

Typical Pump Configuration

Pioneer Prime

PP1818S22L72

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	18" x 18" 457 x 457 mm
Flow, Max	19000 USGPM 4370 m ³ /h 1200 l/s
Head, Max	220 feet 70 meters
Flow at BEP	13,000 USGPM 2990 m ³ /h 820 l/s
Efficiency at BEP	80%
Solids Handling, Max	4.5" 114 mm
Operating Speed, Max	1180 rpm
Suction Connection	18" 150 ANSI Flanges
Delivery Connection	18" 150 ANSI Flanges
Lubrication	Oil STD Grease Optional
Fasteners	Imperial

Applications

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

PosiValve™ Patent #6,783,730 PP1818S22L72_03.14

High flow, heavy duty, solids handling pump

Designed to run over a broad range of performance while delivering outstanding suction lift, the PP1818S22 is the solid choice. The rugged construction and oversized shaft provide proven reliability in the most demanding applications.

The optional 27% Chrome Iron construction will carry slurries and abrasive materials with minimal degradation, reducing maintenance costs over the life of the pump.

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

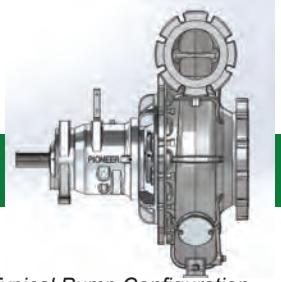
Other Specifications

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 Roller
Drive End Bearing	Double Row Angular Contact
Shaft	ASTM A630 17-4PH COND HT1150 SS

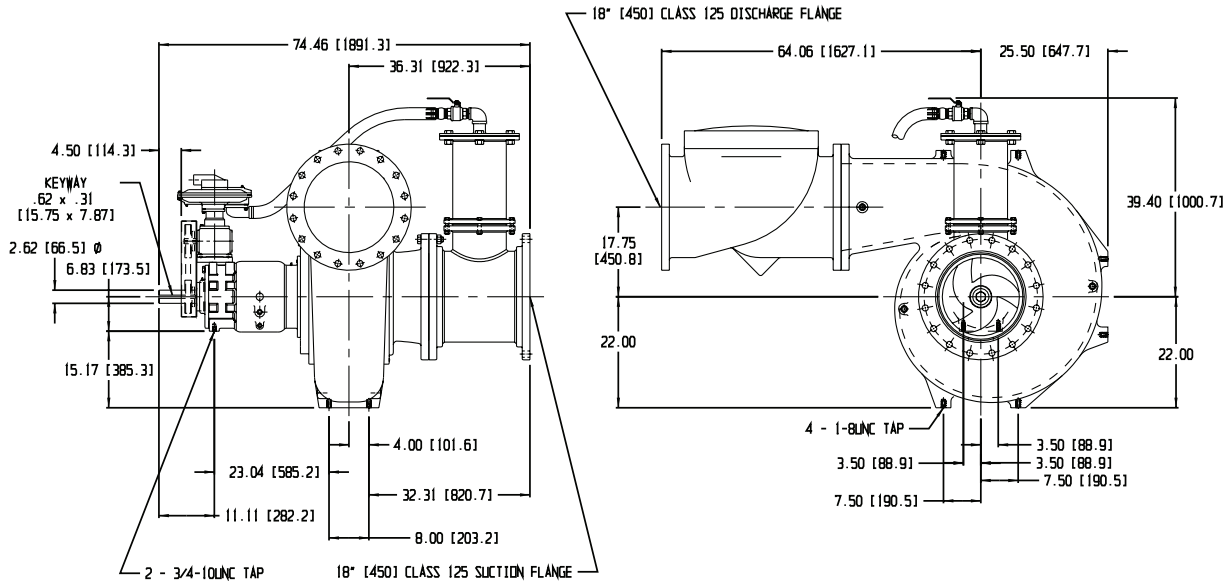
Construction Materials Options

	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

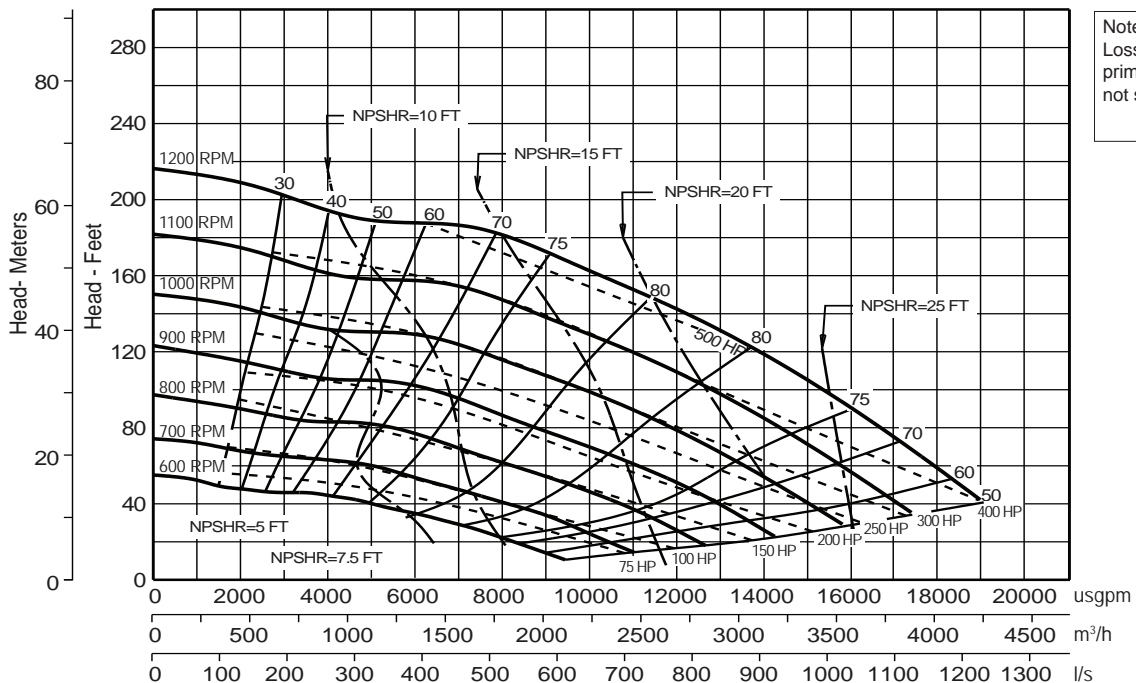


Typical Pump Configuration
PP1818S22



Performance Curve

Model: PP1818S22	Impeller Dia: 22.5"	Speed: Variable	Solids Size: 4.5"	Curve #A6916HQ
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Note:
Losses from
priming system
not shown