

## Demacq Recycling International your partner for a greener world

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The technical director of Demacq Recycling International is Hans Kelderman. He guards the quality of the take-in of hardened thermoset composites from end-of-life/end-of-use products and production waste. He does it to get a constant quality of recycled raw material for our customers so they can use it to make new products.

Hans Kelderman has many years of experience in both the thermoplastics and thermosets. He was responsible for the use of thermoset and thermoplastic in the automotive industry, boats construction, and several other companies where he supported and introduced new production methods.

He was also responsible for the re-use of thermoset composite materials for which in the 1990s together with BASF and DSM ERCOM was launched, that even got a Eureka status. (Eureka project 600) ERCOM was a pilot plant where several possibilities of recycling and reuse were examined and realized. Also through his experience we have concluded that thermoset composites can be recycled and reused in several new products.

Hans Kelderman (L)  
Albert ten Busschen (R)



Dr. Ir. Albert ten Busschen, Associate Lector of Windesheim University, is starting a new RAAK-MKB project. He reuses industrial end-of-life thermoset composite with recycled material there which are provided by Demacq Recycling International.



## Demacq Recycling International your partner for greening up the world!

Are you interested in our recyclate?  
Please feel free to contact us for additional  
information, sample or personal appointment

### Contact for all locations:

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### Locations:

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# Recycling of wind turbine blades, parts and production waste.

For making the wind turbine industry 100% green a good and responsible recycling method is required. Therefore, we would like to make the world a bit greener together with you. Rotor blades, for instance, have an estimated life expectancy of around 20 years. After that, nothing happens with the blades which is not favorable for the environment. End-of-life / end-of use products and hardened thermoset production waste is processed by us into a new raw material, which has many applications. Examples of the end-of-life products are rotor blades, nacelle covers, nose cones, tipi covers and other hardened thermoset production waste.

By making useful raw materials **we reduce the CO2 output with 300% (per 1 ton recycle we reduce 3 ton CO2)**. The products made from our recycled raw material can be recycled endlessly with the same method, which will make it a **complete circular process**.

Furthermore, our method has also another advantage. We also accept products that are made from mixed materials such as steel, copper and stainless steel combined with thermoset composite, because our process separates them automatically.

**Demacq makes it possible to recycle the complete wind turbine.**

## Diminishing the large wind turbine blades with our green Coldwater cutting technology.

The blades and other parts of a wind turbine are becoming larger and larger. We have developed a method that makes it possible to reduce transport and high costs. We cut products on site, which makes it possible to recycle immediately at our process plant. Disregarding the location, we transport it then with regular trucks. This technology uses tap water and sand, leaves no dust, so there is no environmental damage.

### We offer you a complete package:

You can call us regarding large rotor blades, all hardened thermoset composite parts or production waste. We take care of the entire process including coldwater cutting, transport and further processing.



## COLLECT



**We collect all hardened thermoset composites for the recycling. Examples of end-of-life products we collect:**

- Wind turbine blades**
- Nacelle covers**
- Nose cones**
- Hardened thermoset production waste**
- Other parts made of hardened thermoset composite**

Because of large-scale recycling we can offer our customers a consistent quality of the recycle and various dimensions (such as dust or fibers).

## PROCESS



**We process the collected hardened thermoset composite parts and production waste through our recycling method.**

Hardened thermoset composites, end-of-life products, production waste and residuals from wind turbines are transported to a central location in a responsible logistic way for collecting. Once we reach a certain number of hardened thermoset composites for efficient processing, we start the process.

Accordingly, we do not waste unnecessary energy in the process. The new raw material we produce is highly useful for various applications which are EU approved.

## RECYCLE



**These raw materials will be used for making new products.**

After collecting and processing the hardened thermoset composites there remains a suitable recycle for various applications in industry. Advantages of our process are savings in energy and costs for many production processes of materials.

Demacq Recycling International is proud to be a part of this new project – the Dinzer bridge in Dokkum (Friesland, The Netherlands). In the beginning of 2018, our collaboration with Composite Structures has started. The result was a well-designed bridge with a recycled core.

