



**VIRAJ
PUMPS**



**NON - CLOG
SEWAGE SUBMERSIBLE PUMP
VNCS SERIES**

If there is liquid, There is "Viraj"



"VIRAJ" Non- Clog Sewage Submersible pump VNCS Series

The "VNCS" Series is designed in single stage submersible centrifugal pump of closed coupled vertical (mono block type) construction, This series pumps are available with various type of Impeller as per customer's application like Single Vane Impeller, Two Vane Impeller, Three Vane Impeller, Free flow type, Vortex etc., This series pumps are available with two type of installation namely Portable Installation & Stationary Installation. The "VIRAJ" make Submersible motor in pressure resistant design with internal sealed, double mechanical shaft seal in Viraj block design as well as separate sealing chamber. The Sealing chamber is filled with oil. Motor sealing at the shaft double wear resistance mechanical shaft seal independent of the direction on rotation entirely made of Tungsten/silicon Carbide as closed unit, In Viraj sealing cartridge of stainless steel with intermediate separation chamber, Both seal cooled and lubricated by oil. The motor is equipped with two maintenance free ball bearing t. The upper and lower bearing are filled with high quality grease, Possibility for retrofitting a moisture probe by means of a pencil electrode for protection against penetrating humidity. all casing part are of cast iron, Shaft and Hardware are of stainless steel. The motor is suitable for continuous operation(SI) under full load in immersed and completely emerged condition.

SPECIFICATION	VNCS-3	VNCS-5	VNCS-7.5	VNCS-10	VNCS-12.5	VNCS-15	VNCS-20	VNCS-25	VNCS-30	VNCS-35	VNCS-40	VNCS-50	VNCS-65
HP/Kw Range	3 /2.2	5/3.7	7.5/5.5	10.0/7.5	12.5/9.3	15.0/11.0	20.0/15.0	25.0/18.65	30.0/22.0	35.0/26.11	40.0/30.0	50.0/37.0	65.0/48.9
Max. Flow Range in M ³ /Hr.	90	130	150	200	240	315	430	430	450	470	550	610	800
Max. Shut off Head - Mtr.	15	18	21	23	23	25	29	30	32.5	34	37	40	55
Discharge Size in mm	75/100	75/100	100	100	100	100/125	125/150	125/150	150	150	150/200	150/200	150/200
Solid Handling Size max.	75 mm	80 mm	80 mm	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm	100 mm	125 mm
Type of Impeller	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog	Non- Clog
Max. Temp. of Pumped Fluid	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C	50°C
Max. Start/ Stop per Hour	15	15	15	15	15	15	15	15	15	15	15	15	15
Max. Submergence	10 m	10 m	10 m	10 m	10 m	10 m	10 m	10 m	10 m	10 m	10 m	10 m	10 m
Pump Weight Approx. Kgs.	85	110	140	170	185	195	310	340	360	380	450	550	650

Motor/ Squirrel cage Motor	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed	"F"Class Higher Greed
Type of Motor- Dry type	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast	Aluminum Die cast
Type of Rotor	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast	Die cast
RPM	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
Bearing	Ball/Angula	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular	Ball/Angular
Duty	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1	S-1
Power Supply - 415V ±6%	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz	3 Ph- 50 Hz
Thermal Protection *	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Moisture Protection *	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cable Length	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt	10 mt
Tandem Shaft Seal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* CONTROLS REQUIRED

MATERIALS OF CONSTRUCTION	
Stator Casing	Cast Iron
Pump Casing	Cast Iron
Impeller	Cast Iron /Stainless Steel/CF8M
Shaft	S.S.- 400 Series
Hard Ware	Stainless Steel
Mech. Seal	Tungsten Carbide/ Tungsten Carbide
Face Upper	Carbon / Stainless Steel
Face Lower	Carbon / Stainless Steel
Rubber Part	Nitrile Elstomers
Spring	Stainless Steel
Surface Treatment	Primer with Epoxy or Air Dry Enamel

APPLICATION

1. MUNICIPAL SECTOR	
Pumping Station	: -Untreated domestic Sewage etc.
Hotel, Airport Etc.	: -Faces, Mixed liquor, eatables etc.
Lifting stations	: -Strom Water
Sewage Works (Treatment Plant)	: -Grip tap pumping, raw sludge : -activated sludge, digested sludge etc.
2. INDUSTRIAL SECTOR	
Iron & Steel	: -Raw water, Sinter Water, Cooling water with solids, scrubber liquor
Cellulose, Paper Mill	: -Process water & Process water with glass wool
Mech./Engg./Chemical /Sugar	: -All kind of Effluents, Sugar Cane tails, Wash water etc.
Food Processing	: - Transportation of food etc.
Sea Water/ Fisheries Industries	: - Sandy Water, Waste water etc.
Industrial Water & Refinery	: - Hydrocarbons (Oil, Butane,etc.)

ACCESSORIES

- * Permanent Base with Elbows
 - * Sliding Bracket for stationary installation
 - * Upper & Intermediate Guide Bar Holder
 - * Metal to Metal Flange Adapters
 - * Control Panel, Float switch
 - * Hose pipe
- Addinational accessories also available

OPTIONAL DESIGN FETURES

- * Impeller Trim
- * Additional Cable length
- * Change in Material of construction
- * Optional Hydraulic Design

An ISO 9001 : 2000 Company



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