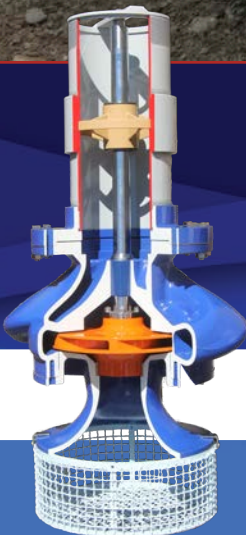




CORNELL PUMP COMPANY  
**VT SERIES**  
VERTICAL TURBINE PUMPS



**CYCLONE**

EFFICIENT BY DESIGN







# CYCLONE VERTICAL TURBINE PUMP

## A NEW TWIST ON A PROVEN DESIGN

Cornell Pump's Cyclone VT pump series relies on our demonstrated superior hydraulics, in a submerged design. The proven quality of the Cornell RB series is recast into a short set vertical turbine pump. Boasting energy efficiencies up to 89%, with no priming required, the Cyclone is the vertical turbine you'd expect from the industry leader in centrifugal pumps. Designed for ponds, rivers, canals, sumps, and dewatering applications, the VT series fills a niche where end users need robust design, quality build, proven hydraulics, and Cornell's renowned two-year warranty for peace of mind.

**NEW!**



## UNIQUE SPIRAL-SHAPED BOWL

The spiral-shaped bowl designed by Cornell engineers allows the pump to use a standard centrifugal impeller, reducing the number of stages required, and using existing high-efficiency impeller hydraulics, in our vertical turbine pump design. An epoxy lining further improves the performance and efficiency.

## FEATURES AND BENEFITS

**Spiral bowl construction:** Improves flow path and pump efficiency.

**Fewer stages to replace and maintain:** Improved uptime and reduced costs.

**Two-year warranty:** Industry-leading protection.

**VFD Operable:** Useable at various speeds for maximum energy savings.

**Large bearings:** Product lubricated or oil lubricated.

**Keyed and bolted impeller** for positive drive.

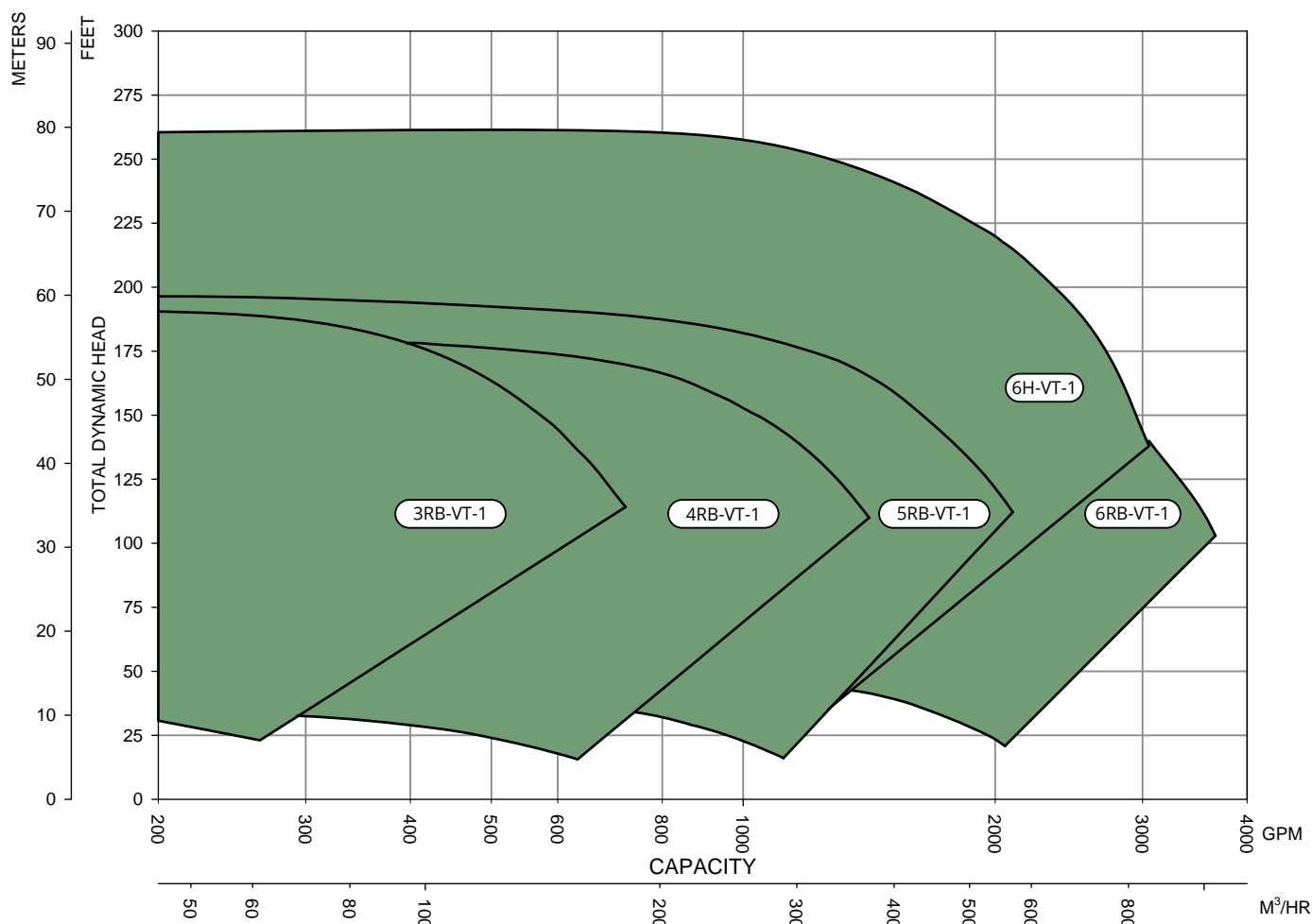
**Industry standard discharge head** configuration for VHS motors.

**Wider flow range** per model than standard turbine products.

**Large diameter shafts** for minimal deflection, less wear.

**Industry-standard** column, shaft & lineshaft bearing construction.

# CYCLONE VERTICAL TURBINE PUMP



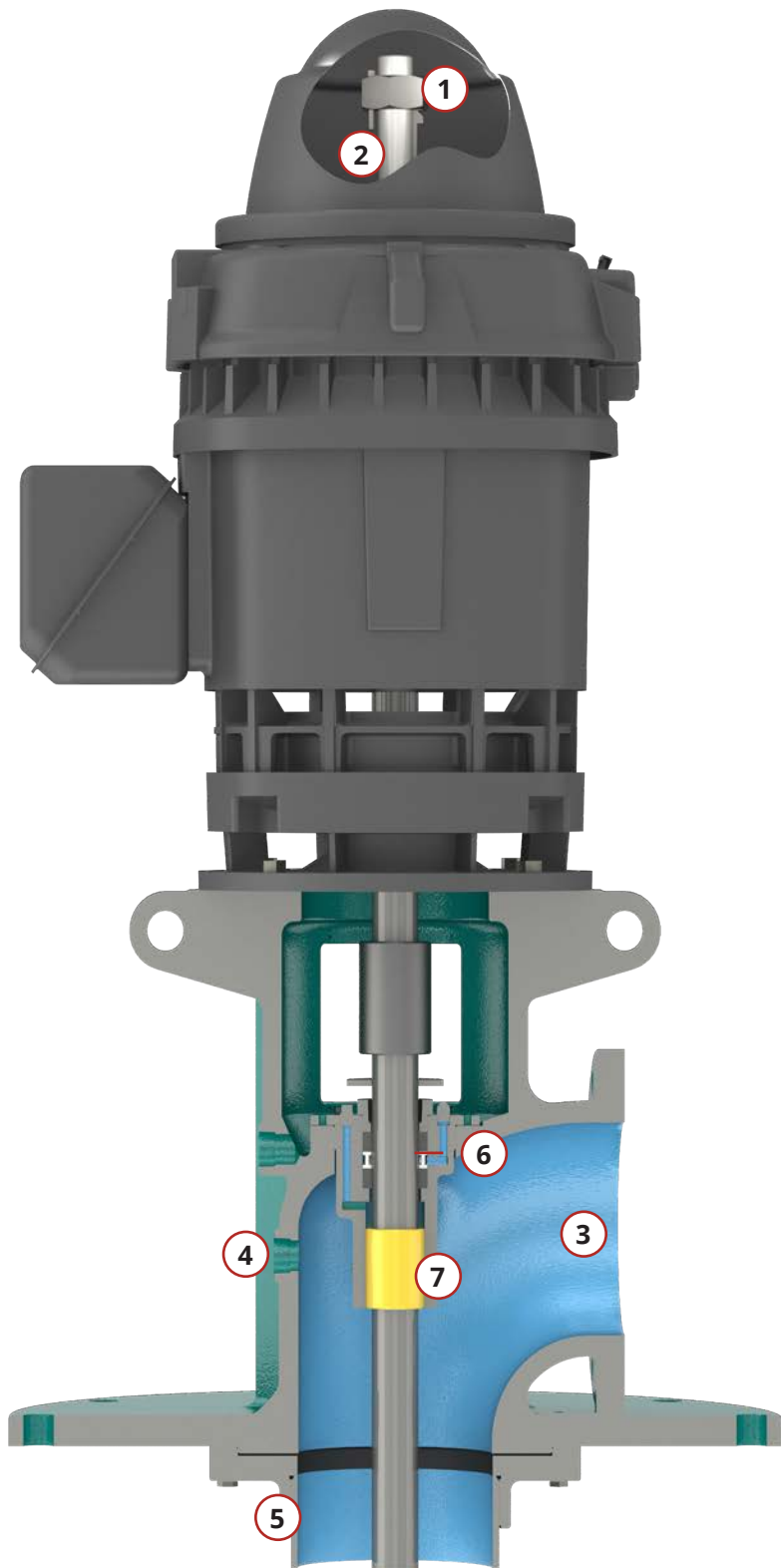
## VT SERIES SPECIFICATIONS

<b>MARKETS</b>	Agriculture, Industrial, Municipal, Mining
<b>SIZE RANGE</b>	6, 8, 10, & 12" discharge / 15, 20, 25, & 30 cm
<b>FLOWS</b>	Up to 3,600 GPM / 817 m³/h
<b>HEAD</b>	Up to 260' / 79 m – First Stage
<b>POWER</b>	Up to 150 HP / 112kW
<b>DRIVER</b>	Industry-standard vertical hollow shaft motors
<b>MAX. SOLID SIZE</b>	1.31" / 3.3cm (6RB)
<b>LIQUIDS</b>	Clear/grey liquids including water and waste water

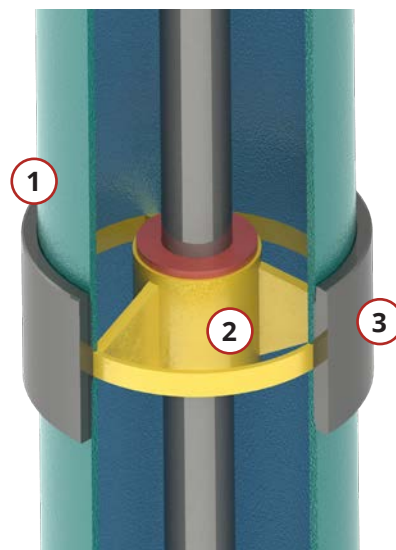
## MATERIALS OF CONSTRUCTION

<b>BOWL</b>	Epoxy-Lined Cast Iron
<b>IMPELLER</b>	316 Stainless Steel
<b>SHAFTS</b>	416 Stainless Steel
<b>DISCHARGE HEAD</b>	Cast Iron
<b>SUCTION STRAINER</b>	Galvanized Steel or 300 series Stainless Steel

## OPEN LINESHAFT FEATURES

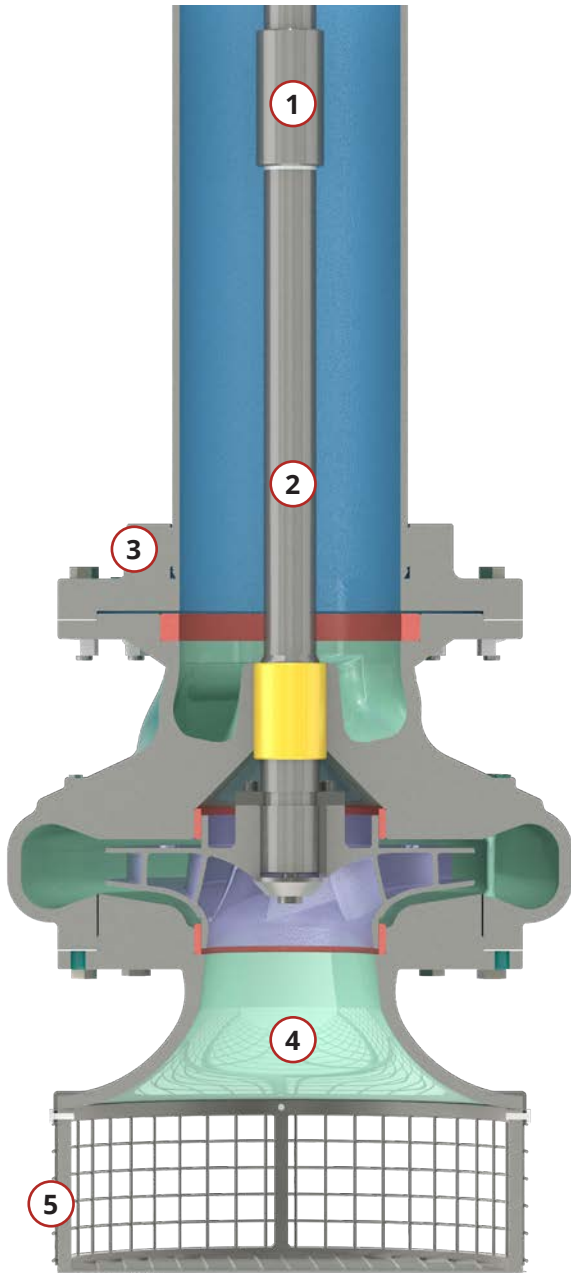


1. **Adjusting nut:** Allows impeller adjustment in bowl.
2. **Headshaft:** Sized to fit motor height.
3. **Discharge Head:** Robust cast iron construction ensures long life and decreased head loss. Industry standard configuration for VHS motors.
4. **Prelube Connection:** If needed to pre-fill column pipe.
5. **Column Adapter:** Adapts discharge head to multiple column sizes and/or configurations.
6. **Cast Iron Packing Gland and Box:** Robust cast iron construction ensures long life. Industry standard configuration for VHS motors.
7. **Stuffing Box Bearing:** Carries shaft loads.



1. **Column:** Industry standard column material and sizes.
2. **Lineshaft Bearing:** Centers shaft and carries load.
3. **Column coupling:** Connects and aligns column.

# OPEN LINESHAFT FEATURES



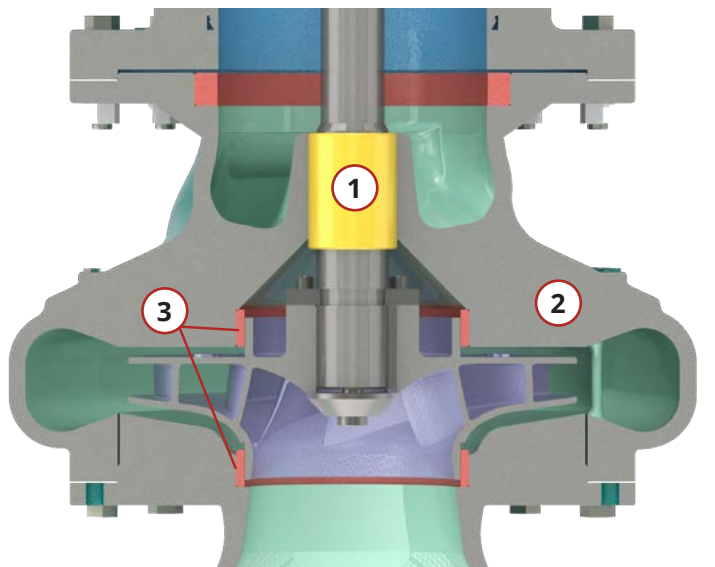
1. **Lineshaft coupler:** Self-tightening lineshaft couplers.
2. **Pump Shaft:** Carries the impeller hydraulic loads. Made from heavy duty 416SS, for added strength and corrosion resistance.
3. **Column Adapter:** Adapts pump discharge to multiple column sizes and configurations.
4. **Suction Bell:** Improves inlet flow to the bowl – optimizes inlet velocity into the pump.
5. **Galvanized or Stainless Steel Suction Strainer:** Keeps out solid materials from liquid source.

## CORNELL QUALITY

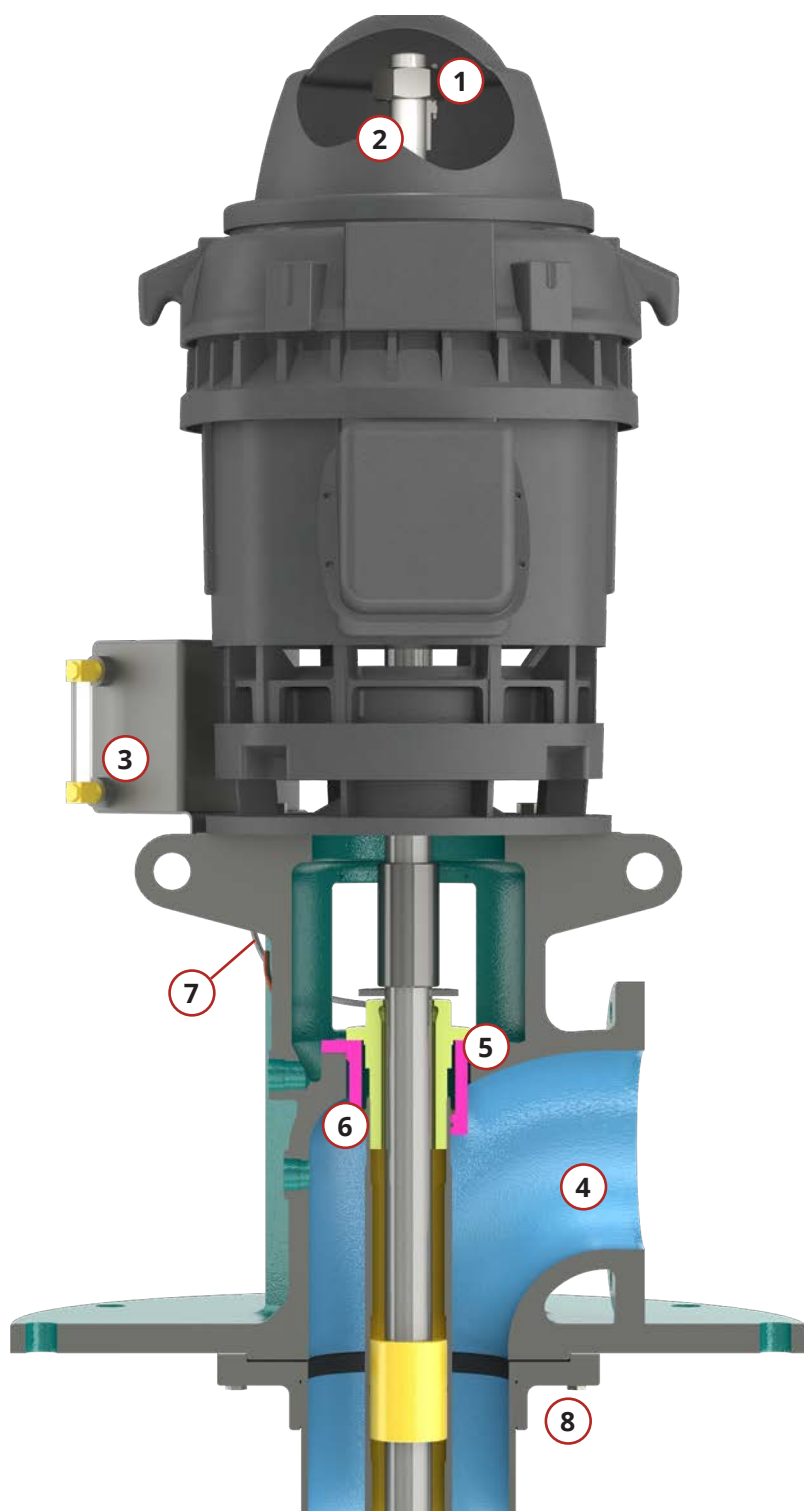
All Cornell pumps are designed to highest standards for efficiency and long life. The Cyclone continues that proud tradition with numerous features that enhance the durability, efficiency, usefulness, and longevity of the pump.



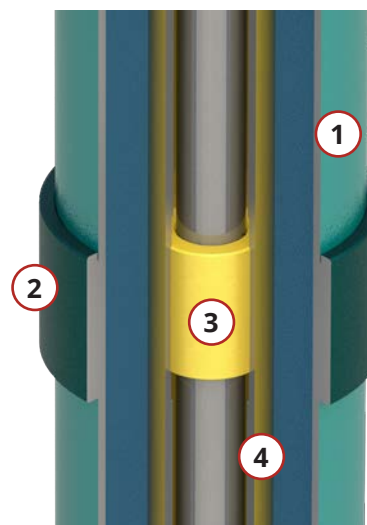
**Impeller:** Enclosed 316SS impeller improves corrosion resistance while still passing up to a 1.31" solid. Standard with a key and lock screw for improved durability and strength.



1. **Bowl Bearing:** Bearings carry shaft loads.
2. **Spiral-Shaped Bowl:** Epoxy lined, improved performance and efficiency.
3. **Wear Rings:** Replaceable; maintain performance and pump life.



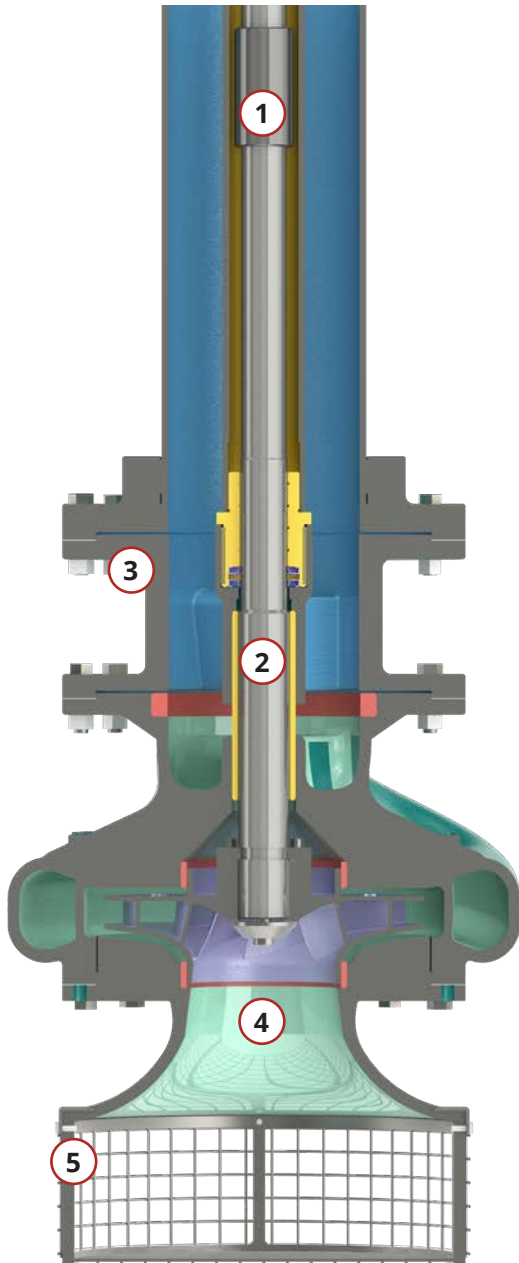
1. **Adjusting nut:** Allows impeller adjustment in bowl.
2. **Headshaft:** Sized to fit motor height.
3. **Large Capacity Oil Reservoir:** Supplies constant oil flow.
4. **Discharge Head:** Robust cast iron construction ensures long life and decreased head loss. Industry standard configuration for VHS motors.
5. **Tube Tension Nut:** Adjusts oil tube tension and centers shaft.
6. **Tube Tension Plate:** Centers tension nut and seals oil tube.
7. **Prelube Connection:** If needed to pre-fill column pipe.
8. **Column Adapter:** Adapts discharge head to multiple column sizes and/or configurations.



1. **Column:** Industry standard column material and sizes.
2. **Column Coupling:** Connects and aligns column.
3. **Lineshaft Bearing:** Centers shaft and carries load.
4. **Oil Tube:** Contains lubricating medium.



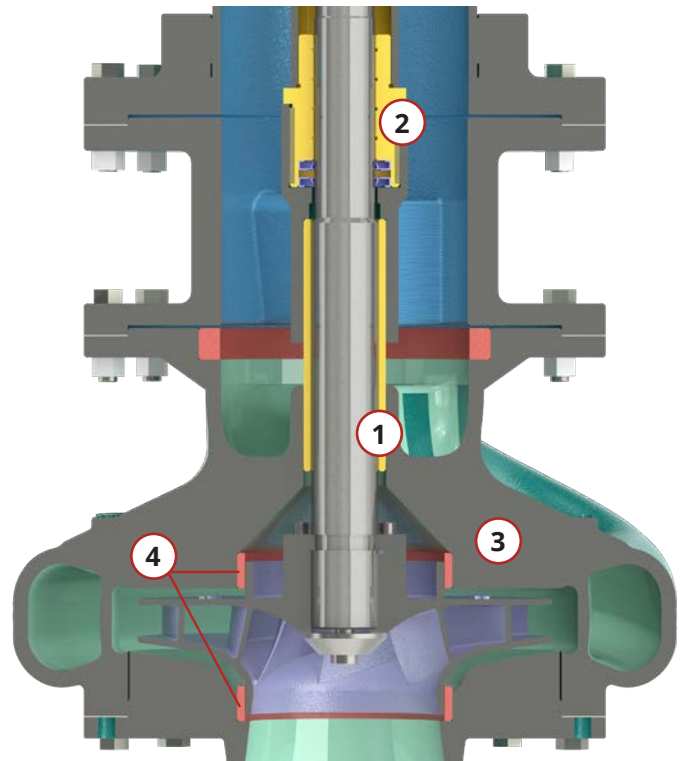
# ENCLOSED LINESHAFT FEATURES



1. **Lineshaft Coupler:** Self-tightening lineshaft couplers.
2. **Pump Shaft:** Carries the impeller hydraulic loads. Made from heavy duty 416SS, for added strength and corrosion resistance.
3. **Column Adapter:** Adapts pump discharge to multiple column sizes and configurations.
4. **Suction Bell:** Improves inlet flow to the bowl – optimizes inlet velocity into the pump.
5. **Galvanized or Stainless Steel Suction Strainer:** Keeps out solid materials from liquid source.



**Impeller:** Enclosed 316SS impeller improves corrosion resistance while still passing up to a 1.31" solid. Standard with a key and lock screw for improved durability and strength.



1. **Throttle Bushing:** Reduces pressure on lip seals.
2. **Sleeve Bearing With Oil Seal:** Connects oil tube to discharge case and seals oil tube.
3. **Spiral-Shaped Bowl:** Epoxy lined, improved performance and efficiency.
4. **Wear Rings:** Replaceable; maintains performance and pump life.



## MARKET AND PRODUCT LINE



AGRICULTURE



FOOD PROCESS



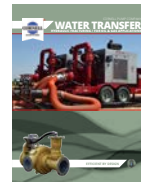
INDUSTRIAL



MINING



MUNICIPAL



WATER  
TRANSFER



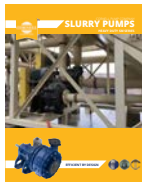
REFRIGERATION



CONSTRUCTION



SLURRY



SLURRY SM



MANURE



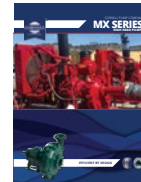
CUTTERS



SELF PRIMING



HIGH FLOW



MX SERIES



N SERIES



CYCLONE™



EDGE™



HYDRAULIC  
SUBS



IMMERSIBLE



CD4MCU



RUN-DRY™



PRIMING  
SYSTEMS



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Cornell pumps and products are the subject of one or more of the following U.S. and foreign patents:  
6,074,554; 6,036,434; 6,079,958; 6,309,169.

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