to suit nearly all hydraulic machines or systems.

Kits available:
- **Low Cost**: Basic Minimess pressure test kit with all you need to take 2 pressure readings.
- **BSP**: Minimess pressure test kit with additional inline BSP 1620 test tees.
- **Metric**: Minimess pressure test kit with additional inline Metric 1620 test tees.
- **JIC**: Minimess pressure test kit with additional inline JIC 1620 test tees.
- **Universal**: Covers all Minimess test point series plus HSP, quick release and inline test tees.

**Gas Charging Test Kits**
Hydrotechnik offer a range of high quality gas charging valves and test points for use with most gases in the Minimess 1615 & 1620 series design. Our Minimess gas charging valves are manufactured with very precise internal tolerances to give maximum sealing integrity, not possible with standard Minimess test points.

- **Excellent leak proof integrity, leakage < 2x10^-5 mbar l/s operating within -20°C to +135°C**
- **Uses the proven Minimess construction for safe & leak free gas charging or testing**
- **Working pressure up to 630 bar**
- **Subsea versions to 3000m depth**

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Other products and services available from Hydrotechnik:

### Dataloggers
2 to 48 channel handheld or fixed measuring & datalogging instruments to suit all budgets and technical requirements.

### Test Sensors
Pressure, temperature, flow, RPM, force, torque, vibration, position & many more test sensors for service, end of line production or R&D testing.

### Pressure Sensors
A huge range of pressure sensors for OEM industrial, automotive, food & beverage applications. Pressures from 10mbar to 4000 bar to suit most mechanical or electrical connections & signal output requirements.

### Test Rigs
Design & build service for manual or automated component proving test rigs. Mechanical or plc control options for testing using air, water or oils.

### Repair and Calibration
In house calibration service for flow, pressure & temperature sensors to national standards. Competitive pricing and turnaround times.

### Contact
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