

## GENAP INSTALLATION INSTRUCTIONS

### SiloFloat® ANTI ALGAE FLOATING COVER

Genap SiloFloat® anti-algae floating cover for storage silo, varying in diameter from 7 to 31 metres.



#### **Materials**

NOTE: Check the packing list upon receipt of the materials prior to beginning assembly.

#### **Floating cover**

The floating cover is ready to be pulled across the water. A roll-out drawing is shown on the cover and the cover further provides cords which can be used for pulling the cover in when the silo is full. The cover is a floating construction with the buoyancy incorporated in the cover. The seam in the cover must be pulled across the tube. The cover has tensioning points behind which the elastic rope in the seam can be hooked/secured.

#### **Circular tube**

- PE tube, diameter depending on the silo diameter, as fastening/floating body for the floating cover. The tube has been drilled into and foam rubber has been put in the tube. This is to create both buoyancy and ballast.



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- Insert coupling tube, with a diameter that fits into the diameter of the floating tube, for interconnecting. The length of the coupling tube depends on the tube diameter.



- Mutual connection between the PE tubes by means of PVC tape.
- Bump stops (foam rubber parts) at each coupling point between the PE floating tubes.



### **Supply:**

- Floating cover and circular tube are supplied on the same pallet. Tubes are placed on top of the cover. All this is shrink-wrapped.



### **Assembly conditions:**

The floating cover must be assembled in the following conditions:

- an empty or near-empty silo (max. 25 cm) or a near-full silo ( $\leq 0.3$  metres from the upper edge).
- wind force  $< 3$  Bft., to be assessed by the engineer responsible onsite.
- a temperature  $> 5^{\circ}\text{C}$
- **Assembly:**

As indicated above, assembly is possible in an empty or near-full silo. Either method is subject

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to the following guidelines:

### 1. Circular tube in the silo

Assemble as much of the circular tube **outside** the silo; depending on the diameter and the available manpower for transferring the floating tube into the silo, it can be mounted in the silo either as a single unit or in parts. Apply the following procedure, see also

**Fig. 1:**

- lay out the tubes around the base of the silo
- Use the tube lengths supplied including one or two tubes as closing length(s) and the number of coupling tubes and foam rubber parts
- In order to link up the tubes, only use the insert coupling tubes supplied, combined with the PVC tape enclosed.
- Note the following when linking up the tubes:
  - Make sure the tube ends are clean; smooth and burr-free.
  - Slide the insert coupling tube up the screw stop (= halfway tube) in the first floating tube and temporarily fasten with tape.
  - Slide the second PE floating tube across the present coupling tube up to the first PE floating tube (distance between the two floating tubes to be linked up must be a maximum of 1 cm).
  - Tape off the transition between the two floating tubes using the PVC tape enclosed so that each PE floating cover is taped up by at least 15cm (wrapped). The total width covered with PVC tape per coupling must be at least 30cm. In any case, make sure that no sharp edges from the screw head stick out.
  - Mount the foam rubber part across the coupling around the tube and fasten this too using tape.
- Never fully close the ring outside the silo; depending on the silo diameter, leave at least 1 connection open and transfer ring into silo as a single unit or in parts.
- In the silo, close the ring or link up parts to form a single unit. The tube(s) (1 or 2) with closing lengths is already present. The tube need not be cut to size.

### 2. Floating cover in the silo

Move the floating cover into the silo and unfold in accordance with the roll-out drawing. The procedure is shown on the cover. There are two roll-out methods. 1 for floating covers < 14 metres and 1 for floating covers > 14 metres. For this, see the enclosed drawings. In the event of vertical tubes in the silo (e.g. overflow or water supply via silo edge), an opening must be cut in the cover in the corresponding place (avoid any pointy corners!). This hole must be supported with round foam rubber taped in a circle and affixed underneath the floating cover around the hole. The round foam rubber can be secured with tie rods. If the pipe runs up to the bottom of the silo, the following is desirable; 1. If the pipe runs up to the bottom of the silo, the following is desirable; 1. Cut the pipe in the silo and, after cutting the hole, mount a flange between the cut-off piece and the pipe or 2. Cut the pipe in the silo and, after having cut the hole, connect a water dosing hose to the pipe. These water dosing hoses are available on request. In the event a vertical suction pipe is present, it must be fitted with a bend or T, to prevent the foil being drawn into the suction pipe.

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### 3. Fastening the floating cover to the circular tube

Fix the floating cover to the circular tube by pulling the seam across the edge of the circular tube and fastening the elastic rope underneath the cover to the tensioning points. For this, holes have been punched at the cut-outs in the seam. These tensioning points with stainless steel rings and carabine hooks can be seen at the outer periphery of the cover and are spaced out at a distance of approx. 6 metres in peripheral direction.

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### Additional information:

- The distance of the inner silo wall to the outside of the floating tube =  $\pm 150\text{mm}$ .



- Water supply via the silo edge must **at all times** run via a vertical pipe or water dosing hose via the upper edge to underneath the cover. The water dosing hose must be ordered separately, stating the tube diameter of the supply pipe. A local opening must be cut in the floating cover for the water dosing hose.
- If vertical (upright) overflow pipes are present in the silo, cut-outs must be made in the floating cover where this pipe is; try and cut this opening as round as possible, avoiding pointy hoods and/or notches in the foil of the floating cover.



This hole must be supported with round foam rubber taped in a circle and affixed underneath the floating cover around the hole. The round foam rubber can be secured with cable ties. If the pipe runs up to the bottom of the silo, the following is desirable; 1. If the pipe runs up to the bottom of the silo, the following is desirable; 1. Cut the pipe in the silo and, after cutting the hole, mount a flange between the cut-off piece and the pipe or 2. Cut the pipe in the silo and, after having cut the hole, connect a water dosing hose to the pipe. These hoses are available on request.

- The design of the vertical overflow pipe in the silo must be such that the floating cover at all times remains below the highest level of the tube; e.g. by making perforation holes in the tube at the maximum water level in the silo.

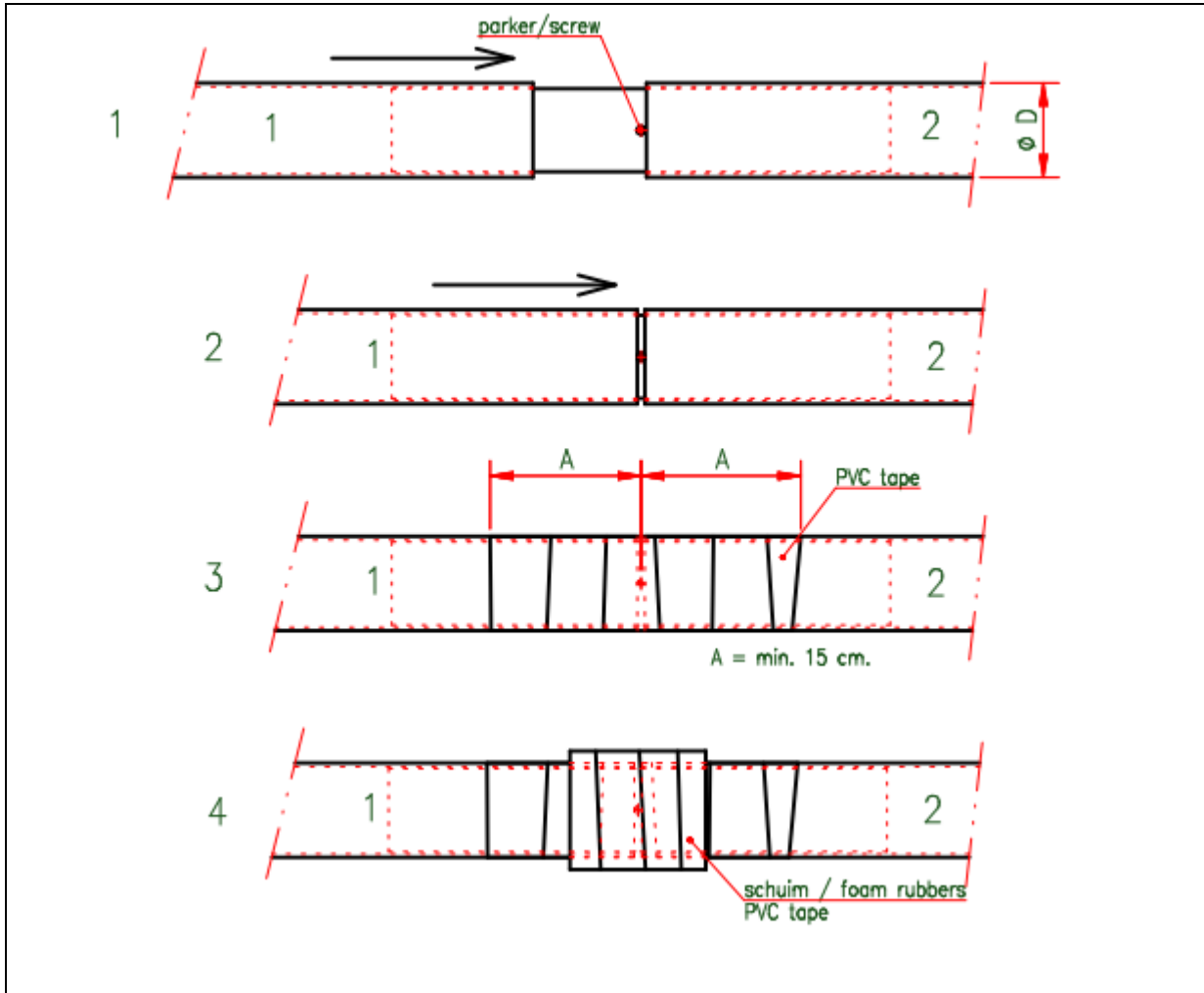
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### Maintenance guidelines:

- In order to ensure that floating cover continues to perform satisfactorily for many years to come, it is important that you follow the instructions in this assembly manual.
- In the event of outdoor storage, a regular inspection of the silo after a storm (strong winds) is recommended. This inspection must include checking for possible damage to the silo wall, tank lining and floating cover. If damage is detected, immediate action must be taken to repair this or to have this repaired. Furthermore, after a storm, it is advised to check whether the seam is still fixed across the circular tube. If this has come loose, it must be pulled across the tube again.
- Any bulky (excessive) contamination, such as branches, leaves etc. on the float must be removed immediately.
- Always maintain a minimum water level of 30 - 50 cm in the silo; this is to prevent damage to the buoyancy system and silo lining.
- Fill the silo up to a maximum of 25 cm below the silo edge
- In the event of ice-formation, it is advised not to withdraw water from the silo

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**Fig. I** circular tube composition consisting of tube; coupling tube; tape and foam rubber



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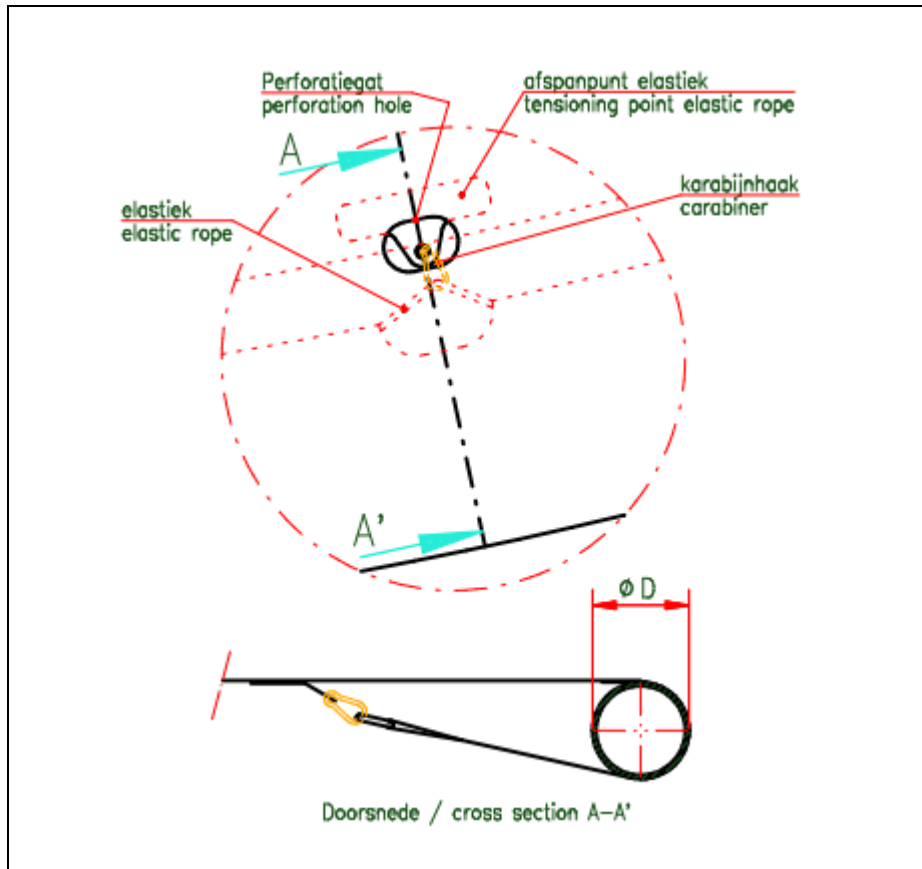


Fig.2 pulling point to secure elastic rope with carbine hook

