



# Model DVS Submersible Semi Vortex Pumps

Semi vortex impeller design provides non clog operation, suitable for waste water applications that contain soft or fibrous solids:-

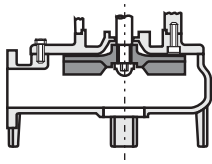
Septic effluent, textile & woollen mills, food processing plants, dairy & piggery washdown, etc.



Automatic version

Manual version

### Impeller Type & Solids Handling



Semi-Vortex



Model	Ø kW	50	80	80
	All	0.75, 1.5	2.2, 3.7	
Foreign matter Diameter (mm)		32	45	56
Length of Fibre (mm)		150-250	200-320	245-350

### Specifications

- Submersible pump with semi vortex impeller.
- Maximum solids handling: refer to table
- Maximum liquid temperature: 40 °C
- Maximum submergence: 0.4-1.5 kW - 4 m  
2.2-3.7 kW - 8 m

### Materials

- Pump casing: Cast Iron
- Impeller: Cast Iron
- Shaft: 403 Stainless Steel
- Motor frame: Cast Iron
- Fasteners: 304 Stainless Steel
- Mechanical seal: Double mechanical seal in oil chamber, Silicon Carbide lower faces, Carbon/Ceramic upper faces.

### Motor Data

- Air filled, dry submersible, 2 pole, 50 Hz
- Insulation class F
- IP68 protection
- 3 Phase - 400 Volt, 1 Phase - 230 Volt
- In built overload protection

### Range

- 50 to 80 mm Ø discharge
- 0.4 to 0.75 kW - 1 Phase
- 0.75 to 3.7 kW - 3 Phase
- Manual or automatic versions available (all sizes)

### Supply

- Cable: 6 m (0.4 to 1.5 kW), 10 m (2.2 & 3.7 kW)
- Screwed Companion flange (50 mm models)
- Discharge elbow with screwed companion flange (80 mm models)

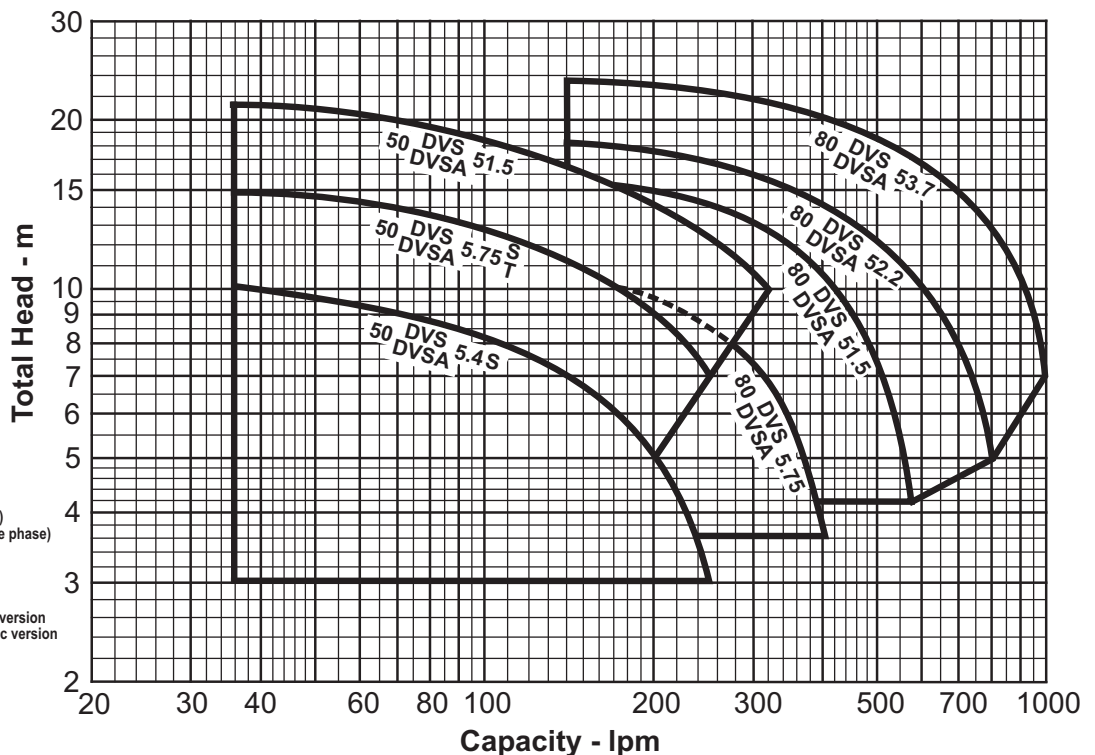
### Accessories

- Quick Discharge Connectors (QDC) available

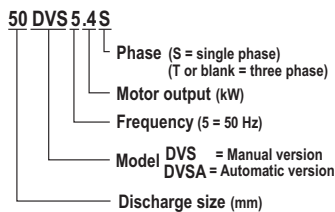
### Performance Curve

Synchronous Speed:  
3000 rpm

Applicable standard of test :  
ISO 9906 Annex A



### Model Code



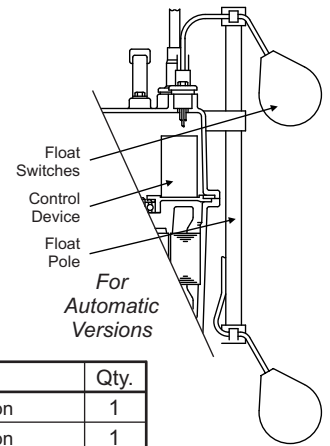
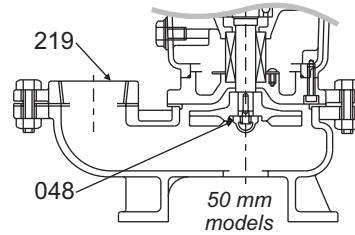
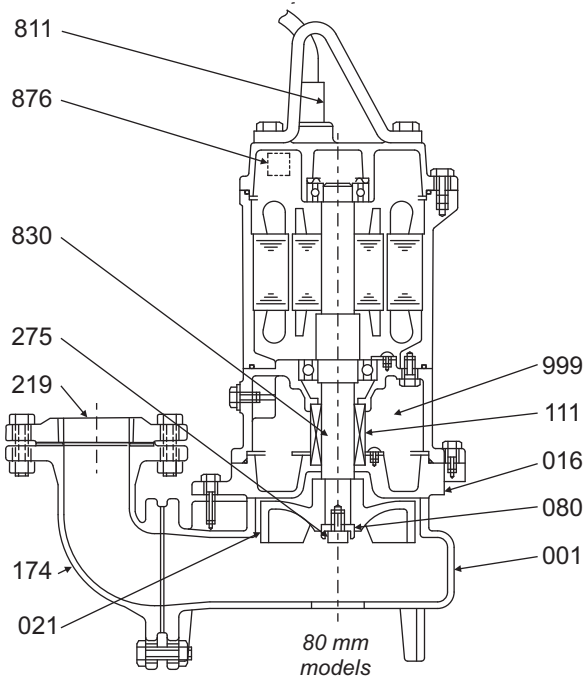
### Performance Table

Pump Model	Motor Output	Discharge Ø mm	Full Load Current		Capacity - lpm												
			1 PH, 230 V	3 PH, 400 V	80	140	180	250	320	400	500	570	800	1000			
50 DVS 5.4	0.4 kW	50 mm	3.8 A	—	8.8	7.0	5.8	3.0									
50 DVS 5.75	0.75 kW	50 mm	6.0 A	1.9 A	13.3	11.2	9.8	7.1									
50 DVS 51.5	1.5 kW	50 mm	—	3.3 A	19.6	16.5	15.0	12.5	10.0								
80 DVS 5.75	0.75 kW	80 mm	—	1.9 A		10.7	10.0	8.6	6.7	3.8							
80 DVS 51.5	1.5 kW	80 mm	—	3.3 A				14.0	12.6	10.6	7.4	4.2					
80 DVS 52.2	2.2 kW	80 mm	—	5.0 A					15.5	14.0	12.3	10.9	5.0				
80 DVS 53.7	3.7 kW	80 mm	—	7.8 A						21.2	20.1	18.5	17.4	12.8	7.0		

# Sectional Drawing

Model **DVS**

Note: Typical sectional drawing only.



No.	Description	Material	Qty.
001	Casing	FC200 Cast Iron	1
016	Mechanical seal cover	FC200 Cast Iron	1
021	Impeller	FC200 Cast Iron	1
048	Impeller nut	SUS304 Stainless Steel	1
080	Bushing	St Steel	1
111	Mechanical seal	Silicon Carbide lower faces Carbon vs Ceramic upper faces	1
174	Discharge elbow	FC200 Cast Iron	1
219	Companion flange	FC200 Cast Iron	1
275	Impeller bolt	SUS304 Stainless Steel	1
811	Cable	-	1
830	Shaft #	SUS403 Stainless Steel	1
876	Auto cut	-	1
999	Oil	Turbine Oil SAE 10W or 20W	*

Mechanical Seal Lubricating Oil					
Motor - kW	0.4	0.75	1.5	2.2	3.7
Capacity - ml	180	650	1180		

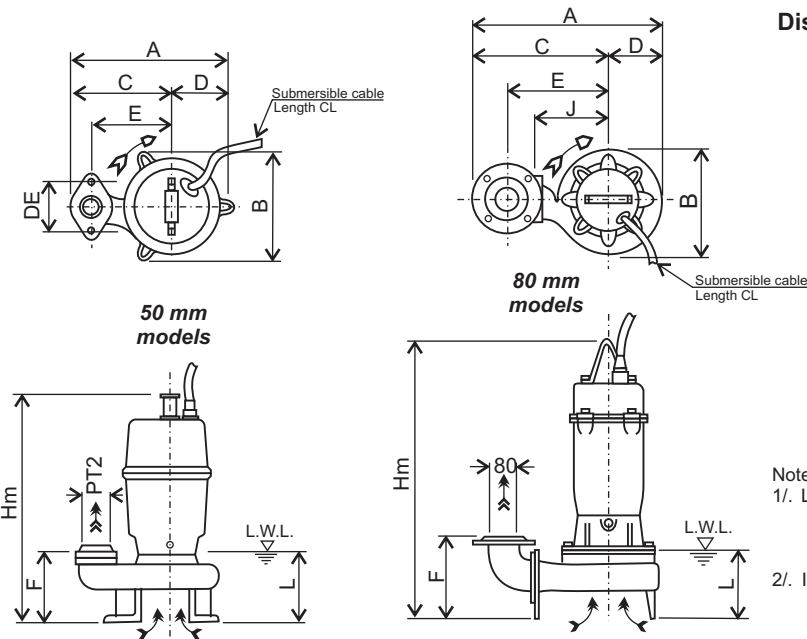
# refers to pump side of shaft material

\* See table for oil capacity

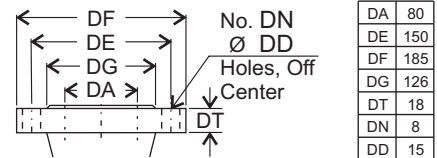
# Dimensions

Model **DVS**

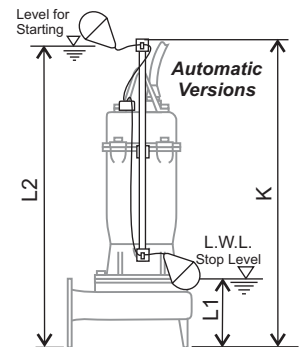
Units: mm unless otherwise specified



## Discharge Flange Dimensions (JIS 10kgf/cm<sup>2</sup>)



- Note:
- 1/. L.W.L (Low Water Level) Is limited to 10 minutes operation at low water level.
  - 2/. Is limited to 30 minutes operation with water level below top of motor.



Size	Pump Model	Output kW	Phase	Dimensions											Weight kg	Automatic Versions			
				A	B	C	D	E	F	Hm	DE	J	L	CL		L1	L2	K	Weight kg
50	50 DVS 5.4S	0.4	1	239	160	148	91	110	82	435	96	-	105	6 m	18	150	490	530	20
	50 DVS 5.75S	0.75	1	249	171	163	86	125	82	497	96	-	105	6 m	26	150	490	530	27
	50 DVS 5.75T	0.75	3	249	171	163	86	125	82	397	96	-	105	6 m	19	150	490	530	20
	50 DVS 51.5	1.5	3	249	171	163	86	125	82	439	96	-	105	6 m	27	150	490	530	30
80	80 DVS 5.75T	0.75	3	411	195	313	98	220	183	467	-	145	125	6 m	26	150	490	530	27
	80 DVS 51.5	1.5	3	411	195	313	98	220	183	519	-	145	125	6 m	35	150	490	530	36
	80 DVS 52.2	2.2	3	442	227	328	114	235	206	643	-	160	155	10 m	51	250	730	770	52
	80 DVS 53.7	3.7	3	442	227	328	114	235	206	643	-	160	155	10 m	60	250	730	770	61

Specifications subject to change without notice