PENTAIR

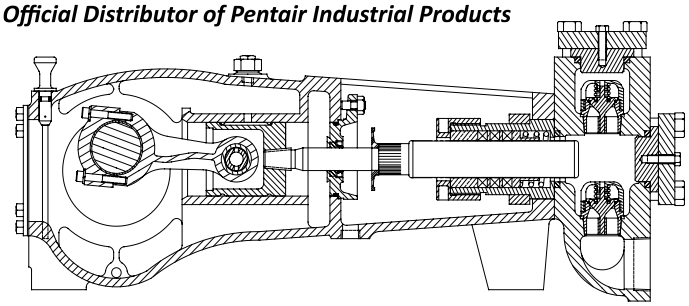
POWER ZONE EQUIPMENT, INC.

Official Distributor of Pentair Industrial Products

MYERS® APLEX SERIES

MA-40L

TRIPLEX PLUNGER PUMP



No. of plungers..... 3
Maximum rated speed.....550 rpm
Stroke length.....2.5 in. 63.5 mm
Maximum rated power.....40.0 HP 29.8 KW
Maximum rod load .....3456 lb. 15.3 kN
Weight .....810 lbs.

ENGLISH UNITS *MA-40L*

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI	* GALLON PER/REV.	200 RPM US GPM	250 RPM US GPM	350 RPM US GPM	450 RPM US GPM	550 RPM US GPM
2.750	3.500	580	0.193	38.6	48.2	67.5	86.8	106.1
2.625	3.500	637	0.176	35.1	43.9	61.5	79.1	96.6
2.500	3.250	703	0.159	31.9	39.8	55.8	71.7	87.7
2.375	3.250	779	0.144	28.8	36.0	50.3	64.7	79.1
2.250	2.875	867	0.129	25.8	32.3	45.2	58.1	71.0
*HP REQUIRED @ RPM***				14.5	18.1	25.4	32.6	40.0

METRIC UNITS *MA-40L*

PLUNGER SIZE MM.	STUFFING BOX BORE MM.	MAX PRESS. BAR	* LITER PER/REV.	200 RPM LPM	250 RPM LPM	350 RPM LPM	450 RPM LPM	550 RPM LPM
69.9	88.9	40.1	0.730	146.0	182.4	255.4	328.4	401.4
66.7	88.9	47.5	0.665	133.0	166.3	232.8	299.3	365.8
63.5	82.6	48.5	0.603	120.7	150.8	211.2	271.5	331.8
60.3	82.6	53.7	0.543	108.7	135.8	190.2	244.5	298.8
57.2	73.0	59.7	0.489	97.7	122.2	171.0	219.9	268.8
*KW REQUIRED @ RPM***				10.8	13.5	18.9	24.3	29.8

**Displacement based on 100% Volumetric Efficiency*

***Power based on 90% Mechanical Efficiency*

$$IHP = \frac{\text{USGPM x (Discharge psig - 1/2 Suction psig)}}{1542}$$

$$PUMP\ RPM = \frac{\text{USGPM Desired}}{\text{USGPM per Revolution of Selected Plunger}}$$

$$IKW = \frac{M^3/HR \text{ x (Discharge Bar - 1/2 SuctionBar)}}{17.99}$$

$$PUMP\ RPM = \frac{M^3/HR \text{ Desired}}{M^3 \text{ per Revolution of Selected Plunger}}$$

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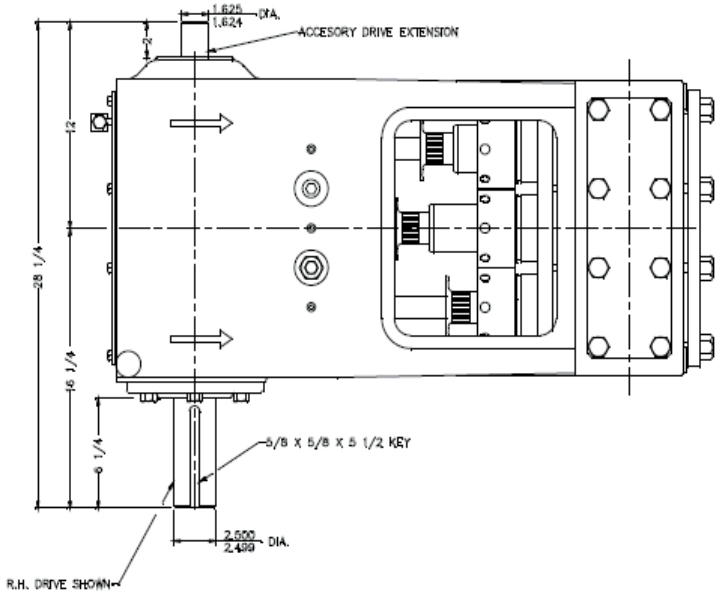

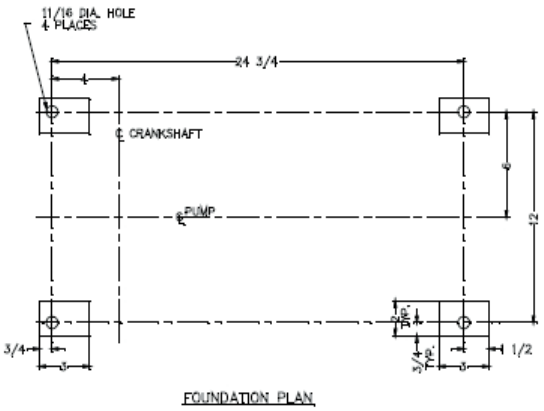

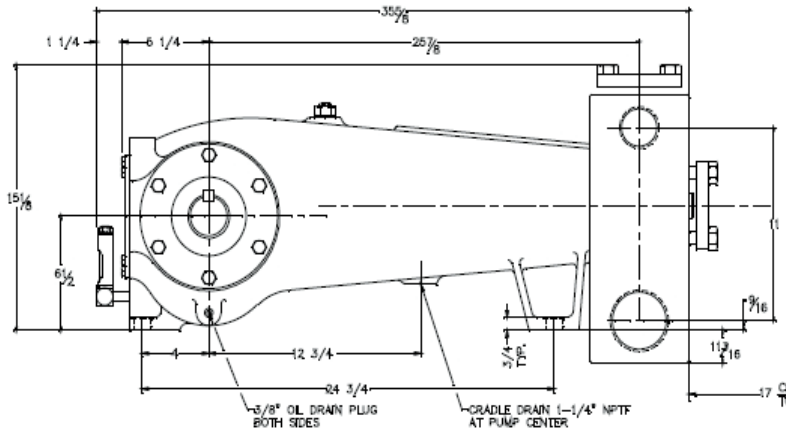

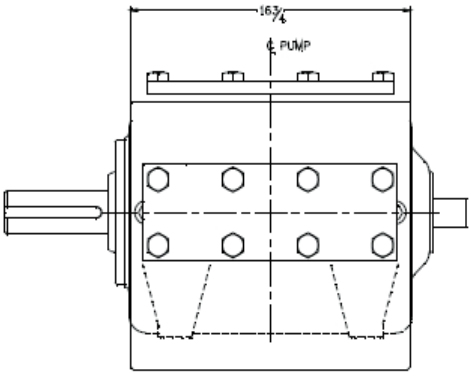

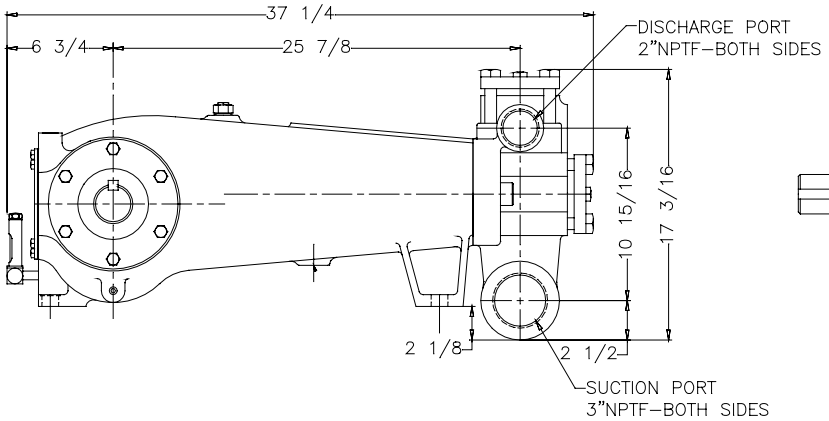

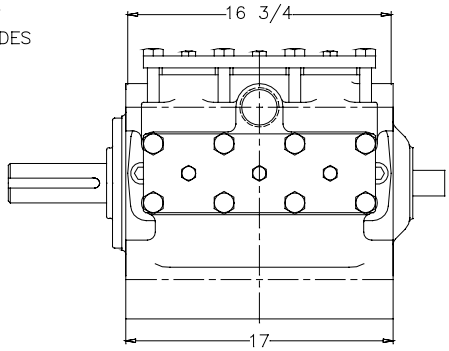

ENGINEERING DATA

MA-40L Triplex Pump

POWER END ENGINEERING DATA

Max. Input Power @ Speed	40 HP@ 550 rpm
Rated Continuous Plunger Load	3,456 lb.
Max. Rated Continuous Speed	550 rpm
Normal Continuous Speed Range	150 to 450 rpm
Minimum Speed	100 rpm
Oil Capacity	8 U.S. Qrts
Power End Oiling System	Splash & Scoop
Power Frame, One-Piece	Cast Iron
Crosshead, Full Cylindrical	Cast Iron
Crosshead, Dia. x Length	4 x 4 1/2 in.
Crankshaft	Ductile Iron
Crankshaft Diameters:	
At Tapered Roller Bearings	2 1/2 in.
At Crankpin Bearings, Dia. x Length	2 3/4 x 2 in.
Crosshead (Wrist) Pin, Case-Hardened and Ground	AISI 8620
Wrist Pin Bushing, SAE 660, dia. x width	1 5/16 x 2 in.
Main Bearings, Tapered Roller	Timken®
Crankpin Bearings, Precision Automotive	Steel Backed, Babbitt-Lined
Extension (Pony) Rod, Integral w/ Plungers	316 S.S.
Connecting Rod, Automotive Type	Ductile Iron
Average Crosshead Speed @ 550 rpm	229 fpm
Minimum Life Expectancy, Main Bearings, L_{10}	100,000+ hr.

LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure	867 psi
Hydrostatic Test	1,300 psi
Available Liquid End Materials, A.S.T.M.	
Ductile Iron Casting	A536 80-55-06
Carbon Steel Block	A516 Gr. 70 or A105
Stainless Steel Block	Various Grades
Plunger Type “Rokide” (Chromium Oxide-Coated)	316 S.S.
Stuffing Boxes, Field-Removable and Replaceable	
Carbon Steel	1020
Packing Types Available	
Gland-loaded, Non-Adjustable	Style 838
Spring-loaded, Braided Teflon & Kevlar	Style 140
Spring-loaded, cup-type	Style 120X
Spring-loaded, Garlock	Style 892lK
Retainer Plates, Ductile Iron, A.S.T.M.	A536 80-55-06
Seals, Stuffing Boxes, Valve Covers, Cyl. Heads	Buna-N
Valve Types:	
Standard, Acetal Resin	Delrin®
Optional, Disc Hardened and Lapped	17-4 PH S.S.
Optional, Dual Stem Guided	17-4PH S.S.
Valve Spring Material	Inconel®
Valve Seat, Liquid Passage Areas	
Plate (disc) Valves, (Delrin or S.S.)	2.4 sq.in.
Dual Stem Guided Valves	2.3 sq.in.
Avg. Liquid Velocity with 2 3/4” plungers @ 550 rpm	
thru Disc Valves Seat	9.8 fps
thru Dual Stem Valves	8.8 fps
thru Suction Manifold	2.1 fps
thru Discharge Manifold	11.33 fps

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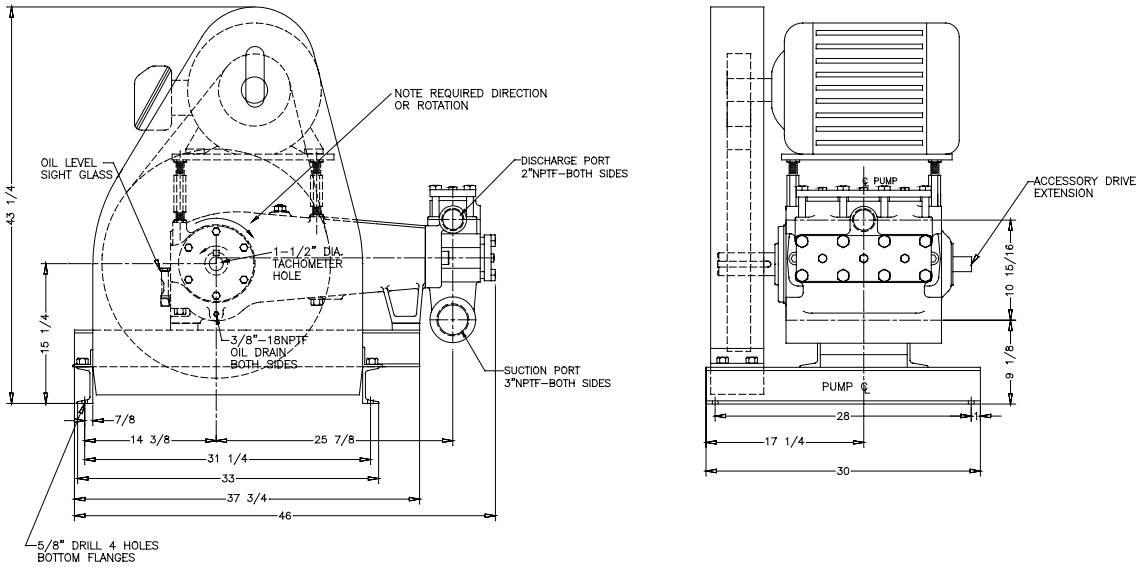

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