

# High Head Pedestal-Mount Centrifugal Pumps

## 316 Stainless Steel, Bronze and Cast Iron Models

### Description

Shertech pedestal cast iron, bronze or 316 stainless steel units pump continuously, producing high head conditions. Designed for continuous high-pressure circulation and transfer of non-flammable liquids, utility, boiler feed, general transfer, filtration, cooling towers, condensate return, marine applications, fountains, boosters, water circulation, irrigation, spraying systems, jockey pump service, chemical processing, aggressive liquid applications and other general-purpose pumping compatible with pump component materials where no suction lift or no self-priming is required.

- Capacities to 118 GPM, heads to 148 ft.
- 1/2 to 3 HP AC, NEMA 56J frame and base, ODP and TEFC, single and three-phase motors. Single-phase motors are equipped with thermal overload protection. Overload protection not supplied on three-phase units and must be provided in starter units. Pump control box must be ordered separately.
- Pumps feature maintenance-free ball bearings and an easily accessible front drain plug for draining liquid.
- High head pedestal-mount bronze and 316 stainless steel pumps use 316 stainless steel impellers which provide increased corrosion resistance. Cast iron pumps use cast iron impellers.
- Maximum casing working pressure is 200 PSI.
- 1" to 1½" female NPT inlet and outlet ports.
- Discharge port can be rotated at 90-degree intervals.
- Maximum temperatures to 200° F.
- 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.
- Seals: Pumps are equipped with a carbon ceramic mechanical seal having 316 stainless steel components. These seals protect the 300 series stainless steel motor shaft from chemical exposure. Viton seal and o-ring standard in cast iron, bronze and 316 stainless steel models. Aftermarket options listed below.

**CLOSE-COUPLED** – Complete pump heads and motor combinations are available.

**REPAIR SEALS AND OPTIONS** – Standard (Viton) and an upgraded (Silicon Carbide) seal are available. If abrasive or small, particulated fluids are being pumped, an upgrade to the silicon carbide mechanical seal with Viton elastomers is recommended. Standard and upgraded seals are called out in 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 model numbers are called out in the repair parts list pages in this manual.

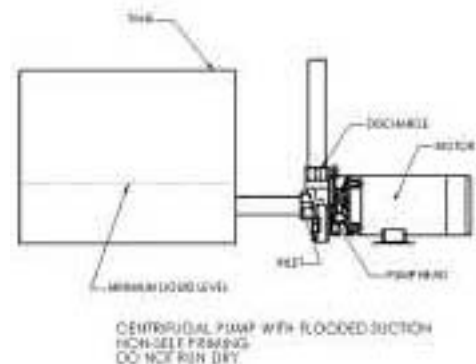


*Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in flammable and/or explosive atmospheres. When pumping hazardous or dangerous materials, use only in room or area designated for that purpose.*

*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.*

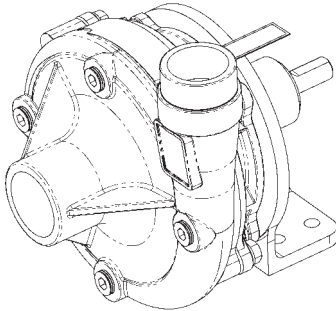


Source: Owner's Manual L-4076 (11/07)

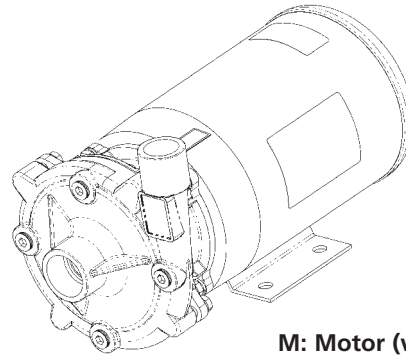
# High Head Pedestal-Mount Centrifugal Pumps

## 316 Stainless Steel, Bronze and Cast Iron Models

### Model Ordering Codes and Options



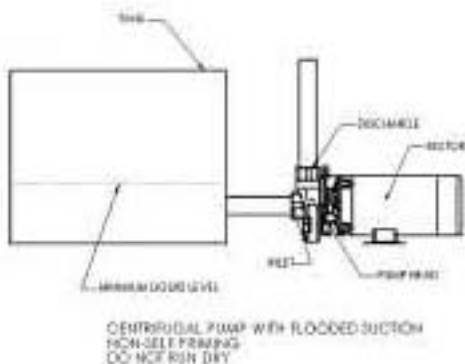
P: Pedestal



M: Motor (with base)

**Example Model: CHPSV4** (will require 1½ HP ODP motor with >1.15 Service Factor\*)  
(motor not supplied with pedestal pump)

1st	2nd	3rd	4th	5th	6th	7th
Series	Mounting	Material	Seal** (Mech)	Impeller Sz. (NPT Ports)	Motor-Mounted Only	
					HP	AC Type
CH: Centrifugal High Head Closed Impeller	M: Motor (with Base) P: Pedestal	S: 316 SS Body and Impeller B: Bronze Body and 316 SS Impeller C: Cast Iron Body and Impeller	B: Buna-N (Stainless Steel Case) V: Viton (Stainless Steel Case) C: Viton (Stainless Steel Case) (Silicon Carbide Seal and Seat Faces)	1 (1" - 1¼") 2 (1" - 1¼") 3 (1" - 1¼") 4 (1½" - 1¼") 5 (1½" - 1¼") 6 (1½" - 1¼")  <i>To identify your impeller size, see chart in owner's manual.</i>	1: 1/3 2: 1/2 3: 3/4 4: 1 5: 1½ 6: 2 7: 3 X: 56J Frame Motor "wet-end kit" Example: CHMSV1X	Blank: no code single phase ODP motor 3: 3 phase ODP motor T: 1 phase TEFC 3T: 3 phase TEFC



**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.

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## 316 Stainless Steel, Bronze and Cast Iron Models

### Performance at 3450 RPM – Standard Models (Water at 70°)

Impeller Size	316 Stainless Steel Models	Bronze Models	Cast Iron Models	HP** Required	GPM of Water at Total Head in Feet*									Max. Head
					10	20	30	40	50	70	90	110	130	
3	CHPSV3	CHPBV3	CHPCV3	1.5	58	56	52	48	44	34	23	3	–	112
6	CHPSV6	CHPBV6	CHPCV6	3	118	114	109	104	98	84	69	50	26	148

### Performance at 2850 RPM – Standard Models (Water at 70°)

Impeller Size	316 Stainless Steel Models	Bronze Models	Cast Iron Models	HP** Required	GPM of Water at Total Head in Feet*									Max. Head
					6.9	13.9	20.8	27.8	34.7	48.6	62.5	76.3	90.2	
3	CHPSV3	CHPBV3	CHPCV3	1	48.3	46.6	43.3	40.0	36.7	28.3	19.2	2.5	–	77.7
6	CHPSV6	CHPBV6	CHPCV6	2	98.3	95.0	90.8	86.6	81.6	70.0	57.5	41.7	21.7	85.0

### Performance at 1725 RPM – Standard Models (Water at 70°)

Impeller Size	316 Stainless Steel Models	Bronze Models	Cast Iron Models	HP** Required	GPM of Water at Total Head in Feet*									Max. Head
					2.5	5.0	7.5	10.0	12.5	17.5	22.5	27.5	32.5	
3	CHPSV3	CHPBV3	CHPCV3	1/2	29.0	28.0	26.0	24.0	22.0	17.0	11.5	1.5	–	28.0
6	CHPSV6	CHPBV6	CHPCV6	1/3	59.0	57.0	54.5	52.0	49.0	42.0	34.5	25.0	13.0	37.0

(\*) Test data 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 = 200 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	DRIVE			PUMP CONSTRUCTION (Wet End)					Ship Wt. (lbs.)
		Shaft Dia.	Pedestal Base	Shaft Material	Port Size FNPT	Housing	Impeller	Motor Adapter	Seals*	
	<b>316 Stainless Steel Models</b>									
\$	CHPSV3	5/8"	CI	316 SS	1¼" x 1"	316 SS	316 SS	316 SS	Viton	16
\$	CHPSV6	5/8"	CI	316 SS	1½" x 1¼"	316 SS	316 SS	316 SS	Viton	19
	<b>Bronze Models</b>									
\$	CHPBV3	5/8"	CI	316 SS	1¼" x 1"	BR	316 SS	BR	Viton	17
\$	CHPBV6	5/8"	CI	316 SS	1½" x 1¼"	BR	316 SS	BR	Viton	20
	<b>Cast Iron Models</b>									
\$	CHPCV3	5/8"	CI	316 SS	1¼" x 1"	CI	CI	CI	Viton	16
\$	CHPCV6	5/8"	CI	316 SS	1½" x 1¼"	CI	CI	CI	Viton	19

SS = Stainless Steel BR = Bronze CI = Cast Iron

(\*) Shaft Seal also contains 316 SS stainless steel, ceramic, and carbon components.

**NOTES:** Standard model codes, less motor, are shown as examples.

Manufacturer reserves the right to change specifications without notification.

Source: Owner's Manual L-4076 (11/07)