



Sturdy design  
Reliable technology

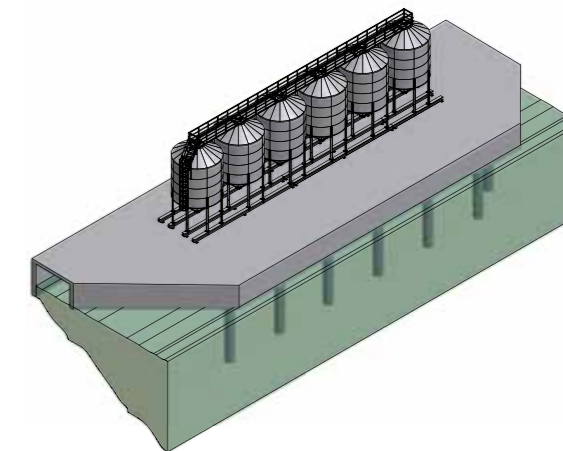


## Silo & Tank Solutions

– For producers and purchasers of fish feed



## Bulk supply of fish feed by ship



The Assentoft Silo heavy hot galvanized silo modules, combined with projecting and assembly experience, enable us to provide high quality customized silo solutions at an attractive price. These systems are also available with conveyor and elevator systems in 20 – 120 tons/h. capacity.

Standard silos with steel cone bottom on legs are available in diameters ranging from 277 m<sup>3</sup> to 464 m<sup>3</sup>:

Type	m <sup>3</sup>	Height
388/4	56	6,47
388/5	68	7,49
388/6	80	8,51
388/7	92	9,53
388/8	104	10,55
388/9	116	11,57
388/10	128	12,59
442/4	79	6,89
442/5	95	7,91
442/6	111	8,93
442/7	127	9,95
442/8	143	10,97
442/9	159	11,99
442/10	175	13,01
442/11	191	14,03
442/12	207	15,05
464/4	98	7,49
464/5	118	8,67
464/6	137	9,86
464/7	157	11,03



Tanks being filled by special ship

### Six 79 m<sup>3</sup> silos for fish feed, RaumaGruppen AS, Midsund, Norway

In 2010, Assentoft Silo has projected, produced, and assembled six hot galvanized steel silos for fish feed.

These silos are made of bolted steel plates, making an extremely sturdy structure. All components – bolts, profiles, ladders, and plates – are hot-dip galvanized for long durability in the aggressive marine environment in which the silos are set up.

#### Technical data

Diameter	4,420 mm
Height	7,43 m
Volume, per silo	79 m <sup>3</sup>
Clearance under outlet	0,5 m

### On these silos, the items below have been mounted

- Side Access Door
- Coupling for placing of empty/full silo signalling unit
- Overfill sensor with rotor lamp for indication of full silo
- Electrically controlled top door. Available with radio controlled remote control
- Ladder for silo top
- Outlet with manual shutter

### Benefits

- The silos are provided as assembly sets – for easy freighting up to the erection site
- The silos may be made in various sizes – depending on the consumption
- Short erection time
- Surface treatment in a manner controlled
- Allowing for silos to be dismantled and moved
- The silos are fully waterproof

## Raw material silos for fish meal



### Supply of eight bolted raw material silos for fish meal and 100 t/h. transport equipment for Havsbrún, Fuglafjørður, the Faroe Islands

#### Environment determining colour

To adapt the system to the surrounding scenery as far as possible, the builder's architect decided to have the galvanized silo plates painted. The galvanizing provides the corrosion protection needed, and the painting has been done solely for visual reasons. The silo plates are painted in a controlled environment, for high, uniform quality.

#### Module supplied

The silo system is supplied in modules, bolted on the site – aiming at a short building period, and a minimum of interruption of the plant operation. The silos are mounted on a jetty, near the quays, for easy loading on to ship.

The welded steel structure at the lower part of the silo contains a 60 degrees cone, coupled on a vibration bottom with a 3,500 mm outlet and verified scales.

**”** *This silo system has met our expectations fully for rationalization of shipment/unloading and internal transport of raw materials by way of savings on staff and truck driving.*

*We have gained a higher degree of flexibility with regard to planning of shipment. On account of the high capacity, shipments may typically be handled within one working day.*

*Finally, we have also got a drastic reduction in the environment noise load due to eliminating of truck driving in day and night hours.*

Yngvi Lava Olsen, Technical Manager, Havsbrún **”**

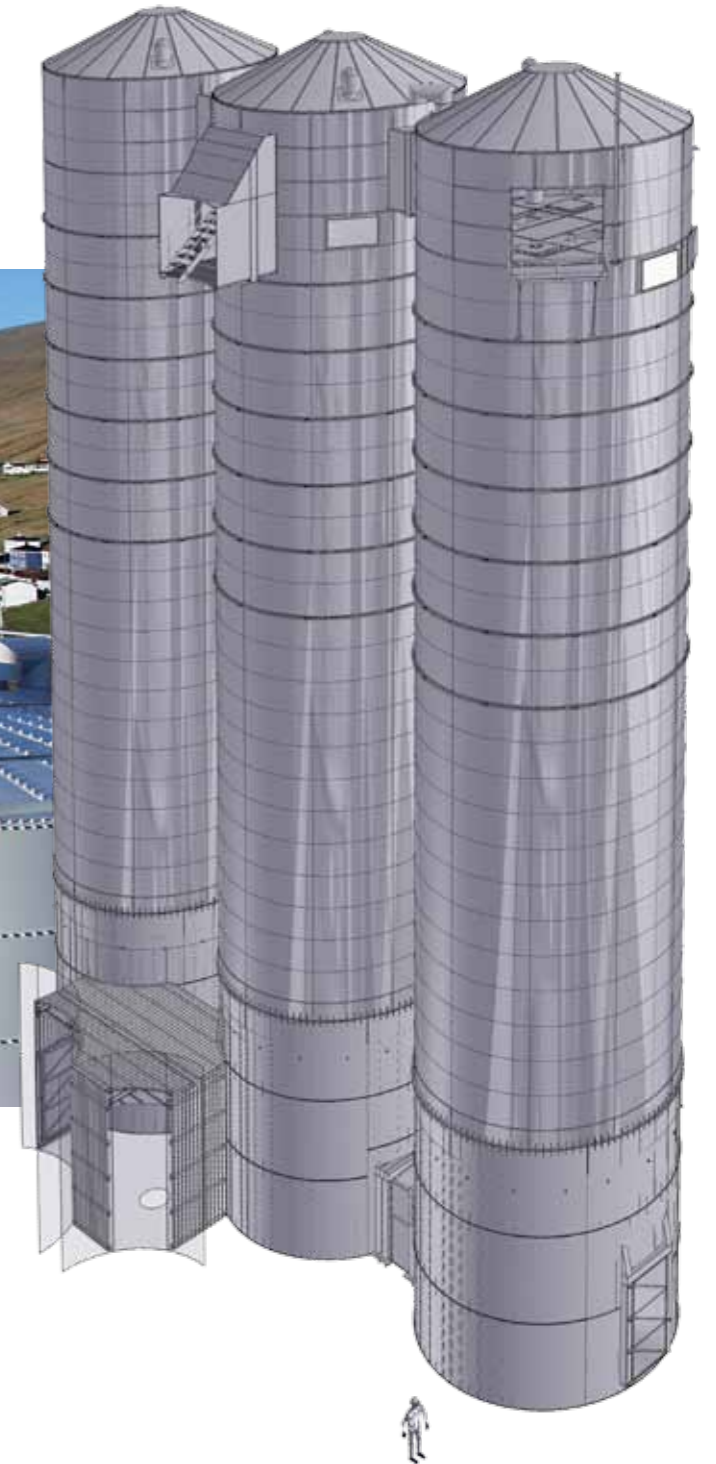
#### Machine deck at the top

At the top of the silos, a machine deck has been arranged, providing optimal protection for conveying system and filters. Access to the machine deck is provided by way of a winding staircase, and the silos are interconnected through a connecting passage.

#### Closed system

The system is fully closed, as well as protected against moisture and pollution from the environment.

**Since the 1980's, Assentoft Silo has gained considerable experience in technical consulting, design, production, and assembly of major bulk silo systems for the fish feed industry.**



#### Technical data

Eight bolted silos, mounted on a welded steel structure.

Diameter	8,866 mm
Total Height	35,500 mm
Volume	1,522 m <sup>3</sup> , totally 12,176 m <sup>3</sup>
Cone	60°
Vibration Bottom	Diam. 3,500 mm
Capacity, Elevators	200 tons/hour

## Bolted tanks



Bolted tanks for fish silage, waste products, and a wide range of other industrial storage needs. These tanks are made in bolted panels of stainless steel, black steel, or vitreous enamel having an extremely high acid resistance. Sizes range between 100 m<sup>3</sup> and 7,000 m<sup>3</sup>.

### Competent consulting

Assentoft Silo has considerable experience in the building of tanks for various industrial purposes. Depending on the tank contents, operating temperature, and any requirements for insulation, we will provide consulting on the proper surface treatment.

### Uniform quality

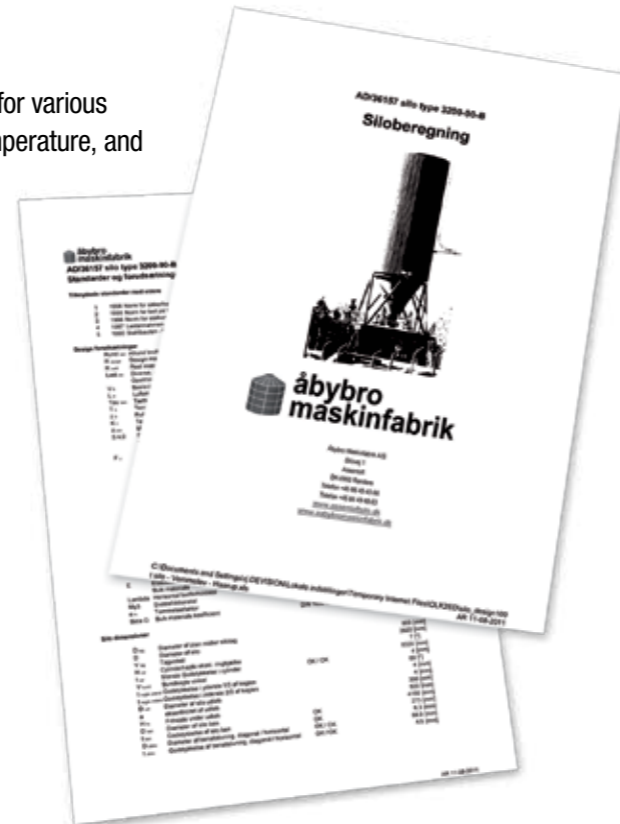
The plate panels are made at a specialized plant, subjected to meticulous repeat inspection, for a high, uniform quality of the surface treatment. Vitreous enamelled panels are made with several coatings, burnings, and subsequent high volt test to provide a non-rupture surface. Competent staff will see that quality is followed up to the final assembly of the tank at our client's place.

### Customizing

These tanks are made with approved hot galvanized access roads as required. Hollow plates for branches and cuts for pumps and agitators are also made as required.

### Static documentation

The tank will be accompanied by complete static documentation, made to Eurocode. Our calculations allow for the tank contents, the particular wind conditions, snow load, forces from any agitator – side mounted, or mounted in the roof.



## All-welded silos and tanks



Assentoft Silo makes all-welded silos for storage of feed and aggregate products such as lime etc., as well as unpressurized tanks. Diameters ranging from 1.4 to 3.8 metres, and a volume ranging from 15 to 200 m<sup>3</sup>. The finished silo will be conveyed direct ex works to the erection site where it will be bolted on to our customer's foundation. Thus requiring but a minimum of assembly and operating trouble for our customer.



Surface treatment is made in optional RAL colour in corrosion class 3, or as required.

### Our silos are available with the following equipment:

- Safety ladder and shift landing along silo wall
- Roof rail
- Gangway systems
- Silo filter
- Pneumatic cone air supply system
- Augers
- Top door and access door

Assentoft Silo handles assignments for the agricultural and industrial sectors. Our company has considerable experience in consulting, calculation, quotations/tendering, and implementation of bulk silo system projects for an abundance of purposes.

Assignments are performed in the storage of cement, various dust and slag products, fish meal, and ingredients for feed and food production.

Typically, silo systems are made with a welded bottom structure, and a bolted, hot-dip galvanized silo wall, providing a maintenance free surface of extremely long life.

Assentoft Silo runs a project department of its own, as well as a drawing office handling static calculation and documentation, as well as preparing fully detailed drawing material.

Assentoft Silo runs an electrical dept. of its own, based on our wide experience in relay and PLC control, panel building, documentation, and commissioning of systems.

Our silo systems are available with appurtenant filter and transport systems, mounted by Assentoft Silo's own, experienced service engineers.

## A brief extract of our other projects



Arcelor Mittal, France  
3,200 tons of cement



Faxe Kalk, Denmark  
Lime products



OMYA, England  
Various stone products

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