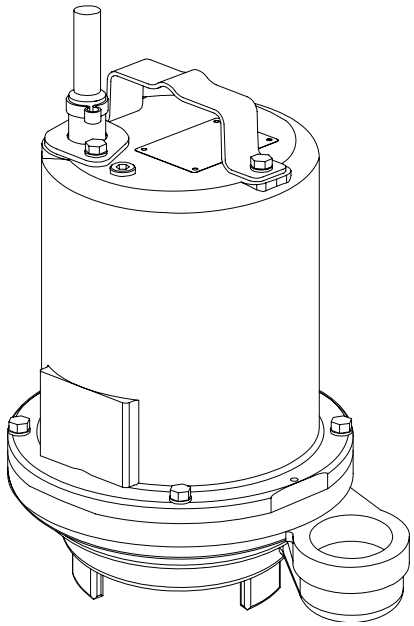
Submersible Effluent Pumps

Specifications:

DISCHARGE		2” NPT, Female, Vertical
LIQUID TEMPERATURE		104°F (40°C) Continuous
VOLUTE		Cast Iron ASTM A-48, Class 30
MOTOR HOUSING		Cast Iron ASTM A-48, Class 30
SEAL PLATE		Cast Iron ASTM A-48, Class 30
IMPELLER:	*Design*	Single Vane, Enclosed
	Material	Polypropylene with stainless steel insert
SHAFT		416 Stainless Steel
SQUARE RINGS		Buna-N
HARDWARE		300 Series Stainless Steel
PAINT		Air Dry Enamel
SEAL:	*Design*	Single Mechanical
	Material	Carbon/Ceramic/Buna-N Hardware -300 Series Stainless
CORD ENTRY		15 ft. (5m) Cord with plug on 120 volt & 240 volt, 1 phase. Quick connect custom molded for sealing and strain relief
UPPER BEARING		Single Row, Ball, Oil lubricated
LOWER BEARING		Single Row, Ball, Oil lubricated
MOTOR:	*Design*	NEMA L -Single Phase, NEMA B -Three Phase Torque Curve, Oil Filled, Squirrel Cage Induction
	Insulation	Class B
SINGLE PHASE		Permanent Split Capacitor (PSC) Includes Overload Protection in Motor
THREE PHASE		200-240/480 is Tri-Voltage. 600V. Requires Overload Protection to be included in control panel
LEVEL CONTROL		**"A" -** Wide Angle, PVC, Mechanical, Pipe Mounted, 15 ft. (4.6m) cord with Piggy-Back Plug
OPTIONAL EQUIPMENT		Seal Material, Impeller Trims, Additional cord, Normally Closed Temperature Sensors with cord for 3 phase pumps (Requires relay in control panel),



Series: STEP-SS
.5 & 1HP, 3450RPM, 60Hz

Submersible Wastewater Pump Association SWPA MEMBER

C SA US
CSA 108
UL 778
LR16567

Sample Specifications: Section 3 Page 2.

DESCRIPTION:

PUMP IS DESIGNED FOR HANDLING SEWAGE EFFLUENT IN TYPICAL SEPTIC TANK/EFFLUENT APPLICATIONS.

Series STEP-SS

3/4" Spherical Solids Handling
Single Seal

BARNES®

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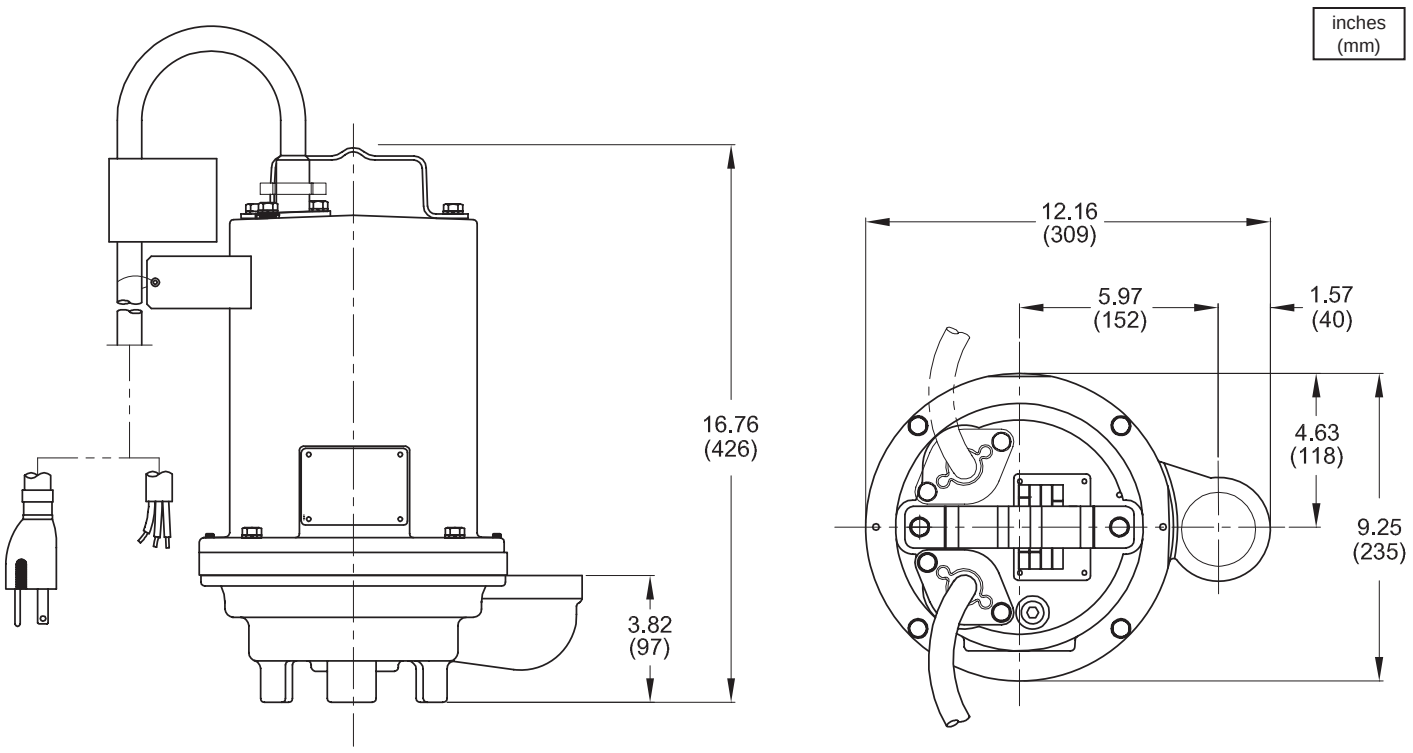
Submersible Effluent Pumps



MODEL NO	PART NO	HP	VOLT/PH	Hz	RPM (Nom)	NEMA START CODE	FULL LOAD AMPS	LOCKED ROTOR AMPS	CORD SIZE	CORD TYPE	CORD O.D inch (mm)
STEP512SS	105045	0.5	120/1	60	3450	G	11.9	24.6	14/3	SJTOW	0.375 (9.5)
STEP512SSA	105045A	0.5	120/1	60	3450	G	11.9	24.6	14/3	SJTOW	0.375 (9.5)
STEP522SS	105046	0.5	240/1	60	3450	E	5.1	10.2	14/3	SOW	0.530 (13.5)
STEP592SS	105047	0.5	200/240/3	60	3450	P/R	4.5/4.5	19.9/18.4	14/4	SOW	0.570 (14.5)
STEP542SS	105048	0.5	480/3	60	3450	R	2.2	9.1	14/4	SOW	0.570 (14.5)
STEP552SS	105049	0.5	600/3	60	3450	T	1.8	8.7	14/4	SOW	0.570 (14.5)
STEP1022SS	105054	1.0	240/1	60	3450	F	8.3	21.8	14/3	SOW	0.530 (13.5)
STEP1092SS	105055	1.0	200/240/3	60	3450	H/J	5.9/5.6	19.9/18.4	14/4	SOW	0.570 (14.5)
STEP1042SS	105056	1.0	480/3	60	3450	J	2.8	9.1	14/4	SOW	0.570 (14.5)
STEP1052SS	105057	1.0	600/3	60	3450	L	2.2	8.7	14/4	SOW	0.570 (14.5)

OPTIONAL - Temperature sensor cord for 3 phase models is 14/3 SOW, .530 (13.5mm) O.D.

IMPORTANT !

1.) PUMP MAY BE OPERATED “DRY” FOR EXTENDED PERIODS WITHOUT DAMAGE TO MOTOR AND/OR SEALS.
2.) THIS PUMP IS APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS I DIVISION II HAZARDOUS LOCATIONS.
3.) THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS I DIVISION I HAZARDOUS LOCATIONS.
4.) INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.

CRANE®
A Crane Co. Company

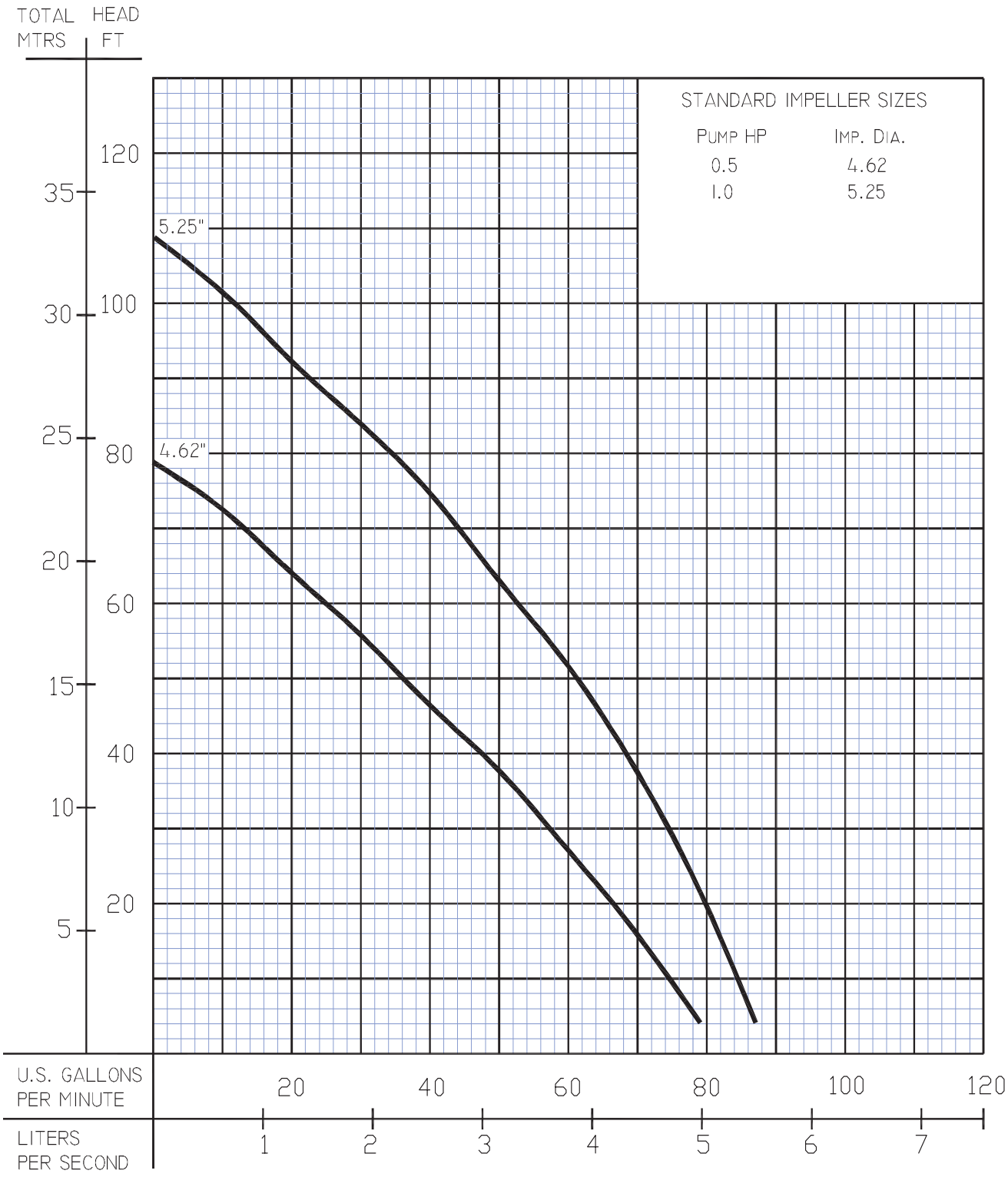
PUMPS & SYSTEMS

USA: (937) 778-8947 • Canada: (905) 457-6223 • International: (937) 615-3598

Series STEP-SS
Performance Curve
.5 & 1HP, 3450RPM, 60Hz

Submersible Effluent Pumps

inches (mm)



Testing is performed with water, specific gravity 1.0 @ 68º F @ (20ºC), other fluids may vary performance