

# **SP Series**

## **Non-Clogging Self-Priming Sewage Pump**



**Shindo**



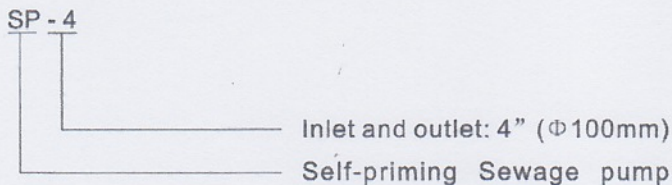
## INTRODUCTION

SP Non-clogging self priming sewage pump is our latest developed product, and is suitable for the treatment project of municipal sewage and industrial sewage as well as stage treatment and concentrated treatment system of various sewages. It's known as "King of Self priming Sewage Pump", and the most ideal new-generation sewage product.

## 1、Application

- Non flammable and non-explosive liquid;
- Rain water and common sewage;
- Municipal drainage project, construction site, drainage station of people's air defense system;
- Industrial sewage of light industry, paper mill, textile, food processing plant, chemical industry, electric utility, deep mines, etc;
- Sewage discharge in the residential area;
- Sewage and deposit of water purifying system;
- Tanning industry, sewage of slaughter house, fish breeding in the river and pond;
- Wine and sugar industry;
- Sewage discharge not having strong corrosiveness but seriously polluted.

## 2、Model Code



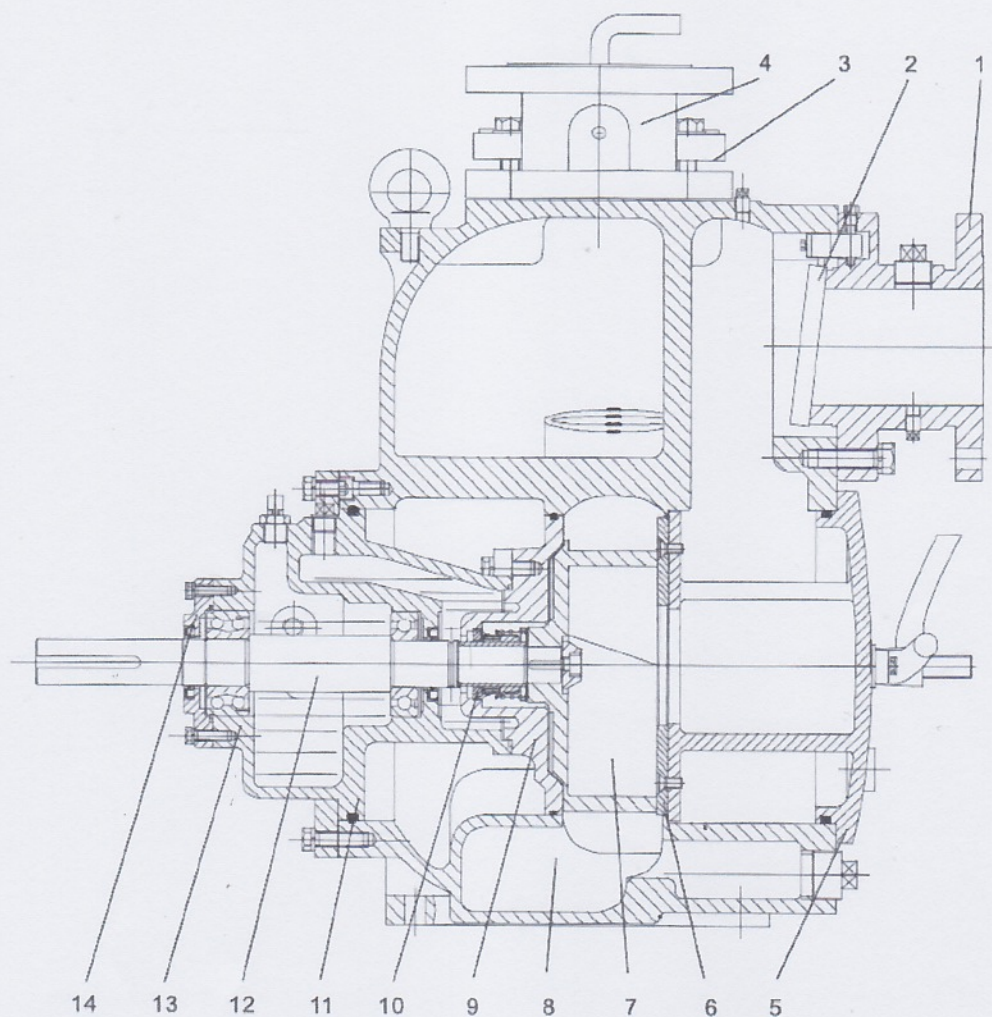
## 3、Operating condition

- Liquid temperature: 0℃-40℃, medium density  $\leq 1.2 \times 10^3 \text{kg/m}^3$ , PH5-9;
- Volume ratio of solids in the medium  $\leq 2\%$ ;
- Diameter of maximum grain free pass: SP-3: 63mm; SP-4: 76mm; SP-6: 76mm;
- Ambient temperature:  $\leq 40^\circ\text{C}$ ;
- Altitude: Max. 1, 000m;
- Max. working pressure: see Performance Curve;
- Max. Suction head: see Performance Table.

## 4、Features

- Stable performance, reliable operation;
- The motors clockwise rotation from drive;
- The pump shall be installed on the pedestal, axial suction and radial discharge;
- Back-pull-out construction: Convenient for maintenance and troubleshooting. Daily maintenance can be performed rapidly by common head tools, saving time and labor;
- Semi-open impeller structure and non-clogging design: Strong passing capacity. Diameter of maximum passing grain for SP-6 is 76mm
- Convenient usage: The pump can be mounted high and dry at floor level. With only the suction line down in the liquid(the pump shall be filled with water for first start).





NO	Parts Name	Material	AISI/SAE
1	Suction Inlet	HT200	No35B
2	Flap valve	NBR+Q235A	NBR+1035
3	Infusion Cover	HT200	NO35B
4	Discharge Outlet	HT200	NO35B
5	End Cover	HT200	NO35B
6	Wear Plate	45	1045
7	Impeller	QT400-18 or 304s.s	A60-40-18
8	Volute	HT200	No35B or 304s.s
9	Seal Base	HT200	No35B
10	Cartridge mechanical seal	WC/WC	WC/WC
11	O-Ring	NBR/FPM	NBR/FPM
12	Shaft	2Cr13	410
13	Bearing Body	HT200	No35B
14	Bearing Cover	HT200	No35B





## PERFORMANCE CURVE

SP-3

### DATA SHEET

NET WEIGHT: 190kg

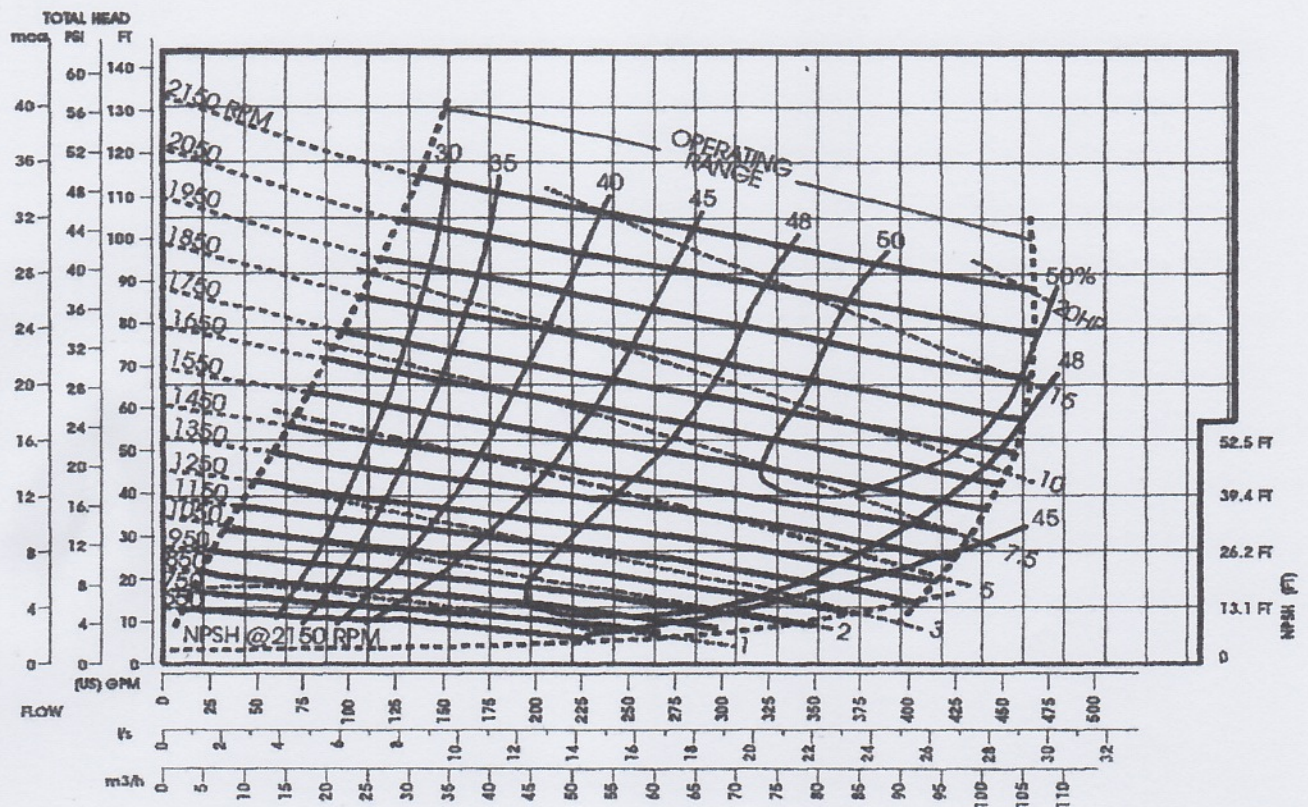
IMPELLER DIA: 225mm

R.P.M. FROM 650rpm TO 2150rpm

MAX SOLIDS: 63mm(2.1/2")

### SELF-PRIMING

RPM	m(ft)	RPM	m(ft)
650	1.5(5)	750	1.8(6)
850	2.4(8)	950	3.0(10)
1050	4.0(13)	1150	4.9(16)
1250	5.5(18)	1350	5.8(19)
1450	6.4(21)	1550	6.4(21)
1650	6.7(22)	1750	6.7(22)
1850	7.6(25)	1950	7.6(25)
2050	7.6(25)	2150	7.6(25)





## PERFORMANCE CURVE

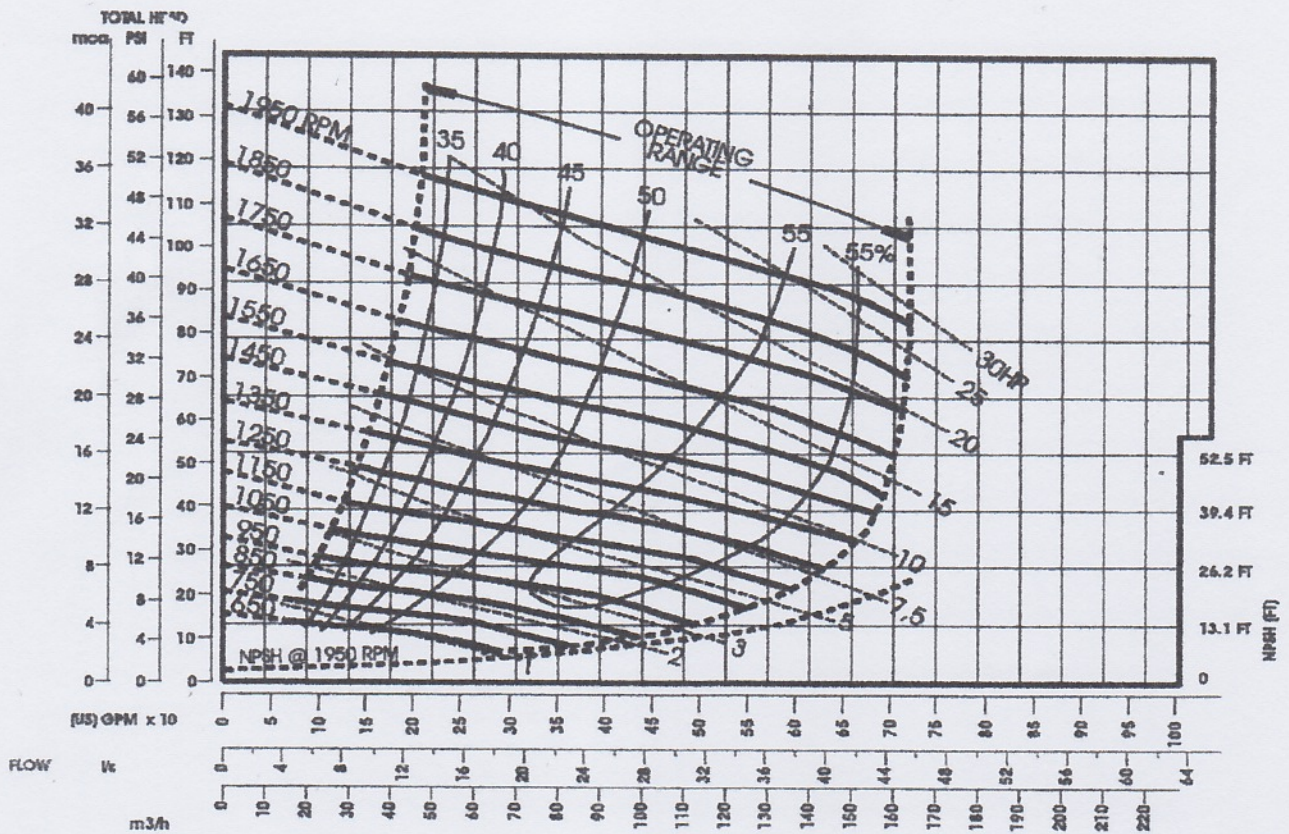
SP-4

### DATA SHEET

NET WEIGHT: 296kg  
 IMPELLER DIA: 250mm  
 R.P.M. FROM 650rpm TO 1950rpm  
 MAX. SOLIDS 76mm(3")  
 SELF-PRIMING

### SELF-PRIMING

RPM	m(ft)	RPM	m(ft)
650	1.5(5)	750	2.4(8)
850	4.9(16)	950	5.8(19)
1050	6.7(22)	1150	7.3(24)
1250	7.6(25)	1350	7.6(25)
1450	7.6(25)	1550	7.6(25)
1650	7.6(25)	1750	7.6(25)
1850	7.6(25)	1950	7.6(25)







## PERFORMANCE CURVE

**SP-6**

### DATA SHEET

NET WEIGHT: 438kg

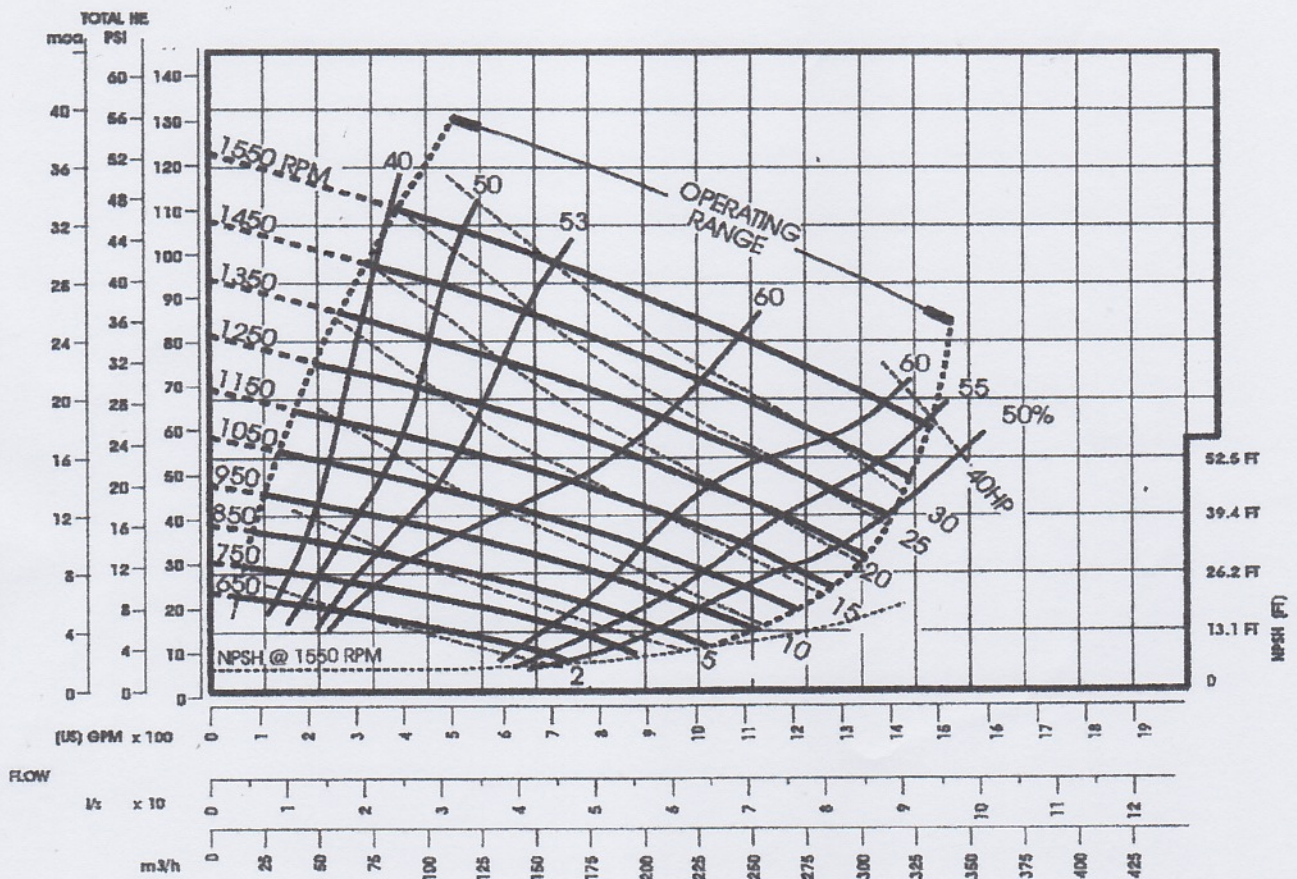
IMPELLER DIA: 315mm

R.P.M. FROM 650rpm TO 1550rpm

MAX. SOLIDS 76mm(3")

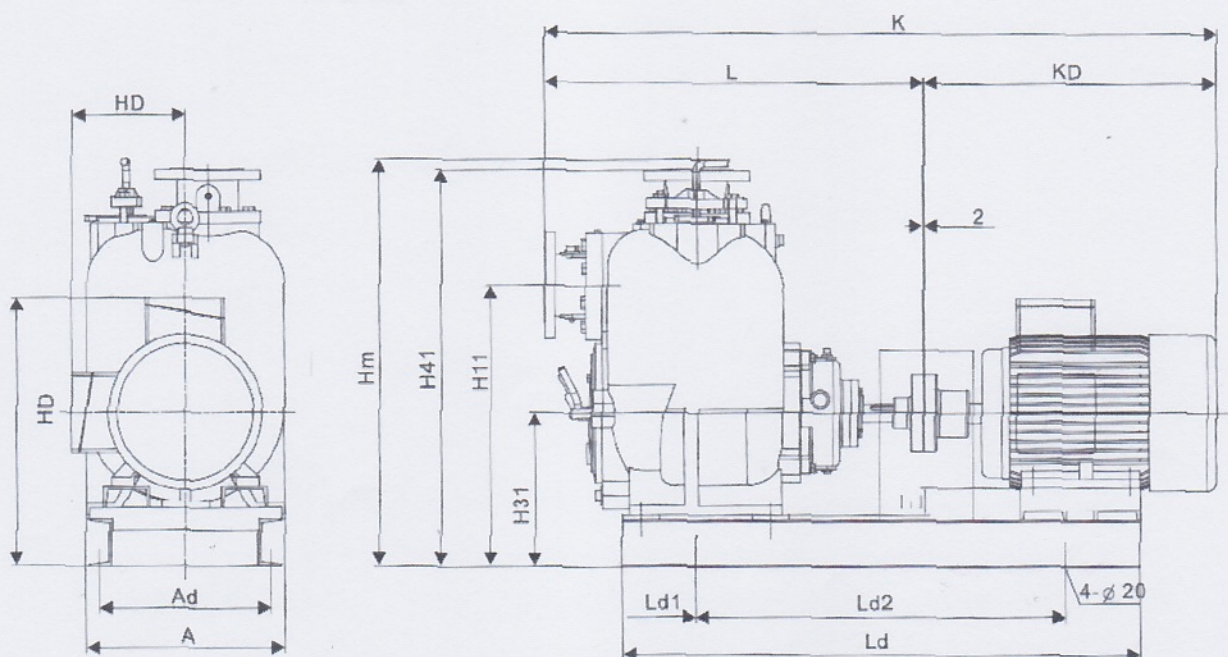
### SELF-PRIMING

RPM	m(ft)	RPM	m(ft)
650	2.4(8)	750	2.7(9)
850	3.6(12)	950	4.2(14)
1050	5.5(18)	1150	6.4(21)
1250	6.4(21)	1350	6.7(22)
1450	7.0(23)	1550	7.6(25)





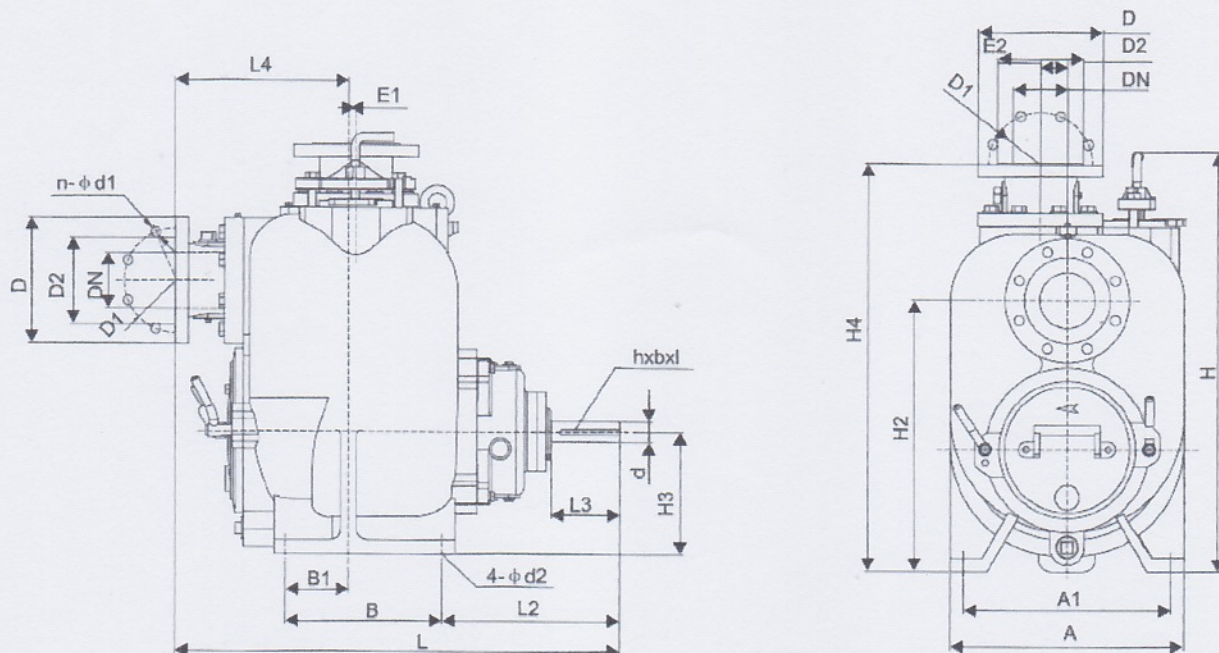
## OUTLINE DRAWING



## Dimension of Pump With Motor

Type	Speed	Motor	Installation Dimension					Profile Dimension							
	RPM		Ad	Ld2	H11	H31	H41	K	Am	Hm	HD	AD	EL	dL	d1
SP-3	750	Y2-112M-8	330	621	300.5	542	761	1134	380	785	489	190	78.5	861	120
	950	Y2-100L-6		614				1119			471	180	90.5	854	
	1450	Y2-132S-4		660				1204			514	210	58.5	900	
SP-4	750	Y2-112M-8	370	663	332.2	606.3	843	1236	430	871	520	190	110.2	963	150
	950	Y2-132S-6		702				1306			545	210	90.2	1002	
	1450	Y2-160M-4		821				1451			592	255	62.2	1121	
SP-6	750	Y2-160M1-8	510	784	393	701	1022	1544	590	996	653	255	97.2	1084	150
	950	Y2-160M-6		784				1544			653	255	97.2	1084	
	1450	Y2-180L-4		860				1669			668	280	77.2	1166	





## Pump Dimensions

Item		SP-3		SP-4		SP-6	
		Metric	English	Metric	English	Metric	English
Suction & Discharge	DN	3" (76)(PN0.6MPa)		4" (100)(PN1.0MPa)		6" (152.5)(PN1.0MPa)	
	D	190		220	9" (228.6)	285	11" (279.4)
	D1	152		180	7.5" (190.5)	240	9.5" (241.3)
	D2	128		158		214	
	N-φd1	4-φ18		8-φ18		8-φ21	
Installation Dimension	H2	431.8		495.3		574.3	
	A	377		428		580	
	A1	328		373		527	
	B	228.6		279.4		279.4	
	B1	76.2		110		77.8	
	L2	285		326		294	
	d2	φ18		φ18		φ18	
	H3	190.5		222.2		257.2	
	L3	102		127		127	
	d	φ38	φ1.5"(38.1)	φ38	φ1.5"(38.1)	φ38	φ1.5"(38.1)
	H×b×l	10×5×80	38×19×3.0	10×5×90	38×19×3.50	10×5×90	38×19×3.50
Profile Dimension	H	697.5		760		875	
	H4	652		735		887.7	
	L	712.2		813.5		906.6	
	L4	277		318		411	
	E1	15		13		0	
	E2	50		50		50	
(Kg)/Weight		190		275		438	