



Typical Pump Configuration

## Pioneer Prime

# PP108S17L71

## Performance

### Pioneer Prime series - vacuum assisted, end suction centrifugal pump

Bare shaft, frame mounted, fully automatic dry priming, vacuum assisted, run dry, heavy duty solids handling pump

|                      |   |
|----------------------|---|
| Size                 | 10" x 8"<br>254 x 200 mm                        |
| Flow, Max            | 7600 USGPM<br>1750 m <sup>3</sup> /h<br>480 l/s |
| Head, Max            | 450 feet<br>140 meters                          |
| Flow at BEP          | 4600 USGPM<br>1060 m <sup>3</sup> /h<br>290 l/s |
| Efficiency at BEP    | 80%   |
| Solids Handling, Max | 3.5"<br>89 mm                                   |
| Operating Speed, Max | 2000 rpm  |
| Suction Connection   | 10" 150 ANSI Flanges                            |
| Delivery Connection  | 8" 150 ANSI Flanges                             |
| Lubrication          | Oil STD<br>Grease Optional                      |
| Fasteners            | Imperial  |

## Applications

|               |                 |
|---------------|-----------------|
| Dirty water   | Raw water pumps |
| Sewage bypass | Flood pumps     |
| Silt returns  | Mine dewatering |
| Cooling pumps |                 |

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## High pressure, high flow, heavy duty solids handling pump

Designed to run over a broad range of performance while delivering outstanding suction lift, the PP108S17 is the solid choice. The rugged construction and modular design provide proven reliability and flexibility in the most demanding applications.

## UltraPrime™ Priming System

|                        |   |
|------------------------|---|
| Priming System         | Mechanically Driven Diaphragm Style Vacuum Pump   |
| Air Removal Capability | 50 CFM  |
| Priming Chamber        | Single chamber with positive sealing air separation PosiValve™ with stainless steel float ball & linkage. |
| Discharge Check Valve  | Swing Style - ductile iron with Buna-n Disc   |

## Other Specifications

|                   |  |
|-------------------|--|
| Mechanical Seal   | Single seal w/ tungsten carbide vs. silicon carbide seal faces, Viton® elastomers, 300 series stainless steel hardware and spring, designed for indefinite dry running |
| Pump End Bearing  | Single row ball  |
| Drive End Bearing | Single row ball  |
| Shaft             | 1144 Stress Proof Steel  |

## Construction Materials Options

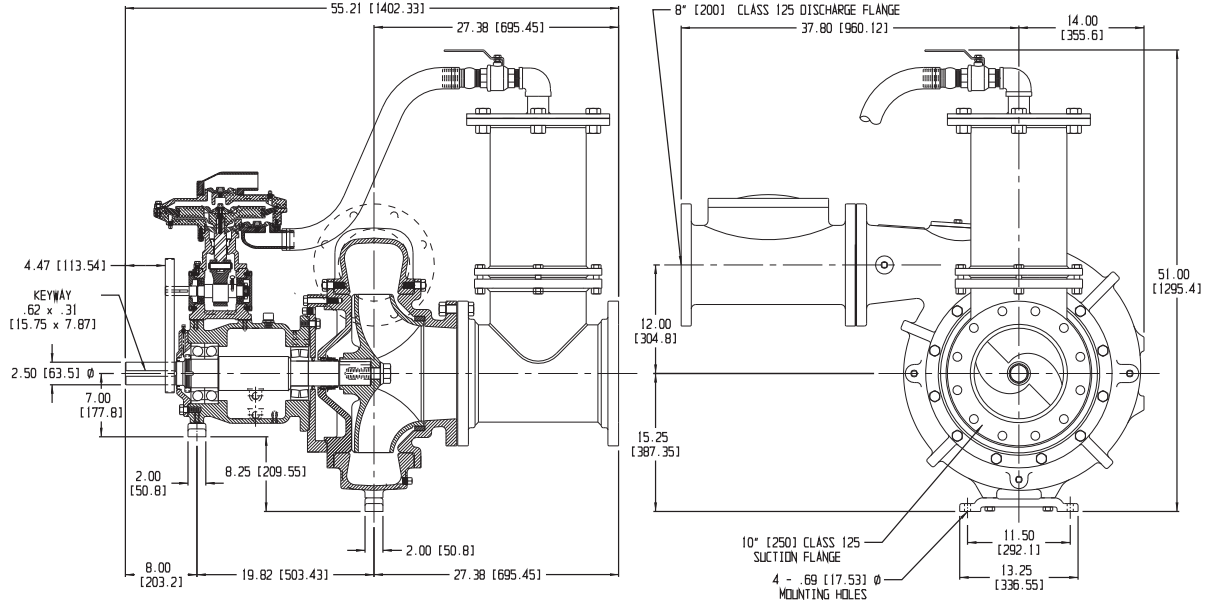
|               | Standard Construction       | Optional Constructions |        |
|---------------|-----------------------------|------------------------|--------|
| Impeller      | Ductile Iron                | CD4MCu                 | 316 SS |
| Wear Ring     | ASTM A48 Class 40 Gray Iron | 316 SS                 | 316 SS |
| Suction Cover | ASTM A536 65-45-12          | CD4MCu                 | 316 SS |
| Volute        | ASTM A536 65-45-12          | CD4MCu                 | 316 SS |
| Brac-plate    | ASTM A536 65-45-12          | CD4MCu                 | 316 SS |
| Backplate     | ASTM A536 65-45-12          | CD4MCu                 | 316 SS |

# Mechanical Dimensions



Typical Pump Configuration

## PP108S17



# Performance Curve

|                 |                     |                 |                   |                |
|-----------------|---------------------|-----------------|-------------------|----------------|
| Model: PP108S17 | Impeller Dia: 17.5" | Speed: Variable | Solids Size: 3.5" | Curve #07997HQ |
|-----------------|---------------------|-----------------|-------------------|----------------|

