

**Models** VORTEX 100  
VORTEX 140

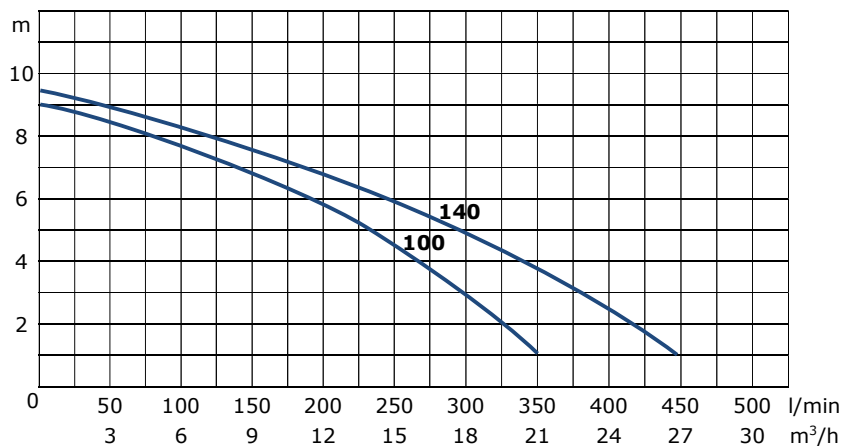
**Description** Top-quality heavy-duty construction pump suitable to pump sewage water. It can be installed in domestic applications to drain rain water, in industrial plants and for husbandry installations to pump manure.



**Pumped fluid**  
Application Sewage water  
Max Density 1100 kg/m<sup>3</sup>  
Temperature range 0-40 °C 32-104 °F  
pH range 6-10 pH

**Performance**

Models		Head (m)								
		1	2	3	4	5	6	7	8	9
		<b>Capacity</b>								
VORTEX 100	l/min	350	325	298	270	227	188	134	78	
	m <sup>3</sup> /h	21,0	19,5	17,9	16,2	13,6	11,3	8,0	4,7	
	l/s	5,83	5,42	4,97	4,50	3,78	3,13	2,23	1,30	
VORTEX 140	l/min	450	416	376	340	300	248	190	125	38
	m <sup>3</sup> /h	27,0	25,0	22,6	20,4	18,0	14,9	11,4	7,5	2,3
	l/s	7,50	6,93	6,27	5,67	5,00	4,13	3,17	2,08	0,63



**Hydraulic**

<i>Impeller type</i>	Back open impeller "vortex" type
<i>Outlet</i>	2" – horizontal, threaded BSP female
<i>Free passage</i>	45mm
<i>Max head</i>	VORTEX 100: 9m (0.9 bar) VORTEX 140: 9,5m (0.95 bar)
<i>Min head</i>	1m
<i>Max capacity</i>	VORTEX 100: 350 l/min VORTEX 140: 450 l/min
<i>Min suction level</i>	140mm

**Electric characteristics**

Models	Power (P <sub>2</sub> )		rpm	Voltage	ph	I <sub>N</sub>	Built-in float-switch	Capacitor
	HP	kW						
VORTEX 100 M	1.0	0.75	2850	230	1~	6,2	NO	20
VORTEX 100 MG							YES	
VORTEX 100 T				400	3~	2,8	NO	
VORTEX 100 TG							YES	
VORTEX 140 M	1.4	1.04	2850	230	1~	7,6	NO	20
VORTEX 140 MG							YES	
VORTEX 140 T				400	3~	3,0	NO	
VORTEX 140 TG							YES	

**Technical characteristics**

<i>IP</i>	68
<i>Sealing</i>	Mechanical seal in oil bath + oil seal
<i>Max. immersion</i>	5 meters
<i>Protective coating</i>	Two-component epoxy paint anti-corrosion
<i>Sound pressure level</i>	< 70dB

**Components & Materials**

<i>Cable</i>	Neoprene H07RN8F, length 10 meters. 3G1 with molded SHUKO plug for single-phase; 4G1 with free ends for three-phase
<i>Impeller</i>	Cast-iron EN-GJL-200
<i>Pump support</i>	Cast-iron EN-GJL-200
<i>Discharge body</i>	Cast-iron EN-GJL-200
<i>Motor case</i>	Cast-iron EN-GJL-200
<i>Pump cover</i>	Cast-iron EN-GJL-200
<i>Motor shaft</i>	Stainless steel AISI 420B 1.4028
<i>Screws</i>	Stainless steel AISI 304 1.4301 (A2)
<i>Mechanical seal</i>	Silicon carbide / NBR / AISI 304
<i>Oil seal</i>	NBR
<i>Kit o-ring</i>	NBR
<i>Ball bearings</i>	Lower: 6202-ZZ SKF, upper: 6202-ZZ SKF
<i>Oil</i>	Dielectric, not polluting, not toxic

**Motor characteristics**

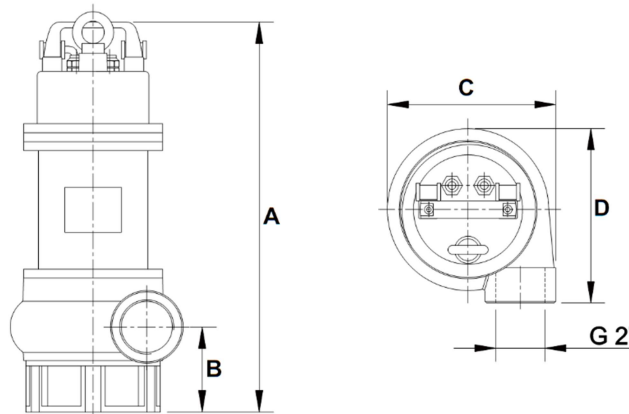
Type of motor	Hard-duty squirrel cage motor in oil bath
Start type	DOL (Direct On Line)
Protection	Automatic reset built-in thermal protection (for single-phase voltage); by a magnetothermic switch by the user for three-phase voltage (see optional section for electric boards)
Insulation class	Class F
Nos. of poles	2
Service type	S1 (with pump completely immersed into pumped fluid)
Cooling	Ensured by the immersion of the pump into the fluid

**Optional available**

Coupling foot	Coupling foot model 2" (connection 2")
Hose connection	90° elbow hose connection in brass, 3 pieces, 2" x 50mm
Electric board	Model F5-0.5/3-1 for single-phase, model F6-0.5/10-3 for three-phase
No return valve	Professional no-return ball check valve 2" in cast-iron with NBR ball
Separated float switch	10 meters cable or 20 meters cable float-switch to be connected to an electric board F5-0.5/3-1 or F6-0.5/10-3
Anodes	To avoid corrosion by galvanic currents

**Special features on request**

Metallized impeller	Metallic coating of the impeller in molybdenum carbide for very abrasive applications
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**Dimensions & weight**


Models	Dimensions (mm)				Carton box	Weight kg	Pumps per layer on EPAL
	A	B	C	D			
VORTEX 100	435	95	193	199	230 x 200 x H470	23	20
VORTEX 140	435	95	193	199	230 x 200 x H470	24	20