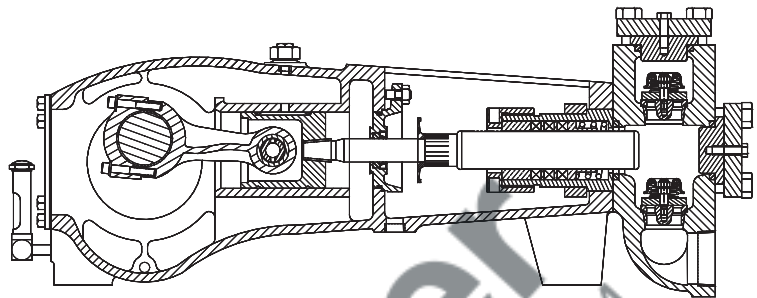




MYERS® APLEX SERIES

MA-45M

QUINTUPLEX PLUNGER PUMP



No. of plungers.....5
Maximum rated speed.....600 rpm
Stroke length.....2.25 in. 57.15 mm
Maximum rated power.....45.0 HP 33.5 KW
Maximum rod load2376 lb. 10.54 kN
Weight.....710 lbs.

ENGLISH UNITS

MA-45M

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	860	0.134	26.9	40.3	53.8	67.2	80.7
1.750	2.500	988	0.117	23.4	35.1	46.9	58.6	70.3
1.625	2.500	1146	0.101	20.2	30.3	40.4	50.5	60.6
1.500	2.500	1344	0.086	17.2	25.8	34.4	43.0	51.6
1.375	2.250	1600	0.072	14.5	21.7	28.9	36.2	43.4
1.250	2.250	1936	0.060	12.0	17.9	23.9	29.9	35.9
1.125	1.750	2390	0.048	9.7	14.5	19.4	24.2	29.0
1.000	1.750	3024	0.038	7.7	11.5	15.3	19.1	23.0
HP REQUIRED @ RPM**				15.0	22.5	30.0	37.5	45.0

METRIC UNITS

MA-45M

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	59.3	0.509	101.8	152.7	203.6	254.6	305.5
44.5	63.5	68.1	0.443	88.7	133.0	177.3	221.7	266.0
41.3	63.5	79.0	0.382	76.5	114.7	152.9	191.1	229.4
38.1	63.5	92.7	0.326	65.2	97.8	130.4	163.0	195.5
34.9	57.2	110.3	0.274	54.7	82.1	109.5	136.8	164.2
31.8	57.2	133.5	0.226	45.3	67.9	90.6	113.2	135.8
28.6	44.5	164.8	0.183	36.6	55.0	73.3	91.6	109.9
25.4	44.5	208.5	0.145	29.0	43.5	58.0	72.5	87.0
KW REQUIRED @ RPM**				11.2	16.8	22.4	28.0	33.6

*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical Efficiency

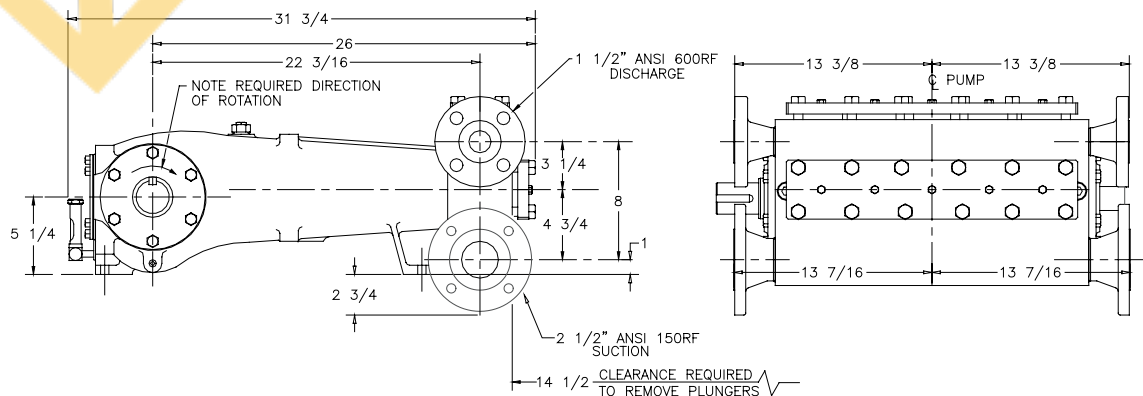
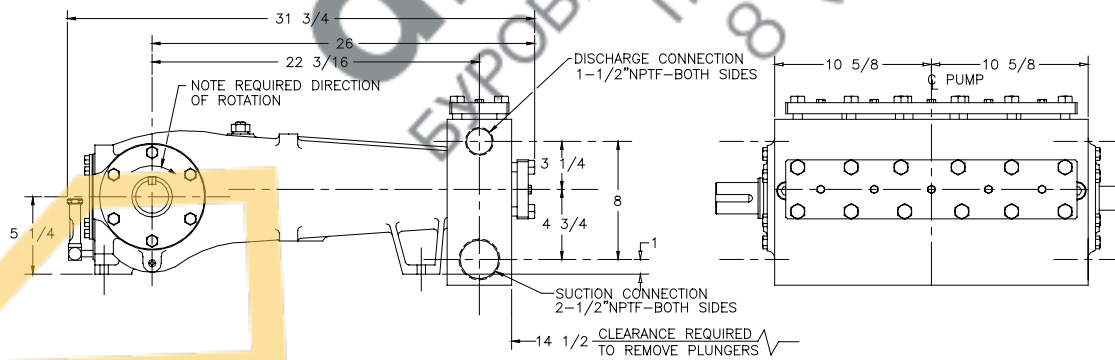
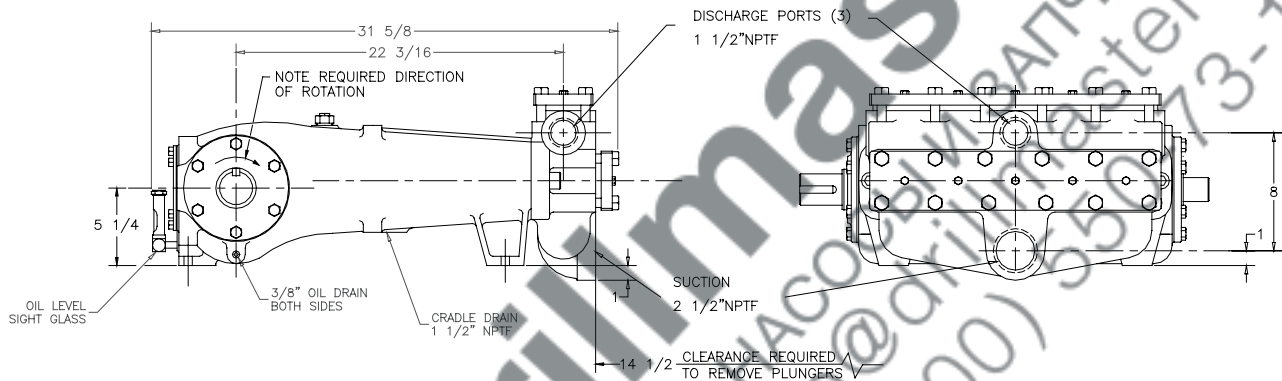
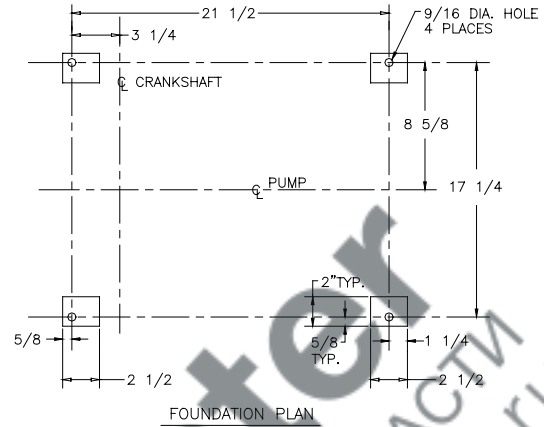
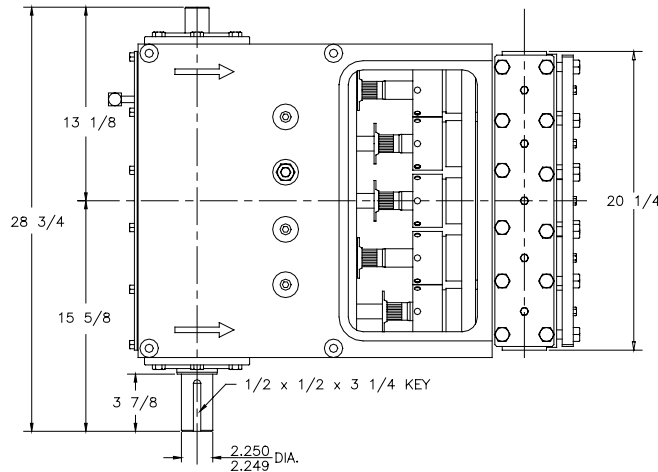
$$\text{IHP} = \frac{\text{USGPM} \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

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

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

MA-45M Quintuplex Pump



ENGINEERING DATA

MA-45M Quintuplex Pump

POWER END ENGINEERING DATA

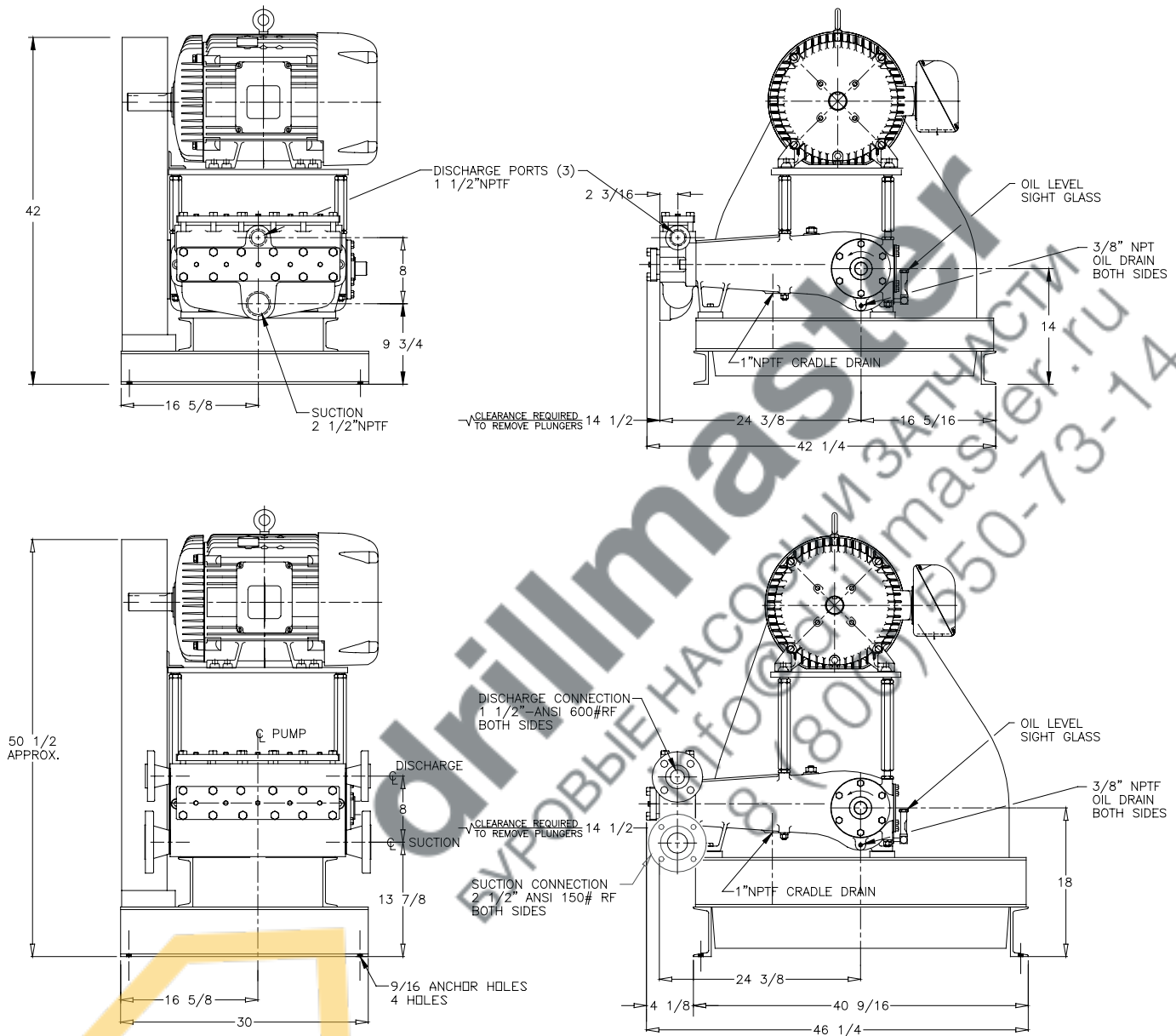
Max. Input Power @ Speed	45 HP @ 600 rpm
Rated Continuous Plunger Load	2,376 lb.
Max. Rated Continuous Speed	600 rpm
Normal Continuous Speed Range	150 to 550 rpm
Minimum Speed	100 rpm
Oil Capacity	8 U.S. Qrts
Power End Oiling System	Splash & Scoop
Power Frame, One-Piece	Cast Iron
Crosshead, Full Cylindrical	Cast Iron
Crosshead, Dia. x Length	3 1/4 x 3 5/8 in.
Crankshaft	Ductile Iron
Crankshaft Diameters:	
At Tapered Roller Bearings	3.15 in.
At Center Bearings	4.91 in.
At Crankpin Bearings, Dia. x Length	2 1/4 x 1 5/8 in.
Crosshead (Wrist) Pin, Case-Hardened and Ground	AISI 8620
Main Bearings, Tapered Roller	Timken®
Center Bearings, Two, Precision	Steel Backed, Babbitt-Lined
Crankpin Bearings, Precision Automotive	Steel Backed, Babbitt-Lined
Extension (Pony) Rod, Integral w/ Plungers	316 S.S.
Connecting Rod, Automotive Type	Ductile Iron
Average Crosshead Speed @ 600 rpm	225 fpm
Minimum Life Expectancy, Main Bearings, L ₁₀	75,000+ hr.

LIQUID END ENGINEERING DATA

Max. Continuous Working Pressure	3,000 psi
Hydrostatic Test	4,500 psi
Available Liquid End Materials, A.S.T.M.	
Nickel Aluminum Bronze Casting	B148-C955
Carbon Steel Block	A105
Stainless Steel Block	Various Grades
Ductile Iron Casting	A536 80-55-06
Plunger Type "Rokide" (Chromium Oxide-Coated)	316 S.S.
Stuffing Boxes, Field-Removable and Replaceable	Stainless Steel
Packing Types Available	
Gland-loaded, Non-Adjustable	Style 838
Spring-loaded, Braided Teflon & Kevlar	Style 140
Spring-loaded, cup-type	Style 120X
Spring-loaded, Garlock	Style 892IK
Valve Cover and Cyl. Head Plugs	316 S.S.
Retainer Plates, Ductile Iron, A.S.T.M.	A536 80-55-06
Seals, Stuffing Boxes, Valve Covers, Cyl. Heads	Buna-N
Valve Types:	
Standard, Acetal Resin	Delrin®
Optional, Hardened and Lapped	17-4 PH S.S.
Dual Stem Guided	17-4PH S.S.
Valve Spring material	Inconel®
Valve Seat, Liquid Passage Areas	
Plate (disc) Valves, (Delrin or S.S.)	1.4 sq.in.
Dual Stem Guided	.958 sq.in.
Avg. Liquid Velocity @ 600 rpm with 1 7/8" plungers:	
thru Disc Valves	7.4 fps
thru Dual Stem Guided Valves	10.81 fps
thru Suction Manifold	5.4 fps
thru Discharge Manifold	14.65 fps

All drawings and specifications subject to change without notice.

MA-45M Quintuplex Pump



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