



## INSTALLATION & OPERATING INSTRUCTIONS



SEWAGE PUMPS

SVX SERIES

VC :  SAP NO. 2900000845



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**1. GUIDELINES**

Please follow the instructions given in this manual before the installation & maintain your SVX pump to get reliable operation.

When you order spare parts in future, please inform the nameplate details i.e. Serial Number, Pump Type and other data.

MODEL :

Serial NO:

1PH /.....V/.....Hz /..... A , ..... RPM , cos  $\phi$  .....

Suction X Delivery Size ..... mm , Overall Eff.%.....

Duty Head ..... METER , Duty Discharge ..... LPM

Head Range : ..... - ..... METER

Capacitor Run-Start: .....MFD - ...../.....MFD

MIN.SUBMRG. - 0.33 M, DUTY TYPE - S1

Degree of Protection - IP 68

NET WT: ..... kg. GROSS WT: ..... kg.

Material:..... Date of mfg : .....

Made in india Mfg by: Shakti Pumps (I) Ltd.



Fig 1 - Name Plate with date of mfg.

**2. SAFETY**

The SVX pump must be only operated in observance of the following safety regulation.

- Operate the pump only under water.
- Check the electrical system and fusing before switching on.
- Protect electrical system and fusing before switching on.
- Maximum water temperature +40°C, higher temperature only with derated motors

With generator operation always unload the generator first, i.e.

Start : First the generator, then the pump

Switch-off : First the motor, then the generator

After powering the system check :

Operating current of the motor at each phase

Mains voltage with the pump running

Level of the medium to be pumped

Switch off the motor immediately if :

Name plate current is exceeded

Voltage tolerances of more than +6% / -10%

Compared to the rated voltage on the motor are measured

Dry run is imminent

**3. APPLICATION**

SVX pump is applicable for the domestic civil & industrial applications where the water such as ground water, surface water and sewage water contains suspended solids upto  $\phi$  50 mm

**4. DELIVERY & STORAGE**

SVX pump are supplied from the factory in proper packing in which they should remain until they are to be installed. During unpacking and prior to installation, care must be taken when handling the pump to ensure that the pump should be place vertically.

**5. INSTALLATION**

**5.1. OPERATING CONDITION**



- Maximum immersion Depth : 5 m
- Maximum liquid temp : +40°C
- Solid passage
  - Up to 35 mm - SVX 10-15/35
  - Up to 50 mm - SVX 10-15/50
- Minimum Immersion depth
  - 290 mm for SVX 10-15/35
  - 320 mm for SVX 10-15/50

**5.2. GUIDELINES FOR PUMP INSTALLATION.**

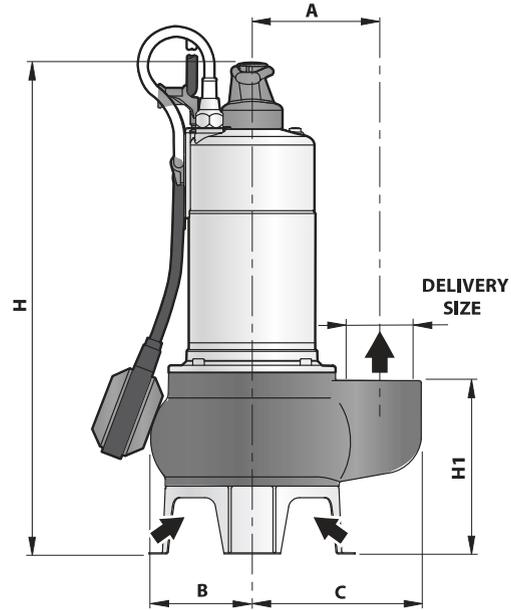
**⚠ Attention**

- 1) Before starting work on the pump, make sure that electricity supply has been switched off and that it cannot be accidentally switched on.
- 2) Provide earth leakage circuit breaker in the panel board to avoid electric shock incase of earth leakage. Provide proper earth to the pump.
- 3) Ensure to connect with appropriate power supply
- 4) Ensure correct direction of rotation. Before installation, if found wrong reverse the direction of rotation.
- 5) Don't keep the power supply terminals exposed to sun and rain.
- 6) For Pumps supplied with a level switch, the difference in level between start & stop can be set by adjusting the free cable between the levels witch and the pump handle. The longer the lengths of free cable the larger the difference in level between start & stop.
- 7) Ensure free movement of float cable inside the sump.
- 8) Don't be in the water when pump is running.
- 9) If cable found cut, damaged & punctured, don't run the pump. Replace the Cable.
- 10) Don't lift the pump by using cable. Use handle or rope to lift the pump.
- 11) Don't support the pump with power cable.
- 12) Use supporting ropes or chain to hang the pump.
- 13) Position the pump, the suction strainer should not be blocked or partly blocked by sludge mud or similar material. In case of permanent installation, the pit must be cleared of sludge, pebbles etc. before the pump installed.
- 14) Don't service the pump when the power supply is on.
- 15) Don't touch the pump when it is hot. Properly clean and store the pump after every usage.

**5.3 TECHNICAL SPECIFICATION:**

DESCRIPTION	VALUE
Model	1Φ- 0.75/1.1 kW 3Φ- 0.75/1.1 kW
Voltage Range	1Φ- 230 V 3Φ - 380 - 415 V
Frequency Tolerance	± 2%
Voltage Tolerance	+6/-10% of rated voltage
Speed	Appx. 2900 RPM, 50 Hz.
Start Alternatives	Direct Starting.
Switching Frequency	Max 20 Switching action per hour with a minimum off time of 90 S
Protection	IP 68
Insulation Class	F
Liquid Temperature	MAX 40°C
Immersion Depth	Max 5 m. Min 0.320 m
Sound Pressure Level	≤ 70 dB (A)
Float Switch	only for single phase version
Capacitor	25 MFD 440 VAC

6. OUTLINE DIMENSION & PERFORMANCE TABLE

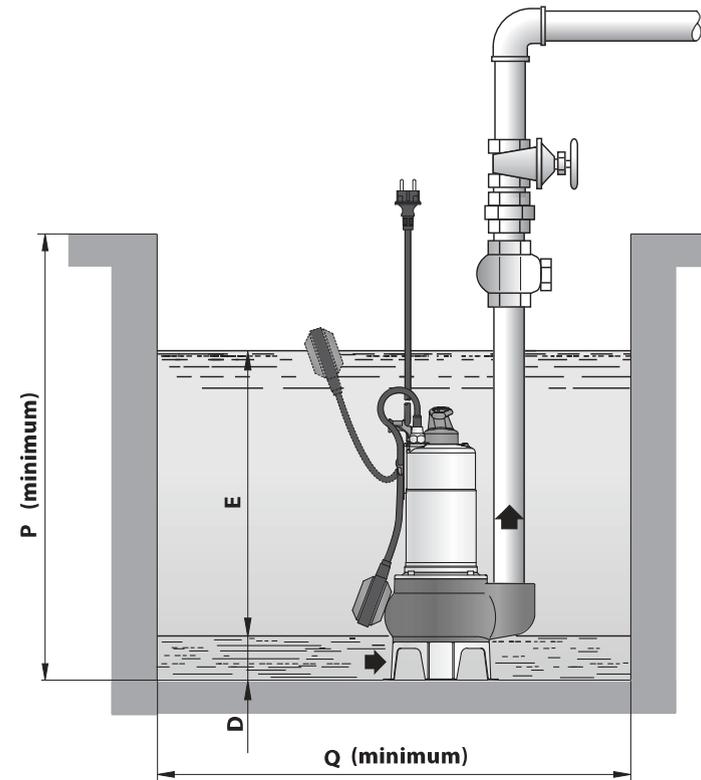


MODEL		DELIVERY SIZE (Inch)	SOLID PASSAGE	DIMENSIONS (MM)						WEIGHT (Kg)	
1Φ	3Φ			A	B	C	H	H1	1Φ	3Φ	
SVX 10/35	SVX 10/35	1 1/2	DIA 35	105	92	136	408	125	13.3	12.1	
SVX 15/35	SVX 15/35			110		143	429	130	16.3	15	
SVX 10/50	SVX 10/50	2	DIA 50	110	97	150	437	153	13.9	12.1	
SVX 15/50	SVX 15/50			115		157	458	159	17	15.6	

PERFORMANCE TABLE

MODEL		POWER		Q	m <sup>3</sup> /h	H meters												
1Φ	3Φ	kW	HP			l/min	0	3	6	9	12	15	18	21	24	27	30	
SVX 10/35	SVX 10/35	0.75	1.0	H meters	10	9.5	8.5	7.2	5.8	4	2							
SVX 15/35	SVX 15/35	1.1	1.5		15	14	13	11.8	10.5	9	7.5	6	4	2				
SVX 10/50	SVX 10/50	0.75	1.0		7.5	7	6.5	5.8	5	4	3.2	2.4	1.5					
SVX 15/50	SVX 15/50	1.1	1.5		11	10.5	10	9.5	9	8.3	7.5	6.8	6	5	4			

7. TYPICAL INSTALLATION



MODEL		DIMENSIONS (MM)			
1Φ	3Φ	D	E	P	Q
SVX 10/35	SVX 10/35	50	VARIABLE	500	500
SVX 15/35	SVX 15/35				
SVX 10/50	SVX 10/50	60	VARIABLE	500	500
SVX 15/50	SVX 15/50				



**BOOK-POST**

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