

# Alligator Silodome

High-performance cover system for steel water tanks



Royal Warrant Holder

## Advanced structural cover system for complete water protection in silos.

The Silodome is a high-performance cover system that fully encloses water silos. It prevents evaporation, algae growth and contamination, while ensuring a stable water temperature

### About the system

The Silodome consists of a lightweight aluminium frame, Eurocode 1 compliant, combined with a high-quality reinforced PVC cover.

The system is prefabricated and installed in one piece using a mobile crane, and is suitable for both new and existing silos.

### Key components

The Silodome is equipped with:

- > Central support column
- > Integrated clamping system in the silo corrugation
- > Pre-installed manhole for inspection and maintenance
- > Aluminium support structure with optional reinforcement rings

### System features

- > Prefabricated system for efficient installation
- > Installed in one piece using a crane
- > Suitable for new and existing silos
- > Fully tensioned cover design
- > Maintenance access via integrated manhole

### Operational requirements

- > Annual inspection required
- > Suitable for pH values between 4 and 8

## Available configurations:

### Silodome 1.1

- > Ø 3.5 – 9.1 m, for standard applications
- > Proven, efficient covering solution
- > Fixed construction design
- > Fully compliant with Eurocode 1 standards
- > Designed up to wind of 10 Beaufort and a snow load of 56 kg m/2
- > Wall thickness: 1,0 mm

### Silodome 2.1

- > Ø 9.1 – 15.4 m, designed for larger diameters and higher loads
- > Adjustable structure for flexible installation
- > Fully compliant with Eurocode 1 standards
- > Designed up to wind of 10 Beaufort and a snow load of 56 kg m/2
- > Wall thickness: 0.8 or 1,0 mm

## Technical highlights

- **Material:** Aluminium frame (Eurocode 1 compliant)
- **Construction:** Alligatex PVC Type 1 – 900 g/m<sup>2</sup>
- **Application:** For steel tanks up to 15,4 diameter
- **Service life & warranty:** 5 years, with a linear reduction of 20% per year

## Benefits

- > Prevents algae growth, contamination and evaporation
- > Stabilizes water temperature
- > Minimal load on silo wall, no extra support needed
- > Reliable performance under varying weather conditions
- > Easy access for maintenance

#### Contact

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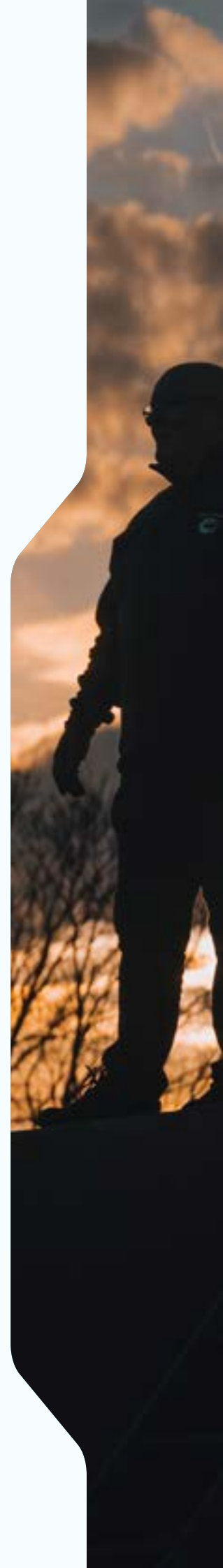
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### Silodome 1.1

Dome diameter	Load vertical on rafter [km/m <sup>2</sup> ]	Wind speed [bft]
3360	56	10
4774	56	10
5460	56	10
6220	56	10
6370	56	10
6720	56	10
7040	56	10
7280	56	10
7390	56	10
7910	56	10
8190	56	10
8330	56	10
8730	56	10
8800	56	10
9100	40	10

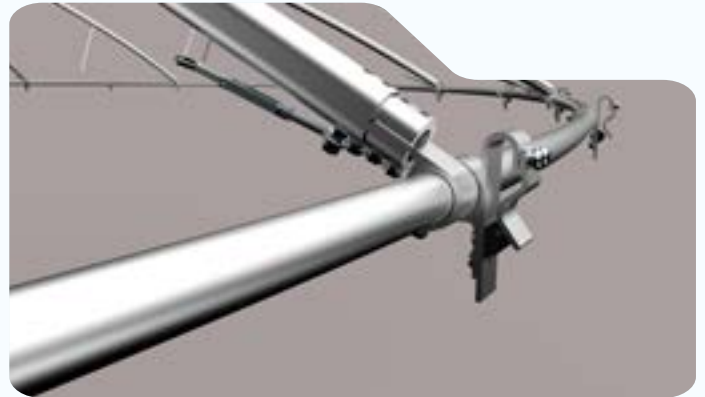
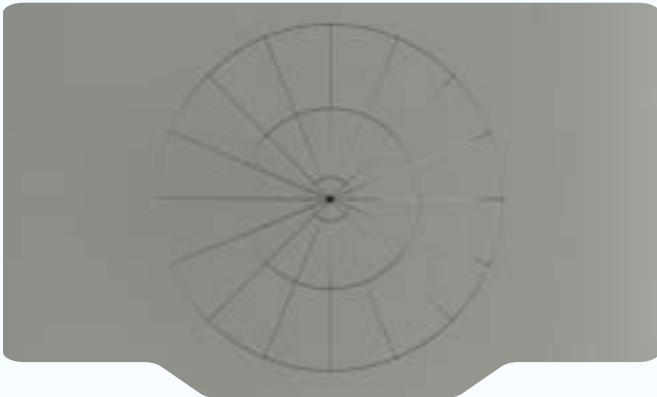
### Silodome 2.1

Dome diameter	Load vertical on rafter [km/m <sup>2</sup> ]	Wind speed [bft]
9100	56	10
9410	56	10
9680	56	10
10010	56	10
10560	56	10
10750	56	10
11420	56	10
11830	56	10
12090	56	10
12750	56	10
13660	56	10
14570	56	10
14950	56	10
15387	56	10



## Silodome 1.1 vs. 2.1

	Silodome 1.1	Silodome 2.1
<b>Applicability</b>	Ø tot 9.10 m	Ø 9.10 – 15.40 m
<b>Standards &amp; Engineering</b>	Designed according to Eurocode 1 (W3)	Designed according to Eurocode 1 (W3)
<b>Rafter Length</b>	Fixed rafter length	Adjustable rafter length, enabling easier installation on slightly oval tanks
<b>Structural Reinforcement</b>	No integrated silo wall reinforcement; no external support required	Integrated silo wall reinforcement; less dependent on tank strength; no external support required
<b>Installation Method</b>	More separate components	More prefabricated components
<b>Rafter Profiles</b>	Lighter round rafter profiles	Stronger oval rafter profiles, suitable for larger water silos
<b>Engineering</b>	Structurally verified by an external engineering firm	Structurally verified by an external engineering firm
<b>Snow load</b>	Up to 56 kg/m <sup>2</sup>	Up to 56 kg/m <sup>2</sup>
<b>Wind load</b>	Up to Beaufort 10	Up to Beaufort 10



*Alligator Silodome 2.1, aluminium prefabbed oval frame, adjustable to diameter*



### Specifications Alligatex PVC type 1

<b>Fabric</b>		100% PES 1100 dtex	
<b>Weight</b>		900 g/m <sup>2</sup>	DIN EN ISO 2286-2
<b>Thickness</b>		0,7 [+/-10%] mm	DIN EN ISO 2286-3
<b>Charasteristics</b>		ABUV	
<b>Lacquering</b>		1/1	
<b>Embossing</b>		Dull	
<b>Breaking strenght</b>	Warp Weft	3000 N/5cm 2800 N/5cm	EN ISO 1421-1
<b>Tear strenght</b>	Warp Weft	300N 300N	DIN 53 363
<b>Adhesion</b>		100 N/5cm	EN ISO 2411
<b>Gas permeability</b>		< 400 cm <sup>3</sup> / m <sup>2</sup> .bar.d	DIN 53 380
<b>Temperature resistance</b>		-30°C/ + 70°C	DIN EN 1876-2
<b>Light fastness (except white and (half-) transparent)</b>		7-8	ISO 105 B02
<b>Fire behavior</b>		< 100 mm/min	ISO 3795
<b>Dimensional stability</b>	Warp Weft	< 0.5% < 0.5%	10 MIN /100°C
<b>Application</b>		KIWA	
<b>KIWA (col.6158/6225/7264)</b>		Conform	

# About Albers Alligator

1901. There, in that year, we started committing to a powerful core promise: delivering craftsmanship.

Starting as apprentice saddlers, and over the modest 125 years since, we have grown into a recognized Royal Warrant Holder, a global specialist in flexible foil constructions and a market leader. A team truly dedicated to being ready for the future.

Dedicated to delivering craftsmanship. Craftsmanship that knows how to reinvent itself. Smarter. More sustainable. More effective. Because we understand every sector: horticulture, agriculture and industry.

As the inventor of the Multi-F, LP Cover and Silodome systems, Albers Alligator has become an innovator and frontrunner in the storage, coverage and protection of water storage solutions.

Our partners, including you, want to move forward. Working with a solution from Albers Alligator means you can rely on the core value we have been committed to since 1901: craftsmanship. The best solution for you.



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• [albersalligator.com](https://albersalligator.com)

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