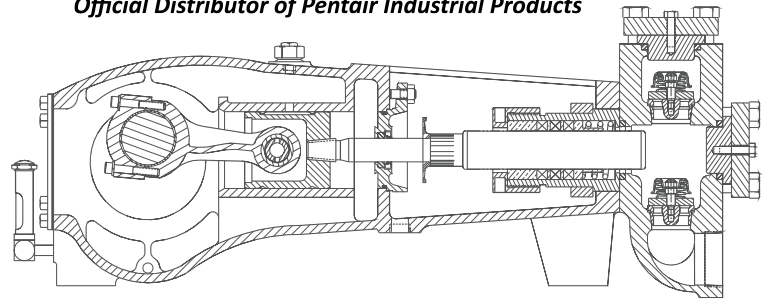


MYERS® APLEX SERIES

RO-117

QUINTUPLEX PLUNGER PUMP



REVERSE OSMOSIS DUTY ONLY

No. of plungers.....	5
Maximum rated speed.....	550 rpm
Stroke length.....	2.75 in. 69.8 mm
Maximum rated power.....	85.0 HP 63.3 KW
Maximum rod load	3886 lb. 17.78 kN
Weight	1270 lbs.

ENGLISH UNITS

RO-117

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSL	*GALLON PER/REV.	200 RPM US GPM	250 RPM US GPM	350 RPM US GPM	450 RPM US GPM	550 RPM US GPM
2.250	2.875	1008	0.2367	47.3	59.2	82.8	106.5	130.2
2.125	2.875	1130	0.2111	42.2	52.8	73.9	95.0	116.1
2.000	2.875	1275	0.1870	37.4	46.8	65.5	84.2	102.9
1.875	2.875	1451	0.1644	32.9	41.1	57.5	74.0	90.4
1.750	2.875	1665	0.1432	28.6	35.8	50.1	64.4	78.7
1.625	2.500	1932	0.1234	24.7	30.9	43.2	55.6	67.9
1.500	2.500	2267	0.1052	21.0	26.3	36.8	47.3	57.9
1.375	2.250	2698	0.0884	17.7	22.1	30.9	39.8	48.6

HP REQUIRED @ RPM**

30.9 38.7 54.1 69.6 85.0

METRIC UNITS

RO-117

PLUNGER SIZE MM.	STUFFING BOX BORE M.M.	MAX PRESS. BAR	*LITER PER/REV.	200 RPM LPM	250 RPM LPM	350 RPM LPM	450 RPM LPM	550 RPM LPM
57.2	73.0	69.5	0.8960	179.2	224.0	313.6	403.2	492.8
53.9	73.0	77.9	0.7991	159.8	199.8	279.7	359.6	439.5
50.8	73.0	87.9	0.7079	141.6	177.0	247.8	318.6	389.3
47.6	73.0	100.0	0.6223	124.5	155.6	217.8	280.0	342.3
44.5	73.0	114.8	0.5421	108.4	135.5	189.7	243.9	298.2
41.3	63.5	133.2	0.4671	93.4	116.8	163.5	210.2	256.9
38.1	63.5	156.3	0.3982	79.6	99.6	139.4	179.2	219.0
34.9	57.1	186.0	0.3346	66.9	83.7	117.1	150.6	184.0

KW REQUIRED @ RPM**

23.0 28.8 40.3 51.9 63.4

*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical Efficiency

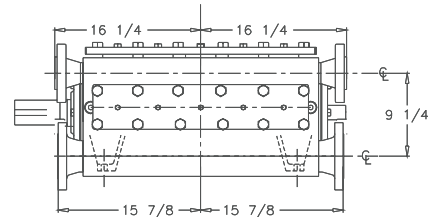
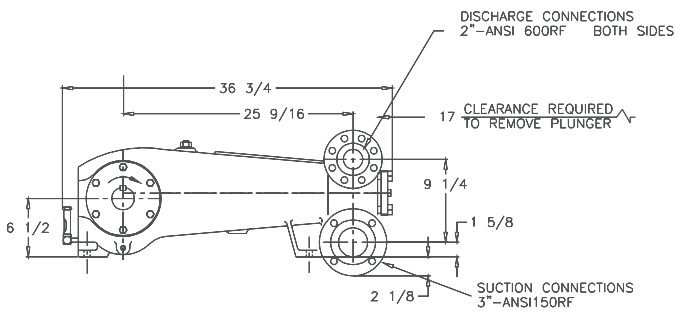
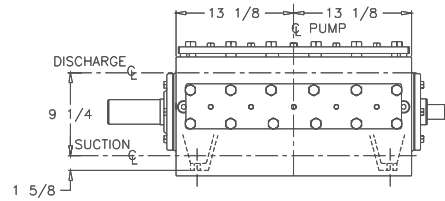
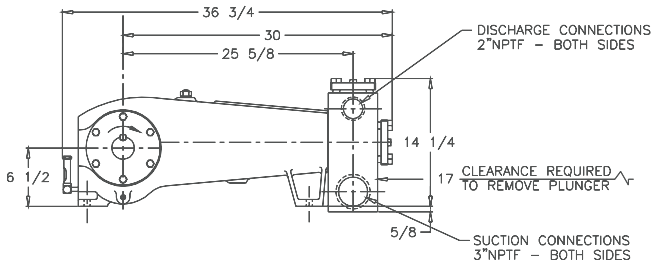
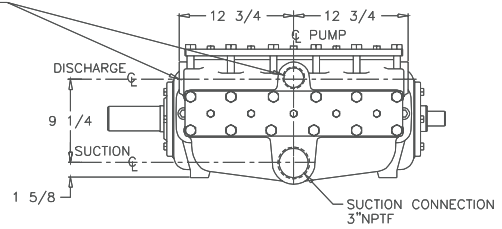
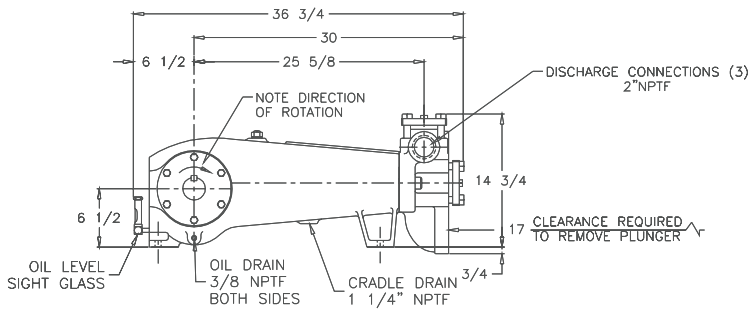
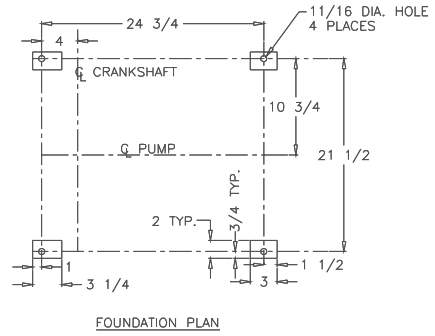
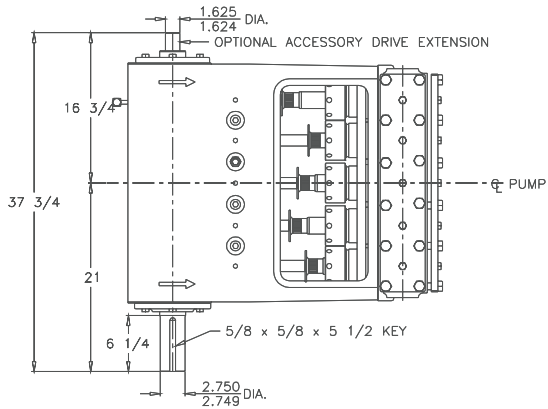
$$IHP = \frac{USGPM \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

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

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

RO-117 Quintuplex Pump



ENGINEERING DATA

RO-117 Quintuplex Pump

POWER END ENGINEERING DATA

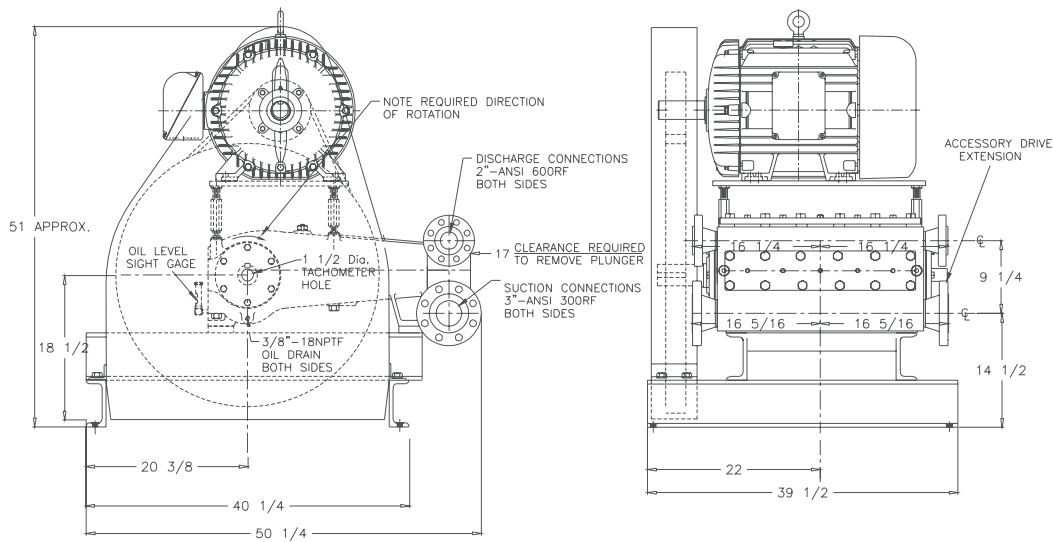
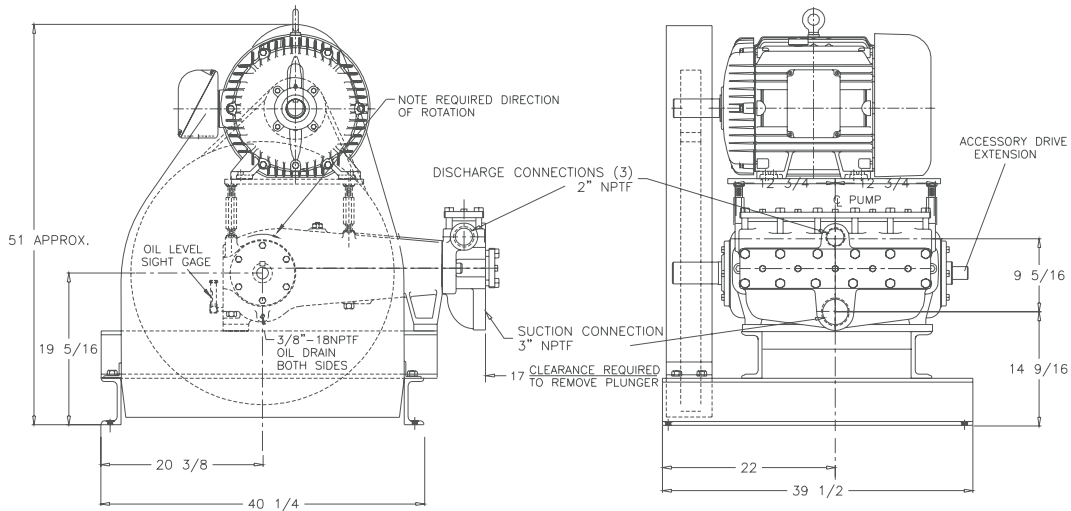
Max. Input Power @ Speed	85 HP @ 550 rpm
Rated Continuous Plunger Load	4,006 lb.
Max. Rated Continuous Speed.....	550 rpm
Normal Continuous Speed Range	350 to 500 rpm
Minimum Speed	100 rpm
Oil Capacity	12 U.S. Qrts
Power End Oiling System	Splash & Scoop
Power Frame, One-Piece	Cast Iron
Crosshead, Full 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.ST.
Connecting Rod, Automotive Type	Ductile Iron
Average Crosshead Speed @ 550 rpm	229 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	75,000+ hrs.

LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure	2,697 psi
Hydrostatic Test	4,000 psi
Available Liquid End Materials, A.S.T.M.	
Nickel Aluminum Bronze	B148-C955
Stainless Steel Block	2205 Duplex S.ST.
Stainless Steel Block	316 S.ST.
Plunger Type "Rokide" (Chromium Oxide-Coated)	316 S.ST.
Stuffing Boxes, Field-Removable and Replaceable	316 S.ST.
Gland, Stuffing Box	Nickel Aluminum Bronze
Packing Types Available:	
Spring-loaded, cup-type	Style 120X
Spring-loaded, Garlock	Style 892IK
Valve Cover and Cyl. Head Plugs	316 S.ST.
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.ST.
Valve Spring Material	Inconel®
Valve Seat, Liquid Passage Area	2.3 sq.in.
Avg. Liquid Velocity with 2 1/4" plungers @ 550 rpm:	
thru Valve Seat	7.5 fps
thru Suction Manifold	5.6 fps
thru Discharge Manifold	14.2 fps

All drawings and specifications subject to change without notice.

RO-117 Quintuplex Pump



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