



# Micropac® MP Single Speed Hydraulic Pressure Testing & Filling Unit

ADJUSTABLE RELIEF VALVE (WHERE FITTED)

450/625mm OPERATING HANDLE, DETACHABLE, WITH CARRYING HOOK

63mm PRESSURE GAUGE (OPTIONAL)

9/16"-18 UNF/SAE OUTLET PORT

PRESSURE HOLD/ RELEASE VALVE (WHERE)

RESERVOIR WITH FOOTPLATE FOR STABILITY

**Serviceable for sustainability**

**TYPICAL APPLICATIONS:**  
HYDROSTATIC PRESSURE TESTING  
CALIBRATION  
PROOF TESTING  
FILLING & CHARGING e.g. 'SKYDROL' SYSTEMS  
HYDRAULIC CYLINDER ACTUATION  
MANUAL OVER-RIDE/ SHUTDOWN SYSTEMS  
⊠ 'AX' EXPLOSIONPROOF RANGE ALSO AVAILABLE

**Made in England**

4 WHEEL STAINLESS TURNABLE TROLLEY VERSION 50/100L

INTEGRAL TROLLEY VERSION WITH HOSE STORAGE. SEE ALSO OUR 'DUO' DATASHEET PORTABLE COMBINED AIR OPERATED & HAND PUMP UNIT

**A rugged and versatile portable unit for the professional user**

## FEATURES

- Available for carrying by hand or with integral trolley
- Lightweight fabricated reservoirs in 316 stainless/ alloy
- Reservoir volumes 5 - 100 litres, with filler/breather cap
- Ergonomically designed for ease of operation
- Double acting operation- pumps on up & down strokes
- Pump offered in 316 stainless steel or anodised alloy
- Five models cover max. pressures 50 - 700 bar
- Compatible with water, oil and other liquids
- Sturdy construction- suitable for extreme environments
- Long life hard chromed stainless piston rod
- Dirt excluder and PTFE low friction sealing
- Soft-seat check valve for positive sealing
- Pressure gauge, release & relief valve options
- User serviceable sealing & seating components
- Detachable 450mm or 625mm operating handle
- Nitrile seals standard - optional EPDM/ Viton®
- Reliable- quality British design & manufacture
- Factory support for product and application

# INSTALLATION & MAINTENANCE

## APPLICATION

This equipment is suitable for use in both indoor and outdoor applications; the 316 stainless steel unit is ideal for saline environments. The pump and reservoir are supplied assembled and ready for use.

The hydraulic hand pump provides manual hydraulic power for a range of applications such as hydrostatic testing and system charging/ filling. It is fitted with a soft seat outlet check valve and is thus ideal for leak testing. Pumping operation is double acting; fluid is displaced on both the up and down strokes.

The pump is available in 5 displacement per double stroke/ maximum pressure ranges; 7cc/ 700 bar, 12cc/400 bar, 25cc/ 200 bar, 49cc/ 100 bar, and 100cc/ 50 bar.

Sealing options are nitrile, fluorocarbon and ethylene propylene elastomers, specified at time of ordering.

Depending on specification, the pump may be fitted with a soft seat pressure hold/ release needle valve, an adjustable pressure relief valve, and a pressure gauge.

The 316 polished stainless steel operating handle is detachable and measures 450mm or 625mm, and doubles as a carrying handle on models without a trolley.

For extreme environments, an 'offshore' upgrade is available for the pump with heavy duty all-316 stainless steel release valve and all-stainless steel washers.

Reservoirs for carrying are offered in 316 stainless steel or anodised aluminium and 5, 10 or 20 litre capacity.

Reservoirs in 316 stainless steel are available with integral 2-wheel trolley and capacity 10, 20 or 50 litre. There are also 50 and 100 litre options with 4 wheel stainless steel turntable trolley.

All reservoirs have a filler/breather and dip stick, and feature an auxiliary plugged port to facilitate cleaning.

We also manufacture our MP-3-AX range of pressure test sets for use in potentially explosive atmospheres. Please see separate datasheet, or see website for details.

## MATERIALS

Stainless steel models: 316 stainless steel, aluminium bronze, UHMWP, PTFE and elastomeric sealing.

Aluminium alloy models: anodised aluminium, stainless steel, zinc plated carbon steel, UHMWP, PTFE and 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 Systems (Safety) Regulations, the unit is not required to be CE or UKCA marked.

## SPECIFICATION

Displacement/ double stroke, max. operating pressure and max. flow (typical):

MP-3-7: 7cc, 700bar/ 10000psi, 0.3L/min./ 0.4cu. in./stroke

MP-\*-12: 12cc, 400bar/ 6000psi, 0.5L/min./ 0.7cu. in./stroke

MP-\*-25: 25cc, 200 bar/ 3000psi, 1L/min./ 1.5cu. in./stroke

MP-\*-50: 50cc, 100 bar/ 1500psi, 2L/min./ 3cu. in./stroke

MP-\*-100: 100cc, 50 bar/ 750psi, 4L/min./ 6.1cu. in./stroke

Nom. operating hand load (625mm, at max. pressure): 460N

## CONNECTIONS

The outlet connection is a 9/16" UNF SAE female port (G3/8 on 7cc/ 700 bar unit); a G1/4 male 60° coned adaptor is fitted as standard. Connect suitable hose to outlet fitting, and make connection to external system.

The pressure gauge port is G1/4 flat bottomed and is plugged where a pressure gauge is not supplied.

## COMMISSIONING

The reservoir may be filled by unscrewing the filler cap and topping up to desired level with clean fluid; do not over fill. Use the dipstick to determine fluid level. Always refit filler cap after top up.

Ensure that the reservoir is sitting on a level floor or firm and flat ground.

Models for carrying; unclip hook from handle.

If fitted, close the soft seat release/ hold valve by screwing knob in fully clockwise; do not over tighten. Operate the handle by moving up and down until maximum required pressure is achieved. Check for leaks in the system.

To release pressure, unscrew release/ hold valve knob, 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.

When decoupling hose from the system, ensure that the pressure has been fully released.

Models with trolley; the hose may be coiled around the storage brackets on the trolley upright.

Models for carrying; clip the hook back onto the handle for carrying purposes.

## 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 pump inlet strainer should be checked periodically for fouling. To do this, the pump should be removed from the reservoir; ensure that the mounting gasket is in good condition when refitting, and that the pump mounting screws are sufficiently tightened to effect a seal between the pump and reservoir.

The reservoir fluid should be kept clean. Draining and flushing may be facilitated by unscrewing the auxiliary plug; fit a new 1/2" BSP sealing washer when refitting plug.

If using aqueous media, ensure that the reservoir is protected from low temperatures to prevent against risk of freezing.

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

Compatibility: water, water-glycol, mineral oil (nitrile seals). Fluorocarbon and EPDM (e.g. for use with 'Skydrol') 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,

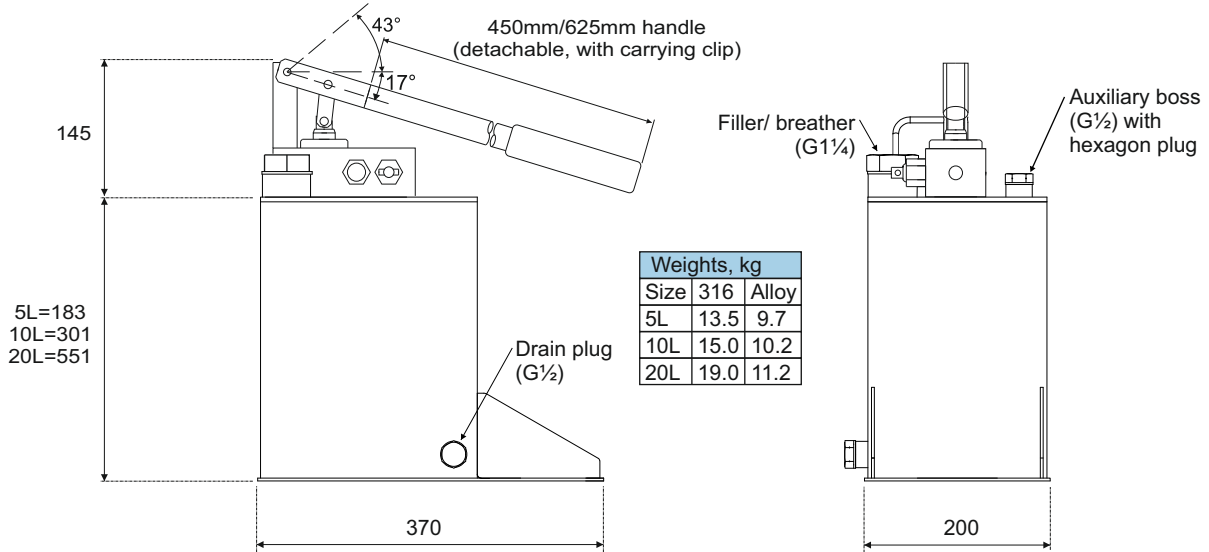
EPDM: -50 to 80°C.

Other low temperature options to -50°C

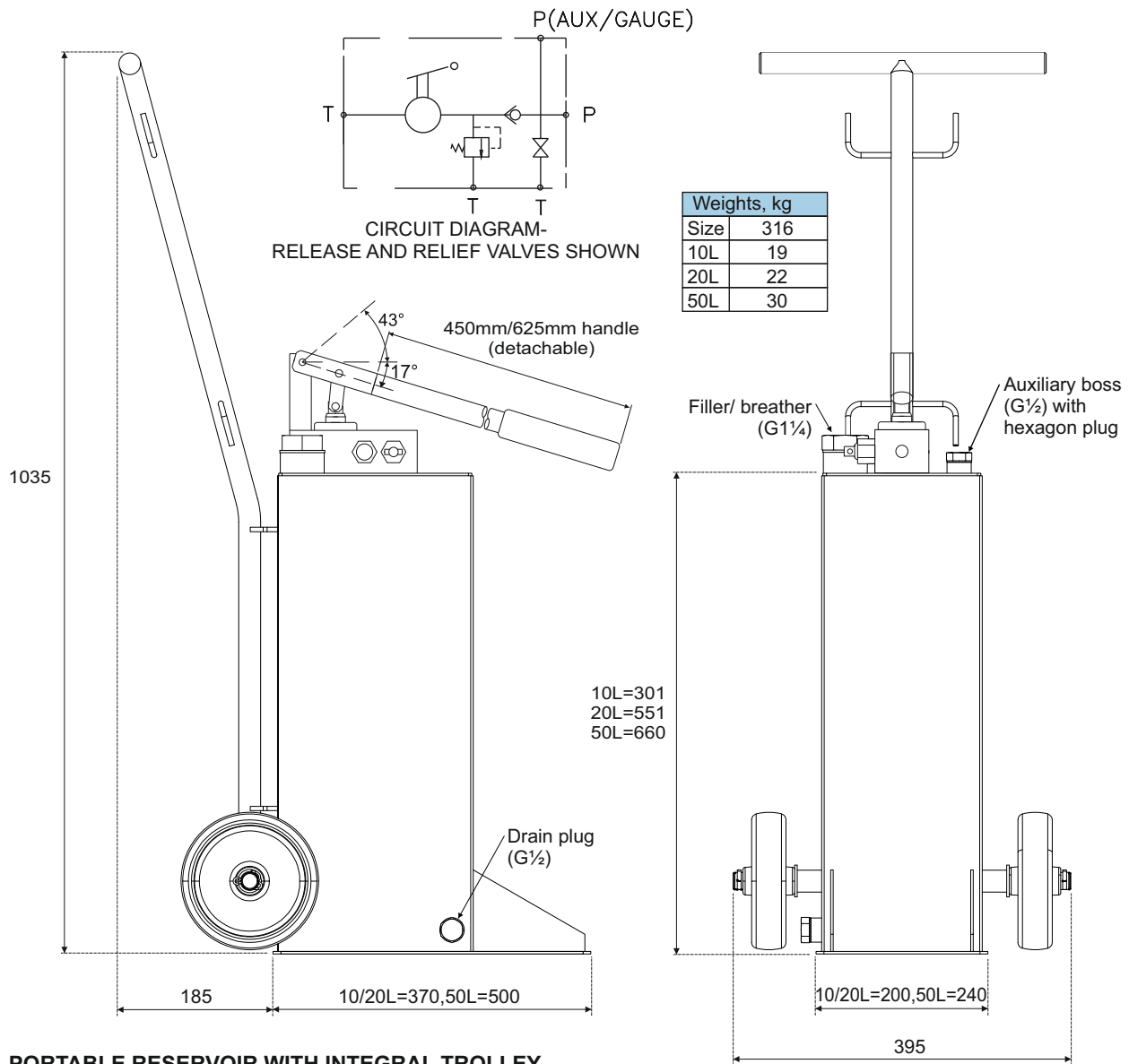
# DIMENSIONS

FOR DETAILS OF 50 LITRE RESERVOIR WITH TURNTABLE TROLLEY, SEE OUR RESERVOIRS DATA SHEET 001026300

ALL DIMENSIONS IN mm

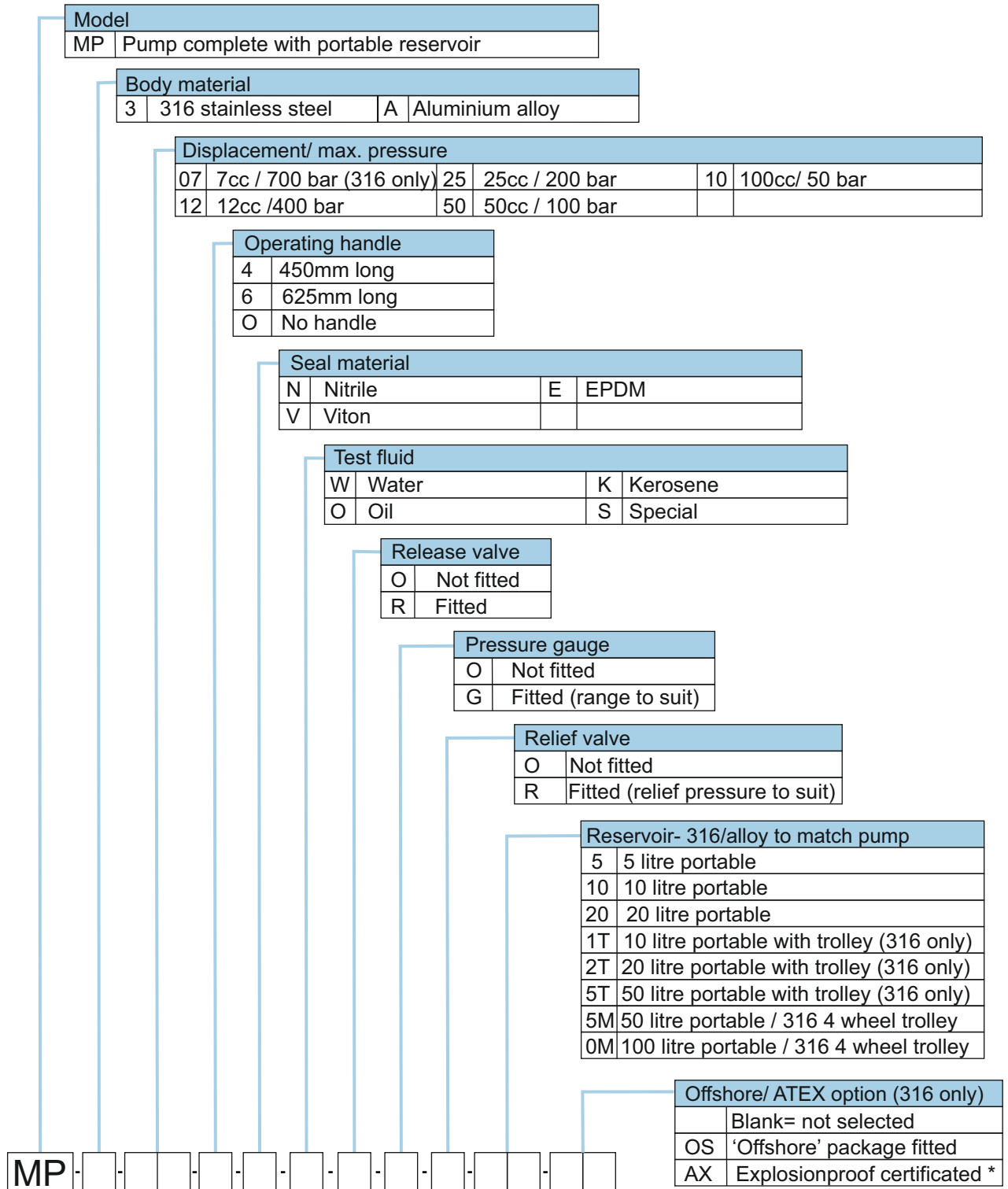


**PORTABLE RESERVOIR FOR CARRYING BY HAND**



**PORTABLE RESERVOIR WITH INTEGRAL TROLLEY**

# ORDERING CODES FOR MP UNIT



\* See datasheet 007067900 for details of our MP unit for use in potentially explosive atmospheres

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:

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