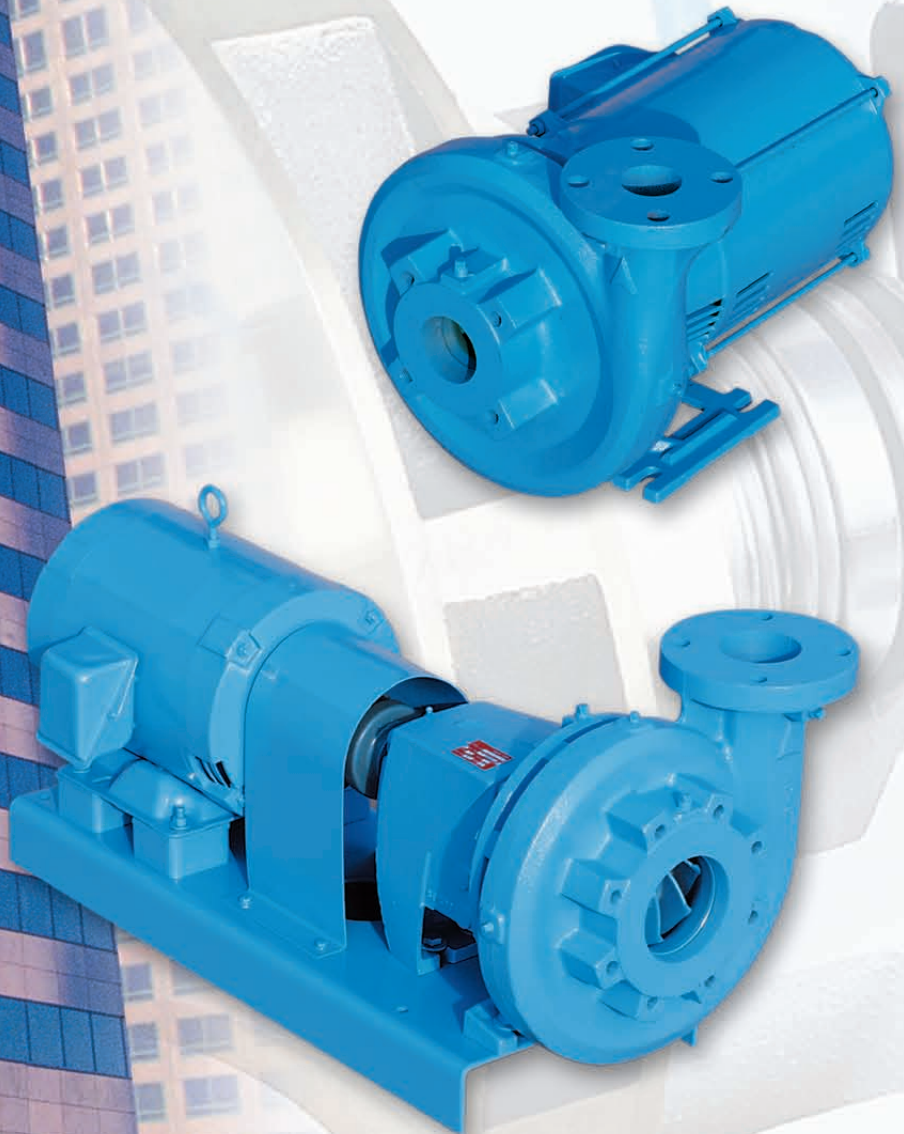


**PFE300 Flexible Coupled
Pumps**



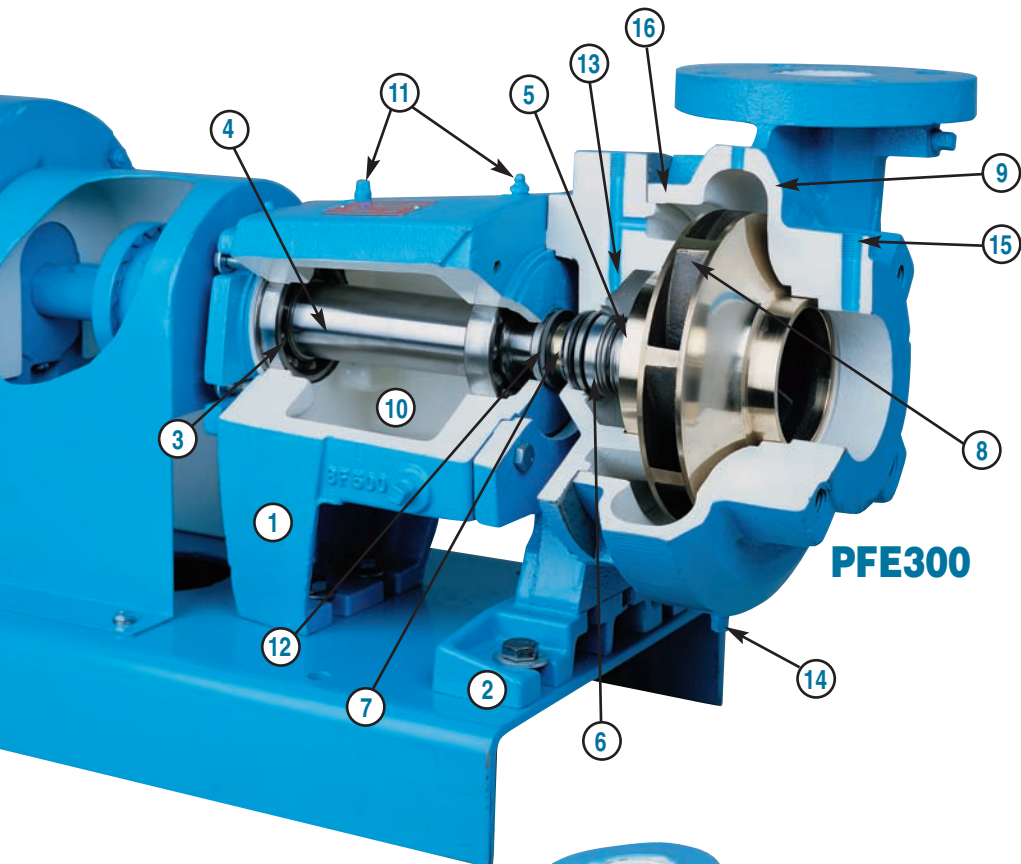
Thrush

Company, Inc.



End Suction Centrifugal Pumps

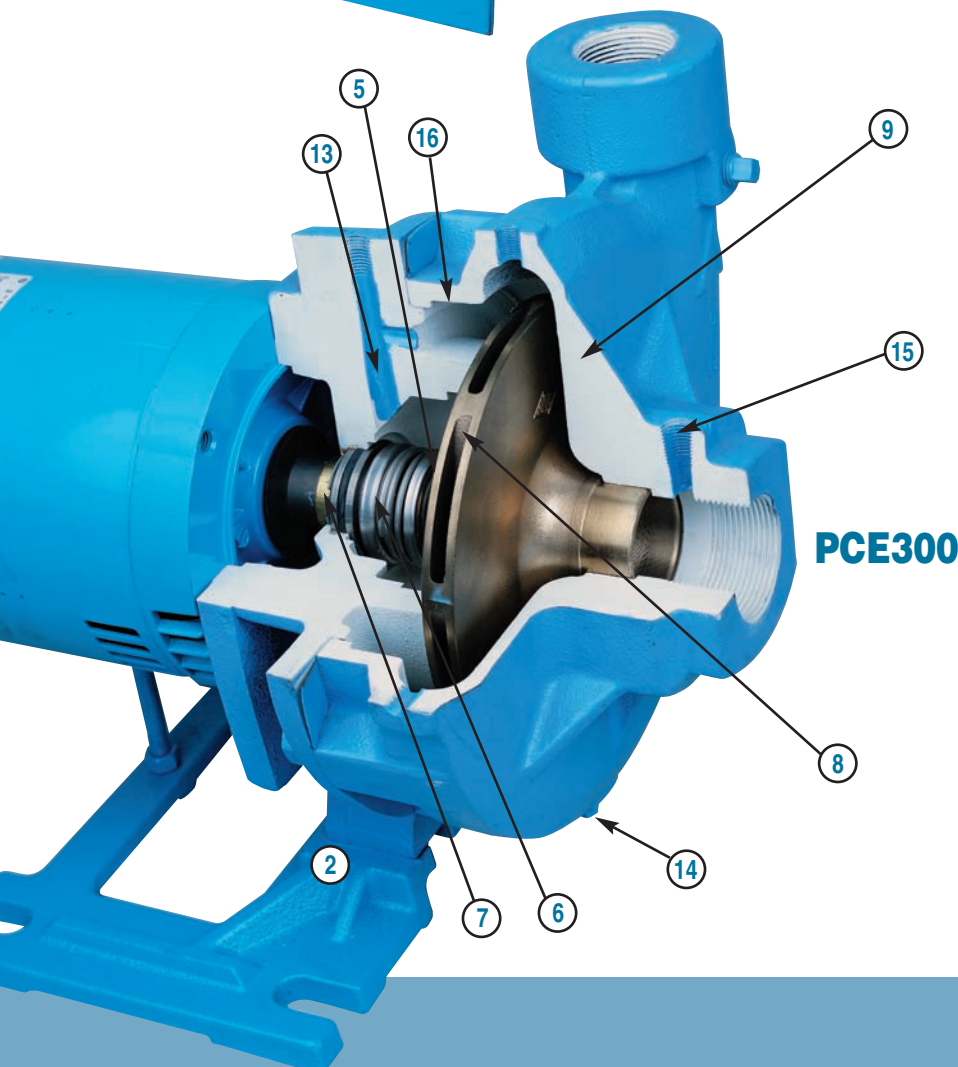
The quality you depend on.



Thrush PFE300 and PCE300 Construction Features

1. The heavy cast iron bearing frame* features precision bore and register surfaces to assure rigid, accurate centering of the shaft and impeller.
2. Support feet are precision machined and fitted to the pump bracket to assure better coupling alignment during variations in pumping temperature.
3. Standard heavy duty shafts produce minimum deflections, and oversized bearings provide up to 6 times AFBMA-B10 minimum bearing life even under extreme conditions.
4. Precision-machined carbon steel shaft* allows for maximum loading with less than .002 inch deflection at sealing surfaces.
5. Elastomer gaskets seal both the shaft sleeve and impeller capscrew to prevent shaft corrosion and isolate shaft from pumped liquid.

*PF only



Performance Features of the E300 Series

Increased efficiency over greater portion of performance range.

When selecting an E300 pump, there is a larger portion of the pump curve in which selection can be made at or near the best efficiency point, resulting in lower HP requirements. For a given flow and head condition, the selected E300 pump is likely to be a size smaller than conventional pumps. Because the Thrush pump is likely to be one flange size smaller at the suction and discharge, the

6. Long-life mechanical seal is supplied with EPT elastomers, 303 stainless steel metal parts, carbon rotating washer, and Ni-Resist stationary seat. It is pre-assembled on a bronze shaft sleeve (cartridge seal assembly) to ensure correct mechanical seal positioning and easy servicing.
7. The slip-fitted, pinlocked bronzed shaft sleeve, extending through the seal box, prevents shaft wear and corrosion.
8. With vastly improved flow hydraulics, the unique 8-bladed impeller stabilizes flow and reduces turbulence. It is manufactured by a vacuum-cast foundry process that provides smooth waterways and dimensional control not found in sand castings.
9. Impeller-volute matching minimizes volute losses. Computerized design/testing carefully matches the advanced impeller to a carefully

designed volute. The matching of internal pressures and velocities improves hydraulic efficiency and allows the impeller to produce its certified design flow and head minimizing wasted horsepower.

10. Extra large oil sump*, allows for generous oil supply with outstanding heat dissipation.
11. Conveniently located grease reservoirs* provide positive flush-through lubrication. When fully lubricated, it provides sufficient grease for up to 20 months service.
12. Lipseal and slinger*, located outboard at each bearing, prevent dirt, water, etc. from contaminating the lubricant, even when washed down with a hose.
13. Improved bracket design incorporates a diverging seal chamber that creates a vortex action to stimulate seal chamber circulation. This eliminates air and foreign particle build-up and carries

off frictional heat from seal faces. An internal flush line increases recirculation in seal chamber, provides manual venting, and, if required, can be adapted to an external flush line. This design eliminates the need for strainers, filters, or cyclone separators, since the pumping action does the job.

14. Adequate drain tappings.
15. Suction and discharge gauge tappings.
16. Back pull-out design allows for maintenance work without disturbing piping.



water velocity increases at these points. However, when compared to the internal velocities, the water velocity of the flanges is relatively low. In 2-4-8, parallel, and series part-load pumping application, the use of E300 pumps results in minimum operating costs.

Rugged, durable construction assures long life. The E300's overall design and construction assures a long-dependable service life. Even when used by the contractor during the construction

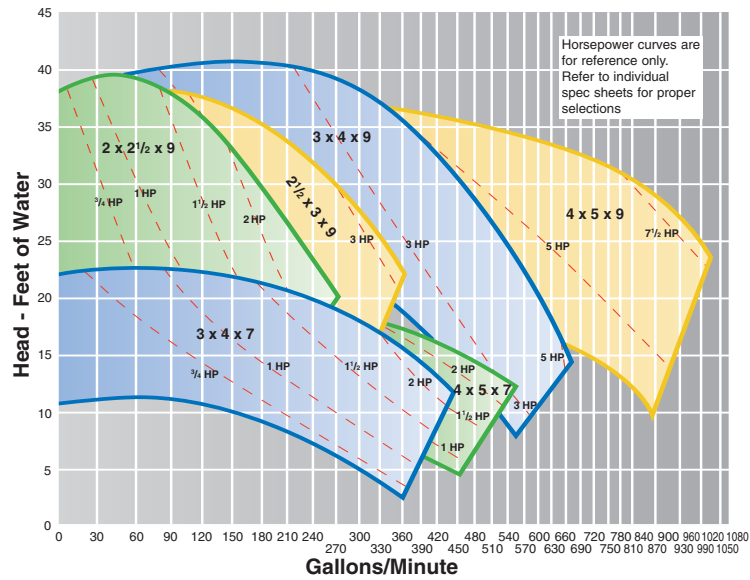
stage, E300 pumps will continue operating efficiently and mechanically sound when the building is ready for occupancy/use.

Certified performance. An individually certified performance test curve will be provided when proof of performance is requested. This test will be conducted in accordance with the Thrush Pump performance guarantee.

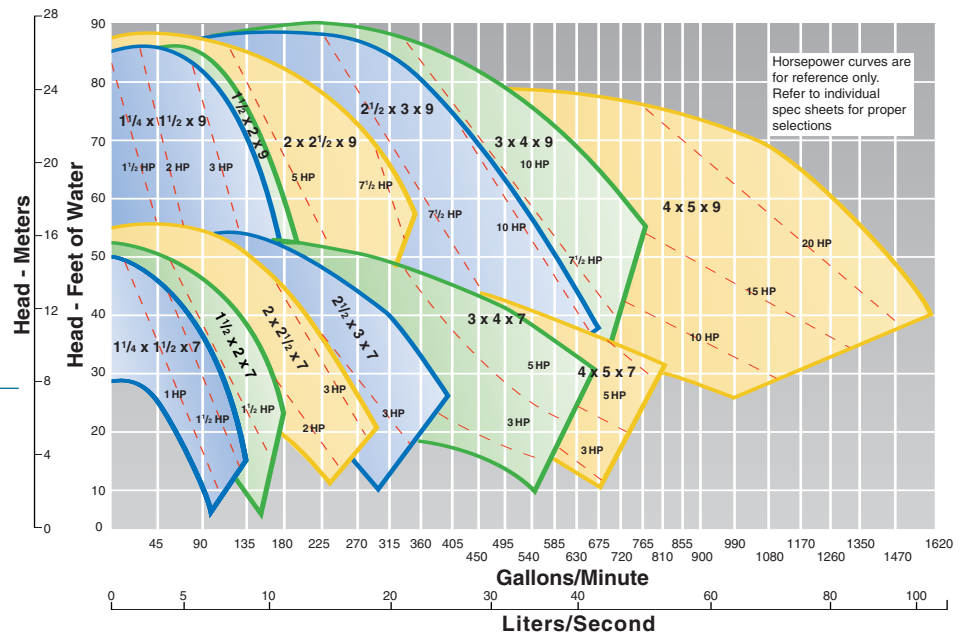
Thrush's Guarantee: Thrush Co., Inc. guarantees the performance of this pump as tested in accordance with Hydraulic

Institute Standards, 13th Edition, conforming to all test codes, tolerances, and procedures therein at our laboratory in Peru, Indiana. This guarantee covers the specified design condition, and full range performance, guaranteeing it to be accurate, and repeatable when tested under like conditions. Due to variations in the actual system condition, instrumentation, and test procedures, we cannot guarantee that field test results will equal the Lab test.

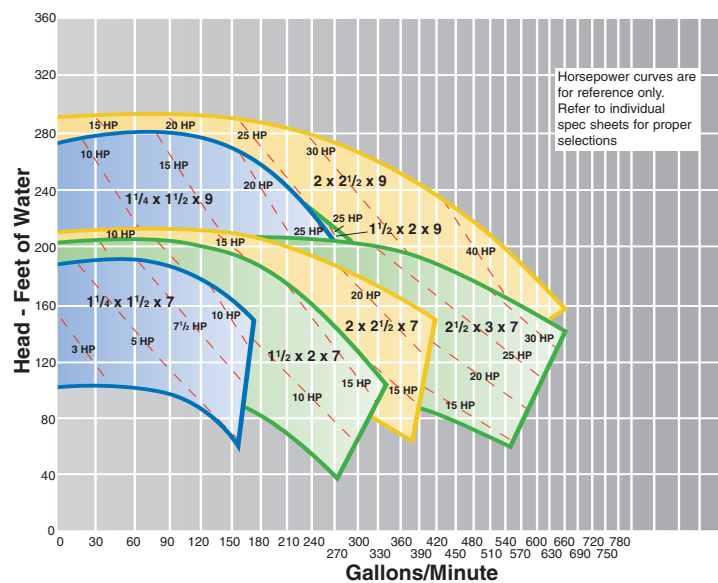
**Quick Selection
Performance Chart
for PFE300 and
PCE300 Series
1150 RPM**



**Quick Selection
Performance Chart
for PFE300 and
PCE300 Series
1750 RPM**



**Quick Selection
Performance Chart
for PFE300 and
PCE300 Series
3500 RPM**



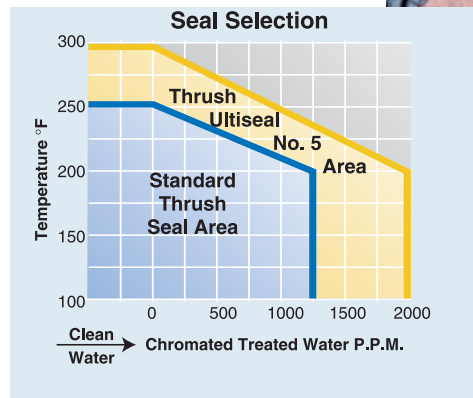
SPECIAL SEALS FOR HIGH TEMPERATURE APPLICATIONS



Figure 1

Mechanical seals on the Thrush PFE300 and PCE300 are constructed with high temperature carbon, Ni-Resist seat, EPT elastomer bellows and gaskets, and stainless steel metal parts. These materials are standard and ensure long-life application for pumping temperatures as high as 250°F. Standard Thrush seals provide long leak-proof life in water with chromate concentration up to 1,250 parts per million. The optional Thrush Ultiseal No. 5, featuring a tungsten-carbide seat, extends applications to pumping temperatures of 300°F and chromate concentrations to 2,000 parts per million.

Figure 1 illustrates the bronze shaft sleeve cartridge seal assembly (pre-assembled). The pre-assembled shaft sleeve seal assures proper seal placement. It also saves time and eliminates seal damage when servicing the pump.



The features you demand.

E300 Series End Suction Pumps

Engineer's Specifications

PFE300 Series

The contractor shall furnish and install as shown on prints. Thrush Model PFE300 base mounted, centrifugal pumps, flexible coupled, ball bearing, grease lubricated, and standard fitted. Pump and motor will be mounted on common steel base with open grouting area.



Pumps shall have:

STANDARD

- Bronze fitted
- Suction and discharge gauge tapings
- Single seal, carbon and Ni-Resist seal with EPT elastomer bellows with stainless steel parts
- Internal flush line
- Grease lubricated power frame
- Back pull-out design
- Cartridge seal assembly with bronze shaft sleeve and Ni-Resist seat
- Cast iron bearing frame with internal foot support
- Maximum working pressure - 175 PSI
- Hydrostatic test pressure - 265 PSI
- Coupling guard

OPTIONAL

- Ceramic seal with EPT elastomers
- Hi-temperature Ultiseal No. 5 - carbon with tungsten carbide seat - 300° with stainless steel parts
- Silicon Carbide seal with EPT elastomers
- Oil lubricated power frame with constant level oiler
- Coupling guard (closed ends) (OSHA)
- Stainless steel shaft sleeve
- Drip pan
- Casing wear rings - bronze
- Bracket wear rings - bronze
- Stainless steel shaft

Pump(s) shall perform at:

_____ Ft. Hd.
 _____ G.P.M.
 _____ H.P.
 _____ Voltage
 _____ Fluid
 _____ Temp.

Engineer's Specifications

PCE300 Series

The contractor shall furnish and install as shown on prints. Thrush Model PCE300, close-coupled, centrifugal pump, standard fitted.



Pumps shall have:

STANDARD

- Bronze fitted
- Suction and discharge gauge tapings
- Single seal, carbon and Ni-Resist seal with EPT elastomer bellows with stainless steel parts
- Internal flush line
- Back pull-out design
- Cartridge seal assembly with bronze shaft sleeve and Ni-Resist seat
- Maximum working pressure - 175 PSI
- Hydrostatic test pressure - 265 PSI

OPTIONAL

- Ceramic seal with EPT elastomers
- Hi-temperature Ultiseal No. 5 - carbon with tungsten carbide seat - 300° with stainless steel parts
- Silicon Carbide seal with EPT elastomers
- Stainless steel shaft sleeve
- Casing wear rings - bronze
- Bracket wear rings - bronze

Pump(s) shall perform at:

_____ Ft. Hd.
 _____ G.P.M.
 _____ H.P.
 _____ Voltage
 _____ Fluid
 _____ Temp.

Materials of Construction Pump Parts	Standard Bronze Fitted	Optional
Casing	Cast Iron G-3000	
Casing Wear Rings	Bronze Alloy ASTM-8-30	
Impeller	Bronze C87500	
Motor Shaft PCE300 Close Coupled	Steel C 1137	
Power Frame	Cast Iron G-3000	
Power Frame Shaft	Steel 1045	Stainless Steel 316
PFE300, PCE300 Shaft Sleeve	Brass Alloy 360	Stainless Steel 316
Bracket	Cast Iron G-3000	
Power Frame Bearing	Anti-Friction-Ball	
Lubrication	Grease	
Seal PFE300, PCE300	Crane #21 250° Ni-Resist	Ceramic or Ultiseal or Silicon Carbide
Steel Base	Rolled Steel Channel	
Woods Coupling-PFE300		

Distributed By:



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 www.thrushco.com

The Thrush Company, Inc. has a policy of continuous product research and development and reserves the right to change design and specification without notice.