

Metro-Prime



**QUICK CLEAN-OUT SELF-PRIMING
SEWAGE AND SUMP PUMP SYSTEMS**



× QUICK CLEAN-OUT:
Suction elbow can be removed quickly for access to impeller

× CLOSE-COUPLED DESIGN:
Entire rotating assembly can be removed without disturbing piping

× ALWAYS CLEAN AND DRY:
Entire pump rests on cover for easy access

× EASY MAINTENANCE:
No long-shafts; no bearings to maintain or grease



The Pumping World's One Stop Shop!

CHECK THESE OUTSTANDING FEATURES...

Get rid of troublesome line shafts and bearings!



Typical Installation

✓ EASIER MAINTENANCE

Simplest of all pumps to maintain. Seal requires no lubrication. Pump inlet elbow can be removed in minutes to check impeller.

✓ ELECTRIC PANEL

Duplex panel, all U.L. and NEMA Ratings available with main disconnect switch that locks door. Circuit breakers included for each pump. Magnetic starter for each pump with overload protection included. H-O-A switches and many options available.

✓ LEVEL CONTROL

Mechanical float alternator operates and alternates both pumps if the level rises, utilizing a stainless steel float ball and stainless steel float rod.

✓ ALARM

Alarm sounds if level rises to an unsafe limit. Many optional alarm types and features are available.

✓ LOW INSTALLATION COST

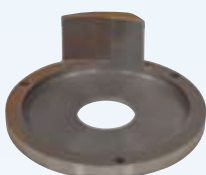
Pumps are shipped ready to set in place and bolt to basin cover. Electrical panel and suction pipes (optional) are installed in minutes. Support brackets are provided for the suction piping. No hoists or tripods required.

✓ LOW COST REPAIR

Pump has only one moving part, the integral shaft and impeller. Pump has no bearing. Two motor bearings support shaft rotor and impeller. Impeller volute lip plate and suction wear plate can be replaced at a low cost after wear occurs. No hoists or tripods are necessary to remove entire rotating unit.

✓ MOTOR

Close coupled heavy duty ball bearing type motor with drip-proof housing. Totally enclosed fan-cooled, explosion-proof or encapsulated types available.



Lip Plate



Impeller



Wear Plate

**ONLY 3 WEAR PARTS
EASILY REPLACED IN MINUTES**

QUICK CLEAN-OUT

Suction elbow can be removed by loosening 4 nuts. Impeller can be cleaned and checked in minutes and requires checking only if large cloths or other objects are lodged in impeller. All gaskets are "O" ring type.



ROTATING UNIT

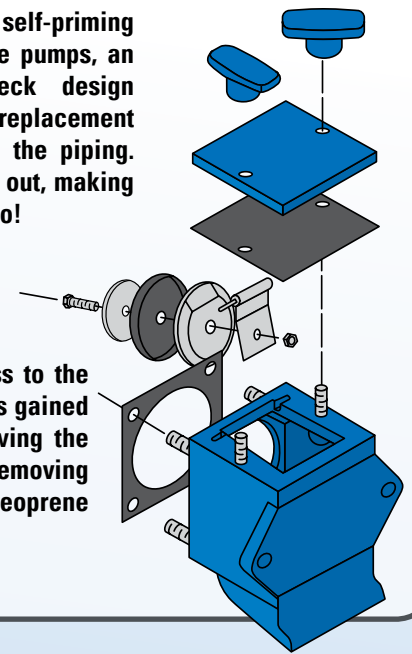
Complete rotating unit including motor, bracket, seal, volute lip plate and impeller can be removed as a unit without disturbing pump case or piping.



EXCLUSIVE FLAP-CHECK VALVE DESIGN

Now standard on self-priming centrifugal sewage pumps, an improved flap-check design that permits valve replacement without disturbing the piping. Assembly just lifts out, making clean-out easier too!

As shown in the exploded view of the valve housing to the right, access to the flapper assembly is gained simply by unscrewing the two handles and removing the cover and Neoprene gasket.



EXCLUSIVE CONSTRUCTION FEATURES OF THE METRO-PRIME "CLOSE COUPLED" SELF-PRIMING SEWAGE PUMP

Suction Elbow

Cast iron flanged to pump. Long radius designed for smooth flow. Support leg fastens to the elbow to remove weight from pump case.

Semi-Open Impeller

Ductile iron two vane non-clog type. Pump-out vanes on back shroud protect seal and lowers pressure at seal faces.

Replaceable Volute-Lip Plate

Permits trimming impeller without losing priming efficiency. Ductile iron for long life. Can be replaced when wear occurs.

Motor

Standard round frame (C) flange drip-proof design. Available in TEFC, explosion proof or encapsulated. Slinger prevents water getting into motor bearings if seal leaks. Furnished in three phase 208, 230/460 and 550 volts and in 230 volts in single phase.

Suction Check Valve

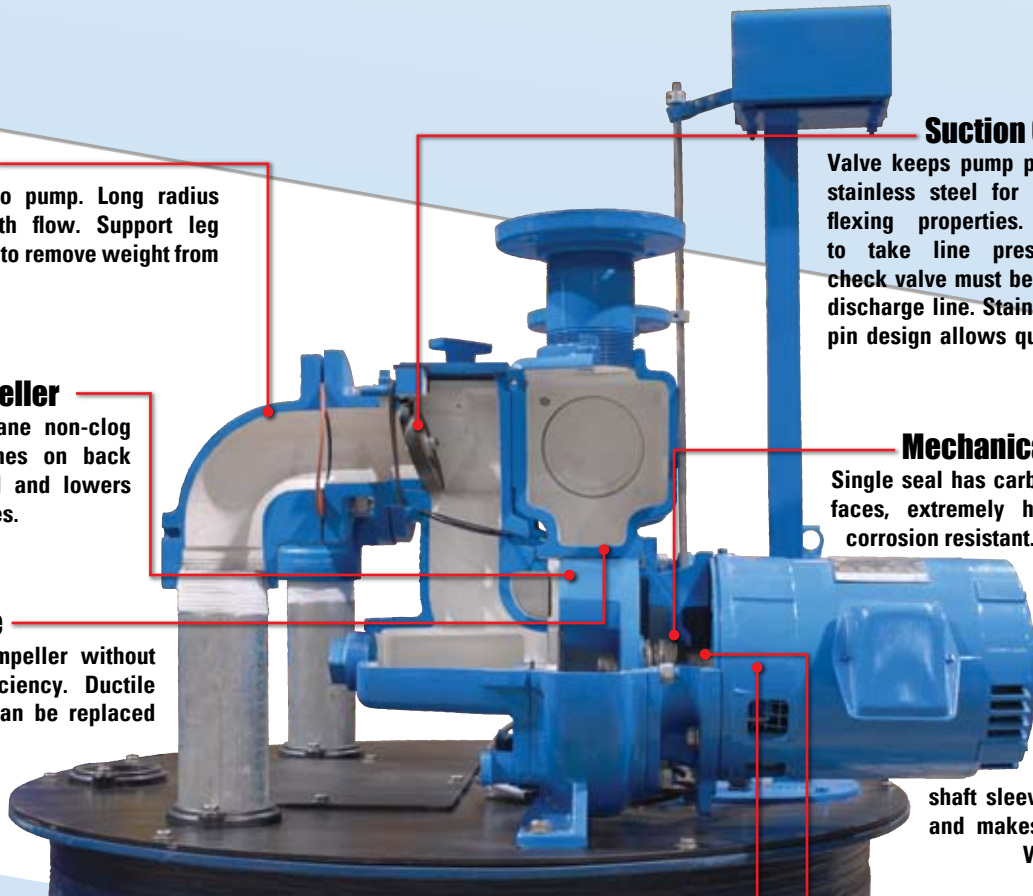
Valve keeps pump primed. Made of stainless steel for long wear and flexing properties. Not intended to take line pressure, separate check valve must be installed in the discharge line. Stainless steel hinge pin design allows quick cleaning or replacement.

Mechanical Shaft Seal

Single seal has carbon and ceramic faces, extremely hard, wear and corrosion resistant. Faces lapped to 1-1/2 light bands and 2 micro inch finish. Springs and body stainless steel. Flexing parts Viton. Stainless steel shaft sleeve supports seal and makes removal easy. Water lubricated.

Integral Pump-Motor Shaft

Shaft supports motor rotor and pump impeller. Short shaft overhang from motor bearing to impeller prevents deflection and vibration. Shaft is protected by a stainless steel sleeve at the seal and is threaded for mounting impeller. Stainless steel screw and washer lock impeller against reverse rotation.



Other Metropolitan Products

System-2000

Centrifugal Pump Water Pressure Booster Systems

- For Low to Medium Pressure Applications
- Many Pump Types and Sizes Available
- Energy-Saving Variable Speed Controls
- Compact and Affordable
- Remote Monitoring Available
- Touch Screen Control Available



System-2100

Multi-Stage Vertical Centrifugal Pump Pressure Booster Systems

- For Medium to High Pressure Applications
- Utilizes Reliable Multi-Stage Vertical Centrifugal Pumps
- Cartridge-Type Maintenance-Free Shaft Seal
- Stainless Steel Shaft, Impeller and Outer Sleeve
- Requires No Routine Maintenance
- Energy-Saving Variable Speed Controls



System-2200

Horizontal Air-Cooled Turbine Pressure Booster Systems

- Meets the Challenges of Industrial Systems or Any High Pressure Application
- Uses HAC-Series Pumps
- Easy Access to Bowl Assemblies and Motors for Maintenance
- Long-Lasting Mechanical Seal Due to Low Inlet Pressure
- Modular Liquid End
- Energy-Saving Variable Speed Controls



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