

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 75 mm |
| Flow, Max | 750 USGPM 170 m ³ /h 47 l/s |
| Head, Max | 700 feet 210 meters |
| Flow at BEP | 540 USGPM 120 m ³ /h 30 l/s |
| Efficiency at BEP | 47% |
| Solids Handling, Max | 0.78" 20 mm |
| Operating Speed, Max | 2100 rpm |
| Suction Connection | 4" 150 ANSI Flanges |
| Delivery Connection | 3" 150 ANSI Flanges |
| Lubrication | Oil STD Grease optional |
| Fasteners | Imperial |

Applications

| | |
|---------------|--------------|
| Oil & Gas | Construction |
| Industrial | Mining |
| Petrochemical | Rental |
| Agriculture | Irrigation |

PosiValve™ Patent #6,783,730 PP43C21_03.14

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 |

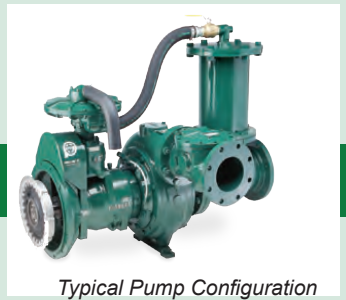
Other Specifications

| | |
|-------------------|--|
| 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 Bearings |
| Shaft | ASTM A630 17-4PH COND HT1150 SS |

Construction Materials

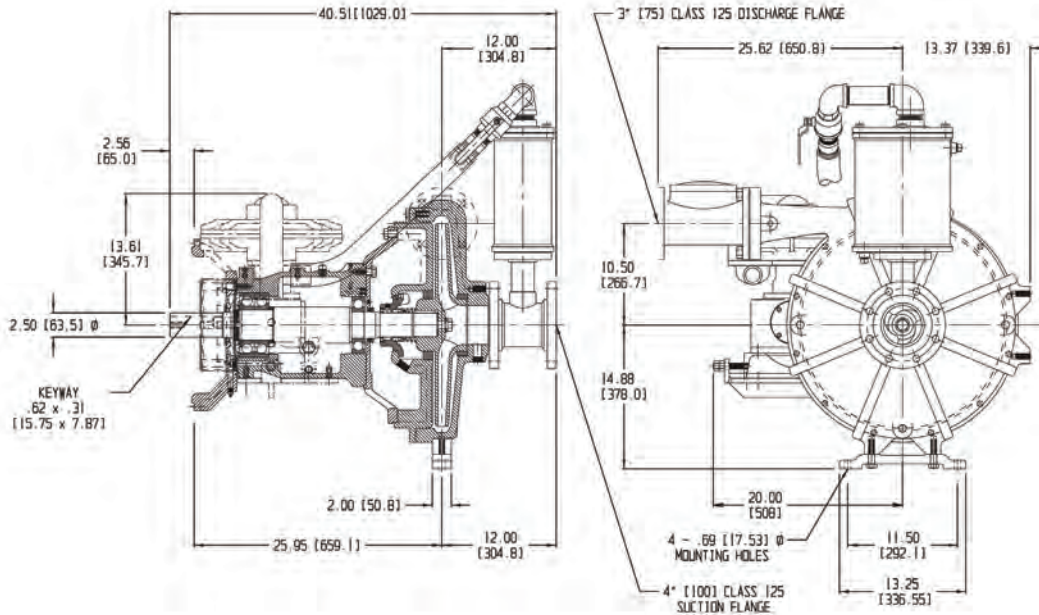
| | Standard Construction | Optional Constructions | |
|--------------------|-----------------------------|------------------------|--------|
| Impeller | CA6NM SS | CD4MCu | 316 SS |
| Wear Ring | ASTM A48 Class 40 Gray Iron | 316 SS | 316 SS |
| Suction Cover | ASTM A536 65-45-12 | CD4MCu | 316 SS |
| Volute | ASTM A536 65-45-12 | CD4MCu | 316 SS |
| Brac-plate/bracket | ASTM A536 65-45-12 | CD4MCu | 316 SS |
| Backplate | ASTM A536 65-45-12 | CD4MCu | 316 SS |

Mechanical Dimensions



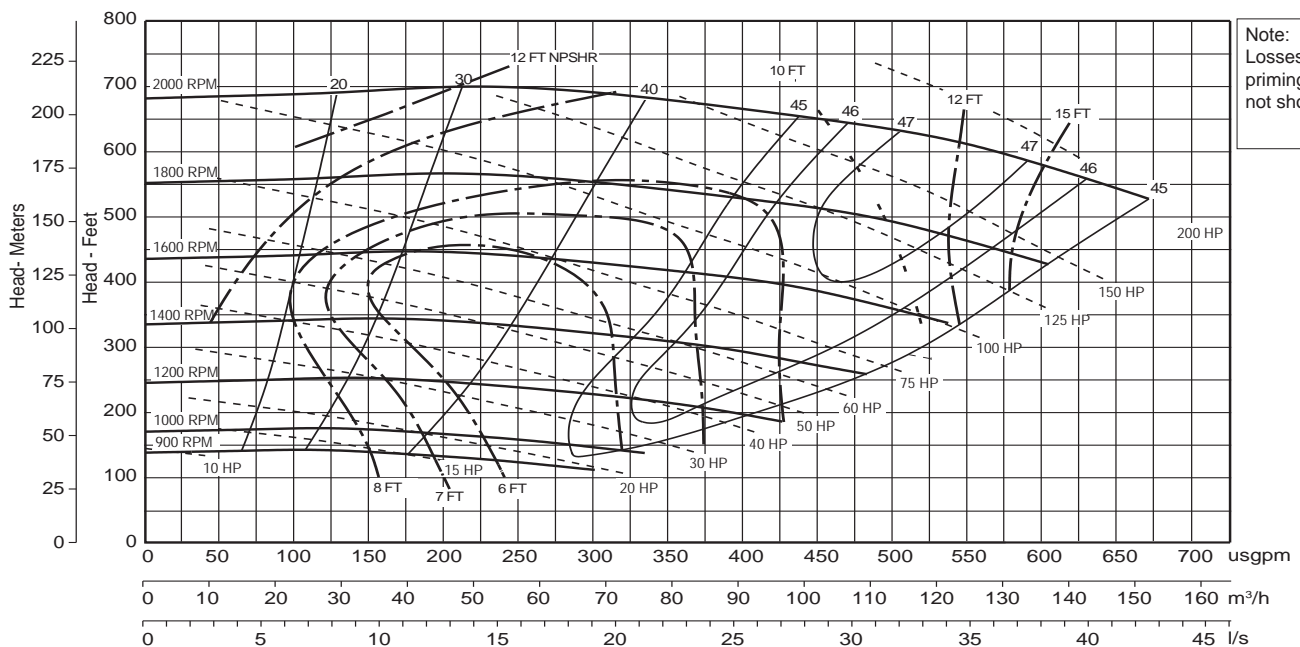
Typical Pump Configuration

PP43C21



Performance Curve

| | | | | |
|----------------|-------------------|-----------------|--------------------|----------------|
| Model: PP43C21 | Impeller Dia: 21" | Speed: Variable | Solids Size: 0.78" | Curve #12948HQ |
|----------------|-------------------|-----------------|--------------------|----------------|



Note:
Losses from
priming system
not shown

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