

FRICTION STIR WELDED ALUMINIUM COMPONENTS

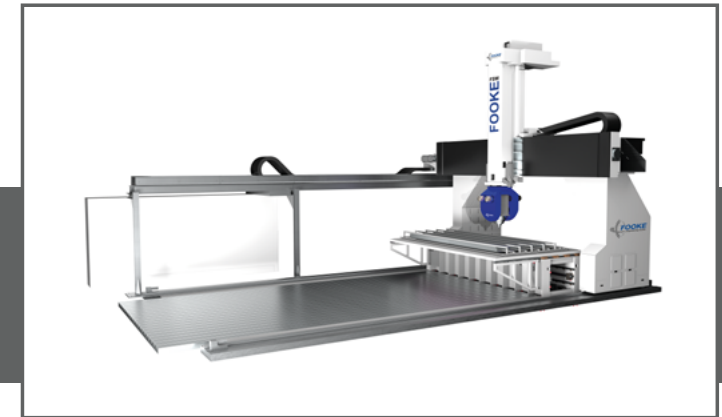
We are your best choice if you have high demands on your welded assembly.



COMING SOON:

OUR NEW DOUBLE SPINDLE SYSTEM FOR EVEN MORE EFFICIENT FRICTION STIR WELDING

Soon it will be here – our new system for friction stir welding:



IMPRESSIVE COMPONENTS...

Welding thick-walled aluminium components quickly pushes conventional welding processes to their limits. With our new friction stir welding system, we can achieve welding depths of up to 30 mm. Even with plate sizes of up to 8 m x 3.5 m! The use of the double spindle makes welding depths of 60 mm possible.

SIMPLE OR NOT?

We weld on one side, double-sided or with standing shoulder, linear seams or three-dimensional. This means you have a lot of possibilities in the design of the seam geometry at your end. So we give you the greatest possible freedom in the design of your components.

... AND SMALL LIGHTWEIGHTS

But small is also an option: We start with friction stir welding from just 0.5 mm welding depth. This is why our process is particularly in demand in lightweight construction. Everybody is looking at his CO₂ footprint.

FOR TECHIE TYPES:

Our latest system also has five axes, so we can weld three-dimensionally with it. It works with process forces of up to 50 kN. In addition to many other highlights, the system has a 3D seam sensor. Quality and process monitoring takes place online via the machine control.

WHO ARE WE?

RIFTEC is the technology leader for industrial friction stir welding in Germany. For 20 years, we have been manufacturing lightweight components for all industrial sectors. Today there are over 40 staff members here in Geesthacht.

Pioneering, binding, committed.

Our machinery currently comprises seven machining centres for friction stir welding and processing. Another five plants for friction stir welding are in operation at HAI Processing at the Ranshofen site, ensuring reliability on all sides.



WHAT WE CAN OFFER?

Cool seams. By friction stir welding.

And not only that:

We manufacture complete assemblies made of aluminium and other light metals, even mixed compounds such as aluminium-steel or aluminium-copper.

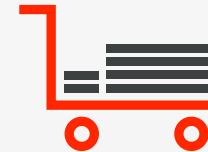
High quality, reliable and flexible.

We will gladly take over the purchase of the primary material, the welding - friction stir welding or conventional - and the mechanical processing. All from one single source.

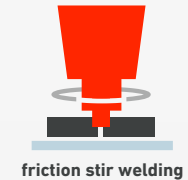
Of course you can also provide us with the material.

And certainly we are available as a second source if you need additional capacities.

PURCHASE:



WELDING:



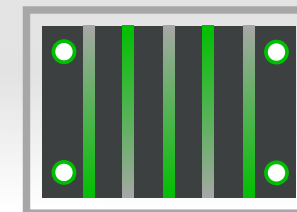
MECHANICAL MACHINING:



QUALITY CHECK:



FINISHED PRODUCT:



🖱 riftec.de/en/aluminium-welding.html

🖱 riftec.de/en/friction-stir-welding.html

WHAT DO WE WANT?

We want your components. For friction stir welding.

WHAT IS YOUR ADVANTAGE?

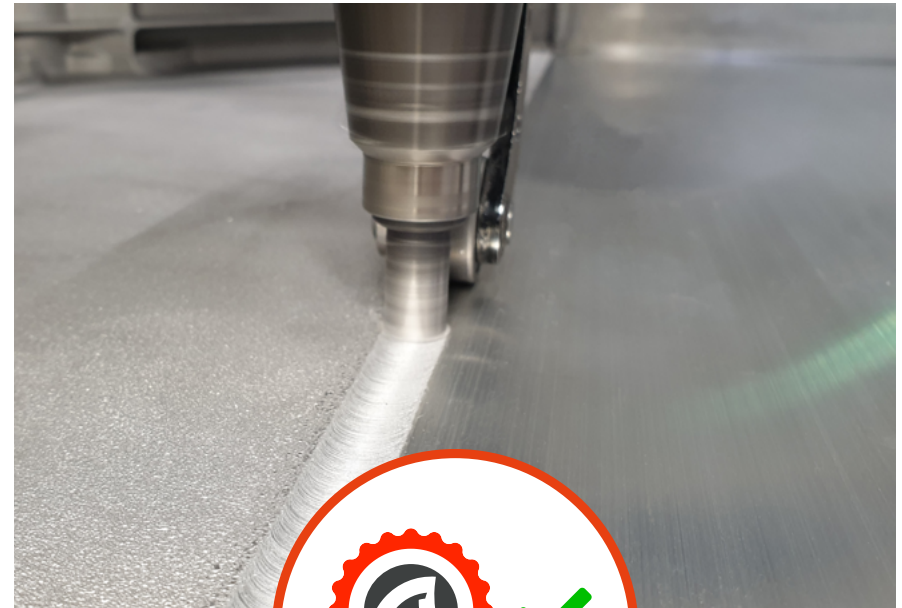
Excellent surface quality, low warpage, high static and dynamic strength, media tightness, pore-free properties, reproducibility - these are the advantages of our welds. If you commission us with the complete welding assembly, you don't have to worry about anything else.

You only have one contact - us!

HOW DO WE MAINTAIN QUALITY?

Of course we are certified according to **ISO 9001:2015**. In addition, we are one of the few welding service providers that are allowed to perform friction stir welding for rail vehicle construction in accordance with **DIN EN 15085-2 CL1**.

And of course we always apply the friction stir welding according to **DIN EN ISO 25239**.



We test our welding seams in our test room. There is also the 3D coordinate measuring machine, with which we always have the dimensional accuracy of our components in view.

riftec.de/en/certificates.html

WHO ARE OUR CUSTOMERS?

**RIFTEC customers can be found
in all industrial sectors:**

automotive
rail vehicle construction
aerospace
mechanical and plant engineering
defence industry
food and medical technology
(core) energy.

Some require rather thin-walled components,
the others more thick-walled. What they all
have in common is the high standards they
place on the quality of their components.

These companies can confirm this to you:



Deutsche
Mechatronics



KOSTAL



<https://www.riftec.de/en/products-references.html>