



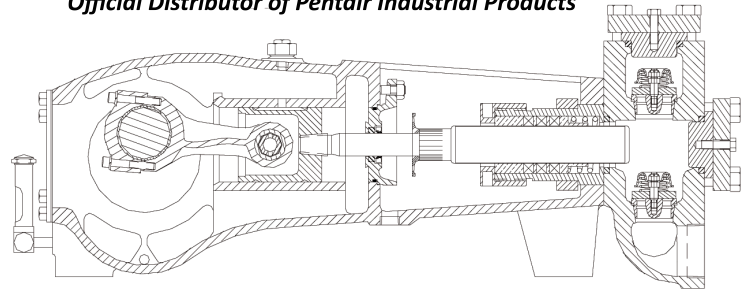
POWER ZONE
Equipment, Inc.

Official Distributor of Pentair Industrial Products

MYERS® APLEX SERIES

MA-75M

QUINTUPLEX PLUNGER PUMP



No. of plungers.....	5
Maximum rated speed.....	550 rpm
Stroke length.....	2.75 in. 69.9 mm
Maximum rated power.....	75.0 HP 55.9 KW
Maximum rod load	3535 lb. 15.69 kN
Weight	1270 lbs.

ENGLISH UNITS							
PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI.	*GALLON PER./REV.	250 RPM USGPM	350 RPM USGPM	450 RPM USGPM	550 RPM USGPM
2.250	2.875	889	0.2367	59.2	82.8	106.5	130.2
2.125	2.875	997	0.2112	52.8	73.9	95.0	116.1
2.000	2.875	1125	0.1870	46.7	65.4	84.1	102.8
1.875	2.875	1280	0.1643	41.1	57.5	74.0	90.4
1.750	2.875	1468	0.1432	35.8	50.1	64.4	78.7
1.625	2.500	1704	0.1234	30.9	43.2	55.6	67.9
1.500	2.500	1998	0.1052	26.3	36.8	47.3	57.9
1.375	2.250	2379	0.0884	22.1	30.9	39.8	48.6
1.250	2.250	2878	0.0730	18.3	25.6	32.9	40.2
1.125	1.750	3000	0.0591	14.8	20.7	26.6	32.5
<i>HP REQUIRED @ RPM**</i>				34.1	47.6	61.3	75.0

METRIC UNITS							
PLUNGER SIZE M.M	STUFFING BOX BORE MM.	MAX PRESS. BAR	*LITER PER./REV	250 RPM LPM	350 RPM LPM	450 RPM LPM	550 RPM LPM
57.2	73.0	61.3	0.8961	224.0	301.3	387.4	492.8
54.0	73.0	68.7	0.7992	199.8	279.7	359.6	439.5
50.8	73.0	77.6	0.7080	177.0	247.8	318.6	389.4
47.6	73.0	88.3	0.6220	155.5	217.7	279.9	342.1
44.5	73.0	101.2	0.5422	135.5	189.8	244.0	298.2
41.3	63.5	117.5	0.4672	116.8	163.5	210.2	256.9
38.1	63.5	137.8	0.3983	99.6	139.4	179.2	219.0
35.0	57.2	164.0	0.3347	83.7	117.1	150.6	184.1
31.8	57.2	198.4	0.2764	69.1	96.7	124.4	152.0
28.6	44.5	206.8	0.2238	55.9	78.3	100.7	123.1
<i>KW REQUIRED @ RPM**</i>				25.1	35.5	45.7	55.9

*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical Efficiency

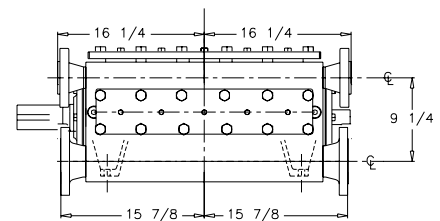
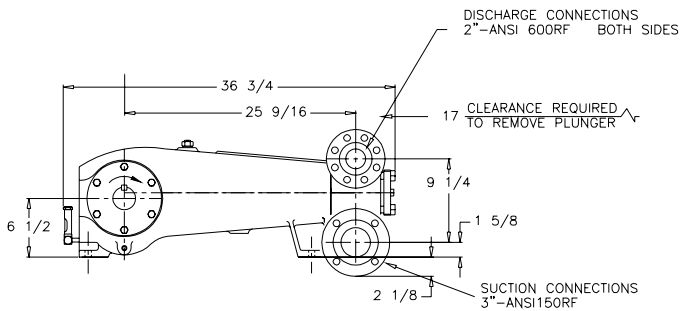
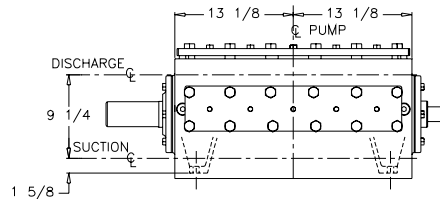
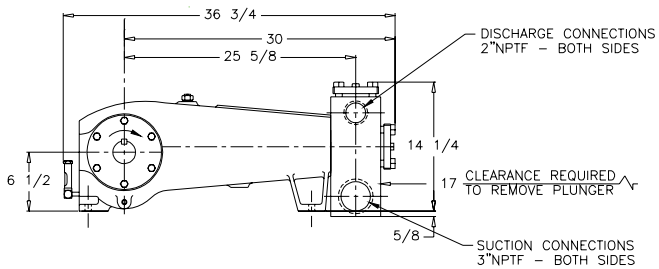
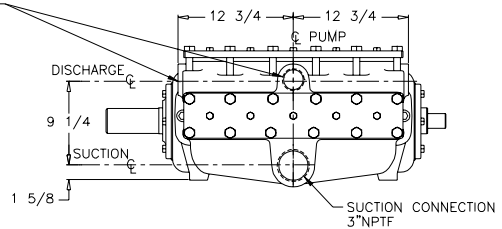
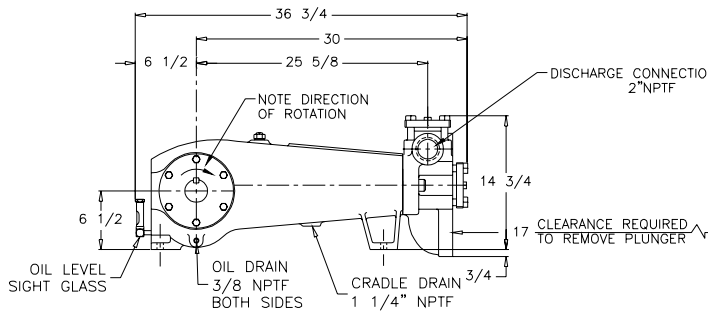
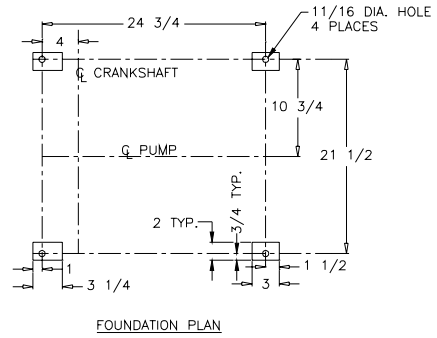
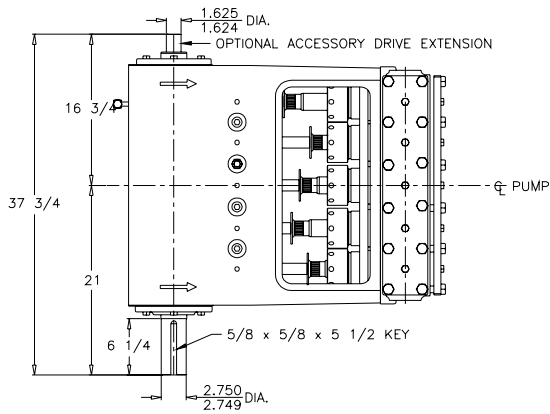
$$IHP = \frac{USGPM \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

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

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

MA-75M Quintuplex Pump



ENGINEERING DATA

MA-75M Quintuplex Pump

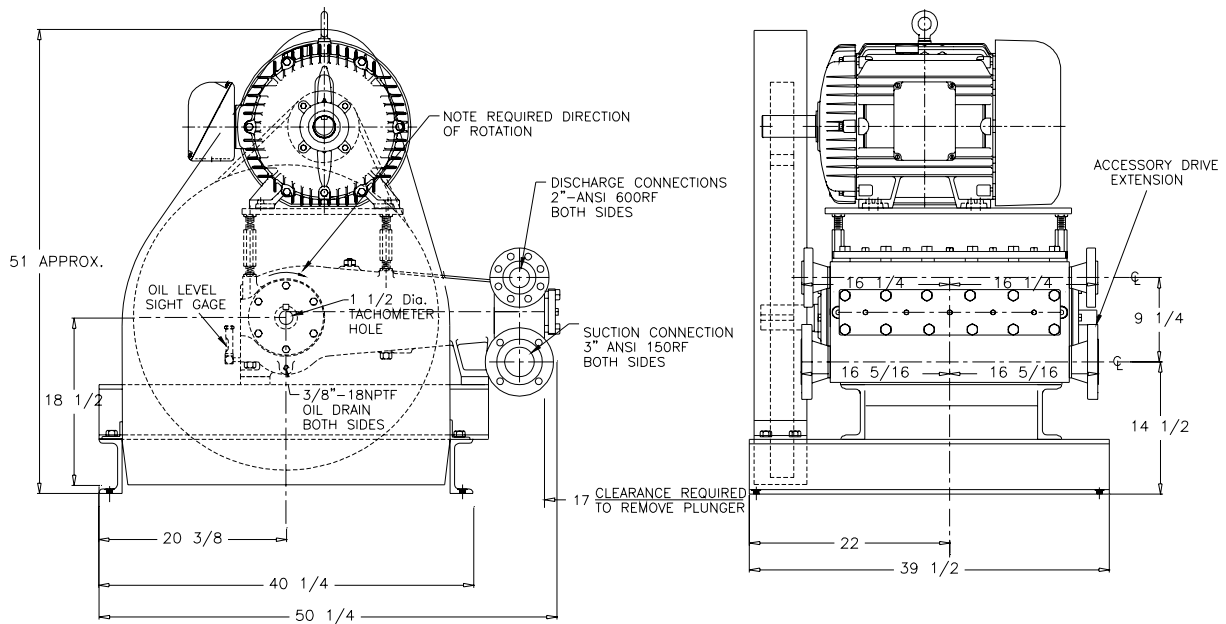
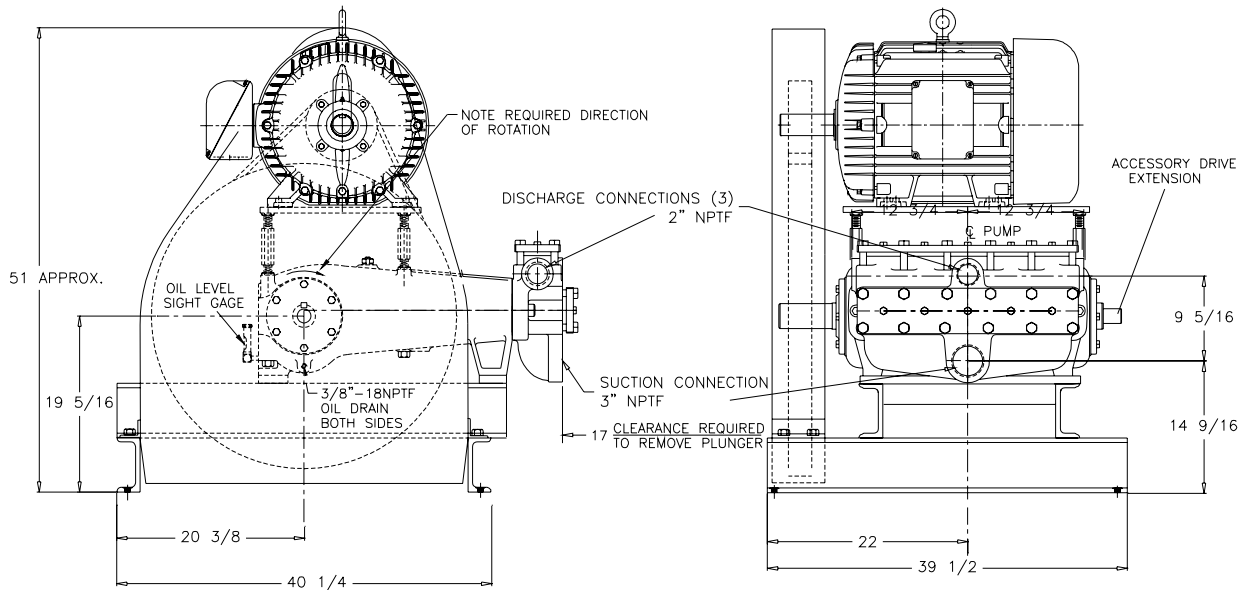
POWER END ENGINEERING DATA

Max. Input Power @ Speed	75 HP @ 550 rpm
Rated Continuous Plunger Load	3,535 lb.
Max. Rated Continuous Speed.....	550 rpm
Normal Continuous Speed Range	150 to 450 rpm
Minimum Speed	100 rpm
Oil Capacity	12 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	3.35 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®
Center Bearings, Two Precision Steel Backed	Babbitt Lined
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	252 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	75,000+ hrs.

LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure	3,000 psi
Hydrostatic Test	4,500 psi
Available Liquid End Materials, A.S.T.M.	
Nickel Aluminum Bronze Casting	B148-C955
Carbon Steel Block	A105
Stainless Steel Block	Various Grades
Ductile Iron Casting	A536 80-55-06
Plunger Type "Rokide" (Chromium Oxide-Coated)	316 S.S.
Stuffing Boxes, Field-Removable and Replaceable	316 S.S.
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 892IK
Valve Cover and Cyl. Head Plugs	316 S.S.
Retainer Plates, Ductile Iron, A.S.T.M.	A536 80-55-06
Seals, Stuffing Boxes, Valve Covers, Cyl. Heads	Buna-N
Available Valve Types	
Standard, Acetal Resin	Delrin®
Optional, Hardened and Lapped	17-4PH S.S.
Optional, Abrasion Resistant	17-4PH S.S.
Valve Spring Material	Inconel®
Valve Seat, Liquid Passage Area	
Plate (disc) Valves, (Delrin or S.S.)	2.3 sq.in.
Dual Stem Guided.....	1.5 sq.in.
Avg. Liquid Velocity with 2 1/4" plungers @ 550 rpm	
thru Disc Valves	7.5 fps
thru Dual Stem Guided	11.2 fps
thru Suction Manifold	4.7 fps
thru Discharge Manifold	10.3 fps

MA-75M Quintuplex Pump



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