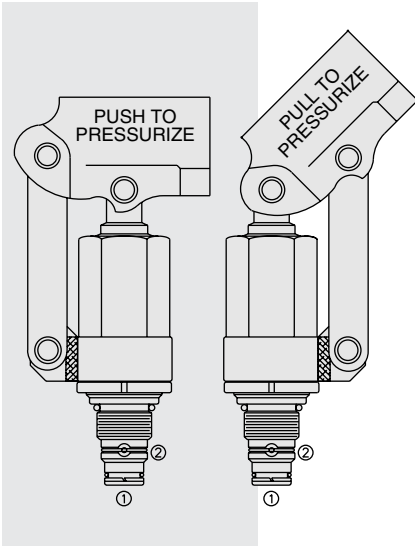


HP10-21 Hand Pump



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.

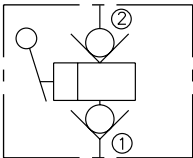
Note: As with any mechanical hydraulic actuator (piston rods, rotating pump shaft, etc.) the shaft will become coated with a minute amount of oil from the internal high pressure system. The rod protruding from the hand pump may feel damp with oil after use. This is desirable because the oil coating serves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

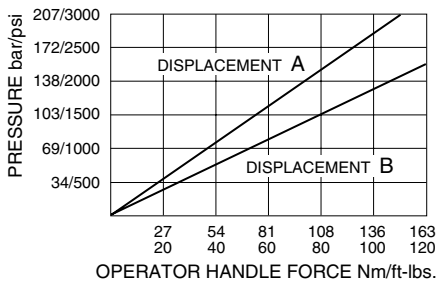
USASI/ISO:



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. H₂O) 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

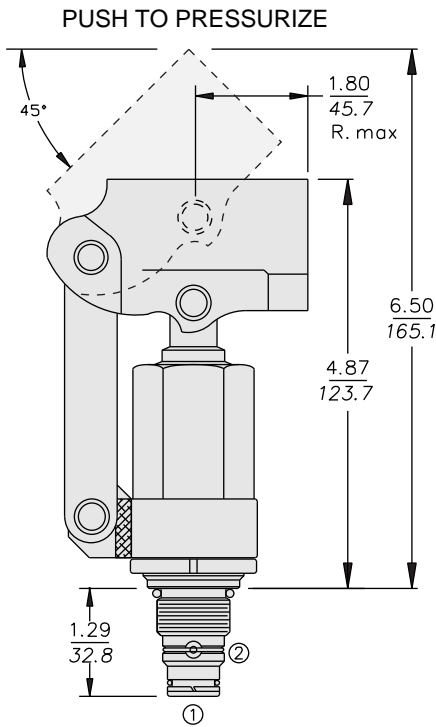
Cavity: VC10-2; See page 9.110.1

Cavity Tool: CT10-2XX; See page 8.600.1

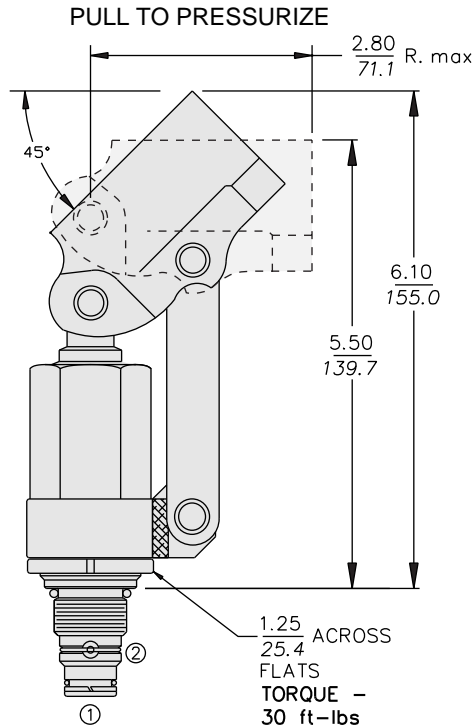
Seal Kit: SK10-2X-T; See page 8.650.1

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

DIMENSIONS

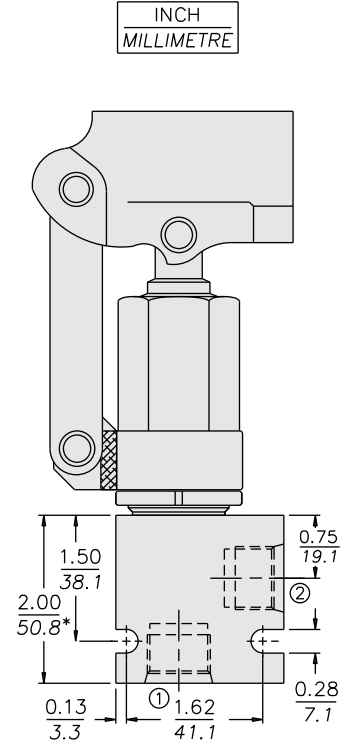


The Beam (Handle Socket)
Inside Diameter 0.85" (21.6 mm)
Beam Rotates around Vertical Axis
for 360° Handle Positioning



**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: 0.86 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 207 bar (3000 psi). Ductile
iron bodies available; dimensions
may differ. See page 8.010.1

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