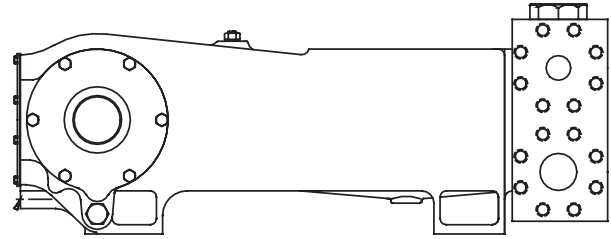




MYERS® APLEX SERIES

MA-120H-HD

TRIPLEX PLUNGER PUMP



Number of Plungers..... 3
 Maximum Rated Speed..... 450 RPM
 Stroke Length..... 4.25 inches – 108.0 mm
 Maximum Rated Power..... 144.0 HP – 107.4 kW
 Maximum Rod Load..... 8,937 lbs. – 39.7 kN
 Weight..... 2,025 lbs.

English Units

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	2844	0.173	43.4	52.0	60.7	69.4	78.0
1.875	2.875	3236	0.152	38.1	45.7	53.3	61.0	68.6
1.750	2.875	3715	0.133	33.2	39.8	46.5	53.1	59.7
1.625	2.500	4309	0.114	28.6	34.3	40.1	45.8	51.5
1.500	2.500	5057	0.098	24.4	29.3	34.1	39.0	43.9
<i>HP REQUIRED @ RPM**</i>				80.0	95.9	111.9	128.0	143.9

Metric Units

PLUNGER SIZE mm	STUFFING BOX BORE mm	MAX. PRESSURE BAR	*LITERS PER REV.	250 RPM LPM	300 RPM LPM	350 RPM LPM	400 RPM LPM	450 RPM LPM
50.8	73.3	196.1	0.656	164.1	196.9	229.7	262.6	295.4
47.6	73.0	223.1	0.577	144.2	173.1	201.9	230.8	259.6
44.4	73.0	256.1	0.503	125.7	150.8	175.9	201.1	226.2
41.3	63.5	297.1	0.433	108.4	130.0	151.7	173.4	195.0
38.1	63.5	348.7	0.369	92.3	110.7	129.2	147.6	166.1
<i>kW REQUIRED @ RPM**</i>				59.7	71.5	83.5	95.5	107.3

**Displacement based on 100% Volumetric Efficiency*

***Power based on 90% Mechanical Efficiency*

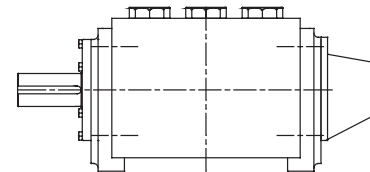
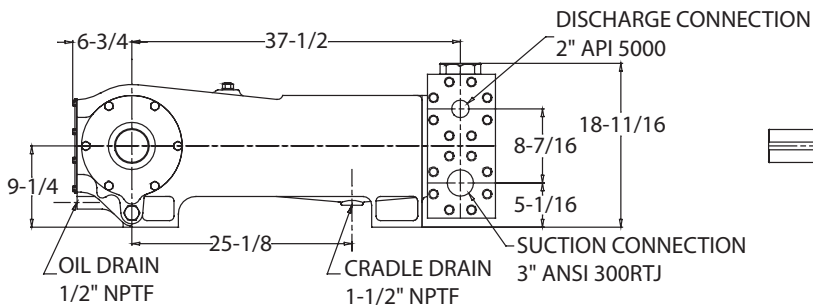
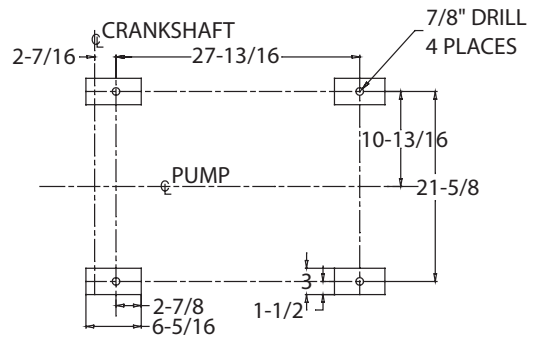
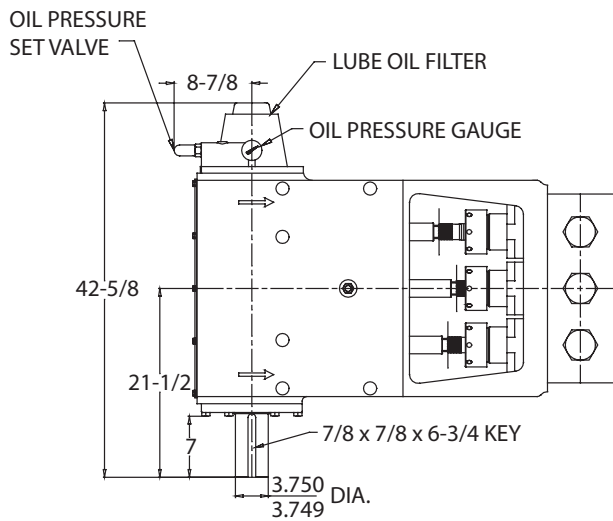
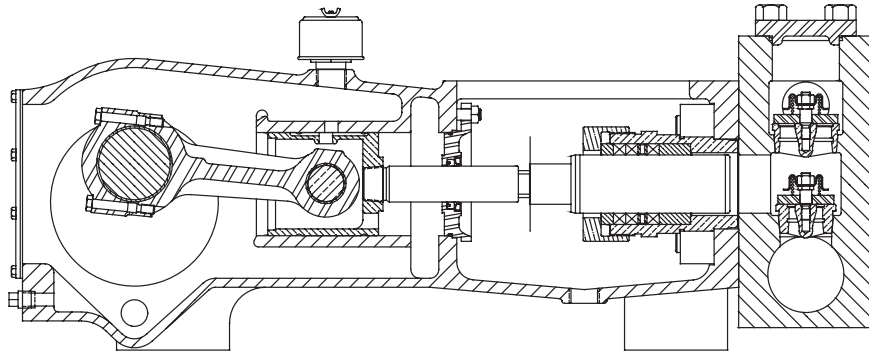
$$HP = \frac{US\ GPM \times (Discharge\ psig - 1/2\ Suction\ psig)}{1542}$$

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

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

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

MA-120H-HD Triplex Pump



Engineering Data

MA-120H-HD Triplex Pump

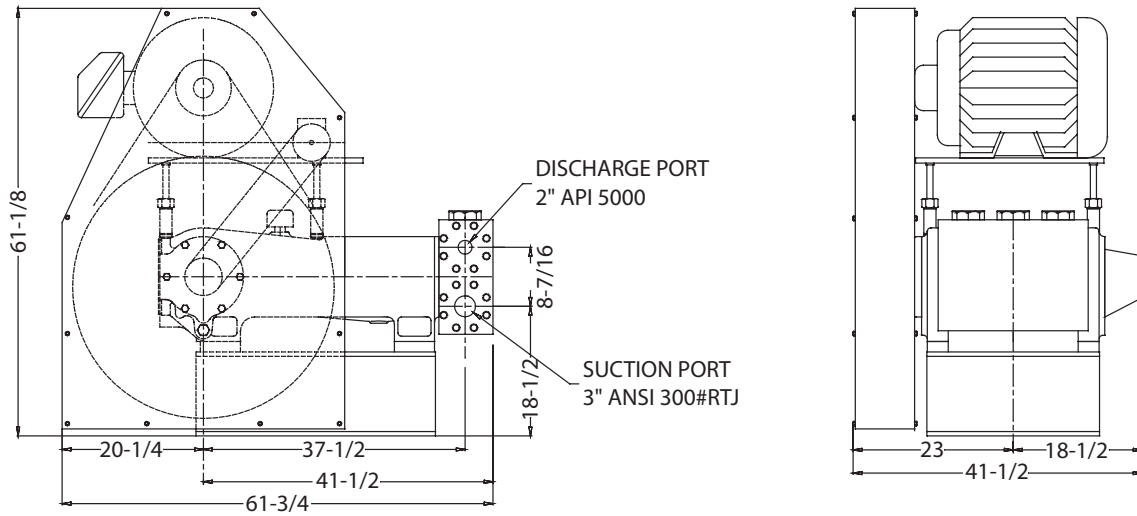
Power End Engineering Data

Maximum Input HP @ Speed.....	144 @ 400 RPM
Rated Continuous Plunger Load.....	8,937 lbs.
Normal Continuous Speed Range.....	150 to 400 RPM
Minimum Speed.....	100 RPM
Oil Capacity.....	18 U.S. Quarts
Power End Oiling System.....	Pressure Lubrication
Power Frame, One-Piece.....	Cast Iron
Crosshead, Full Cylindrical.....	Cast Iron
Crosshead, Diameter x Length.....	5-3/4 x 6-3/16 inches
Crankshaft.....	AISI 4140 Steel, Nitrided
Crankshaft Diameters:	
At Tapered Roller Bearings.....	4.0 inches
At Crankpin Bearings.....	4 x 3 inches
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 SS
Connecting Rod, Automotive Type.....	Ductile Iron
Average Crosshead Speed @ 450 RPM.....	318 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	45,000+ hr.

Liquid End Engineering Data

Maximum Continuous Working Pressure.....	5,000 psi
Hydrostatic Test.....	7,500 psi
Liquid End Materials, ASTM:	
Carbon Steel Block.....	4,140
Stainless Steel Block.....	15-5PH SS
Plunger Type Rokide (Chromium Oxide-Coated).....	316 SS
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 SS
Optional, Abrasion Resistant.....	17-4PH SS
Valve Spring Material.....	Inconel®
Valve Seat, Liquid Passage Area.....	2.3 square inches
Average Liquid Velocity with 1 5/8" Plungers @ 450 RPM:	
Through Valves.....	4.7 fps
Through Suction Manifold.....	2.0 fps
Through Discharge Manifold.....	4.5 fps

MA-120H-HD Triplex Pump



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