

**Model** VORTEX 500 SS 316 / 23

**Description**

Top-quality heavy-duty construction pump suitable to pump aggressive dirty waters, acid and alkaline effluents, sea water, etc. Its most frequent applications are in the food industries, on chemical, galvanic and tanning plants, in the fish industries and in several seaport applications.

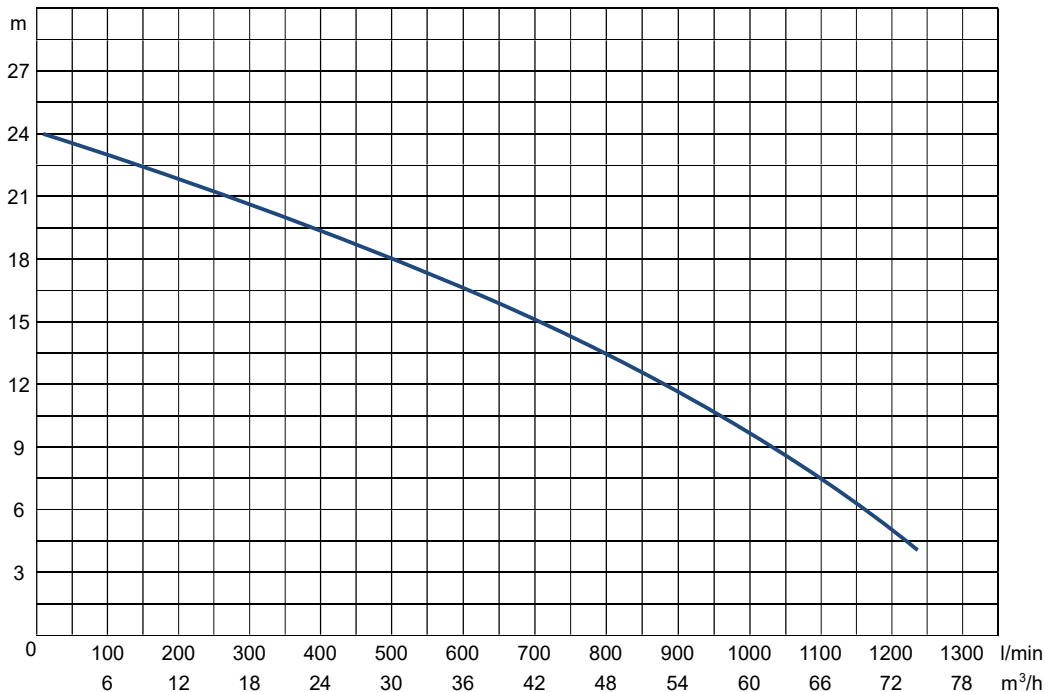
**Pumped fluid**

**Application** Acid, alkaline and corrosive effluents  
**Max Density** 1100 kg/m<sup>3</sup>  
**Temperature range** 0-40 °C 32-104 °F  
**pH range** 2-14 pH



**Performance**

| Model                  |                   | Head (m) |       |       |       |       |       |       |      |      |
|------------------------|-------------------|----------|-------|-------|-------|-------|-------|-------|------|------|
|                        |                   | 4        | 6     | 8     | 10    | 12    | 14    | 16    | 18   | 20   |
|                        |                   | Capacity |       |       |       |       |       |       |      |      |
| VORTEX 500 SS 316 / 23 | l/min             | 1240     | 1155  | 1080  | 970   | 890   | 780   | 645   | 500  | 340  |
|                        | m <sup>3</sup> /h | 74,4     | 69,3  | 64,8  | 58,2  | 53,4  | 46,8  | 38,7  | 30,0 | 20,4 |
|                        | l/s               | 20,67    | 19,25 | 18,00 | 16,17 | 14,83 | 13,00 | 10,75 | 8,33 | 5,67 |



**Hydraulic**

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| <i>Impeller type</i>     | Bi-channel open impeller type                                 |
| <i>Outlet</i>            | DN 80 – vertical, PN 16, round counter-flange threaded 3" BSP |
| <i>Free passage</i>      | 35 mm                                                         |
| <i>Max head</i>          | 24 m (2.4 bar)                                                |
| <i>Min head</i>          | 4 m                                                           |
| <i>Max capacity</i>      | 1240 l/min                                                    |
| <i>Min suction level</i> | 180 mm                                                        |

**Electric characteristics**

| <b>Model</b>           | <b>Power (P<sub>2</sub>)</b><br>HP      kW |     | <b>rpm</b> | <b>Voltage</b><br>V | <b>ph</b> | <b>I<sub>N</sub></b><br>A | <b>Built-in float-switch</b> |
|------------------------|--------------------------------------------|-----|------------|---------------------|-----------|---------------------------|------------------------------|
| VORTEX 500 SS 316 / 23 | 5.0                                        | 3.7 | 2850       | 400                 | 3~        | 8,4                       | NO                           |

**Technical characteristics**

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| <i>IP</i>                   | 68                                            |
| <i>Sealing</i>              | Double mechanical seal in oil bath + oil seal |
| <i>Max. immersion</i>       | 5 meters (with 10 meters cable)               |
| <i>Protective coating</i>   | None                                          |
| <i>Sound pressure level</i> | < 70dB                                        |

**Components & Materials**

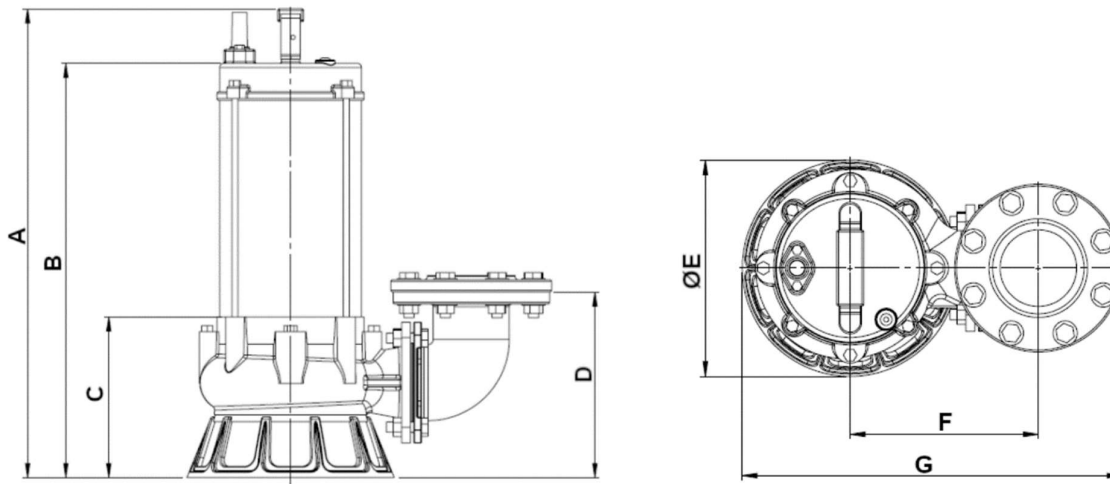
|                        |                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------|
| <i>Cable</i>           | Neoprene H07RN8F, length 10 meters, 4G2,5 with free ends<br>Resined cable gland for watertight sealing of the cable |
| <i>Impeller</i>        | Stainless steel AISI 316L 1.4435 (A4)                                                                               |
| <i>Pump support</i>    | Stainless steel AISI 316L 1.4435 (A4)                                                                               |
| <i>Discharge body</i>  | Stainless steel AISI 316L 1.4435 (A4)                                                                               |
| <i>Motor case</i>      | Stainless steel AISI 316L 1.4435 (A4)                                                                               |
| <i>Pump cover</i>      | Stainless steel AISI 316L 1.4435 (A4)                                                                               |
| <i>Motor shaft</i>     | Stainless steel AISI 316L 1.4435 (A4)                                                                               |
| <i>Screws</i>          | Stainless steel AISI 316L 1.4435 (A4)                                                                               |
| <i>Mechanical seal</i> | Lower: Silicon carbide / Silicon carbide / Viton / AISI 316<br>Upper: Alumina / Graphite / NBR / AISI 304           |
| <i>Oil seal</i>        | Viton                                                                                                               |
| <i>Kit o-ring</i>      | Viton                                                                                                               |
| <i>Ball bearings</i>   | Lower: 6305 LU C3, upper: 6204 LU C3                                                                                |
| <i>Oil</i>             | Dielectric, not polluting, not toxic                                                                                |

**Motor characteristics**

|                  |                                                                                                                                                                                      |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of motor    | Hard-duty squirrel cage motor                                                                                                                                                        |
| Start type       | DOL (Direct On Line)                                                                                                                                                                 |
| Protection       | Automatic reset built-in thermal protection; it is anyway suggested to connect the pump to an electric board with a magnetothermic switch (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 DN80 in stainless steel AISI 304 (connection DN80)                                                                  |
| Hose connection        | Quick-coupling "storz" connection with DN80 hose connection in aluminum                                                                 |
| Electric board         | F6-0.5/10-3                                                                                                                             |
| No return valve        | - Professional no-return ball check valve DN80 cast-iron, NBR ball<br>- Professional no-return ball check valve DN80 AISI 316, FPM ball |
| Separated float switch | 10 meters cable or 20 meters cable float-switch to be connected to an electric board F6-0.5/10-3                                        |
| Anods                  | To avoid corrosion by galvanic currents                                                                                                 |

**Dimensions & weight**


| Model                  | Dimensions (mm) |     |     |     |     |     |     |              | Weight<br>kg | Pumps<br>per layer<br>on EPAL |
|------------------------|-----------------|-----|-----|-----|-----|-----|-----|--------------|--------------|-------------------------------|
|                        | A               | B   | C   | D   | E   | F   | G   | Carton box   |              |                               |
| VORTEX 500 SS 316 / 23 | 612             | 512 | 187 | 215 | 240 | 209 | 422 | 275x465xH615 | 47           | 6                             |