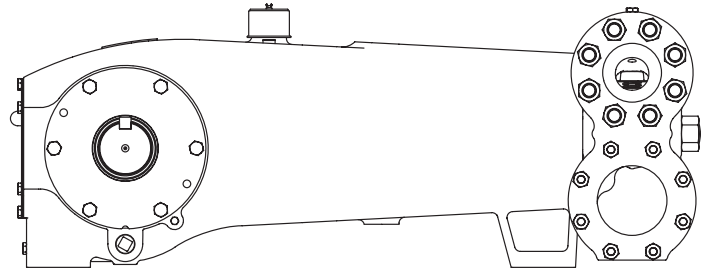


MYERS® APLEX SERIES

MA-300M-HD

QUINTUPLEX PLUNGER PUMP



Number of Plungers.....	5
Maximum Rated Speed.....	400 RPM
Stroke Length.....	5.00 inches – 127 mm
Maximum Rated Power.....	340 HP – 254 kW
Maximum Rod Load.....	12,125 lbs. – 53.9 kN
Weight.....	4,925 lbs.

English Units

PLUNGER DIAMETER IN.	STUFFING BOX BORE IN.	MAX. PSI (ROD LOAD)	*GALLON PER REV.	200 RPM US GPM	250 RPM US GPM	300 RPM US GPM	350 RPM US GPM	400 RPM US GPM
2.875	4.000	1868	0.7026	140.5	175.6	210.8	245.9	281.0
2.750	3.500	2041	0.6428	128.6	160.7	192.8	225.0	257.1
2.625	3.500	2240	0.5857	117.1	146.4	175.7	205.0	234.3
2.500	3.500	2470	0.5312	106.2	132.8	159.4	185.9	212.5
2.375	3.500	2737	0.4795	95.9	119.9	143.8	167.8	191.8
2.250	3.000	3049	0.4303	86.1	107.6	129.1	150.6	172.1
2.125	3.000	3419	0.3838	76.8	96.0	115.1	134.3	153.5
2.000	3.000	3860	0.3400	68.0	85.0	102.0	119.0	136.0
1.875	3.000	4391	0.2988	59.8	74.7	89.6	104.6	119.5
1.750	3.000	5041	0.2603	52.1	65.1	78.1	91.1	104.1
<i>HP REQUIRED @ RPM**</i>				170	213	255	298	340

Metric Units

PLUNGER DIAMETER mm	STUFFING BOX BORE mm	MAX. BAR (ROD LOAD)	*LITERS PER REV.	200 RPM LPM	250 RPM LPM	300 RPM LPM	350 RPM LPM	400 RPM LPM
73.0	101.6	128.8	2.6595	531.9	664.9	797.9	930.8	1063.8
69.9	88.9	140.7	2.4333	486.7	608.3	730.0	851.7	973.3
66.7	88.9	154.5	2.2171	443.4	554.3	665.1	776.0	886.8
63.5	88.9	170.3	2.0110	402.2	502.7	603.3	703.8	804.4
60.3	88.9	188.7	1.8149	363.0	453.7	544.5	635.2	726.0
57.2	76.2	210.3	1.6289	325.8	407.2	488.7	570.1	651.6
54.0	76.2	235.7	1.4529	290.6	363.2	435.9	508.5	581.2
50.8	76.2	266.1	1.2870	257.4	321.8	386.1	450.5	514.8
47.6	76.2	302.8	1.1312	226.2	282.8	339.4	395.9	452.5
44.5	76.2	347.6	0.9854	197.1	246.3	295.6	344.9	394.2
<i>kW REQUIRED @ RPM**</i>				127	159	190	222	254

*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical Efficiency

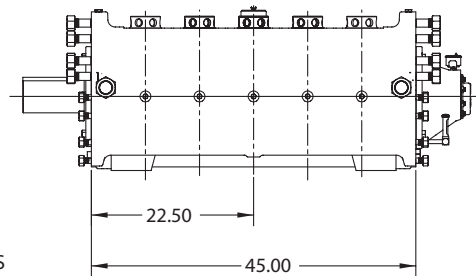
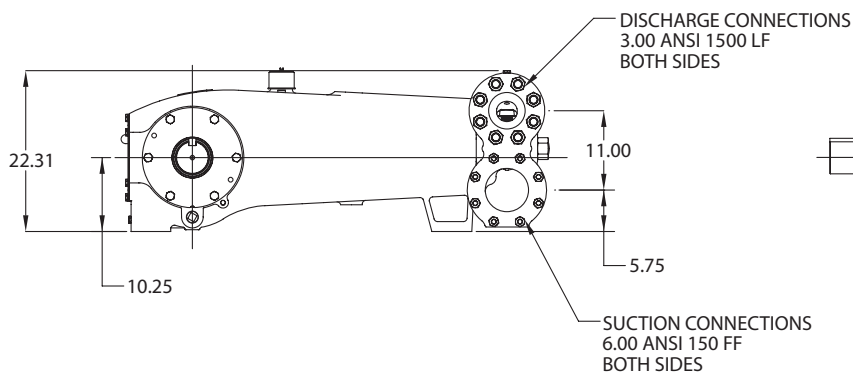
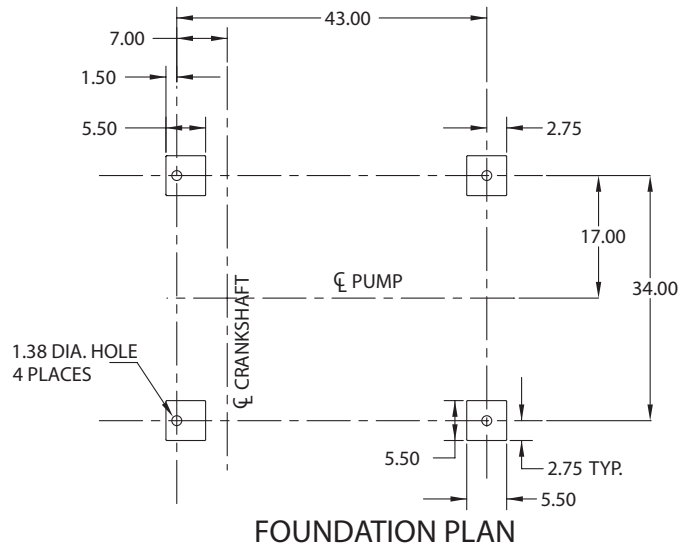
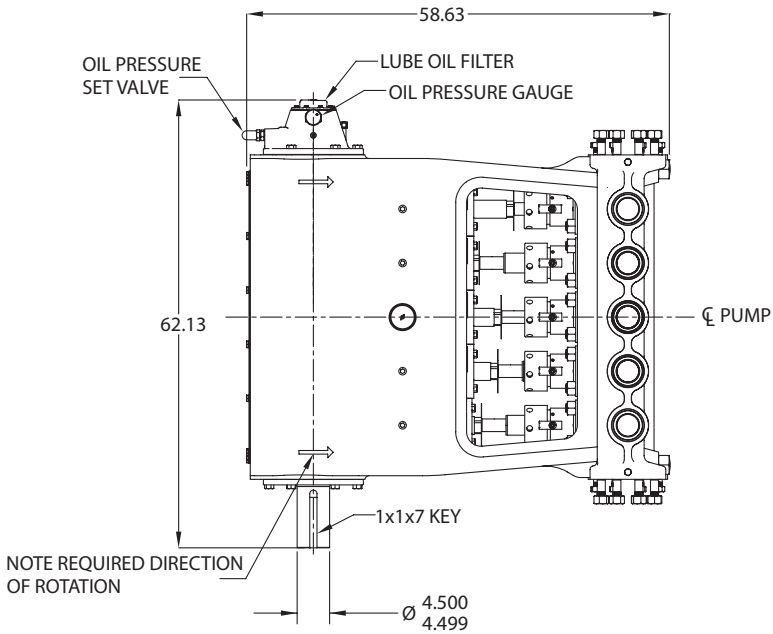
$$\text{HP} = \frac{\text{US GPM} \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

$$\text{kW} = \frac{\text{M}^3/\text{HR} \times (\text{Discharge Bar} - 1/2 \text{ Suction Bar})}{32.4}$$

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

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

MA-300M-HD Quintuplex Pump



Engineering Data

MA-300M-HD Quintuplex Pump

Power End Engineering Data

Maximum Input HP @ Speed.....	340 @ 400 RPM
Rated Continuous Plunger Load	12,125 lbs.
Maximum Rated Continuous Speed.....	400 RPM
Normal Continuous Speed Range.....	150 to 400 RPM
Minimum Speed	100 RPM
Oil Capacity.....	66 U.S. Quarts
Power End Oiling System.....	Pressure Lubrication System
Power Frame, One-Piece.....	Cast Iron
Crosshead, Full Cylindrical.....	Cast Iron
Crosshead, Diameter x Length.....	5-3/4 x 6-3/16 inches
Crankshaft.....	Ductile Iron
Crankshaft Diameters:	
At Tapered Roller Bearings	4-3/4 inches
At Crankpin Bearings, Diameter x Length	4-1/2 x 3-3/4 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 with Plungers	17-4 PH SS
Connecting Rod, Automotive Type	Ductile Iron
Average Crosshead Speed @ 450 RPM	333 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	65,000+ hr.

Liquid End Engineering Data

Maximum Continuous Working Pressure.....	5,041 psi
Hydrostatic Test.....	5,558 psi
Available Liquid End Materials, ASTM:	
Nickel Aluminum Bronze Casting.....	B148-C955
Carbon Steel Block.	A105
Stainless Steel Block	Various Grades
Plunger Type Rokide (Chromium Oxide-Coated)	316 SS
Stuffing Boxes, Field-Removable and Replaceable	Nickel, Aluminum, Bronze; Optional Carbon Steel
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 8921K
Valve Cover and Cylinder Head Plugs.....	316 SS
Retainer Plates, Ductile Iron, ASTM.....	A536 80-55-06
Seals, Stuffing Boxes, Valve Covers, Cylinder Heads	Buna-N
Disc Valve Types:	
Regularly Furnished, Acetal Resin	Delrin®
Optional, Hardened and Lapped.....	17-4 PH SS
Valve Spring Material.....	Inconel®
Valve Seat, Liquid Passage Area	3.86 square inches
Average Liquid Velocity with 2 7/8" Plungers @ 400 RPM:	
Through Valves	10.8 fps
Through Suction Manifold.....	3.2 fps
Through Discharge Manifold.....	12.7 fps



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