A self-priming, high performance pump for semi-commercial and commercial swimming pools and spas.

D Series pumps are especially designed for commercial and public swimming pools and spas, aquatic facilities, water parks and fountain applications where high performance and self-priming characteristics are desired. These centrifugal pumps are available in high head and medium head models with motors from 3-5 HP to provide a complete range of performance characteristics. Motors are open drip-proof, continuous duty rated at 3450 RPM.

Standard Features
- Back pull-out design allows entire motor to be removed for servicing impeller, seal or motor without disturbing plumbing.
- Suitable for outdoor installation.
- Precision cast and machined bronze impeller is dynamically balanced for long seal life and quiet operation. Non-overloading.
- 200 Volt models available.
- 2", 2½" or 3" suction port and 1½", 2" or 2½" discharge port.
D Series™
Cast Iron Self-Priming Pump

Performance Curves

For detailed efficiency curves for each model, please contact the factory.

MATERIALS AND DESIGN

Pump Body
- **Port Size**
  Single suction port: 2”, 2½” or 3” NPT on centerline
  Discharge port: 1-½”, 2” or 2½” NPT on centerline
  Winterizing drain port: ¼” NPT
- **Material**
  Close-grained grey iron

Impeller
- Silicon brass material; closed, non-overloading design

Shaft Seal
- Self-flushing, mechanical John Crane® Type 2.
  Ceramic and carbon seal faces. Stainless steel, brass and Buna N spring bellows.

Motor
- **Frame Size**
  NEMA® Series, JM construction
- **Shaft**
  Carbon steel inside a 300 Series stainless steel sealed removable shaft sleeve
- **Design**
  3 or 5 HP, 3450 RPM, open drip-proof (unless otherwise specified), continuous duty rated. 40°C ambient maximum
- **Bearings**
  Permanently sealed ball type, pre-lubricated
- **Thermal Overload Protection**
  Single-phase motors: Automatic reset
  Three-phase motors: External thermal protection required

Maximum Limits
- Liquid temperature: 200°F
- Ambient air temperature: 104°F
- Pressure: 75 psi
- pH Range: 4.0-9.0
D Series Pumps

Outline Dimensions

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<tr>
<th>Catalog Number</th>
<th>HP</th>
<th>Discharge (NPT)</th>
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<th>B</th>
<th>C*</th>
<th>D</th>
<th>E</th>
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All dimensions shown in inches.

Ordering Information

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<th>Phase</th>
<th>Motor Voltage</th>
<th>Max. Load Amps</th>
<th>Wire Size to 50 Ft.</th>
<th>Discharge Port Size</th>
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HIGH HEAD

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**NOTE:** ALL PUMP MODELS require external overload protection. 3-phase models, and 5 HP single-phase, require a magnetic starter. Dimensions and Max Load Amps may vary per motor manufacturer. The standard motor is made by Baldor. Maximum ambient temperature: 104°F (40°C). 200 and 575 volt models available. Consult factory.
ENGINEERING SPECIFICATIONS

- Recirculating pump shall be Sta-Rite model no. _______ self-priming centrifugal pump, ____ phase, 60 Hz.

General Notes

- Install pump in a cool, dry, well-ventilated location away from pool heaters and chemical storage.
- Pump should be firmly mounted with pipe supported, to prevent vibration and undue operational noise.
- Allow 12” minimum clearance behind motor for servicing.
- Motor overheating may be caused by a voltage drop or excessive voltage. Be sure that wire size and voltage input is properly regulated.

Specifications

- The recirculating pump shall be a self-priming centrifugal design with a hair and lint strainer as shown in the plans.
- The pump body and seal plate shall be constructed of close-grained gray iron and close-coupled to an electric motor by means of an adaptor of the same material. The pump body shall have a single suction port with a four-bolt flange connection to the hair and lint strainer. A centerline discharge port of ____” NPT and a winterizing drain port of 1/4” NPT shall be a part of the design.
- The pump shall be a back pull-out design to allow servicing without disturbing piping. The pump shall have a cast iron diffuser to aid in priming and it shall contain a replaceable bronze wear ring for the impeller. The impeller shall be of the closed type and cast in red brass, non-overloading at any point on the performance curve. The mechanical shaft seal shall be a John Crane® type 2 or equivalent and constructed of ceramic and carbon seal faces, with stainless steel, brass and Buna N materials in the spring bellows portion. The impeller shall be secured to the motor shaft by means of a stainless steel key and locking screw into the end of the motor shaft. There shall be a shaft slinger made of neoprene to protect motor bearings from any seal leakage. The pump shall be capable of operating at up to 75 psi, 200°F continuous water temperature and within a pH range of 4 to 9.
- The electric motor coupled to the pump shall be of the NEMA® series JM construction with carbon steel shaft inside a removable shaft sleeve of 300 series stainless steel. The motor shall be of an open drip-proof design (unless otherwise specified) with permanently sealed ball bearings. Single phase motors shall have built-in thermal overload protection of the automatic reset type. Motors shall be continuous duty rated at 40°C or better, and be suitable for outdoor installation.
- The pump motor shall be a ____ HP, ____ phase, 60 Hz, 3450 RPM for service on a ____ volt electric supply. The pump shall be rated for ____ GPM at ____ TDH. The pump shall be tested and certified by a nationally recognized testing laboratory to conform to National Sanitation Foundation Standard 50.

Hair and Lint Strainer

- The pump strainer shall consist of a _______ (red brass/cast iron) body, cover with O-ring seal, threaded locking handles, and a strainer basket of _______ (ABS/perforated electro-polished stainless steel basket) material.
- The strainer body shall have ______ NPT threaded connections and mount directly to the pump body by means of a bolt, flange, and gasket seal, or 6” ANSI® 125 bolt flanged with fusion-bonded epoxy coating of Scotchkote® on all wetted cast iron surfaces unless specified for in-line mounting ahead of the pump. The strainer body shall have a removable drain plug for winterizing.
- The strainer basket shall be securely positioned below the suction inlet of the trap, with access for inspection and cleaning through a removable trap body lid. The trap body lid shall be secured by means of threaded locking handles. The strainer basket shall have perforations which in total area is equal to 6 times the open area of the suction pipe into the trap body inlet.
- The pump strainer shall be Sta-Rite Model No. ______ .