Diagnostic Accessory

# Flow Meter



**Precision-Engineered Fluid Power Products** 



# **Features**

- Flows 0.5 54 GPM or 2 200 LPM
- Smooth pressure control up to 6000 PSI or 420 bar
- Built in thermometer
- Flow Accuracy within 4% FSD
- Large clear easy to read dials
- Allows for reverse flow
- Safe to use with
   "INTERPASS" TM
   internal safety
   protection system.
   Protects system
   and operator
   against accidental
   over-pressure in
   both flow directions.

Permco's mechanical hydraulic tester provides the ideal solution for servicing and commissioning hydraulic circuits on agricultural, as well as on and off road mobile equipment.

The kit comprises of a direct acting flow indicator with built in thermometer, a loading valve and a pressure gauge all built into a strong steel case with a removable lid.

The unit is self contained and requires no electrical power. The dials are clear and easy to read. Installation is extremely simple and the test kit can be connected to pressure, working or return lines. The loading valve and pressure gauge allow a progressive build up of system pressure in complete safety.

The test kit provides the service engineer with quick, accurate and simple performance testing of pumps, motors, valves, steering systems, cylinders and complete hydraulic circuits.

Note: This unit is not designed for permanent installation.





# Accessories

### Operation

There are two main elements to the flow meter - the reverse flow indicator (RFI) and the load valve. The flow indicator block houses a metering piston which moves against a calibrated spring. The piston is magnetically coupled to a rotary pointer to provide a direct reading of flow on the dial, flow scale is displayed in both lpm and US gpm.

The thermometer is also mounted in the flow block near the fluid flow. Both flow and temperature scales are shielded behind impact resistant windows.

The load valve is connected directly to the flow block and a 420 bar (6000 psi) pressure gauge is mounted in the inlet section of the loading valve. The valve is easy to operate and, combined with the pressure gauge, allows sensitive and progressive control of system pressure throughout the working range.

#### Reverse flow

The tester will allow reverse flow but will not measure the reverse flow, i.e. the flow needle will indicate zero.

#### Safety Discs

Protection against over pressure is provided by two internal safety discs which relieve at 440 bar (6400 psi) without external spillage. The safety discs are housed in a cartridge and are easily replaceable. Each unit is supplied with four spare discs.

#### Calibration

All testers are calibrated with 28cSt oil as standard. Calibration certificates are available on request - this is a chargeable option. Other calibration on request - please consult factory.

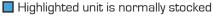
#### Installation

It is recommended to connect with flexible hoses of at least 500mm (1.5') in length.

Permco is a leading manufacturer of high-pressure hydraulic gear/vane pumps and motors, flow dividers, intensifiers, and accessories. Available in a wide variety of sizes and configurations to suit your application needs.

## Specifications

Model #	Calibrated Flow Range US GPM	Inlet Fitting	Outlet Fitting
PERM030-S-6	0.5 - 8	1-1/16" - 12UN JIC Male	1-1/16" - 12UN JIC Male
PERM060-S-6	1 -16	1-1/16" - 12UN JIC Male	1-1/16" - 12UN JIC Male
PERM120-S-6	4 - 32	1-5/16" - 12UN JIC Male	1-5/16" - 12UN JIC Male
PERM200-S-6	4 - 54	1-5/16" - 12UN JIC Male	1-5/16" - 12UN JIC Male
PERM030-B-6	0.5 - 8	3/4" BSPP	3/4" BSPP
PERM060-B-6	1-16	3/4" BSPP	3/4" BSPP
PERM120-B-6	4 - 32	1" BSPP	1" BSPP
PERM200-B-6	4 - 54	1" BSPP	1" BSPP



# Functional Specifications

Ambient temperature: -10 to 50 °C (14 - 122 °F)

Fluid type: Hydraulic oils

Fluid temperature: 20 to 80  $^{\circ}$ C (68 - 176  $^{\circ}$ F) continuous use. Intermittently (< 10 minutes) up to 110  $^{\circ}$ C

(230 °F).

Maximum pressure: 420 Bar (6000 psi)
Displays: Pressure and flow 2.5" (63mm) dials

Temperature 2" (50mm) long scale 20 to 120 °C (68 - 248 °F)

Accuracy: Flow: ± 4% of full scale Pressure: ± 1.6% of full scale Temperature: ± 2.5 °C (± 5 °F)

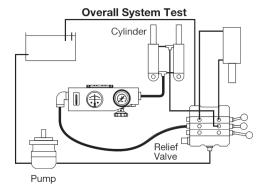
Dimensions: 310 x 105 x 120 mm [12-1/4" x 4-1/8" x 4-7/8"]

Weight: 6.6 kg (14.5 lbs)

Construction material case: Painted steel - removable lid

RFI body: Aluminium 2011T6 Load valve body: Aluminium 2011T6 Internal components: Stainless steel, brass

Seals: Viton



Our Online Support is available 24/7/365 for your needs!

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