

HYDRAULIC SYSTEM TEST ANALYZER

Used to diagnose faults in hydraulic circuits, determine horsepower and test for component wear and cylinder leakage.



TECHNICAL SPECIFICATIONS

Measuring Accuracy

Flow: $\pm 2\%$ of full scale
 Pressure: $\pm 2.5\%$ of full scale
 Temperature: $\pm 2.5\%$ of full scale

Repeatability

$\pm 1\%$ of full scale - all measurements

Flow Measuring Range

Flow: 0.1-150 GPM (0.4-560 LPM)
 Temperature: 0-250°F (-20-120°C)

Maximum Operating Temperature

240°F (116°C)

Maximum Operating Pressure

Aluminum meters:
 3000 PSIG (200 Bar)
 Stainless steel meters:
 5000 PSIG (340 Bar)

Standard Calibration Fluid

Oil meters: DTE 25® @ 110°F (43°C),
 0.873 sg

Filtration Requirements

74 micron filter or 200 mesh screen
 minimum

DTE 25 is a registered trademark of Exxon Mobil.

MATERIALS OF CONSTRUCTION

Wetted Components		Non-Wetted Components	
Component	Materials	Component	Materials
Needle Valve	Carbon Steel	Window Tube	Polycarbonate
Casing and End ports	Anodized Aluminum (3000 PSIG) Stainless Steel (5000 PSIG)	Window Tube Seals	Buna-N®
Seals	Buna-N® (STD), FKM, EPR, Neoprene optional	Gauge	Brass and Stainless Steel
Transfer Magnet	PTFE coated Alnico	Gauge Window	Acrylic
All other internal parts	Stainless Steel		

Buna-N is a registered trademark of Chemische Werke Huls.

BENEFITS

A Complete Troubleshooting System

The analyzer consists of a flow meter, glycerin-filled pressure gauge (Style "K"), bi-metal temperature gauge/dry pressure gauge (Style "T") and a precision needle-type load valve.

Planned Component Repairs

This system analyzer can be part of a predictive maintenance program, allowing strategized pump, valve, motor and cylinder rebuilding.

Compact and Rugged

The complete hydraulic system test analyzer is small enough to fit in a tool box and built to withstand rigorous industrial use.

Non-Electrical

Without batteries to fail or other electrical power connections to make, this system will provide a lifetime of simple and reliable operation.

Metric and US/Standard Measuring Ranges

These multi-measurement analyzers simultaneously measure flow in GPM and LPM, pressure in PSIG and Bar, and temperature in degrees F and C.

Unrestricted Mounting

Accurate measurements can be taken in any mounting orientation, without the straight pipe required with other analyzer systems.

System Problems Pin-Pointed

The hydraulic system analyzer and comprehensive troubleshooting manual will save time and money by testing discrete components within the system, eliminating trial and error approaches.

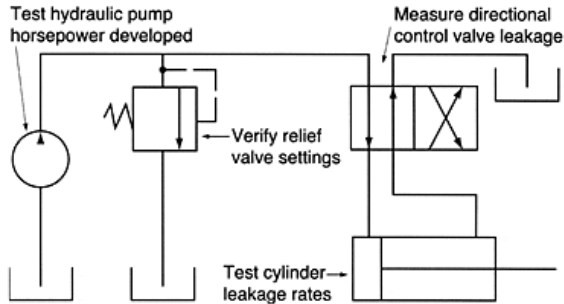
Reverse Flow Option Available

Optional built-in reverse bypass mechanism prevents potential damage from mis-installation or backflow.

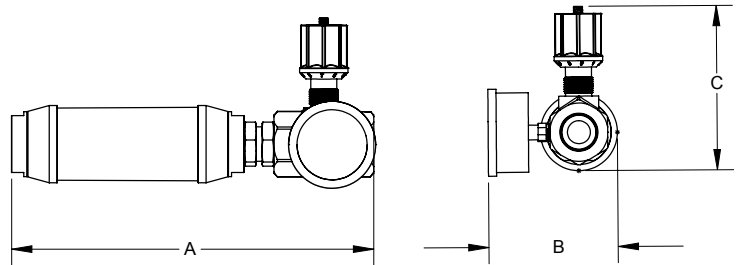
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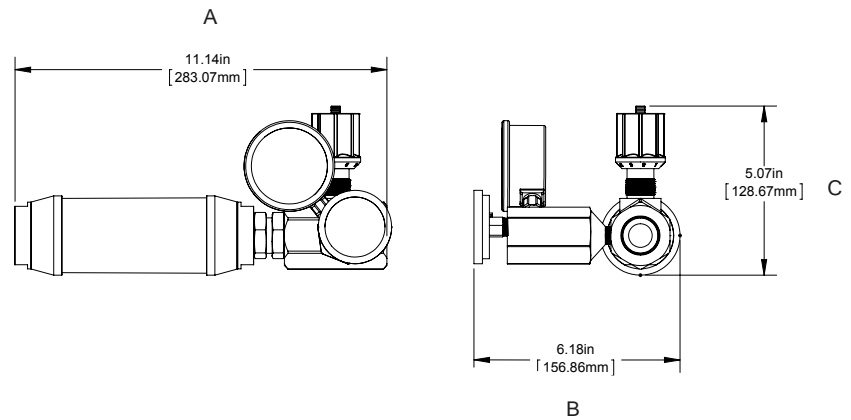
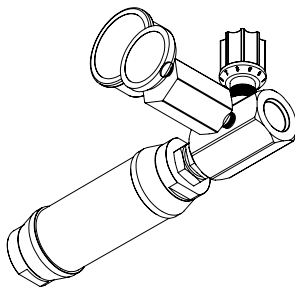
HYDRAULICS DIAGNOSTICS TOOL KIT APPLICATIONS



K-STYLE



T-STYLE



GENERAL DIMENSIONS

(Measurements may vary from meter to meter)

DIM	Series 3	Series 3	Series 3	Series 4	Series 4	Series 5	Series 5
Port Sizes	3/8" + #6 SAE	1/2" + #8 SAE	#10 SAE	3/4" + #12 SAE	1" + #16 SAE	1-1/4" + #20 SAE	1-1/2" + 24 SAE
A	9.75" (248mm)	10.15" (258mm)	10.93" (278mm)	11.14" (283mm)	12.7" (323mm)	15.85" (403mm)	15.85" (403mm)
B (K-Style)	3.44" (87mm)	3.54" (90mm)	3.47" (88.14mm)	3.98" (101mm)	4.08" (104mm)	4.84" (123mm)	5.04" (128mm)
B (T-Style)	5.64" (143mm)	5.74" (146mm)	5.67" (144mm)	6.18" (157mm)	6.28" (160mm)	7.04" (179mm)	7.24" (184mm)
C	4.11" (104mm)	4.53" (115mm)	4.81" (122mm)	5.07" (129mm)	5.88" (149mm)	6.64" (169mm)	6.84" (174mm)

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PART NUMBER GUIDE



HYDRAULIC TEST ANALYZERS

Temperature & Pressure =
 Pressure =

PORT SIZE RANGE

3/8" - 1/2" =
 3/4" - 1" =
 1-1/4" - 1-1/2" =

MATERIAL

Aluminum =
 Stainless Steel =

MAX. PRESSURE RATING

3000 psig (liquids & aluminum) =
 5000 psig (liquids, stainless steel) =

FLUID MEDIA

Oil & 0.873 specific gravity =

Note: For special scales consult the Lake factory.

PORTING/THREAD TYPE

(all female)

	Size
1/4" NPTF, dry seal	3 only = <input type="text" value="S"/>
3/8" NPTF, dry seal	3 only = <input type="text" value="A"/>
1/2" NPTF, dry seal	3 only = <input type="text" value="B"/>
3/4" NPTF, dry seal	4 only = <input type="text" value="C"/>
1" NPTF, dry seal	4 only = <input type="text" value="D"/>
#6 SAE, O-ring seal	3 only = <input type="text" value="E"/>
#8 SAE, O-ring seal	3 only = <input type="text" value="F"/>
#10 SAE, O-ring seal	3 only = <input type="text" value="G"/>
#12 SAE, O-ring seal	4 only = <input type="text" value="H"/>
#16 SAE, O-ring seal	4 only = <input type="text" value="J"/>
1-1/4" NPTF, dry seal	5 only = <input type="text" value="K"/>
1-1/2" NPTF, dry seal	5 only = <input type="text" value="L"/>
#20 SAE, O-ring seal	5 only = <input type="text" value="N"/>
#24 SAE, O-ring seal	5 only = <input type="text" value="P"/>

SPECIAL SCALE/CUSTOM PRODUCT

OPTIONAL FLOW DIRECTIONS

Standard Flow, Uni-Directional =
 Reverse Flow =

FLOW RANGES

Liquid		Size
0.1-1.0 GPM	0.5-4 LPM	3 only = <input type="text" value="0"/> <input type="text" value="1"/>
0.2-2.0 GPM	1-8 LPM	3 & 4 = <input type="text" value="0"/> <input type="text" value="2"/>
0.5-5.0 GPM	2-19 LPM	3 & 4 = <input type="text" value="0"/> <input type="text" value="5"/>
1-10 GPM	5-37.5 LPM	3 & 4 = <input type="text" value="1"/> <input type="text" value="0"/>
1-15 GPM	5-55 LPM	3 & 4 = <input type="text" value="1"/> <input type="text" value="5"/>
2-20 GPM	10-75 LPM	4 only = <input type="text" value="2"/> <input type="text" value="0"/>
2-25 GPM	10-95 LPM	4 & 5 = <input type="text" value="2"/> <input type="text" value="5"/>
4-30 GPM	15-115 LPM	4 only = <input type="text" value="3"/> <input type="text" value="0"/>
4-40 GPM	20-150 LPM	4 only = <input type="text" value="4"/> <input type="text" value="0"/>
6-50 GPM	20-190 LPM	4 & 5 = <input type="text" value="5"/> <input type="text" value="0"/>
6-75 GPM	30-280 LPM	5 only = <input type="text" value="7"/> <input type="text" value="5"/>
10-100 GPM	50-375 LPM	5 only = <input type="text" value="8"/> <input type="text" value="8"/>
25-150 GPM	100-550 LPM	5 only = <input type="text" value="9"/> <input type="text" value="9"/>

