# Nagle Pumps





# Pump Selector

- Vertical Cantilever Pumps
- Vertical Submersible Pumps
- Heavy Duty Horizontal Pumps

- Accessories
- Endurance Engineered Pumps For Maximum Service Life
- Specializing in Pumps For Abusive Applications



# The Nagle Line



- Vertical Cantilever Pumps
- Vertical Submersible Pumps
- Heavy Duty Horizontal Pumps

### Accessories

For more than 70 years, Nagle Pumps have been the standard for excellence and reliability in Heavy-Duty Pumps for abrasive, corrosive and high temperature applications. A wide selection of designs, components and materials of construction (available in any abrasion, corrosion, or heat resistant material) allows Nagle to custom engineer each pump to meet your specific requirements. Nagle manufactures Vertical Cantilever, Wet and Dry Mounted, Submerged Bearing, Horizontal, and Submersible Pumps.

The Nagle Model TWO: Our Most In-Demand Pump

## **Endurance Engineered Features Include:**

- Progressive casting wall thickness for maximum service life
- Single volute, single discharge to allow maximum solids passage which eliminates the need for hydraulic balancing, allowing dry running
- Cantilever Pump has no packing seals below the mounting plate
- All mated components registerfit to ensure concentricity and aid in reassembly of the pump

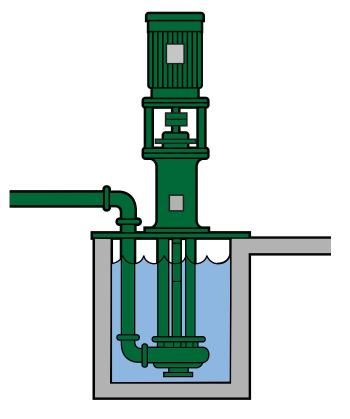
- Thru-bolt construction below the mounting plate provides easy maintenance
- Impeller wear adjustment is located above the sump cover on all vertical models and are easily accessible on horizontal models.
- On vertical pumps, open bypass design feature will tolerate pump shut-off
- Drive options include direct V-belt, right angle, and variable frequency

# **The TWO Vertical Cantilever**



## TWO Vertical Cantilever Shaft Wet Pit Pump

Nagle's most popular pump is designed for wet pit installation with bottom suction or optional top suction. The TWO uses four tubular supports for pump frame stability and allows for open-shaft design. The TWO is recommended for handling heavy slurries up to 70% solids, molten salts, and metals up to 1500° + F, with sizes 1" through 16", capacities to over 10,000 gpm, and pressures to 130 psi.



# **More Vertical Cantilevers**

## CDO Dry-Mounted Cantilever Pump

The CDO employs a true cantilever shaft principal which has no submerged bearings, packing, or seals in contact with the pumpage. The CDO is available in both top and bottom suction. Sizes: 1.5" through 10", capacities to 4000 gpm, and heads from 5' to over 200'.

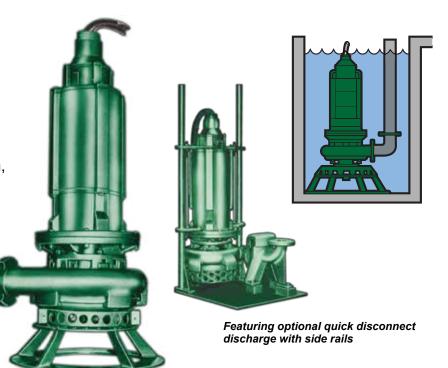


The MWO has no bearings, bushings, brushes, or rubbing parts below the mounting plate. The spacer area, which is located between the mounting plate and the motor, allows for minor overflow or washdown. Discharge sizes are 1" through 3", with shaft settings up to 3'. A suction extension to increase the overall pump length is available. The MWO pumps are also available in a dry pit design.

# **Vertical Submersible Pumps**

## SML/SMR/SMV Submersible Pump

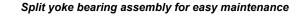
These pumps feature a combination strainer and pump stand with a slurry type water end. Although designed to operate submerged, the SML/SMR/SMV models are also available in air operation, with shaft seal remaining wet at all times. The motor can be explosion-proof or standard enclosure, and is equipped with moisture sensing probes and full thermal protection in windings. SML/SMR sizes: 1" through 10", with capacities to 4,000 gpm. SMV sizes: 2" through 6", with capacities up to 2000 gpm.

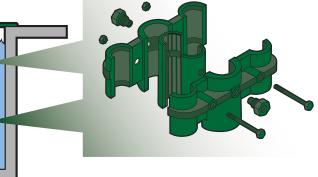




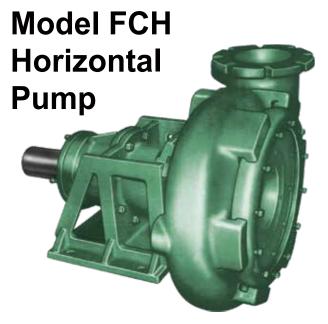
#### YWS Vertical Submerged Bearing Pump

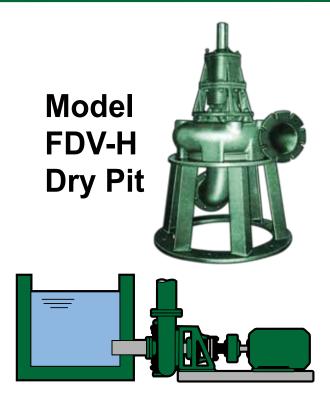
The YWS has easy maintenance features, including split yoke bearing assemblies (see inset), and lubrication of the lower bearing(s) from above the floor plate. Several types of lubrication are available. Tailpipes can be added to the bottom suction of this unit, permitting the use of a shorter setting. Sizes: 1" through 16", with capacities to over 10,000 gpm, and pressures up to 130 psi.





# **Heavy Duty Horizontal Pumps**





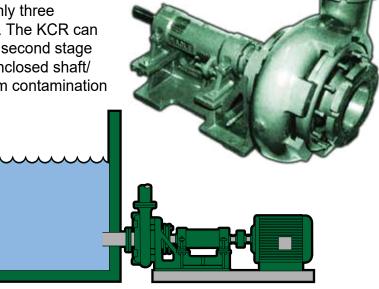
These models have a rugged heavy-duty design with only three wearing parts: casing, suction plate and impeller. They can be used above or below the liquid

level as a second stage booster unit (see Priming Inductor, page 7). The enclosed shaft/cartridge bearing assembly protects bearings from contamination or pumpage blow-by. The Nagle FCH Horizontal has several options, including a dynamic seal assembly and optional vertical mounting (see model FDV-H above). Sizes: 1" through 16", with capacities to over 10,000 gpm, and pressures up to 150 psi.

## **Model KCR Horizontal Pump**

The KCR's rugged heavy-duty design also has only three wearing parts: casing, suction plate, and impeller. The KCR can also be used above or below the liquid level as a second stage booster unit (see Priming Inductor, page 7). An enclosed shaft/ cartridge bearing assembly protects bearings from contamination

or pumpage blow-by. The Nagle KCR Horizontal has several options, including a dynamic seal assembly on some sizes, and a suction inducer to handle heavy media. Sizes: 1" through 16", with capacities to over 10,000 gpm, and pressures up to 150 psi.

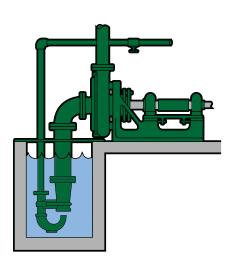


# Accessories

# **Priming Inductor**

This device primes pumping systems where the pump is stationed above liquid level. If left on, the inductor functions mainly as a booster pump, increasing the head developed by the pump, and the capacity of the system. Operation is possible even when the entrance pipe is well covered over with solids. A wide selection of materials of construction allows Nagle to meet your requirements. Sizes: 1.5" through 12".







### Agitator

This accessory provides excellent sump agitation to keep the suction from clogging. This option will insure proper operation when exposed to heavy concentrations of solids. The agitator can be used on Nagle's vertical cantilever, submerged bearing, and submersible units. The material of construction is selected specifically for the Nagle customer's particular application.

### **Discharge Elbow**

With long and standard radius types with smooth flow lines, Discharge Elbows are endurance engineered to minimize wear and tear, or need for replacement. A wide selection of materials are available to accommodate the Nagle customer's specific requirements. Sizes: 1" through 16".



# Applications

## Custom Engineering For Cost Efficient Pumping Solutions

Nagle Pumps has thousands of installations in Power, Chemical, Petrochemical, Steel, Water Treatment, Foundry, Ceramic, Metalworking, and other Process Industries. All these attest to the Nagle philosophy of *"Endurance Engineering"*...a Commitment to the design and manufacture of pumps which provide the longest service life with minimum maintenance.

#### Nagle Pumps Typical Applications

#### Power

Ash Removal Ash Sluice Coal Handling Coal Pile Runoff Pond Return Water Scrubber Water

#### Petroleum

Coke Breeze Separator Pumps Filter Feed

#### Chemical

Corrosive Pumping Molten Salts Ammonium Nitrate Waste Disposal Metal Process

#### Mining

Heavy Media Crusher Wash Tailings Removal Dredging Dewatering

#### Steel

Scale Removal Slag Quench Coal or Coke Slurry

## Sand / Gravel

Dewatering Wash/Prep Pumps

#### High

Temperature Molten Salts Ammonium Nitrate Molten Sulphur Molten Lead

#### **Other Industries**

Sewage Ceramic Paper Sugar Phosphate







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#### RUTHMAN Engineering Pump Solutions"



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