STA-RITE®

CSP Series™

Commercial Self-Priming Pump

For commercial and public swimming pools and spas, aquatic facilities, water parks and fountain applications where high performance and self-priming characteristics are desired.

Rugged, self-priming CSP Series commercial pumps feature an enclosed bronze impeller, standard 6" x 4" flange connections, plus a 1,100 cubic inch capacity hair and lint strainer. Motors are standard JM type, NEMA® Rated "C" flange design with a stainless steel shaft sleeve. These cast iron pumps are available in 7-½, 10, 15 and 20 HP, and may be purchased with or without corrosion-preventing epoxy coating on all wetted surfaces. Pump and strainer sold separately.

Standard Features

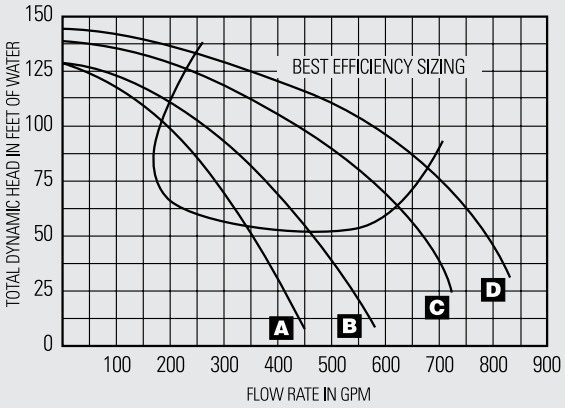
- Cast iron construction, enclosed bronze impeller and bronze wear rings for long lasting reliability.
- Exceptional self priming design with hair and lint strainer installed—allows pumps to be installed above or below water level.
- Oversized hair and lint strainer* with electro-polished stainless steel basket holds a large quantity of debris.
- Available in a wide range of performance levels from 7-½ to 20 HP to handle your varied pumping needs.
- Nationally recognized NEMA rated motors offer high performance under continuous operation.
- Back pull-out design enables servicing of normal wearing parts without disconnecting piping.
- Dimensionally compatible to most installations for easier initial hook-ups or retrofits.
- Integral design base is slotted for ease of mounting.

**To insure priming and proper pump operation, install only with Sta-Rite Hair and Lint Strainer. Order pump and strainer separately.*

CSP Series™

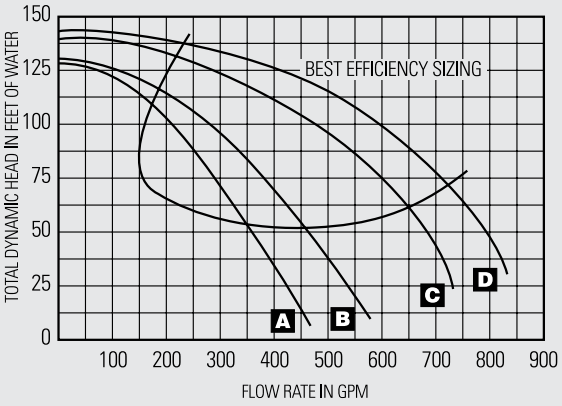
Commercial Self-Priming Pump

Performance Curves – CSP Pumps



A. CSPHK/CSPH **B.** CSPHL/CSPHL3 **C.** CSPHM3 **D.** CSPHN

Performance Curves – CCSP Pumps



A. CCSPHK/CCSPHK3 **B.** CCSPHL/CCSPHL3 **C.** CCSPHM3 **D.** CCSPHN

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

MATERIALS AND DESIGN

Pump Body

Volute type, back pull-out design

- **Port Size**
  4" – ANSI® Certified 125 bolted flange discharge port.
  6" – ANSI Certified 125 bolted flange suction port.
- **Material**
  Volute & Motor Adapter.
  Cast iron.
- **Impeller**
  Bronze enclosed design with bronze wear ring.
- **Base**
  Cast iron integral design, slotted for mounting ease.
- **Corrosion Prevention**
  "CC" models have fusion bonded epoxy coating on all wetted cast iron surfaces for maximum hydraulic performance and corrosion prevention.

Hair and Lint Strainer

- **Material**
  Separate bolt-on cast iron body and cover; stainless steel toggle bolts. Ductile iron wing nuts; perforated electro-polished stainless steel basket.
- **Size**
  6" ANSI certified 125 bolted flange suction and discharge ports.

Pump Maximum Limits

- **Liquid Temperature:** 125° F
- **Ambient Air Temperature:** 104° F
- **pH Range:** 6.0-9.0

Motor

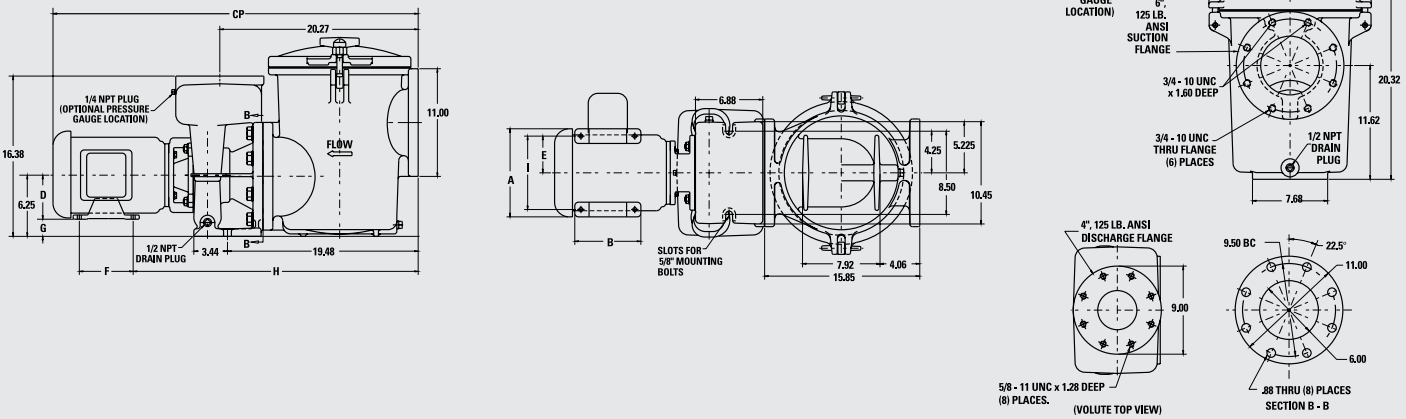
Standard "JM" type

- **Frame Size**
  NEMA rated "C" flange. 230/460V are open drip-proof design. 200V are totally enclosed, fan cooled.
- **Shaft**
  Stainless steel sleeved, and gasketed construction.
- **Design**
  7-½ to 20 HP, 3500 RPM, JM open drip-proof, continuous duty, three phase and single phase (7-½ HP, 10 HP only).
- **Bearings**
  Sealed ball type, permanently lubricated.
- **Thermal Overload Protection**
  All models require external thermal overload protector.

Electrical

- **Power Supply Required**
  Three-phase pumps are dual voltage. 7-½ and 10 HP single-phase models are available in 230V, 60 Hz only.

CSP Commercial Pump



Outline Dimensions

All dimensions shown in inches.

Catalog Number	A	B	CP	D	E	F	G	H	I
CSPHK, CCSPHK	10.62	7.00	39.44	5.25	4.25	5.50	1.00	30.00	8.50
CSPHK3, CCSPHK3, CSPH2K3	9.00	6.75	40.31	4.50	3.75	5.50	1.75	29.13	7.50
CSPHL, CCSPHL	10.35	8.26	42.69	5.25	4.25	7.00	1.00	30.00	8.50
CSPHL3, CCSPHL3	10.62	7.00	41.00	5.25	4.25	5.50	1.00	30.00	8.50
CSPHM3, CCSPHM3	10.62	8.50	42.50	5.25	4.25	7.00	1.00	30.00	8.50
CSPH2L3, CSPH2M3	10.62	8.50	42.50	5.25	4.25	7.00	1.00	30.00	8.50
CSPHN3, CCSPHN3	12.50	10.80	46.75	6.25	5.00	8.20	0.00	31.62	10.00
CSPH2N3, CCSPH2N3	13.38	12.44	48.50	6.25	5.00	10.00	0.00	31.65	10.00

Ordering Information

Catalog Number	Nominal HP (kw)	Phase	Motor Voltage	Full-Load* Amps	Approx. Ship. Weight lbs. (kg) (Pump Only)
CSPHK/CCSPHK	7-1/2 (5.6)	1	230	39	270 (122)
CSPHK3/CCSPHK3	7-1/2 (5.6)	3	230/460	21.7/18.0/9.8	265 (120)
CSPH2K3/CCSPH2K3	7-1/2 (5.6)	3	200	22.1	265 (120)
CSPHL/CCSPHL	10 (7.5)	1	230	46	275 (124)
CSPHL3/CCSPHL3	10 (7.5)	3	230/460	27.6/25/12.5	270 (122)
CSPH2L3/CCSPH2L3	10 (7.5)	3	200	28.1	270 (122)
CSPHM3/CCSPHM3	15 (11.2)	3	230/460	44.2/40/20	280 (127)
CSPH2M3/CCSPH2M3	15 (11.2)	3	200	42.3	280 (127)
CSPHN3/CCSPHN3	20 (15)	3	230/460	55.3/50/25	325 (148)
CSPH2N3/CCSPH2N3	20 (15)	3	200	57.3	350 (159)

*Amp draw may vary depending on motor manufacturer.

OPTIONS: CCSP Models feature special epoxy coated castings for maximum performance and corrosion resistance.
60 Hz T.E.F.C., 60 Hz premium efficiency, or 575 volt motors available, consult factory.

NOTE: Maximum ambient temperature for motor is 104° F (40° C). All pump motors require external overload protection (magnetic starter).
Pump strainer must be ordered separately (see below). Full load amps on motor model plate.

Accessory Ordering Information

Catalog Number	Description	Approx. Ship Weight lbs. (kg)	Approx. Ship. Vol. Ft^3 (m^3)
PKG 184	Strainer for CSP/CCSP, 6" ANSI certified Flange (1,100 cu. in. capacity)	180 (82)	6.4 (.18)
PKG 184C	Strainer for CSP/CCSP, 6" ANSI certified Flange (1,100 cu. in. capacity), Epoxy Coated	180 (82)	6.4 (.18)

PKG 184

CSP Series™

Commercial Self-Priming Pump

ENGINEERING SPECIFICATIONS

CSP/CCSP Series Pump

- Recirculating pump shall be Sta-Rite Model No. _____ self-priming centrifugal pump, _____ phase, 60 Hz.

General Notes

- Install pump in a cool, dry, well vented 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, seal plate, and attached hair and lint strainer shall be constructed of close-grained gray iron with fusion bonded epoxy coating on all wetted cast iron surfaces 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 6" ANSI® Certified 125 bolt flange to the hair and lint strainer. A centerline discharge port of 4" ANSI certified 125 bolt flange and a winterizing drain port of ¼" 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 21 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, 125° F continuous water temperature and within a pH range of 6 to 9.
- The electric motor coupled to the pump shall be of the NEMA® Rated 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. Motors shall be continuous duty rated at 40° C (or better) ambient 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. (CCSP models only.)

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 perforated electro-polished stainless steel basket material.
- The strainer body shall be 6" ANSI certified 125 bolt flanged with fusion-bonded epoxy coating 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. _____

PENTAIR

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