

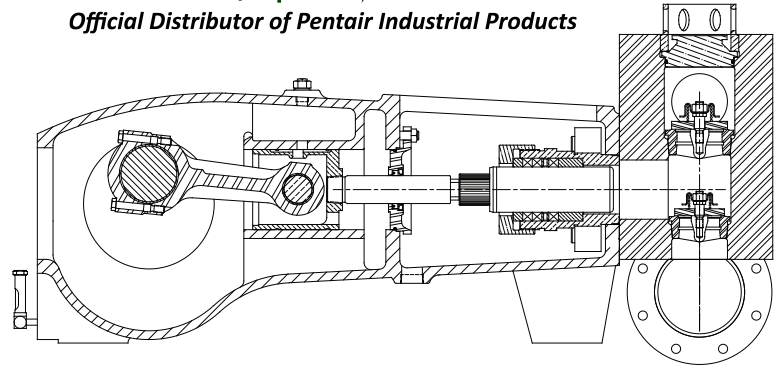


POWER ZONE
Equipment, Inc.

Official Distributor of Pentair Industrial Products

MYERS® APLEX SERIES

MA-240L-HD
QUINTUPLEX PLUNGER PUMP



No. of plungers	5
Maximum rated speed	450 rpm
Stroke length.....	4.25 in. 108 mm
Maximum rated power.....	275 HP 205 KW
Maximum rod load	10,300 lb. 102 kN
Weight	3240 lbs.

ENGLISH UNITS

MA-240L-HD

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI.	*GALLON PER/REV.	250 RPM US GPM	300 RPM US GPM	350 RPM US GPM	400 RPM US GPM	450 RPM US GPM
3.500	4.500	1071	0.885	221.3	265.5	309.8	354.0	398.3
3.375	4.500	1152	0.823	205.7	246.9	288.0	329.2	370.3
3.250	4.500	1242	0.763	190.8	228.9	267.1	305.3	343.4
3.125	4.000	1404	0.706	176.4	211.7	246.9	282.2	317.5
3.000	4.000	1458	0.650	162.6	195.1	227.6	260.1	292.6
2.875	4.000	1585	0.597	149.3	179.2	209.0	238.9	268.7
2.750	4.000	1735	0.546	136.6	163.9	191.2	218.6	245.9
2.625	4.000	1903	0.498	124.5	149.4	174.2	199.1	224.0
2.500	3.250	2100	0.452	112.9	135.5	158.0	180.6	203.2
2.375	3.250	2326	0.408	101.9	122.3	142.6	163.0	183.4

HP REQUIRED @ RPM** 153.7 184.4 215.2 245.9 275.0

METRIC UNITS

MA-240L-HD

PLUNGER SIZE MM.	STUFFING BOX BORE MM.	MAX PRESS. BAR	* LITER PER/ REV.	250 RPM LPM	300 RPM LPM	350 RPM LPM	400 RPM LPM	450 RPM LPM
88.9	114.3	73.8	3.351	837.6	1005.2	1172.7	1340.2	1507.7
85.7	114.3	79.4	3.115	778.9	934.6	1090.4	1246.2	1401.9
82.6	114.3	85.7	2.889	722.1	866.6	1011.0	1155.4	1299.9
79.4	101.6	96.8	2.671	667.8	801.3	934.8	1068.4	1201.9
76.2	101.6	100.4	2.462	615.4	738.5	861.6	984.7	1107.8
73.0	101.6	109.3	2.261	565.2	678.2	791.2	904.2	1017.3
69.9	101.6	119.6	2.068	517.1	620.5	723.9	827.3	930.7
66.7	101.6	131.2	1.884	471.1	565.3	659.5	753.8	848.0
63.5	82.6	144.7	1.710	427.4	512.9	598.3	683.8	769.3
60.3	82.6	160.4	1.543	385.6	462.8	539.9	617.0	694.2

KW REQUIRED @ RPM** 113.8 134.5 159.5 182.3 205.6

*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical Efficiency

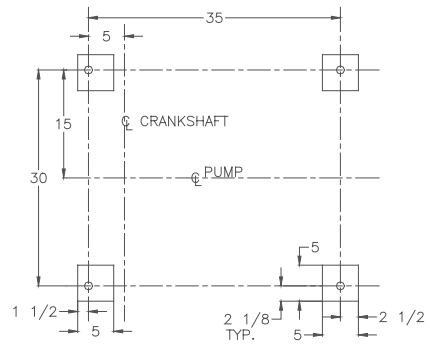
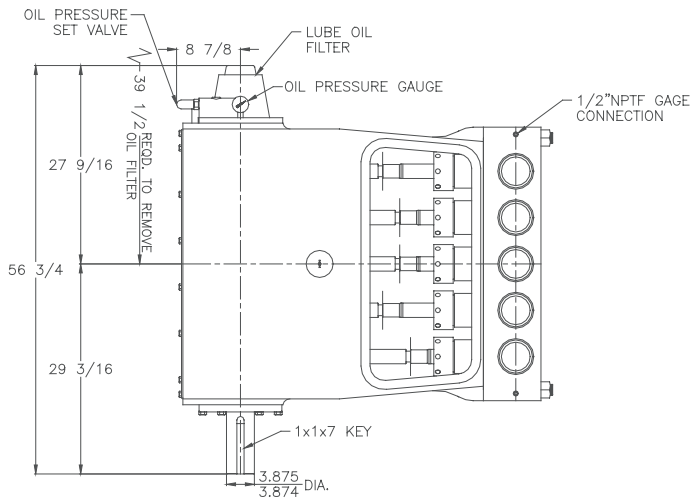
$$IHP = \frac{USGPM \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

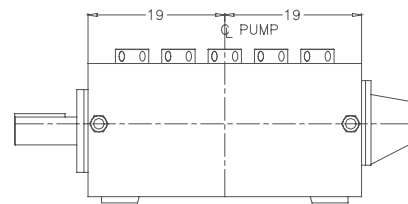
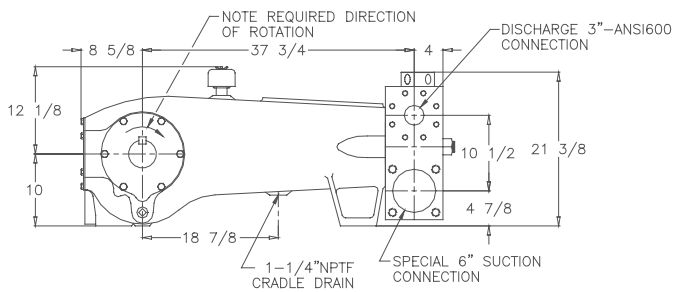
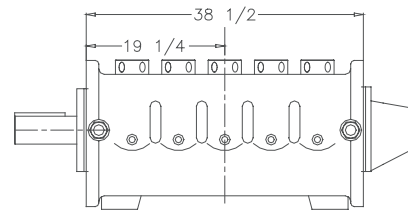
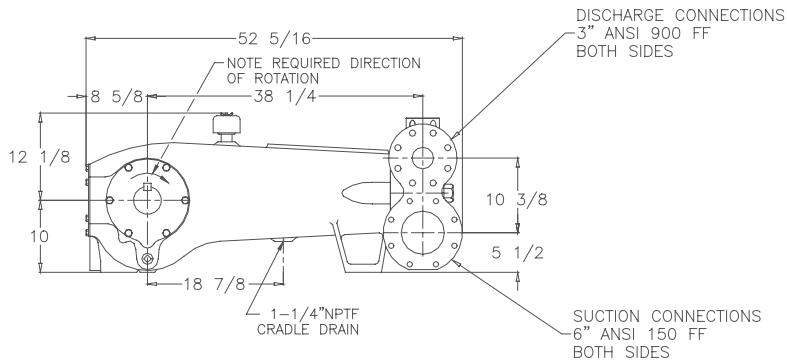
$$PUMP \text{ RPM} = \frac{USGPM \text{ Desired}}{USGPM \text{ per Revolution of Selected Plunger}}$$

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

MA-240L-HD Quintuplex Pump



FOUNDATION PLAN



ENGINEERING DATA

MA-240L-HD Quintuplex Pump

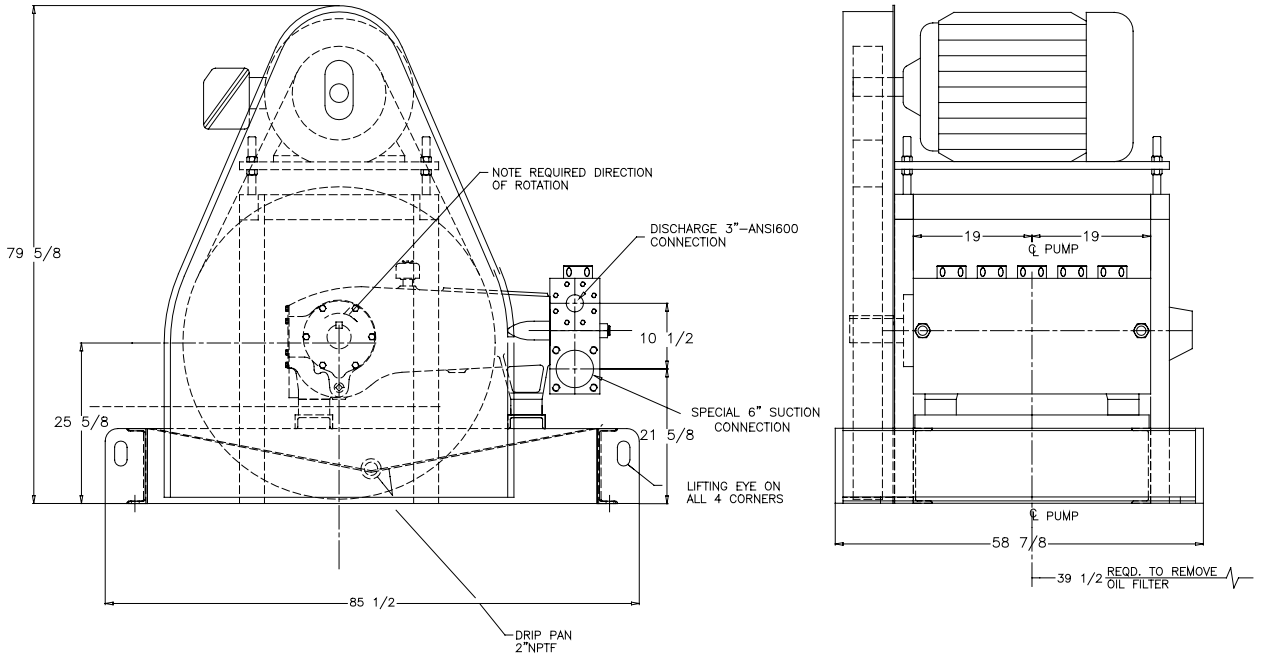
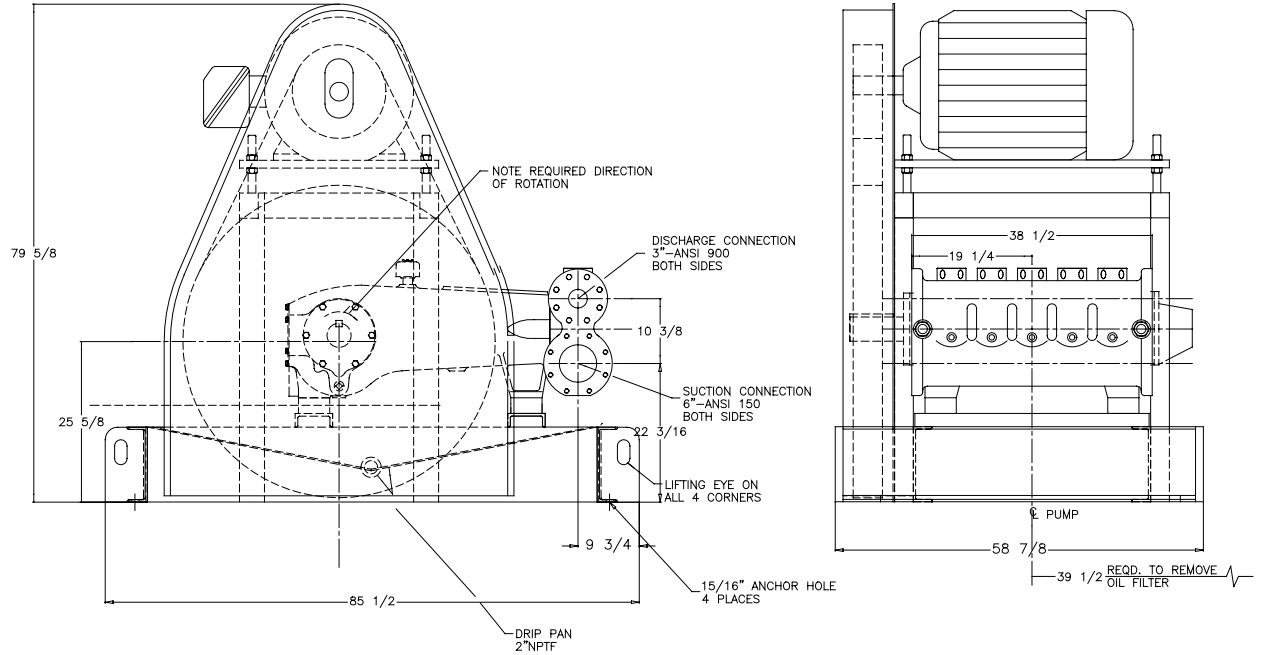
POWER END ENGINEERING DATA

Max. Input HP @ Speed	275 @ 450 RPM
Rated Continuous Plunger Load	10,300 lb.
Max. Rated Continuous Speed	450 RPM
Normal Continuous Speed Range	150 to 420 RPM
Minimum Speed	100 RPM
Oil Capacity	64 U.S. Qrts
Power End Oiling System	Pressure Lubrication System
Power Frame, One-Piece	Cast Iron
Crosshead, Full Cylindrical	Cast Iron
Crosshead, Dia. x Length	5 3/4 x 6 3/16 inches
Crankshaft	Forged and Nitrided Steel
Crankshaft Diameters:	
At Tapered Roller Bearings	4 in.
At Crankpin Bearings, Dia. x Length	4 x 3 inches
Crosshead (Wrist) Pin, Case-Hardened and Ground	AISI 8620
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 @ 450 rpm	300 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	55,000+ hr.

LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure	2,250 psi
Hydrostatic Test	3,375 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	Nickel Aluminum Bronze
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
Disc Valve Types	
Regularly furnished, acetal resin	Delrin®
Optional, Hardened and Lapped,	17-4 PH S.S.
Valve Spring material	Inconel®
Valve Seat, Liquid Passage Areas	6.26 sq.in.
Avg. Liquid Velocity with 3 1/2" plungers @ 450 rpm	
thru Valves	7.68 fps
thru Suction Manifold	4.42 fps
thru Discharge Manifold	18.1 fps

MA-240L-HD Quintuplex Pump



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