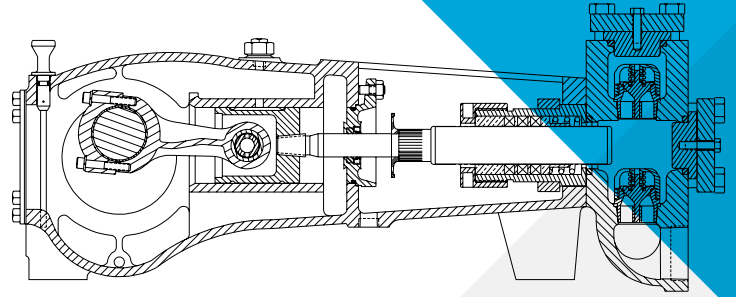


APLEX SERIES SC-30(H) TRIPLEX PUMP



INTERMITTENT DUTY ONLY

No. of plungers	3
Maximum rated speed	650 rpm
Stroke length	1.75 in. 44.5 mm
Maximum rated power	40 hp 30 kW
Maximum rod load	4193 lbs. 18.6 kN
Weight SC-30	225 lbs.
SC-30H	275 lbs.

ENGLISH UNITS

SC-30

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX. PSI	*GALLON PER REV.	250 US GPM	350 US GPM	450 US GPM	550 US GPM	650 US GPM
1.750	Piston	1743	.0546	13.6	19.1	24.6	30.0	35.5
1.625	2.125	2022	.0471	11.8	16.5	21.2	25.9	30.6
1.500	2.125	2373	.0401	10.0	14.1	18.1	22.1	26.1
1.375	2.125	2824	.0337	8.4	11.8	15.2	18.6	21.9
1.250	2.125	3417	.0278	7.0	9.8	12.6	15.3	18.1
hp REQUIRED @ rpm **				15.3	21.5	27.8	33.9	40.1

METRIC UNITS

SC-30

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
44.4	Piston	120.1	.2070	51.4	72.3	93.1	113.5	134.3
41.3	54.0	139.4	.1785	44.6	62.5	80.3	98.2	116.0
38.1	54.0	163.6	.1520	38.0	53.2	68.4	83.6	98.8
34.9	54.0	194.7	.1278	32.0	44.7	57.5	70.3	82.6
31.8	54.0	235.6	.1056	26.4	36.8	47.5	58.1	68.6
kW REQUIRED @ rpm				11.4	16.0	20.7	25.2	29.9

ENGLISH UNITS

SC-30H

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX. PSI	*GALLON PER REV.	250 GPM	350 GPM	450 GPM	550 GPM	650 GPM
1.125	1.750	4218	0.0226	5.6	7.9	10.2	12.4	14.7
1.000	1.750	5000	0.0179	4.5	6.2	8.0	9.8	11.6
.8750	1.500	5000	0.0137	3.4	4.8	6.1	7.5	8.9
hp REQUIRED @ rpm				15.4	21.6	27.8	34.0	40.0

METRIC UNITS

SC-30H

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
28.6	44.5	290.8	0.0855	21.4	29.9	38.5	47.0	55.6
25.4	44.5	344.7	0.0678	17.0	23.7	30.5	37.3	44.1
22.2	38.1	344.7	0.0519	13.0	18.2	23.4	28.5	33.7
kW REQUIRED @ rpm				11.5	16.1	20.7	25.4	29.8

*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical

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

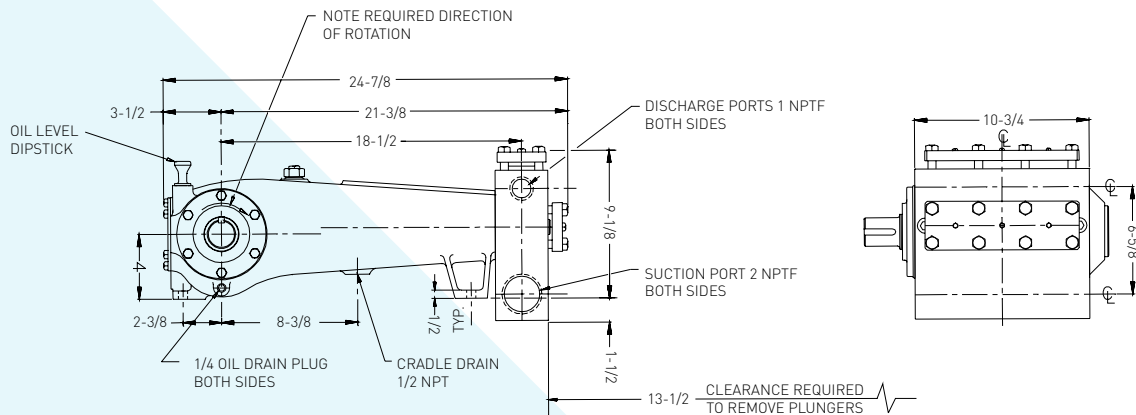
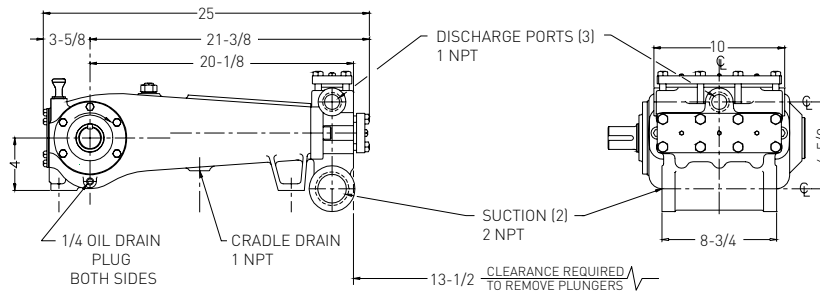
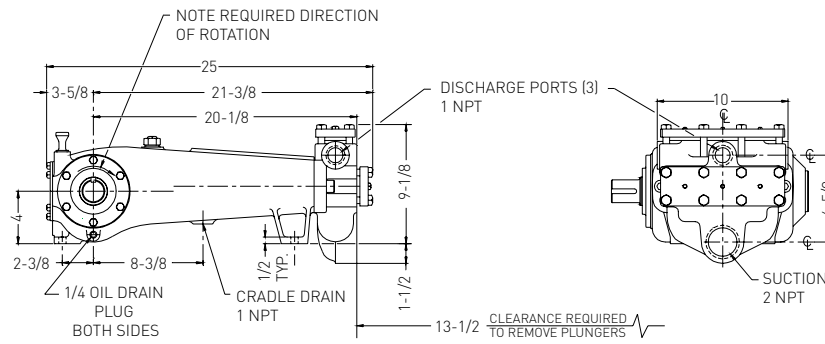
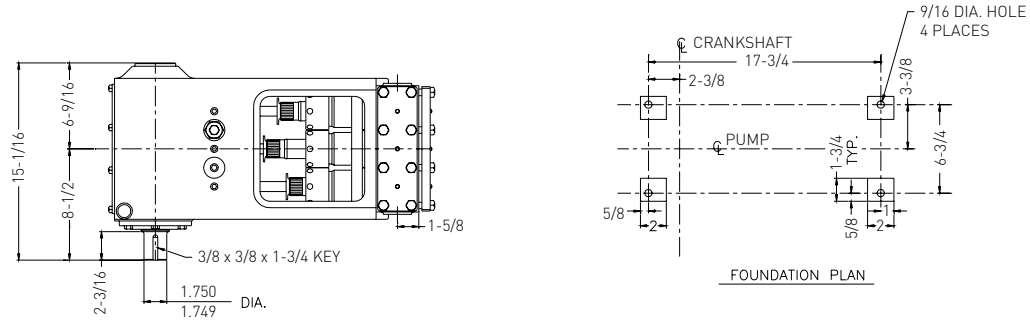
$$I_{kW} = \frac{M^3/HR \times (\text{Discharge Bar} - 1/2 \text{ Suction Bar})}{32.4}$$

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

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

APLEX SERIES - SC-30(H) TRIPLEX PUMP

SC-30 Triplex Pump (Measurements shown in inches)



APLEX SERIES - SC-30(H) TRIPLEX PUMP

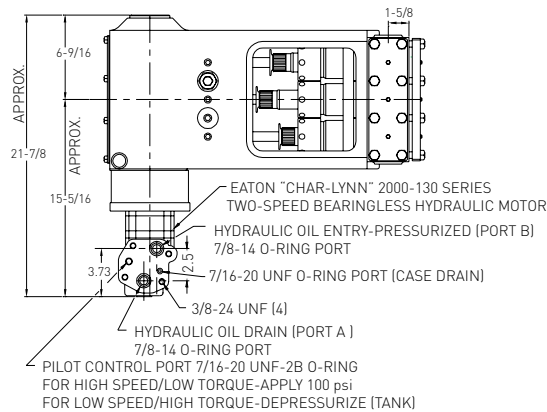
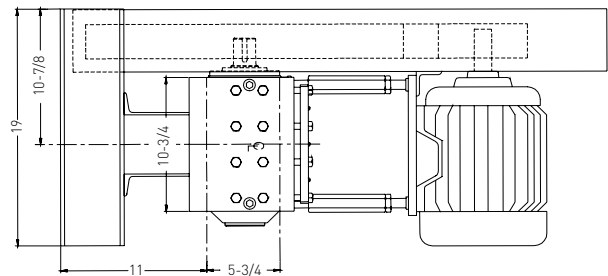
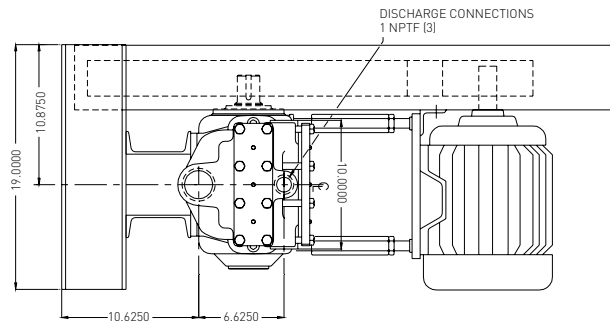
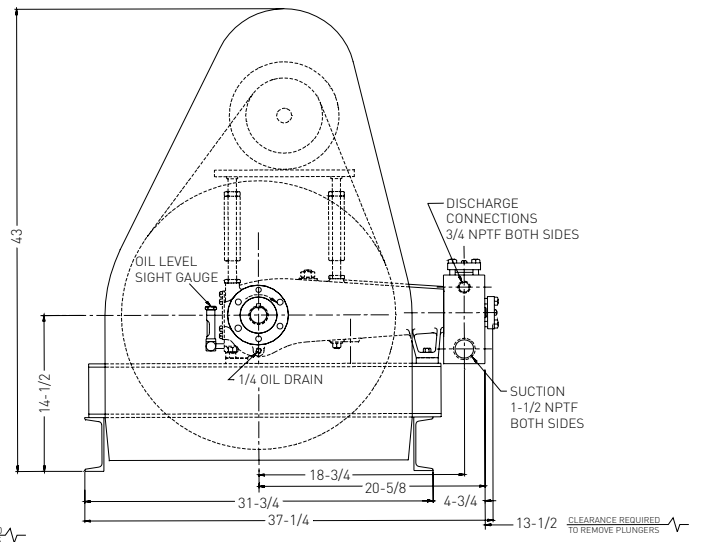
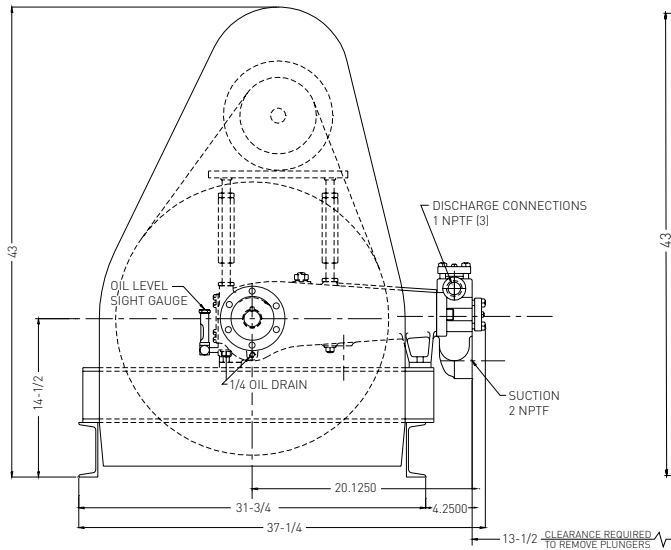
ENGINEERING DATA - SC-30(H)

POWER END ENGINEERING DATA

Max. Input Power @ Speed	40 hp @ 650 rpm
Rated Rod Load	4,193 lbs.
Minimum Speed	100 rpm
Oil Capacity	2 U.S. Qts.
Power End Oiling System	Splash & Scoop
Power Frame, One-Piece	Cast Iron
Crosshead, Full Cylindrical	Cast Iron
Crosshead, Dia. x Length	2-5/8 x 2-7/8 in.
Crankshaft	Ductile Iron
Crankshaft Diameters:	
At Tapered Roller Bearings	2.167 in.
At Crankpin Bearings, Dia. x Length	1.750 x 1.063 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.S.T.
Connecting Rod, Automotive Type	Ductile Iron
Average Crosshead Speed @ 650 rpm	189 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	10,000+ hr.

LIQUID END ENGINEERING DATA

Max. Working Pressure SC-30	3,500 psi
SC-30H	5,000 psi
Hydrostatic Test SC-30	5,250 psi
SC-30H	7,500 psi
Liquid End Materials, A.S.T.M.	
Ductile Iron SC-30	A536 80-55-06
Nickel Aluminum Bronze SC-30	B148 C955
Carbon Steel SC-30/30H	Various Grades
Stainless Steel SC30/30H	Various Grades
Plunger Type Rokide [®] Stainless Steel, (Chromium Oxide-Coated)	316 S.S.T. Tungsten Carbide,
.....	Ceramic and other types of plungers also available
Stuffing Boxes, Field-Removable and Replaceable,	Carbon Steel or Stainless Steel
Packing Types Available:	
Gland-loaded, Non-Adjustable	Style 838
Spring-loaded, Braided PTFE coating & Aramid Fiber	Style 140, 141, 8921K
Spring-loaded, cup-type	Style 120X
Valve Cover and Cyl. Head Plugs	316 S.S.T.
Retainer Plates, Steel, A.S.T.M.	A36
Seals, Stuffing Boxes, Valve Covers	Buna-N
Valve Types Available:	
Dual Stem-Guided	17-4PH S.S.T.
Stainless Steel Disc	17-4PH S.S
Abrasion Resistant	17-4PH S.S
Valve Spring Material	Inconel [®]
Valve Seat, Liquid Passage Area573 sq.in.
Avg. Liquid Velocity, with 1-5/8" Plungers @ 650 RPM	
thru Valves SC-30	11.5 fps
thru Suction Manifold SC-30	3.1 fps
SC-30H	1.5 fps
thru Discharge Manifold SC-30	12.5fps
SC-30H	6.00 fps



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