

**Mobile and stationary flash butt welding machines  
and stand-alone systems for railway tracks**



## Efficiency and reliability with the help of flash butt welding

Flash butt welding is the most reliable joining technology for track construction and it is a proven fact that it provides the lowest failure frequency. Schlatter offers welding machines that run in different customized systems.

### Welding machines and systems

Worldwide flash butt welding has become increasingly popular for production of continuous welded rails.



Video Rail Solutions

### Mobile rail welding systems

With the help of the mobile welding systems, continuous track sections are produced directly in-track.

With our high level of system expertise, we are able to assemble complete mobile rail welding systems from compact welding machines, carrier vehicles, power generators and further auxiliary equipment.

### Stationary rail welding systems

Stationary welding systems are mainly used in large welding plants for joining short rails to long rails. Furthermore, components for switch construction can be welded.

The Schlatter welding machines are the heart of this welding process and can be supplemented with additional machines to create a complete system.



## Stationary rail welding machines GAAS80 and GAA100

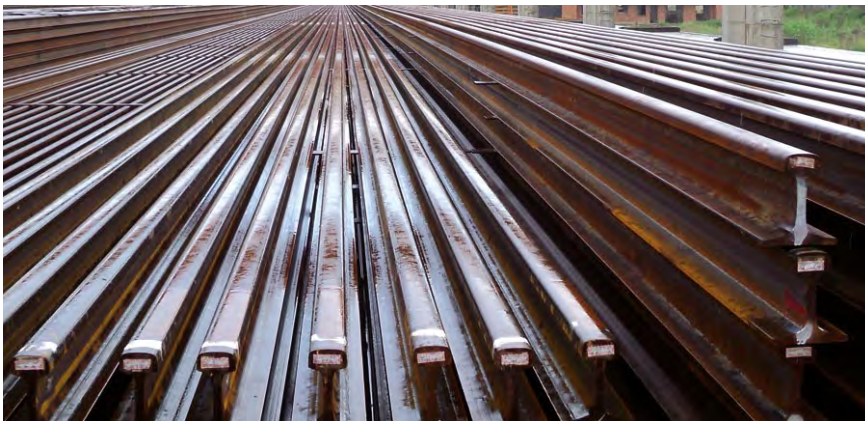


### System GAAS80

The GAAS80 welds short rails of any length to long welded rails up to 500 m lengths and even longer.

Its main feature is the exact lateral alignment of the running edge and vertical alignment of the running surface. The web clamping device is independent from the electrodes and it ensures the rails do not slip during upsetting.

Directly after completion of the welding process the integrated deburring device removes the burr.



### System GAA100

The GAA100 is used for welding components in turnout manufacturing plants.

The wide welding range allows high quality welding of nearly all types of components used for turnouts.

The four clamping units with 1000 kN force each ensure that the parts do not slip during upsetting.

Worldwide the GAA100 successfully welds high resistant manganese frogs with rails with the intermediate stainless steel insert.



## Mobile rail welding machines AMS60, AMS100 and AMS200

The mobile rail welding machines AMS60, AMS100 and AMS200 have different characteristics and the right machine can be selected depending on the required operation purpose. Regardless of the welding machine, there are several various system solutions to choose from.

### Welding machines

In particular, the welding machines AMS60, AMS100 and AMS200 differ in alignment systems and operating ranges.

AMS200 is also designed to perform the "last" welding, i.e. to complete distressing and welding in a single operation.

The durability and the long life of the machines paired with the high productivity and high quality contribute to an economically attractive production.



Video  
System AMS200



### System AMS60

AMS60 for high-quality alignment.

The development of the AMS60 focused on the exact alignment of the rail ends, laterally at the running edge and vertically at the running surface.

Therefore the AMS60 is most suitable where exact alignment is essential as it is for high-speed railway lines.



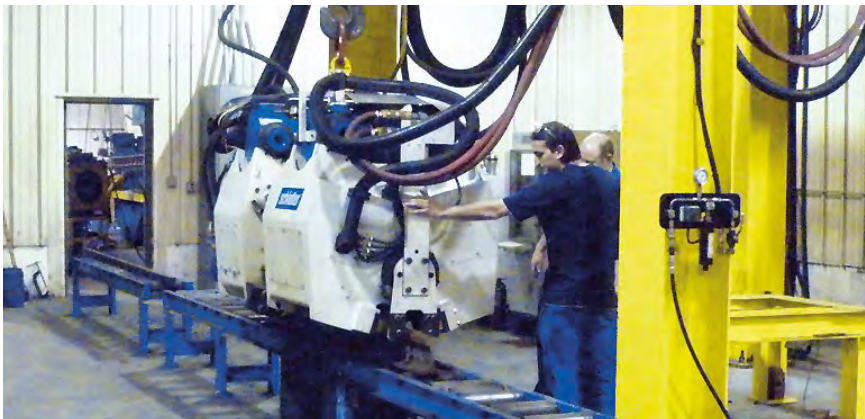


### System AMS100

AMS100 for bigger rail profiles. The AMS100 features a lot more welding force than the AMS60 and thus it allows welding of heavy rail profiles and even grooved rails.

It is often used for welding of freight train track where heavy rails are used.

Nevertheless the AMS100 has also welded in high-speed lines in various projects and passed the respective homologation processes successfully.



### System AMS200

System AMS200 for closure welds and distressing.

The AMS200 is the latest development in mobile rail welding machines, a new generation which enables the distressing and the flash butt welding process to be carried out in one operation, without an additional pulling device.

This welding machine features the necessary force to achieve the required calculated dilatation. The loss of material due to the welding process is taken into account in the calculation.

The machine offers a long travel in order to allow a reliable distressing even at low temperatures.



## Mobile rail welding systems Supra Multiflex and Supra Roadflex

For mobile welding of continuous welded rails, these machines are normally integrated into an autonomously operating rail welding system. These systems are equipped with diesel-generator set, hydraulic unit, cooling unit and lifting device.

### Supra Multiflex container-based rail welding system

Container systems are especially suitable for welding continuous welded rails directly in new railway track. They are also often used semi-stationary in the depot or near the job site for preparation of long welded rails for a section in a new railway line.

### Supra Roadflex truck-based rail welding system

The truck-based system is highly flexible as it is self-propelled and can move from one job site to the next within a short time.

### Customized system solutions

Optionally, the welding machines AMS60, AMS100 and AMS200 can also be purchased separately and installed in customer-specific vehicles such as pure track vehicles, in their own rail-mounted trucks or in excavators. There is also a stand-alone solution for stationary operation in a factory.



### Supra Multiflex

Container systems are especially suitable for welding in new railway lines where a lot of new rails have to be placed and many welds have to be carried out. They are also often used semi-stationary either in the depot or close to the job site where they weld long welded rails for a certain section of new railway line before they are taken to another section.

Schlatter offers a compact 24-foot container that contains all equipment in a space-saving manner.

As an alternative a system is available where the equipment is incorporated into two 20-foot containers, the energy container and the welding container.





### Supra Roadflex

Supra Roadflex systems are self-propelled, they can work completely autonomously and they are very flexible for moving from one job site to the next.

Going into track is carried out on any level crossing that requires little space. Shortly afterwards the system is ready for welding at the job site.



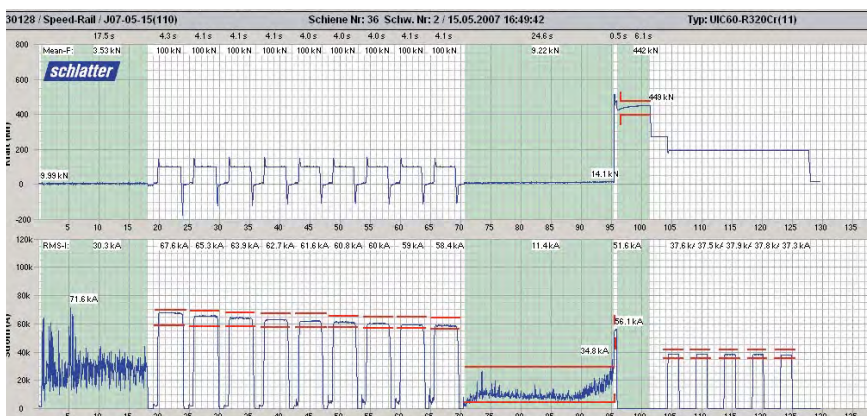
### Control unit and Schläpfer Weld Analyzer

The control system of stationary and mobile machines comprises the function control (PLC), the weld processor and the Schläpfer Weld Analyzer.

The latest generation of the Schläpfer Weld Analyzer contributes considerably to the achievement of constant high-quality welds.

During the whole welding process the Weld Analyzer monitors the three main parameters force, current and travel and displays them on the screen during welding.

Directly after welding its analysis shows if all parameters were within the preset tolerances; it then stores the weld file in the PC.



## A reliable partner in plant construction

The Schlatter Group is a world leader in plant manufacturing for resistance welding systems for specialized solution in the field as well as weaving and finishing machines for paper machine clothing, wire and mesh. With our long-standing expertise in industrial engineering, our spirit of innovation and our reliable customer service we offer our customers high-performance and high-quality manufacturing systems.



### Experience in plant design

The combined competence in the fields of welding, weaving and industrial engineering makes the publicly listed Swiss Schlatter Group a secure title in plant engineering.

### Segment resistance welding

We develop and build resistance welding systems for the production of industrial and reinforcing mesh as well as rail welding.

### Weaving segment

We build weaving and finishing machines for paper machine clothing, as well as wire fabric and mesh under our Jäger brand.

### Contact

Professional contacts for sales, technical support, customer service and administration are available worldwide in the group's companies and at select representatives/agents of the Schlatter Group. You can find the relevant contact data on our internet site [www.schlattergroup.com](http://www.schlattergroup.com).

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