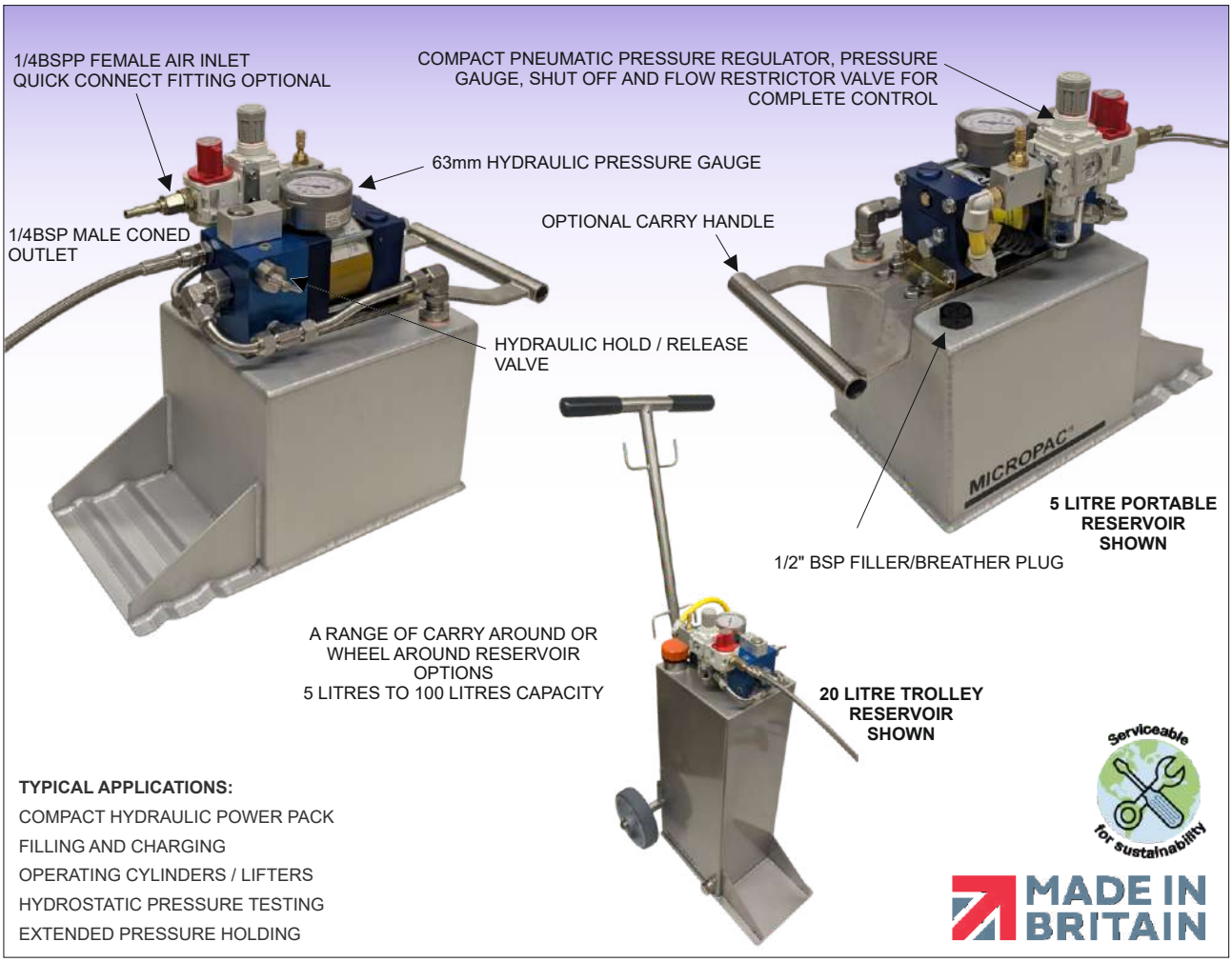
SARUM HYDRAULICS
Designers & Manufacturers of Micropac® Hydraulics

Micropac® PTR-X series Air Driven Hydraulic Pump on Reservoir



A compact and cost effective solution for air driven hydraulic power

FEATURES

- Proven Micropac® parts for reliable operation
- Compact air driven pump manifold solution
- Value engineered design
- Suitable for use with mineral oil or water
- No manual pumping required
- Built in strainer on pump inlet for added reliability
- Sturdy construction; anodised aluminium body
- Integral Hold / Release valve
- Large choice of reservoir sizes / models
- 4 pump models for flow rates / max pressure
- Built in air controls for complete adjustment
- Simply plug into compressed air and start testing
- Hard piped connections for reliability
- Nitrile seals standard; optional Viton®
- Operating temperature range -20°C to +80°C
- Easy to read 63mm hydraulic pressure gauge

INSTALLATION & MAINTENANCE

APPLICATION

The unit is suitable for any application requiring generation of hydraulic power e.g. operating hydraulic cylinders or actuators, pressure testing, charging and filling, to name a few.

Plug a compressed air supply (not included) into the units integral air control regulator, and use the controls to activate the pump to produce hydraulic power.

The air supply needs to be as clean and dry as possible (although the air filter will capture some moisture). An ideal air supply will produce around 7 bar (~100psi) of air pressure, at a rate exceeding 15scfm to supply the air driven pump adequately at full speed operation.

Sealing options are Nitrile, and “Viton” fluorocarbon elastomers, specified at time of ordering. Other options; please enquire.

MATERIALS

The materials of construction are anodised aluminium alloy 5251 and 6083T6, 303/304 stainless steel, 316 stainless steel, other parts in UHMWP, PTFE, Polyurethane, plated steel and elastomeric sealing. Consult factory if in doubt.

SAFETY

This unit is a component forming part of a hydraulic pressure system. If forming part of a permanent installation, the system should be designed, operated and maintained in accordance with statutory requirements and other relevant instructions. A risk assessment covering safe installation, operation and maintenance should always be carried out prior to use.

Under the EU Pressure Equipment Directive (PED) 2014/68/EU and the UK Pressure Systems (Safety) Regulations, the unit is not required to be CE or UKCA marked.

INSTALLATION

Portable reservoirs can be carried and set up at your required location, without installation. Fixed reservoirs need to be mounted to a suitable frame or wall with M8 screws. See installation drawings for mounting centres, and permissible orientations. Consult factory if in doubt.

CONNECTIONS

The pressure connection on the pump manifold is a 1/4BSPP female port, to which we fit a 1/4BSPP male coned adaptor fitting. Alternative outlet fittings are available including BSP, JIC, NPT, Tube compression adaptors and Metric in male or female configurations. Consult the factory.

COMMISSIONING

The pump should be operated to bleed the hydraulic circuit. Failure to do so may result in reduced pump displacement and subpar operation.

Ensure the reservoir has been filled with fluid, then open the Hold/release valve and start to cycle the pump until it has primed. Once primed and fluid is cycling back to the reservoir through the open hold/release valve, shut the hold/release valve and continue to pump, building up pressure in the outlet line. The outlet line will also need to be vented to remove any air from the circuit. Once all air is removed and the unit has been primed, connect up the outlet line / hose to the desired test piece or connection.

MAINTENANCE

Maintenance operations should only be carried out by a competent service engineer.

The inlet strainer is built into the reservoir dip tube. The inlet and outlet check valves are built into the air driven pump fittings. Seals are replaced using standard tools. Service kits are available.

Sarum Hydraulics Ltd also offer a servicing facility; please advise before returning the unit to us.

SPECIFICATION

4 models, based on ratio of air pressure to hydraulic pressure:

15:1 ratio air pump - 125 bar max, 3.6litres/min at free flow

25:1 ratio air pump - 190 bar max, 2.7litres/min at free flow

35:1 ratio air pump - 235 bar max, 2.1litres/min at free flow

45:1 ratio air pump - 330 bar max, 1.6litres/min at free flow

Higher pressure models are available, although only fitted to our PTR-M model units. See separate datasheet or consult factory for up to 1000 bar operation.

Compatibility: mineral oil or water (nitrile seals).

Viton® Fluorocarbon sealing options - check compatibility first; if in doubt, consult factory.

Ambient operating temperature range: -20 to 40°C

Media operating temperature range:

Nitrile: -35 to 80°C

Fluorocarbon: -26 to 80°C

DIMENSIONS

SEE INSTALLATION DRAWINGS FOR EACH MODEL

ORDERING CODES

Model	
PTR-X	Air Driven pump on reservoir
	For higher pressure see PTR-M Datasheet
	For programmable pressure tester see PTR-A Datasheet

Air Driven Pump Model	
15	125 bar max. 3.6 litre/min free flow
25	190 bar max. 2.7 litre/min free flow
35	235 bar max. 2.1 litre/min free flow
45	330 bar max. 1.6 litre/min free flow

Unit Conversions
Bar to psi - multiply bar by 14.504
Litres to US Gallons - divide litres by 3.785
cc to cu. in. - divide cc by 16.387

Seal material (ask about compatibility)	
N	Nitrile / Polyurethane
V	“Viton” Fluorocarbon / Polyurethane

Test fluid			
W	Water	S	Special (consult factory)
O	Mineral Oil		

Pressure gauge	
O	No Gauge
G	Analogue 63mm gauge
D	Digital, datalogging

Reservoir size	
05P	5 Litre alloy portable
10P	10 Litre alloy portable
10F	10 Litre stainless fixed
20F	20 Litre stainless fixed
50F	50 Litre stainless fixed
2T	20 Litre 2-wheel trolley stainless
5T	50 Litre 2-wheel trolley stainless
5M	50 Litre 4-wheel trolley stainless

Hydraulic Hose, stainless fittings G1/4	
O	No hose required
3	Hose 3 metres overall

Pneumatic Hose for Air supply	
O	No hose required
5	Hose 5 metres overall

PTR-X [ ][ ] [ ] [ ] [ ] [ ][ ] [ ] [ ]

We are a long established ISO 9001:2015 certificated designer and manufacturer of hydraulic equipment.
Full details of other products in our range are available from:

Sarum Hydraulics Limited
Unit 1 Danebury Court, Salisbury, SP4 6EB, UK
Tel: 44(0)1722 328388 Fax: 44(0)1722 414307
email:pumpsales@sarum-hydraulics.co.uk
www.sarum-hydraulics.co.uk

SARUM HYDRAULICS
Designers & Manufacturers of Micropac® Hydraulics

We invest heavily and continuously in product development.
Specifications are therefore liable to change without prior notification.
Micropac® is a Registered Trade Mark of Sarum Hydraulics. E&OE.