

# Corrosion-Resistant Pedestal Centrifugal Pumps

## Noryl<sup>®</sup> Series and Polypropylene Series

### Description

SherTech pedestal non-metallic pumps produce high flow rates under moderate head conditions.

Designed for continuous medium pressure circulation and transfer of nonflammable liquids, water circulation, booster service, irrigation, spraying systems, jockey pump service, aggressive liquid applications, and other general-purpose pumping compatible with pump component materials where no suction lift is required. Water seal flush port is provided for the decontamination of chemicals on the seal and seat elastomers.

- Capacities to 110 GPM, heads to 95 ft.
- 1/3 to 3 HP AC requirement range.
- Discharge can be rotated in 90-degree intervals.
- All pumps have 1½" female NPT inlet and outlet ports.
- Standard pump models (at 3450 RPM) will handle specific gravities to 1.1 (at 100 SSU or less). For specific gravities to 1.4 (at 100 SSU or less), increase motor HP by one size but not to exceed standard 3 HP motor at 3450 RPM or 65 in.-lbs. of torque maximum. Higher specific gravity fluids are not recommended.
- Standard pump models (at 3450 RPM) will handle viscosity to 100 SSU (at 1.1 specific gravity or less) and up to 200 SSU (specific gravity of 1.0 or less). For viscosity up to 400 SSU (specific gravity of 1.0 or less), increase motor HP by one size but not to exceed standard 3 HP motor at 3450 RPM or 65 in.-lbs. of torque. For fluids with a viscosity greater than 400 SSU, pump speed must be reduced below 3450 RPM.
- Maximum operating speed is 3600 rpm.
- Pedestal-mount models feature a 5/8" diameter; 316 stainless steel solid shaft; a corrosion-resistant coated cast iron bearing housing and sealed ball bearings. They may be either long coupled or pulley driven with any base-mounted motor such as ODP, TEFC or wash-down motors.

**CLOSE COUPLED** – Non-metallic pumps are also available that feature NEMA 56J frame motors with base.

**NORYL SERIES** – This series is designed for industrial chemical application. The pumps are made of Noryl, which is non-metallic and chemical-resistant to most acids, alkalis, and inorganic solvents. This material is stiffer under pressure and temperature than the Polypropylene Series. Noryl models handle inlet booster pressures to 30 PSI and maximum temperatures up to 180° F. These pumps are equipped with a unique chemical-resistant, carbon and ceramic mechanical seal with Viton elastomer having the stainless steel components sealed in Noryl allowing for a complete non-metallic Noryl wet end. This unique seal guarantees reliability through simplicity and balance of design. Even the pedestal drive shaft is protected by the seal design.

**POLYPROPYLENE SERIES** – This series is designed for light industrial or commercial water-based applications. The pumps are made of non-metallic, glass-filled polypropylene construction offering chemical resistance to most acids, alkalis, and inorganic solvents as does the Noryl Series. The difference is these pumps are equipped with a carbon ceramic mechanical seal with Buna-N elastomers with the stainless steel components that are not sealed, but still protect the pedestal shaft from chemical exposure. The polypropylene series cannot handle added inlet booster pressures and is rated for a maximum temperature of 140° F. However, upgraded chemical-resistant, polypropylene-encased seals are available.

**REPAIR SEALS AND OPTIONS** – Standard and upgraded seals are available for both the Noryl and Polypropylene pumps. If abrasive or small, particulated fluids are being pumped, upgrading to either the encased Noryl or polypropylene silicon carbide mechanical seal with Viton elastomers is recommended. Standard and upgraded seals can be located on the repair parts list pages in this manual.

**PUMP HEADS AND PEDESTAL MOUNT BASE** – Complete pump heads and pedestal base can be ordered. Pump head and pedestal base model numbers are called out in the repair parts list pages in this manual.

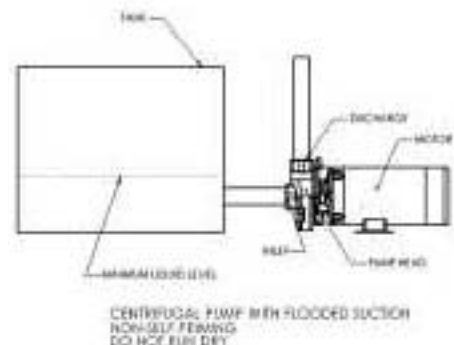


**Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in flammable and/or explosive atmospheres. When pumping hazardous or dangerous materials, use only in room or area designated for that purpose. For your protection, always wear proper clothing, eye protection, etc. in case of any malfunction. For proper handling techniques and cautions, contact your chemical supplier, insurance company and local agencies (fire dept., etc.). Failure to comply with this warning could result in personal injury and/or property damage.**

**CAUTION** Pumps are not self-priming and cannot suction lift, flooded inlet is required. If inlet is not flooded when the pump is running, seal failure will result and is not covered under the manufacturer's warranty.

NORYL is a registered trademark of General Electric Company.

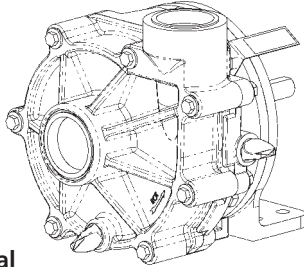
Source: Owner's Manual L-4074 (11/07)



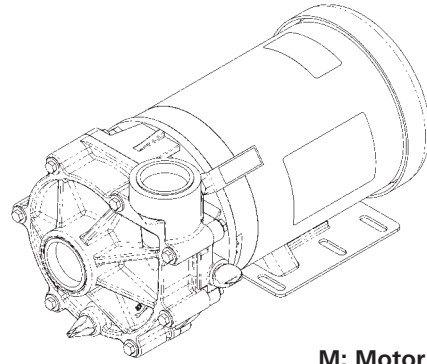
# Corrosion-Resistant Pedestal Centrifugal Pumps

## Noryl<sup>®</sup> Series and Polypropylene Series

### Model Ordering Codes and Options



P: Pedestal

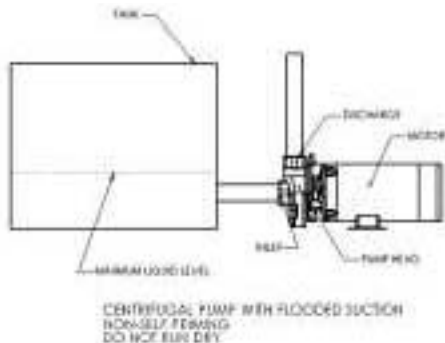


M: Motor (with base)

**Example Model: CHPPB4** (will require 1½ HP ODP motor with >1.15 Service Factor\*)  
(motor not supplied with pedestal pump)

(1) CH    (2) P    (3) P    (4) B    (5) 4    (6)    (7)    (8)

| 1st  | 2nd                                 | 3rd                          | 4th   | 5th   | 6th   | 7th   | 8th   |
|--|-------------------------------------|------------------------------|---|---|---|---|---|
| Series   | Mounting                            | Material                     | Seal** (Mech)   | Impeller Sz. (NPT Ports)  | Motor-Mounted Only  |   | Impeller Type   |
|  |                                     |                              |   |   | HP  | AC Type   |   |
| CH: Centrifugal High Head Closed Impellers (Open Impellers Optional) | M: Motor (with base)<br>P: Pedestal | N: Noryl<br>P: Polypropylene | A: Viton (Noryl Encased)<br>B: Buna-N (Stainless Steel Case)<br>C: Viton (Polypropylene Case) (Silicon Carbide Seal / Seat Faces)<br>N: Neoprene (Polypropylene Case) (Ni-Resist Seat)<br>P: Viton (Polypropylene Case)<br>V: Viton (Stainless Steel Case)<br>X: Viton (Noryl Case) (Silicon Carbide Seal / Seat Faces) | 1 (1½" - 1½")<br>2 (1½" - 1½")<br>3 (1½" - 1½")<br>4 (1½" - 1½")<br>5 (1½" - 1½")<br>6 (1½" - 1½")<br><br><i>To identify your impeller size, see chart in owner's manual.</i> | 1: 1/3<br>2: 1/2<br>3: 3/4<br>4: 1<br>5: 1½<br>6: 2<br>7: 3<br>X: 56J | Blank: no code<br>single phase ODP motor<br>3: 3 phase ODP motor<br>T: 1 phase TEFC<br>3T: 3 phase TEFC | Blank: closed<br>O: open Impellers (Polypropylene only) |
|  |                                     |                              |   |   | Frame Motor "wet-end kit"<br>Example: CHMNP1X                         |   |   |



**NOTE:** Not all order code combinations (configurations) are standard models available from the manufacturer. Custom model configurations may require ordering standard components and/or optional parts that will need to be assembled by the customer.

Manufacturer reserves the right to change model order codes, standard models, specifications and performance without notification.

(\*) ODP motors have > 1.15 service factors. Due to service factor, it is recommended TEFC motors are oversized by one HP increment.

Pedestal Pumps are not supplied with a motor.

(\*\*) Unless otherwise noted, seal faces are carbon on ceramic.

Source: Owner's Manual L-4074 (11/07)

# Corrosion-Resistant Pedestal Centrifugal Pumps

## Noryl® Series and Polypropylene Series

### Performance – Standard Models (Water at 70°)

| Noryl Models | Polypropylene Models | HP** | 3450 RPM Pump Driven Speed<br>GPM of water at Total Head in Feet* |     |     |    |    |    |    |    | Max. Head |
|--------------|----------------------|------|---|-----|-----|----|----|----|----|----|-----------|
|              |                      |      | 10  | 20  | 30  | 40 | 50 | 60 | 70 | 80 |           |
| CHPNA2       | CHPPB2               | 1/2  | 37  | 33  | 29  | 24 | 18 | 10 | 2  |    | 72        |
| CHPNA4       | CHPPB4               | 1½   | 85  | 78  | 73  | 66 | 59 | 50 | 41 | 21 | 89        |
| CHPNA5       | CHPPB5               | 2    | 96  | 89  | 83  | 77 | 68 | 58 | 47 | 31 | 91        |
| CHPNA6       | CHPPB6               | 3    | 123   | 115 | 106 | 97 | 86 | 76 | 63 | 48 | 95        |

| Noryl Models | Polypropylene Models | HP** | 2850 RPM Pump Driven Speed<br>GPM of water at Total Head in Feet* |    |    |    |    |    |    |    | Max. Head |
|--------------|----------------------|------|---|----|----|----|----|----|----|----|-----------|
|              |                      |      | 7   | 13 | 20 | 26 | 33 | 40 | 46 | 53 |           |
| CHPNA2       | CHPPB2               | 1/3  | 30  | 27 | 24 | 19 | 15 | 8  | 2  | 0  | 54        |
| CHPNA4       | CHPPB4               | 1    | 69  | 63 | 59 | 54 | 48 | 41 | 33 | 17 | 59        |
| CHPNA5       | CHPPB5               | 1½   | 78  | 72 | 67 | 63 | 55 | 47 | 38 | 25 | 58        |
| CHPNA6       | CHPPB6               | 2    | 100   | 93 | 86 | 79 | 70 | 62 | 51 | 39 | 58        |

| Noryl Models | Polypropylene Models | HP** | 1725 RPM Pump Driven Speed<br>GPM of water at Total Head in Feet* |    |    |    |    |    |    |    | Max. Head |
|--------------|----------------------|------|---|----|----|----|----|----|----|----|-----------|
|              |                      |      | 3   | 4  | 5  | 8  | 10 | 13 | 15 | 20 |           |
| CHPNA2       | CHPPB2               | 1/4  | 19  | 17 | 15 | 12 | 9  | 5  | 1  | 0  | 21        |
| CHPNA4       | CHPPB4               | 1/2  | 43  | 39 | 37 | 33 | 30 | 25 | 21 | 11 | 23        |
| CHPNA5       | CHPPB5               | 3/4  | 48  | 45 | 42 | 39 | 34 | 29 | 24 | 16 | 22        |
| CHPNA6       | CHPPB6               | 1    | 62  | 58 | 53 | 49 | 43 | 38 | 32 | 24 | 22        |

(\*) Test data is taken with water at 70°F (to convert data to PSI, divide feet of head by 2.31).  
 Pump performance when pump is new. As pump wears, the performance will decrease.  
 (\*\*\*) AC HP required at specified RPM is HP rated to handle up to 100 SSU at full flow, with a maximum specific gravity of 1.1, or up to 200 SSU at 1.0 specific gravity or less.

**NOTES:** Max. Viscosity = For viscosity up to 400 SSU (at 1.0 specific gravity or less), increase motor HP by one size but not to exceed standard 3 HP motor at 3450 RPM or 65 in.-lbs. of torque. For fluids with a viscosity greater than 400 SSU, pump speed must be reduced below 3450 RPM.  
 Max. Casing PSI = 100  
 Max. RPM = 3450  
 Max. Specific Gravity = up to 1.1 for standard models (at 100 SSU or less); HP must be increased by one size for specific gravities up to 1.4.  
 Driver data is subject to change without notice; see label on driver for actual specifications.  
 Manufacturer reserves the right to change performance without notification.

### Price List and Specifications – Standard Models

| List Price | Model                       | DRIVER     |               |                | PUMP CONSTRUCTION (Wet End) |         |          |               |                 | Ship Wt. (lbs.) |  |
|------------|-----------------------------|------------|---------------|----------------|-----------------------------|---------|----------|---------------|-----------------|-----------------|--|
|            |                             | Shaft Dia. | Pedestal Base | Shaft Material | Port Size NPT Female        | Housing | Impeller | Motor Adapter | Seals*          |                 |  |
|            | <b>Noryl Models</b>         |            |               |                |                             |         |          |               |                 |                 |  |
| \$         | CHPNA2                      | 5/8"       | CI            | 316 SS         | 1½"                         | Noryl   | Noryl    | Noryl         | Noryl / Viton** | 13              |  |
| \$         | CHPNA4                      | 5/8"       | CI            | 316 SS         | 1½"                         | Noryl   | Noryl    | Noryl         | Noryl / Viton** | 13              |  |
| \$         | CHPNA5                      | 5/8"       | CI            | 316 SS         | 1½"                         | Noryl   | Noryl    | Noryl         | Noryl / Viton** | 13              |  |
| \$         | CHPNA6                      | 5/8"       | CI            | 316 SS         | 1½"                         | Noryl   | Noryl    | Noryl         | Noryl / Viton** | 13              |  |
|            | <b>Polypropylene Models</b> |            |               |                |                             |         |          |               |                 |                 |  |
| \$         | CHPPB2                      | 5/8"       | CI            | 316 SS         | 1½"                         | PP      | PP       | PP            | Buna-N***       | 13              |  |
| \$         | CHPPB4                      | 5/8"       | CI            | 316 SS         | 1½"                         | PP      | PP       | PP            | Buna-N***       | 13              |  |
| \$         | CHPPB5                      | 5/8"       | CI            | 316 SS         | 1½"                         | PP      | PP       | PP            | Buna-N***       | 13              |  |
| \$         | CHPPB6                      | 5/8"       | CI            | 316 SS         | 1½"                         | PP      | PP       | PP            | Buna-N***       | 13              |  |

SS = Stainless Steel CI = Cast Iron PP = Polypropylene  
 (\*) Shaft Seals also contain ceramic and carbon components.  
 (\*\*) Seals are Noryl encased with viton elastomer. No metallic components are exposed to fluid.  
 (\*\*\*) Seal is not encased. 18-8 stainless steel spring and casing are exposed to fluid.  
**NOTE:** Manufacturer reserves the right to change specifications without notification.

Source: Owner's Manual L-4074 (11/07)