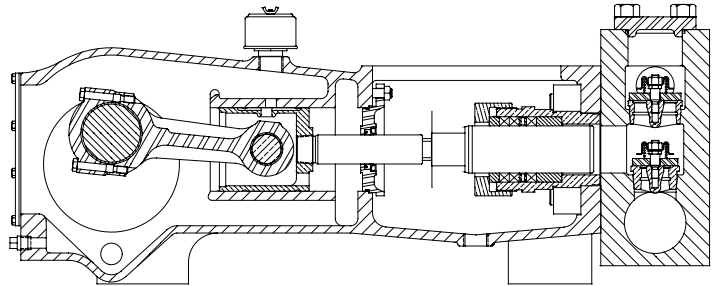


# MYERS® APLEX SERIES

## MA-120H

### TRIPLEX PLUNGER PUMP



No. of plungers.....	3
Maximum rated speed.....	450 rpm
Stroke length.....	4.25 in.      108.0 mm
Maximum rated power.....	120.0 HP      89.4 KW
Maximum rod load .....	7452 lb.      33.1 kN
Weight .....	2025 lbs.

#### ENGLISH UNITS

#### MA-120H

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
2.000	2.875	2284	0.173	43.4	52.0	60.7	69.4	78.0
1.875	2.875	2397	0.152	38.1	45.7	53.3	61.0	68.6
1.750	2.875	3097	0.133	33.2	39.8	46.5	53.1	59.7
1.625	2.500	3592	0.114	28.6	34.3	40.1	45.8	51.5
1.500	2.500	4215	0.098	24.4	29.3	34.1	39.0	43.9
1.375	2.250	5016	0.082	20.5	24.6	28.7	32.8	36.9

<i>HP REQUIRED @ RPM**</i>	64.2	77.1	89.9	102.7	120.0
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#### METRIC UNITS

#### MA-120H

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
50.8	73.3	163.4	0.656	164.1	196.9	229.7	262.6	295.4
47.6	73.0	186.0	0.577	144.2	173.1	201.9	230.8	259.6
44.4	73.0	213.4	0.503	125.7	150.8	175.9	201.1	226.2
41.3	63.5	247.6	0.433	108.4	130.0	151.7	173.4	195.0
38.1	63.5	290.5	0.369	92.3	110.7	129.2	147.6	166.1
34.9	57.2	345.8	0.310	77.6	93.1	108.6	124.2	139.7

<i>KW REQUIRED @ RPM**</i>	47.9	57.5	67.0	76.6	89.5
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*\*Displacement based on 100% Volumetric Efficiency*

*\*\*Power based on 90% Mechanical Efficiency*

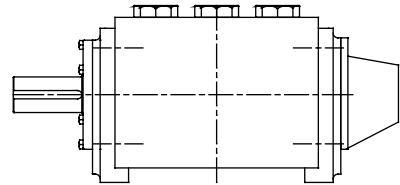
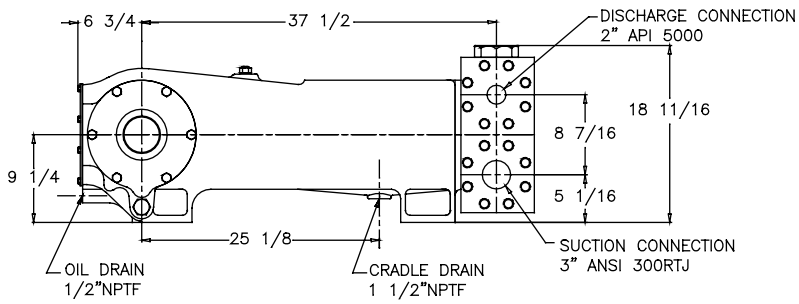
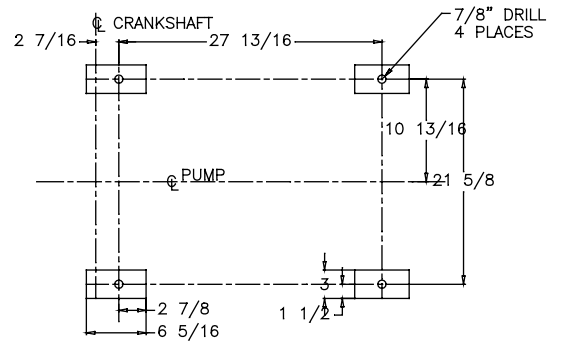
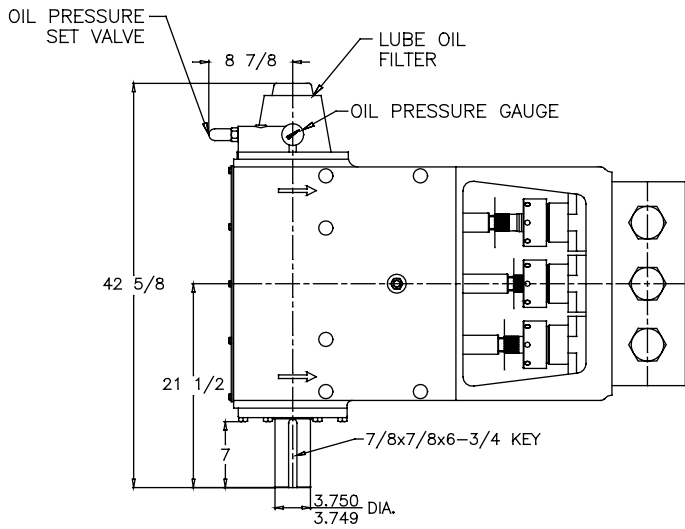
$$IHP = \frac{USGPM \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

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

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

# MA-120H Triplex Pump



# ENGINEERING DATA

## MA-120H Triplex Pump

### POWER END ENGINEERING DATA

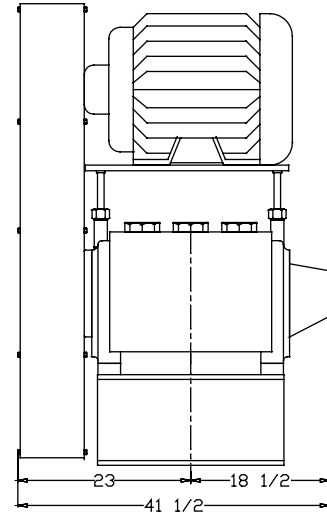
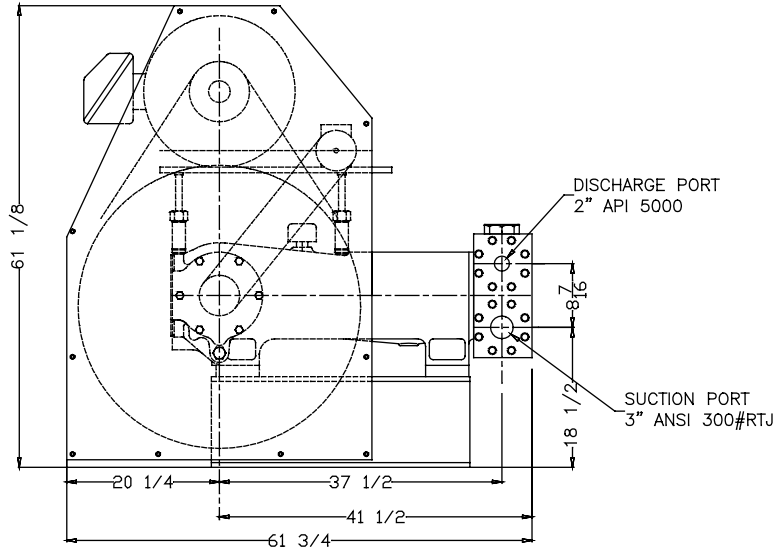
Max. Input HP @ Speed .....	120 HP @ 450 rpm
Rated Continuous Plunger Load .....	7,452 lb.
Normal Continuous Speed Range .....	150 to 400 rpm
Minimum Speed.....	100 rpm
Oil Capacity .....	18 U.S. Qrts
Power End Oiling System .....	Pressure Lubrication
Power Frame, One-Piece .....	Cast Iron
Crosshead, Full Cylindrical .....	Cast Iron
Crosshead, Dia. x Length .....	5 3/4 x 6 3/16 in.
Crankshaft .....	Ductile Iron
Crankshaft Diameters:	
At Tapered Roller Bearings .....	4.0 in.
At Crankpin Bearings .....	4 x 3 in.
Crosshead (Wrist) Pin, Case-Hardened and Ground .....	AISI 8620
Main Bearings, Tapered Roller .....	Timken®
Crankpin Bearings, Precision Automotive .....	Babbitt-Lined
Extension (Pony) Rod .....	17-4PH S.S.
Connecting Rod, Automotive Type .....	Ductile Iron
Average Crosshead Speed @ 450 rpm.....	318 fpm
Minimum Life Expectancy, Main Bearings, L <sub>10</sub> .....	45,000+ hr.

### LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure .....	5000 psi
Hydrostatic Test .....	7500 psi
Liquid End Materials, A.S.T.M.	
Carbon Steel Block .....	4140
Stainless Steel Block .....	15-5PH S.S.
Plunger Type "Rokide" (Chromium Oxide-Coated) .....	316 S.S.
Stuffing Boxes, Field-Removable and Replaceable .....	
Packing Types Available:	
Spring-loaded, Cup-type .....	Style 120X
Spring-loaded, Kevlar .....	Style 140
Seals, Stuffing Boxes, Valve Covers .....	Buna-N
Bolting, High Strength, Heat Treated .....	Alloy Steel
Valve Types Available:	
Standard, Hardened and Lapped .....	17-4PH S.S.
Optional, Abrasion Resistant .....	17-4PH S.S.
Valve Spring Material .....	Inconel®
Valve Seat, Liquid Passage Area .....	2.3 sq.in.
Avg. Liquid Velocity with 1 5/8" plungers @ 450 rpm	
thru Valves .....	4.7 fps
thru Suction Manifold.....	2.0 fps
thru Discharge Manifold.....	4.5 fps

All drawings and specifications subject to change without notice.

# MA-120H Triplex Pump



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ASHLAND, OHIO 44805  
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