

## 22060-5105

### Sanitary Milk Tanker Pump

#### Features

Body :	Type 316 Stainless Steel
Impeller:	Jabsco Sanitary Neoprene Compound
Seal:	Sanitary Mechanical
Bearings:	Ball / Roller Bearings
Shaft:	Type 316 Stainless Steel
Ports:	2-1/2" Acme Threads
Weight:	50lb (23kg) approx

#### Application

This product has been specifically designed for farm pick-up milk tanker trucks. Jabsco pumps are also available as pedestal mounted or close-coupled units with capacities to 100 GPM for other sanitary applications. Contact factory for further details.

#### Operating Instructions

1. **INSTALLATION** - Pump may be mounted in any position. The rotation of the pump shaft determines the location of the pumps inlet and discharge ports. Refer to dimensional drawing. Pump is normally assembled in factory for clockwise rotation looking at end cover. If counter clockwise rotation is required, follow steps 1 and 2 of disassembly and step 9 of assembly instructions to reverse direction of impeller blade deflection under cam.
2. **DRIVE** - Belt drive or direct drive with flexible coupling. **BELT DRIVE** - correct belt tension must be achieved. Over-tight belts will increase bearing load and decrease life of pump. **DIRECT DRIVE** - Clearance should be left between drive shaft and pump shaft when installing coupling. Always mount and align pump before tightening the coupling set screw. If pulley or coupling are pressed onto shaft, remove end cover and impeller and support the pump shaft from impeller end during press operation.



Do not hammer pulley or coupling onto shaft; this will damage the bearings and seals. Ensure drive system is capable of overcoming high starting torques (see 11).



**WARNING**  
Injury hazard. Exposed pulleys and belts can cause injury. Install shield around pulleys and belts. Stay clear while machinery is operating

3. **SPEEDS** - 100 rpm to the maximum allowed in the pump performance curves. For longer pump life, operate within the pump envelope. For viscous liquids, special attention is required for pump speeds, consult the factory for correct speeds and power requirements.
4. **SELF-PRIMING** - Primes at low or high speeds. For vertical dry suction lift of 10 feet, a minimum of 800 rpm is required. Pump will produce suction lift of 22 feet when impeller is wet. **ENSURE SUCTION LINES ARE AIRTIGHT OR PUMP WILL NOT SELF-PRIME.**
5. **DISCHARGE** - When transferring liquids further than 25 feet, use 3" discharge line.
6. **RUNNING DRY** - Pump depends on liquid pumped for lubrication. **DO NOT RUN DRY** for more than 30 seconds, impeller and pump head damage will result.
7. **PUMP CAPABILITY** - When corrosive cleaning fluids are handled, pump and impeller life will be prolonged if pump is flushed with a neutralising solution after each use or after each working day. A Tungsten Carbide seal is available for pumping liquids that contain abrasive particles or are highly corrosive.

8. **PRESSURE** - Consult performance curves for pump in continuous operation. If required pressures exceed those shown, consult the factory.
9. **TEMPERATURES** - The operating temperatures limits of the pump are between 45° to 150° F (7° to 65° C).
10. **CLEANING** - Before using the pump, it should be disassembled and cleaned to remove any dust and dirt resulting from shipping, storage, and installation. Wash parts in standard cleaning solutions approved for handling stainless steel. Thoroughly rinse before reassembly. **DO NOT USE IODINE BASED SANITISERS** as the iodine will attack the elastomer materials used in the impeller. **ALL parts have been precision machined, HANDLE WITH CARE. DO NOT DROP** or mishandle.
11. **IMPELLER TORQUE** - The torques required to initiate rotation of a new impeller in a dry pump body are;
  - Forward - 23.5 pounds force - feet
  - Reverse - 36.5 pounds force - feet
12. **SPARE PARTS** - To avoid costly shut downs, keep a spare Jabsco Impeller, Seal, and O-Ring set close to the pump.

6. To remove bearings from shaft an arbor press is required. If an arbor press is not available, then a bearing extractor may be used. Remove bearing retaining ring. Supporting inner race of bearing, apply a steady pressure on shaft until bearing slides free. Repeat this process to remove second bearing.

## ASSEMBLY

1. To replace bearing on shaft, support bearing on inner race and locate shaft onto bearing. Apply steady pressure to the shaft until bearing locates against shoulder on shaft. Repeat for second bearing and fit bearing retaining ring.
2. Fit outer bearing race into bearing housing, and fit retaining ring.
3. Apply bearing grease around and between bearings, filling cavity approx 2/3rds full. Push shaft and bearing assembly into bearing housing.
4. Replace retaining ring and outer bearing seal with spring facing outwards, on drive end of bearing housing.
5. Fit O-ring to OD of seal housing and push lip seal into place. Lightly smear shaft near front bearing and push seal housing into bearing housing. Fit V-ring onto shaft.
6. Replace support washer on shaft and fit mechanical seal into place, ensuring the seal face is kept clean. Replace O-ring and seal seat into wearplate
7. Insert impeller into pump body. Fit O-ring on each of body and fit wearplate. Slide wearplate and body over shaft positioning wearplate in housing.
8. Fit end cover and end cover clamp. Clamp should only be hand tightened, **DO NOT** use wrench or hammer.
9. Changing Pump Rotation (looking at end cover)
  - i. Clockwise Pump Rotation - Insert impeller into body with blades bending counter-clockwise.
  - ii. Counter-Clockwise Pump Rotation - Insert impeller into body with blades bending clockwise.

## Service Instructions

### DISASSEMBLY

1. Remove end cover clamp. Remove end cover and O-ring.
2. Slide body, complete with impeller and wearplate from shaft assembly. Remove impeller from body.
3. Remove mechanical seal from shaft. Use extreme care not to mar shaft surface and remove support washer. Remove seal seat and O-ring from recess in wearplate.
4. From the drive end of the bearing housing, pry out bearing seal by carefully inserting a screwdriver blade between OD of the seal and housing. Remove retaining ring. Very carefully withdraw shaft and bearing assembly.
5. Remove V-ring, inner bearing seal housing and retaining ring. Outer bearing race can now be removed. Remove O-ring from seal housing and carefully press out lip seal.





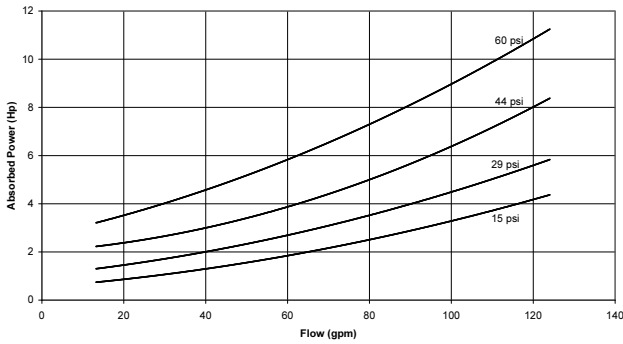
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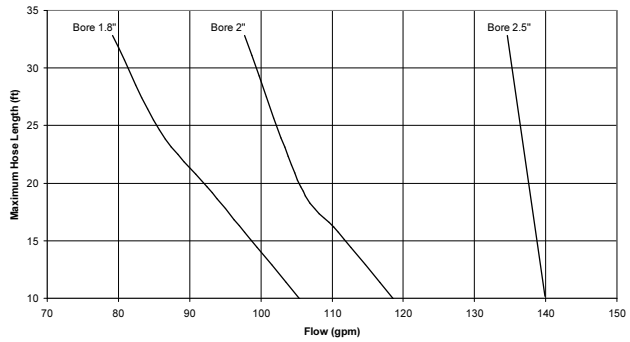
## Power Consumption

POWER CONSUMPTION



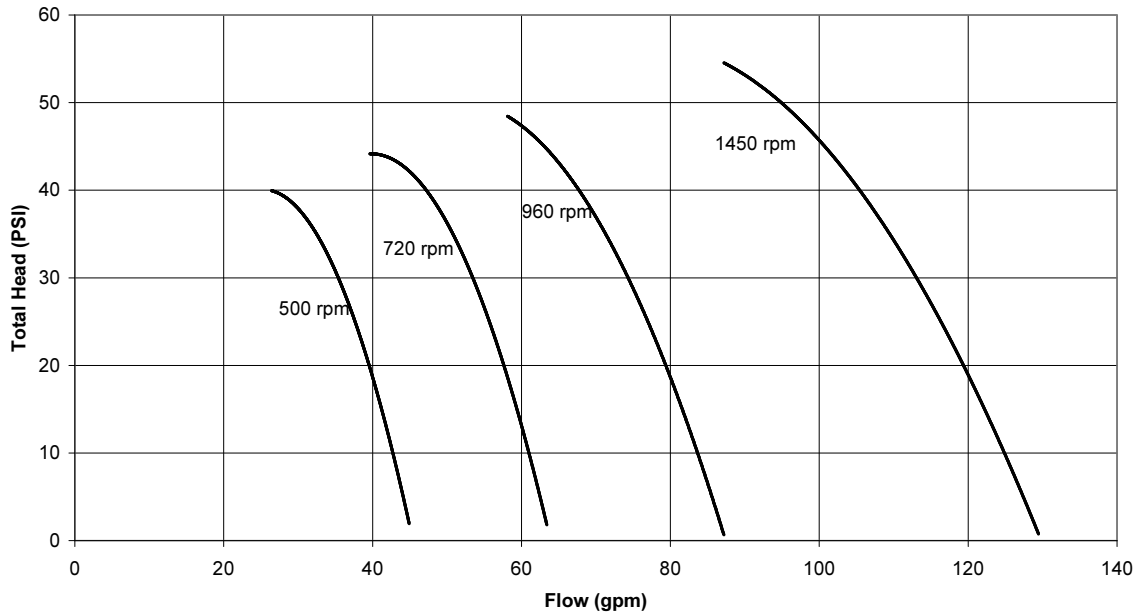
## Suction Hose Length Limits

SUCTION HOSE LENGTH LIMITS



## Performance

PERFORMANCE CURVES



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