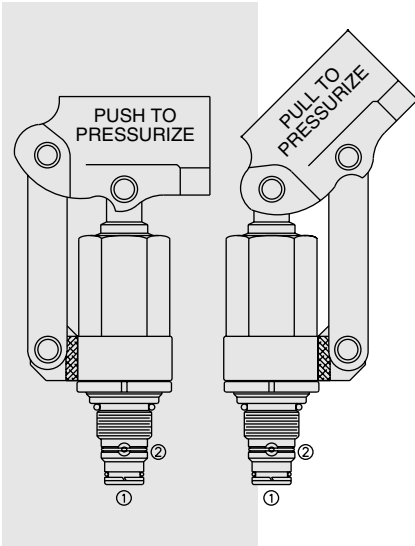


# HOUSINGS AND ACCESSORY PRODUCTS

## HP10-21 Hand Pump



### DESCRIPTION

A screw-in, cartridge-style, push or pull type hand pump with two built-in checks.

### OPERATION

The **HP10-21** provides hydraulic flow to 0.65 cu. in. per stroke, at pressures to 207 bar (3000 psi). Integral suction and outlet checks provide a compact device which delivers true operational system flows. See chart for handle torque requirements.

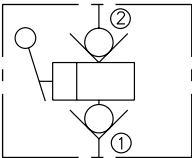
**Note:** As with any mechanical hydraulic actuator (piston rods, rotating pump shaft, etc.) the shaft will become coated with a minute amount of oil from the internal high pressure system. The rod protruding from the hand pump may feel damp with oil after use. This is desirable because the oil coating serves to lubricate the shaft seal, reducing friction and assuring extended seal life.

### FEATURES

- Hardened parts for long life.
- Handle Beam rotates 360°
- Push or pull linkage standard.
- Heavy duty construction.
- Industry common cavity.
- Displacement up to 10.6 cc (0.65 cu in.) per stroke.

### SYMBOLS

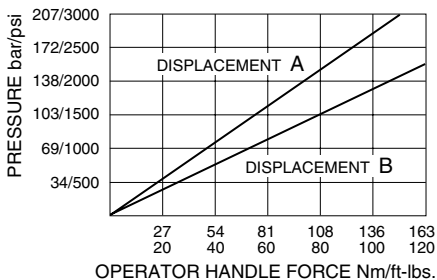
#### USASI/ISO:



### PERFORMANCE (Cartridge Only)

#### PUMP SELECTION CHART

Max. Operating Pressure: 207 bar (3000 psi)  
Max. Handle Force: 305 Nm (225 ft-lbs.)



### RATINGS

**Operating Pressure:** 207 bar (3000 psi)

**Flow:** Up to 10.6 cc (0.65 cu. in.) per stroke

**Leakage:** At outlet check, 5 drops/minute

**Suction Pressure:** 194 mm Hg (7.6 in. Hg, 104 in. H<sub>2</sub>O) less than atmospheric pressure

**Temperature:** -40 to 120°

**Filtration:** See page 9.010.1

**Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus)

**Installation:** No restrictions; See page 9.020.1

**Cavity:** VC10-2; See page 9.110.1

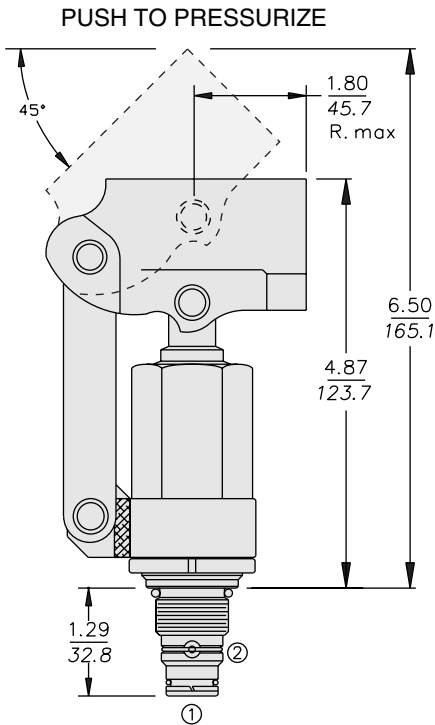
**Cavity Tool:** CT10-2XX; See page 8.600.1

**Seal Kit:** SK10-2X-T; See page 8.650.1

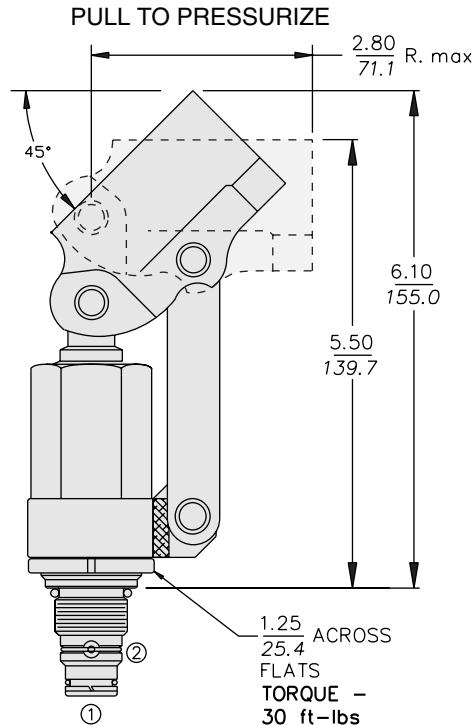
**Handle Kit:** 16 in. handle, 2.65 kg. (1.2 lbs.), Part no. 6502340

**HP10-21**

**DIMENSIONS**

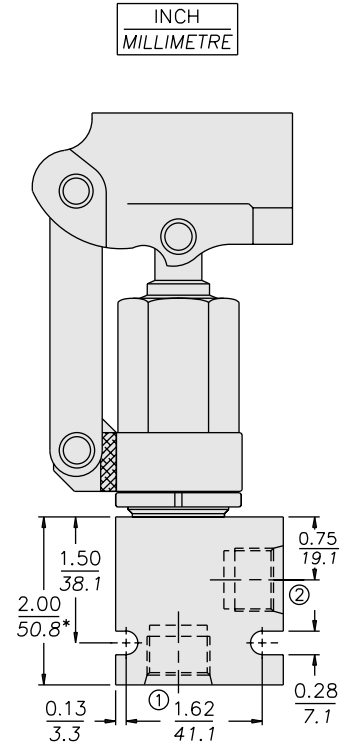


The Beam (Handle Socket)  
 Inside Diameter 0.85" (21.6 mm)  
 Beam Rotates around Vertical Axis  
 for 360° Handle Positioning



**ORIFICE DISC  
 SHOULD NOT BE USED  
 WITH THIS PRODUCT**

1.25 ACROSS  
 25.4  
 FLATS  
 TORQUE -  
 30 ft-lbs  
 (40.5 Nm)  
 max.



\* BSP BODY - 55.9 mm

**MATERIALS**

**Cartridge:** Weight: 4.19 kg. (1.9 lbs.);  
 Steel with hardened work surfaces.  
 Zinc-plated exposed surfaces. Buna  
 N O-rings and polyester elastomer  
 back-ups standard. Anodized  
 aluminum knobs.

**Standard Ported Body:** Weight:  
 0.16 kg. (0.35 lbs.); Anodized high-  
 strength 6061 T6 aluminum alloy,  
 rated to 240 bar (3500 psi); See  
 page 8.010.1. Ductile iron and steel  
 bodies available; dimensions may  
 differ; consult factory.

**TO ORDER**

HP10-21 - - -

**\*\*Push or Pull**

Push Handle Actuation **A**  
 Pull Handle Actuation **B**

\*Shipped as kit for installation

**Displacement**

**A** 7.4 cc (0.45 cu. in.) per stroke  
**B** 10.6 cc (0.65 cu. in.) per stroke

**Seals**

**N** Buna N (Std.)  
**V** Fluorocarbon

**Porting**

**0** Cartridge Only  
**6T** SAE 6  
**8T** SAE 8  
**2B** 1/4 in. BSP\*  
**3B** 3/8 in. BSP\*  
**4B** 1/2 in. BSP\*

\*BSP Body;  
 U.K. Mfr. Only