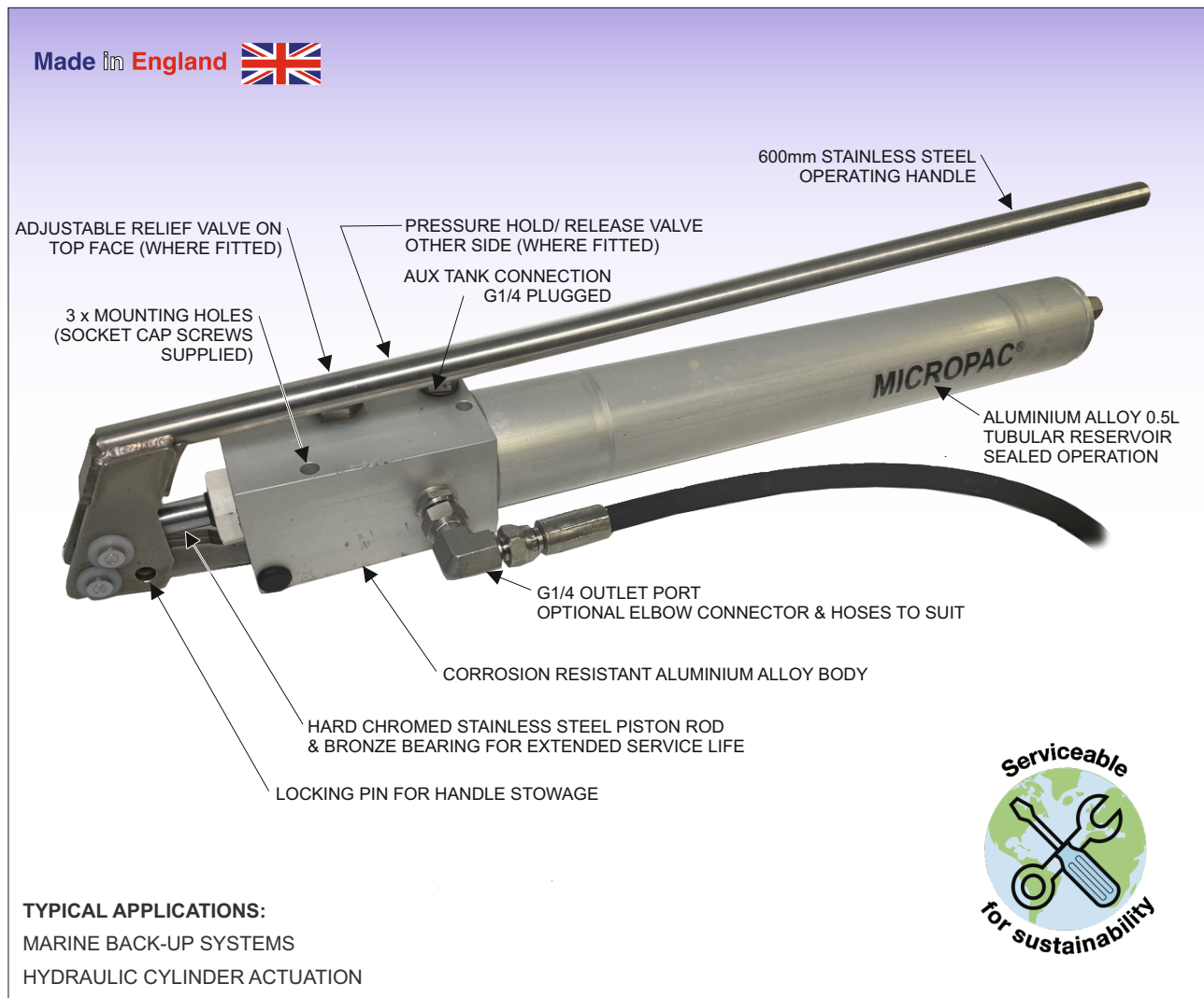




# Micropac® PMP Single Speed 700 Bar Hydraulic Hand Pump & Reservoir



**A durable hand pump with integral reservoir-  
ideally suited to marine applications**

## FEATURES

- Corrosion resistant design for marine environment
- Lightweight anodised aluminium body & reservoir
- Long life hard chromed 316 stainless piston rod
- Bronze bearing with dirt excluder
- Sturdy stainless operating handle mechanism
- Double acting - pumps on up and down strokes
- 5.8cc/ double stroke to 700 bar, 0.5L usable reservoir
- Nitrile sealing; compatible with mineral oil
- Soft-seat check valve for positive sealing
- Release & relief valve options
- User serviceable sealing & seating components
- 3 point mounting; horizontal/ vertical operation
- Reliable- British design & manufacture
- Factory support for product and application

# INSTALLATION & MAINTENANCE

## APPLICATION

This pump and reservoir provides a durable and cost effective solution for the more demanding environment. It provides manual hydraulic power for a range of applications such as manual back up systems and hydraulic cylinder actuation. There is a serviceable soft seat outlet check valve for positive sealing. Pumping operation is double acting; fluid is displaced on both the up and down strokes. The pump displaces 5.8cc per double stroke up to 700 bar maximum pressure. Sealing is nitrile, compatible with hydraulic mineral oil.

The pump is fitted with a soft seat pressure hold/ release needle valve and an adjustable pressure relief valve.

The stainless steel operating handle is fixed and measures 600mm. The litre integral reservoir is for sealed operation and has a usable capacity of 0.5 litre.

The pump is intended for direct mounting onto a suitable surface and is suitable for horizontal or vertical (reservoir above pump body) mounting. Connection is made to the G1/4 side port; a G1/4 male 60° coned 316 stainless steel adaptor is fitted as standard.

Before mounting the unit, consider ergonomics of pump handle operation; refer to pump dimensions section.

## MATERIALS

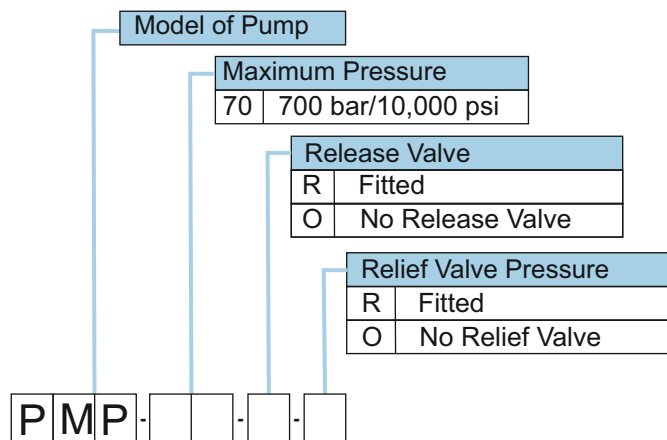
The materials of construction are anodised aluminium alloy 6082T6, aluminium bronze, small amounts of stainless steel 302/303/304/316/420, acetal, nylon, PVC and nitrile elastomeric sealing.

## 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 Equipment (Safety) Regulations 2016, the unit is not required to be CE or UKCA marked.

## ORDERING CODE



## INSTALLATION

With reservoir vertical, remove filler plug on end of reservoir, fill reservoir with hydraulic mineral oil, bleed through by removing operating handle lock pin and operating handle (close release/ hold valve by screwing knob in fully clockwise; do not over-tighten) and top up to level indicator on dip stick. There is a facility for bleeding the system back to tank via a G1/8 plug on the end of the reservoir. Do not overfill reservoir; an air space is required for pump operation. Refit filler plug.

Mount the pump body onto a suitable flat surface capable of withstanding the pump handle operating forces. Use the 3 M8 socket cap screws provided; tighten evenly to a torque of 15Nm.

## CONNECTIONS

Make system connection onto outlet fitting using suitable swivel nut & nipple, or female adaptor fitting. Optional 316 stainless elbow connector is available. The aux. tank connection can be used for a drain connection from a 4 way valve or external relief valve, as examples.

## COMMISSIONING

Close the release/ hold valve. Operate the handle by moving up and down to pressurise system. Check for leaks in the system.

To release pressure, unscrew release/ hold valve knob; unscrew slowly for a controlled release.

To set relief valve, remove cap, adjust set screw whilst operating hand pump to achieve maximum pressure requirement, then refit cap.

## MAINTENANCE

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

The inlet and outlet check valves are serviceable and employ replaceable seats. Service kits are available comprising all seals, seats, balls and springs.

The reservoir should only be topped up with clean mineral oil and an air space should always be maintained within the reservoir.

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

Please contact the factory for special requirements.

# SPECIFICATION

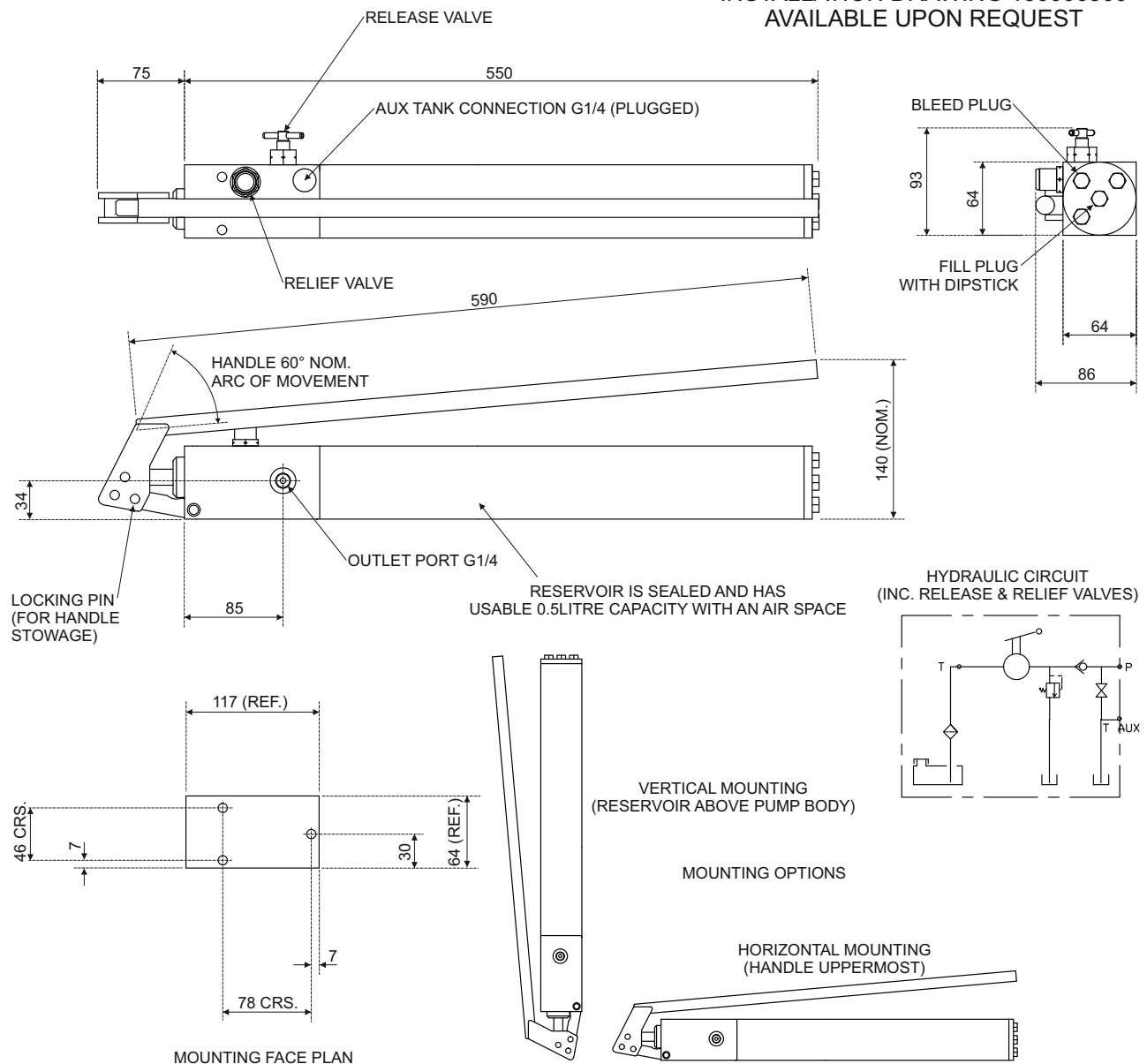
Displacement/ double stroke, max. operating pressure:  
 5.8cc (0.35cu.in.), 700 bar (10000psi)  
 Max. flow (typical): 0.25 litres (15cu.in.)/ minute  
 Nom. operating hand load at max. pressure: 350N (78lbf)

Compatibility: mineral oil (nitrile seals).  
 Ambient operating temperature range: -20 to 40°C  
 Media operating temperature range: -35 to 80°C  
 Weight (reservoir empty): 2.5kg (5.5lb)

# DIMENSIONS

ALL DIMENSIONS IN mm

INSTALLATION DRAWING 136006500  
 AVAILABLE UPON REQUEST



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](mailto:pumpsales@sarum-hydraulics.co.uk)  
[www.sarum-hydraulics.co.uk](http://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