



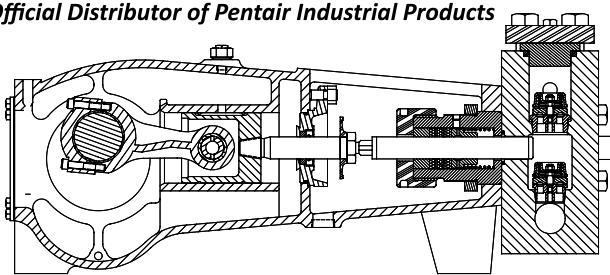
POWER ZONE
Equipment, Inc.

Official Distributor of Pentair Industrial Products

MYERS® APLEX SERIES

MA-75H

QUINTUPLEX PLUNGER PUMP



| | |
|--------------------------|-----------------------|
| No. of plungers..... | 5 |
| Maximum rated speed..... | 550 rpm |
| Stroke length..... | 2.75 in. 69.8 mm |
| Maximum rated power..... | 75.0 HP 55.8 KW |
| Maximum rod load | 3535 lb. 15.6 kN |
| Weight..... | 1325 lbs. |

ENGLISH UNITS

MA-75H

| PLUNGER SIZE IN. | STUFFING BOX BORE IN. | MAX PSI | * GALLON PER/REV. | 150 RPM US GPM | 250 RPM US GPM | 350 RPM US GPM | 450 RPM US GPM | 550 RPM US GPM |
|------------------|--------------------------|---------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1.125 | 1.750 | 3553 | 0.059 | 8.9 | 14.8 | 20.7 | 26.6 | 32.5 |
| 1.000 | 1.750 | 4497 | 0.047 | 7.0 | 11.7 | 16.4 | 21.0 | 25.7 |
| 0.875 | 1.500 | 5000 | 0.036 | 5.4 | 8.9 | 12.5 | 16.1 | 19.7 |

HP REQUIRED @ RPM**

20.4 34.1 47.7 61.3 75.0

METRIC UNITS

MA-75H

| PLUNGER SIZE MM. | STUFFING BOX BORE MM. | MAX PRESS. BAR | * LITER PER/REV. | 150 RPM LPM | 250 RPM LPM | 350 RPM LPM | 450 RPM LPM | 550 RPM LPM |
|---------------------|--------------------------|-------------------|---------------------|----------------|----------------|----------------|----------------|----------------|
| 28.6 | 44.5 | 244.9 | 0.244 | 36.6 | 61.0 | 85.4 | 109.8 | 134.3 |
| 25.4 | 44.5 | 310.2 | 0.177 | 26.6 | 44.3 | 62.0 | 79.7 | 97.5 |
| 22.2 | 38.1 | 344.7 | 0.136 | 20.3 | 33.9 | 47.4 | 61.0 | 74.5 |

KW REQUIRED @ RPM**

15.2 25.4 35.6 45.7 55.9

*Displacement based on 100% Volumetric Efficiency

**Power based on 90% Mechanical Efficiency

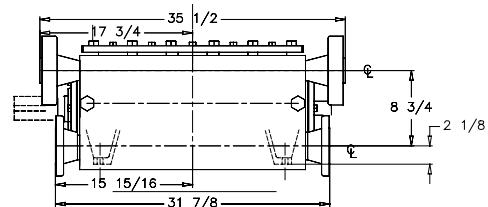
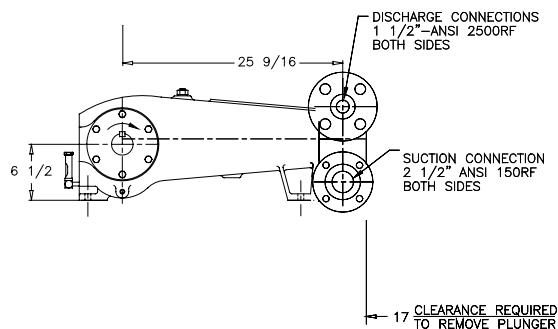
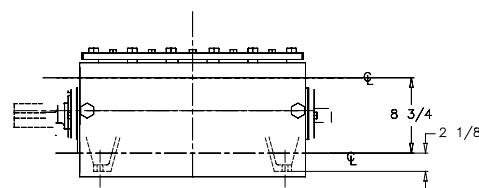
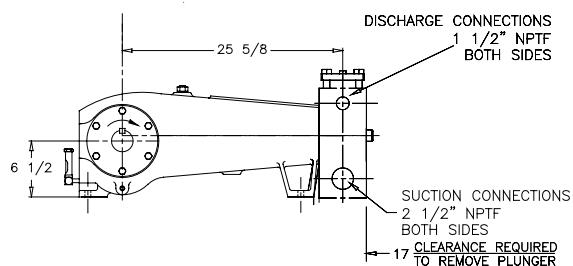
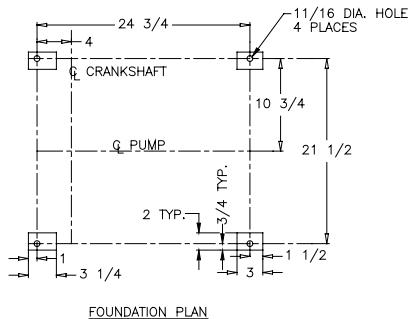
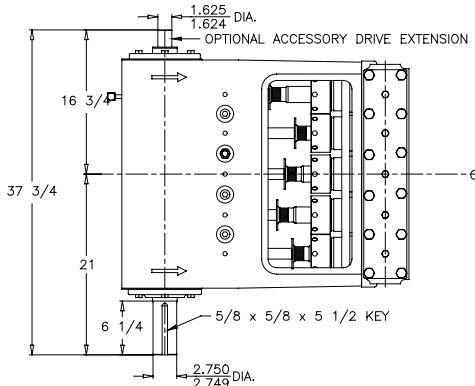
$$IHP = \frac{\text{USGPM} \times (\text{Discharge psig} - 1/2 \text{ Suction psig})}{1542}$$

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

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

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

MA-75H Quintuplex Pump



ENGINEERING DATA

MA-75H Quintuplex Pump

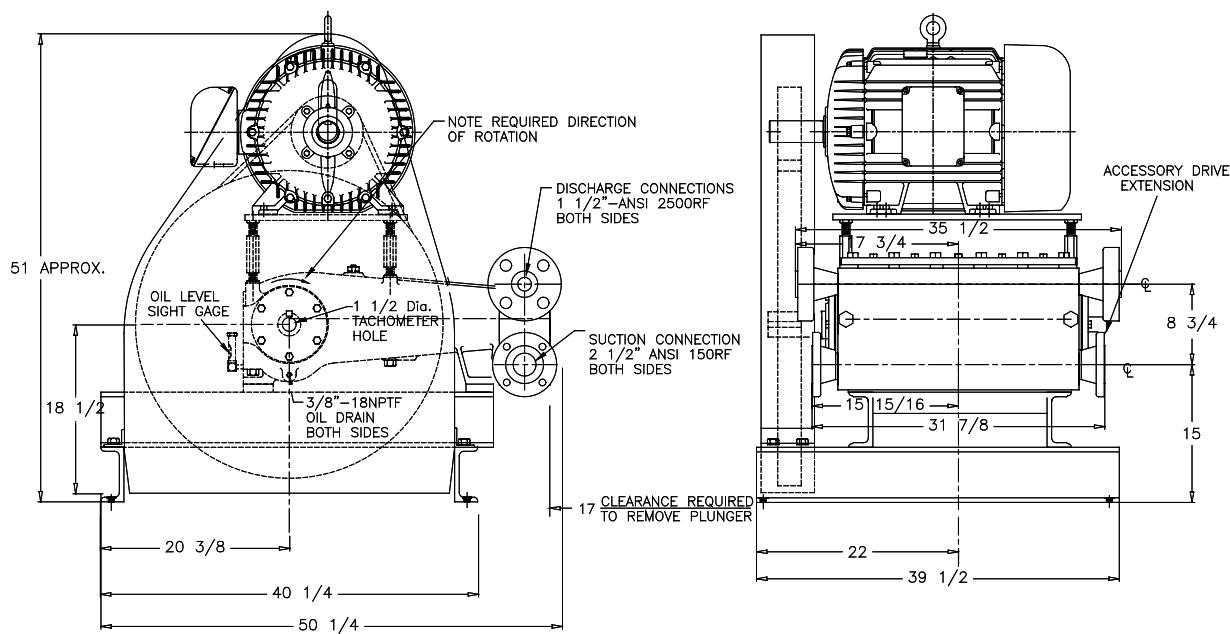
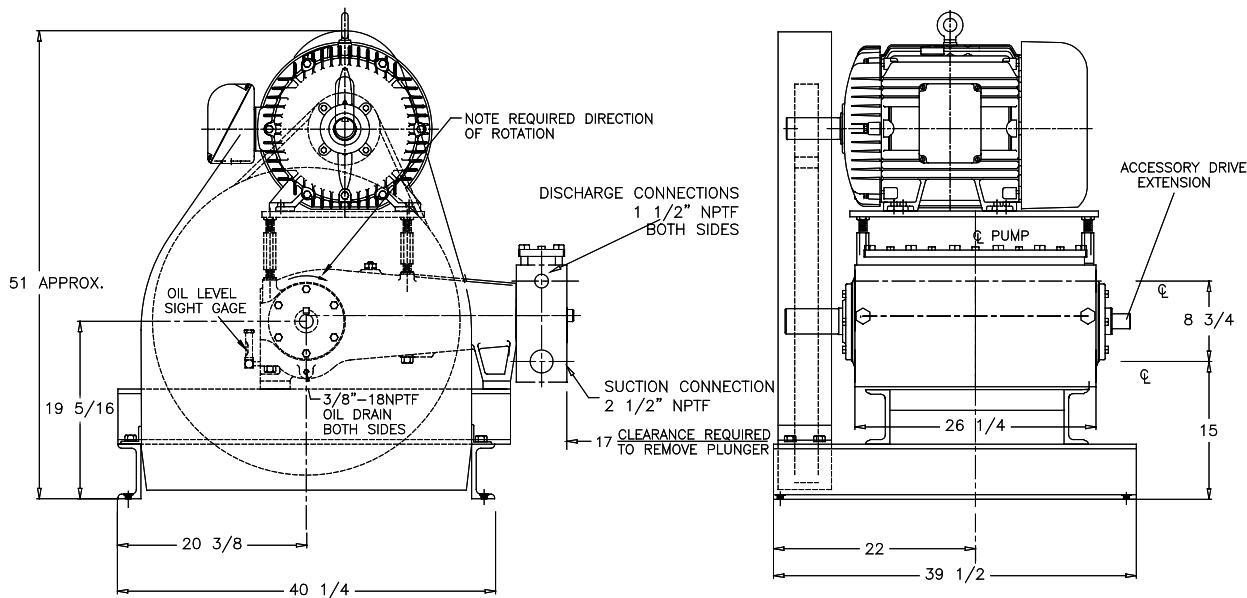
POWER END ENGINEERING DATA

| | |
|--------------------------------------------------------|-----------------------------|
| 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 | 15 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 | 200 fpm |
| Minimum Life Expectancy, Main Bearings, L_{10} | 100,000+ hrs. |

LIQUID END ENGINEERING DATA

| | |
|-------------------------------------------------------|---------------|
| Max. Continuous Working Pressure | 5000 psi |
| Hydrostatic Test | 7500 psi |
| Available Liquid End Materials, A.S.T.M. | |
| Forged Steel Block | 4140 |
| Stainless Steel Block | 15-5PH |
| Plunger Type "Rokide" (Chromium Oxide-Coated) | 316 S.S. |
| Stuffing Boxes, Field-Removable and Replaceable | |
| Packing Types Available | |
| Spring-loaded, Braided Teflon & Kevlar | Style 140 |
| Spring-loaded, cup-type | Style 120X |
| 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, Hardened and Lapped | 17-4PH S.S. |
| Abrasion Resistant | 17-4PH S.S. |
| Valve Spring Material | Inconel® |
| Valve Seat, Liquid Passage Area | |
| Plate (disc) Valves, | 1.4 sq.in. |
| Abrasion Resistant Valve | .96 sq.in. |
| Avg. Liquid Velocity with 1 1/8" plungers @ 550 rpm | |
| thru Disc Valves | 4.1 fps |
| thru Abrasion Resistant Valves | 6.0 fps |
| thru Suction Manifold | 1.75 fps |
| thru Discharge Manifold | 4.0 fps |

MA-75H Quintuplex Pump



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