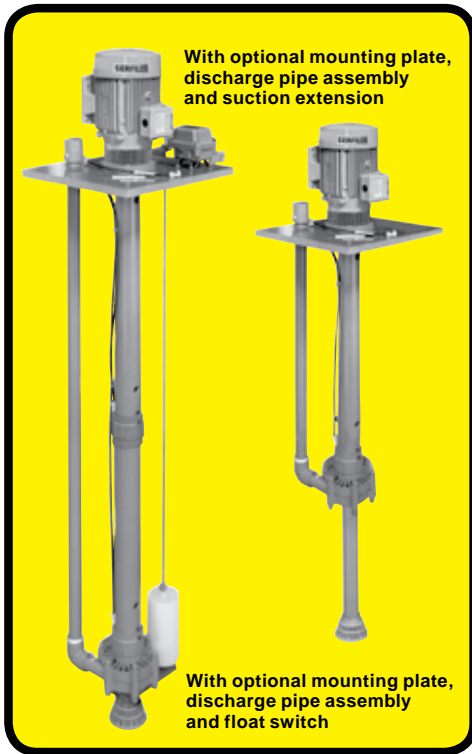
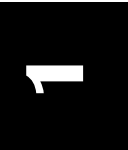




SERIES 'HB' VERTICAL PUMPS



With optional mounting plate, discharge pipe assembly and suction extension

With optional mounting plate, discharge pipe assembly and float switch

HIGH EFFICIENCY AND LOW ENERGY USAGE FOR:

WASTES / ACIDS / PLATING / CHEMICALS

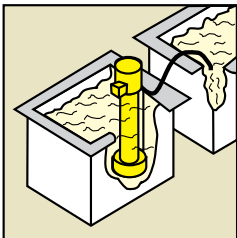
- Flows to 140 U.S. GPM or 130 ft. TDH @ 60 Hz (450 LPM or 28m @ 50 Hz)
- Corrosion resistant, CPVC construction (See a chemical resistance chart)
- Pump lengths: 2 ft. to 12 ft. (.6m to 3.6m)
- Water or product lubricated bearings
- Chemical duty motor
Sealed oversized bearings, cast iron end bells, liquid/vapor seal and slinger, corrosion resistant two-part epoxy finish, stainless steel nameplate, 1.15 service factor at 50 and 60 Hz.
- Centrifugal — quiet, vibration-free
- Shaft vapor seal protects motor bearings and atmosphere
- NPT or BSP connections

The Series 'HB' Sump Pump features corrosion resistant construction for deep sumps and chemical transfer. A stainless steel shaft sleeved in CPVC offers unmatched strength and chemical resistance. A vapor seal between the rotating shaft and the pump column protects the motor and motor bearings.

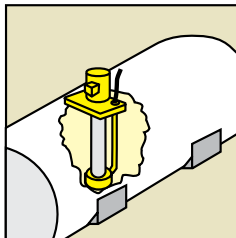
The shaft bearing and liner are positively lubricated with the product being pumped or clean water from a

separate source by means of the bleed line. A spiral flush groove in the rotating bearing ensures a uniform flow of liquid across the bearing surface. The bearing liner is made of a special fluoride-resistant ceramic.

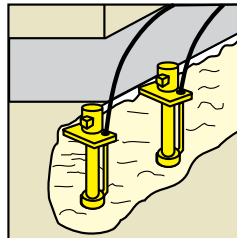
A suction extension can be utilized to pump to depths below impeller level. Thus, a shorter pump can be used, reducing shaft length and the number of bearings required.



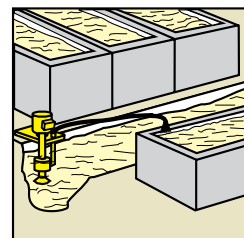
CHEMICAL TRANSFERRING



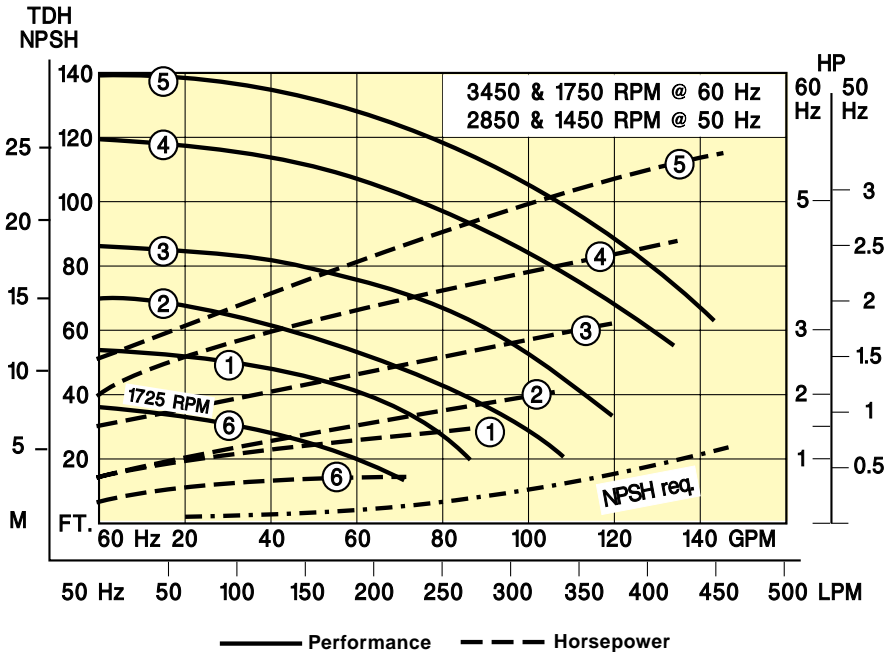
STORAGE TANK



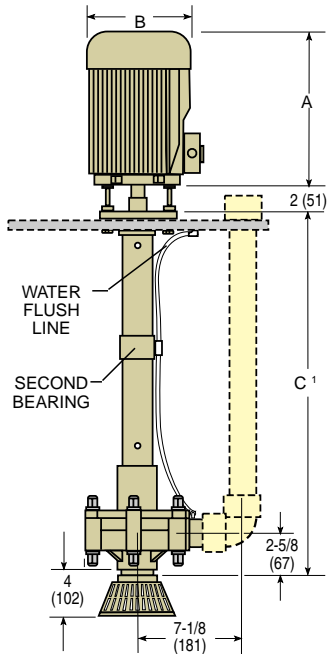
DEEP STANDBY PUMPING
when priming not possible



SUMP DRAINING and WASTE TREATMENT

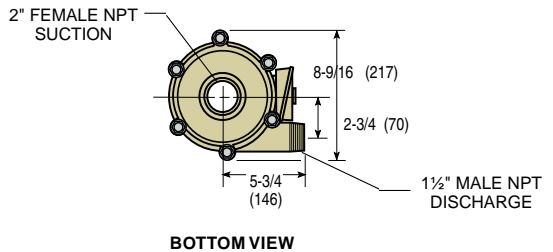


DIMENSIONS - Inches (mm)



HORSE-POWER	RPM @ 60 Hz	NEMA FRAME	A		B		SHIP. WT ²	
			inches	mm	Inches	mm	lbs.	kg.
1.0	1725	143TCZ	9-7/8	251	9-5/8	244	103	47
1.5	1725						102	46
1.5	3450						102	46
2.0	3450	145TCZ	9-7/8	251	9-5/8	244	106	48
3.0	3450	182TCZ	11-7/8	302	10-3/4	273	116	53
5.0	3450	184TCZ	13-1/4	337	11-1/4	286	138	63
7.5							151	68

¹ Pump length (C) and mounting plate dimensions are as ordered
² Approx. weight of 2 ft. (.6m) pump with square mounting plate. Add 4 1/2 lbs. (2.0 kg.) per foot (.3m) of additional pump length above 2 feet (.6m).





Standard models are constructed of CPVC with high purity chemical resistant graphite or Rulon® (glass filled PTFE) bearing and silica-free ceramic liner for fluoride resistance. Includes polyethylene suction strainer. Elastomer "O"-rings are EPDM (ethylene propylene) with Viton® optional. Impeller is fully enclosed for maximum efficiency. Pump shaft is 303 stainless steel sleeved in CPVC, so complete pump assembly offers non-metallic solution contact except for titanium fasteners at each bearing. Hastelloy® C276 fasteners are optional. Standard pumps are

suitable for 140°F (60°C) maximum. High temperature models to 160°F (71°C) are available as single graphite bearing pumps only. Pump lengths are available as listed in one foot (.3m) increments only. The bleed line provides pressurized water or pumped solution to the bearings. (Each bearing requires 10 PSI.) Standard is external water flush. Product flush may be specified. All models are wet tested before shipment. Series 'HB' pumps can provide up to 9 ft.(2.7m) suction lift under certain conditions.

TO ORDER, use Price Code Number

*For standard 24" - 60" pump / motor combinations, select model from TABLE I.
For other combinations, select components from TABLE II.*

TABLE I

FLOW CURVE NO.	24" PUMP		36" PUMP	
	MODEL	PRICE CODE NO.	MODEL	PRICE CODE NO.
1	HB1½CE1-24"C-CG ___ °F-D1.5	41-1024A	HB1½CE1-36"C-CG ___ °F-D1.5	41-1034A
2	HB1½CE2-24"C-CG ___ °F-D2.0	41-2024B	HB1½CE2-36"C-CG ___ °F-D2.0	41-2034B
3	HB1½CE3-24"C-CG ___ °F-D3.0	41-3024C	HB1½CE3-36"C-CG ___ °F-D3.0	41-3034C
4	HB1½CE4-24"C-CG ___ °F-D5.0	41-4024D	HB1½CE4-36"C-CG ___ °F-D5.0	41-4034D
5	HB1½CE5-24"C-CG ___ °F-D7.5	41-5024E	HB1½CE5-36"C-CG ___ °F-D7.5	41-5034E
6	HB1½CE5-24"C-CG ___ °F-H1.0	41-5024G	HB1½CE5-36"C-CG ___ °F-H1.0	41-5034G

FLOW CURVE NO.	48" PUMP		60" PUMP	
	MODEL	PRICE CODE NO.	MODEL	PRICE CODE NO.
1	HB1½CE1-48"C-CGx2 ___ °F-D1.5	41-1045A	HB1½CE1-60"C-CGx2 ___ °F-D1.5	41-1055A
2	HB1½CE2-48"C-CGx2 ___ °F-D2.0	41-2045B	HB1½CE2-60"C-CGx2 ___ °F-D2.0	41-2055B
3	HB1½CE3-48"C-CGx2 ___ °F-D3.0	41-3045C	HB1½CE3-60"C-CGx2 ___ °F-D3.0	41-3055C
4	HB1½CE4-48"C-CGx2 ___ °F-D5.0	41-4045D	HB1½CE4-60"C-CGx2 ___ °F-D5.0	41-4055D
5	HB1½CE5-48"C-CGx2 ___ °F-D7.5	41-5045E	HB1½CE5-60"C-CGx2 ___ °F-D7.5	41-5055E
6	HB1½CE5-48"C-CG ___ °F-H1.0	41-5044G	HB1½CE5-60"C-CGx2 ___ °F-H1.0	41-5055G

*Include operating temperature in model number.



TABLE II

Determine pump-motor model for a specified GPM, TDH, length, bearing and specific gravity. Select performance point on curve and size HP from corresponding number dotted line vertically above or below performance point.

Read required HP at right ordinate and multiply by specific gravity. Select pump model components and Price Code Numbers from Table II.

EXAMPLE:

PUMP + IMPELLER + LENGTH + BRG & LINER + MOTOR = PRICE CODE NO.
 HB1½CE + 2 + 48°C + CRX2-90°F + D1.5 = 41-2042A

PUMP	
MODEL	PRICE CODE NO.
HB1½CE	41-

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

PUMP					
FT.	m	RPM	BRGS	ADD TO ...	
				MODEL	PRICE CODE NO.
2	.6	1725/1450	1	24°C	02
		3450/2850			
3	.9	1725/1450	1	36°C	03
		3450/2850			
4	1.2	1725/1450	2	48°C	04
		3450/2850			
5	1.5	1725/1450	2	60°C	05
		3450/2850			
6	1.8	1725/1450	2	72°C	06
		3450/2850			
7	2.1	1725/1450	2	84°C	07
		2850			
8	2.4	1725/1450	3	96°C	08
		2850			
9	2.7	1725/1450	3	108°C	09
		2850			
10	3.0	1725/1450	3	120°C	10
		2850			
11	3.3	1725/1450	3	132°C	11
		2850			
12	3.6	1725/1450	3	144°C	12
		2850			

PUMP			
MATERIAL	NO. OF ADD	TO ...	
		MODEL	PRICE CODE NO.
CERAMIC & RULON ¹	1	CR-°F	1
	2	CRx2-°F	2
	3	CRx3-°F	3
CERAMIC & GRAPHITE	1	CG-°F	4
	2	CGx2-°F	5
	3	CGx3-°F	6

PUMP		
RPM	TEFC - 230-460V/3/50-60 ²	
	ADD TO ...	
	MODEL (HP)	PCN
3450/2850	D1.5	A
	D2.0	B
	D3.0	C
	D5.0	D
	D7.5	E
1725/1450	H1.0	G
	H1.5	H

For BSP fittings or adapters, explosion-proof motors, motor starters, level controls, and Dri-Stop Pressure Switch for external bearing flush, contact Sales Department for appropriate bulletin.

¹ Rulon for 140°F maximum temperature
² 230-380/415V/3/50

* Include operating temperature in model number.

OPTIONAL

DESCRIPTION	ADD SUFFIX TO MODEL	ADD TO PRICE CODE NO.
Viton "O"-rings (installed)	V	V
Hastelloy C276 fasteners	HC	X
High temperature for single bearing pumps to 160°F (71°C). Use graphite bearing.	HT	T

DESCRIPTION	ADD SUFFIX TO MODEL	USE SEPARATE PRICE CODE NO.
PVC mounting plate with 1½ NPT CPVC discharge pipe assembly (same length as pump) Square - 20" x 20" x 1" (508 x 508 x 25.4mm) Round - 20" dia. x 1" (508 dia. x 25.4mm)	-SD	41-0630A
	-CD	41-0631A
Suction extension - 2" NPT CPVC pipe, threaded both ends	-K12"	41-0633
	-K24"	41-0634
	-K36"	41-0635