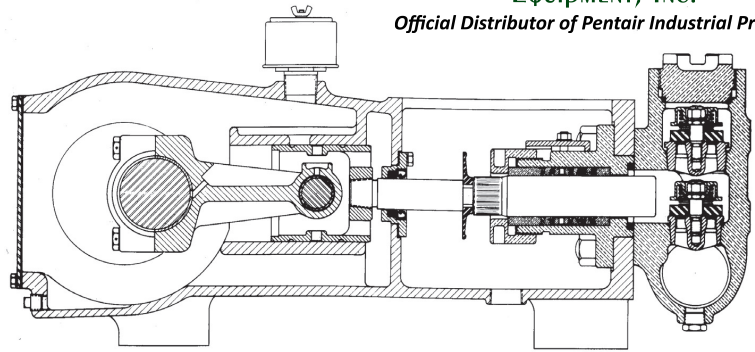


MYERS® APLEX SERIES

RO-86 TRIPLEX PLUNGER PUMP



REVERSE OSMOSIS DUTY ONLY

No. of plungers.....	3
Maximum rated speed.....	500 rpm
Stroke length.....	3.00 in. 76.2 mm
Maximum rated power.....	65.0 HP 48.4 KW
Maximum rod load	5144 lb. 22.84 kN
Weight.....	945 lbs.

ENGLISH UNITS

RO-86

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI.	* GALLON PER/REV.	300 RPM US GPM	350 RPM US GPM	400 RPM US GPM	450 RPM US GPM	500 RPM US GPM
3.000	3.500	728	0.275	82.6	96.4	110.2	123.9	137.7
2.875	3.500	792	0.253	75.9	88.5	101.2	113.8	126.5
2.750	3.500	866	0.231	69.4	81.0	92.6	104.1	115.7
2.625	3.500	950	0.211	63.3	73.8	84.3	94.9	105.4
2.500	3.250	1048	0.191	57.4	66.9	76.5	86.1	95.6
2.375	3.250	1161	0.173	51.8	60.4	69.0	77.7	86.3
2.250	3.250	1294	0.155	46.5	54.2	62.0	69.7	77.5
2.125	2.875	1450	0.138	41.5	48.4	55.3	62.2	69.1

<i>HP REQUIRED @ RPM**</i>	39.0	45.5	52.0	58.5	65.0
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METRIC UNITS

RO-86

PLUNGER SIZE MM.	STUFFING BOX BORE MM.	MAX PRESS. BAR	* LITER PER/REV.	300 RPM LPM	350 RPM LPM	400 RPM LPM	450 RPM LPM	500 RPM LPM
76.2	88.9	50.2	0.104	31.3	36.5	41.7	46.9	52.1
73.0	88.9	54.6	0.957	287.2	335.1	382.9	430.8	478.7
69.8	88.9	59.7	0.876	262.8	306.6	350.4	394.2	437.9
66.7	88.9	65.5	0.798	239.5	279.4	319.3	359.2	399.1
63.5	82.5	72.3	0.724	217.2	253.4	289.6	325.8	362.0
60.3	82.5	80.1	0.653	196.0	228.7	261.4	294.0	326.7
57.2	82.5	89.2	0.586	175.9	205.2	234.6	263.9	293.2
53.9	73.0	100.0	0.523	156.9	183.1	209.2	235.4	261.6

<i>KW REQUIRED @ RPM**</i>	29.1	33.9	38.8	43.6	48.5
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*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical Efficiency

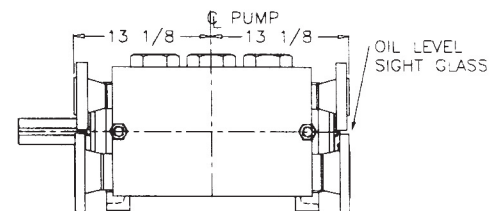
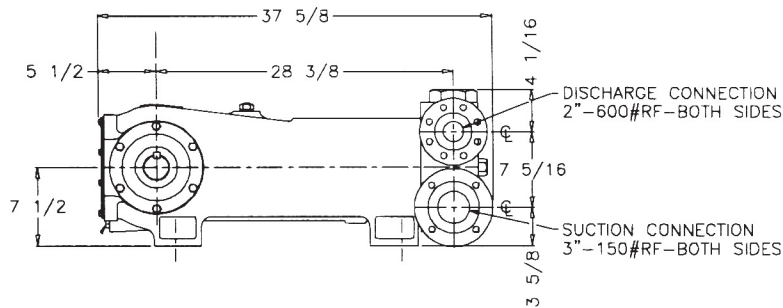
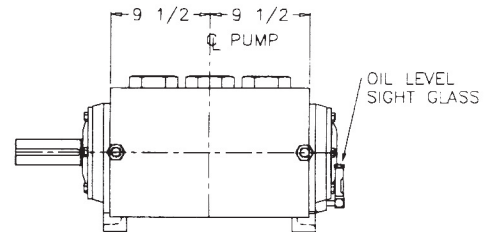
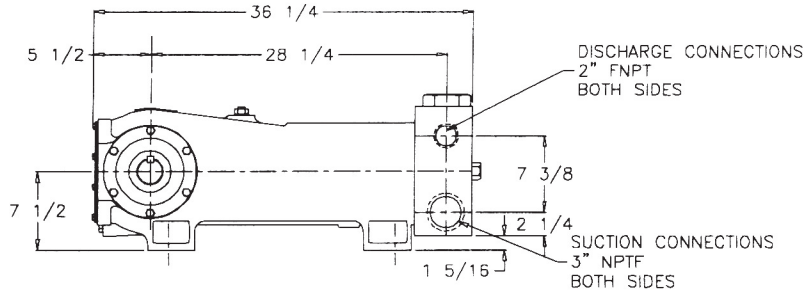
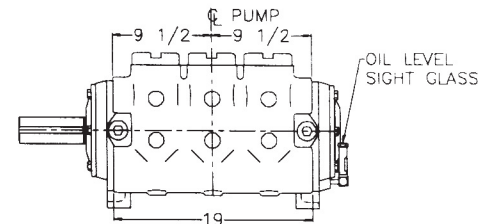
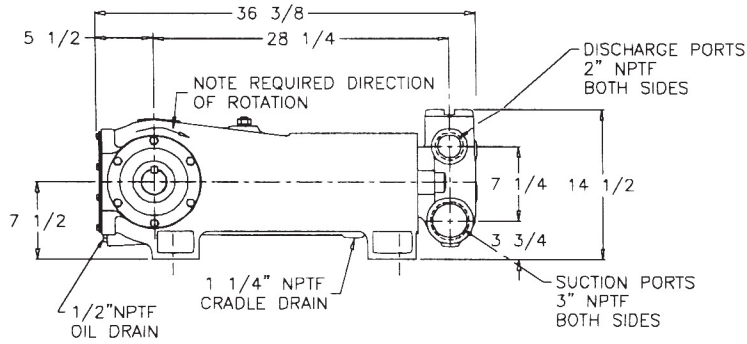
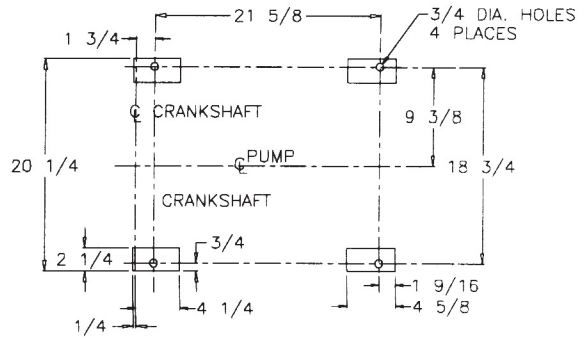
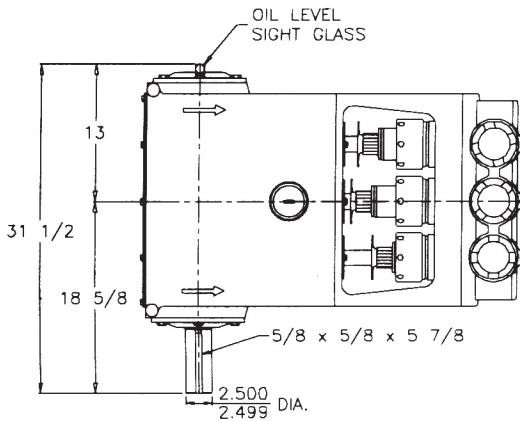
$$IHP = \frac{USGPM \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1714}$$

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

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

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

RO-86 Triplex Pump



ENGINEERING DATA

RO-86 Triplex Pump

POWER END ENGINEERING DATA

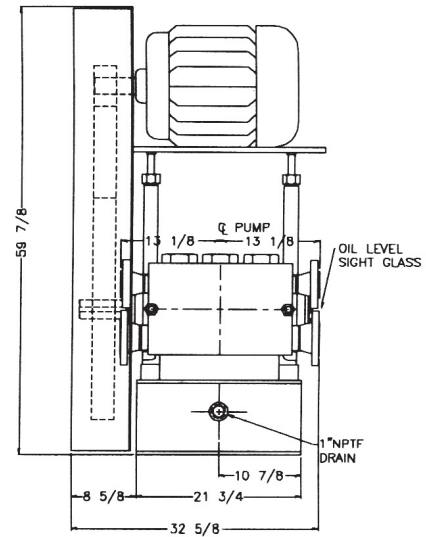
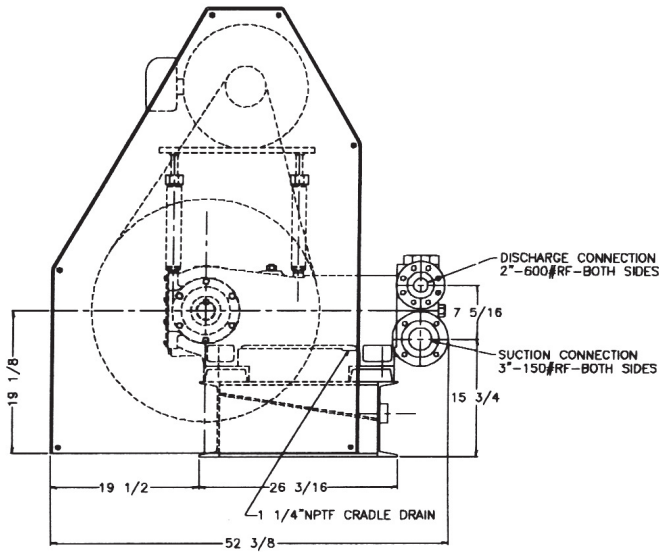
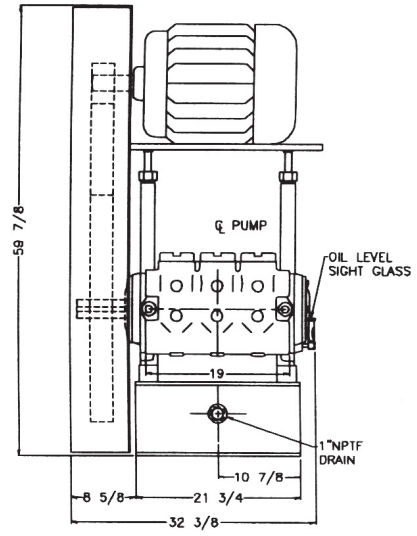
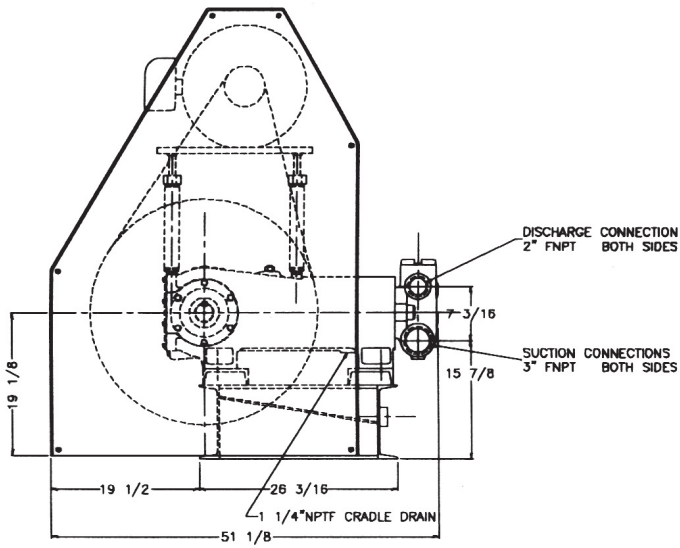
Max. Input Power @ Speed	65 HP @ 500 rpm
Rated Continuous Plunger Load	5,144 lb.
Normal Continuous Speed Range	350 to 450 rpm
Minimum Speed	100 rpm
Oil Capacity	9 U.S. Qrts
Power End Oiling System	Splash
Power Frame, One-Piece	Cast Iron
Crosshead, Full Cylindrical	Cast Iron
Crosshead, Dia. x Length	4 3/4 x 5 in.
Crankshaft	Ductile Iron
Crankshaft Diameters:	
At Tapered Roller Bearings	2 5/8 in.
At Crankpin Bearings, Dia. x Length	3 1/2 x 3 in.
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 Diameter	1 1/2 in.
Connecting Rod, Automotive Type	Ductile Iron
Average Crosshead Speed @ 500 rpm	250 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	100,000+ hr.

LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure	2,481 psi
Hydrostatic Test, Discharge	3,750 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:	
Nickel Aluminum Bronze	B148-C955
Stainless Steel	316 S.S. or 2205 Duplex S.ST.
Gland, Stuffing Box	Nickel Aluminum Bronze
Packing Types Available:	
Spring-loaded, cup-type	Style 120X
Spring-loaded, Garlock	Style 892IK
Seals, Stuffing Boxes and Valve Covers,	Buna-N
Available Valve Types:	
Standard, acetal resin	"Delrin"
Optional, Hardened and Lapped	17-4 PH S.ST.
Valve Spring Material	Inconel
Valve Seat, Liquid Passage Areas	2.3 sq.in.
Avg. Liquid Velocity with 2 1/2" plungers @ 500 rpm:	
thru Valve	8.7 fps
thru Suction Manifold	4.1 fps
thru Discharge Manifold	10.4fps

All drawings and specifications subject to change without notice.

RO-86 Triplex Pump



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