

SURFACE PUNDS

PERFORMANCE & SOLUTIONS



pioneerpump.com

YOUR PARTNER FOR WATER SYSTEMS



Transport water and wastewater for any sized job with our proven portfolio of centrifugal pumps.



and manufacturing of large centrifugal pumps and packages.



Franklin Electric is a global provider of complete systems for the movement of water.

SURFACE PUMPS

Leading-edge hydraulic engineering makes Pioneer Pump[®] centrifugal pumps the highest performing pumps on the market. Available in pump sizes from 3" (80 mm) to 18" (460 mm) with flows up to 18,500 gallons per minute (4,200 m3/h) and heads to 850 feet (260 m), our pumps are designed to provide better flow, higher head and greater efficiency to meet your unique challenges.





RANGE OF PUMP ENDS

| PUMP END Configuration | FLOODED SUCTION (NO PRIMING) | | | VACUUM-ASSISTED DRY PRIMING | | | SELF-PRIMING PUMPS | |
|---------------------------|---------------------------------|----------------------------|-----------------------------------|---------------------------------|----------------------------|--|--|---------------------------------|
| | CLEAR LIQUIDS | SOLIDS HANDLING | VORTEX SERIES | CLEAR LIQUIDS | SOLIDS HANDLING | VORTEX SERIES | GT SERIES | GS SERIES |
| Pump Size | 3-12" (80-300 mm) | 4-18" (80-460 mm) | 4-8" (100-200 mm) | 3-12" (80-300 mm) | 4-18" (80-460 mm) | 4-6" (100-150 mm) | 3-6" (76-150 mm) | 3-10" (76-250 mm) |
| Flow Range | 20-18,500 gpm (4-4,200 m³/h) | | 1,450-3,600 gpm (329-818 m³/h) | 20-18,500 gpm (4-4,200 m³/h) | | 1,450-2,300 gpm (329-522 m ³ /h) | 660-2,250 gpm (150-511 m ³ /h) | 490-3,450 gpm (111-783 m³/h) |
| Max Head | 850+ feet (260+ meters) | 700+ feet (210+ meters) | 150+ feet (46+ meters) | 850+ feet (260+ meters) | 700+ feet (210+ meters) | 130+ feet (40+ meters) | 250+ feet (76+ meters) | 175+ feet (53+ meters) |
| Solids Size | 0.5-2.3" (10-60 mm) | 2-4.5" (50-115 mm) | 3.15-5.12" (80-130 mm) | 0.5-2.3" (10-60 mm) | 2-4.5" (50-115 mm) | 3.15-4.92" (80-125 mm) | 2.5-3" (6 | 3-76 mm) |
| Wet End Material | Ductile Iron | | Ductile Iron | Ductile Iron | | Ductile Iron | Ductile Iron | |
| Impeller Material | CA6NM Stainless Steel | | Ductile Iron | CA6NM Stainless Steel | | Ductile Iron | Ductile Iron | |

| PIONEER PUMP Solutions | STANDARD CENTRIFUGAL PUMPS | | | PIONEER PRIME PUMPS | | | SELF-PRIMING PUMPS | |
|---------------------------|----------------------------|-----------------|---------------|---------------------|-----------------|---------------|--------------------|-----------|
| | CLEAR LIQUIDS | SOLIDS HANDLING | VORTEX SERIES | CLEAR LIQUIDS | SOLIDS HANDLING | VORTEX SERIES | GT SERIES | GS SERIES |
| Models | SC32C10 | SC44S8 | SC44V10 | PP425C75 | PP44S8 | PP44V10 | GT3 | GS3 |
| | SC425C75 | SC44S8B | SC66V10 | PP425C75 | PP44S8B | PP66V10 | GT4 | GS4 |
| | SC425C10 | SC44S10 | SC66V12 | PP425C10 | PP44S10 | PP66V12 | GT6 | GS6 |
| | SC43C75 | SC64S12 | SC88V12 | PP43C75 | PP64S12 | - | - | GS8 |
| | SC43C10 | SC64S17 | - | PP43C10 | PP64S17 | - | - | GS10 |
| | SC43C21 | SC66S10 | - | PP43C21 | PP66S10 | - | - | - |
| | SC44C75 | SC66S12 | - | PP44C75 | PP66S12 | - | - | - |
| | SC53C14 | SC66S14 | - | PP53C14 | PP66S14 | - | - | - |
| | SC54C75 | SC86S17 | - | PP54C75 | PP86S17 | - | - | - |
| | SC63C17 | SC86S20 | - | PP63C17 | PP86S20 | - | - | - |
| | SC64C10 | SC88S12 | - | PP64C10 | PP88S12 | - | - | - |
| | SC64C14 | SC108S17 | - | PP64C14 | PP108S17 | - | - | - |
| | SC64C17 | SC128S20 | - | PP64C17 | PP128S20 | - | - | - |
| | SC64C21 | SC128S22 | - | PP64C21 | PP128522 | - | - | - |
| | SC66C14 | SC1212S17 | - | PP66C14 | PP1212S17 | - | - | - |
| | SC86C95 | SC1414S17 | - | PP86C95 | PP1414S17 | - | - | - |
| | SC86C10 | SC1818S22 | - | PP86C10 | PP1818S22 | - | - | - |
| | SC86C14 | - | - | PP86C14 | - | - | - | - |
| | SC86C17 | - | - | PP86C17 | - | - | - | - |
| | SC86C17B | - | - | PP86C17B | - | - | - | - |
| | SC86C21 | - | - | PP86C21 | - | - | - | - |
| | SC108C18 | - | - | PP108C18 | - | - | - | - |
| | SC108C24 | - | - | PP108C24 | - | - | - | - |
| | SC1010C14 | - | - | PP1010C14 | - | - | - | - |
| | SC1212C17 | - | - | PP1212C17 | - | - | - | - |

STANDARD CENTRIFUGAL



Pioneer standard centrifugal pumps provide superior performance in a variety of high pressure, sewage, trash or dewatering applications. The large stainless-steel impeller eye yields lower NPSHr and improved vapor-handling capabilities, making them ideal for industrial, municipal, agricultural, mining, and oil and gas settings.

KEY BENEFITS

- Reduce operating costs with a highperformance impeller design that provides more flow with less horsepower
- Minimize maintenance and overhead costs

CLEAR LIQUIDS

Our best in class standard centrifugal clear liquid processing pumps optimize performance in high pressure applications.

Features:

- Available from 3" to 12" sizes
- Casing balance line is fitted on extreme high head models to improve mechanical seal life

SOLIDS HANDLING

Pioneer standard centrifugal pumps are designed to handle the toughest dewatering, sewage, and trash applications.

Features:

- Available from 4" to 18" sizes
- Handles solids sizes 2 to 4.5 inches in diameter

VORTEX SERIES

Eliminate costly and disruptive downtime by passing through the most challenging solids with Vortex Series[™] pumps.

Features:

- Available in 4" to 8" sizes
- Uses a recessed ductile iron impeller, ideal for applications where fluid conditioning, macerating, or mix-prevention are unnecessary
- Vortex hydraulics are engineered to save users time by eliminating internal parts, like wear plates and chopper blades, that would otherwise have to be monitored, adjusted and replaced



PIONEER PRIME

All Pioneer standard centrifugal pumps can be upgraded to a Pioneer Prime vacuum-assisted self-priming pump that delivers extreme flows with high head capability and utilizes our advanced priming system. This dry prime system is capable of rapid (50 CFM) unattended priming and operation for the ultimate in reliable performance, even in run-dry situations and suction lift applications. The Pioneer Prime system combined with our low NPSHr impeller design achieves better suction lift and faster priming than the competition.

KEY BENEFITS

- Enables unassisted dry priming
- Achieve higher performance and increased energy efficiency
- Faster priming time compared to compressordriven priming systems

THE PIONEER PRIME ADVANTAGE

A true dry-prime pump, our self-priming system eliminates the need for water to prime the pump and is engineered to prevent product carryover. The Pioneer Prime hydraulic design maximizes lift capability and offers both quick initial priming and continuous, unattended reprime under auto stop/start conditions.

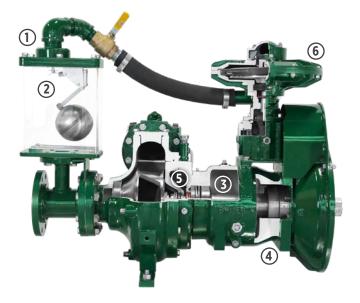
Features:

- 1. Stainless Steel Air Separation Valve Allows for rapid priming with no product carryover
- 2. Priming Chamber Stainless steel internal parts for longer life
- Reliable Sealing Components Hybrid cassette seals simultaneously prevent leakage and eliminate shaft wear
- Heavy-Duty Modular Bearing Housing Designed to run at high speeds without risk of shaft or bearing failure
- 5. Run-Dry System

Oil-lubricated mechanical seal allows the pump to run completely dry without damage

6. Vacuum Pump

Belt driven from pump shaft



SELF-PRIMING

PONEERFLM

PIONEERPUMP

Franklin Electric

Pioneer self-priming pumps are designed for reliable solids and clear liquids handling. After initial priming, they continue to re-prime – for low maintenance and cost-effective performance. Constructed with the best materials including standard heavy-wall ductile iron volute and 17-4 PH stainless steel shaft for durability and peace of mind.

KEY BENEFITS

- External shimless impeller adjustment allows user to easily adjust the tolerance between the impeller and wearplate
- Cartridge type tungsten mechanical seal makes for ease of maintenance and simple installation

GT SERIES

Engineered for increased durability and operation at higher speeds than the industry standard for self-priming pumps.

Features:

- Larger shaft design, heavy-duty bearing frame and ductile iron construction
- Unique suction design improves NPSHr and alleviates abrasion wear on pump
- Distinct cover combines both the fill access port and flapper check valve into one to improve ease of use



GS SERIES

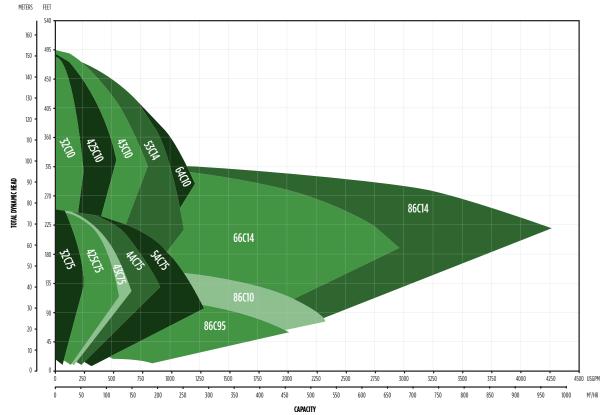
A cost-effective solution for high head applications with high performance demands.

Features:

- Designed to handle solids and clear liquids while providing exceptional performance and reliability
- Pump footprint is compatible with other manufacturer models, making it an ideal direct replacement option
- Rotating assemblies are interchangeable with other industry standard self-priming pumps

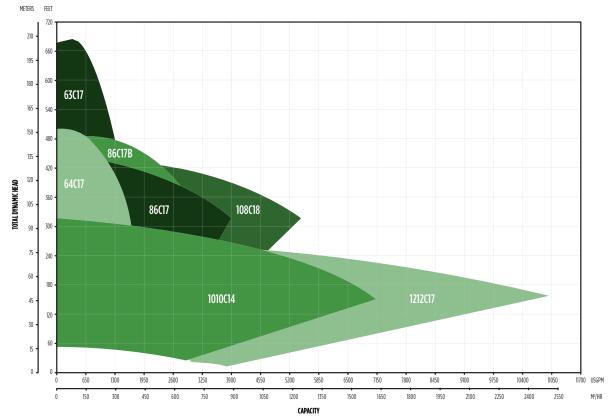


PERFORMANCE CURVES: CLEAR LIQUIDS PUMPS

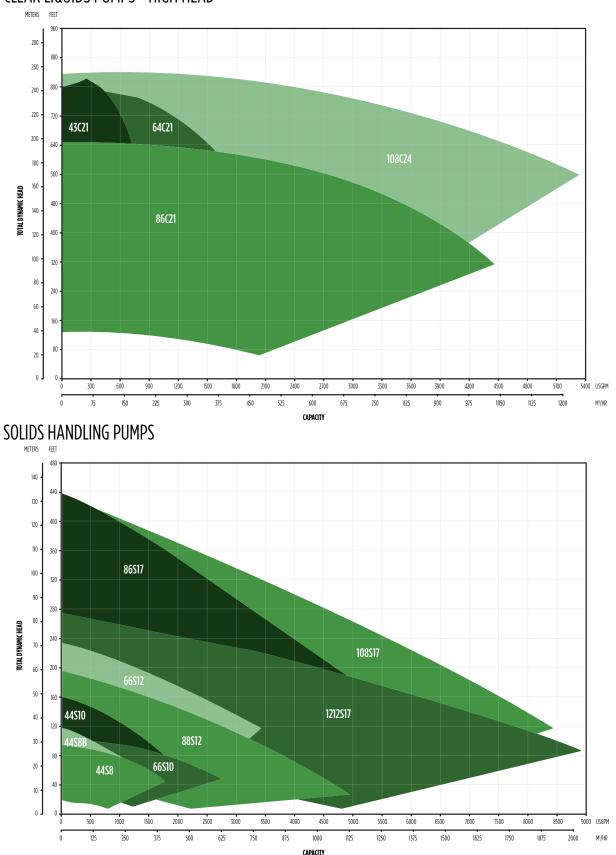


SMALL CLEAR LIQUIDS PUMPS



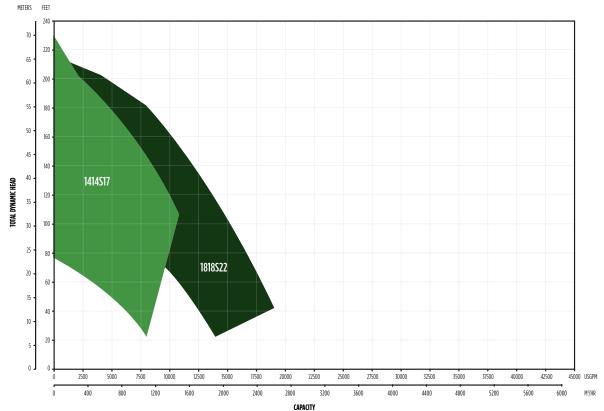


PERFORMANCE CURVES: CLEAR LIQUIDS & SOLIDS HANDLING PUMPS



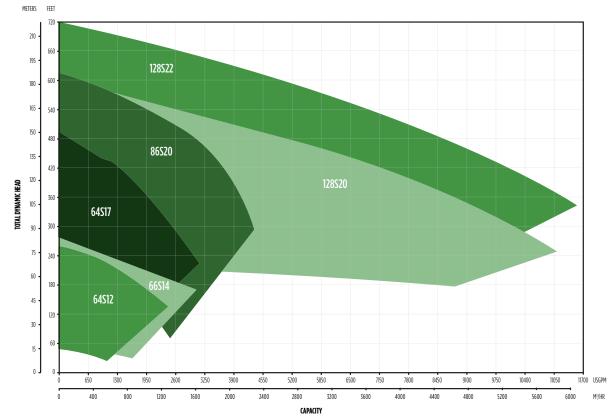
CLEAR LIQUIDS PUMPS - HIGH HEAD

PERFORMANCE CURVES: SOLIDS HANDLING PUMPS

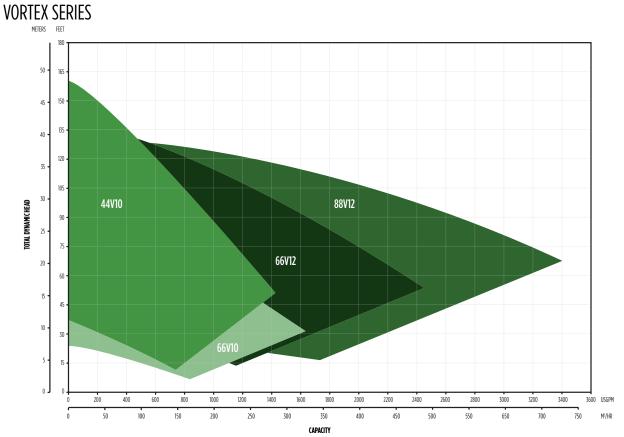


SOLIDS HANDLING PUMPS - HIGH FLOW

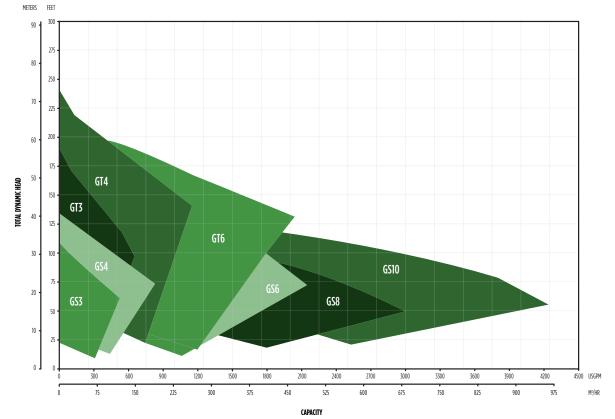




PERFORMANCE CURVES: VORTEX SERIES & SELF-PRIMING PUMPS



SELF-PRIMING PUMPS - GS & GT SERIES



PACKAGES

A comprehensive range of pump package options are available for fixed and portable installations with vacuum-assisted priming and standard centrifugal pump ends. These packages are built to last and engineered for optimal performance in the toughest environments.

KEY BENEFITS

- Select from diesel engine and electric motor power options to meet your application needs
- Configurations include open and enclosed, skid and trailer packages



With 24/7 online and mobile-friendly availability, FE Select is the industry-leading online tool from Franklin Electric that makes pump sizing and selection easy for contractors, engineers, fleet managers and wholesale distributors. It's secure and free-to-use: input your performance requirements or specs, and FE Select will help you find the best Pioneer Pump product to fit your needs.

KEY FEATURES

- Automatically select pump based on duty point
- Integrated head loss and suction lift calculator
- Configure your pump & package with instant pricing

Franklin Electric is a global leader in the manufacturing and distribution of products and systems focused on the movement and management of water. We offer pumps, motors, drives, and controls for use in a wide variety of agricultural, commercial, industrial, municipal, and residential applications.

Connect with Us!

