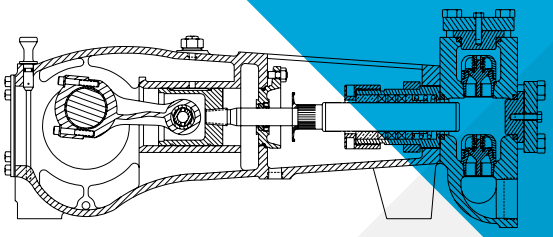
PENTAIR MYERS

APLEX SERIES

SC-65(L)(H) TRIPLEX PLUNGER PUMP



INTERMITTENT DUTY ONLY

No. of plungers 3
Maximum rated speed ..... 550 RPM
Stroke length ..... 2.75 in. 69.85 mm
Maximum rated power ..... 92 hp 68.5 kW
Maximum rod load ..... 7216 lbs. 32.04 kN
Weight SC-65L ..... 750 lbs.
SC-65H ..... 795 lbs.

ENGLISH UNITS **SC-65**

PUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX. PSI	*GALLON PER REV.	200 US GPM	250 US GPM	350 US GPM	450 US GPM	550 US GPM
2.250	2.875	1815	0.1420	28.4	35.5	49.7	63.9	78.1
2.125	2.875	2035	0.1267	25.3	31.7	44.3	57.0	69.7
2.000	2.875	2297	0.1122	22.4	28.1	39.3	50.5	61.7
1.875	2.875	2613	0.0986	19.7	24.7	34.5	44.4	54.2
1.750	2.875	3000	0.0859	17.2	21.5	30.1	38.7	47.2
		hp REQUIRED @ rpm **		33.4	41.8	58.5	75.2	92.0

METRIC UNITS **SC-65**

PLUNGER SIZE MM	STUFFING BOX BORE MM	MAX. PRESS. BAR	*LITERS PER REV.	250 RPM LPM	350 RPM LPM	450 RPM LPM	550 RPM LPM	650 RPM LPM
57.2	73.0	125.1	0.5375	107.5	134.4	188.1	241.9	295.6
54.0	73.0	140.3	0.4796	95.9	119.9	167.9	215.8	263.8
50.8	73.0	158.4	0.4247	84.9	106.2	148.6	191.1	233.6
47.6	73.0	180.2	0.3732	74.6	93.3	130.6	167.9	205.3
44.5	73.0	206.8	0.3252	65.0	81.3	113.8	146.3	178.9
		kW REQUIRED @ rpm		24.9	31.1	43.6	56.1	68.6

ENGLISH UNITS **SC-65H**

PUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX. PSI	*GALLON PER REV.	200 US GPM	250 US GPM	350 US GPM	450 US GPM	550 US GPM
1.625	2.500	3479	0.0741	14.8	18.5	25.9	33.3	40.7
1.500	2.500	4083	0.0631	12.6	15.8	22.1	28.4	34.7
1.375	2.250	4858	0.0530	10.6	13.3	18.6	23.9	29.2
1.250	2.250	5000	0.0438	8.8	11.0	15.3	19.7	24.1
		hp REQUIRED @ rpm **		33.4	41.8	58.5	75.2	92.0

METRIC UNITS **SC-65H**

PLUNGER SIZE MM	STUFFING BOX BORE MM	MAX. PRESS. BAR	*LITERS PER REV.	250 RPM LPM	350 RPM LPM	450 RPM LPM	550 RPM LPM	650 RPM LPM
41.3	63.5	240.0	0.2805	56.1	70.1	98.2	126.2	154.3
38.1	63.5	281.5	0.2389	47.8	59.7	83.6	107.5	131.4
34.9	57.2	334.9	0.2006	40.1	50.2	70.2	90.3	110.3
31.8	57.2	344.7	0.1658	33.2	41.5	58.0	74.6	91.2
		kW REQUIRED @ rpm		24.9	31.1	43.6	56.1	68.6

ENGLISH UNITS **SC-65L**

PUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX. PSI	*GALLON PER REV.	200 US GPM	250 US GPM	350 US GPM	450 US GPM	550 US GPM
3.000	Piston	1050	0.252	50.5	63.1	88.3	113.6	138.8
2.750	3.500	1215	0.212	42.4	53.0	74.2	95.5	116.7
2.625	3.500	1334	0.193	38.7	48.3	67.6	87.0	106.3
2.500	3.250	1471	0.175	35.1	43.8	61.4	78.9	96.4
2.375	3.250	1630	0.158	31.6	39.6	55.4	71.2	87.0
2.250	2.875	1815	0.142	28.4	35.5	49.7	63.9	78.1
		hp REQUIRED @ rpm **		33.4	41.8	58.5	75.2	92.0

METRIC UNITS **SC-65L**

PLUNGER SIZE MM	STUFFING BOX BORE MM	MAX. PRESS. BAR	*LITERS PER REV.	250 RPM LPM	350 RPM LPM	450 RPM LPM	550 RPM LPM	650 RPM LPM
76.2	Piston	72.4	0.954	190.8	238.5	333.9	429.3	524.7
69.9	88.9	83.8	0.803	160.6	200.7	281.1	361.4	441.6
66.7	88.9	92.0	0.732	146.3	182.9	256.1	329.3	402.4
63.5	82.6	101.4	0.664	132.7	165.9	232.3	298.6	365.0
60.3	82.6	112.4	0.599	119.8	149.7	209.6	269.5	329.4
57.2	73.0	125.1	0.538	107.5	134.4	188.1	241.9	295.6
		kW REQUIRED @ rpm		24.9	31.1	43.6	56.1	68.6

*Displacement based on 100% Volumetric Efficiency

Power based on 90% Mechanical Efficiency

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

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

$$IkW = \frac{M^3/HR \times (Discharge\ Bar - 1/2\ SuctionBar)}{32.4}$$

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

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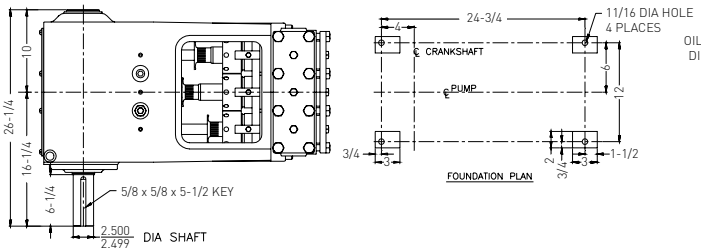
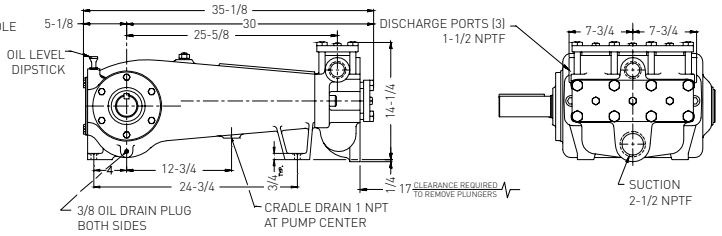
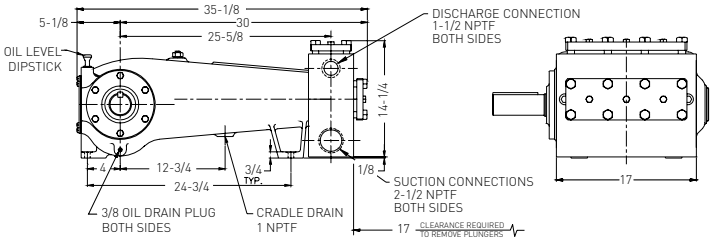
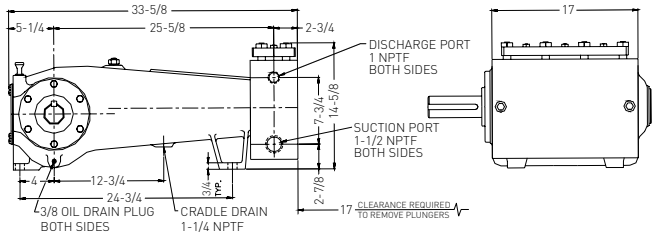
APLEX SERIES - SC-65 (L)(H) TRIPLEX PLUNGER PUMP

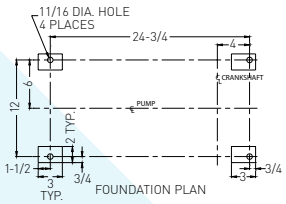
SC-65 Series Triplex Pump
(Measurements in inches)

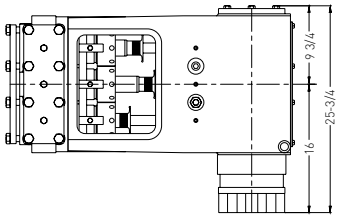


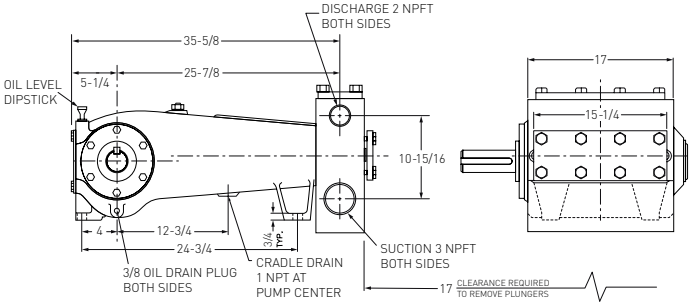


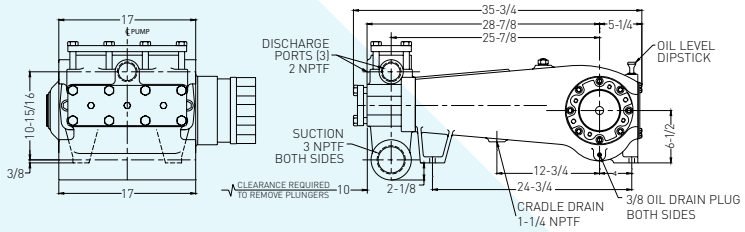












PENTAIR MYERS

APLEX SERIES - SC-65(L)(H) TRIPLEX PLUNGER PUMP

POWER END ENGINEERING DATA

MAX. INPUT POWER @ SPEED	92 hp @ 550 RPM
Rated Plunger Load	7,216 lbs.
Minimum Speed	100 RPM
Oil Capacity	8 U.S. Qts.
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
Main Bearings, Tapered Roller	Timken®
Crankpin Bearings, Precision Automotive	Babbitt-Lined
Extension (Pony) Rod Integral w/ Plungers	316 S.ST.
Connecting Rod, Automotive Type	Ductile Iron
Average Crosshead Speed @ 550 RPM	252 fpm
Minimum Life Expectancy, Main Bearings, L_{10}	30,000+ hr.

LIQUID END ENGINEERING DATA

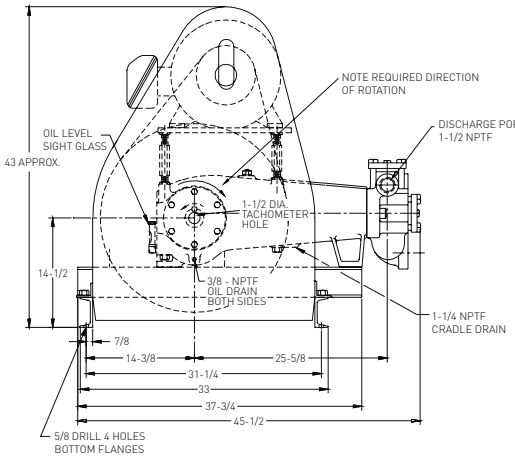
Max. Working Pressure	SC-65	3,000 psi
	SC-65L	1,815 psi
	SC-65H	5,000 psi
Hydrostatic Test	SC-65	4,500 psi
	SC-65L	2,725 psi
	SC-65H	7,500 psi

Liquid End Materials, A.S.T.M.	
Ductile Iron SC-65(L)	A536 80-55-06
Nickel Aluminum Bronze SC-65	B148 C955
Carbon Steel	Various Grades
Stainless Steel	Various Grades
Plunger Type Rokide Stainless Steel, (Chromium Oxide-Coated)	Tungsten Carbide, Ceramic & others also available
Stuffing boxes, Field-Removable and Replaceable	Various Grades of carbon steel and SST available
Packing Types Available:	
Gland-loaded, Non-Adjustable SC-65(L)	Style 838
Spring-loaded, Braided PTFE coating and Aramid Fiber	Style 0140, 0141, 8921K
Spring-loaded, cup-type	Style 120X
Valve Cover and Cyl. Head Plugs	1020 or 316 S.ST.
Retainer Plates, Steel, A.S.T.M.	A36
Seals, Stuffing Boxes, Valve Covers	Nitrile
Valve Type, Abrasion Resistant	17-4 PH S.ST.
Valve Type, Disc	Acetal , 17-4PH SS T, Titanium
Valve Spring Material	Inconel®
Valve Seat, Liquid Passage Area	
Plate (disc) Valves, (Acetal or S.S.)	
SC-65	2.3 sq.in.
65L	2.4 sq. in.
65H	0.7 sq. in.
Abrasion Resistant Valve	1.07 sq.in.
65L	2.4 sq. in.
65H	0.7 sq. in.
Avg. Liquid Velocity @ 550 RPM	
thru Disc Valves SC-65	7.3 fps
thru A R Valves SC-65	12.3 fps
thru Suction Manifold SC-65	5.2 fps
thru Discharge Manifold SC-65	14.1 fps
Avg. Liquid Velocity @ 550 RPM	
thru Disc Valves SC-65L	10.6 fps
thru A R Stem Valves SC-65L	13.7 fps
thru Suction Manifold SC-65L	5.2 fps
thru Discharge Manifold SC-65	5.1 fps
thru Discharge Manifold SC-65L	11.9 fps
thru Discharge Manifold SC-65H	14.2 fps

SC-65 Series Triplex Pump

(Measurements in inches)

SC-65



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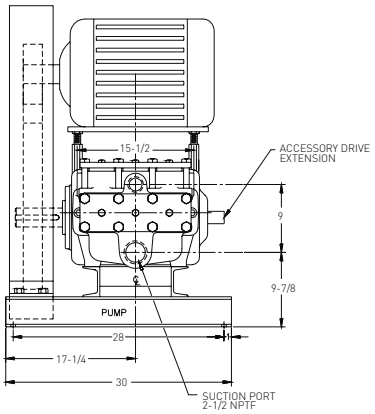

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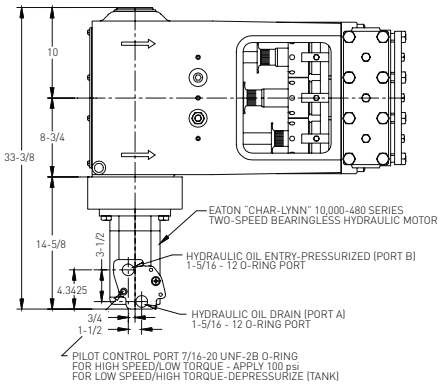
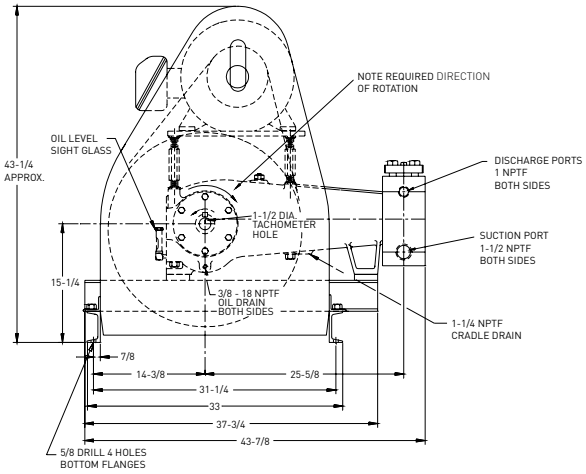


SC-65H



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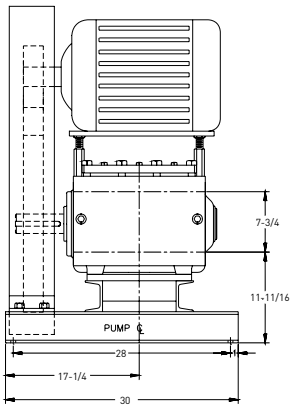

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