Floatation device XL for submersible pumps

General

The floatation device XL is a complete solution which includes all features required to guarantee buoyancy for Sulzer submersible drainage pumps in sites that require them to be submerged, while allowing them to rise/fall according to the existing water level. This system avoids permanent or temporary portable installations when pumps anchored or standing on the tank floor is not intended.

Design

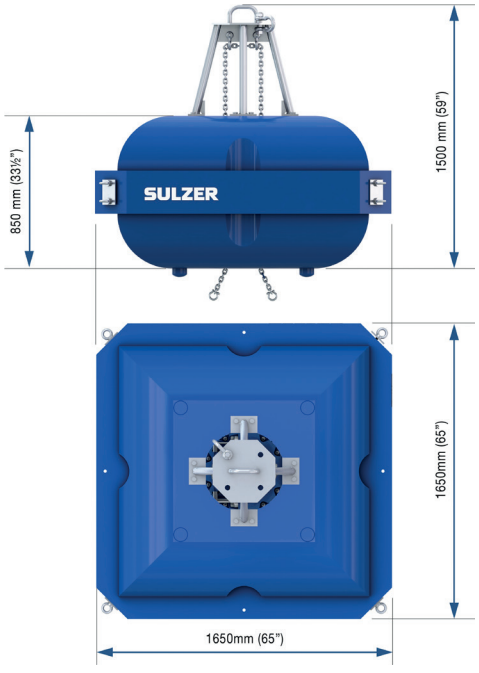
- Integrally made in polyethylene (floating block enclosure) and stainless steel (core).
- Suitable for all types of submersible pumps up to 1,400 kg (max. effective load 1,300 kg).

Application

When installing a submersible pump in temporary detention basins, gravel pits, quarries, construction sites subject to drainage, lagoons, etc., it is often required to have the pump floating close to the surface avoiding all contact with the tank floor. For this type of installation, the floatation device XL gathers the optimal conditions required regarding volume, buoyancy and stability.

The floatation device XL provides the following benefits:

- Compact unit. Its dimensions allow for easy conventional transport.
- Enclosure/casing with controlled expansion PUR foam core to improve floatation performance.
- If required, we can supply approved lifting chains with adjustable lengths. This allows the pumps to work at different submergence depths depending on the existing water level, so they can pump to the lowest level required.



[1] Please contact Sulzer for the most suitable pump and flotation device combination according to type of liquid.

Element / Component	Material
Floatation block enclosure (surface)	MDPE rotomolded
Internal structure (core)	Stainless steel AISI 304
Float filling	Closed-cell controlled expanding PUR foam
Vertical lifting stand	Stainless steel AISI 304

Floatation block (excl. accessories): 325 kg.

Development

Most standard floating devices for submersible pumps cause problems during transport due to their size. Fast delivery is crucial, so in order to satisfy the application requirements, Sulzer has developed a compact floating system. The floatation device XL is manufactured using the rotational moulding processing method with a stainless steel core and a bearing capacity up to 1,300 kg. They can be used in almost every type of drainage operation, including extremely challenging conditions such as wastewater tanks with oxygen absence or excess, concentrations affecting the fluid pH, leachate dilutions, etc. [1]

These applications require that all manufacturing related accessories and materials should be resistant to mechanical (weight and reaction forces) and chemical (materials passive resistance) requirements in order to meet the most aggressive conditions without damage. Maintenance personnel need to count on convenient floating systems when it comes to transport and initial installation, as well as during inspection and maintenance. Depending on the application, the pumps can be lowered at any depth to the most suitable position to meet the optimum pumping requirements for each installation.

Suitable for dewatering and wastewater pumps

Depending on application and weight, it can be used with pumps from our dewatering and wastewater ranges.

Possibility of serial installation building a large pontoon

Angle bracket.

Lifting chains

Upon request, we can supply the suitable set of high load capacity lifting chains to pump weight (see accessories table).

Floatation device

Item No.	Description	Material
84006154	Floatation device XL	Stainless steel AISI 304 + PE

Accessories

Item No.	Description	Material
84006341	Chain 1,600 kg 1m WOX8-6+CWI8-6+HSWI8-6 [2]	Stainless steel AISI 316
84006342	Connecting link CWI8-6	Stainless steel AISI 316
84006344	Angle bracket [3]	Stainless steel AISI 304
84006345	Vertical lifting stand [4]	Stainless steel AISI 304

[2] Two units required per floating device.
[3] Two units required for two floating devices.
[4] Element included in item no. 84006154. Can be ordered as spare part if required.