

# VERTIFLO

*The Vertical Pump Specialists*

## PUMPS FOR INDUSTRY

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**VERTIFLO SERIES 900**

**Quality Design Features Assure Long, Trouble-Free Service**



**WIDE RANGE OF APPLICATIONS:**

- Chemical Slurries
- Fragile Food Processing Solids
- Paper & Pulp Solids
- Petroleum
- Oils
- Sewage & Waste Treatment
- Textiles

**CAPABILITIES:**

- Capacities to 1600 GPM
- Heads to 170 Feet
- Temperature to 350° F
- Pit Depths to 26 Feet
- Construction: Cast Iron, 316 Stainless Steel Fitted, All 316 Stainless Steel, Alloy 20, CD4MCu
- Solid Handling up to 4" Diameter Spheres

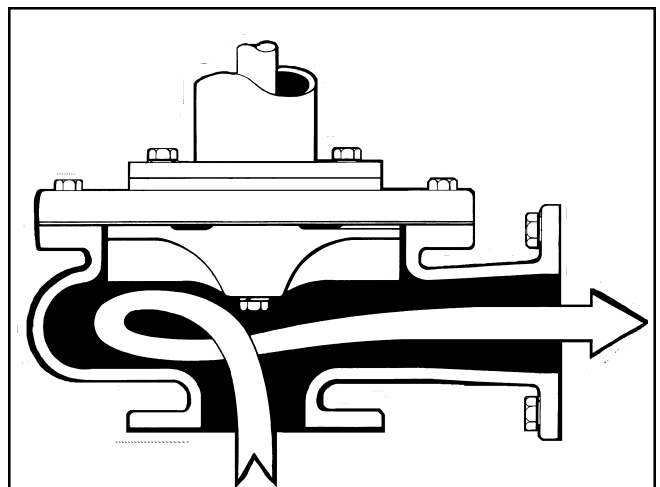
**CONSTRUCTION:**

**Standard**

- All iron construction
- Carbon bottom line shaft bearings
- Carbon intermediate bearings (Pump built for pit depth over 6'-0")
- Fully recessed impeller with wiping vanes
- High thrust, angular contact ball bearing
- 416 stainless steel shaft
- Round, square or oval cover plates
- External impeller adjustment
- Pump setting increments of 1'-0" for pit depths up to 26'-0"
- Flanged suction and discharge on all casings
- Standard C face motors

**Options**

- Stainless steel fitted, all stainless steel or Alloy 20 construction
- Various line shaft bearing designs
- 316 stainless steel shafting
- Cover plate with manhole, vent or special openings
- Vapor-proof construction
- Various float switch enclosures
- Various liquid level controls
- High water alarm
- Alarm bells and horns
- 316 stainless steel float rod
- 316 stainless steel float
- Below plate discharge "T"



Vortex Design provides an unrestricted flow since the impeller is not normally in contact with the solids being pumped.

## 1. Motor Support

Assures positive alignment of motor and pump shaft with register fit. Normal thrust, vertical NEMA C face motor standard

## 2. Flexible Coupling

## 3. External Impeller Adjustment

High performance maintained without dismantling pump

## 4. Thrust Bearings

High thrust angular contact bearing. Moisture-proof enclosure, (2) grease seals, purge-type grease lubrication

## 5. Gas Tight Column Closure

Optional double lip seals available

## 6. Cover Plate

Designed for specific unit. Optional sizes and gas-tight construction available

## 7. Column Pipe

Schedule 40 steel with welded flanges

## 8. Positive Machined Fits

Machined registered fits of column, bearing housing and casing

## 9. Intermediate Bearing Assembly

Furnished as standard for pit depths in excess of 6'-0". Optional designs for special applications

## 10. Shafting

Accurately machined 416 stainless steel, 1 1/4", 1 1/2" and 1 5/8" diameter to assure minimum deflection

## 11. Pump Bearing Assembly

Heavy construction designed for maximum bearing loadings. Optional designs available

## 12. Bearings

Various materials available to suit most applications

## 13. Choker Ring

Restricts entrance of abrasives and solids into bottom bearing

## 14. Impeller

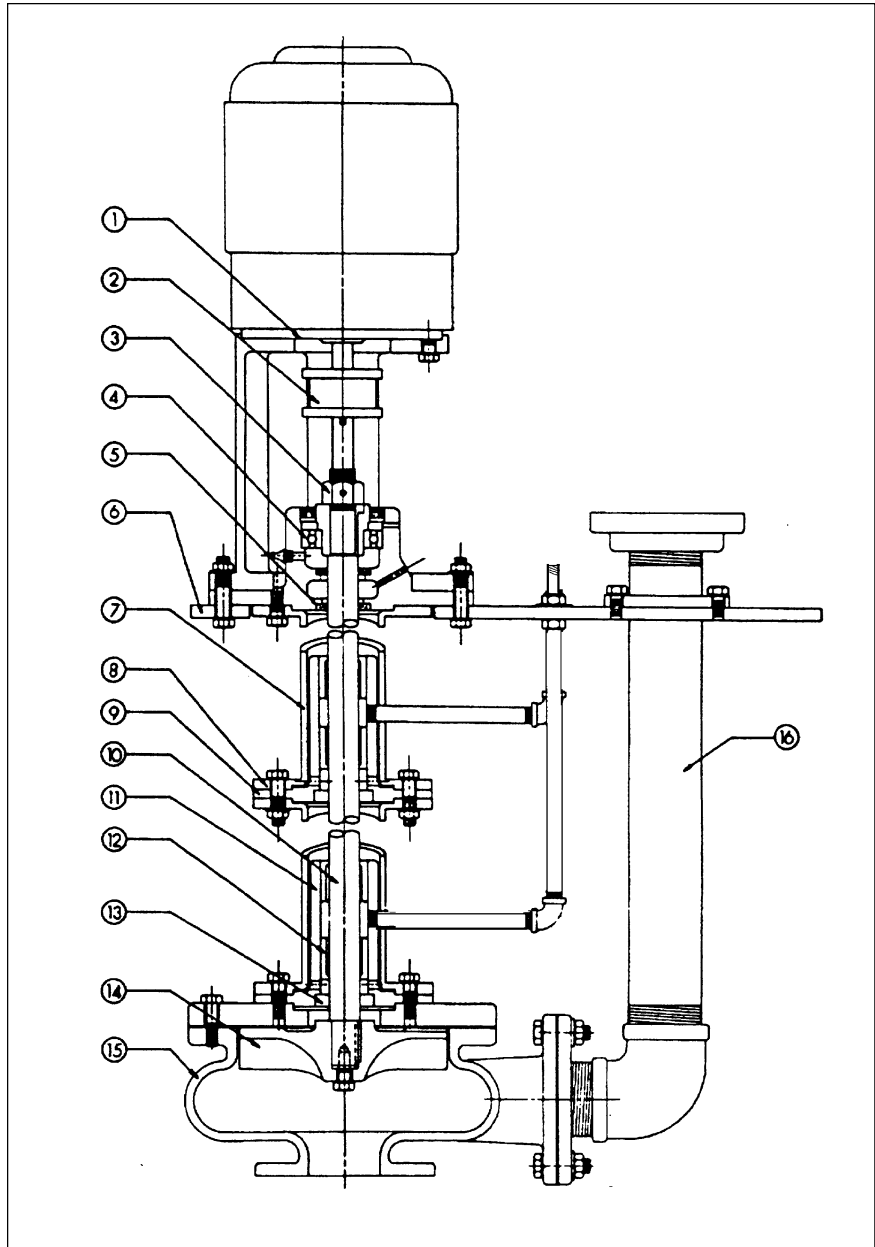
Fully recessed out of flow path. Full length eductor vanes reduce pressure and solid particle buildup behind the impeller

## 15. Casing

Vortex-type concentric design. Extra heavy wall thickness design for corrosion allowance

## 16. Discharge Pipe

Schedule 40 flanged pipe and fittings. Below plate "T"-type discharge available



## Standard Line Shaft Bearing Assemblies

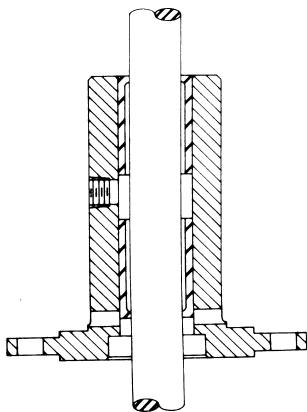
### Lower Bearing Assembly

The standard pump bearing assembly consists of choker ring and (2) guide bearing bushings compatible with the liquid. Standard carbon graphite bearings furnished. Optional: bronze, Teflon\* or viton.

### Intermediate Bearing Assembly

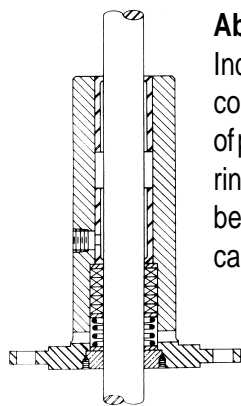
The standard intermediate assembly consists of (2) guide bearings compatible with the liquid and is standard when pit depth exceeds 6 feet. Standard carbon graphite bearings furnished. Optional: bronze, Teflon\* or viton.

\*E.I. DuPont registered TM

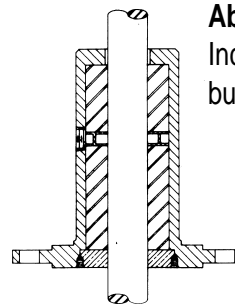


Part Description	Standard Fitted	316 Stainless Fitted	All 316 Stainless	Alloy 20
Motor Support, Thrust Bearing Housing	Cast Iron Class 30	Cast Iron Class 30	Cast Iron Class 30	Cast Iron Class 30
Shaft	Stainless Steel AISI-416	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Column	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316	Alloy 20
Bearing Housing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Guide Bearings	Graphite	Graphite	Graphite	Graphite
Casing Adaptor	Steel ASTM-53	Steel ASTM-53	Stainless Steel AISI-316	Alloy 20
Impeller	Cast Iron Class 30	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Impeller Trim	Stainless Steel AISI-316	Stainless Steel AISI-316	Stainless Steel AISI-316	Alloy 20
Casing	Cast Iron Class 30	Cast Iron Class 30	Stainless Steel AISI-316	Alloy 20
Gasket	Vellumoid	Vellumoid	NA 700	NA 700
Discharge Elbow	Cast Iron AISI-B164	Cast Iron AISI-B164	Stainless Steel AISI-316	Alloy 20
Discharge Pipe	Steel ASTM-A53	Steel ASTM-A53	Stainless Steel AISI-316	Alloy 20
Cover Plate	Steel HRS	Steel HRS	Steel HRS	Steel HRS
Bearing Adaptor	Steel AISI-12L14	Steel AISI-12L14	Steel AISI-12L14	Steel AISI-12L14
Adjusting Nut	Steel ASTM-307	Steel ASTM-307	Steel ASTM-307	Steel ASTM-307
Lip Seal	Nitrile	Nitrile	Nitrile	Nitrile

**Alternate Line Shaft Bearing Assemblies**



**Abrasive Service - 1**  
Includes (2) guide bearing bushings compatible with the liquid, (5) rings of packing spring loaded and a choker ring to eliminate abrasives from the bearing area. Optional are bronze or carbon graphite.



**Abrasive Service - 2**  
Includes (2) cutless rubber bearing bushings for water flush connection.

NOTE: Bearing assemblies shown are typical for most pumping services. Unusual or severe services may necessitate changes in assembly design.

Model Number	Shaft Size	Column Pipe Size	Quantity of Bushings
920	1.250	4.00	2
924	1.500	4.00	2
932	1.9375	6.00	2