2900 MacArthur Blvd. Northbrook, IL. USA 60062 www.serfilco.com (800) 323 - 5431

BULLETIN P-301\_AD MARCH 2013



SHOWN WITH OPTIONAL THROUGH HOLE IN MOUNTING PLATE AND DISCHARGE PIPE ASSEMBLY

# HIGH EFFICIENCY AND LOW ENERGY USAGE FOR:

PLATING / WET PROCESSING / ACIDS CHEMICALS / FUME SCRUBBERS and CLEANING SOLUTIONS

- Flows to 185 U.S. GPM or 145 FT. TDH @ 60 Hz (580 LPM or 31m @ 50 Hz)
- Non-metallic solution contact

   PPP high temperature polypropylene construction, CPVC,
   PVDF or ECTFE-T
   (Refer to a chemical resistance chart)
- Shaft vapor seal protects motor bearing and atmosphere
- Runs dry no bearings

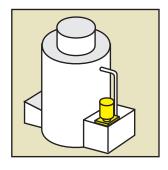
Chemical duty motor (1.0 - 7.5 HP)

Sealed oversized bearings, cast iron end bells with vapor seal, corrosion resistant epoxy enamel finish, stainless steel nameplate. Dual 50/60 Hz. Service factor 1.15 at 60 Hz., 1.0 at 50 Hz

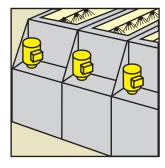
- Centrifugal quiet, vibration-free
- In- or out-of-tank installation
- Choice of 12" or 18" column
- NPT or BSP connections

The Series 'EH' Sump Pump features a cantilevered, sleeved, stainless steel shaft with vapor seal between the rotating shaft and the support column to further protect the motor. The cantilevered shaft eliminates bearings and conventional pump seals, resulting in a pump that can run dry without damage. A compound impeller prevents liquid from rising in the column, even at maximum TDH, while the fully-enclosed bottom impeller provides high hydraulic

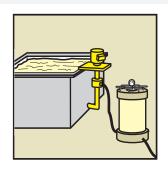
efficiency at low horsepower. A unique characteristic of all Series 'EH' pumps is their ability to lift solution with an optional suction extension pipe installed. With the motor energized, the pump will self-prime when liquid is at impeller level. The solution level will then be pumped down to the end of the suction extension to a maximum depth of 9 ft. (2.7m). The pump will lose prime, then automatically re-prime when liquid again reaches the impeller.\*



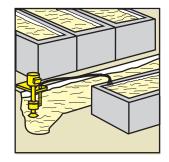
**FUME SCRUBBING** 



PCB WET PROCESSING



OUT-OF-TANK PUMPING AND FILTRATION



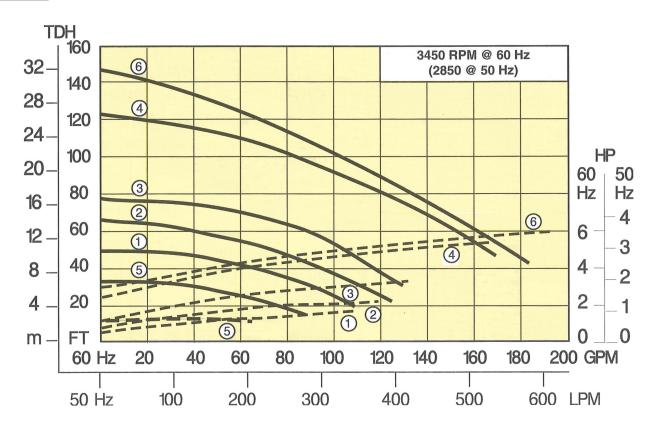
SUMP DRAINING AND WASTE TREATMENT

<sup>\*</sup> Read: "Tips for the successful operation of sump pumps", Technical Bulletin TP-113

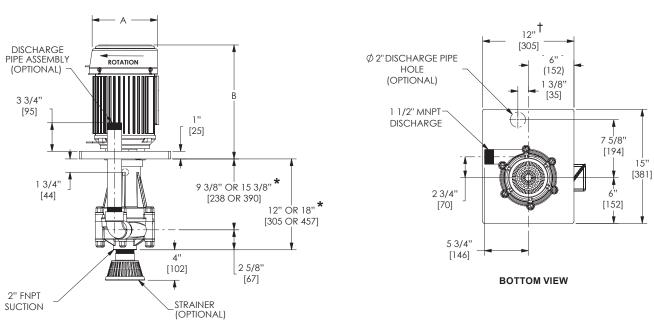


### **SERIES 'EH'** | VERTICAL PUMPS

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#### **DIMENSIONS - Inches (mm)**



† The standard 12" x 15" (305 x 381 mm) mounting plate for CPVC, polypropylene and ECTFE-T pumps is shown. PVDF pumps have an 11-3/4" x 11-3/4" (298 x 298 mm) mounting plate.

<sup>\* 15-3/8&</sup>quot; and 18" dimensions are for the LX models



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Pump models are constructed of CPVC, PPP polypropylene, PVDF, or ECTFE-T with sleeved stainless steel shaft. Mounting plate is 1" (25mm) thick and includes PTFE vapor seal. Standard "O"-rings are EPDM (ethylenepropylene) on CPVC and Halar® pumps and Viton® on polypropylene and PVDF pumps. Impeller is fully enclosed for maximum efficiency, compound design with pressure plate.

Assembly offers non-metallic solution contact. Chemical duty motors are 1 or 3 phase, TEFC, 50 or 60 Hz, 3450 or 2850 or 1725 or 1450 RPM, NEMA "C" face, painted with two-part epoxy enamel. May be used with up to a 9 ft. (2.7m) suction extension under certain conditions. The pump discharge orientation can be relocated in increments of 60°.

#### **TO ORDER, use Price Code Number**

For standard CPVC, PP, PVDF and Halar® (ECTFE) pump-motor combination, select model from TABLE I.

For other pump-motor combinations, select from components in TABLE II.

Select flow curve number providing the desired performance. Then match to Model Numbers listed below. **Motor HP is non-overloading at full capacity.** 

60 Hz MODELS							
FLOW CURVE NO.	MODEL NUMBER	PRICE	MODEL NUMBERS	Price	MODEL NUMBER	Price	
	CPVC	CODE NO.	Polypropylene	Code No.	PVDF	Code No.	
1	EH 1-1/2-1SC-D1.5	45-0112	EHP 1-1/2-1SC-D1.5	45-0612	EHK 1-1/2-1SC-D1.5	45-0712	
2	EH 1-1/2-2SC-D2.0	45-0123	EHP 1-1/2-2SC-D2.0	45-0623	EHK 1-1/2-2SC-D2.0	45-0723	
3	EH 1-1/2-3SC-D3.0	45-0134	EHP 1-1/2-3SC-D3.0	45-0634	EHK 1-1/2-3SC-D3.0	45-0734	
4	EH 1-1/2-4SC-D5.0	45-0145	EHP 1-1/2-4SC-D5.0	45-0645	EHK 1-1/2-4SC-D5.0	45-0745	
5	EH 1-1/2-5SC-H1.5	45-0159	EHP 1-1/2-5SC-H1.5	45-0659	EHK 1-1/2-5SC-H1.5	45-0759	
6	EH 1-1/2-5SC-D7.5	45-0156	EHP 1-1/2-5SC-D7.5	45-0656	EHK 1-1/2-5SC-D7.5	45-0756	

60 Hz			50 Hz MODELS					
FLOW	MODEL NUMBER	PRICE	MODEL NUMBERS	PRICE	MODEL NUMBER	PRICE		
NO.	ECTFE-T	CODE NO.	CPVC	CODE NO.	POLYPROPYLENE	CODE NO.		
1	EHH 1-1/2-1SC-D1.5	45-1912	EH 1-1/2-1SC-D1.0 (.75kW)	45-0111	EHP 1-1/2-1SC-D1.0 (.75 kW)	45-0611		
2	EHH 1-1/2-2SC-D2.0	45-1923	EH 1-1/2-2SC-D1.5 (1.1kW)	45-0122	EHP 1-1/2-2SC-D1.5 (1.1 kW)	45-0622		
3	EHH 1-1/2-3SC-D3.0	45-1934	EH 1-1/2-3SC-D2.0 (1.5kW)	45-0133	EHP 1-1/2-3SC-D2.0 (1.5 kW)	45-0633		
4	EHH 1-1/2-4SC-D5.0	45-1945	EH 1-1/2-4SC-D3.0 (2.2kW)	45-0144	EHP 1-1/2-4SC-D3.0 (2.2 kW)	45-0644		
5	EHH 1-1/2-5SC-H1.5	45-1959	EH 1-1/2-5SC-D1.5 (1.1kW)	45-0159	EHP 1-1/2-5SC-H1.5 (1.1 kW)	45-0659		
6	EHH 1-1/2-5SC-D7.5	45-1956	EH 1-1/2-5SC-D5.0 (3.7kW)	45-0155	EHP 1-1/2-5SC-D5.0 (3.7 kW)	45-0655		

50 Hz MODELS							
FLOW	MODEL NUMBER	PRICE	MODEL NUMBERS	PRICE			
CURVE NO.	PVDF	CODE NO.	ECTFE-T	CODE NO.			
1	EHK 1-1/2-1SC-D1.0 (.75kW)	45-0711	EHH 1-1/2-1SC-D1.0 (.75kW)	45-1911			
2	EHK 1-1/2-2SC-D1.5 (1.1kW)	45-0722	EHH 1-1/2-2SC-D1.5 (1.1kW)	45-1922			
3	EHK 1-1/2-3SC-D2.0 (1.5kW)	45-0733	EHH 1-1/2-3SC-D2.0 (1.5kW)	45-1933			
4	EHK 1-1/2-4SC-D3.0 (2.2kW)	45-0744	EHH 1-1/2-4SC-D3.0 (2.2kW)	45-1944			
5	EHK 1-1/2-5SC-H1.5 (1.1kW)	45-0759	EHH 1-1/2-5SC-D1.5 (1.1kW)	45-1959			
6	EHK 1-1/2-5SC-D5.0 (3.7kW)	45-0755	EHP 1-1/2-5SC-D5.0 (3.7kW)	45-1955			

See Page 4 for additional specifications.



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PUMP							
MATERIAL	MODEL	PRICE CODE NO.					
CPVC CPVC-18" POLYPROPYLENE* POLYPRO-18" PVDF PVDF-18" ECTFE-T	EH 1½ EHLX 1½ EHP 1½ EHPLX 1½ EHKLX 1½ EHK 1½ EHKLX 1½ EHKLX 1½	45-01 45-09 45-06 45-13 45-07 45-14 45-19					

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

MOTOR (NEMA) <sup>1</sup>							
	STD.	ADD TO		DIMENSIONS <sup>2</sup>			
VOLTAGE	HP (kW)	MODEL NO.	PRICE CODE NO.	Α		В	
				in	mm	in	mm
208-230/460/3/60, 3450 RPM or 190/380-415/3/50, 2850 RPM	1.0 (.75) 1.5 (1.1) 2.0 (1.5) 3.0 (2.2) 5.0 (3.7) 7.5 (5.5)	-D 1.0 -D 1.5 -D 2.0 -D 3.0 -D 5.0 -D 7.5	1 2 3 4 5 6	7-1/4 7-1/4 7-1/4 9-9/16 9-9/16 9-9/16	184 184 184 243 243 243	12-1/2 12-1/2 12-3/16 14-7/8 14-7/8 14-7/8	317 317 310 378 378 378
115/208-230/1/60, 3450 RPM or 190-230/1/50, 2850 RPM	1.5 (1.1)	-C 1.5	7	7-1/4	184	13-1/2	343
115/208-230/1/60, 1725 RPM or 190-230/1/150, 1450 RPM	1.5 (1.1)	-G 1.5	8	7-1/4	184	11-1/2	292
208-230/460/3/60, 1725 RPM or 190/380-415/3/50, 1450 RPM	1.5 (1.1)	-H 1.5	9	7-1/4	184	12-3/16	310

PUMP + MOTOR SHIPPING WEIGHTS					
Lbs.	kg.				
66	30				
70	32				
75	34				
95	43				
97	44				
105	48				
73	33				
73	33				
73	33				

<sup>\*</sup> Polypropylene is glass filled.

OPTIONAL	ADD SUFFIX TO MODEL	ADD TO PRICE CODE NO.	
Viton "O"-ring installed in CPVC, Halar® pumps EPDM "O"-rings in PP or PVDF pumps		V L	V L
PVDF impellar & shaft sleeve for CPVC pump (installed). For continous operation over 180°F		К	К
Titanium option - shaft and fasteners	Т	Т	
Through hole in standard mounting plate 2" diameter		MPH	Н
Discharge pipe assembly, 1-1/2" NPT, for 12" or 18" pump For 18" Discharge pipe assembly - add X to PCN	- CPVC - PVDF - Polypropylene - SS (For ECTFE-T)	DPA DPAK DPAP DPAS	45-0161 45-0161 K 45-0161 P 45-0161S
Suction strainer w/ close nipple, 2" NPT	- Polyethylene / CPVC - Polyethylene / PP - Halar / PVDF - Halar/SS	ST	45-0162 45-0162 PP 45-0162 HK 45-0162HS
Suction extension, 24" x 2" NPT	- CPVC - PVDF - Polypropylene	SX SXK SXP	45-0163 45-0163 K 45-0163 P

#### Registered trademarks:

<sup>&</sup>lt;sup>1</sup> To order pump without motor, use **0** for motor Price Code No.

<sup>&</sup>lt;sup>2</sup> Motor dimensions for references only.