

➤ Vink Plast



► Production of wind industry components for more than 40 years

Vink Plast is a knowledge based plastic supplier, which develops and produces plastic components with precision and of the highest quality.

We have supplied the wind industry for more than 40 years and have production sites in Denmark, China, US and in the Netherlands serving the wind turbine industry.

Our knowledge is founded on strong global partnerships with key suppliers of semi finished plastics. We supply applications for different areas of the wind turbine, such as the nacelle-, tower-, electric-, and cooling systems as well as for helihoist platforms.

Our plastic solutions are produced through several production technologies, such as machining, injection moulding, vacuum forming, rotational moulding and compression moulding.

At Vink Plast Denmark we coordinate all wind activities with our OEM and Tier 1 customers. It is also in Denmark that we have the resources to help our customers on development and change projects.

In Europe Vink Plast is part of the Vink Group that operates in 21 countries. The main focus for these companies is distribution and machining of semi finished plastics like sheets, rods and pipes.

The Vink Group is part of the Plastic Family that also owns plastic distribution and machining companies in North America and Australia.

Why use plastics?

- 1 Low weight
- 2 Corrosion stability
- 3 Wear resistance
- 4 Non-conductive properties
- 5 Cost efficient



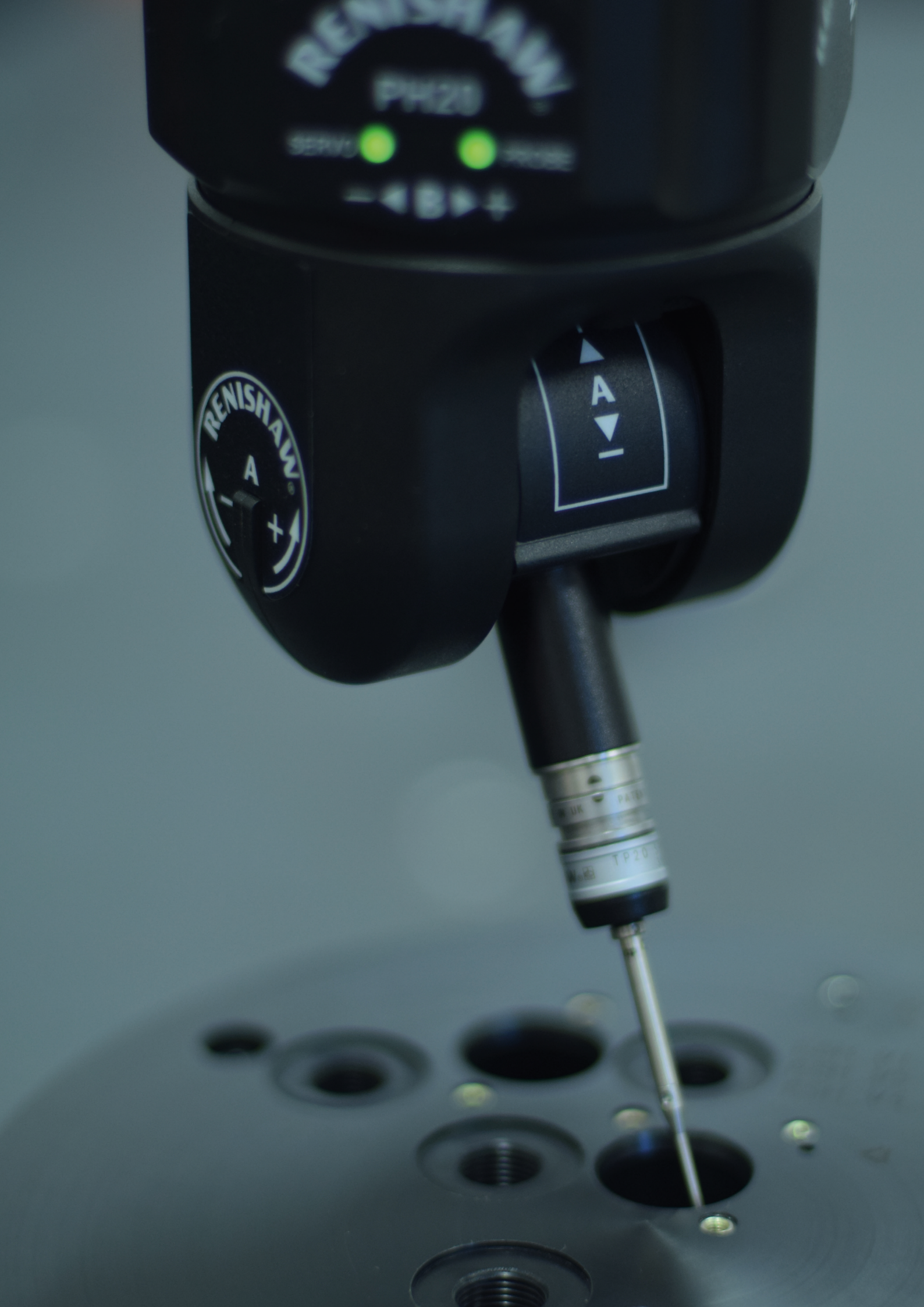
Cost efficient production sites in Denmark, China, US and in the Netherlands

► Knowledge is everything

40 years of experiences and delivery of more than 1 million parts for the Wind Turbine Industry means that Vink Plast is more than just a supplier. We are a supplier with a high degree of knowledge when it comes to materials and production technologies.



Our QA employees are all educated in APQP4 Wind which means that they are familiar with the processes and methods used in the Wind Turbine Industry

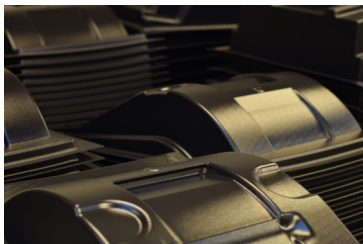


► Production technologies



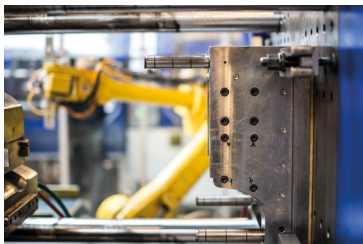
Machining

Vink Plast do turning and milling in thermoplastics like PA, POM, PETP, PE and others. We also do machined parts in thermoset plastics like UP GM 203, EP GC 203, PF CP 203 etc.



Vacuum Forming

Vacuum forming is used especially for producing large components in small or medium quantities.



Injection Moulding

Vink Plast supplies plastics solutions produced by injection moulding in-house in Denmark and China. We produce everything from simple components to very complex products using advanced robot technology.



Rotational Moulding

Vink Plast offers rotational moulding as a production method. The costs associated with the tools are relatively low. Rotational moulding is often used for containers, boxes and similar shapes.



Kit Supply

Kit supply involves a variety of assembly tasks. We combine plastic materials with other finished parts made of metal or other materials. The customer receives a finished, assembled product ready for use.



Compression Moulding

Compression moulding is a method for molding plastic in an open, heated mould. The method is used to produce components in composite materials such as glass-reinforced technical laminates.

➤ Applications



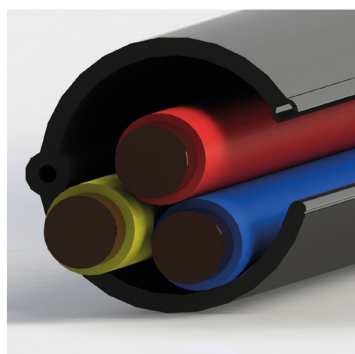
Bolt covers and
thread protection



Pipe holder



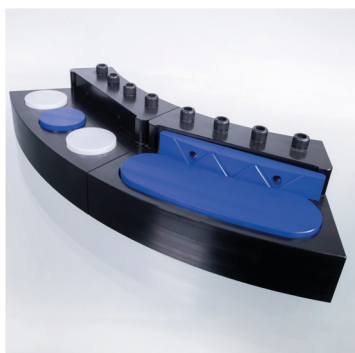
Busbar holders



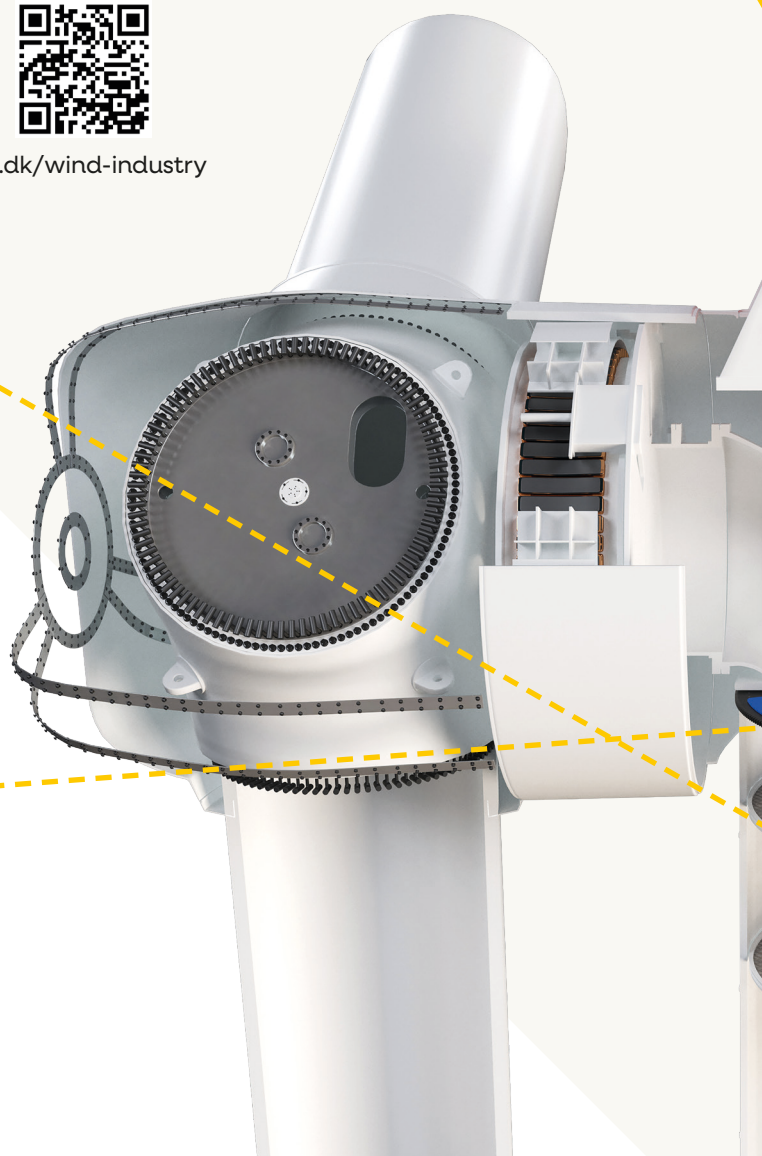
Pipes for cables



vink.dk/wind-industry



Sliding pads for
yawing systems





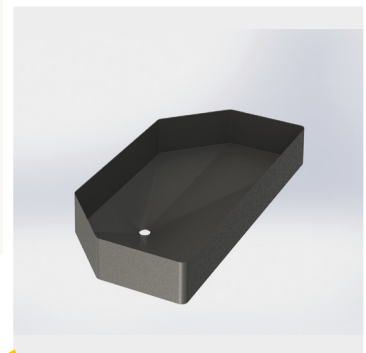
Tanks for coolant,
oil and grease



Helihoist



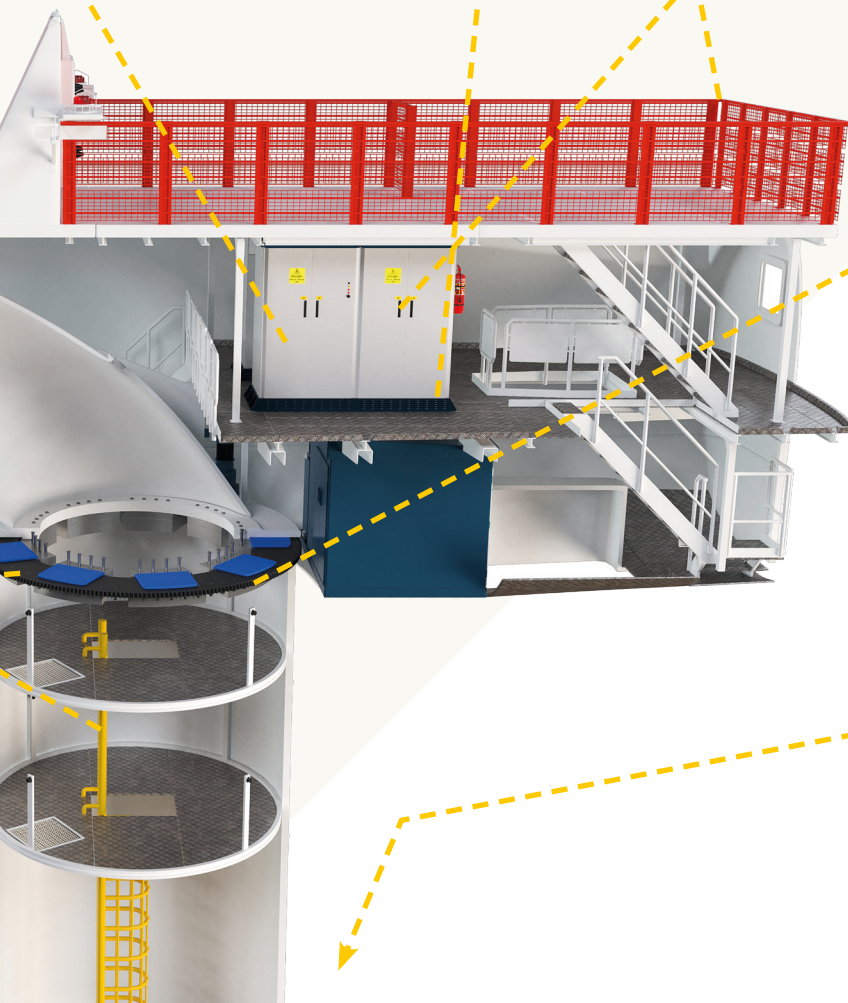
Clear plastic
cabinets



Grease trays



Switchgears



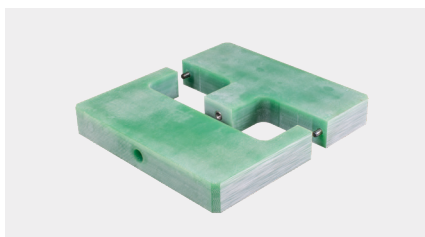
➤ What Vink Plast can offer the Wind Industry



Sliding pads for yawing systems

The yawing system allows the turbine nacelle to automatically head into the wind to maximize the power generation. Plastics are used, as the material must withstand friction, reduce wear and make the movement as silent as possible.

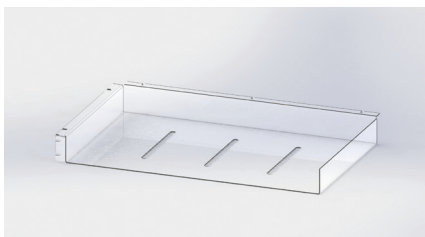
It is common to use PETP (Ertalyte) or a version of PA (nylon) often with certain additives to make the material self-lubricating.



Busbar holders

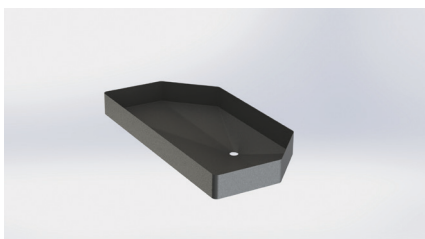
Custom-made busbar holders. They make sure the busbar is held in place for safety reasons.

A common material choice for busbar holders is technical laminates which are plastics made with certain additives for a specific purpose. For busbar holders, we use a laminate with additives that makes the material fireproof.



Clear plastic cabinets

Some parts of the controls section in the wind turbine must be visible to the eye, but still shielded off from maintenance workers for safety reasons. We produce clear plastic cabinets and covers for this purpose.



Grease trays

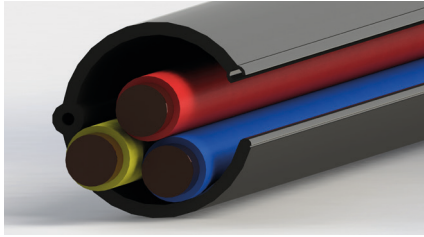
Grease or lubricant is used in the yawing system for the sliding pads. The grease must not be spilled inside or outside the turbine, so a grease tray is needed under the yawing system.

Depending on the system a small tray can follow the calibers around or a circular tray can cover the entire way around the top of the tower.



Tanks for coolant, oil and grease

Wind turbines use a lot of small and big tanks for holding coolant and oil. The tanks are also used to catch oil when draining parts for service or in case of non-control discharge of liquids like oil and cooling liquids. For this purpose, plastic is a good material choice and it is easy to manufacture tanks for tight spaces where a square box does not fit.



Pipes for cables

The tower of a wind turbine contains cables from top to bottom. Vink Plast manufactures pipes to hold and protect the cables.



Switchgears

A switchgear is a large switch for high voltage which functions as a switch during work in the turbine and as part of the fuse system. In these switchgears highly electrically insulating plates are used to shield contact plates; these made of plastic or ceramics.

Technical laminates (see the picture) is a commonly used material, it is plastic with additives to give it new properties, for example electrical insulation.



Cable holder

Pipes in the turbine can have many different sizes and types of material both soft and hard materials. They have the basic function to hold the pipes in the correct place and protect against wear from vibration.

There are a lot of standard products but sometime a custom-made piece makes sense when adding assembly and service to the calculation.



Bolt covers and thread protection

Thread and bolt heads needs protection from corrosion and impact during transport and during service of the turbine. Plastic covers solves this problem. We offer both standard and customer specific solutions.



Helihoist

Since 2013, Vink has manufactured and delivered just-in-time helihoist pre-assembled directly to the assembly line of one of the OEM's.

Therefore, Vink Plast has extensive knowledge of the offshore environment and requirements to make construction last for a long time at sea.

► Advisory

We can support OEM's, Tier 1 suppliers to the Wind Industry with:

- Cost out suggestions by changing metals to plastics
- Weight reduction by changing metals to plastics
- The best choice of material for a given application

The correct choice of material is important for any application to function as efficiently as possible. We help you find the right choice of plastics.

We take a look at durability, longevity, elasticity, fireproofing, electrical capabilities and we find materials that fits with the loads and temperatures the application has to operate in. When we have found suitable materials for the application we evaluate the cost of material and production technology together with you. Based on this process you choose the material and we are ready to produce it



► Contacts



Morten Brøndum
Sales Manager - Wind & Solutions

+45 20 80 88 59
mob@vink.dk



Simon Finneemann Jensen
Business Development Manager

+45 20 80 88 07
sfj@vink.dk



© Herkert
Foto: Herkert

Vink Plast

Kristrup Engvej 9
DK-8960 Randers SØ
Tlf. 89 110 100
email: info@vink.dk

All information in this brochure is provided to the best of our knowledge and without liability for Vink Plast ApS. Technical data is largely based on information from various raw material suppliers. Copying or reproduction of content or excerpts in any other context is only permitted with prior agreement. Applications in this folder are samples - not original parts.

Vink Plast, 13. september 2024

Printed materials: In accordance with our environmental policy, all of our brochures are printed on FSC-certified paper at a printing house that holds the Nordic Swan Ecolabel. This is one of many initiatives at Vink Plast, where we aim to take responsibility for the environment.



