



WASTE WATER PUMPS **TSL - SERIES** **50Hz**



WASTE WATER PUMPS > TSL - SERIES

Tormac waste water pumps are built to exacting specifications to ensure durability and ease maintenance. TSL series is an extremely versatile submersible pumps for stationary and portable uses. Waste water submersible pumps are built with vortex impeller and semi open impellers.

The pump and motor are connected with a single drive shaft to eliminate any transmission loss. Wear resistant ball bearings ensure better hydraulic efficiency and noiseless operation, whereas pump casing and brackets are made of high quality cast iron. All pumps and motors of these series are provided with dual mechanical seals with Silicon carbide and Carbon ceramic.

Shaft of high tensile stainless steel is used for transmitting the rated Horsepower. All waste water pumps are powered by a dry type asynchronous motor housed in water tight housing with an insulation of H.

Construction of motor frames and usage of quality raw materials result in high performance and low temperature rise thereby increasing the life cycle of the motor. Thermal overload protector (motor protector) & float switches are incorporated in single phase motors.

Applications

Domestic sewage discharge

Dewatering

Construction sites

Industries waste disposal

Deforming, filtering at treatment plants

Discharging rain water

Urban sewage plants & Lifting water plants

Sewage station & industrial treatment plants

Features

Stainless steel / Cast Iron Pump casing.

Stainless steel motor frame.

Thermoplastic / stainless steel / cast iron impeller.

Dual mechanical seal.

Guide rail system.

High performance.

Wide free passage.

Note: The company reserves the right to modify the technical specifications and illustrations without prior notice.

Technical & Electrical data

Pump Operating Limitations	
Power Range	0.5-1.2kW - 1 Phase 220 / 230V, 50Hz. 0.8-3.0kW - 3 Phase 380-415V, 50Hz
Rated Speed	2850 rpm / 1450 rpm
Voltage Tolerance	-15% + 6%
Protection	IP 68
Rotation Sequence	Clock wise seen from top of electric pump
Duty	S1 Continuous
Insulation class	H
Motor Type	Induction motor with dry winding
Starting per hour	20 times (Max.)
Motor Cable	H07RN-F
Cable Length	10m
Impeller	Vortex
Delivery size	1 1/2", 2", 2 1/2" & 3"

Pumped Liquids

Max. Application temperature	40°C
Max. Immersion depth	20m
Ph liquid	6-12
Liquid viscosity	1 mm ² /s
Liquid density	1 Kg/dm ³
Max. Noise level	<70dB

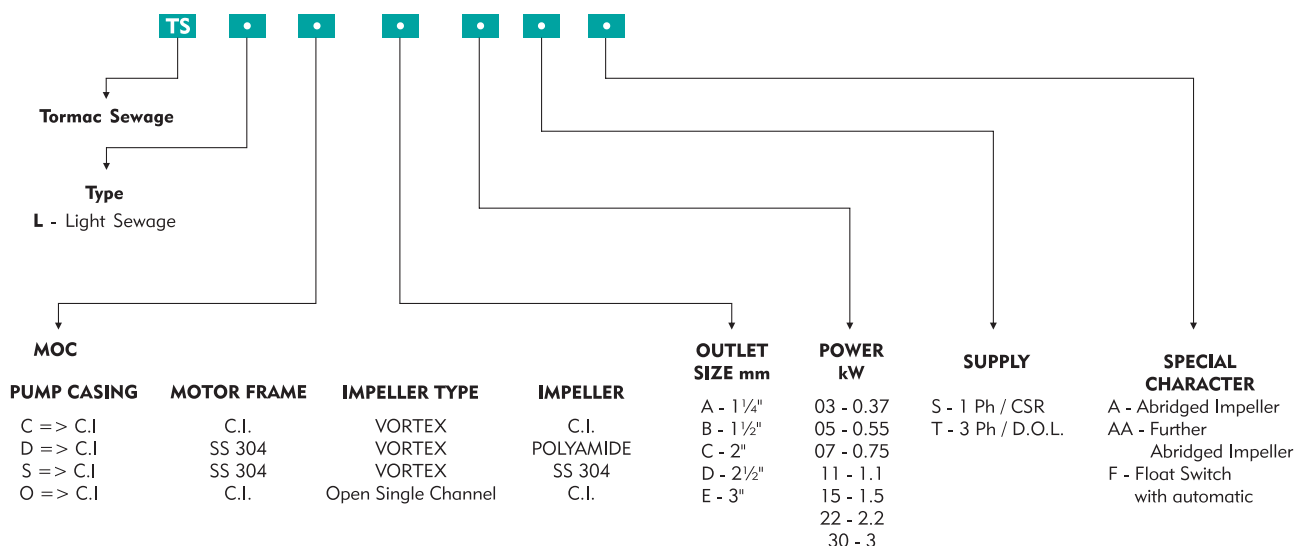
Material of Construction

Pump housing	Cast iron EN-GJL-260
Motor housing	Cast iron EN-GJL-260
Impeller	Cast iron EN-GJL-260
Cover	Cast iron EN-GJL-260
Shaft	Stainless steel X30 Cr13 (AISI420)
O-rings	Nitrile
Screws	Stainless steel A2 AISI 304

Solid Handling Capacity

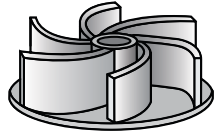
Allowable Solid Capacity	20, 30, 36, 40, 45, 50, 60, 65, 68 & 80mm
Maximum diameter of solid	60 - 70% of delivery size

Model Designation SEWAGE PUMP



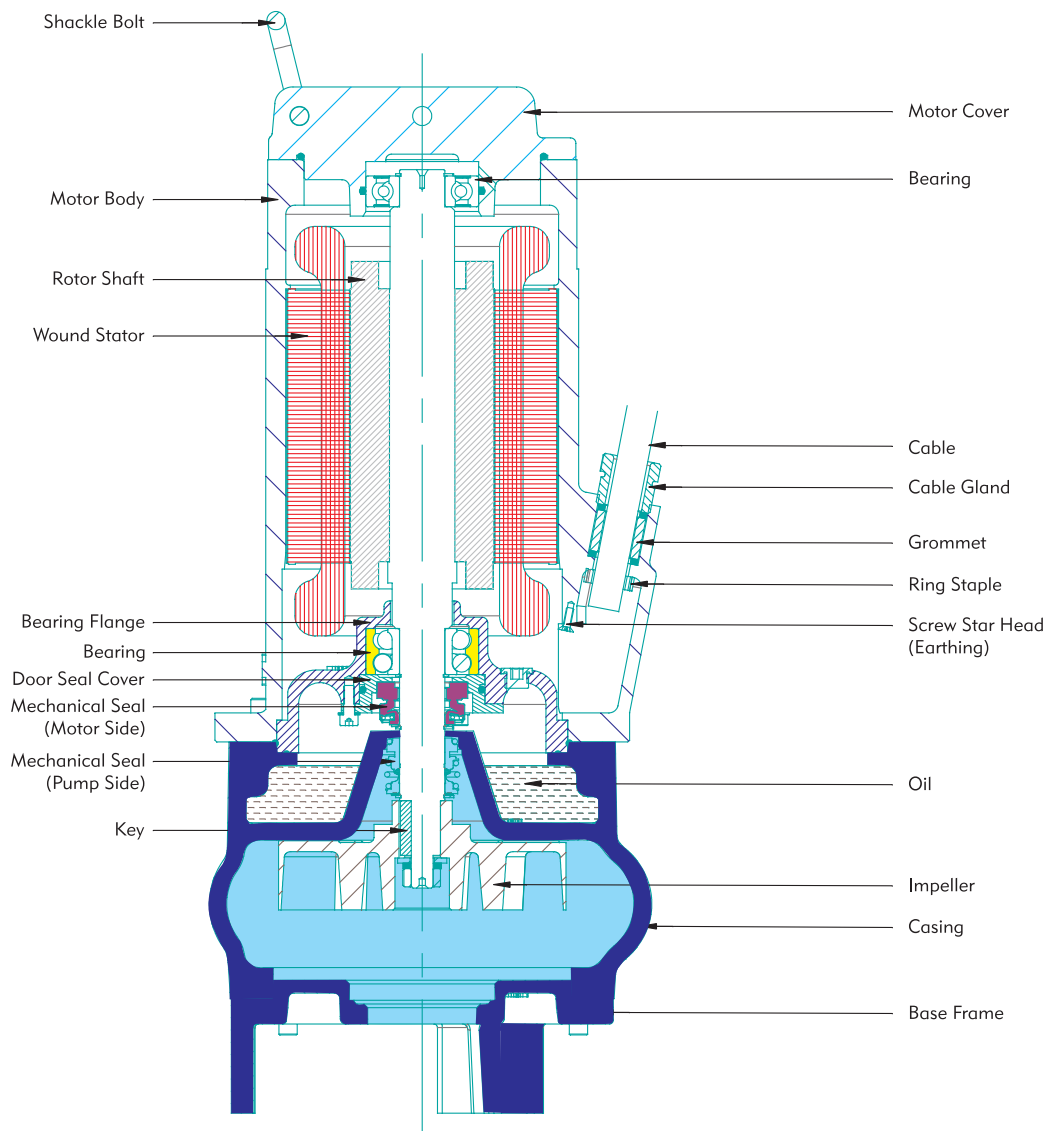
Impeller Specification

Vortex



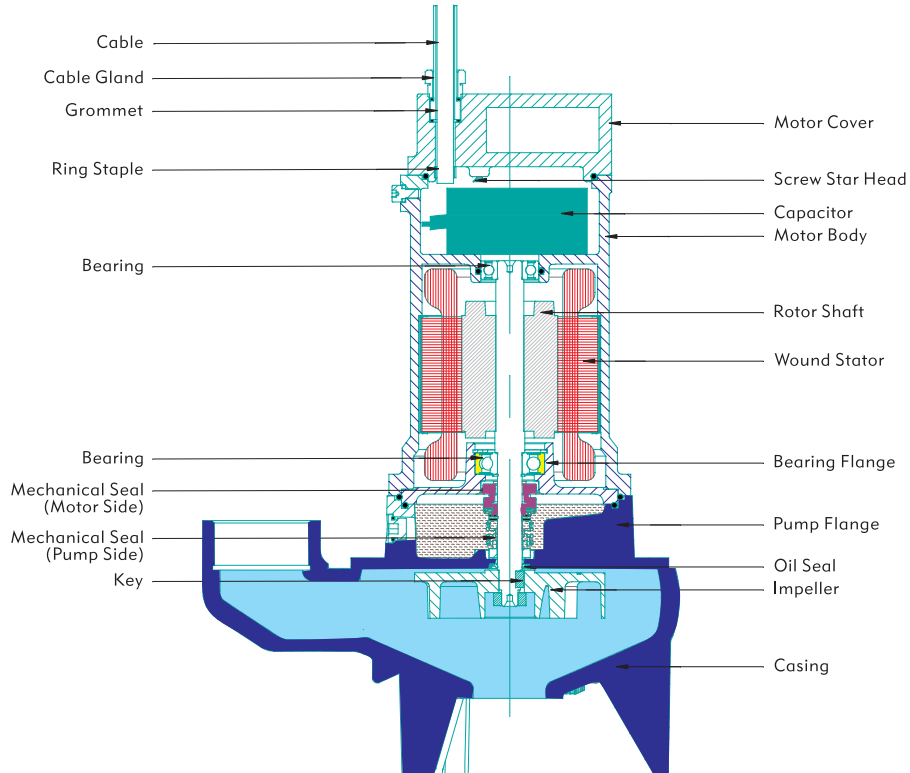
Vortex impeller suitable for lifting of sewage liquids, civil waste and industrial water containing solids and viscous materials, heavy muds raw or fermented sludge.

GENERAL ASSEMBLY DRAWING OF WASTE WATER PUMPS

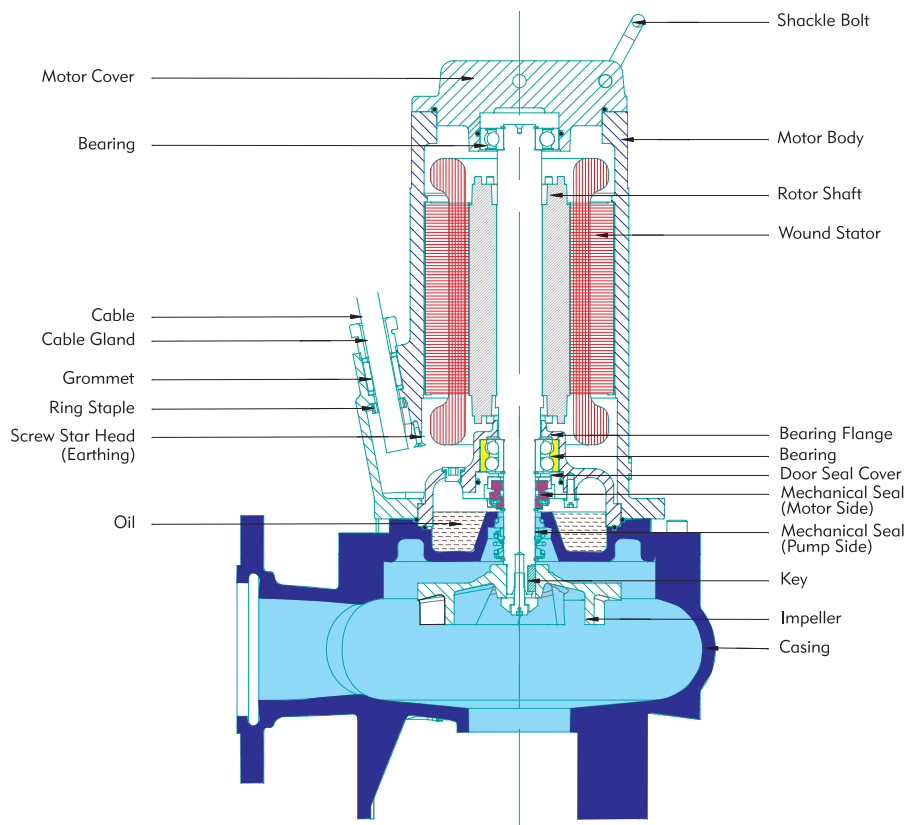


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GENERAL ASSEMBLY DRAWING OF WASTE WATER PUMPS



GENERAL ASSEMBLY DRAWING OF WASTE WATER PUMPS



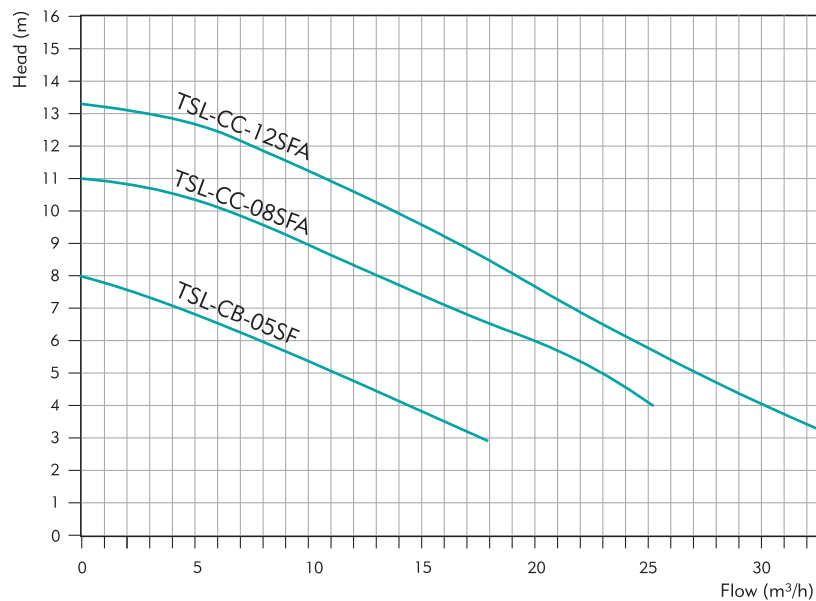
TSL - SERIES > Performance Data

Outlet Size : 1½", 2"

2850 rpm

Pumps Model		Power		Capacitor Rating in mfd	lpm	Flow (m³/h)									
Single Phase	Three Phase	kW	HP			0	60	120	180	240	300	360	420	480	540
TSL-CB-05SF	-	0.5	0.75	16	8	7.2	6.1	5.1	4	2.8	-	-	-	-	
TSL-CC-08SFA	TSL-CC-08TA	0.8	1.07	22	11	10.6	9.8	8.7	7.6	6.5	5.5	4	-	-	
TSL-CC-12SFA	TSL-CC-12TA	1.2	1.6	30	13.3	12.9	12.1	11	9.8	8.5	7	5.7	4.4	3.3	

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model		Power		Height in (mm)	Weight in Lbs	
Single Phase	Three Phase	kW	HP		Single Phase	Three Phase
TSL-CB-05SF	-	0.5	0.75	350	36.77	-
TSL-CC-08SFA	TSL-CC-08TA	0.8	1.07	425	44.04	44.04
TSL-CC-12SFA	TSL-CC-12TA	1.2	1.6	425	50.60	50.09



* The digit of the model name 'S' denotes single phase and in case of three phase the same will be replaced as 'T'

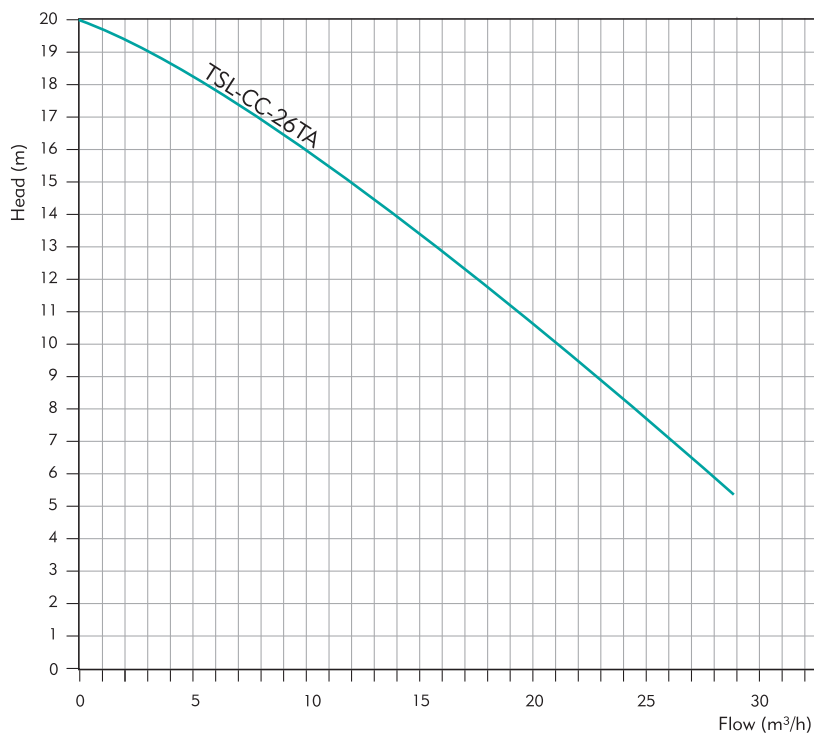
TSL - SERIES > Performance Data

Outlet Size : 2"

2850 rpm

Pumps Model	Power		lpm m ³ /h	0	60	120	180	240	300	360	420	480
	kW	HP		0	3.6	7.2	10.8	14.4	18	21.6	25.2	28.8
TSL-CC-26TA	2.6	3.5	TOTAL DYNAMIC HEAD IN METRES	20	18.8	17.2	15.5	13.5	11.8	9.9	7.7	5.3

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model	Power		Height in (mm)	Weight in Lbs
	kW	HP		
TSL-CC-26TA	2.6	3.5	460	83.01



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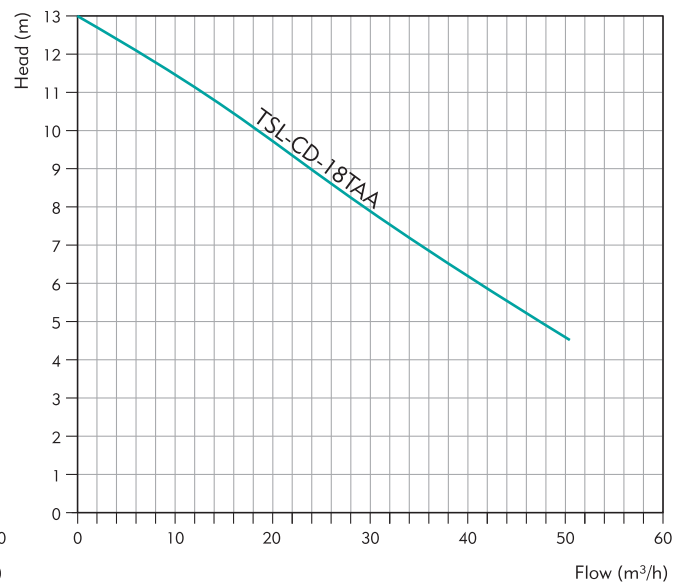
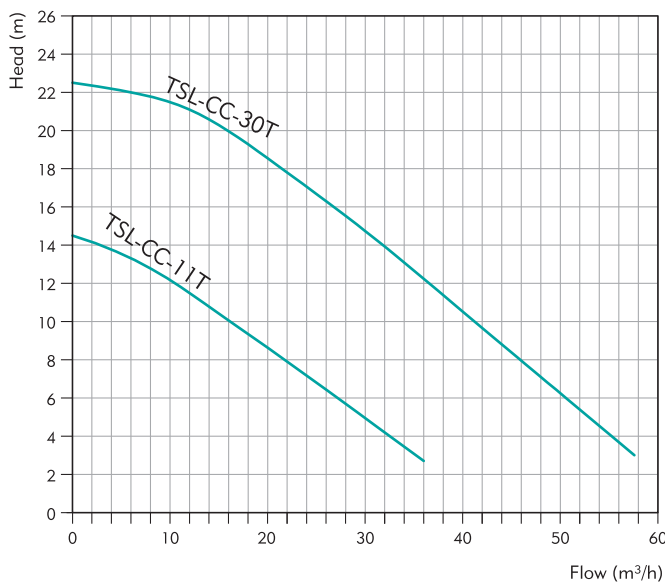
TSL - SERIES > Performance Data

Outlet Size : 2", 2½"

2850 rpm

Pumps Model	Power		lpm m³/h	0	120	240	360	480	600	720	840	960
	kW	HP		0	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6
TSL-CC-11T	1.1	1.5	TOTAL DYNAMIC HEAD IN METRES	14.5	13	10.6	8.1	5.5	-	-	-	-
TSL-CD-18TAA	1.8	2.4		13	11.9	10.7	9.5	8	6.7	5.6	4.5	-
TSL-CC-30T	3	4		22	21.8	20.5	18	15.3	12.3	9	6	3

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model	Power		Height in (mm)	Weight in Lbs
	kW	HP		
TSL-CC-11T	1.1	1.5	440	89.18
TSL-CD-18TAA	1.8	2.4	475	64.85
TSL-CC-30T	3	4	465	95.01



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TSL - SERIES > Performance Data

Outlet Size : 2½"

2850 rpm

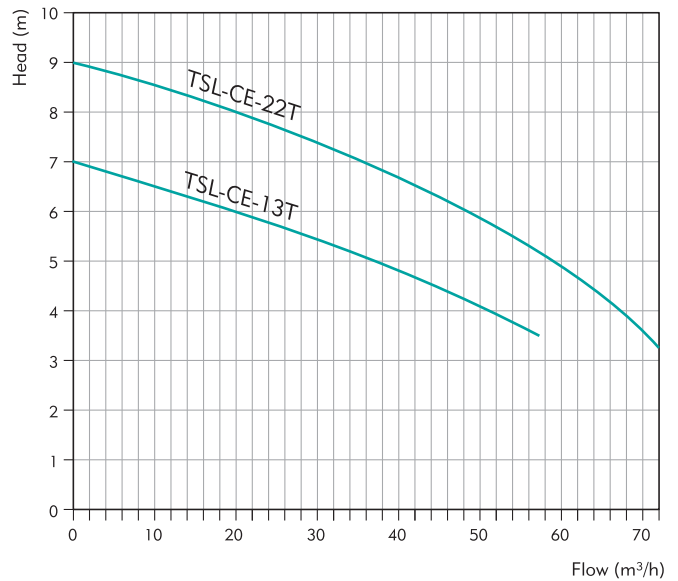
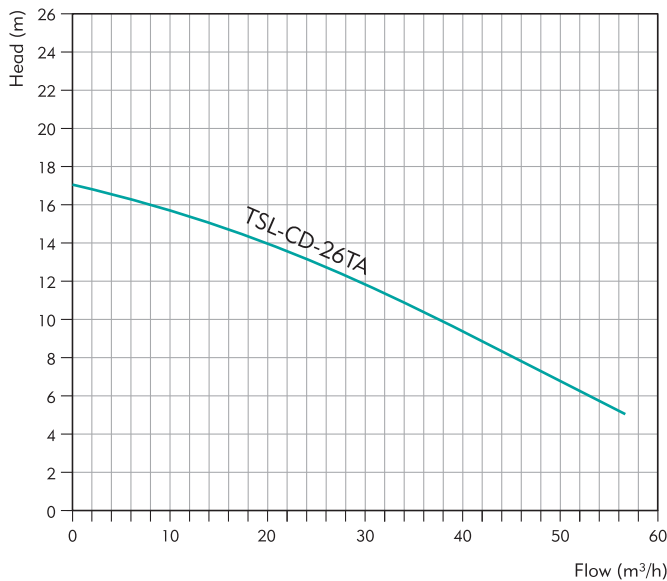
Pumps Model	Power		lpm m³/h	0	120	240	360	480	600	720	840	960
	kW	HP		0	7	14	21.6	28.8	36	43.2	50.4	57.6
TSL-CD-26TA	2.6	3.5	TOTAL DYNAMIC HEAD IN METRES	17	16	15	13.8	12	10.5	8.4	7	5.3

Outlet Size : 3"

1450 rpm

Pumps Model	Power		lpm m³/h	0	240	480	720	960	1200
	kW	HP		0	14	29	43.2	57.6	72
TSL-CE-13T	1.3	1.75	TOTAL DYNAMIC HEAD IN METRES	7	6.4	5.6	4.8	3.5	-
TSL-CE-22T	2.2	3	TOTAL DYNAMIC HEAD IN METRES	9	8.4	7.4	6.4	5.5	3.4

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model	Power		Height in (mm)	Weight in Lbs
	kW	HP		
TSL-CD-26TA	2.6	3.5	485	84.55
TSL-CE-13T	1.3	1.75	540	120.23
TSL-CE-22T	2.2	3	540	120.00



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TSL - SERIES > Performance Data

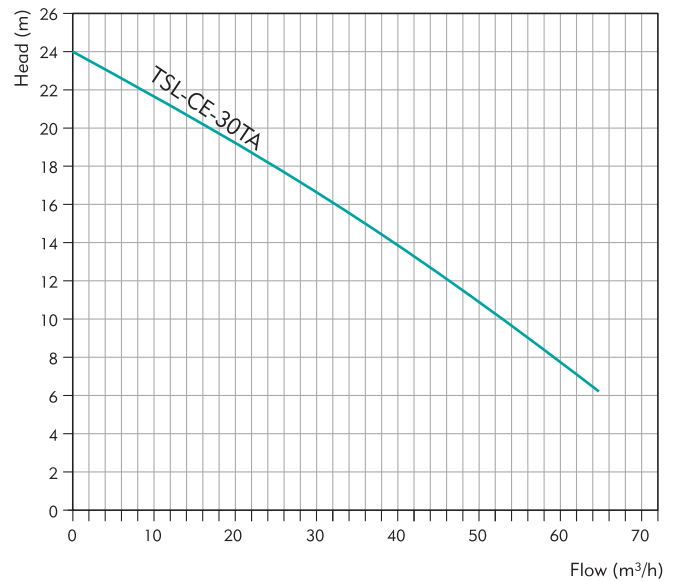
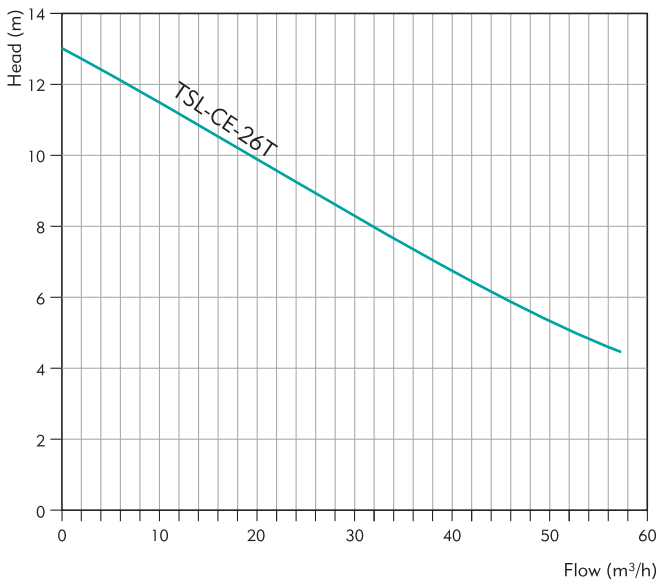
Outlet Size : 3"

2850 rpm

Pumps Model	Power		lpm m ³ /h	0	120	240	360	480	600	720	840	960
	kW	HP		0	7.2	14.4	21.6	28.8	36	43.2	50.4	57.6
TSL-CE-26T	2.6	3.5	TOTAL DYNAMIC HEAD IN METRES	13	11.8	10.8	9.7	8.4	7.5	6.3	5.4	4.5

Pumps Model	Power		lpm m ³ /h	0	180	360	540	720	900	1080
	kW	HP		0	10.8	21.6	32.4	43.2	54	64.8
TSL-CE-30TA	3	4	TOTAL DYNAMIC HEAD IN METRES	24	21.5	19	15.8	12.8	9.5	6.1

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model	Power		Height in (mm)	Weight in Lbs
	kW	HP		
TSL-CE-26T	2.6	3.48	540	123.31
TSL-CE-30TA	3	4	513	122.87



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Technical & Electrical data

Pump Operating Limitations	
Power Range	1.1-1.6kW - 1 Phase 220 / 230V, 50Hz. 0.6-2.6kW - 3 Phase 380-415V, 50Hz
Rated Speed	2850 rpm / 1450 rpm
Voltage Tolerance	-15% + 6%
Protection	IP 68
Rotation Sequence	Clock wise seen from top of electric pump
Duty	S1 Continuous
Insulation class	H
Motor Type	Induction motor with dry winding
Starting per hour	20 times (Max.)
Motor Cable	H07RN-F
Cable Length	10m
Impeller	Semi Open Single Valve
Delivery size	2"

Pumped Liquids

Max. Application temperature	40°C
Max. Immersion depth	20m
Ph liquid	6-12
Liquid viscosity	1 mm ² /s
Liquid density	1 Kg/dm ³
Max. Noise level	<70dB

Material of Construction

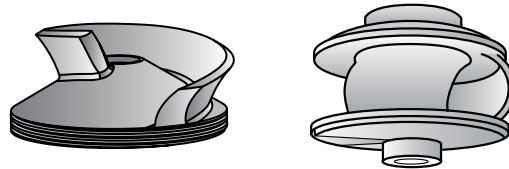
Pump housing	Cast iron EN-GJL-260
Motor housing	Cast iron EN-GJL-260
Impeller	Cast iron EN-GJL-260
Cover	Cast iron EN-GJL-260
Shaft	Stainless steel X30 Cr13 (AISI420)
O-rings	Nitrile
Screws	Stainless steel A2 AISI 304

Solid Handling Capacity

Allowable Solid Capacity	20, 30, 36, 40, 45, 50, 60, 65, 68 & 80mm
Maximum diameter of solid	60 - 70% of delivery size

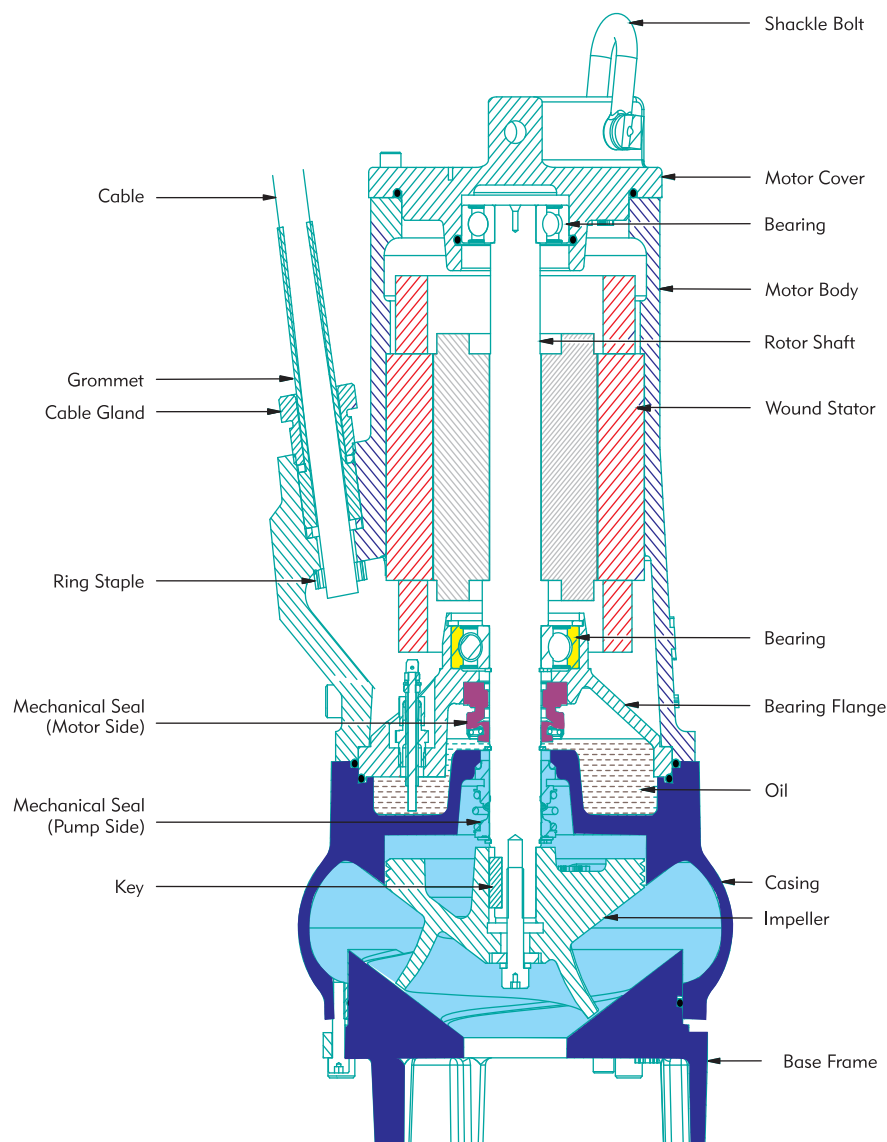
Impeller Specification

Single Channel



Non-Clog Single channel impeller with large free passages. High hydraulic efficiency, resistance to wear and low mechanical action on pompe liquid make this pump series particularly suitable for treatment of rain water, sewage water containing solids, fibrous and abrasive liquid, ac-tive and industrial sludge.

GENERAL ASSEMBLY DRAWING OF WASTE WATER PUMPS - OSC SERIES



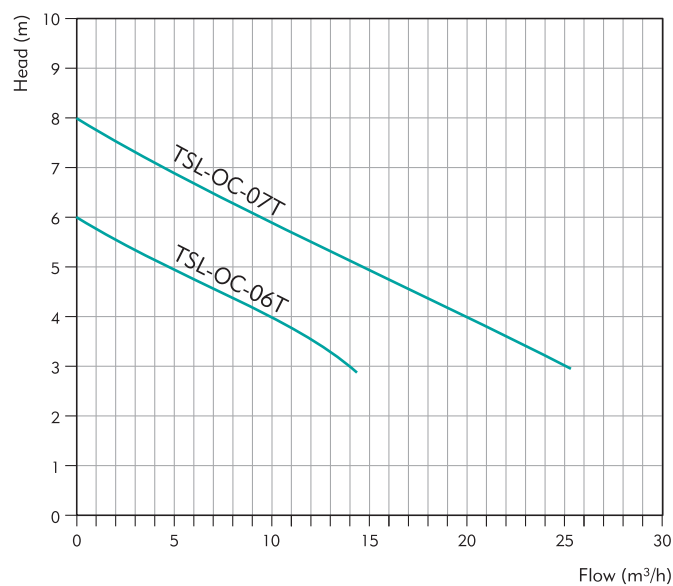
TSL - SERIES > Performance Data

Outlet Size : 2"

1450 rpm

Pumps Model	Power		lpm m ³ /h	0	120	180	240	300	360	420
	kW	HP		0	7.2	10.8	14.4	18	21.6	25.2
TSL-OC-06T	0.6	0.8	TOTAL DYNAMIC HEAD IN METRES	6	4.5	3.9	2.9	-	-	-
TSL-OC-07T	0.75	1		8	6.4	6	5.2	4.4	3.7	2.9

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model	Power		Height in (mm)	Weight in Lbs
	kW	HP		
TSL-OC-06T	0.6	0.8	415	63.85
TSL-OC-07T	0.75	1	415	66.06



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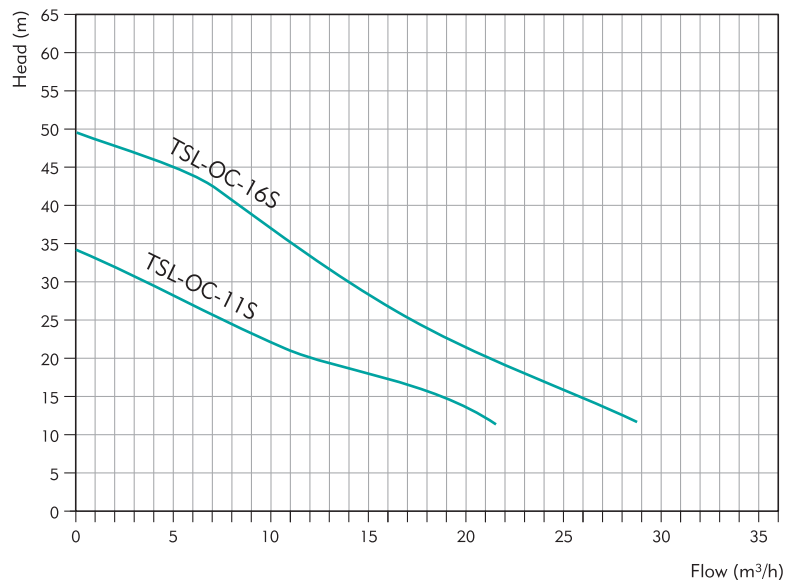
TSL - SERIES > Performance Data

Outlet Size : 2"

2850 rpm

Pumps Model	Power		Capacitor Rating in mfd	lpm m ³ /h	0	120	180	240	300	360	420	480
	kW	HP			0	7.2	10.8	14.4	18	21.6	25.2	28.8
TSL-OC-11S	1.1	1.5	30	TOTAL DYNAMIC HEAD IN METRES	34.1	25.6	22.6	19	15.4	11.1	-	-
TSL-OC-16S	1.6	2	40		49.2	43.2	34.1	29.6	23.5	19.8	15.2	11.3

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model	Power		Height in (mm)	Weight in Lbs
	kW	HP		
TSL-OC-11S	1.1	1.5	416	68.26
TSL-OC-16S	1.6	2	444	68.26



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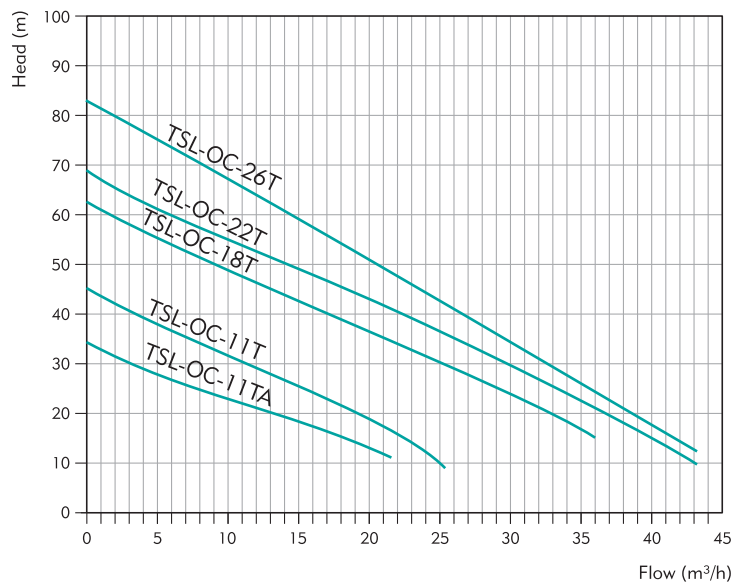
TSL - SERIES > Performance Data

Outlet Size : 2"

2850 rpm

Pumps Model	Power		lpm m ³ /h	0	120	180	240	300	360	420	480	600	720
	kW	HP		0	7.2	10.8	14.4	18	21.6	25.2	28.8	36	43.2
TSL-OC-11TA	1.1	1.5	TOTAL DYNAMIC HEAD IN METRES	34.1	25.6	22.6	19	15.4	11.1	-	-	-	-
TSL-OC-11T	1.1	1.5		45.9	35.1	30.2	25.9	21.2	16.8	8.9	-	-	-
TSL-OC-18T	1.85	2.5		62.8	52.5	48.5	43.5	39.4	34.5	29.5	25.6	15.2	-
TSL-OC-22T	2.2	3		68.9	57.5	54.2	50.2	45.2	41.3	35.8	31.6	20.8	9.9
TSL-OC-26T	2.6	3.5		83.6	72.2	64.9	59	54.5	47.5	41.5	36.5	24.4	12.2

TSL - SERIES > Performance Curve



Dimensional & Weight Details

Pumps Model	Power		Height in (mm)	Weight in Lbs
	kW	HP		
TSL-OC-11TA	1.1	1.5	417	68.26
TSL-OC-11T	1.1	1.5	417	68.26
TSL-OC-18T	1.85	2.5	417	70.46
TSL-OC-22T	2.2	3	444	74.86
TSL-OC-26T	2.6	3.5	444	74.86



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TINY SEWAGE & DRAINAGE PUMPS > **TPS / TSS - SERIES**

TPS / TSS - SERIES > Specifications

Power Range	400 to 1100 Watts
Version	Single Phase 230V, A.C Supply
Degree of protection	IP68
Class of insulation	E
Delivery size in mm	TSS-D : 1 ¼", TSS - S : 1 ½", TPS - SD : 1 ½"
Max. ambient temp.	40°C
Max. liquid temp.	35°C
pH value	6 - 8.5
Max. immersible depth	5m

Material of Construction

Part Name	TSS Series	TPS Series
Pump body	Stainless Steel	Plastic
Impeller	Thermoplastic	Thermoplastic
Shaft	S.S 304	S.S 304
Pump casing	Stainless Steel	Plastic
Mechanical seal	Carbon Ceramic	Carbon ceramic

Application

- Residential drainage and sewage
- Gardening
- De-watering

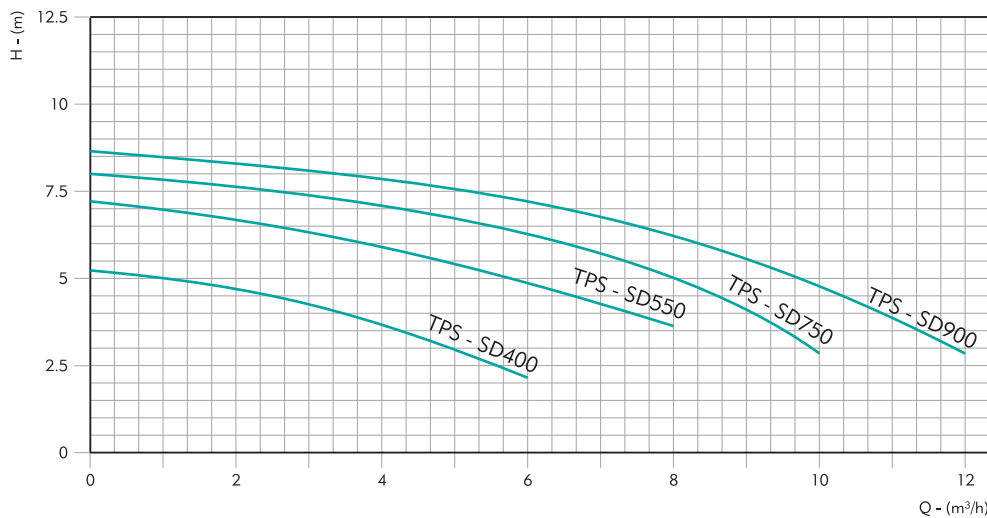
TPS - SERIES > Plastic Pump & Motor Body > Performance Data

Model	Power (Watts)	Solid Handling Capacity (mm)	Outlet Size	Max. Flow (m ³ /h)	Max. Head (m)	Weight (kg)
TPS - SD400	400	25	1½"	6	5.5	4
TPS - SD550	550	25	1½"	8	7	4.5
TPS - SD750	750	25	1½"	10	8	5
TPS - SD900	900	25	1½"	12	8.5	5.5

* With legs unfolded condition.



Performance Curve

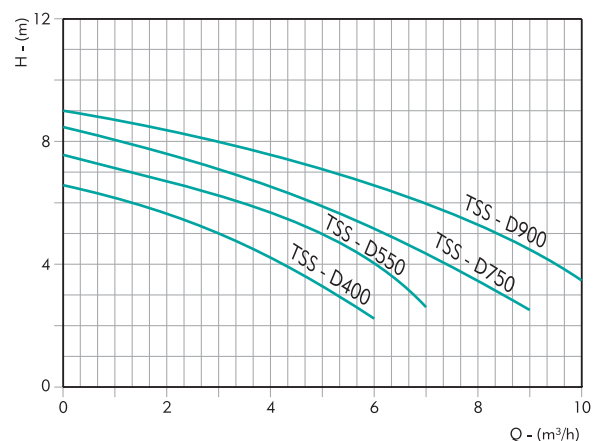
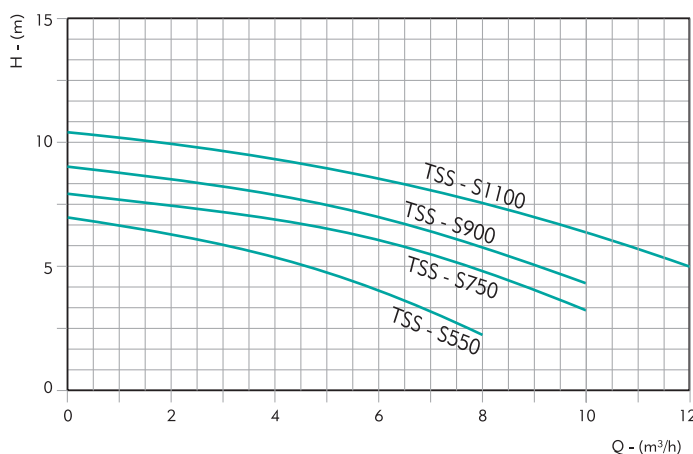


TSS - SERIES > Stainless Steel Pump & Motor Body > Performance Data

	Model	Power (Watts)	Outlet Size	Solid Handling Capacity (mm)	Max. Flow (m ³ /h)	Max. Head (m)	Weight (kg)
SEWAGE	TSS - S550	550	1½"	25	8	7	6
	TSS - S750	750	1½"	25	10	8	6.3
	TSS - S900	900	1½"	25	10	9	7
	TSS - S1100	1100	1½"	25	12	10.5	7.8
DRAINAGE	TSS - D400	400	1¼"	5	6	6.5	5
	TSS - D550	550	1¼"	5	7	7.5	5.5
	TSS - D750	750	1¼"	5	9	8.5	5.6
	TSS - D900	900	1¼"	5	10	9	5.8



Performance Curve



Notes :

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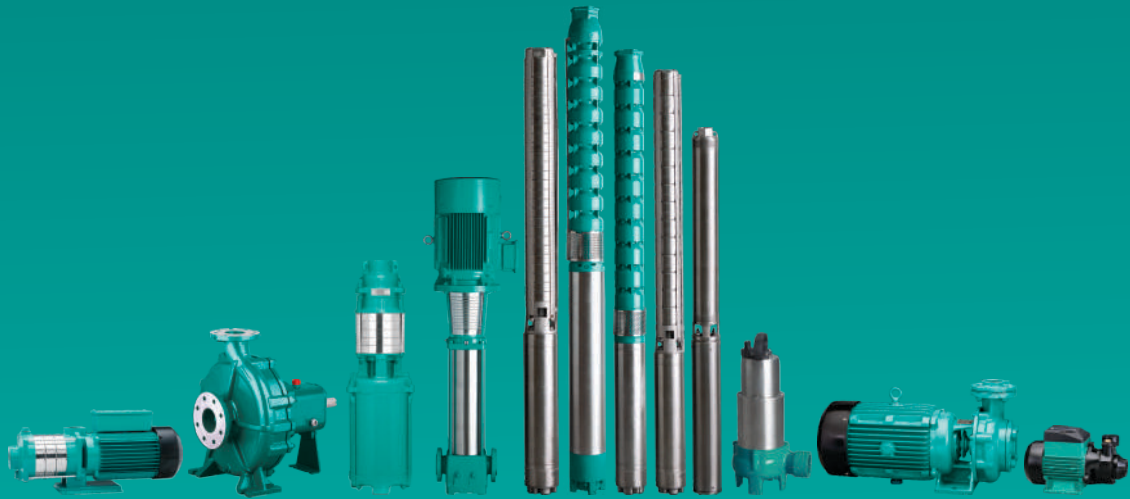
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T H E P O W E R B E H I N D T H E F O R C E

Naargo Industries Private Limited, one of the leading manufacturers of latest state of art, large range of pumps and motors, is managed by veterans who are in the pump industry for almost half a century. The products are employed in various applications like irrigation, domestic, civil construction, de-watering etc; The Company has a strong distribution network in India for sales & service and a strong global presence.

Quality is the key factor in Naargo's products. The expansive infrastructure and environment accredited with ISO 9001 quality certification, latest engineering softwares, high-tech machinery, futuristic pumping technology and high caliber workforce facilitate the production of flawless and efficient products on par with international standards under the brand name of "Tormac". The well equipped R & D wing stays alive to the changing global trends and comes out with viable solutions for innovative product development and upgradation.

The Products currently available include Stainless Steel Submersible Pumps, 4" Thermoplastic Submersible Pumps, 6" & 8" Cast Iron Submersible Pumps, Submersible Motors and Controls, Centrifugal Pumps, Inline Booster Pumps, Jet Self-priming Pumps and Peripheral Pumps.

The power, performance and endurance of the products backed by the uncompromising teamwork and value systems will certainly propel the company's growth towards new horizons in the pump industry.

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