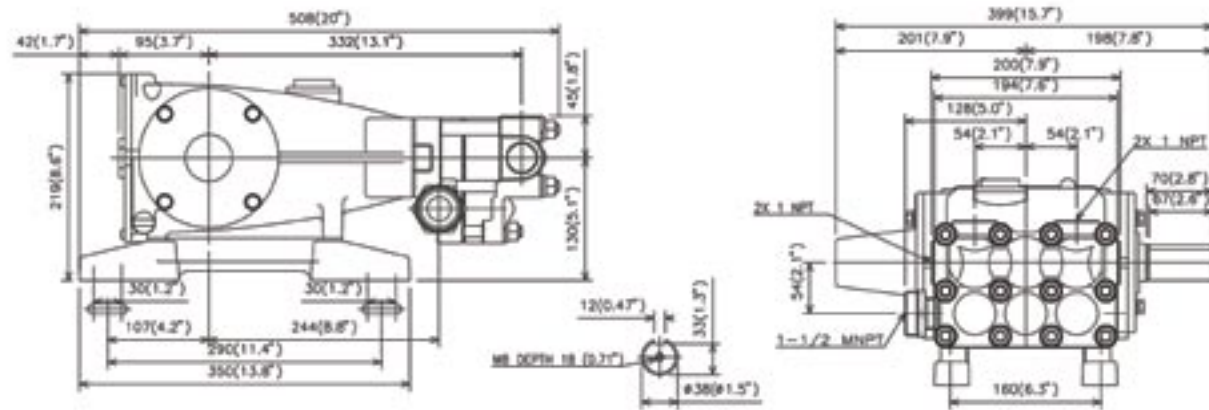
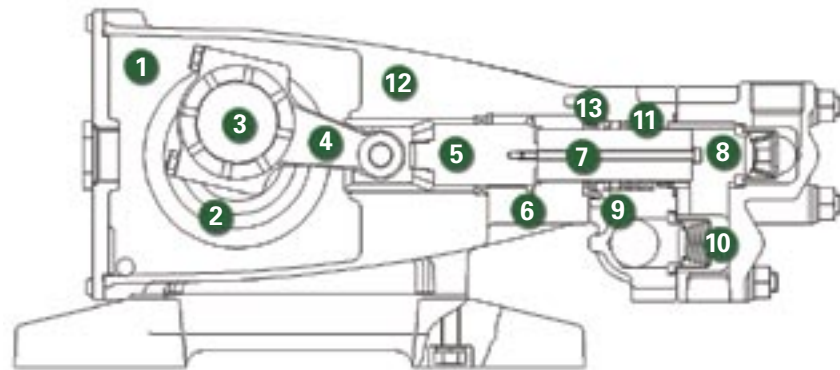


## DIMENSIONS (mm/in.)



## CUTAWAY

- 1 High strength, lightweight die cast crankcase
- 2 Oversized crankshaft bearings for long life and quiet operation
- 3 Crankshaft is machined for low friction, quiet operation and high efficiency
- 4 High strength connecting rods are tolerance matched for extended life and low friction operation
- 5 High polish stainless steel plunger rods for smooth operation and even wear
- 6 Zero clearance, polymer exclusionary seal protects pump crankcase from fluid entry and will not corrode
- 7 Proprietary blend, solid ceramic plungers for long wear and increased thermal shock resistance
- 8 Forged brass manifolds for strength and corrosion resistance, machined to optimize fluid flow and performance while extending useful life
- 9 Liquid-cooled, low drag seals provide long life, extended run-dry ability and increased suction lift
- 10 100% stainless steel valve construction provides superior protection against chemical and temperature damage
- 11 Industrial, continuous-duty seal design for superior life and expanded fluid handling abilities
- 12 Balanced flow crankcase ensures lubrication and quiet operation
- 13 Slide-in seal cases mean no special tools are required, making seal replacement easy



# 11 Series

## Model 1105

## FEATURES

- Triplex pumps provide smooth liquid flow
- Liquid cooled, low drag seals provide long life, improved suction, higher efficiency and longer dry running without damage
- Balanced flow crankcase design and precision machining ensures uniform lubrication and quiet operation
- Manifold is designed and machined to guarantee superior fluid flow
- Zero-clearance exclusionary seals protect crankcase

## QUALITY

- 100% stainless steel valve assemblies deliver greater temperature and chemical handling abilities
- Precision ground ceramic plungers utilize a proprietary material blend for long life and increased thermal shock resistance
- Forged brass manifolds offer strength and corrosion resistance
- Proprietary, proven seal blend maximizes life and increases maintenance intervals
- Oversized crankshaft bearings for long life and quiet operation

## MAINTENANCE

- No special tools required for repair or maintenance
- Fluid end is easily serviced without entering crankcase
- Seals require no adjustment

## SPECIFICATIONS

| Model 1105       | US           | METRIC     |
|------------------|--------------|------------|
| Flow             | 32 gpm       | 120 lpm    |
| Pressure         | 750 psi      | 50 bar     |
| RPM              | 900          | 900        |
| Inlet Pressure   | -5 to 70 psi | 0 to 5 bar |
| Inlet            | 1-1/2" M     | 1-1/2" M   |
| Outlet           | 1"           | 1"         |
| Oil requirement  | 60 oz.       | 1.8 L      |
| Shaft Dia.       | 1.5"         | 38 mm      |
| Max Liquid Temp. | 175°F        | 80°C       |
| Shaft Location   | both sides   | both sides |
| Weight           | 81 lbs.      | 37 kg      |

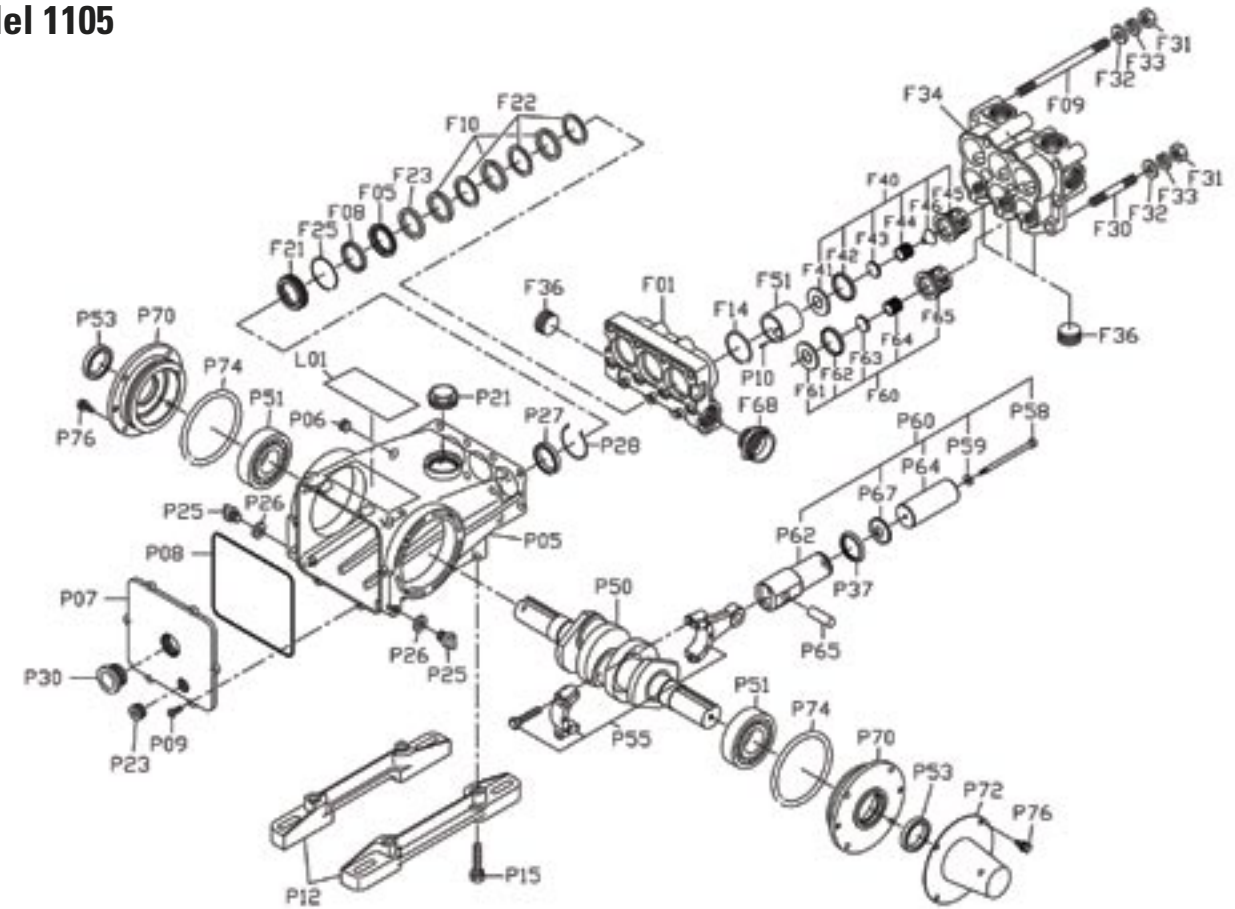
$$\text{Determining Pump RPM} = \frac{\text{Rated GPM}}{\text{Rated RPM}} = \frac{\text{"Desired" GPM}}{\text{"Desired" RPM}}$$

$$\text{Determining Required HP} = \frac{\text{GPM} \times \text{PSI}}{1460} = \text{Electric Brake H.P. Required}$$

$$\text{Determining Motor Pulley Size} = \frac{\text{Motor Pulley OD}}{\text{Pump RPM}} = \frac{\text{Pump Pulley OD}}{\text{Motor RPM}}$$

| REF. # | PART NUMBER | PART NAME                 | MATERIAL        | QTY |
|--------|-------------|---------------------------|-----------------|-----|
| F01    | 0440001010  | MANIFOLD, INLET           | BRASS           | 1   |
| F05    | 0440001200  | SEAL RETAINER             | BRASS           | 3   |
| F08    | 04400014K0  | VACUUM SEAL               | NBR             | 3   |
| F09    | 0440001100  | STUD BOLT                 | PLATED STEEL    | 8   |
| F10    | 04400014Y0  | SEAL, PACKING             | FPF             | 9   |
| F14    | 0440001400  | O-RING, MANIFOLD          | NBR             | 3   |
| F21    | 0440001260  | SEAL HOLDER               | BRASS           | 3   |
| F22    | 0440001270  | SPACER, SEAL              | FP              | 9   |
| F23    | 0440001272  | SEAL SUPPORT              | FP              | 3   |
| F25    | 9203B15050  | O-RING                    | NBR             | 3   |
| F30    | 0440001140  | STUD BOLT                 | PLATED STEEL    | 4   |
| F31    | 9140B12000  | HEX NUT                   | PLATED STEEL    | 12  |
| F32    | 9162B12000  | WASHER                    | PLATED STEEL    | 12  |
| F33    | 9163F12000  | LOCK WASHER               | PLATED STEEL    | 12  |
| F34    | 0440003200  | MANIFOLD, DISCHARGE       | BRASS           | 1   |
| F36    | 0440003940  | PLUG                      | BRASS           | 1   |
| F40    | 0440003300  | VALVE ASSEMBLY, DISCHARGE |                 | 3   |
| F41    | 0440003320  | SEAT                      | STAINLESS       | 3   |
| F42    | 0440003340  | GASKET,VALVE              | NBR             | 3   |
| F43    | 0440003350  | DISC                      | STAINLESS       | 3   |
| F44    | 0440003370  | SPRING                    | STAINLESS       | 3   |
| F45    | 0440003380  | CAGE                      | STAINLESS       | 3   |
| F46    | 0440003390  | GUIDE                     | BRASS           | 3   |
| F51    | 0440003420  | SLEEVE                    | BRASS           | 3   |
| F60    | 0440003800  | VALVE ASSEMBLY, INLET     |                 | 3   |
| F61    | 0440003320  | SEAT                      | STAINLESS       | 3   |
| F62    | 0440003340  | GASKET                    | NBR             | 3   |
| F63    | 0440003350  | DISC                      | STAINLESS       | 3   |
| F64    | 0440003370  | SPRING                    | STAINLESS       | 3   |
| F65    | 0440003380  | CAGE                      | STAINLESS       | 3   |
| F68    | 0440003910  | INLET FITTING             | BRASS           | 1   |
| P05    | 0440002010  | CRANKCASE                 | ALUMINUM        | 1   |
| P06    | 9313A11000  | PLUG                      | STEEL           | 1   |
| P07    | 0440002040  | BACK COVER                | ALUMINUM        | 1   |
| P08    | 0440002050  | GASKET                    | NBR             | 1   |
| P09    | 9130B06020  | SCREW                     | PLATED STEEL    | 6   |
| P10    | 0440001110  | DOWEL PIN                 | STAINLESS       | 3   |
| P12    | 0440002200  | MOUNTING FEET             | ALUMINUM        | 2   |
| P15    | 9106B10055  | BOLT                      | STEEL           | 4   |
| P21    | 0589112300  | OIL CAP                   | FP              | 1   |
| P23    | 9313A11500  | PLUG                      | STEEL           | 1   |
| P25    | 0090002320  | DRAIN PLUG                | FP              | 2   |
| P26    | 0090002340  | PLUG GASKET               | NBR             | 2   |
| P27    | 0440002400  | OIL SEAL                  | NBR             | 3   |
| P28    | 0440002420  | RETAINER                  | STAINLESS       | 3   |
| P30    | 0440002600  | SIGHT GLASS               | FP              | 1   |
| P37    | 0440001730  | EXCLUSION SEAL            | NBR             | 3   |
| P50    | 0440004010  | CRANKSHAFT                | STEEL           | 1   |
| P51    | 0440004020  | BEARING                   | STEEL           | 2   |
| P53    | 0400004030  | OIL SEAL, BEARING         | NBR             | 2   |
| P55    | 0440004600  | CON-ROD ASSEMBLY          | ALUMINUM        | 3   |
| P60    | 04400047S0  | PLUNGER ASSEMBLY          |                 | 3   |
| P58    | 9120R05105  | BOLT                      | STAINLESS       | 3   |
| P59    | 0121114852  | GASKET                    | COPPER          | 3   |
| P62    | 0440004860  | GUIDE ROD ASSEMBLY        | STEEL/STAINLESS | 3   |
| P64    | 04400048S0  | PLUNGER                   | CERAMIC         | 3   |
| P65    | 04000049001 | PLUNGER PIN               | STEEL           | 3   |
| P67    | 0440004850  | SPACER                    | BRASS           | 3   |
| P70    | 0440004400  | BEARING COVER             | ALUMINUM        | 2   |
| P72    | 0400004430  | SHAFT COVER               | PLATED STEEL    | 1   |
| P74    | 9201B50105  | O-RING                    | NBR             | 2   |
| P76    | 9106B08025  | BOLT                      | STEEL           | 8   |

Model 1105



12/05

| REF. #                  | PART NUMBER | PART NAME                                         | MATERIAL         | QTY |
|-------------------------|-------------|---------------------------------------------------|------------------|-----|
|                         | 30122       | SEAL KIT, 1105 (INCLUDES F08, F10, F22, F23, F25) | FP/FPF           | 1   |
|                         | 30123       | VALVE KIT, INLET (F60)                            | STAINLESS        | 1   |
|                         | 30124       | VALVE KIT, OUTLET (F40)                           | STAINLESS        | 1   |
|                         | 30103       | OIL, BOTTLE (32 OZ) ISO 100                       |                  | 1   |
| Recommended Accessories |             |                                                   |                  |     |
|                         | 70101       | 110105 REGULATOR, 30 GPM, 1500 PSI                | BRONZE/STAINLESS | 1   |

Horsepower Requirements

|             | Pressure (psi) |      |       |      |      |      |      |      |
|-------------|----------------|------|-------|------|------|------|------|------|
|             | RPM            | GPM  | LPM   | 500  | 600  | 750  | 850  | 1000 |
| <b>1105</b> | 700            | 24.0 | 95.3  | 8.2  | 9.9  | 12.3 | 14.0 | 16.5 |
|             | 800            | 28.0 | 109.0 | 9.6  | 11.5 | 14.4 | 16.3 |      |
|             | 900            | 32.0 | 122.6 | 10.9 | 13.1 | 16.4 |      |      |

\* Material listed may be a proprietary version. Parts names without part numbers are only available within complete assemblies.

\* Material codes: FP=Flouropolymer, NBR=Medium Nitrile (Buna-N), FPF=Flouropolymer Fiber STAINLESS=Stainless Steel (300 Series)