

VERTIFLO

The Vertical Pump Specialists

PUMPS FOR INDUSTRY

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Introduction & User List

Product Overview

Vertical Process Pumps Series 600

Vertical Sewage Pumps Series 700

Vertical Sump Pumps Series 800

Vertical Vortex Pumps Series 900

Vertical Cantilever Pumps Series 1100 and 1200

Horizontal End Suction
Pumps-Centrifugal Series 1300 and 1400

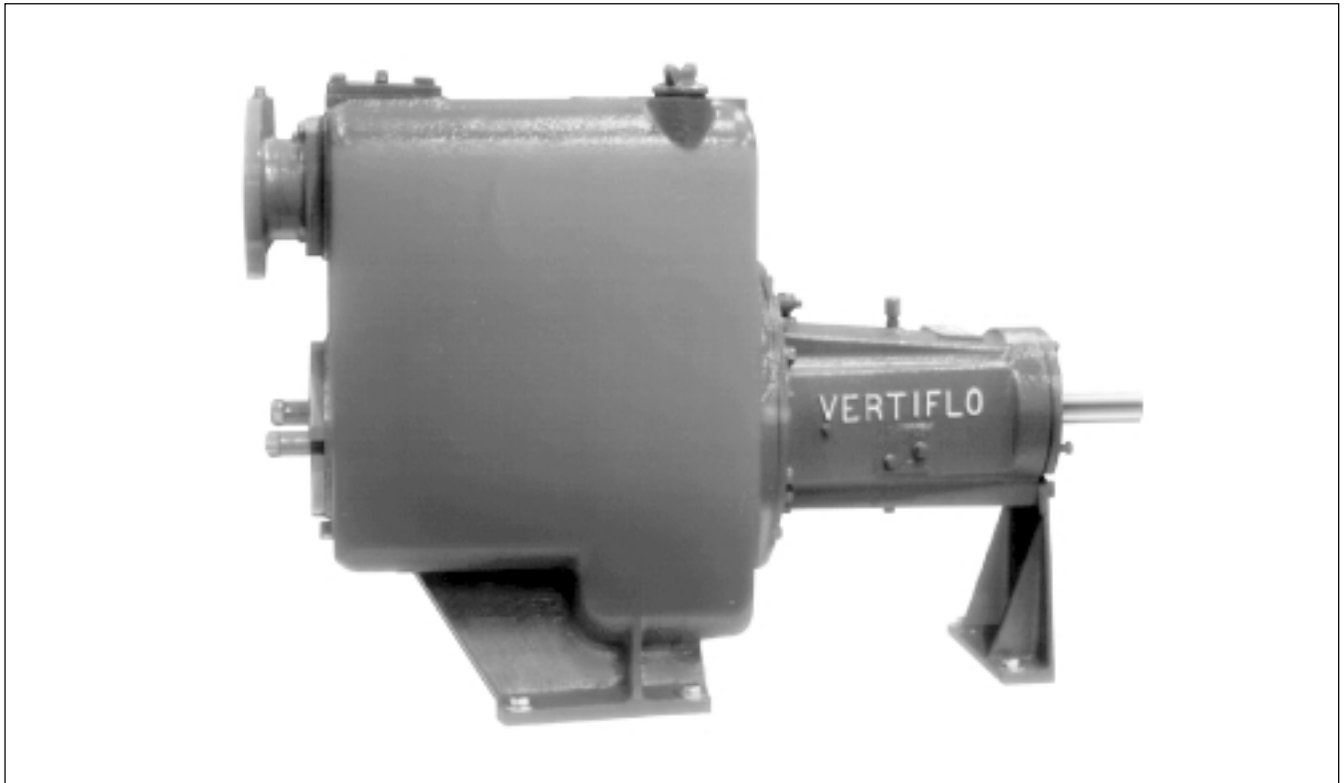
Horizontal End Suction
Pumps-Vortex Series 1500 and 1600

Horizontal Self-priming
Pumps- Centrifugal Series 2100

Engineering Sample Specifications

VERTIFLO Series 2100

Quality Design Features Assure Long, Trouble-Free Service



WIDE RANGE OF APPLICATIONS:

- Liquids Entrained with Solids
- General Industrial, Pulp & Paper, Mining, Meat Packing
- Raw Sewage, Sludge
- Slurries
- Trash
- Wastewater

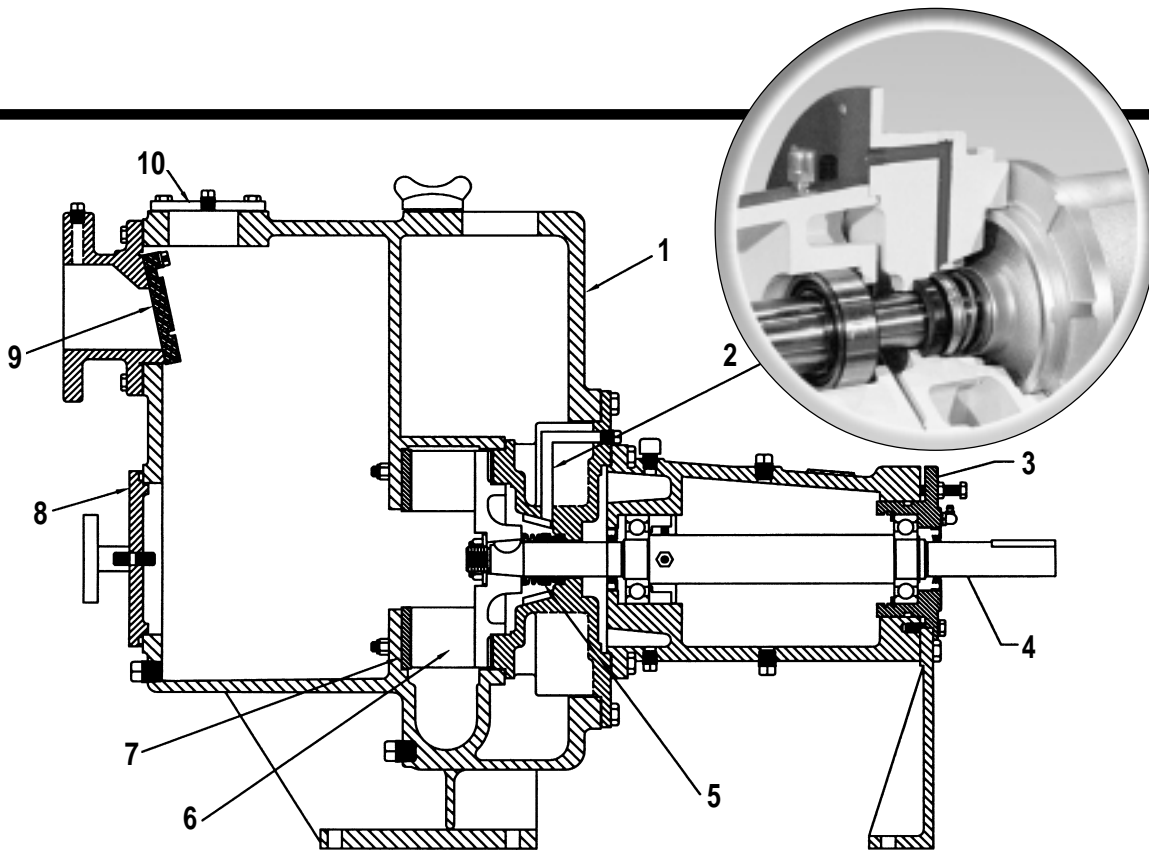
CAPABILITIES:

- Capacities to 1300 GPM
- Heads to 112 Feet TDH
- Sizes: 3", 4", and 6"
- Solids Handling: Up to 3" Diameter Sphere
- Suction Lifts to 25 Feet

CONSTRUCTION:

- Cast Iron
- CD4MCu Fitted
- All CD4MCu
- 316 S.S. Fitted
- All 316 S.S.

Vertiflo's Trash- and Solids-Handling Self-Primer is designed for service simplicity and quick and easy access to the impeller and ease to remove debris. Its oversized, tapered bore, self-flushing seal chamber, with an industry first optional external flush, results in greatly extended seal life. Back pullout design with external impeller adjustment, plus a replaceable case wearplate allows for continuous high efficiency performance.

**1. Priming Chamber**

Heavy-duty cast construction with large capacity volute allows continual re-priming.

2. Seal Chamber

Oversized tapered bore chamber with flow bars to eject sand and abrasives otherwise trapped in the chamber. An industry first, external fresh water flush is optionally available for the most difficult pumping applications.

3. External Impeller Adjustment

Heavy-duty cast iron power frame with replaceable and adjustable thrust bearing housing utilizing jackscrews, maintains impeller adjustment.

4. Shaft

High-strength 17-4ph stainless steel with self-locking taper, along with Woodruff key and locknut assures perfect impeller attachment.

5. Mechanical Seal

Single, self-aligning solid silicon carbide vs silicon carbide faced seal for abrasive industrial wastewater service.

6. Impeller

Semi-open, solid-handling design with rear wiping vanes and balancing hub that reduce seal chamber pressure and axial loading.

7. Wear Plate

Replaceable heavy-duty wear plate protects priming chamber from wear of erosion.

8. Inspection-Cleanout Cover

6" diameter cover weighing only 5½ lbs. provides quick, direct access into priming chamber and impeller.

9. Check Valve

Replaceable, molded in one piece with integral rupture disc valve allows re-priming and protects the priming chamber from high pressure or vaporization.

10. Check Valve Cover Plate

Check valve inspection and service is possible by removing this plate. Draining of pump or removal of piping is not necessary.

Revised 10-15-02

Parts Description	Standard Fitted	316 S. S. Fitted	CD4MCu Fitted	All 316 S.S.	All CD4MCu
Case	Cast Iron	Cast Iron	Cast Iron	316 S.S.	CD4MCu
Seal Cover	Cast Iron	Cast Iron	Cast Iron	316 S.S.	CD4MCu
Mechanical Seal	Silicon Carbide vs Silicon Carbide				
Power Frame	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Shaft	17-4ph	17-4ph	17-4ph	17-4ph	17-4ph
Suction Inlet	Cast Iron	Cast Iron	Cast Iron	316 S.S.	CD4MCu
Check Valve	Buna N	Buna N	Buna N	Viton	Viton
Clean Out Plate	Cast Iron	Cast Iron	Carbon Steel	316 S.S.	CD4MCu
Case Gasket	Synthetic Fiber with EPDM Binder				
Wear Plate	Steel	316 S.S.	CD4MCu	316 S.S.	CD4MCu
Impeller	Cast Iron	316 S.S.	CD4MCu	316 S.S.	CD4MCu
Bearing Cartridge	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Impeller Trim	Carbon Steel/ 316SS	316 S.S.	316S.S. / CD4MCu	316 S.S.	CD4MCu / Alloy 20

OPTIONAL:

316 stainless steel fitted and CD4MCu fitted pumps are available with optional 316 stainless steel or CD4MCu seal cover in lieu of cast iron.

Construction Details

		3x3	4x4	6x6
Priming Chamber	Suction/Discharge Flange	3"/125 lb.	4"/125 lb.	6"/125 lb.
	Maximum Pressure	85 PSIG	85 PSIG	85 PSIG
	Minimum Thickness	0.44	0.44	0.44
	Capacity of Chamber	19 gal.	24 gal.	32 gal.
	Rotation from Driver End	cw	cw	cw
Shaft	Diameter at Impeller	1.38"	1.75"	1.75"
	Diameter through Seal Cover	1.38"	1.75"	1.75"
	Diameter Between Bearings	2.0"	2.25"	3.0"
	Diameter at Coupling End	1.38"	1.63"	2.0"
Bearings	Bearing Span Centers	9.66"	9.75"	10.94"
	Average L'10 Bearing Life	Excess of 100,000 Hours		
Maximum Solids		2.75"	3.0"	3.0"