



AGRO



# Airtight Modular Silos

in fiber-reinforced composite material

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 TUNETANKEN



# Airtight Modular Silos in fiber-reinforced composite

Tunetanken Airtight Modular Silos ensure best conditions for storage of grain and harvest. Airtight Modular Silos maintain the quality of the grain high. In an airtight silo the grain lose their germination capacity and thus have a preservative and fermenting effect.

Our Airtight Modular Silos provide a cost-effective storage, as you avoid drying expenses. In an Airtight Modular Silo, the risk of vermin is minimised as there is no atmospheric oxygen.

Airtight Modular Silos can be built according to your needs, e.g. in relation to filling and emptying equipment, dimensions, connection to other silos as well as colour choices. This ensures that Tunetanken Airtight Modular Silos fit into the new surroundings as well as for your workflow. Silos have smooth inner surfaces and rounded corners, that ensure a good flow during grain extraction.

Airtight Modular Silos are made of fiber-reinforced composite – a unique material that is also used to

manufacture highly strained products such as wind turbines, ships, airplanes, bridges, etc.

## Benefits of Tunetanken Airtight Modular Silos:

- > Fully moulded construction ensures an airtight silo where stored media is protected from atmospheric oxygen.
- > Allows for storage of grain with up to 22% of moisture content.
- > Less waste, as harvest can be collected 2-3 days earlier.
- > No drying costs and no extra transportation expenses.
- > Greater appetite of the livestock, as the grain smells fresh and contains less dust.
- > Better straw quality due to the early harvest.
- > Better utilisation of the nutritional value of the grain.
- > Minimises the risk of vermin as no atmospheric oxygen is present.

Tunetanken Airtight Modular Silos are thought out with regard to installation, operation, maintenance, life cycle, environment.

## Benefits

### 1. Airtight Modular Silos

Fully moulded construction secures airtightness and thus the grain conservation during the storage.

### 2. Smooth inner surfaces

Smooth inner surfaces facilitate the cleaning and ensure that the stored media can slide easily, securing a dynamic mass-flow.

### 3. Fiber-reinforced composite

Produced in fiber-reinforced composite material with unique properties like corrosion resistance, chemical resistance and insulation.

### 4. Pressure relief valve

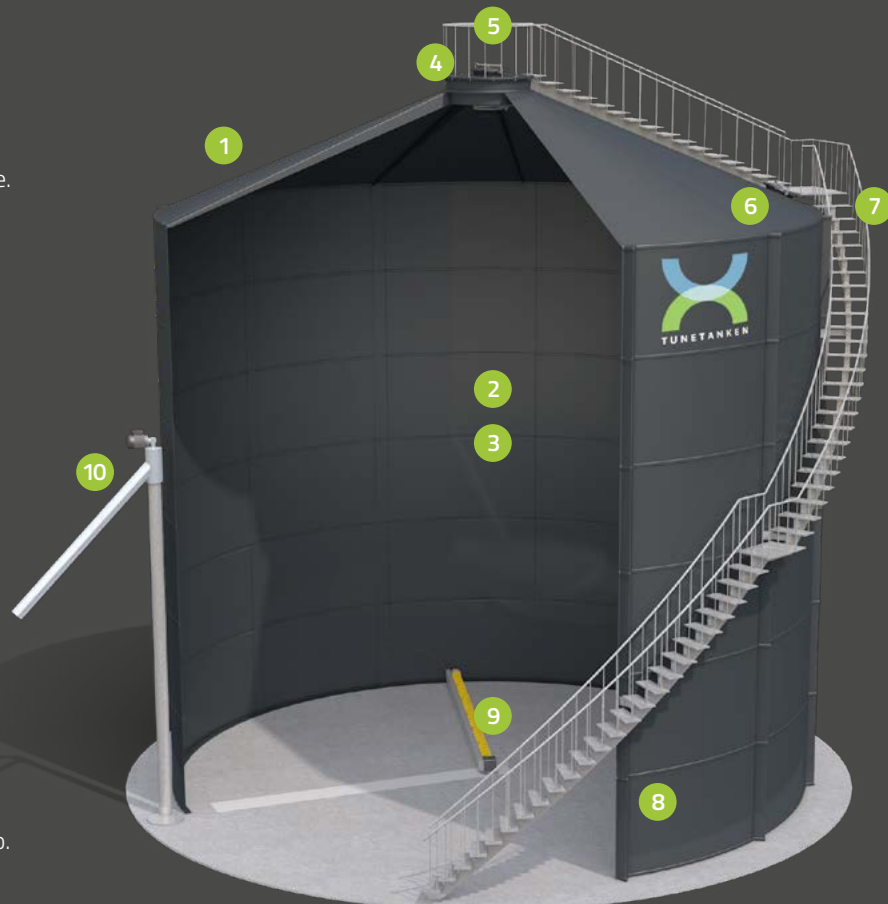
For monitoring and regulating overpressure and underpressure. No mechanical parts that can rust together.

### 5. Top hatch

Airtight top hatch with a hinged cover and a handwheel closure for grain filling.

### 6. Airtight manhole/inspection hatch

Can be delivered with a manhole with a cover, which facilitates inspection and cleaning of the silo.





## Benefits of Tunetanken Airtight Modular Silos

- > Produced in fiber-reinforced composite material that has unique properties like corrosion resistance, chemical resistance and insulation.
- > Flexible modular system allows for various construction options.
- > Sizes from 340 m<sup>3</sup> to 12.500 m<sup>3</sup>.
- > Laminated, fully moulded construction ensures airtightness and strength.
- > Allows for storage of grain with up to 22% of moisture content.
- > Low weight and fully moulded design for fast and easy installation.
- > Available in various colours.

### 7. Modular ladder/staircase

Modular staircase with railing and landing. When building several silos together, a connecting walkway between the silos is provided.

### 8. Manometer

Used when adding CO<sub>2</sub>, as well as for reading over-pressure and underpressure in order to ensure that the silo is airtight.

### 9. Screw conveyor

Rotating screw conveyor in the floor directs the media to the center of the silo and towards the emptying system.

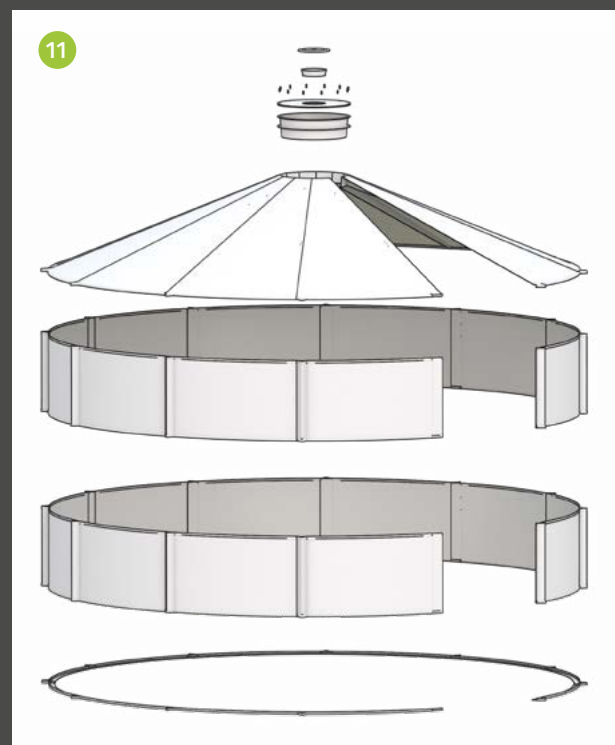
### 10. Unloading system

Leads the media from the funnel at the bottom of the silo, via pipe under the floor and out to a discharge pipe.

### 11. Modular construction

Modular construction allows for variable sizes and solutions. All joints are fully laminated for easy cleaning thus providing a high level of hygiene.

## Flexible modular system





## Tunetanken

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With more than 50 years of experience working with fiber-reinforced composite materials, their unique advantages and a large standard product programme we have developed our market position as the leading Danish manufacturer of storage tanks, industry systems and silos in composite materials.

Tunetanken markets a large and varied programme of products and facilities for various purposes as well as supplies a large range of industries including agriculture, industry, wastewater and water treatment for energy sector. We produce all our solutions in fiber-reinforced composite materials – the same materials that are used in the manufacturing of space shuttles, air planes and wind mills. With benefits as strength, corrosion resistance and long life cycle, composites are among the popular materials of the future.



## Agro

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Tunetanken offers a broad programme of products, facilities and systems for agriculture. We produce silos, tanks, airtight silos, grain handling systems, hay and grain drying systems, carcass covers, slurry systems, shelters, buildings, irrigation systems, barn inventory et al.

Most of our products are made with the incorporation of fiber-reinforced composite materials, which with their unique properties are extremely suitable for the demanding agricultural environment.

Modern composite materials are materials of the future. The innovative and unmatched technical material properties contribute greatly to the development of new sustainable products and solutions, which are necessary for a sustainable future.



## Composit

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Composite is derived from the Latin word »componere«.

Composite materials are made by combining two or more materials (physically not chemically), thereby creating a new material with specially intended and superior properties.

Technical properties of composite materials derive from the initial qualities and properties of the combined materials, the combination of the fabrics (matrix, reinforcement, hardener, additives), as well as, the production processes and conditions.

Possibilities are endless!