

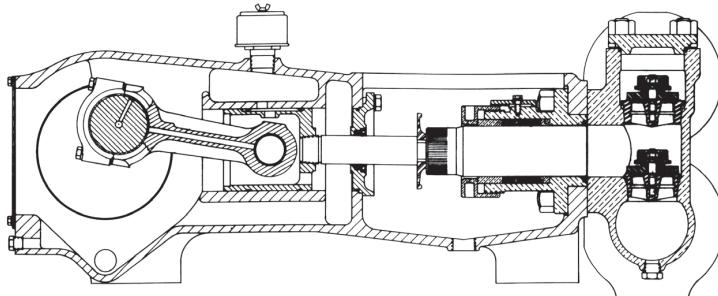


**POWER ZONE**  
Equipment, Inc.

Official Distributor of Pentair Industrial Products

## MYERS® APLEX SERIES

### RO-185 TRIPLEX PLUNGER PUMP



#### REVERSE OSMOSIS SERVICE ONLY

No. of plungers.....	3
Maximum rated speed.....	450 rpm
Stroke length.....	4.25 in. 107.95 mm
Maximum rated power.....	140 HP 104.3 KW
Maximum rod load .....	8,688 lb. 38.57 kN
Weight .....	2050 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
3.500	4.500	903	0.531	132.8	159.3	185.9	212.4	239.0
3.375	4.500	971	0.494	123.4	148.1	172.8	197.5	222.2
3.250	4.500	1047	0.458	114.5	137.4	160.3	183.2	206.0
3.125	4.500	1133	0.423	105.8	127.0	148.2	169.3	190.5
3.000	4.000	1229	0.390	97.5	117.0	136.6	156.1	175.6
2.875	4.000	1338	0.358	89.6	107.5	125.4	143.3	161.2
2.750	4.000	1463	0.328	82.0	98.4	114.7	131.1	147.5

HP REQUIRED @ RPM\*\* 77.7 93.3 108.8 124.4 140.0

#### METRIC UNITS

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
88.9	114.3	62.3	2.010	502.5	603.0	703.5	804.0	904.5
85.7	114.3	67.0	1.869	467.3	560.8	654.2	747.7	841.1
82.5	114.3	72.2	1.733	433.3	520.0	606.7	693.3	780.0
79.4	114.3	78.1	1.602	400.6	480.7	560.8	641.0	721.1
76.2	101.6	84.7	1.477	369.3	443.1	517.0	590.8	664.7
73.0	101.6	92.3	1.356	339.1	406.9	474.7	542.5	610.3
69.8	101.6	100.9	1.241	310.2	372.3	434.3	496.4	558.4

KW REQUIRED @ RPM\*\* 57.9 69.6 81.1 92.8 104.4

\*Displacement based on 100% Volumetric Efficiency

\*\*Power based on 90% Mechanical Efficiency

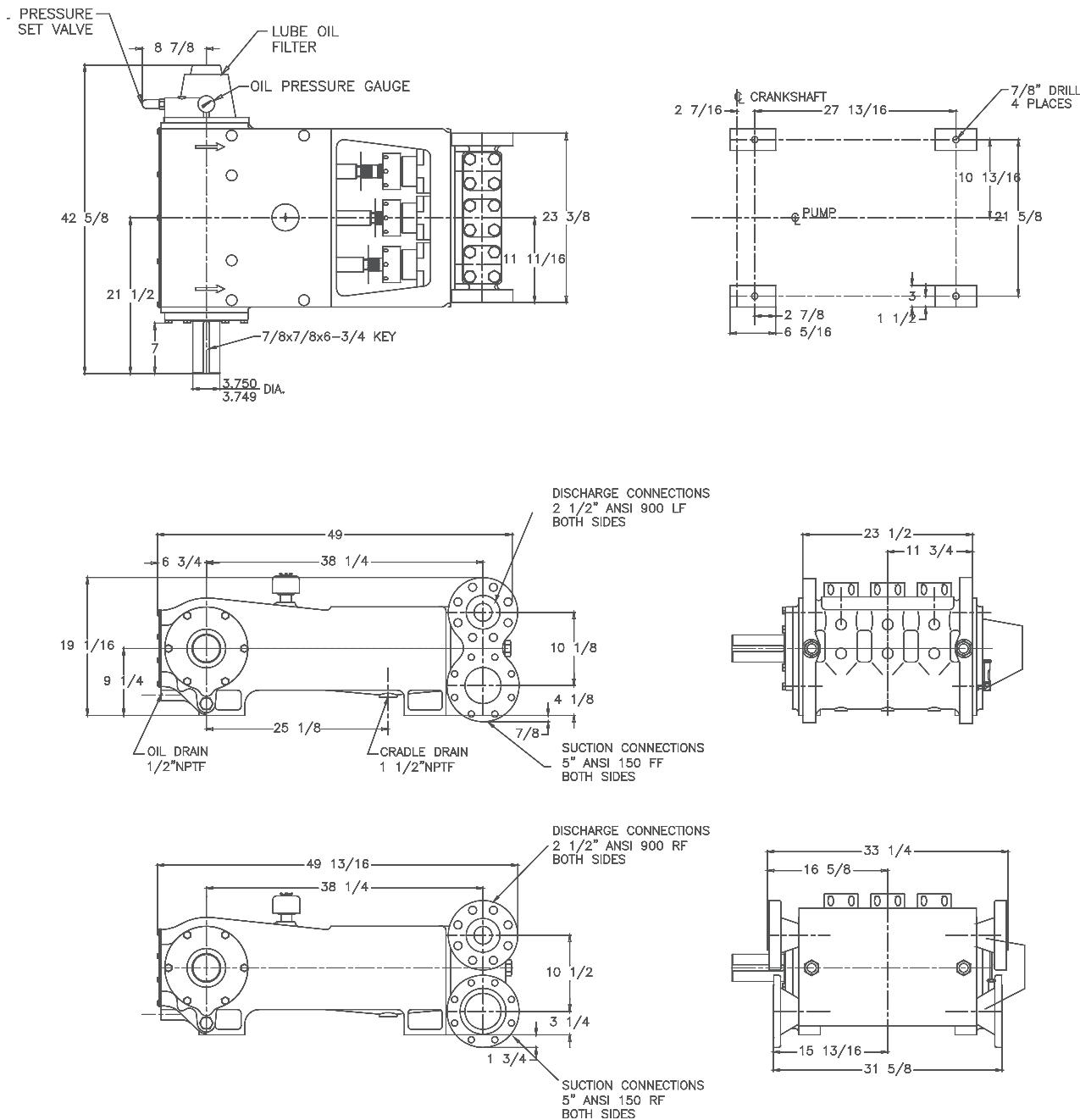
$$IHP = \frac{\text{USGPM} \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

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

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

## RO-185 Triplex Pump



# ENGINEERING DATA

## RO-185 Triplex Pump

### POWER END ENGINEERING DATA

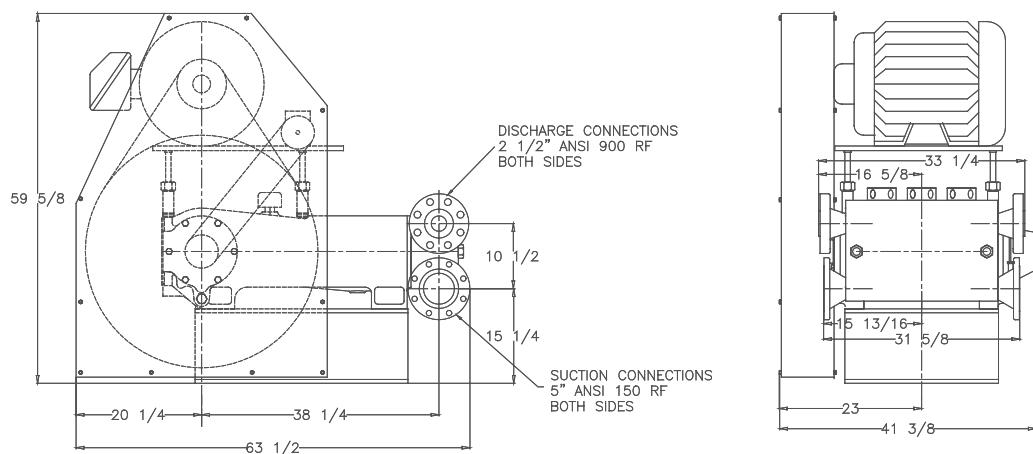
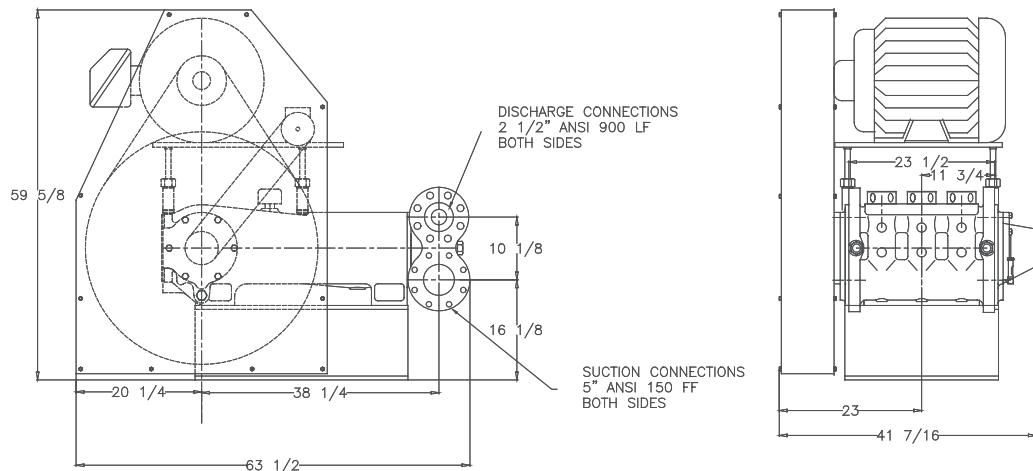
Max. Input Power @ Speed .....	140 HP @ 450 rpm
Rated Continuous Plunger Load .....	8,688 lb.
Normal Continuous Speed Range.....	300 to 420 rpm
Minimum Speed .....	100 rpm
Oil Capacity .....	18 U.S. Qrts
Power End Oiling System .....	Pressure Lubrication
Power Frame, One-Piece .....	Cast Iron
Crosshead, 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 in.
At Crankpin Bearings, Dia. x Length .....	4 x 3 in.
Crosshead (Wrist) Pin, Case-Hardened and Ground .....	AISI 8620
Crosshead pin S.A.E.660 Dia. x Length .....	2 x 3 in.
Main Bearings, Tapered Roller .....	Timken®
Crankpin Bearings, Precision Automotive.....	Steel Backed, Babbitt-Lined
Extension (Pony) Rod Diameter .....	2 in.
Connecting Rod, Automotive Type .....	Ductile Iron
Average Crosshead Speed @ 450 rpm .....	300 fpm
Minimum Life Expectancy, Main Bearings, L <sub>10</sub> .....	45,000+ hr.

### LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure .....	1,963 psi
Hydrostatic Test, Discharge .....	3,000 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:	
Nickel Aluminum Bronze .....	B148-C955
Stainless Steel .....	316 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 .....	6.26 sq.in.
Avg. Liquid Velocity @ 450 rpm:	
thru Valve .....	7.26 fps
thru Suction Manifold .....	3.82 fps
thru Discharge Manifold .....	18.09 fps

All drawings and specifications subject to change without notice.

## RO-185 Triplex Pump



740 EAST 9TH STREET, 269 TRILLIUM DRIVE, KITCHENER,  
ASHLAND, OHIO 44805 ONTARIO, CANADA N2G 4W5  
WWW.MYERSAPLEX.COM

Delrin® is a registered trademark of E.L. duPont  
Inconel® is a registered trademark of the Special Metals family of companies  
Timken® is a registered trademark of The Timken Company  
Myers® is a registered trademark of Pentair Ltd.

Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.  
MA2009 03/09/13 © 2013 Pentair Ltd. All Rights Reserved.

**www.powerzone.com**