

FOR PUMPING, TRANSFERRING, RECIRCULATING OF:

WASTES / ACIDS / CHEMICALS

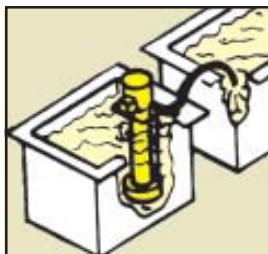
- **Chemical resistant**
Fiberglass reinforced vinyl ester w/316SS shaft
See Chemical Resistance Chart
- **Centrifugal - Quiet, Vibration-free**
- **High efficiency**
Less horsepower required
- **For pit depths to 10 feet (3 M)**
With suction extension an additional 8 ft. (2.5 M). can be obtained.
- **Maximum temperature 200°F(93°C)**
For higher temperature consult Customer Service.
- **To 1500 U.S. GPM or 350 FT. TDH @ 60 Hz (350 cubic meters/hr or 105M TDH @ 60 Hz)**
- **Chemical duty motor**
Sealed, oversized bearings, cast iron end bells.
Liquid/vapor seal and slinger.
Corrosion resistant two-part epoxy finish, stainless steel nameplate.

Read: "Tips for the successful operation of sump pumps".
See bulletin or index

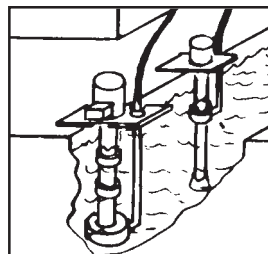
SPECIFICATIONS

The VGRP is a fiberglass reinforced vinyl ester vertical immersion sump pump for wet pit applications in chemical waste handling, effluent handling and liquid transfer operations wherever the broad corrosion resistance of the proprietary GRP material is required. The standard pump shaft is 316 stainless steel. Alloy 20, K-monel, Hastelloy B or C or titanium shaft sleeves are available depending on the corrosive characteristics of the liquid. Viton "O"-ring and lip seal are standard. Pump supplied with a glass reinforced polypropylene suction strainer, polypropylene lube lines. Teflon bearings are standard and provision for external water

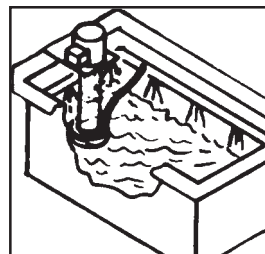
is provided for each bearing. The VGRP pump is furnished with vertical P-base motors which meet NEMA Standard MGI-18.620. The high thrust capacity of this motor eliminates the need for an external thrust bearing. If desired, however, an optional thrust bearing design incorporating a flexible coupling is available. Maximum operating temperature: 200°F (93°C). Maximum pressure rating is 100 PSI (6.8 bar) up to 100°F (38°C), except for 3"x1½"x8" and 4"x3"x8" which is rated at 175 PSI (11.9 bar) up to 100°F (38°C). Consult factory for higher temperature rating. PIT DEPTH: Minimum 3'-0" (.9 M). Maximum 10'-0" (3 M).



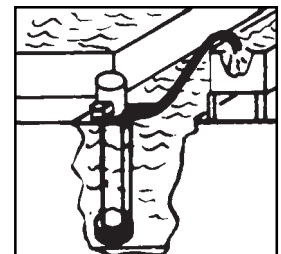
CHEMICAL TRANSFER



DEEP STANDBY PUMP
when priming not possible in deep areas



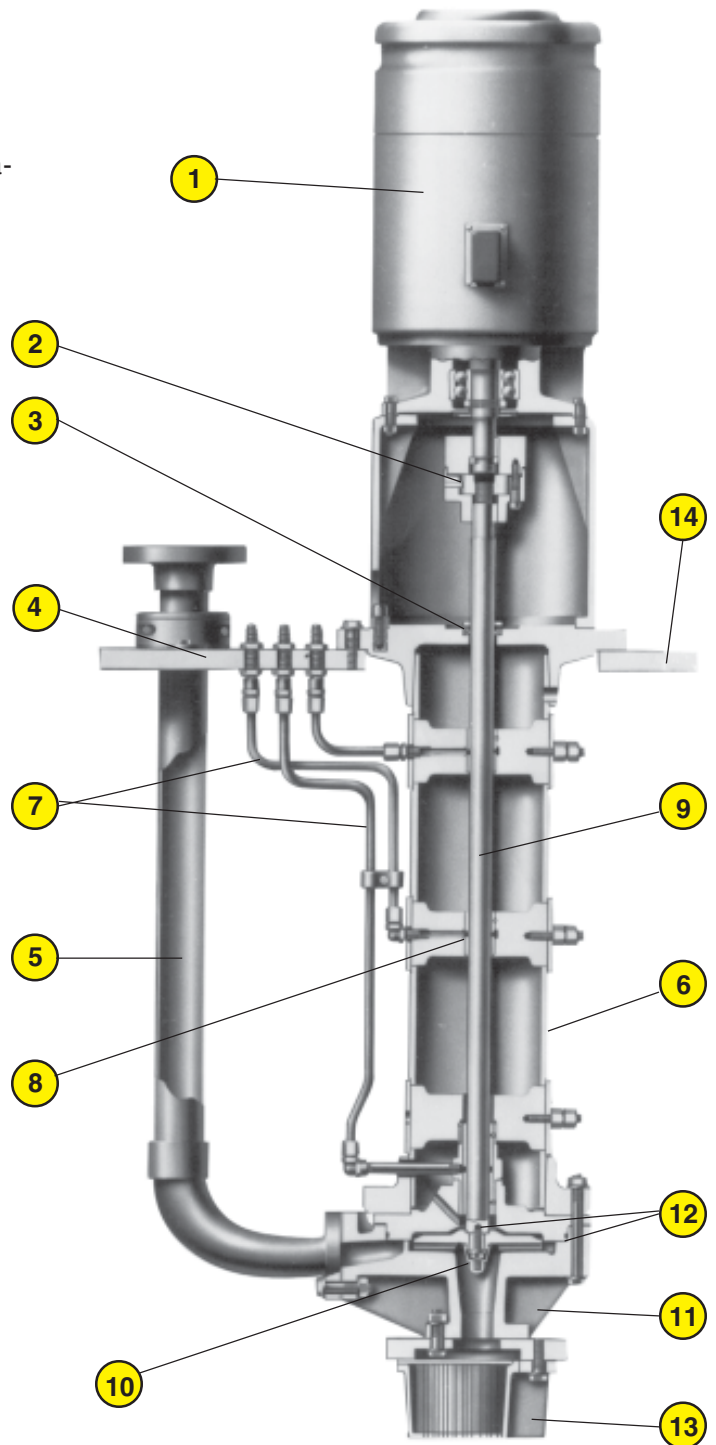
SPRAY PUMPING



SUMP DRAINING

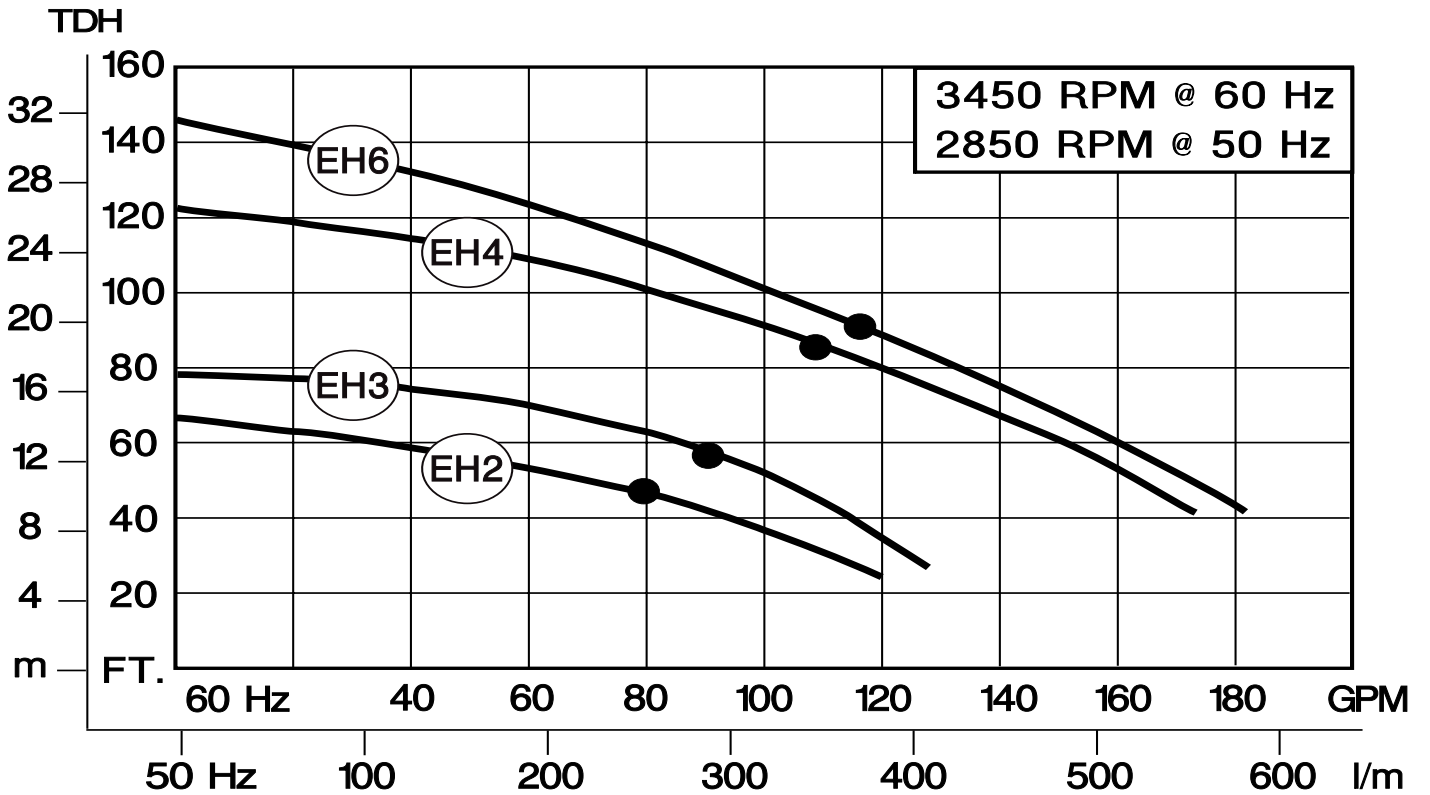
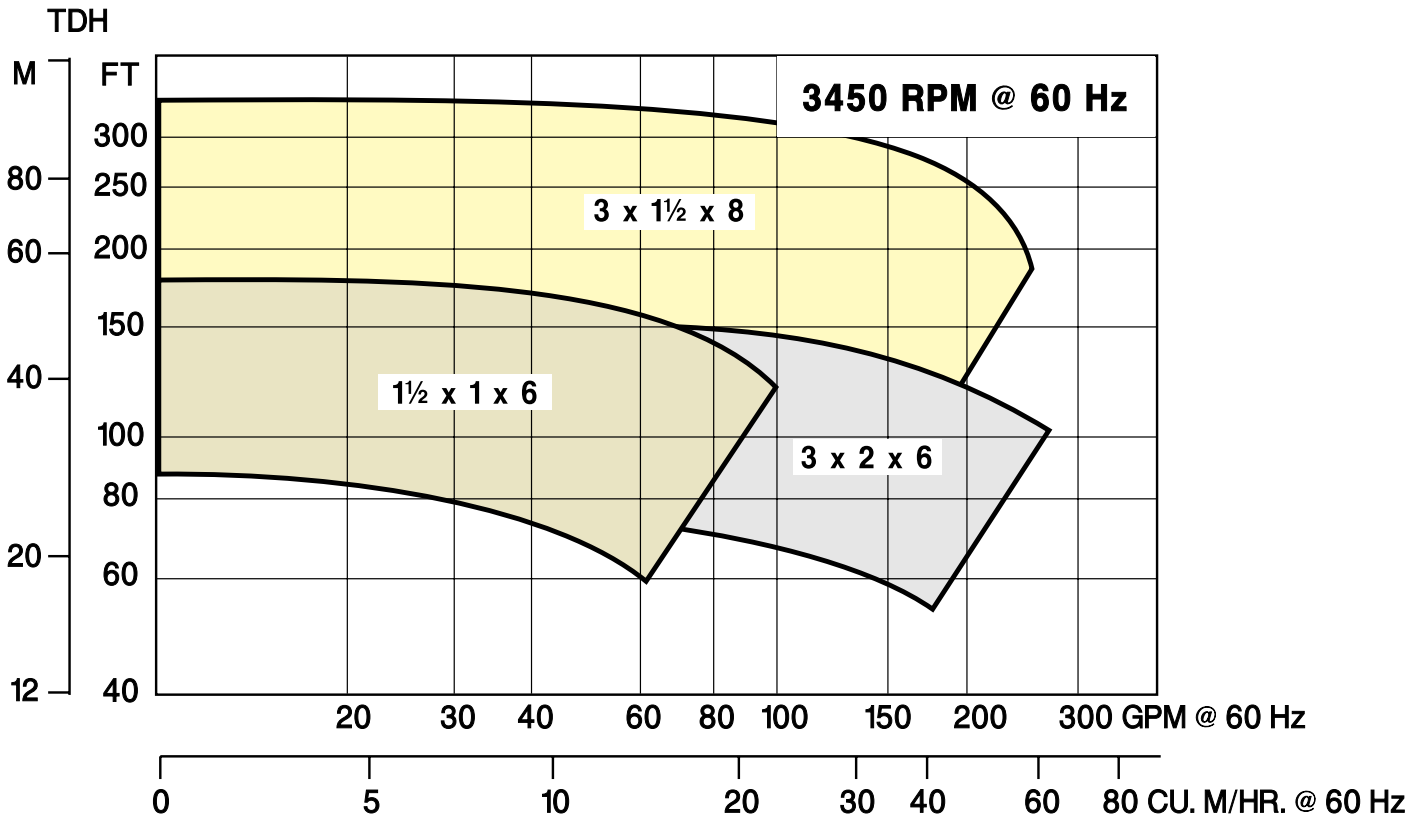
PUMP FEATURES

1. NEMA inline motor with high thrust capacity eliminates need for external pump thrust bearing.
2. Impeller adjusting mechanism restores clearances, allowing optimized operation and efficiency with no need to pull or dismantle the pump. The simple, external mechanism is conveniently located above the mounting plate for easy accessibility. The mechanism is fully enclosed to protect against corrosion or fouling of adjustment.
3. Standard-equipment closure-type lip seal provides a positive seal at the shaft — protects against noxious or corrosive vapors, helps comply with EPA and OSHA regulations.
4. Discharge pipe and lube line are locked to support plate for good support and vibration-free operation.
5. Discharge pipe is filament-wound fiberglass with a flanged connection above the mounting plate as standard.
6. Single-piece, filament-wound fiberglass column is generously sized in diameter and wall thickness for strength and rigidity.
7. Bearings can be lubricated by external flush, or self-lubricated by the pumped fluid. For external flush, an individual lube line to each bearing ensures generous flush for long service life.
8. Optimized shaft/bearing system operates well below the first critical speed, resulting in less shaft whip and longer bearing life. All intermediate bearings and the heavy-duty dual bottom bearings are made of PTFE or carbon.
9. Shaft metallurgy is selected to suit the application: 316 stainless, Alloy 20, Titanium, or Hastelloy.
10. Tapered "polygon" impeller drive provides exceptional torque carrying capacity with unequalled shear strength for durability.
11. Unitized fiberglass pump casing with integrally molded suction and discharge nozzles offers structural strength and reliability, and excellent loading factors. Smooth hydraulic passages boost efficiency and lower operating costs.
12. Radial fit and square fit "O"-rings about the cover and impeller respectively ensure a good seal. Patented, "pullout" bearing retainer streamlines maintenance procedure. Bearing retainers and locknuts are fiberglass-reinforced polymer.
13. Full basket strainer, generously sized, protects the pump from clogged suction and fluid starvation.
14. Vinyl Ester Mounting Plate.



The VGRP is a vertical immersion sump pump designed to meet the needs of the process industries with single material standardization, strength, long life and the first truly low-maintenance fiberglass design.

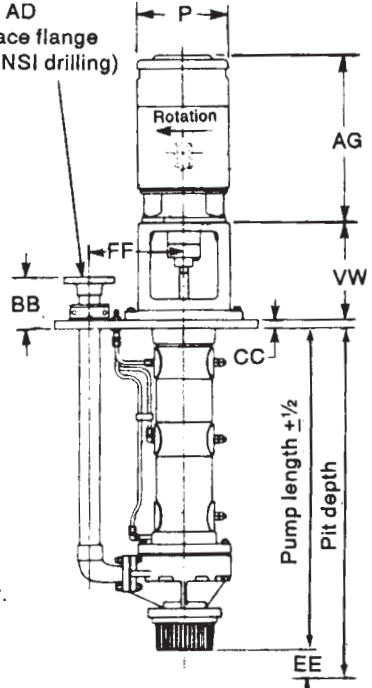
FLOW CURVES



DIMENSIONS

GROUP	PUMP SIZE	DISCH. FLANGE AD	PUMP DIMENSIONS				MOTOR FRAME				MTG. PLATE						
			BB	CC	EE	FF	143 thru 256 LP VW		284 thru 326 LP VW		STD.		W1	L1	W2	L2	
#1	1½ x 1 x 6 3 x 2 x 6	2 2	in. mm	7-1/4 184	3/4 19	4-7/16 111	11-1/8 283	11-5/16 287	13-1/16 332	16 406	24 610	24 610	26 660				
#2	3 x 1½ x 8	2	in. mm	7-1/4 184	1 25	4-5/8 117	13-1/8 333	12-15/16 329	14-11/16 373	24 610	30 762	24 610	30 762				
	4 x 3 x 8	3	in. mm	9 229	1 25	4-5/8 117	16-5/8 422	12-15/16 329	14-11/16 373	24 610	33 838	24 610	33 838				
	3 x 1½ x 10	2	in. mm	7-1/4 184	1 25	4-5/8 117	13-1/8 333	12-15/16 329	14-11/16 373	24 610	30 762	24 610	30 762				
	4 x 3 x 10	3	in. mm	9 229	1 25	4-5/8 117	16-5/8 422	12-15/16 329	14-11/16 373	24 610	33 838	24 610	33 838				
	6 x 4 x 10	4	in. mm	9 229	1 25	4-1/4 108	20-1/8 511	12-15/16 329	14-11/16 373	24 610	39 991	24 610	39 991				

NOTE: Pumps are sized to fit depths as listed. Pumps are furnished in incremental lengths to match pit depths in 1-foot increments only. Pump length equals pit depth minus **EE**. Add 1/2" to **BB** dimension when product lubricated bearings are furnished. Dimensions **P** and **AG** vary with motor.



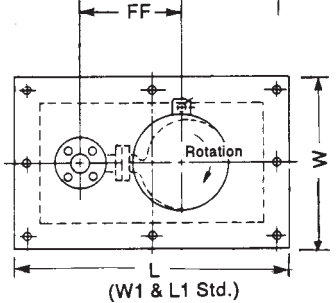
TO ORDER

Select pump size, pit depth, bearing material, operating temperature, shaft sleeve material and motor. Build Model Number and Price Code Number as shown in example below.

EXAMPLE: TYPICAL MODEL NUMBER PRICE CODE NO. 39-_____

VGRP3X2X6 -5P -TF 90°F -SS -D.3.0 = 39-2051SE

PUMP SIZE PIT DEPTH BEARING TEMPERATURE SLEEVE MOTOR



VERTICAL & TOP VIEW

SIZE		PIT DEPTH		BEARING			SHAFT		
MODEL	PRICE CODE NO.	ADD TO		MATERIAL	ADD TO		MATERIAL	ADD TO	
		MODEL (Ft.)	PRICE CODE NO.		MODEL	PRICE CODE NO.		MODEL	PRICE CODE NO.
VGRP1½ x 1 x 6	1	3P	03	PTFE Carbon	TF	1	316SS (Std.)	SS	S
VGRP3 x 2 x 6	2	4P	04		C	2	Alloy 20	A	A
VGRP3 x 1½ x 8	3	5P	05				Hastelloy B	B	B
VGRP4 x 3 x 8	4	6P	06				Hastelloy C	C	C
VGRP3 x 1½ x 10	5	7P	07				K-Monel	K	K
VGRP4 x 3 x 10	6	8P	08				Titanium	T	T
VGRP6 x 4 x 10	7	9P	09						
		10P	10						

OPTIONAL

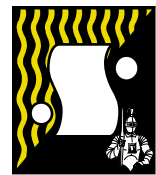
MOTOR HORSEPOWER (230-460/3/60, TEFC)														
RPM	ADD TO		1½	2	3	5	7½	10	15	20	25	30	40	50
	MODEL	PRICE CODE												
3450	D (H.P.)	NO.	A	C	E	G	J	L	N	Q	S	U	W	Y
1725	H (H.P.)	NO.	B	D	F	H	K	M	P	R	T	V	X	Z

DESCRIPTION	PRICE CODE NO.
TFE "O"-rings & gaskets	39-0000
TFE lubricating tube w/PVDF fittings	39-0001
Larger mounting plate for use with product flush or float switch assembly (W2 x L2 dimensions).	Group #1
	Group #2

Consult Factory for:
 Suction extensions for pit depths over 10 feet.
 Thrust bearing design incorporating flexible coupling.
 Explosion-proof motors.

For Level Controls and Motor Starters See Bulletin

F. O. B. Northbrook, Illinois



SERFILCO, LTD.
 2900 MacArthur Blvd. 847-509-2900
 Northbrook, IL 60062-2005 U.S.A. 800-323-5431
 e-mail: sales@serfilco.com FAX: 847-559-1995
 www.serfilco.com

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