

Pioneer Prime

## PP43C21L71



Typical Pump Configuration

### Performance

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

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

Size	4" x 3" 100 x 76 mm
Flow, Max	675 USgpm 160 m <sup>3</sup> /h 40 l/s
Head, Max	700 feet 210 meters
Flow at BEP	540 USgpm 120 m <sup>3</sup> /h 30 l/s
Efficiency at BEP	47%
Solids Handling, Max	0.78" 20 mm
Operating Speed, Max	2100 rpm
Suction Connection	4" (100 mm) 150 ANSI Flanges
Delivery Connection	3" (76 mm) 150 ANSI Flanges
Bearing Lubrication	Oil STD Grease optional
Fasteners	Imperial

### Applications

Quarry	Dust Suppression
Mining	Firefighting
Steel	Oil & Gas

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

Designed to operate over a broad range of performance while delivering outstanding suction lift, the PP43C21 is the clear 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	Double Row Angular Contact
Shaft	17-4 PH Stainless Steel

### Construction Materials

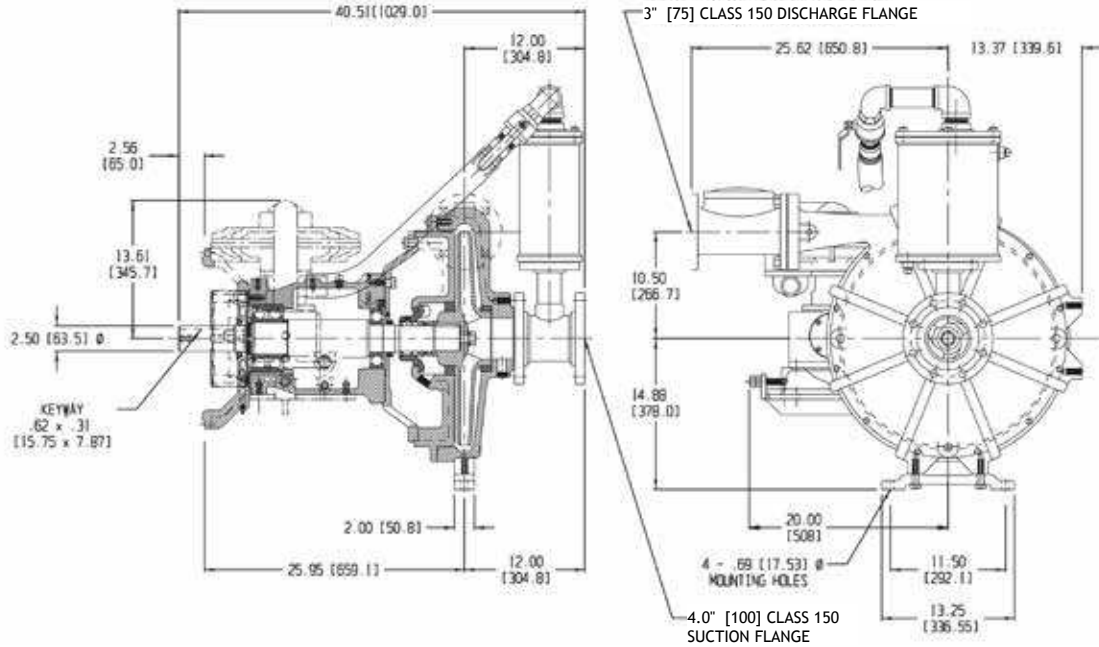
	Standard Construction	CD4MCu Stainless Steel
Impeller	CA6NM SS	CD4MCu
Volute	Ductile Iron ASTM A536 65-45-12	CD4MCu
Wear Ring	ASTM A48 Class 40 Gray Iron	316 SS
Suction Cover	Ductile Iron ASTM A536 65-45-12	CD4MCu
Bracket	Ductile Iron ASTM A536 65-45-12	CD4MCu
Backplate	Ductile Iron ASTM A536 65-45-12	CD4MCu

# Mechanical Dimensions



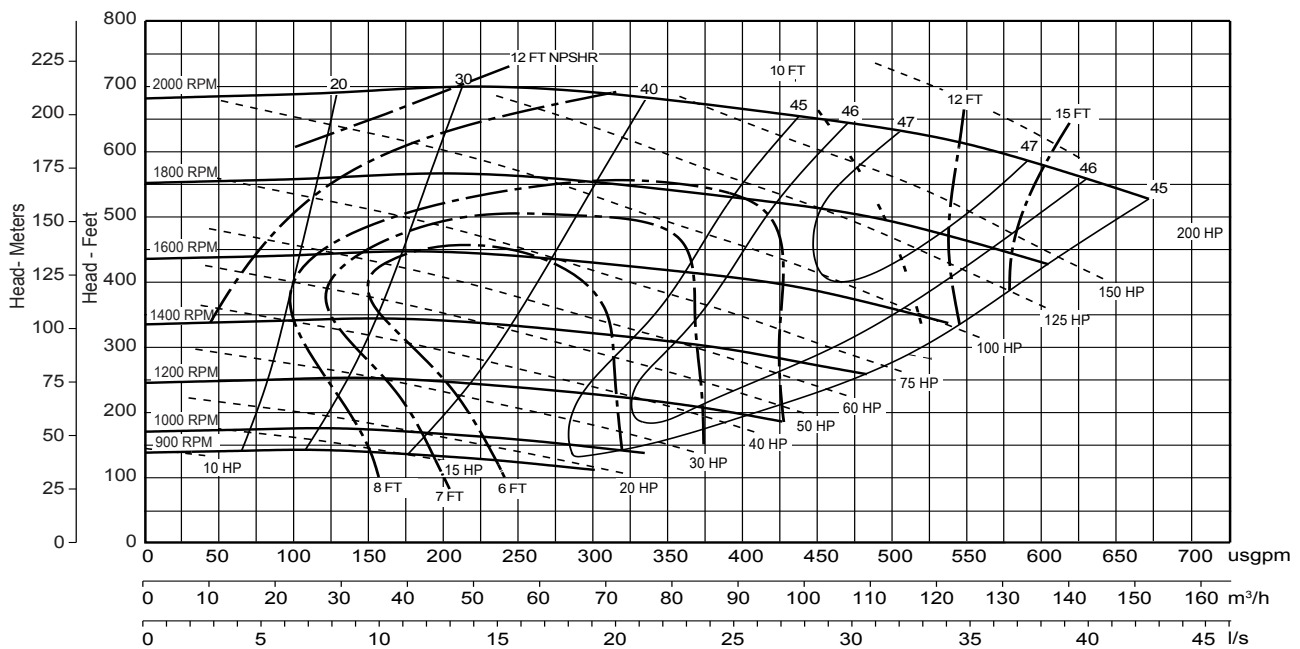
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# Performance Curve

Model: PP43C21	Impeller Dia: 21"	Speed: Variable	Solids Size: 0.78"	Curve #12948HQ
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Note: Losses from priming system not shown