

# Peerless Pump

## HORIZONTAL SPLIT CASE SINGLE STAGE DOUBLE SUCTION PUMP

### The Versatile AE Pump

Using the latest technology, Peerless Pump engineered the AE Series pump to accommodate a variety of applications. The single stage, double suction, horizontal split case pump comes in forty-two different hydraulic configurations and twenty-five pump sizes. Discharge sizes range from two to ten inches. The AE has a wide selection of hydraulic performance envelopes, multiple mechanical configurations and several material options.

### Applications

The AE Series pump handles water and other nonabrasive fluids. Applications vary from small, single pump commercial installations to large, multi-pump municipal water supply systems. The Peerless Pump AE Series gives superior performance in Agriculture, General Industry, Building Trade, Power Industry, Fire Protection, Municipal and Process applications.

### Features

The AE Series pump uses **casing** material with a minimum of class 35 cast iron. To provide permanent alignment of bearings and all rotating parts, Peerless Pump casts the bearing bracket supports as a part of the lower casing half. Renewable bronze casing rings are doweled and shouldered in the casing. The double suction **impeller** is a single, cast bronze piece. Dynamic balancing gives the impeller vibration-free hydraulic and mechanical performance. The balancing also provides

longer bearing and mechanical seal life. Keyed to the shaft with an 18-8 stainless steel key, the impeller aligns axially with threaded shaft sleeves. Grooved impeller skirts (in combination with casing rings) extend the life of critical clearances and increase the meantime between preventative maintenance (MTBPM).

Peerless Pump standard **mechanical seals** are mounted over a bronze shaft sleeve and rated for temperatures up to 225° F. The optional **packed stuffing boxes** hold a minimum of five packing rings. Split glands facilitate removal for repacking. The gland bolts are swing type and made of steel with 18-8 stainless steel nuts. Water seal piping and lantern ring are optional. As standard, the **upper casing** features a tapped and plugged seal flush connection.

Replaceable bronze **shaft sleeves** protect the carbon steel **shaft** through the stuffing box. The shaft sleeves extend beyond the mechanical seal flanges (or packing glands) for maximum shaft protection. O-rings seal the sleeves. Shaft and shaft sleeves are available in stainless steel. The **bearings** are single row, deep groove ball type and grease lubricated. Average life is 100,000 hours. Double row, outboard thrust bearings and oil lubrication are optional.

### Quality Engineering

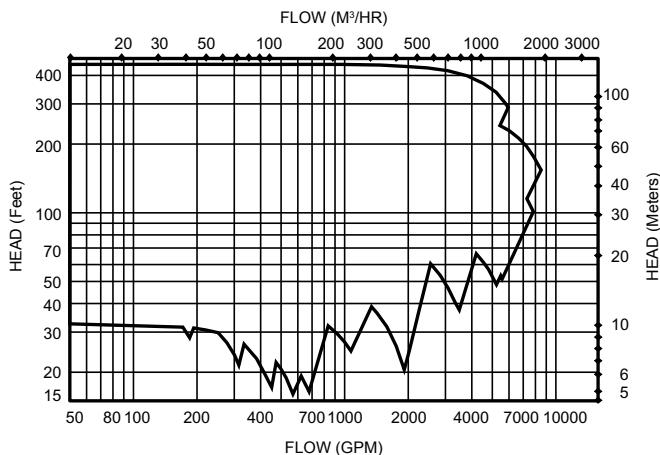
Peerless Pump designs tough, versatile products to meet your pumping needs. The AE Series delivers **variety, durability, standardized options and configurations** unequalled in the industry. Please contact your local authorized Peerless Pump sales office to find out more about the AE Series, options and prices.

### Specifications

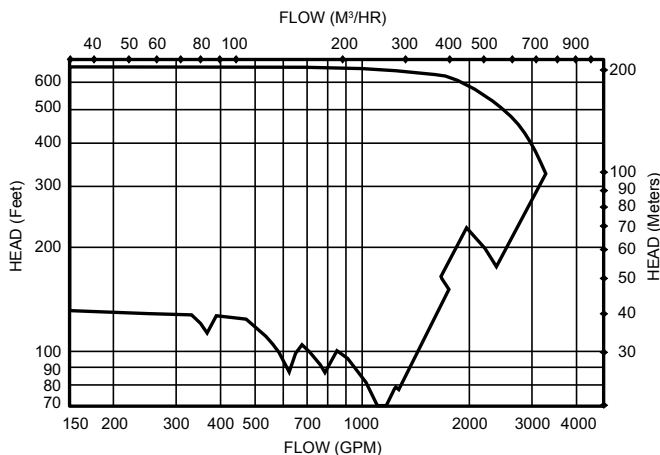
**Capacities:** ..... Over 8,000 gpm (1817 m<sup>3</sup>/hr)  
**Head:** ..... Up to 675 feet (206 meters)  
**Pressure:** ..... Up to 510 psi (35 kg/cm<sup>2</sup>, 3,514 kPa)  
**Horsepower:** ..... Up to 550 hp (410 kW)  
**Temperature:** ..... Up to 250°F (121°C)  
**Drives:** ..... Motors, engines, steam turbines, combinations.  
**Liquids:** ..... Water and clear liquids.  
**Materials:** ..... Cast iron, bronze fitted as standard. Other materials available.



**AE Series Range Chart - 1750 RPM**

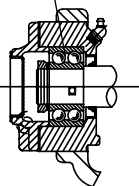


**AE Series Range Chart - 3550 RPM**



**Bearings**

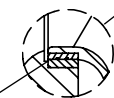
Grease lubrication is standard. Oil lubrication is optional. Can be converted in the field with minimal effort. Average bearing life of 100,000 hours for long trouble free bearing operation with proper maintenance. Available with double row outboard thrust bearings.



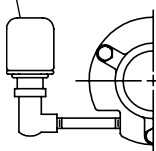
**Socket Seal Assembly**

Tested and approved to provide positive shaft sealing at all operation conditions. (Optional)

**Mechanical Seal**  
(Standard)



**Oil Lubrication**  
(Optional)



**Grooved Impeller Rings**

Grooved impeller ring (optional construction) or grooved impeller skirt (standard). Reduces recirculation losses better than standard impeller skirts. Maintains maximum pump efficiency for extended time periods.

**Impeller**

Dynamic balancing extends operation life of the pump.

**Shouldered Case Rings**

Provides positive position control to reduce recirculation losses for improved efficiencies. Pump can usually be returned to original hydraulic design through replacement of wear rings.

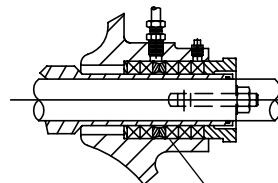
**Stuffing boxes**

Mechanical seals are standard. Packing is optional. Field conversion can be made with minimal effort.

**Grease Lubrication**  
(Standard)

**Case Assembly**

Higher quality pump castings with 35,000 PSI or better tensile strength cast iron are standard. 250# flange thickness and diameter with 125# of 250# drilling standard on most models.



**Packing**

(Optional) With or without lantern ring.



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