

# CP SERIES Swimming Pool Pumps

## General Purpose Self Priming Pumps

Electrically driven, self priming, centrifugal, single stage, end suction type, being vertically split "back pull out" design, with mechanical shaft sealing and incorporating a "coarse mesh" suction strainer. Complying to latest Low Voltage, Machinery & Electromagnetic Compatibility Directives.



### Pump

**Working Pressure** - 4.5 bar (65psi) max.

**Suction Pressure** - 1 bar (14.5 psi) max.

**Temperature** - -10°C to +80°C.

**Usage** - unless advised elsewhere, suitable for the movement of water or water based products only.

**Construction** - Casing in cast iron to BS1452:150,

- Impeller and shaft sleeve in bronze to BS1400: LG2.

- Shaft seal - carbon v ceramic, with stainless steel and nitrile rubber components.

- Strainer basket - plastic coated steel or stainless steel.

**Connections** - Screwed BS21 - BSP P1 thread.

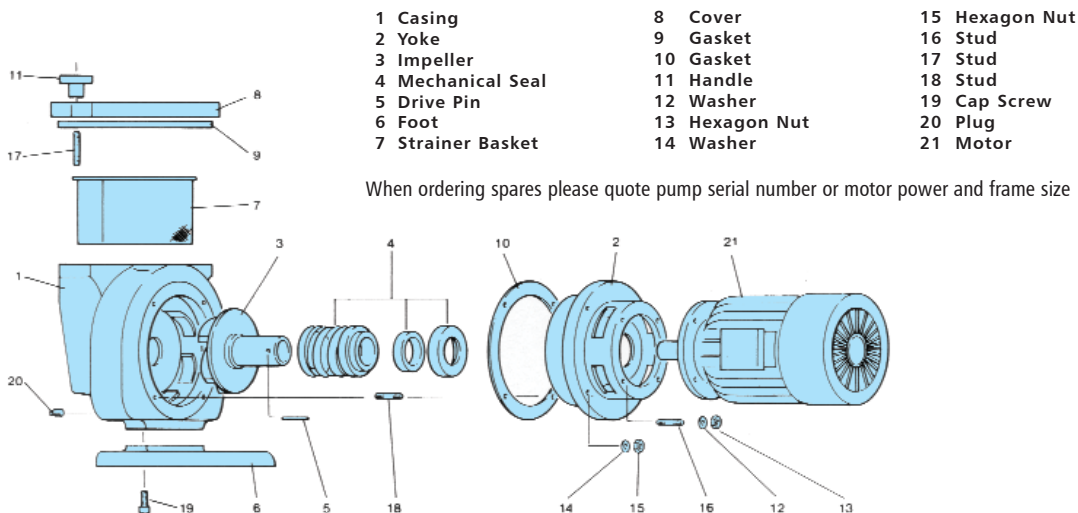
### Motor

**Enclosure** - TEFV with IP54 protection. All motors available in three phase only.

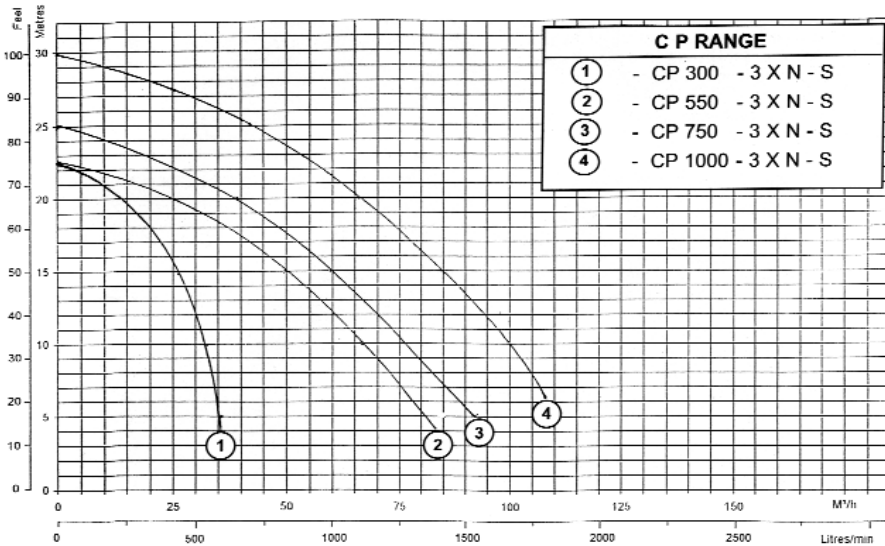
**Insulation** - Class "F" with 140°C temperature limit. Normal design limit 120°C (class "B").

**Rating** - Continuous, for ambient temperature -20°C to +40°C, and up to 1000m altitude.

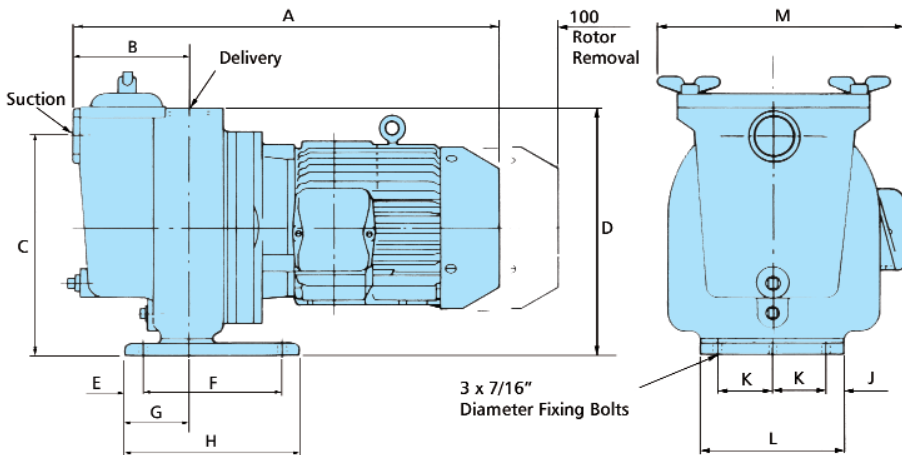
**Construction** - To BS4999 & 5000. / IEC 34 & 72. / DIN 42673, 42677, 42950 & 40050.



# Technical Data



MANOMETRIC or TOTAL HEAD indicated on curve is based on 20° water tests at sea level, with nominally flooded suction.



MODEL (Mk II)	BRANCH SIZE BSP IN X OUT	MOTOR kW (BHP)	Dimensions mm											MOTOR FRAMIL SIZE	UNIT WT kg		
			A	B	C	D	E	F	G	H	J	K	L			M	
CP 300	2" x 2"	2.2 (3)	560	165	312	358	19	213	75	254					292	90	65
		4(5.5)	650											25	79	208	102
CP 750	3" x 3"	5.5(7.5)	700	197	330	394	25	197	86	243					304		98
1000		7.5(10)													132		110

- (1) CP300 models have 4 x 3/8" dia. foundation fixing holes.
- (2) dimensions typical only can vary by 5mm.

## Installation & Pump Maintenance

### Foundations

The pump foundations must consist of a material that is rigid, consistent and will afford permanent support, absorb vibration, strain and noise. It should also be of sufficient height, to ensure that motor remains dry, if room is subject to flooding. The use of rubber mountings, and flexible pipework joints, will reduce vibration and noise.

### Piping

Associated pipe work must be independently supported and should not transmit any strain to the pump. On new installations ensure that ALL the pipe work from source is free of jointing and building debris, which could cause a blockage. It is preferable to have a straight length of pipe into and out of the pump, equal to twelve diameters of pipe. Isolating valves are recommended on both suction and delivery, together with a non-return valve, on the delivery.

### Wiring

ELECTRICAL WORKS SHOULD ONLY BE CARRIED OUT BY A COMPETENT or SUITABLY QUALIFIED ELECTRICIAN. Connections must be made, with reference to the nameplate and wiring diagram. Do not hard wire, but allow sufficient "slack" in cable, for motor removal without disconnecting wiring from terminals. MOTORS should be connected and controlled, through suitably rated contactors, which can be isolated, and should include overload and under voltage protection.

### Priming

Fill pump chamber with product liquid prior to starting motor, as the contact parts of shaft seal rely on this for lubrication, during operation. DRY RUNNING WILL CAUSE SEAL FAILURE.

### Rotation

This range of pumps rotate CLOCKWISE when viewed on motor cooling fan, and should be re-wired as directed in the wiring instructions to obtain the correct rotation.

### Start up

Having filled the pump chamber, tighten down the strainer cover, and start motor, allowing up to 5 minutes for the pump to evacuate all the air in the suction pipe, and to start delivering full flow. If pump fails to pump, check for loose connections or air leaks, reprime and retry. Having primed pump, always close the suction valve on shut down, if the strainer cover is to be removed, as this will retain the prime in the suction pipe.

### Loss of pump pressure

Air entering the pump through the mechanical seal, strainer cover or through a loose suction connection, will reduce the pump's performance, as will wear to the impeller or stationary rotation face of casing.

### Driver

The motor driver is air cooled and, as such, needs an unrestricted supply to the cooling fan, which will ensure that it does not exceed its design temperature.

### Lubrication

External lubrication is not required to either the motor or the pump.



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L/CP/002/02/05

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