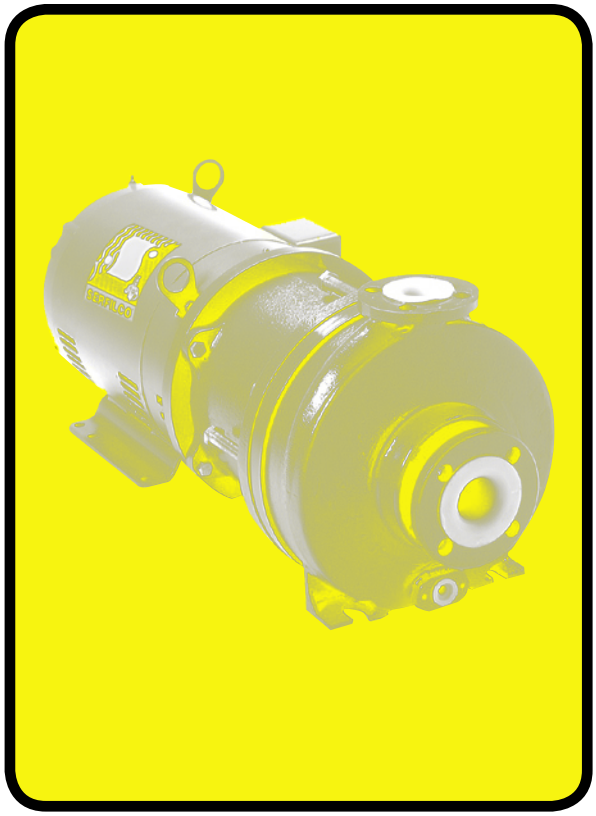
BULLETIN
P-514B
OCT. 2004

SERFILCO®

SERIES 'UC' MAGNETIC COUPLED PUMPS



EXTREME RELIABILITY FOR:

PLATING / CHEMICAL PROCESSES
STRONG ACIDS & ALKALIES
PULP - PAPER / PHARMACEUTICAL
PETROCHEMICAL / WATER TREATMENT

- **Flows to 330 U.S. GPM or 320 ft. TDH @ 60 Hz**
  (983 LPM or 67m TDH @ 50 Hz)
- **Non-metallic solution contact**
  ETFE (fluoropolymer) lined high strength ductile iron casing
  Silicon carbide shaft and bushings for applications to 250° F (121° C)
  (See a chemical resistance chart)
- **ANSI dimensional**
- **Powerful rare earth magnets**
  Neodymium boron iron for maximum power and reliability
- **Magnetic coupled** for leak-free pumping
- **Accepts standard motors**
  NEMA or IEC metric

Series 'UC' magnetic coupled pumps are seal-less, ANSI dimensional, ETFE lined pumps that are specifically designed for corrosive chemical applications in a wide range of industrial services.

The Series 'UC' pump is engineered to provide the utmost in reliability and longer pump life in even the most extreme applications. All wetted surfaces are non-metallic to provide superior chemical resistance. The Series 'UC' pump has a tough ductile iron casing bonded with a pure Tefzel® (ETFE) lining. The enclosed impeller and pump liner are precision molded from carbon fiber reinforced ETFE while the pump liner also has an external containment shell of glass reinforced vinyl ester for optimum pressure resistance.

The dual impeller bushings, shaft and front and rear thrust rings are sintered silicon carbide. The impeller thrust ring is manufactured from Fluorosint®. These components provide exceptional chemical resistance and wear characteristics at all flows.

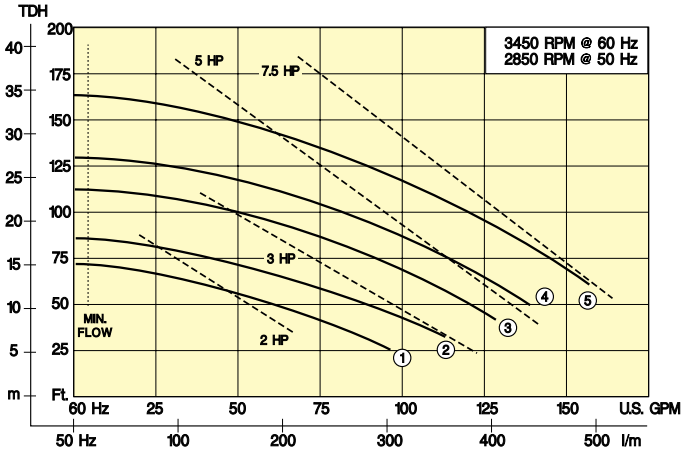
The modified concentric volute and generous impeller balance holes equalize pressure across the entire flow range, allowing minimal hydraulic thrust loads and decreased stress on the impeller. These design innovations provide reduced wear on critical pump components.

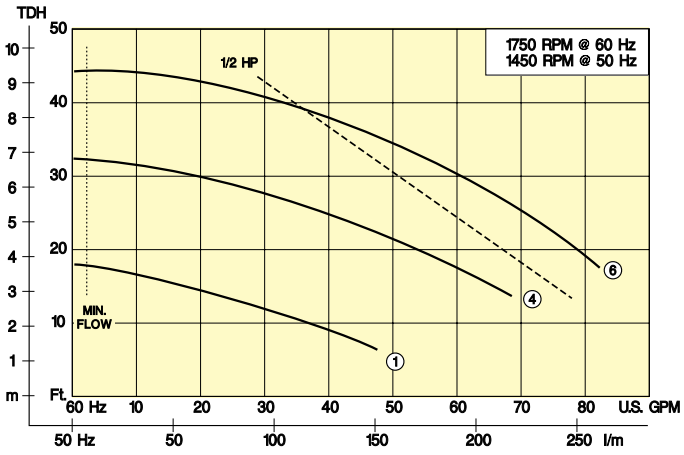
Series 'UC' pumps also utilize straightening vanes in the suction to prevent "pre-rotation" and reduced turbulence on the impeller for enhanced low flow operation.

Series 'UC' magnetic coupled pumps are designed to perform efficiently with great reliability and low maintenance requirements and to provide increased productivity and minimal operating costs. In short, they provide great value in critical pumping applications.

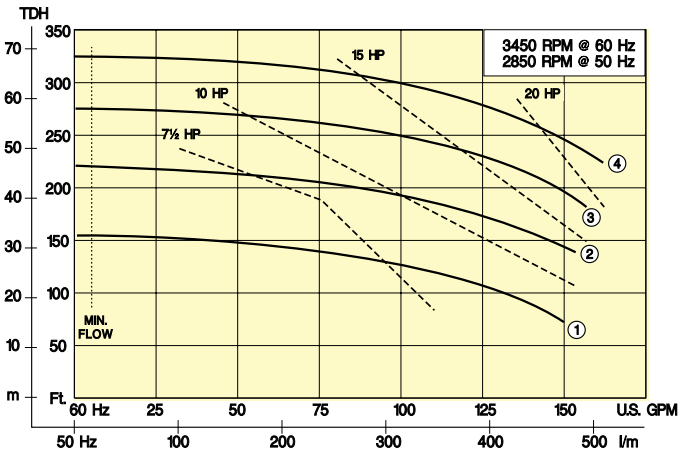
SERIES 'UC' PUMP Performance

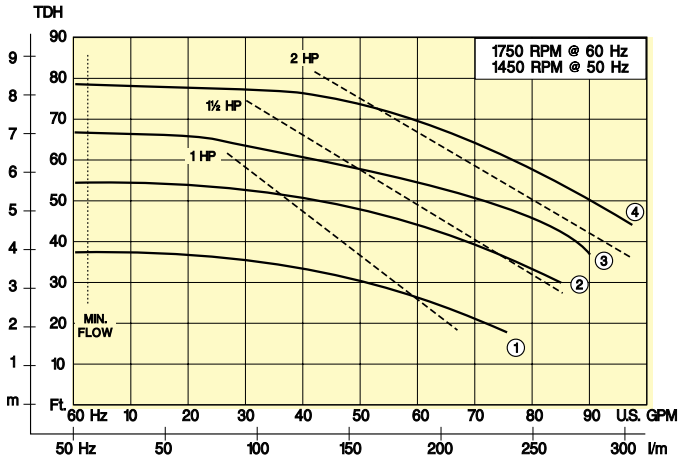
MODEL UC1516 (1½ x 1 x 6)



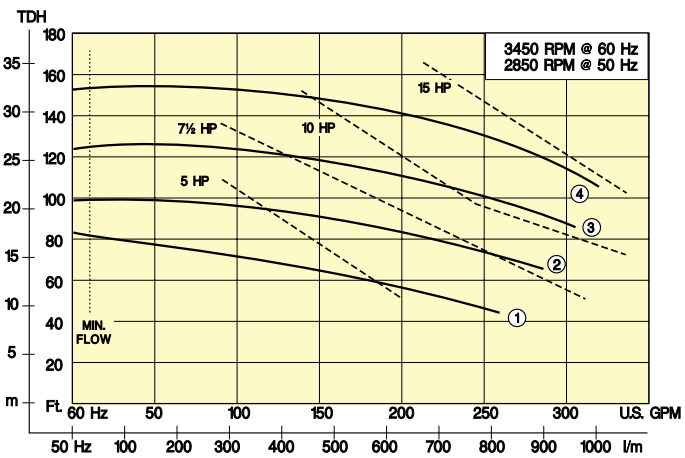


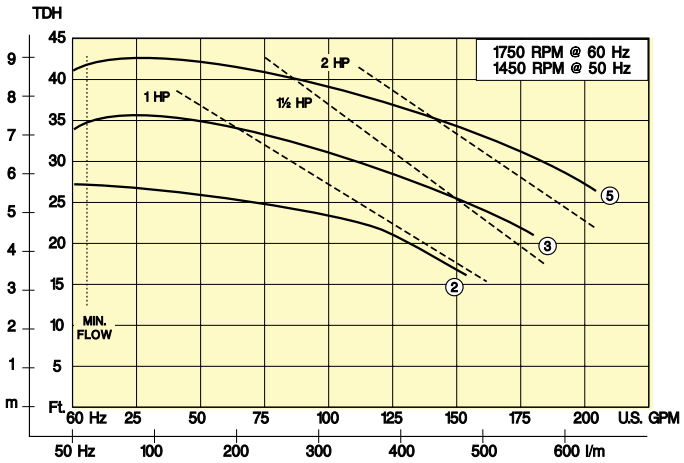
MODEL UC1518 (1½ x 1 x 8)





MODEL UC326 (3 x 2 x 6)





Consult Sales Dept for 50 Hz HP requirements.

SERIES 'UC' PUMP Specifications and ordering information

SPECIFICATIONS

- **Materials of construction**
  Casing — ductile iron ETFE lined
  Impeller & liner — carbon filled ETFE
  Shaft & bushings — silicon carbide
  'O'-ring — Viton (EPDM optional)
- **Casing dimensions —** ANSI / ASME B73.1 m
- **Working pressure —** 175 PSI max.
- **Maximum temperature —** 250°F (121° C)
- **Maximum viscosity —** 200 cps
- **Flange mounting —** ANSI or ISO
- **Motors —** NEMA or IEC to 20 HP (15 kW)

TO ORDER, use Price Code No.

For pump - motor combination, select components from table below.

To determine pump-motor for a specific flow, TDH and/or specific gravity, select flow/pressure point on performance curve (solid line). Required horsepower is determined by the section of the impeller curve falling below and/or to the left of the dotted HP curve. Multiply the indicated HP by the specific gravity of the fluid to be pumped. Select pump, then impeller curve, magnet assembly and motor; then compile Model and Price Code Numbers.

EXAMPLE:

For UC1516 pump @ 3450 RPM, impeller curve 4, magnet assembly A and 7.5 HP motor

Model No.:	UC1516	+	-4	+	A	+	-D7.5	= UC1516-4A-D7.5
Price Code No.:	63-1	+	4	+	1	+	2C	= 63-1412 C

PUMP[1]	
MODEL	PRICE CODE NO.
UC1516	63-1
UC1518	63-2
UC326	63-3

IMPELLER		
IMPELLER CURVE	ADD TO	
	MODEL	PRICE CODE NO.
1	-1	1
2	-2	2
3	-3	3
4	-4	4
5	-5	5
6	-6	6

MAGNET ASSEMBLY		
MAXIMUM HP	ADD TO	
	MODEL	PRICE CODE NO.
7.5	A	1
20.0	B	2

MOTOR[2]				
RPM	TEFC		ADD TO	
	NEMA FRAME	HORSE-POWER	MODEL	PRICE CODE NO.
3450 @ 60 Hz	145TC	3.0	-D3.0	3A
	182/4TC	5.0	-D5.0	2B
		7.5	-D7.5	2C
	215TC	10.0	-D10.0	5D
		15.0	-D15.0	5E
	256TC	20.0	-D20.0	6F
1725 @ 60 Hz	143/5TC	1.5	-H1.5	3G
	182/4TC	3.0	-H3.0	2H

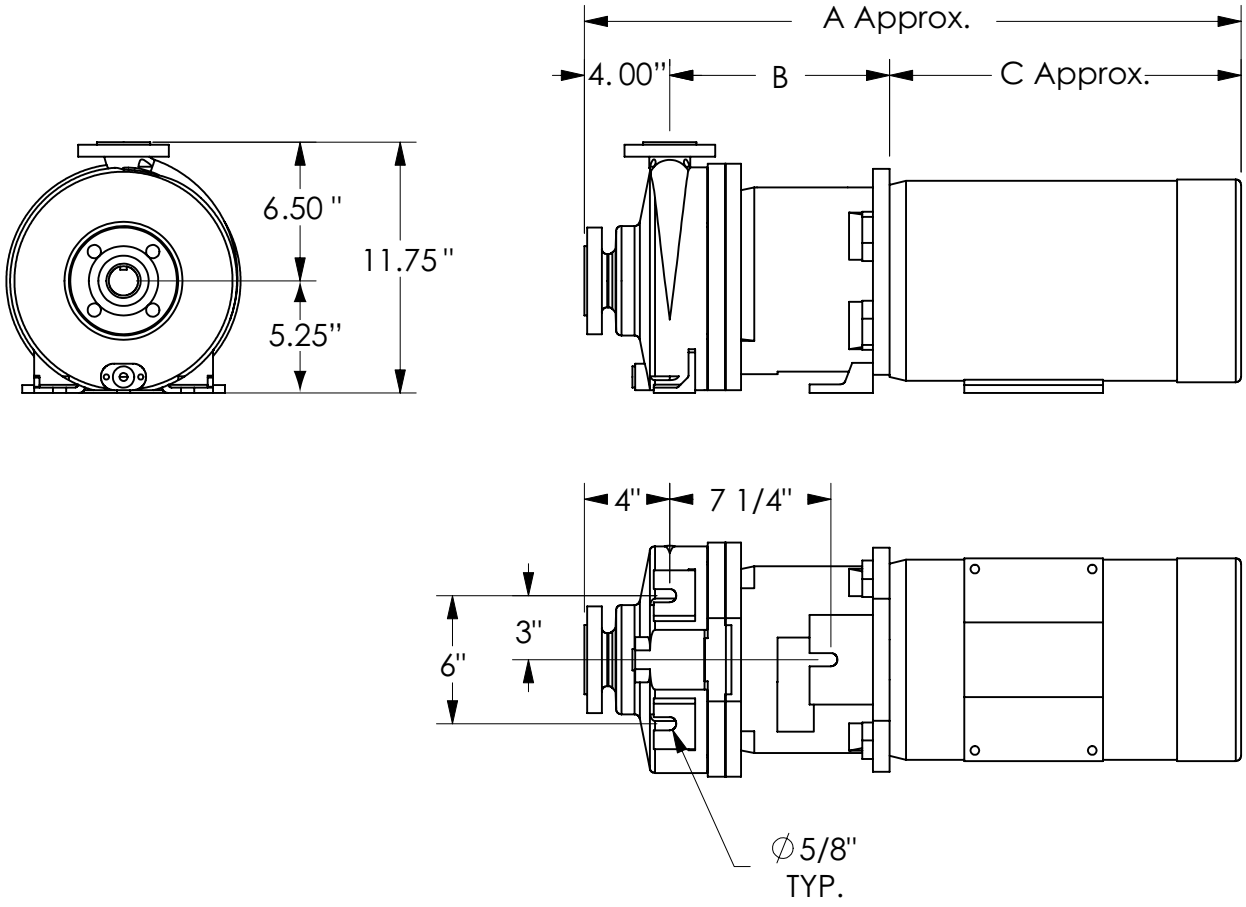
OPTIONAL		
DESCRIPTION	MODEL	ADD TO PRICE CODE NO.
EPDM elastomers	-L	L

[1] For pump only, eliminate motor suffix from Model No. and suffix letter from Price Code No.

[2] Motors are NEMA 208-230-460V/3/60 Hz, TEFC. For 50 Hz, IEC or EXP, consult Sales Dept.

SERIES 'UC' PUMP Dimensions

DIMENSIONS



MODEL	SUCTION	DISCHARGE	MOTOR FRAME	A	B	C	SHIPPING WEIGHT *
UC1516	1½" Flange	1" Flange	NEMA 143 NEMA 184 NEMA 215 NEMA 256	22.56" 25.06" 26.81" 29.19"	8.54" 10.30" 10.30" 10.30"	10.00" 10.75' 12.38" 14.88"	85 lbs.
UC1518	1½" Flange	1" Flange	NEMA 143 NEMA 184 NEMA 215 NEMA 256	22.56" 25.06" 26.81" 29.19"	8.54" 10.30" 10.30" 10.30"	10.00" 10.75" 12.38" 14.88"	90 lbs.
UC326	3" Flange	2" Flange	NEMA 143 NEMA 184 NEMA 215 NEMA 256	22.56" 25.06" 26.81" 29.19"	8.54" 10.30" 10.30" 10.30"	10.00" 10.75' 12.38" 14.88"	100 lbs.

* Pump only

F.O.B. Northbrook, Illinois

Specifications subject to change without notice.

Registered trademarks:
Fluorosint - **DSM Engineering Plastic Prod.**;
Tefzel, Viton - **DuPont Dow Elastomers**

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