

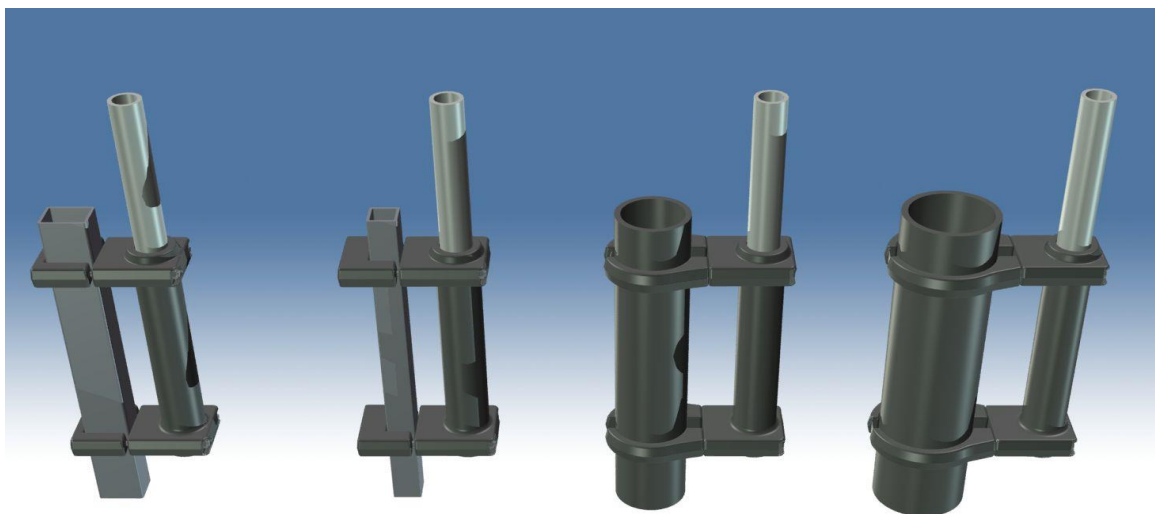


RABBEN KONSULT

# Rempro

## Bird Net Poles- User Manual

Rev. May 2019



Brackets for bird net poles- available for square and round stanchions

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Thank you for choosing Rempro AS!

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We wish to be a supplier of durable high quality products.

This manual is created to provide our customers with information on how to assemble, use and maintain our products in a safe manner.

All products are developed by Rempro AS and Rabben Konsult AS.

Please do not hesitate to contact us for further information.

Best Regards

Rempro AS

## CONTACT DETAILS

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## ABOUT THE PRODUCT

The product consists of compact glass fiber tubes and steel enhanced assemble brackets made of polyurethane.

When combining glass fiber and polyester, the tubes become extremely strong and flexible, allowing the poles to follow the cage's movement in the ocean.

The tubes are preassembled with ropes and pulley in the following circumference: 46mm, 50mm and 54mm. Our bestseller is 46mm/6 m. For farms over 130 meters, we recommend 54mm poles.

The tubes are assembled to the cages with brackets and can easily be removed for better access to the cage.

The brackets fit both round and square stanchions.



Example bracket round stanchions

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## REMPRO COMPOSITE PROFILES

Composite tubes  $\varnothing$ 46/28mm

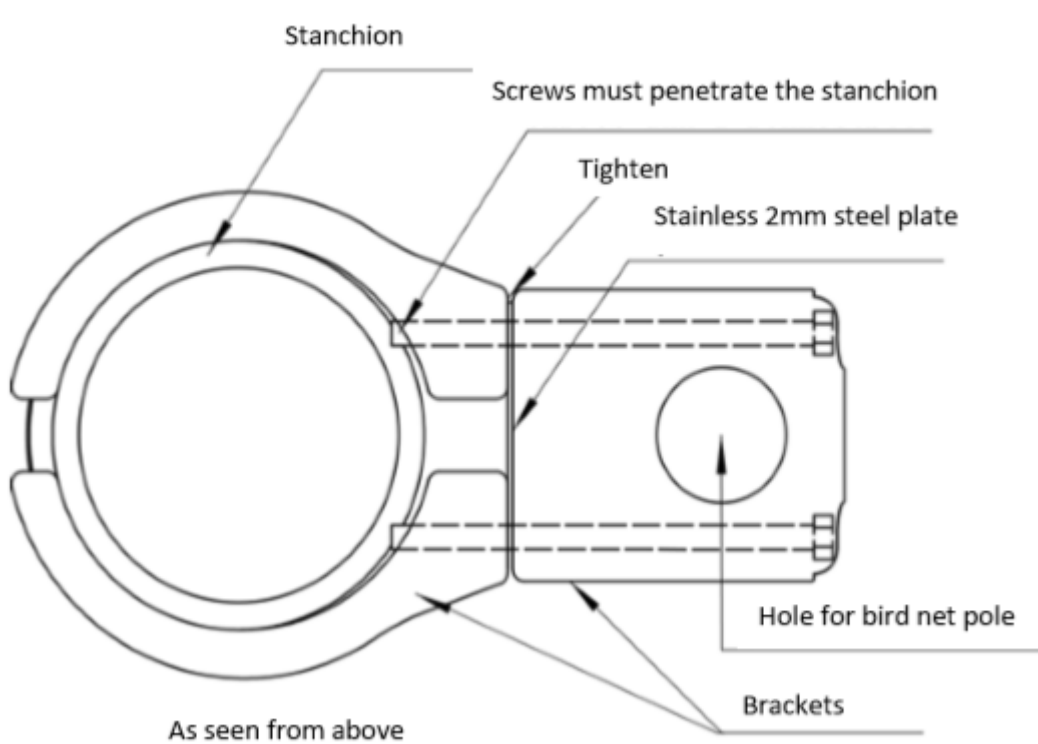
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Description	Pultruded composite poles produced in glass fiber armed polyester. Pultrusion is a continuous lamination process where the glass is pulled through a mould and resin is injected to be annealed with heat.	
Specifications	Product:	Pultruded composite tube
	Dimension:	$\varnothing$ 46/28mm
	Color:	Grey
	Length:	2-20 meters
	Weight:	1.830 g/m
	Resin:	Isoftalacidpolyester
	Reinforcement:	E- glass bulky roving 10.000 tex
	Reinforcement %:	55 %
	Density:	1,75g/cm <sup>3</sup>
Area of application	Optimized as bird net poles in seawater using iso. polyester and texturized roving to make approx. 12 % cross laminated reinforcement.	
Handling	Use gloves when handling the product. When cutting or drilling, use a mask and goggles to avoid inhaling dust containing glass fiber particles, and to prevent skin irritation.	
Storage	No restrictions	

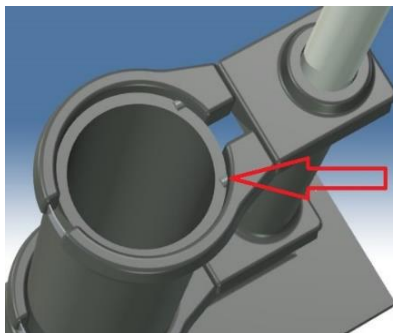
ASSEMBLY

Fence brackets

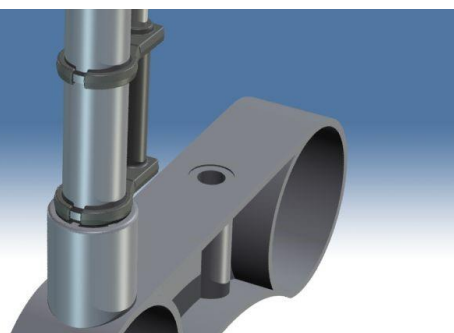
The bracket keeps the pole securely fastened, and are usually assembled on every third stanchion, depending on the circumference of the cage and bird net. When in doubt, please contact the net producer. Akvagrøp has approved the solution on their fish farms. (Analysis report TR-30084-2830-1).



Assembly video on <https://www.youtube.com/watch?v=SkM4QISBYfs>



Make sure the screw penetrates the cage post



The bracket must be assembled as low as possible



**Please note:**

Make sure the brackets are placed as far down the stanchions as possible to minimize the pressure on the fence.

Tighten the screws to the point where they break through the fence post.

After assembling the brackets, put the tubes in the bracket. No screws needed.



## Wedge

The wedge is developed for the Polarcirkel 500mm farm with 160mm stanchions. When assembling the brackets, we recommend using a wedge to level the post.



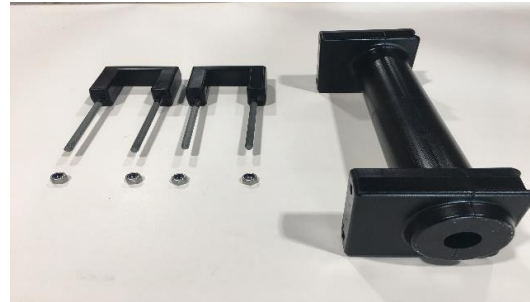
## Brackets for square fence posts



**Please note:**

Make sure the brackets are placed as far down the stanchions as possible to minimize the pressure on the fence.

After assembling the brackets, put the tubes in the bracket. No screws needed.



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## Brackets for chain holes

Put the bracket right into the chain hole. Insert the pole into the bracket, no screws needed. Please note that there are several chain hole dimensions; 65mm, 72mm, 76mm.



Bracket for chain holes



## Pulley

To reduce wear and tear, the ropes are attached to a steel reinforced polyurethane top pulley.



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## Rope

The multicolored 8mm x- braided rope will keep the net stretched. The black x- braided rope will pull up the side skirt. Both ropes are UV resistant and will float.



## USE AND MAINTENANCE

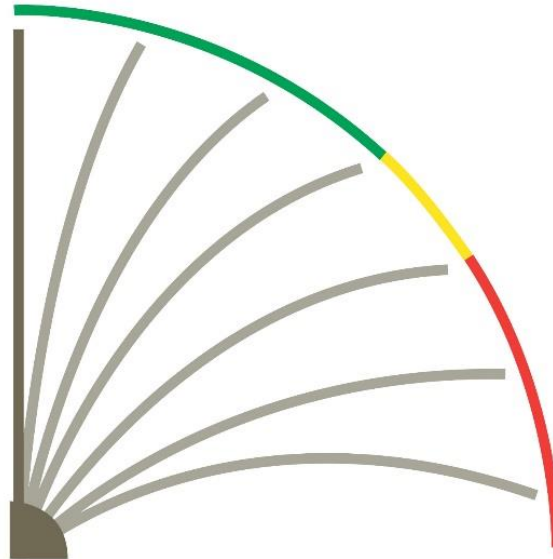
When extracting the net, the poles will bend. This is normal. The flexibility of the tubes will ensure that the net continues to stay tight when there is considerable movement.

In cases of extreme load on the poles and the net (ex. extreme weather conditions, wind and icing), reduce the strain on the stanchions by reducing the tension on the ropes until conditions are stabilized.

Farmer should inspect the poles and the brackets on a regular basis, especially after extreme weather conditions, or unforeseen incidents that may have caused damage to the brackets, tubes or net.

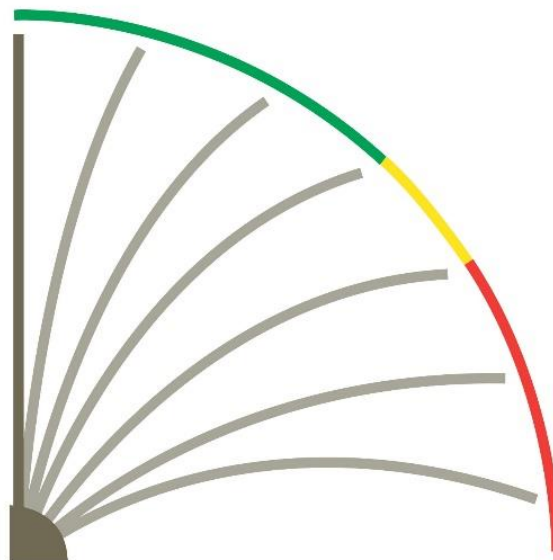


## WORKLOAD



**46mm X 6000mm:**

The green area shows deflection at 3m, workload 0- 35 kg. The yellow area shows deflection at 4 m, 35-60 kg. The red area shows critical load 60- 500 kg



**54mm x 7000 mm:**

The green area shows deflection at 4,5m, workload 0- 55 kg. The yellow area shows deflection at 6m, 55- 85 kg. The red area shows critical load 85- 500 kg

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## HMS DATASHEET

- 1.1 PRODUCT: REMPRO COMPOSITE PROFILES
- 1.2 PRODUCER: REMPRO AS  
LANGEMYRVEIEN 6  
6212 LIABYGDA
- 1.3 AREAS OF USE: Construction material for industry
2. COMPOUND  
Rempro Composite profiles is considered an inert massive material, and is compounded by matrix and fiber. The material does not consist of ingredients representing any form of health risk as per directive 67/548/EEC.
3. HEALTH RISK:  
Rempro composite profiles does not represent any health risk as per directive 1999/45/EC. Dust from machine handling such as cutting, sawing, drilling, may cause irritation of eyes, skin and throat.
4. FIRST AID:  
**Inhaling:**  
If inhaling large amounts of dust from sawing, drilling etc. make sure the person get a lot of fresh air. If the symptoms persist, seek medical assistance.  
**Eyes:**  
Rinse thoroughly with plenty of water. If the symptoms persist seek medical assistance.  
**Skin:**  
Rinse thoroughly with cold water without rubbing, then wash with soap and water. Use lotion.
5. FIRE:  
**Extinguisher:**  
If fire, use water, powder, foam or CO<sub>2</sub>.  
**Fire and explosion hazard:**  
In the event of fire the product will develop black fire consisting of carbon dioxide, carbon monoxide and particles of soot. This is normal, and is considered normal fire- gasses.
6. RANDOM SOLVENTS: Not applicable
7. HANDLING AND STORAGE:  
**Handling:**  
Use gloves when handling the products.  
When cutting, sawing drilling etc., use a mask and goggles to prevent inhalation/irritation.  
Provide proper ventilation.  
**Storage:**  
No precautions.

8. SAFEGUARD CONTROL:

**Precautions:**

Make sure the area is properly ventilated. Dust limit: max 10 mg/m<sup>3</sup>.

Use goggles, mask and gloves.

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9. PHYSICAL AND CHEMICAL DATA:

Physical condition:	Massive
Flashpoint:	Not applicable
Density:	1,6-2,0 Kg/dm <sup>3</sup> .
Charring temperature:	380° C
Autoignition temperature:	480° C

10. TOXICOLOGICAL INFORMATION:

**Inhaling:** Dust may cause irritation of mucous and lungs.

**Eyes:** Dust may cause eye- irritation.

**Skin:** Dust may cause skin irritation, particularly around wrist and neck.

11. ENVIRONMENTAL HAZARD:

Products are soluble in water and very durable. They are not toxic and there is no environmental hazard.

12. DISPOSAL:

The product is considered neutral, and may be disposed at approved waste station.

13. TRANSPORTATION:

Transportation in compliance with national regulations.

14. LAWS AND REGULATIONS:

Product is not classified as dangerous. Directive 1999/45/EC.

15. ADDITIONAL INFORMATION:

The information provided in this Datasheet is based on our current knowledge and EU regulations and National laws.

The directions here given is reliant on correct use of the products as in section 1, and that information given is used in a responsible and correct manner. The work conditions of the user are beyond our control.

It is the user's responsibility to fulfill the criteria's set by national laws and regulations. The information in this datasheet should be perceived as a description of the security demands made for this product. The information is no guarantee for the characteristics of the product.



## PRODUCTS

Product no	Product	
46286000	Bird Net Pole	Ø46 mm x 6m With pulley and rope
46287000	Bird Net Pole	Ø46 mm x 7m With pulley and rope
46288000	Bird Net pole	Ø46 mm x 8m With pulley and rope
50306000	Bird Ned Pole	Ø50 mm x 6m With pulley and rope
50307000	Bird Net Pole	Ø50 mm x 7m With pulley and rope
50308000	Bird Net Pole	Ø50 mm x 8m With pulley and rope
54356000	Bird Net Pole	Ø54 mm x 6m With pulley and rope
54356500	Bird Net Pole	Ø54mmx6,5m With pulley and rope
54357000	Bird Net Pole	Ø54 mm x 7m With pulley and rope
54358000	Bird Net Pole	Ø54 mm x 8m With pulley and rope
246160	Fence bracket	Ø46 stanchion Ø160mm
246140	Fence bracket	Ø46 stanchion Ø140mm
246125	Fence bracket	Ø46 stanchion Ø125mm
2465050	Fence bracket	Ø46 stanchion 50/50
2467070	Fence bracket	Ø46 stanchion 70/70
2468060	Fence bracket	Ø46 stanchion 80/60
250160	Fence bracket	Ø50 stanchion Ø160 mm
250140	Fence bracket	Ø50 stanchion Ø140 mm
250125	Fence bracket	Ø50 stanchion Ø125mm
2505050	Fence bracket	Ø50 stanchion 50/50
2507070	Fence bracket	Ø50 stanchion 70/70
2508060	Fence bracket	Ø50 stanchion 80/60
254160	Fence bracket	Ø54 stanchion Ø160mm
254140	Fence bracket	Ø54 stanchion Ø140mm
254125	Fence bracket	Ø54 stanchion Ø125mm
2545050	Fence bracket	Ø54 stanchion 50/50
2547070	Fence bracket	Ø54 stanchion 70/70
2548060	Fence bracket	Ø54 stanchion 80/60
3304665	Polarcirkel bracket for Ø46mm, out Ø65mm	
3304672	Polarcirkel bracket for Ø46mm, out Ø72mm	
3304676	Polarcirkel bracket for Ø46mm, out Ø76mm	
3305065	Polarcirkel bracket for Ø50mm, out Ø65mm	



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3305072	Polarcirkel bracket for $\varnothing$ 50mm, out $\varnothing$ 72mm
3305076	Polarcirkel bracket for $\varnothing$ 50mm, out $\varnothing$ 76mm
3305472	Polarcirkel bracket for $\varnothing$ 54mm, out $\varnothing$ 72mm
3305476	Polarcirkel bracket for $\varnothing$ 54mm, out $\varnothing$ 76mm

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## ASSEMBLY AND INSPECTION CHECKLIST

		COMMENTS
The poles are equally loaded <i>Tighten/loosen if necessary</i>	<input type="checkbox"/>	
Ropes are intact <i>If signs of wear and tear- change ropes. Contact supplier.</i>	<input type="checkbox"/>	
There is no loose rope- ends	<input type="checkbox"/>	
There is enough space between net and feeder	<input type="checkbox"/>	
There is no icing on ropes or net	<input type="checkbox"/>	
Top pulley- bolts and nuts are securely fastened	<input type="checkbox"/>	
Top pulley- the wheel is spinning	<input type="checkbox"/>	
Brackets- bolts and nuts are securely fastened	<input type="checkbox"/>	
The pole is pushed all the way to the bottom of the bracket	<input type="checkbox"/>	
Brackets are not twisted <i>(Round stanchions)</i>	<input type="checkbox"/>	

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*Always read the user manual, and only use original parts.*

Deviation:		
Measures:		
Deviation noticed:	Assembly <input type="checkbox"/>	Inspection <input type="checkbox"/>

*In case of deviation, please contact your supplier, or [post@rempro.no](mailto:post@rempro.no)*

Date:	Signature:
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