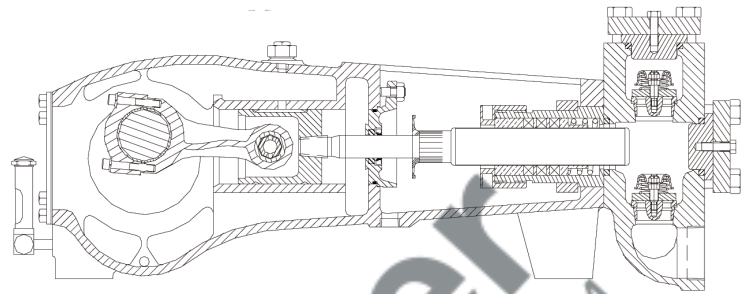




# MYERS® APLEX SERIES

## MA-75M

### QUINTUPLEX PLUNGER PUMP



No. of plungers.....	5
Maximum rated speed.....	550 rpm
Stroke length.....	2.75 in. 69.9 mm
Maximum rated power.....	75.0 HP 55.9 KW
Maximum rod load .....	3535 lb. 15.69 kN
Weight .....	1270 lbs.

ENGLISH UNITS							
PLUNGER SIZE IN.	STUFFING BOX BORE IN.	MAX PSI.	*GALLON PER./REV.	250 RPM USGPM	350 RPM USGPM	450 RPM USGPM	550 RPM USGPM
2.250	2.875	889	0.2367	59.2	82.8	106.5	130.2
2.125	2.875	997	0.2112	52.8	73.9	95.0	116.1
2.000	2.875	1125	0.1870	46.7	65.4	84.1	102.8
1.875	2.875	1280	0.1643	41.1	57.5	74.0	90.4
1.750	2.875	1468	0.1432	35.8	50.1	64.4	78.7
1.625	2.500	1704	0.1234	30.9	43.2	55.6	67.9
1.500	2.500	1998	0.1052	26.3	36.8	47.3	57.9
1.375	2.250	2379	0.0884	22.1	30.9	39.8	48.6
1.250	2.250	2878	0.0730	18.3	25.6	32.9	40.2
1.125	1.750	3000	0.0591	14.8	20.7	26.6	32.5
<i>HP REQUIRED @ RPM**</i>				34.1	47.6	61.3	75.0

METRIC UNITS							
PLUNGER SIZE M.M	STUFFING BOX BORE MM.	MAX PRESS. BAR	*LITER PER./REV	250 RPM LPM	350 RPM LPM	450 RPM LPM	550 RPM LPM
57.2	73.0	61.3	0.8961	224.0	301.3	387.4	492.8
54.0	73.0	68.7	0.7992	199.8	279.7	359.6	439.5
50.8	73.0	77.6	0.7080	177.0	247.8	318.6	389.4
47.6	73.0	88.3	0.6220	155.5	217.7	279.9	342.1
44.5	73.0	101.2	0.5422	135.5	189.8	244.0	298.2
41.3	63.5	117.5	0.4672	116.8	163.5	210.2	256.9
38.1	63.5	137.8	0.3983	99.6	139.4	179.2	219.0
35.0	57.2	164.0	0.3347	83.7	117.1	150.6	184.1
31.8	57.2	198.4	0.2764	69.1	96.7	124.4	152.0
28.6	44.5	206.8	0.2238	55.9	78.3	100.7	123.1
<i>KW REQUIRED @ RPM**</i>				25.1	35.5	45.7	55.9

\*Displacement based on 100% Volumetric Efficiency

\*\*Power based on 90% Mechanical Efficiency

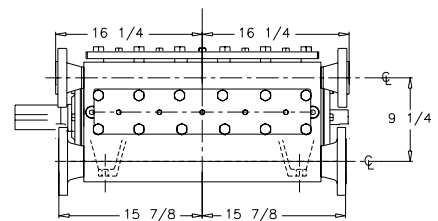
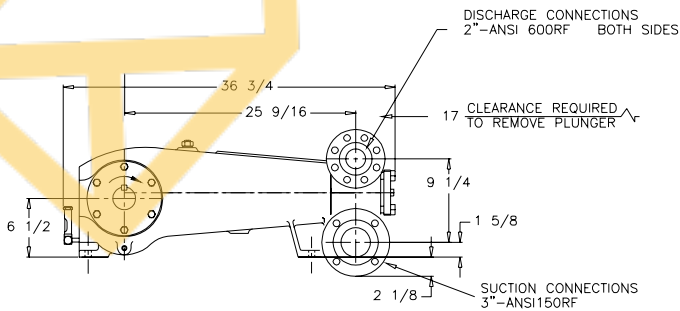
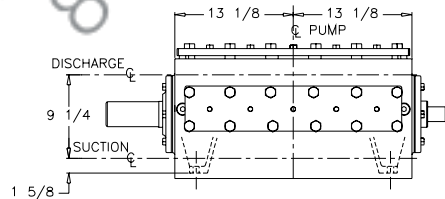
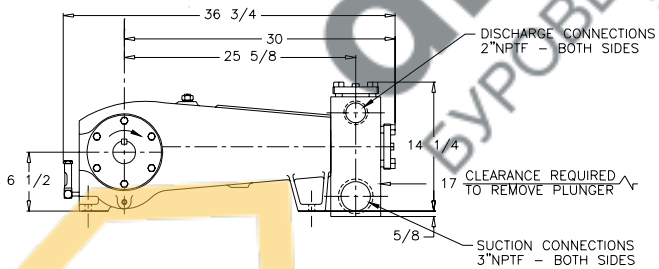
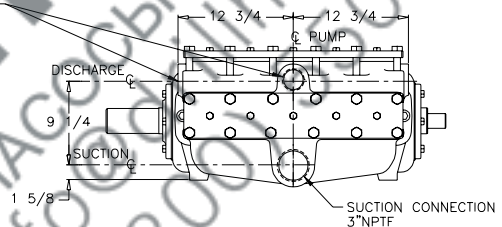
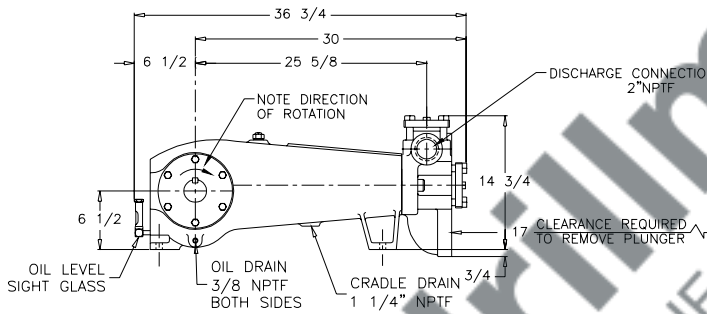
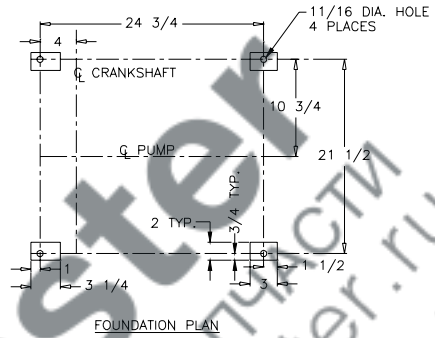
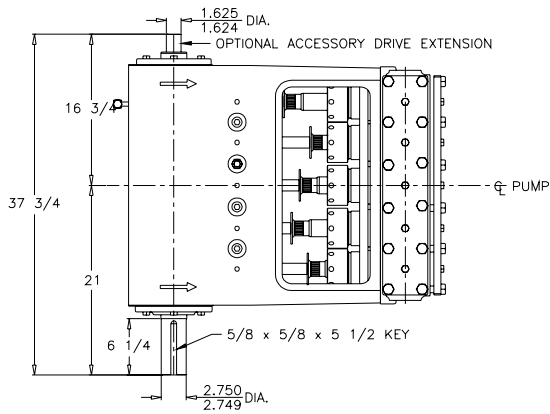
$$IHP = \frac{USGPM \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

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

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

# MA-75M Quintuplex Pump



# ENGINEERING DATA

## MA-75M Quintuplex Pump

### POWER END ENGINEERING DATA

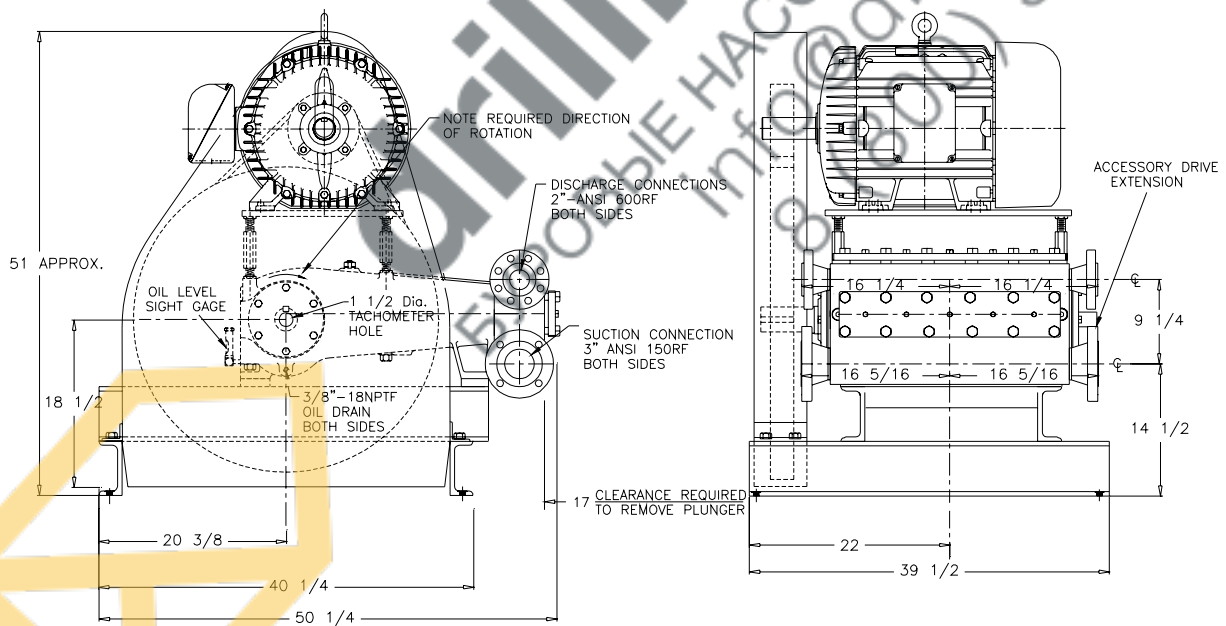
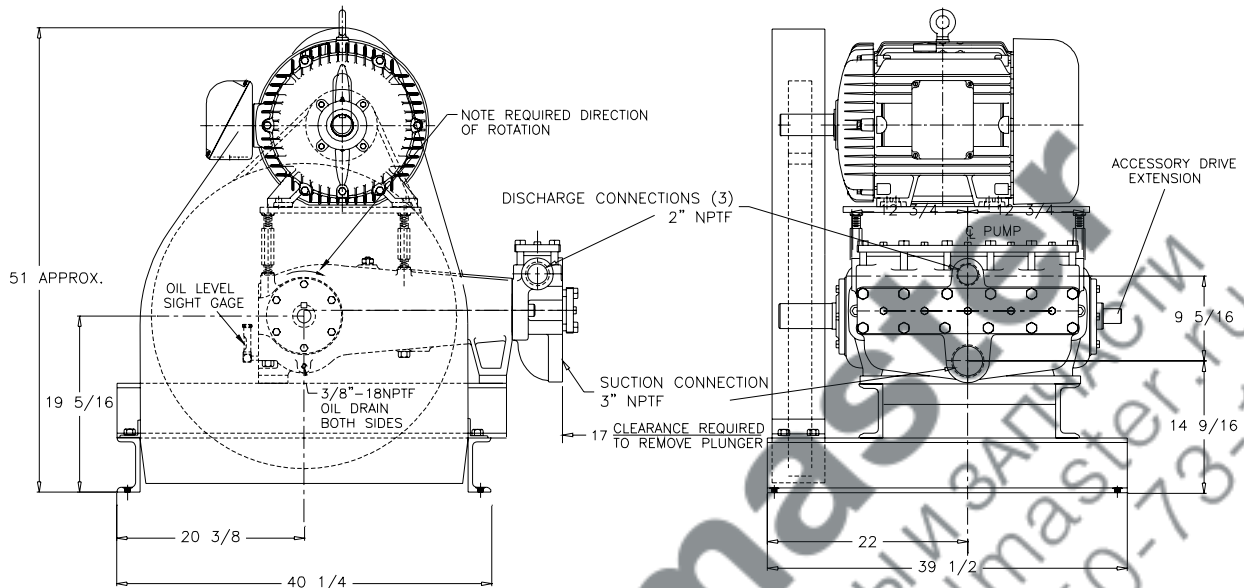
Max. Input Power @ Speed .....	75 HP @ 550 rpm
Rated Continuous Plunger Load .....	3,535 lb.
Max. Rated Continuous Speed.....	550 rpm
Normal Continuous Speed Range .....	150 to 450 rpm
Minimum Speed .....	100 rpm
Oil Capacity .....	12 U.S. Qrts
Power End Oiling System .....	Splash & Scoop
Power Frame, 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
Wrist Pin Bushing, SAE 660, dia. x width .....	1 5/16 x 2 in.
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 @ 550 rpm .....	252 fpm
Minimum Life Expectancy, Main Bearings, L <sub>10</sub> .....	75,000+ hrs.

### 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 .....	316 S.S.
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
Available Valve Types	
Standard, Acetal Resin .....	Delrin®
Optional, Hardened and Lapped .....	17-4PH S.S.
Optional, Abrasion Resistant .....	17-4PH S.S.
Valve Spring Material .....	Inconel®
Valve Seat, Liquid Passage Area	
Plate (disc) Valves, (Delrin or S.S.) .....	2.3 sq.in.
Dual Stem Guided.....	1.5 sq.in.
Avg. Liquid Velocity with 2 1/4" plungers @ 550 rpm	
thru Disc Valves .....	7.5 fps
thru Dual Stem Guided .....	11.2 fps
thru Suction Manifold .....	4.7 fps
thru Discharge Manifold .....	10.3 fps

All drawings and specifications subject to change without notice.

# MA-75M Quintuplex Pump



740 EAST 9TH STREET,  
ASHLAND, OHIO 44805  
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269 TRILLIUM DRIVE, KITCHENER,  
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