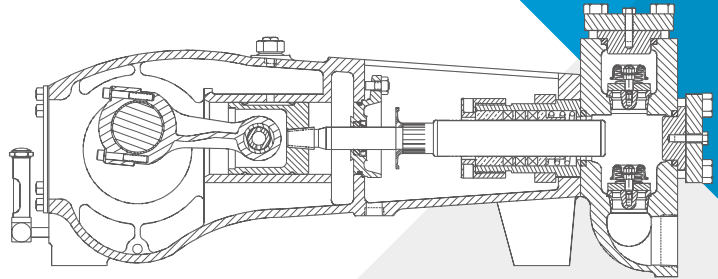


MA-25M(L)(H)

TRIPLEX PLUNGER PUMP



No. of Plungers	3
Maximum Rated Speed.....	600 rpm
Stroke Length	2.00 in. 50.8 mm
Maximum Rated Power	25.0 hp 18.6 kW
Maximum Rod Load	2475 lbs. 11.0 kN
Weight 25M	430 lbs.
Weight 25L, 25H.....	455 lbs.

ENGLISH UNITS

MA-25M

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI	*GALLON PER/REV.	200 RPM US GPM	300 RPM US GPM	400 RPM US GPM	500 RPM US GPM	600 RPM US GPM
1.875	2.500	896	0.0717	14.3	21.5	28.7	35.9	43.0
1.750	2.500	1028	0.0625	12.5	18.7	25.0	31.2	37.5
1.625	2.500	1193	0.0539	10.8	16.2	21.5	26.9	32.3
1.500	2.500	1400	0.0459	9.2	13.8	18.4	23.0	27.5
1.375	2.250	1666	0.0386	7.7	11.6	15.4	19.3	23.1
1.250	2.250	2016	0.0319	6.4	9.6	12.8	15.9	19.1
1.125	1.750	2490	0.0258	5.2	7.7	10.3	12.9	15.5
1.000	1.750	3151	0.0204	4.1	6.1	8.2	10.2	12.2
hp Required @ rpm				8.3	12.5	16.7	20.8	25.0

METRIC UNITS

MA-25M

PLUNGER SIZE MM	STUFFING BOX BORE MM	MAX PRESS. BAR	*LITER PER/REV.	200 RPM LPM	300 RPM LPM	400 RPM LPM	500 RPM LPM	600 RPM LPM
47.6	63.5	61.7	0.2714	54.3	81.4	108.6	135.7	162.8
44.5	63.5	70.9	0.2366	47.3	71.0	94.6	118.3	142.0
41.3	63.5	82.2	0.2040	40.8	61.2	81.6	102.0	122.4
38.1	63.5	96.5	0.1738	34.8	52.1	69.5	86.9	104.3
34.9	57.2	114.8	0.1461	29.2	43.8	58.4	73.1	87.7
31.8	57.2	139.0	0.1208	24.2	36.2	48.3	60.4	72.5
28.6	44.5	171.6	0.0977	19.5	29.3	39.1	48.9	58.6
25.4	44.5	217.2	0.0772	15.4	23.2	30.9	38.6	46.3
kW Required @ rpm				6.2	9.3	12.5	15.5	18.6

ENGLISH UNITS

MA-25L

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI	*GALLON PER/REV.	200 RPM US GPM	300 RPM US GPM	400 RPM US GPM	500 RPM US GPM	600 RPM US GPM
2.250	2.875	625	.1033	20.7	31.0	41.3	51.7	62.0
2.125	2.875	700	.0921	18.4	27.6	36.8	46.1	55.3
2.000	2.875	789	.0816	16.3	24.5	32.6	40.8	49.0
hp Required @ rpm				8.3	12.5	16.6	21.2	25.0

METRIC UNITS

MA-25L

PLUNGER SIZE MM	STUFFING BOX BORE MM	MAX PRESS. BAR	*LITER PER/REV.	200 RPM LPM	300 RPM LPM	400 RPM LPM	500 RPM LPM	600 RPM LPM
57.2	73.0	43.1	0.3911	78.2	117.3	156.4	196.0	235.0
54.0	73.0	48.3	0.3487	69.7	104.6	139.5	174.4	209.2
50.8	73.0	54.4	0.3089	62.0	93.0	124.0	154.5	185.3
kW Required @ rpm				6.2	9.4	12.5	15.8	18.6

MA-25M(L)(H)

ENGLISH UNITS

MA-25H

PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI	*GALLON PER/ REV.	200 RPM US GPM	300 RPM US GPM	400 RPM US GPM	500 RPM US GPM	600 RPM US GPM
.875	1.500	4145	.0156	3.1	4.7	6.2	7.8	9.4
.750	1.500	5000	.0115	2.3	3.5	4.6	5.8	6.9
hp Required @ rpm				8.3	12.7	16.6	20.9	25.0

METRIC UNITS

MA-25H

PLUNGER SIZE MM	STUFFING BOX BORE MM	MAX PRESS. BAR	*LITER PER/ REV.	200 RPM LPM	300 RPM LPM	400 RPM LPM	500 RPM LPM	600 RPM LPM
22.2	38.1	285.7	0.0591	11.8	17.7	23.6	29.5	35.5
19.1	38.1	344.7	0.0435	8.7	13.1	17.4	21.8	26.1
kW Required @ rpm				6.3	9.4	12.5	15.5	18.6

*Displacement based on 100% Volumetric Efficiency

Power based on 90% Mechanical Efficiency

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

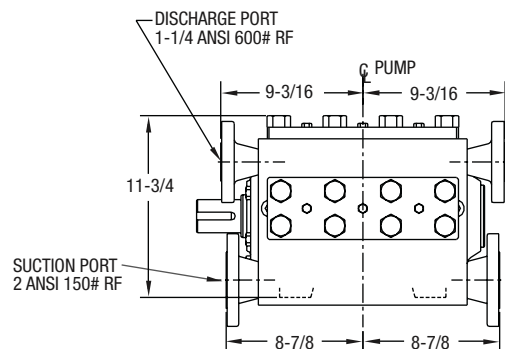
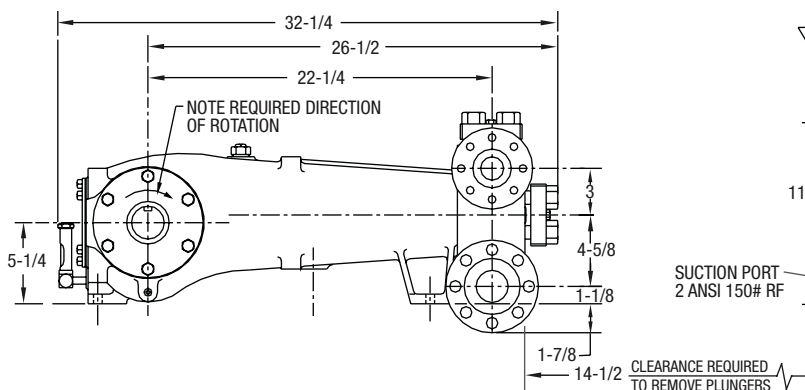
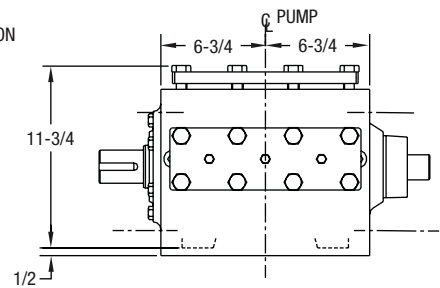
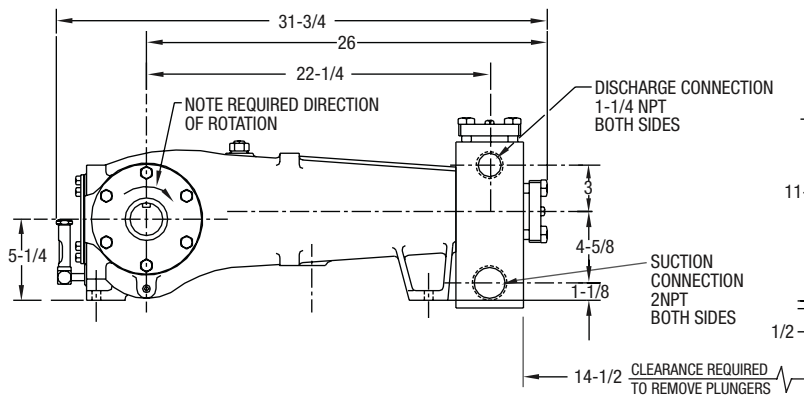
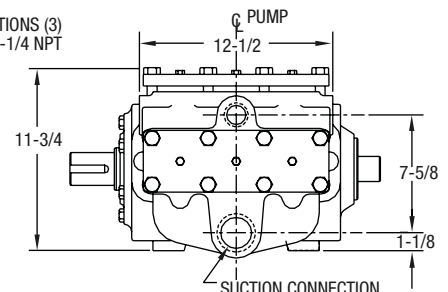
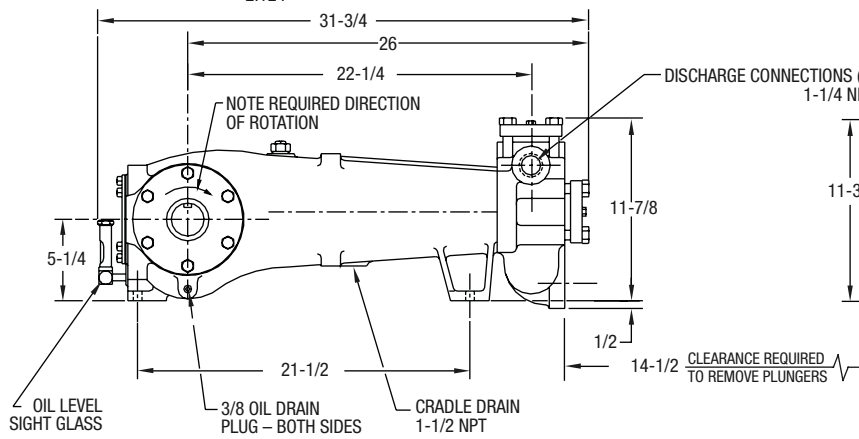
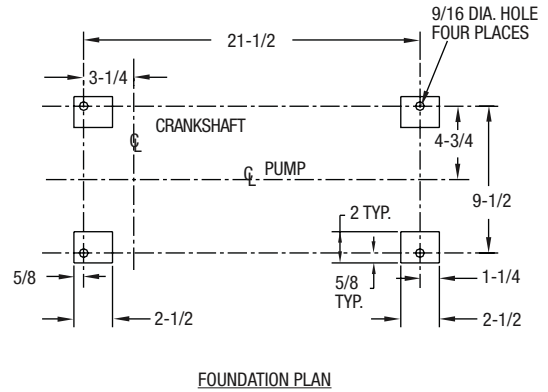
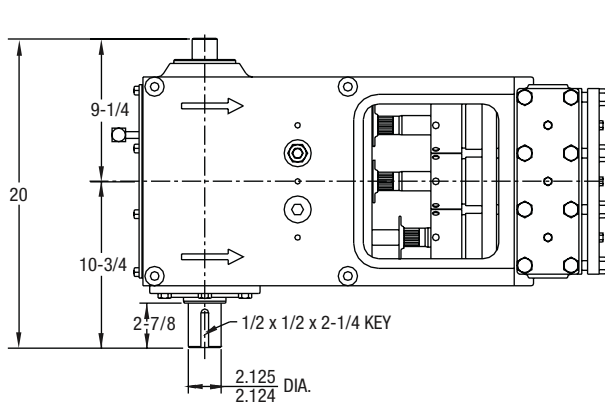
$$ikW = \frac{M^3/HR \times (\text{Discharge Bar} - 1/2 \text{ Suction Bar})}{32.4}$$

$$\text{Pump rpm} = \frac{USGPM \text{ Desired}}{USG \text{ per Revolution of Selected Plunger}}$$

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

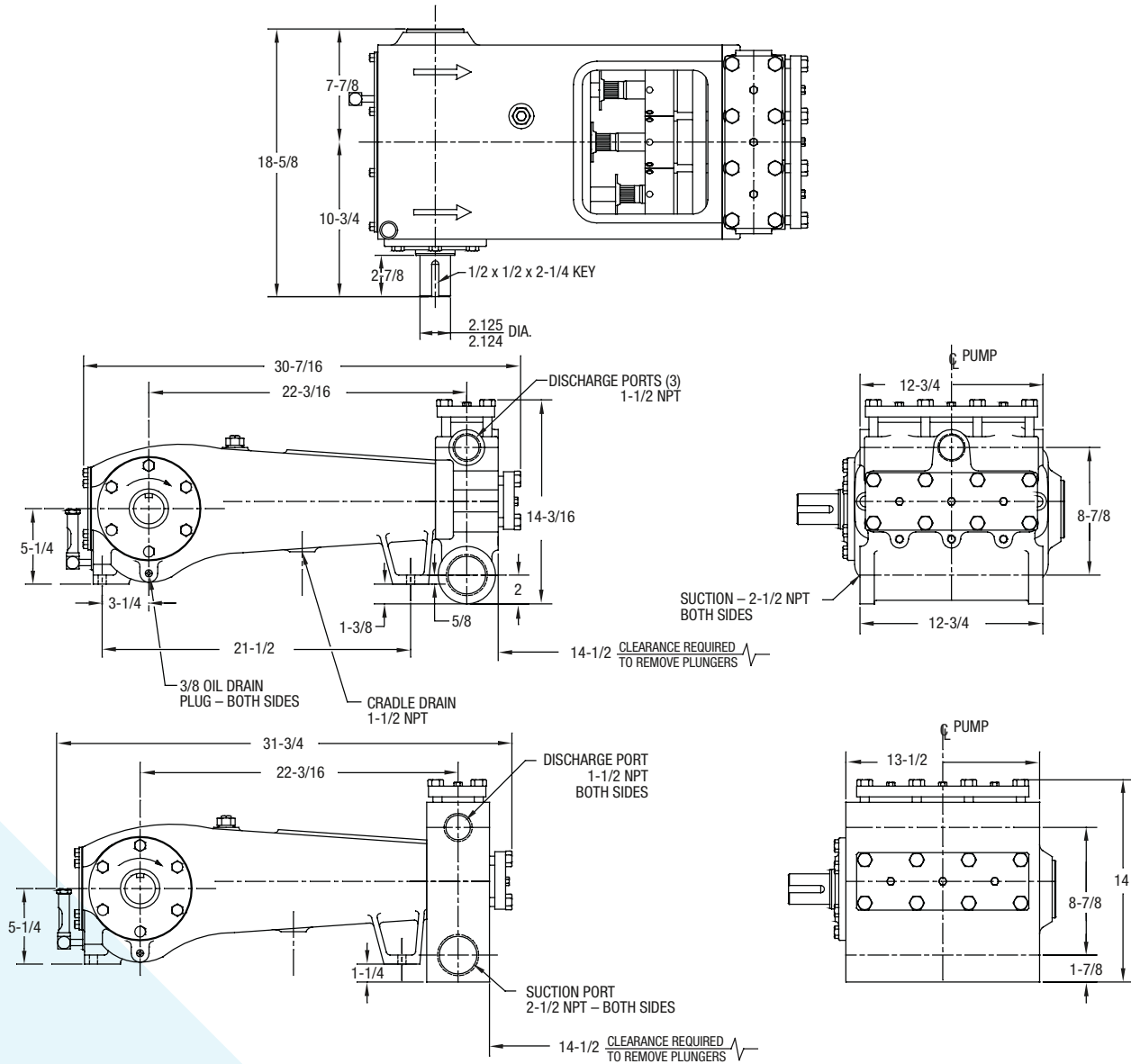
MA-25M TRIPLEX PUMP

Measurements shown in inches



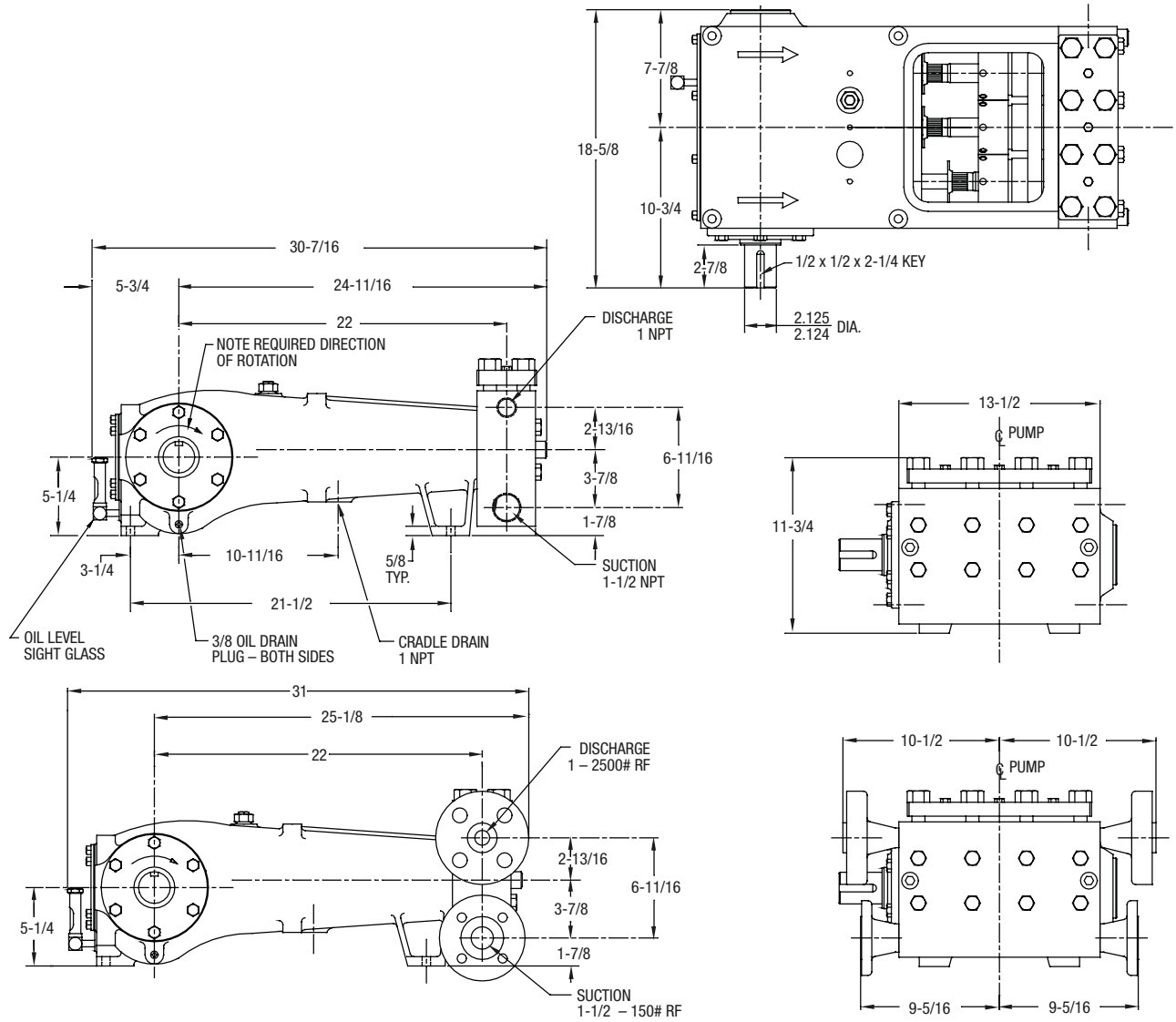
MA-25L TRIPLEX PUMP

Measurements shown in inches



MA-25H TRIPLEX PUMP

Measurements shown in inches



ENGINEERING DATA

MA-25M, MA25-L, AND MA-25H TRIPLEX PUMPS

POWER END ENGINEERING DATA

Max. Input hp @ Speed	25 hp @ 600 rpm
Rated Continuous Plunger Load	2,475 lbs.
Normal Continuous Speed Range 25M, 25L, 25H	150 to 500 rpm
Minimum Speed	100 rpm
Oil Capacity	5 U.S. Qts
Power End Oiling System	Splash & Scoop
Power Frame, One-Piece	Cast Iron
Crosshead, Full Cylindrical	Cast Iron
Dia. x Length	3-1/4 x 3-5/8 in.
Crankshaft	Ductile Iron
Crankshaft Diameters:	
At Tapered Roller Bearings	3.06 in.
At Crankpin Bearings	2.25 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 @ 600 rpm	200 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	50,000+ hr.

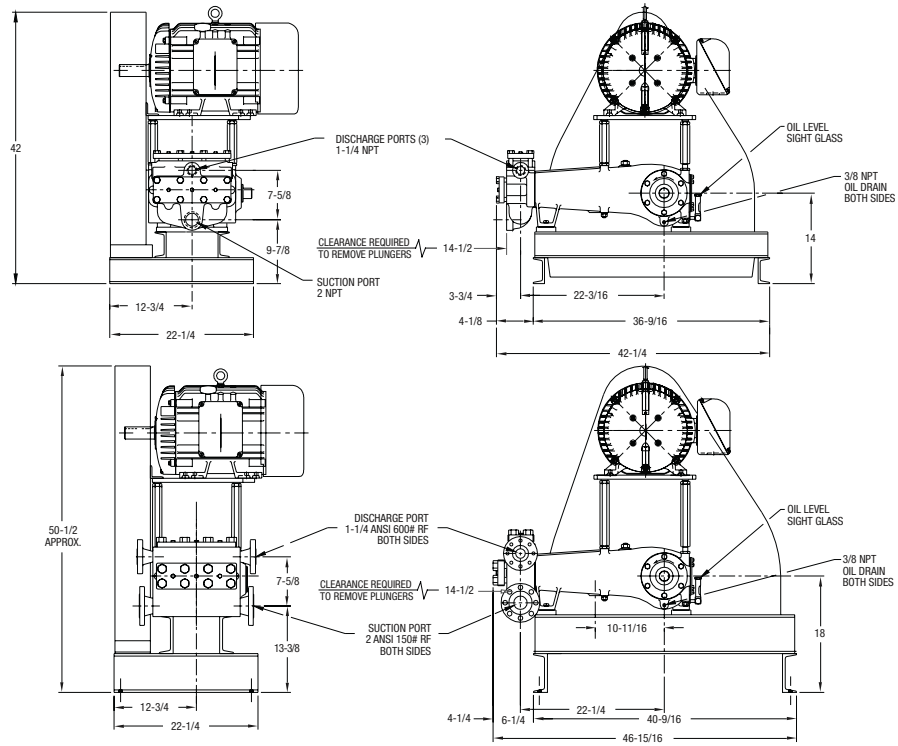
LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure 25M	3,500 psi
25L	789 psi
25H	5,000 psi
Hydrostatic Test 25M	5,250 psi
25L	1,184 psi
25H	7,500 psi
Liquid End Materials, A.S.T.M.	
Nickel Aluminum Bronze Casting 25M	B148-C955
Carbon Steel Block 25M, 25L, 25H	Various Grades
Stainless Steel Block 25M, 25L, 25H	Various Grades
Ductile Iron Casting 25M, 25L	A536 80-55-06
Plunger Type Rokide® (Chromium Oxide-Coated)	316 S.ST.
Stuffing Boxes, Field-Removable and Replaceable	
Stainless Steel	Various Grades
Carbon Steel	Various Grades
Packing Types Available	
Gland-Loaded, Non-Adjustable 25M, 25L	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.ST.
Retainer Plates, Steel, A.S.T.M.	Carbon Steel / Stainless Steel
Seals, Stuffing Boxes, Valve Covers	Nitrile
Bolting, High Strength, Heat Treated	Alloy Steel
Valve Types Available	
Standard, Acetal Resin 25M, 25L	Acetal
Standard, Disc Type, Hardened and Lapped 25M, 25L, 25H	17-4 PH S.ST.
Abrasion Resistant, Wing Guided	17-4 PH S.ST.
Valve Spring Material	Inconel®
Valve Seat, Liquid Passage Area	
Disc Valves, (Acetal or S.ST.) 25M	1.4 sq.in.
25L	2.3 sq.in.
25H57 sq.in.
A/R Wing Guided Valves 25M69 sq.in.
25L	1.06 sq.in.
25H65 sq.in.
Avg. Liquid Velocity @ 600 rpm	
through Disc Valves 25M	6.57 fps
25L	5.7 fps
25H	3.5 fps
through A/R Wing Guided Valves 25M	13.3fps
25L	12.5 fps
25H	3.1 fps
through Suction Manifold 25M	4.4 fps
25L	4.0 fps
25H	1.7 fps
through Discharge Manifold 25M	11.2 fps
25L	11.2 fps
25H	3.8 fps

All drawings and specifications subject to change without notice.

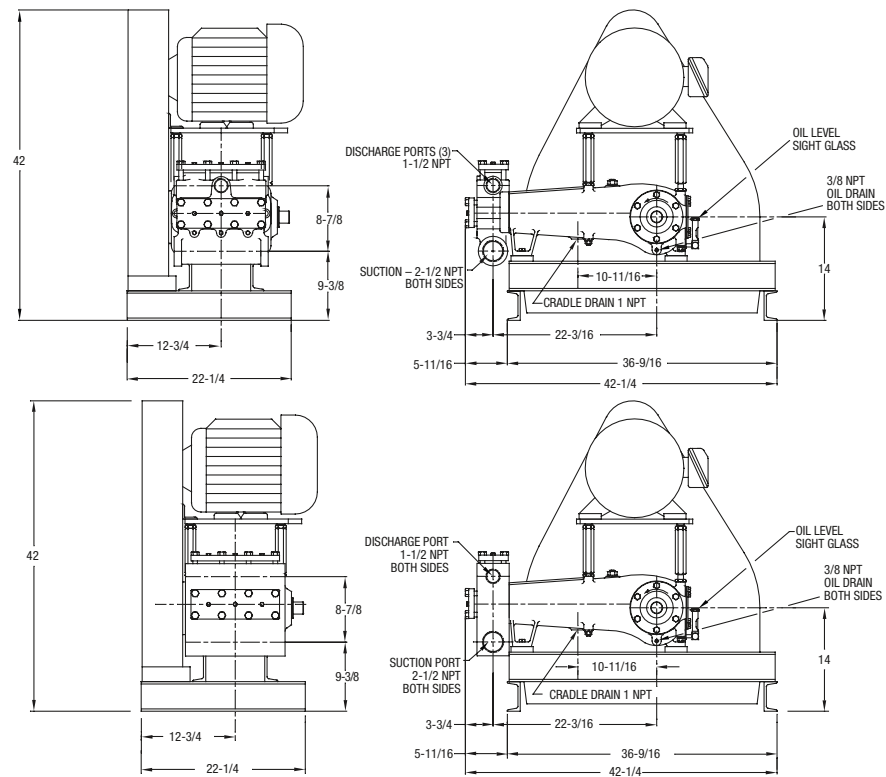
MA-25M TRIPLEX PUMP

Measurements shown in inches



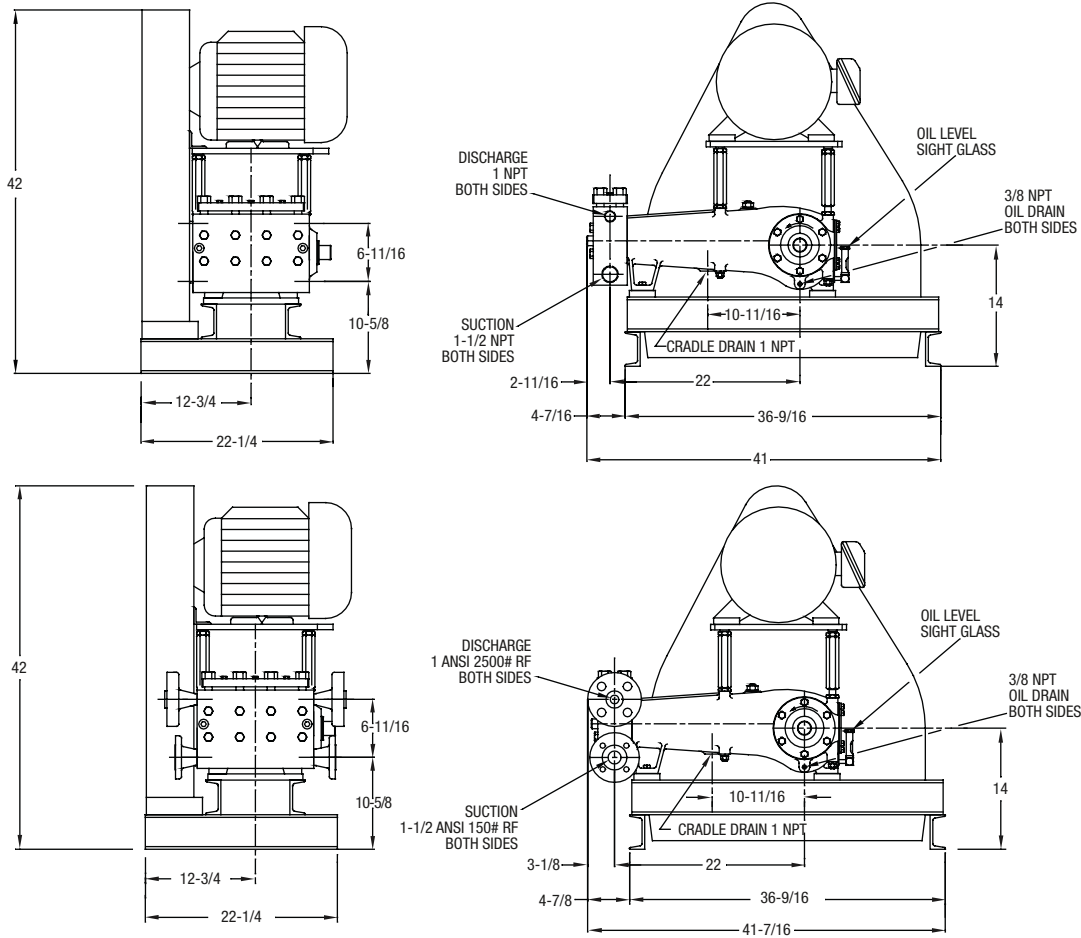
MA-25L TRIPLEX PUMP

Measurements shown in inches



MA-25H TRIPLEX PUMP

Measurements shown in inches



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