



APEC-SUN

Submersible Pump

SV-Series



APPLICATIONS:

- Use at relay pump stations or manholes to relay raw water.
- Use at food processing factories or livestock production facilities to discharge sewage and sludge.
- Controlling flow rate and discharging at night soil treatment plants.
- Controlling flow rate and discharging at combined treatment plants.
- Discharging sludge and scum at industrial waste water treatment plants.

FEATURES:

MOTOR

Dry type motor with Class E (or Class F) insulation is employed.

MOTOR PROTECTOR

A built-in automatic reset type motor protector (automatic cutoff or thermal protector) positively protects the motor from burnout due to overload, impeller clogging and open phase.

IMPELLER

A vortex type impeller most suitable for each application is employed. Also, dynamic and static balance of impeller adjusted.



SHAFT SEAL

A highly wear resistant silicon carbide double mechanical seal positively prevents the water from penetrating into the motor chamber. Besides, combined use of an oil seal further extends the service life of the mechanical seal.

DISCHARGE CONNECTION

When the automatic connection type submersible pump is lowered along with the guide pipe, the pump is automatically connected to the discharge pipe with the discharge connection.

CABLE OUTLET with CORE SEALER

The self-contained core sealer of the cable outlet shuts the water out from penetrating into the motor chamber through the core wires even if the cable tip is immersed in water or the sheath is damaged.

MAIN SPECIFICATIONS:

HANDLING LIQUID

- Kind of Liquid: Waste Water and Sewage including Sludge

MATERIAL

- Cable: VCT (Over 11kW: 2RNCT)
- Motor Shaft: SUS 420J2
- Pump Casing: FC 200
- Impeller: FC 200

ELECTRIC MOTOR

- Type: Dry-type Submersible Induction Motor
- Insulation Class: Class E (or Class F)
- Enclosure: IP68
- Phase: Three-Phase
- Voltage: According to the specifications

SPECIAL SPECIFICATIONS:

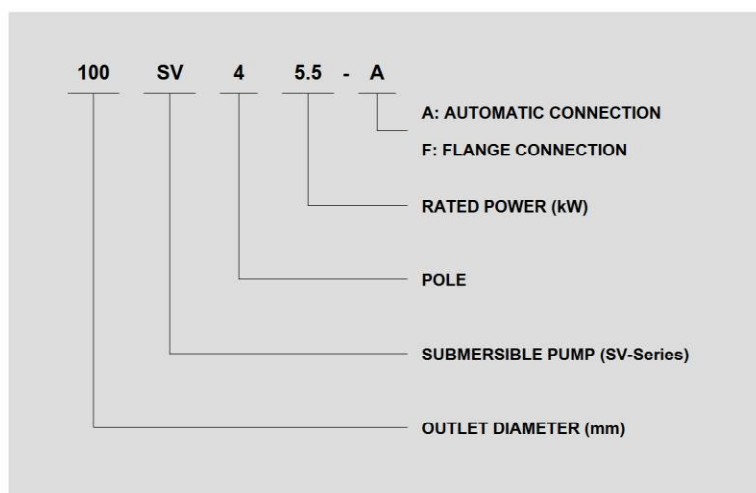
CABLE EXTENSION:

- Length of Cable 15, 20, and 30m

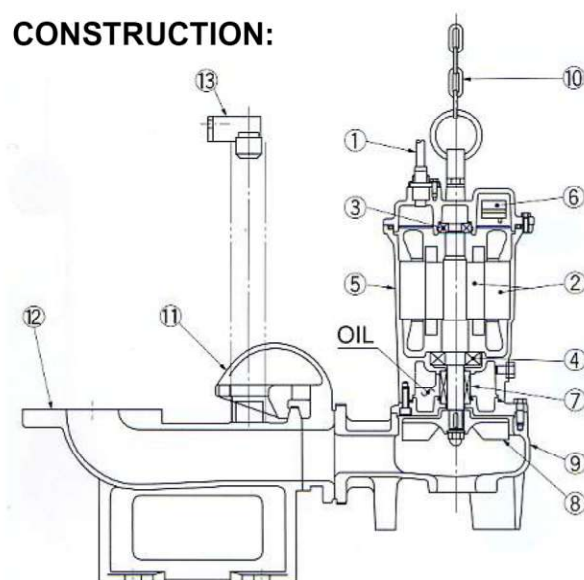
MATERIAL CHANGE:

- Impeller: SCS13 (SUS 304)
- Base Cover: SCS13 (SUS 304)
- lifting Chain: SUS 304

TYPE DESCRIPTION:



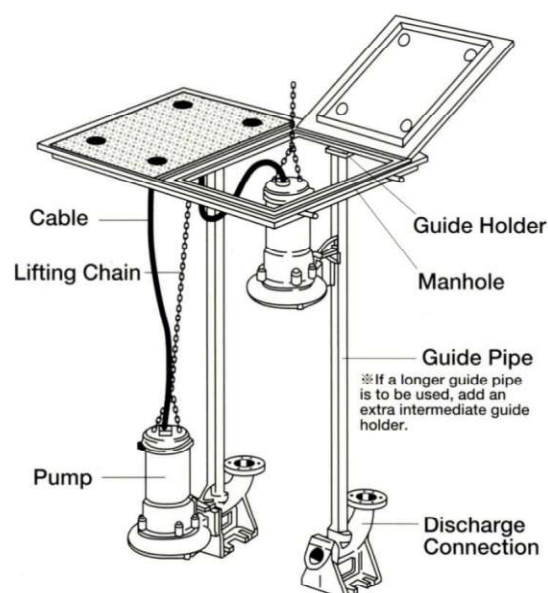
CONSTRUCTION:



NO.	NAME	MATERIAL
1	Cable	VCT
2	Motor	Shaft = SUS 420J2
3	Ball Bearing (Upper)	-
4	Ball Bearing (Lower)	-
5	Stator Casing	FC200
6	Auto Cut	-
7	Mechanical Seal	-
8	Impeller	FC200
9	Pump Casing	FC200
10	Lifting Chain	SS400
11	Sliding Bracket	FC200
12	Connection	FC200
13	Guide Holder	SCS13

AUTOMATIC CONNECTION:

When the pump is lowered along with the guide pipe, it is automatically connected to the discharge pipe with discharge connection, to remove the pump, simply lift it up out of the tank, no bolt, nut and packing are required for the connection. The automatic connection system has simplified the maintenance. It is not necessary to enter the tank or evacuate the tank for removing the pump or loosening or tightening the bolts.



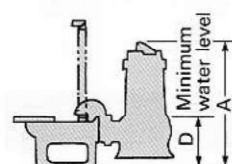
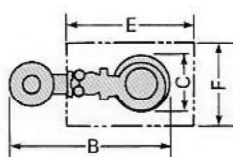
SPECIFICATIONS:

PUMP MODEL	CONNECTION PART No.		CAPACITY (m ³ /min)		HEAD (m)		POWER	POLE	DIA	IMPELLER	WEIGHT
	Automatic	Flange	50Hz	60Hz	50Hz	60Hz	(kW)		(mm)	PASSAGE (mm)	(kg)
50SV20.4	A50	F50	0.15	0.15	5.9	5.9	0.4	2	50	35	17
50SV20.75			0.2	0.2	8.5	8.5	0.75				18
50SV21.5			0.2	0.2	14.7	15.2	1.5				26
65SV20.4	A65B	F65B	0.15	0.15	5.9	5.9	0.4	2	65	35	17
65SV20.75			0.2	0.2	8.5	8.5	0.75				18
65SV21.5			0.2	0.2	14.7	15.2	1.5				26
	A65	F65	0.4	0.4	8.7	8.2	1.5	4		46	29
0.8			0.7	7.4	7.7	2.2	42			58	
1.0			0.9	9.7	10.5	3.7				70	
80SV21.5	A80	F80	0.4	0.4	8.7	8.2	1.5	2	80	46	29
80SV42.2	A80B		0.8	0.7	7.4	7.7	2.2	4		42	58
80SV43.7			1.0	0.9	9.7	10.5	3.7				70
80SV45.5			1.2	1.2	11.3	12.1	5.5				95
80SV47.5			[1] 1.3	[2] 1.3	[1] 13.8	[2] 14.3	7.5				108
			[3] 0.8	[4] 0.8	[3] 18.5	[4] 19.5	7.5				
100SV42.2	A100B	F100	0.8	0.7	7.4	7.7	2.2	4	100	42	58
100SV43.7			1.0	0.9	9.7	10.5	3.7				70
100SV45.5			1.2	1.2	11.3	12.1	5.5				95
100SV47.5			[1] 1.3	[2] 1.3	[1] 13.8	[2] 14.3	7.5				108
			[3] 0.8	[4] 0.8	[3] 16.5	[4] 19.5	7.5				
150SV45.5	A150	F150	1.6	1.3	8.9	8.6	5.5	4	150	65	120
150SV47.5			1.9	1.6	9.4	10.5	7.5				132
150SV411			1.9	1.67	16	16	11				185
150SV415			2.15	2.05	19	20	15				197
150SV422			2.75	2.15	23	23	22			68	256

[] Number of impeller.

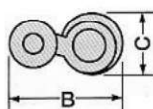
DIMENSIONS:

Automatic Connection



PUMP MODEL	PART	A	B	C	D	E	F
50SV20.4	A50	461	427	156	180	550	350
50SV20.75							
50SV21.5		501	448	176	195	550	350
65SV20.4	A65B	461	500	156	180	550	350
65SV20.75							
65SV21.5	A65	539	627	182	235	550	350
65SV42.2		580	754	292	220	600	500
65SV43.7		642	773	331	220	600	500
80SV21.5		579	703	182	275	550	350
80SV42.2	A80B	620	830	292	260	600	500
80SV43.7		682	849	331	260	700	600
80SV45.5		710	907	355	260	700	600
80SV47.5		745	922	387	260	700	600
100SV42.2		710	843	292	260	600	500
100SV43.7	A100B	745	862	331	260	700	600
100SV45.5		710	920	355	260	700	600
100SV47.5		745	935	387	260	700	600
150SV45.5	A150	779	1094	400	325	900	700
150SV47.5		814	1094	400	325	900	700
150SV411		871	1148	450	345	900	700
150SV415							
150SV422		967	1188	489	345	900	700

Flange Connection



PUMP MODEL	PART	A	B	C	D
50SV20.4	F50	415	229	156	135
50SV20.75					
50SV21.5		455	250	176	150
65SV20.4	F65B	415	324	156	135
65SV20.75					
65SV21.5	F65	455	345	176	150
65SV42.2		474	382	182	170
65SV43.7		550	509	292	190
65SV43.7		612	528	331	190
80SV21.5	F80	474	397	182	170
80SV42.2		550	524	292	190
80SV43.7		612	543	331	190
80SV45.5		640	601	355	190
80SV47.5		675	616	387	190
100SV42.2	F100	550	541	292	190
100SV43.7		612	560	331	190
100SV45.5		640	618	355	190
100SV47.5		675	633	387	190
150SV45.5	F150	713	836	400	260
150SV47.5		748	836	400	260
150SV411		804	890	450	278
150SV415					
150SV422		901	930	489	278

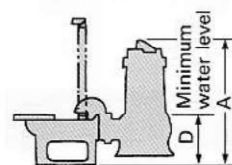
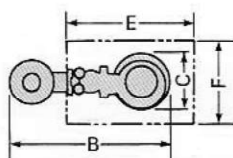
SPECIFICATIONS:

PUMP MODEL	CONNECTION PART No.		CAPACITY (m ³ /min)		HEAD (m)		POWER	POLE	DIA	IMPELLER	WEIGHT
	Automatic	Flange	50Hz	60Hz	50Hz	60Hz	(kW)		(mm)	PASSAGE (mm)	(kg)
40SVS20.15	A40	F40	0.08	0.06	2.8	3.2	0.15	2	40	21	14
40SVS20.25			0.10	0.09	5.0	4.9	0.25				17
50SVS20.25	A50	F65B	0.14	0.12	4.0	4.0	0.25	2	50	28	17
50SVS20.4			0.14	0.14	5.3	5.0	0.4				18
50SVS20.75			0.17	0.17	8.5	8.3	0.75				21
65SVS21.5	A65	F65	0.42	0.38	9.0	9.0	1.5	2	65	30	28.5
65SVS22.2			0.44	0.42	11.0	11.0	2.2				46
65SVS23.7			0.51	0.47	17.0	17.0	3.7				55
80SVS21.5	A80	F80	0.42	0.38	9.0	9.0	1.5	2	80	30	28.5
80SVS22.2			0.44	0.42	11.0	11.0	2.2				46
80SVS23.7			0.51	0.47	17.0	17.0	3.7				55
80SVS25.5			0.45	0.40	22.7	23.6	5.5			35	82
80SVS27.5			0.55	0.45	27.2	28.5	7.5				92
80SVS211			0.6	0.60	33.0	35.6	11				120
100SVS23.7			0.51	0.47	17.0	17.0	3.7				55
100SVS25.5	A100	F100	0.45	0.40	22.7	23.6	5.5	2	100	35	82
100SVS27.5			0.55	0.45	27.2	28.5	7.5				92
100SVS211			0.60	0.60	33.0	35.6	11				120

[] Number of impeller.

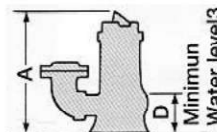
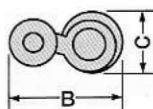
DIMENSIONS:

Automatic Connection



PUMP MODEL	PART	A	B	C	D	E	F
40SVS20.15	A40	441	443	188	170	550	350
40SVS20.25							
50SVS20.25	A50	441	443	188	175	550	350
50SVS20.4		461	443	188	175	550	350
50SVS20.75							
65SVS21.5	A65	516	663	192	200	550	350
65SVS22.2		580	697	266	200	550	350
65SVS23.7		620	697	266	200	550	350
80SVS21.5	A80	556	739	192	240	550	350
80SVS22.2		621	773	266	240	550	350
80SVS23.7		661	773	266	240	550	350
80SVS25.5		698	803	248	255	700	600
80SVS27.5		733	803	248	255	700	600
80SVS211		814	836	284	255	700	600
100SVS23.7	A100	661	786	266	240	550	350
100SVS25.5		698	816	248	255	700	600
100SVS27.5		733	816	248	255	700	600
100SVS211		814	849	284	174	700	600

Flange Connection



PUMP MODEL	PART	A	B	C	D
40SVS20.15	F40	370	245	188	100
40SVS20.25					
50SVS20.25	F65B	383	245	188	115
50SVS20.4		403	245	188	115
50SVS20.75					
65SVS21.5	F65	440	418	192	125
65SVS22.2		538	452	266	160
65SVS23.7		579	452	266	160
80SVS21.5	F80	440	433	192	125
80SVS22.2		538	467	266	160
80SVS23.7		579	467	266	160
80SVS25.5		616	497	248	173
80SVS27.5		651	497	248	173
80SVS211		733	529	284	174
100SVS23.7	F100	579	484	266	160
100SVS25.5		616	514	248	173
100SVS27.5		651	514	248	173
100SVS211		733	529	284	174

ACCESSORIES:

- | | | |
|------------------------|---------|-----------------------|
| - Cable (under 7.5kW.) | 1 set. | 6m. for under 0.75kW. |
| (over 11kW.) | 3 sets. | 8m. for over 1.5kW. |

Automatic Connection Set

- Connection
- Guide Holder (with Bolts and Nuts)
- Sliding Bracket
- Pump Lifting Chain (6m.)

PART	DIA (mm)	SET WEIGHT (kg)	CONNECTION WEIGHT (kg)
A40	40	11	4.5
A50	50	11	4.5
A65B	65	20	14.5
A65	65	24	15
A80	80	31.5	20.5
A80B	80	31.5	18
A100	100	40.5	27
A100B	100	40.5	27
A150	150	60	42

Flange Connection Set

- Discharge Side Flange
- Companion Flange (with Bolts, Nuts, and Packing)

PART	DIA (mm)	SET WEIGHT (kg)
F40	40	Built-in with the pump proper
F50	50	Built-in with the pump proper
F65B	65	5.5
F65	65	7
F80	80	9.5
F100	100	11
F150	150	30