INTERFLUID

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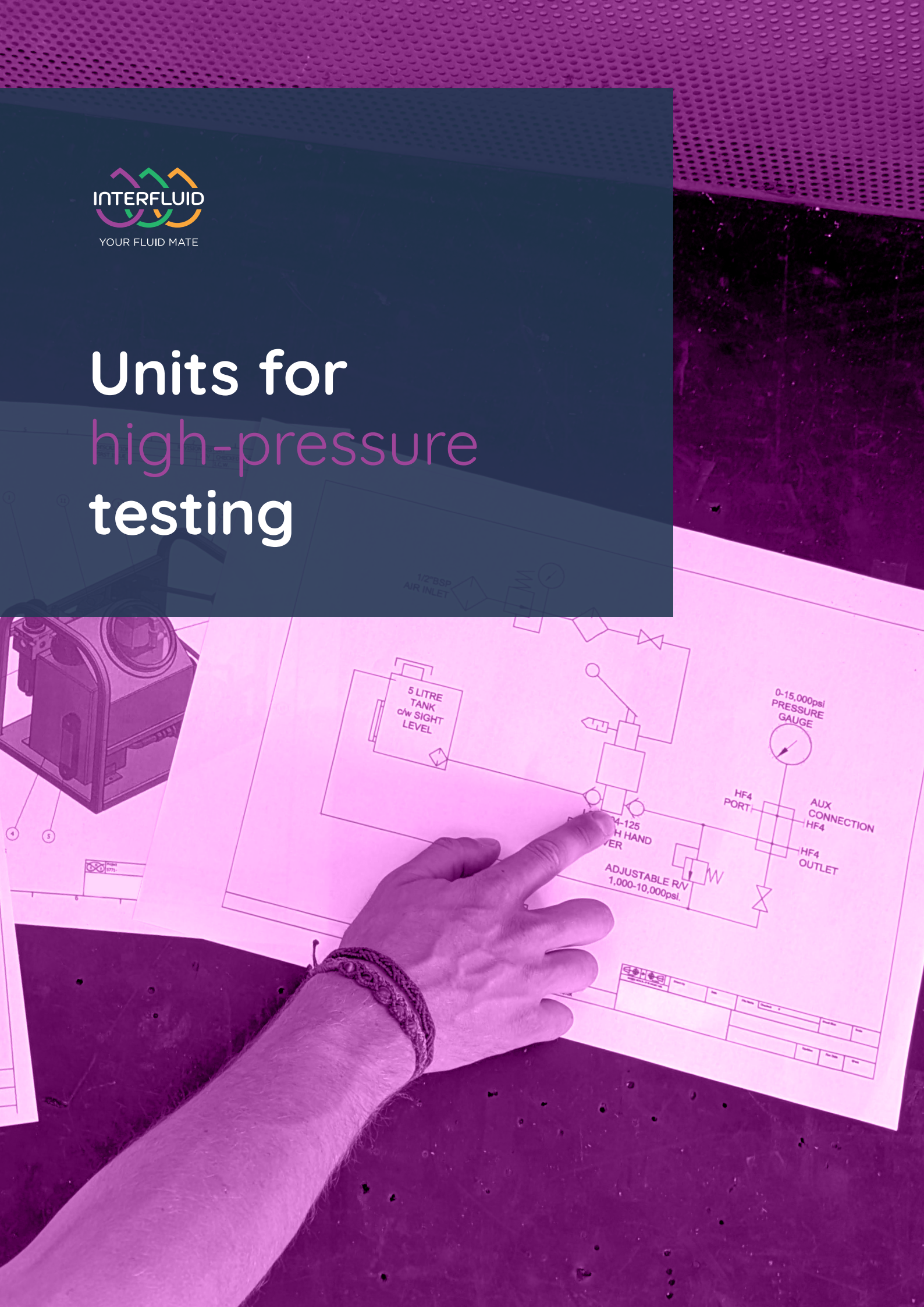
Units for high-pressure testing



Air driven liquid pump

Units for liquid pressure testing

Air driven liquid pumps for oil, water, or aggressive fluids are complete, ready-to-use hydraulic units used to generate operating pressures of up to 72,500 psi (5000 bar).

They can be used for any type of testing and tightening, or for other applications requiring the achievement of a specific pressure.

Advantages

Hydraulic pressure achieved is maintained with no energy consumption

Hydraulic output pressure corresponds to the set air pressure multiplied by the pump transmission ratio

No electrical power supply required

Intrinsic safety

Compact and lightweight

Stainless steel version resistant to corrosion

Can be connected directly to the water supply

Automatic reactivation in case of downstream leaks

Suitable for various liquids

The hydraulic pressure multiplier units can be used in all the applications where a pressure test needs to be performed. These portable units, with a compact design and stainless steel frame, are suitable for the most common mobile applications.

Specifications

- Pump type: air driven liquid pump
- Fluids: oil, water, chemicals, and liquefied gases
- Max output pressure: 72,500 psi (5000 bar)
- Typical output pressure: 435 psi / 34,800 psi (30 bar / 2400 bar)
- Max pneumatic drive pressure: 145 psi (10 bar)
- Water supply: direct or with built-in tank

Applications

- Hydraulic resistance testing of valves, fittings, tubes, cylinders, tanks, accumulators, etc.
- Leak testing
- Testing of flanged valves for Oil & Gas
- Pressurization and control systems for pneumatic actuators
- Wellhead control panels

Optional accessories

- Tank by-pass
- Isolation valve
- Chart recorder output
- Stainless steel 316 tank
- USB transducer
- ATEX certificate

Additional options available on request

Hydraulic units for tensioners

Ideal for tightening and sealing systems

Pneumatic power units are ideal for applications where it is necessary to reach a higher pressure and maintain it constant for a long period of time.
They are designed and built to be reliable, easy to use, lightweight, and compact.

Maintenance and repair service

Specifications

- Pump type: air driven liquid pump
- Fluids: oil
- Available ratios:
  see performance tables*
- Max output pressure:
  34,800 psi (2400 bar)
- Max pneumatic drive pressure:
  145 psi (10 bar)
- Low noise level

Performance table*

Model	Max working pressure		Flow rate	Air consumption
	Bar	Psi	Litres/Min	Litres/Min
Standard	1500	21750	0,6	1200
High pressure	2100	30450	0,6	1200

Applications

- Hydraulic press actuation
- Press overload protection
- Vulcanization presses
- Hydraulic mold actuation
- Clamping system actuation
- Sealing, locking, shears, punching machines, eccentric presses
- Hydraulic presses with long tightening/holding cycles or short strokes requiring high force

Cylinder refill unit and accumulator

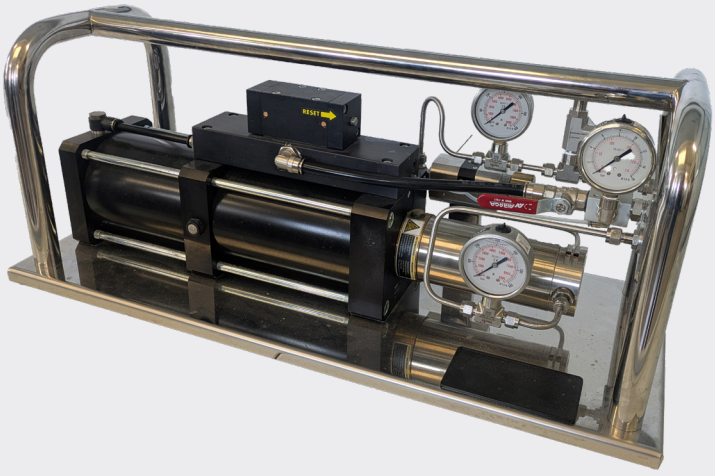
To recover residual nitrogen from cylinders

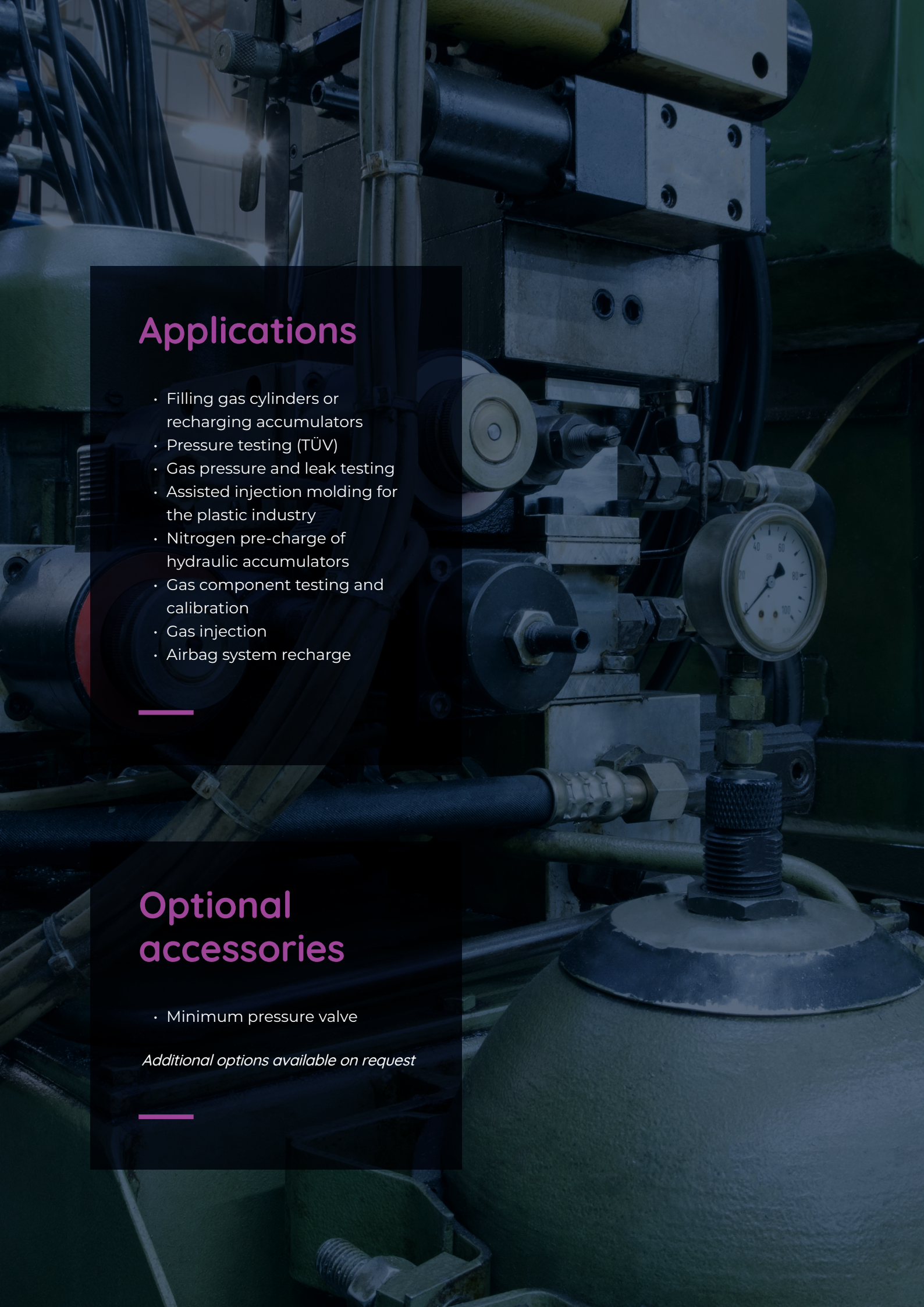
Suitable for the transfer, filling, and refilling of gas cylinders and accumulators.
The pressure multipliers increase the inlet pressure based on the selected multiplication ratio.
Once the pre-set outlet pressure is reached, the gas booster stops automatically and maintains pressure until a downstream leak occurs, at which point it restarts automatically.

Maintenance and repair service

Specifications

- Pump type: air driven gas booster
- Fluids: air, nitrogen, helium, argon
- Drive: air or nitrogen
- Ratios available: 2:1 to 150:1
- Typical output pressure: 5,000 psi (350 bar)
- Max output pressure: 30,000 psi (2069 bar)
- Max pneumatic drive pressure: 145 psi (10 bar)





Applications

- Filling gas cylinders or recharging accumulators
- Pressure testing (TÜV)
- Gas pressure and leak testing
- Assisted injection molding for the plastic industry
- Nitrogen pre-charge of hydraulic accumulators
- Gas component testing and calibration
- Gas injection
- Airbag system recharge

Optional accessories

- Minimum pressure valve

Additional options available on request

Electric gas booster

Depending on the selected model, it can reach pressures up to 14,500 psi (1000 bar) and is compatible with a wide range of gases (air, nitrogen, helium, argon, hydrogen, oxygen, natural gas).
The integrated gear motor ensures a constant flow even as pressure increases.
Equipped with two adjustable pressure switches: one to stop the motor when the desired pressure is reached, and the other to block operation if no gas is available. Also includes a gas inlet filter, isolation valve, and exhaust valve.

The 2G series of the electric gas booster is designed for filling and topping up cylinders at both low and high pressures.
Available in two-stage or double-acting configurations, it stands out for the absence of belts and pulleys, making it the quietest model in its category, with a noise level of only 63 dBA.
Another strong point is the forced air cooling system, which reduces the heat generated during compression and extends the service life of the seals.

Specifications

- Pump type: electric gas booster
- Fluids: air, nitrogen, helium, argon, oxygen, hydrogen
- Power supply: from 115 VAC, 20.4 A, single-phase, 60/50 Hz to 380 VAC, 3.0 A, three-phase, 50 Hz
- Maximum outlet pressure: 1,000 bar (14,500 psi)
- Suitable for use in ATEX zones
- No pneumatic power supply required

Applications

- High-pressure testing of valves, fittings, pipes, cylinders, tanks, etc.
- Helium leak testing
- Accumulator charging
- Airbag testing
- Mechanical seals testing

Optional accessories

- Variable Frequency Drive
- Running signal
- Remote Start & Stop switch
- Potentiometer
- O2 cleaned to MIL Standard
- Piped vent

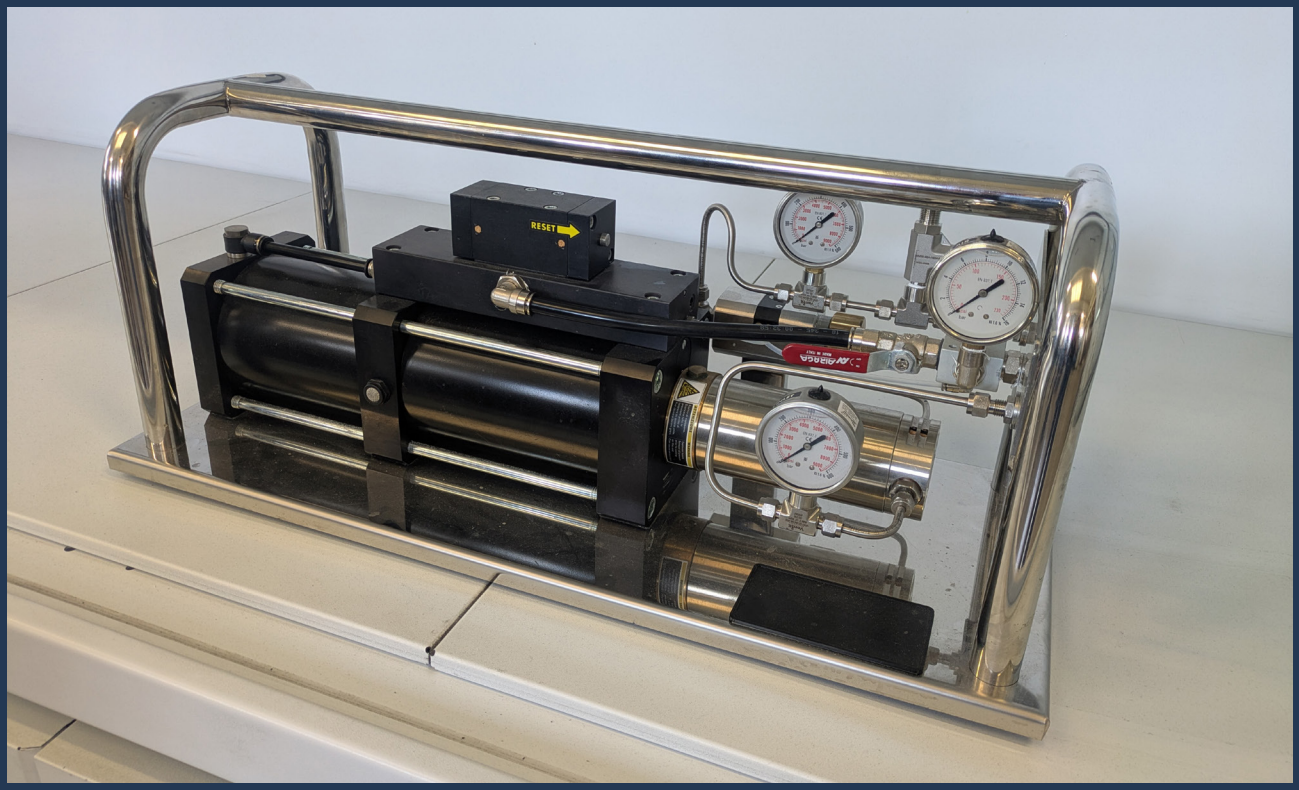
Additional options available on request

FEW EXAMPLES

Charging of cylinders and accumulators

Application

Supply a system for testing and filling cylinders with nitrogen up to 14,500 psi (1000 bar), complete with pilot-operated on/off valves for minimum/maximum pressure upstream/downstream, a maximum pressure valve, and an emergency valve. The system must be integrated with the customer's PLC and circuit, and therefore supplied complete with solenoid valves and a proportional pressure regulator.
The system, shown in the photo as a gas pressure generating unit, is designed to provide a maximum pressure of 5801 psi (400 bar) with nitrogen (N). Once the filling parameters (time, ramp, pressure) are set, the unit is started and the gas booster, with a 78:1 ratio, multiplies the circuit pressure to 100 times the compressed air pressure regulated by the proportional valve. The compressed air line is also limited by a maximum pressure valve set at 100 psi (7 bar). Once the component filling is completed, the pressure is released automatically.



FEW EXAMPLES

High-pressure liquid testing

Application

Supply a mobile system for hydrostatic testing with water of fire extinguisher cylinders, manually operated with discharge routed to the tank, capable of reaching 10,000 psi (690 bar).
The system, shown in the photo as a liquid pressure generating unit, is designed to provide a maximum pressure of 10,000 psi (690 bar) with water. Once the cylinder is filled and purged, the unit is started and the pump, with a 101:1 ratio, multiplies the circuit pressure 101 times the compressed air pressure applied (limited by a maximum compressed air valve set at 100 psi / 7 bar). After the component has been tested, the pressure is released manually.

Similar units, by changing the pump, can be built for pressures ranging from 100 psi / 7 bar up to a maximum of 68,000 psi (4690 bar).

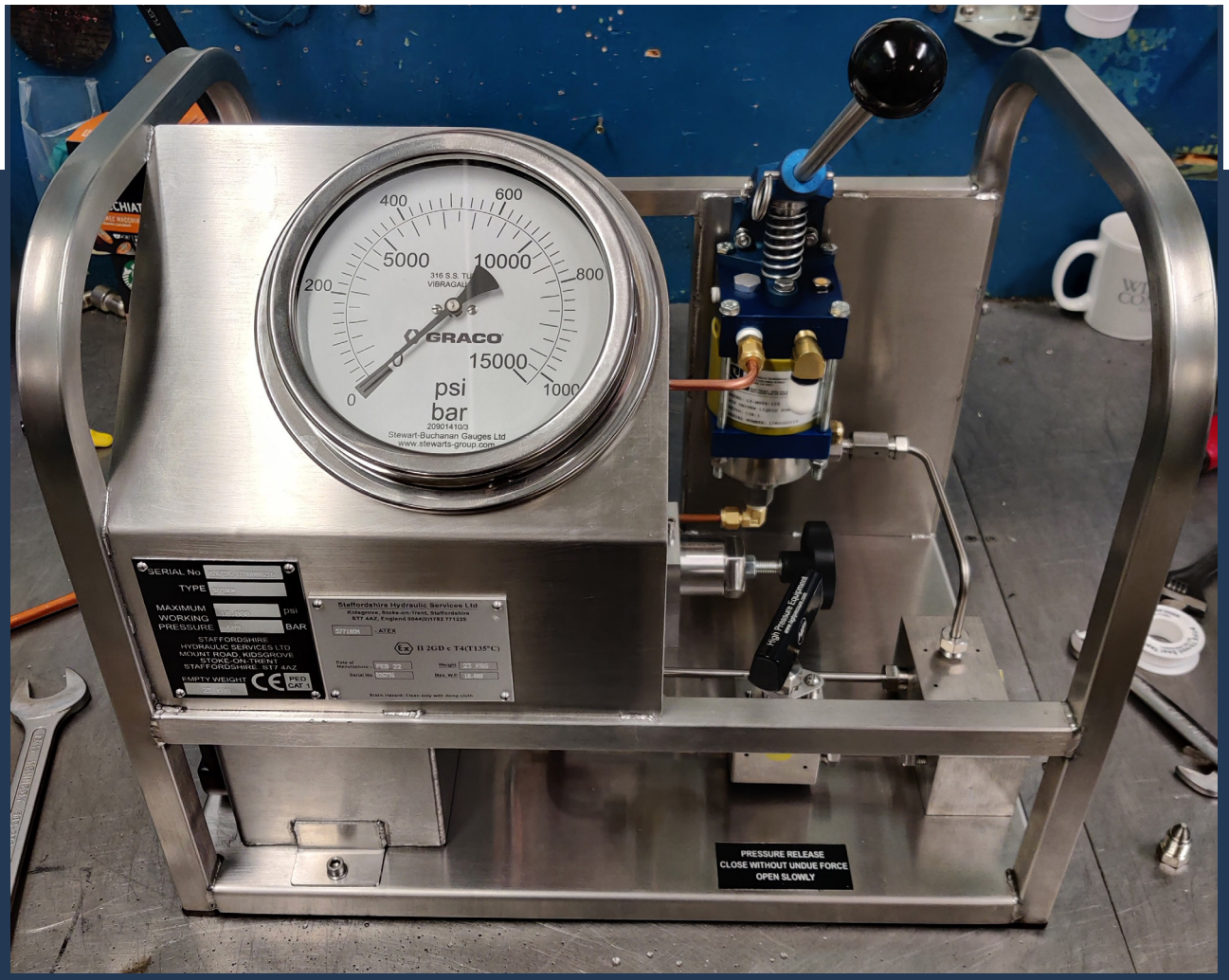
FEW EXAMPLES

Portable manual-operated unit

Application

Supply a portable, manually operated system for general hydrostatic testing with water and glycol, with discharge routed to the tank, capable of reaching 21,700 psi (1500 bar).
The unit, shown in the photo, is designed to provide a maximum pressure of 21,700 psi (1500 bar).

The desired pressure can be reached quickly using the manual lever, even in the absence of compressed air.
Lightweight and compact, it is designed and built to operate safely even in hazardous environments.



Key technical data for sizing

Liquid pump

(pressure multiplier units – hydraulic units for tensioners – high-pressure liquid testing – hydrostatic testing – portable units)

- Fluid
- Maximum outlet pressure
- Flow rate
- Air drive (or air available for pilot operation)
- Type of application

Air driven gas booster

(cylinder refilling)

- Type of gas
- Gas source
- Gas inlet pressure
- Flow rate
- Maximum outlet pressure
- Air drive (or air available for pilot operation)
- Type of application

Electric gas boosters

- Type of gas
- Gas source
- Gas inlet pressure
- Flow rate
- Maximum outlet pressure
- Voltage
- Type of application

N.B.: all the photos shown are representative example

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