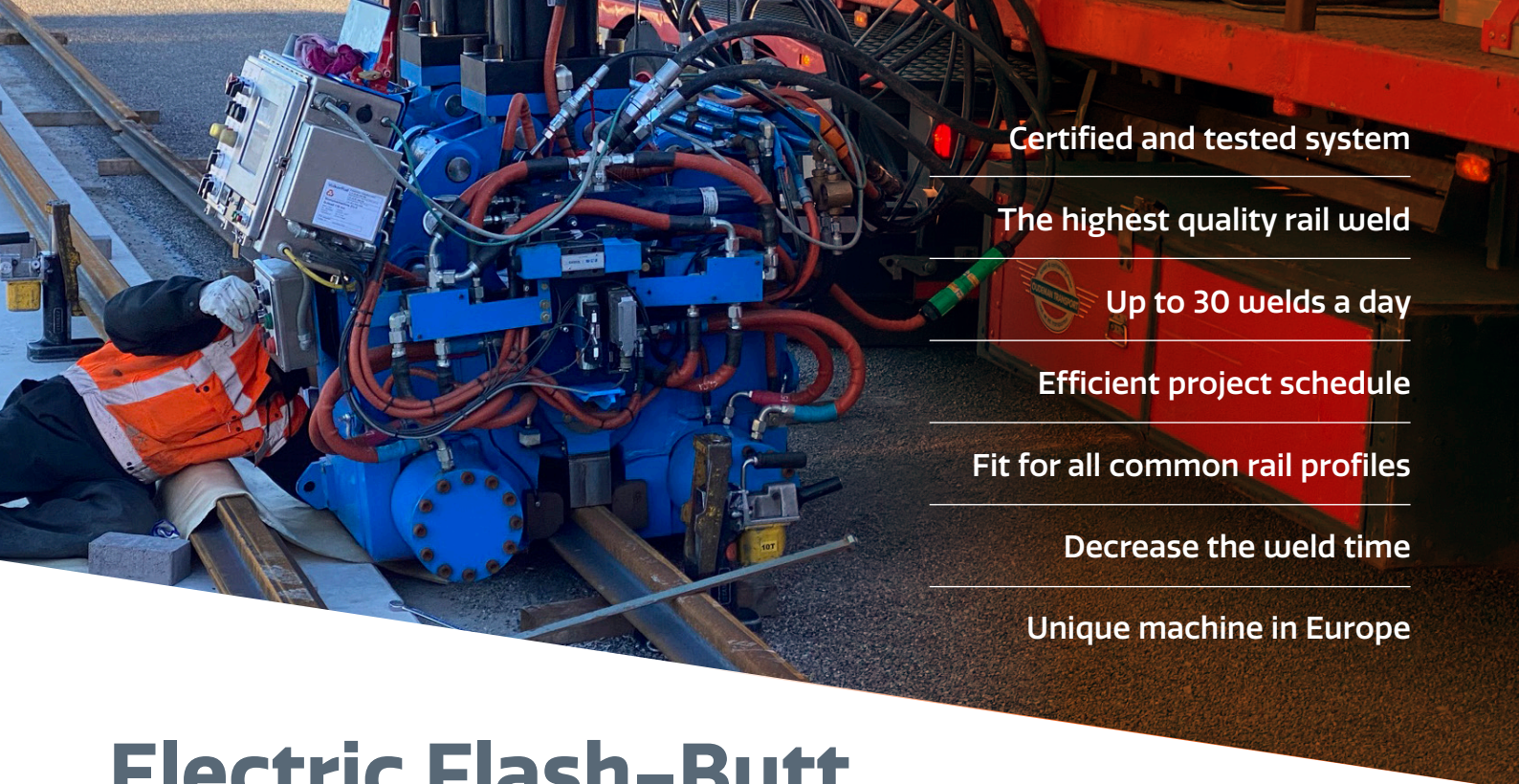




Electric Flash-butt Welding

The highest
quality of certified
rail welding.



Certified and tested system

The highest quality rail weld

Up to 30 welds a day

Efficient project schedule

Fit for all common rail profiles

Decrease the weld time

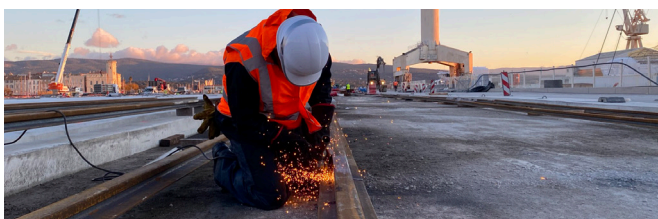
Unique machine in Europe

Electric Flash-Butt Welding Machine

Decrease weld time and optimise your project programs

Bemo Rail has over 50 years of experience with the installation of crane tracks and rail welding. We have used the flash-butt welding method, countless times over the years offering a major advantage in terms of quality, lead time and reliability.

Save time, physical effort and money with the certified and proven electric flash-butt welding machine, specially developed for crane rails. The electric flash-butt welding machine has performed over 30 million welds across the globe and can weld up to the heaviest profiles like a A150 rail. It can also be used for projects at height and ensures the highest quality of certified rail welding. The welds are 10 times better than those produced by other welding methods when comparing success-to-failure rates.



Innovation

The electric flash-butt welding machine is a complete autonomous welding equipment with a special welding head that is designed for crane- or gantry rail. The electric flash-butt welding machine is equipped with a generator set and hydraulic power pack. The machine can be handled with a truck loader crane, excavator or even with a mobile crane, just depending at what height the welding has to be done. This flexibility allows you to use the machine, inside a building or on an open construction site.

The electric flash-butt welding machine is considerably different from other welding methods. The machine produces an extremely narrow heat affected zone, which means you are getting the highest quality weld possible. No filler material is added while preserving the rail quality. The machine records all relevant welding parameters and human welding error is limited till almost zero.

How does it work?

An amazing Weld Time of 90 to 270 Seconds

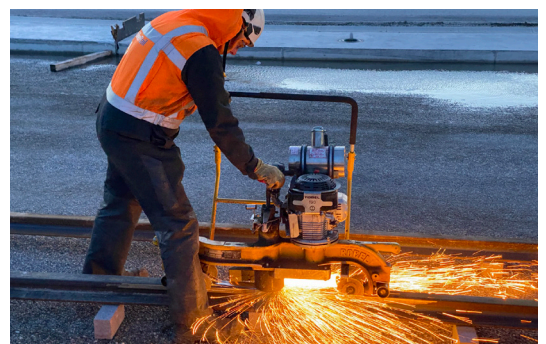
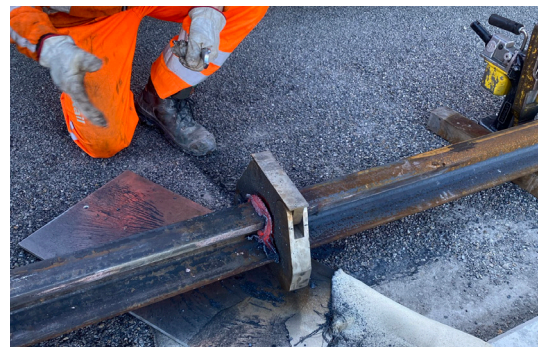
The most important feature of the electric flash-butt welding machine is the weld time itself. The machine has the capacity to weld rail in an efficient 90 to 270 seconds. Making up to 30 welds a day, saving valuable down time or building time reduction. The totally computerized system reduces human error and allows the welding program to be changed according to the chemical properties of the rail. This increases the basic quality of the weld.

The basis working principle of this welding process is resistance welding, the electric energy is transported through the parts that are to be joined. The electric flash-butt welding machine clamps both parts of the rail and the machine applies electric current to both ends. The gap between both ends creates resistance which will result in an arc between them. This will cause the material to melt and once it reaches the required temperature, the machine hydraulically presses the ends together.

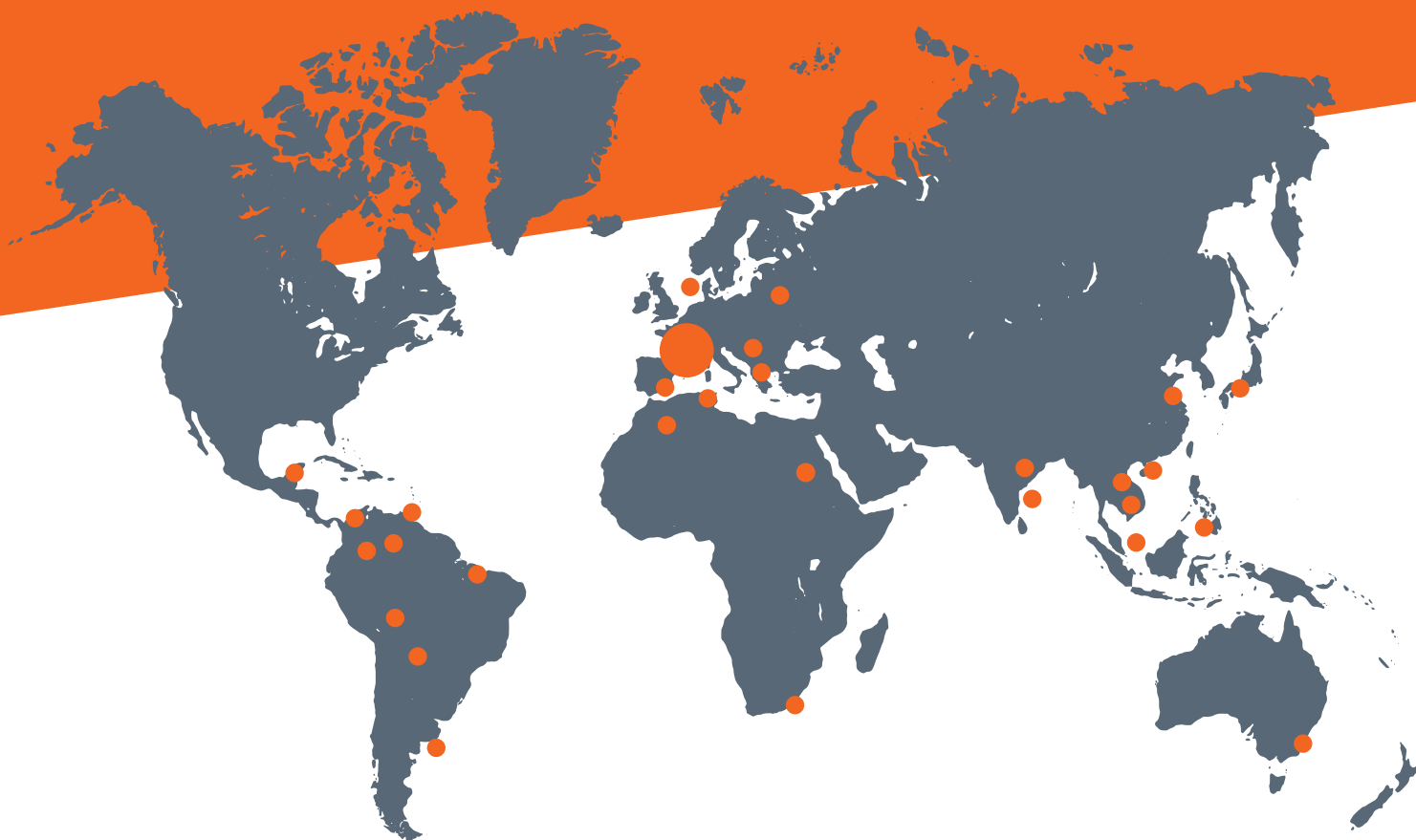
The rail ends will be forged together, no filler material is used. The grain size in the joint is very fine, this gives a high toughness. Because there is no filler material used, the chemical composition as well as the hardness of the welding joint are similar to the base material. This is an advantage when it comes to rail degradation. Because of the forging, with each joint the rail will become approx. 30mm shorter. When the weld is cooled down, the machine releases the hydraulic force and because of the machine set up, the grinding work is limited, which leaves a smooth base and greatly reduces the likelihood of stress risers.

Certified welding

The European Standard has BS EN 14587-2 as a norm for the certification of mobile flash butt weld machines. Our welding machine is certified according to that standard. Furthermore we have our operators certified according EN ISO 14732 and our Quality Management System for welding operations certified according ISO 3834-2.



Worldwide possibilities



We transport the machine all over the world, by ship, plain or truck to your location.

Please contact us for more information on info@bemorail.nl or call us at +31 (0)226 - 42 53 00.

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