



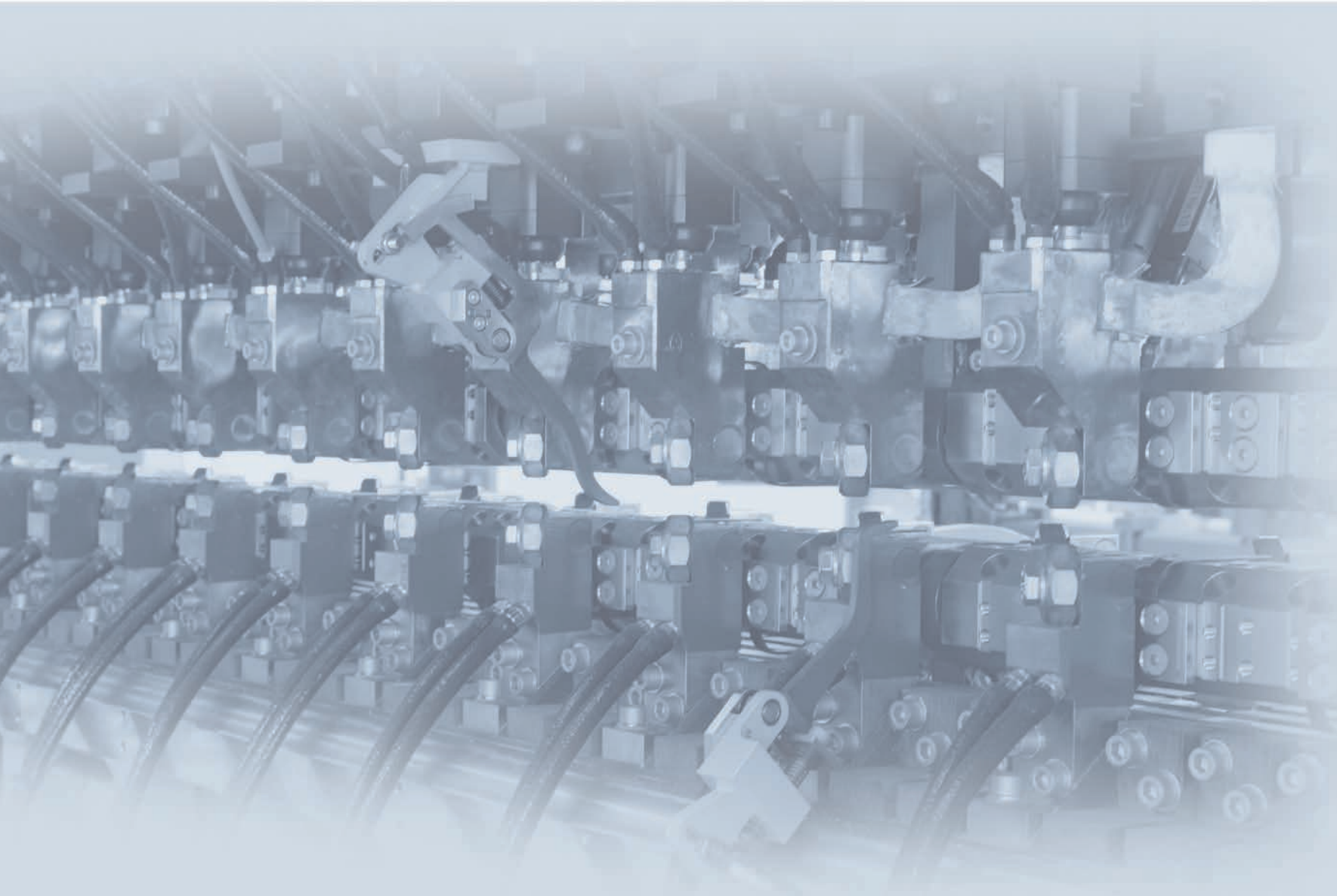
ATT 2C

Reinforcing Mesh Welding Lines



Entwicklungs- und Verwertungs-Gesellschaft m.b.H., Raaba-Österreich

Double-Throw Wire Mesh Welding Lines of ATT 2C Series



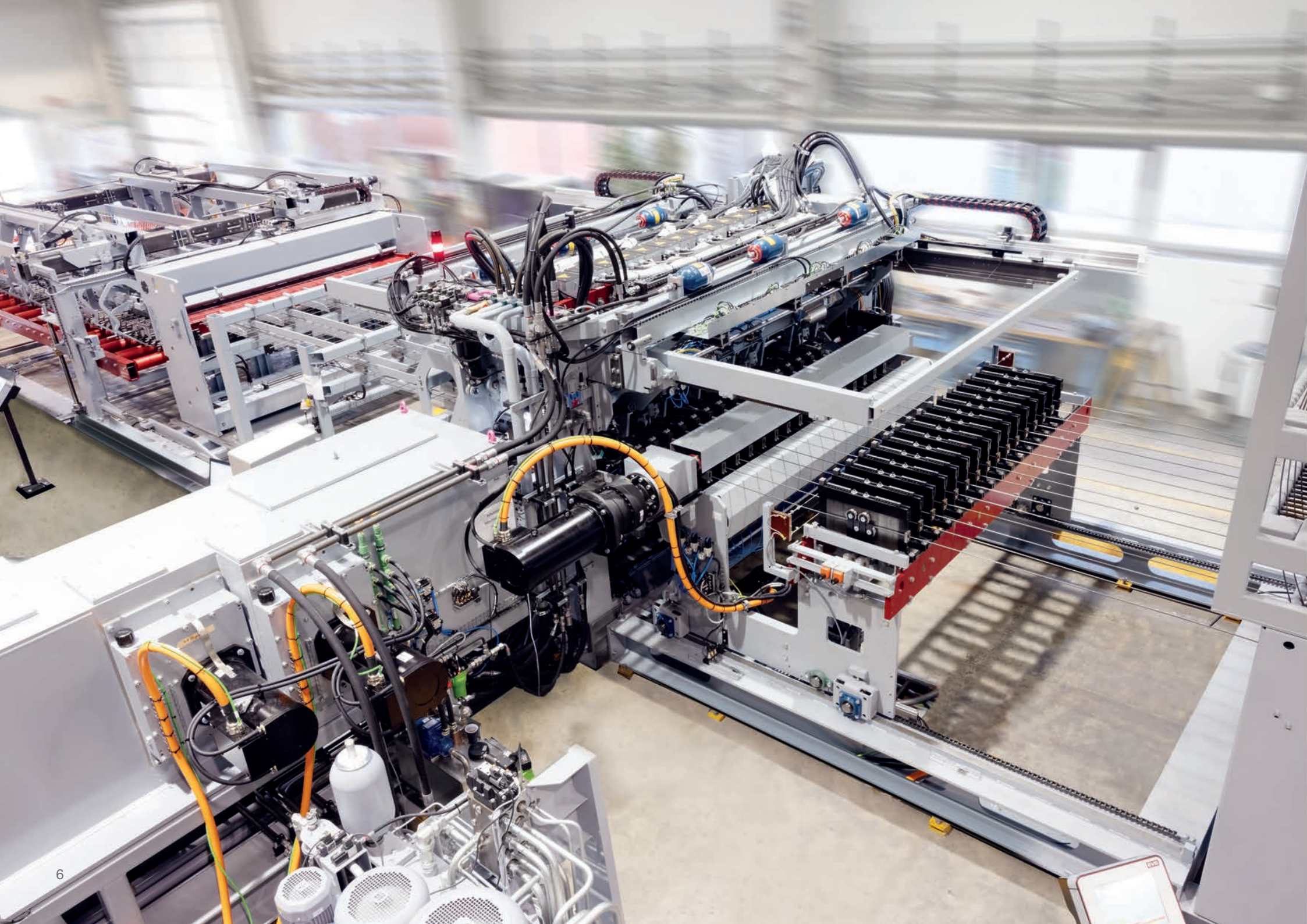
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Table of Contents

Technical Data	6 - 7
Basic Configuration	8 - 9
Line Wire Feeding	10 - 11
Cross Wire Feeding	12 - 13
Double-Throw Mesh Welding Machine	14 - 15
Sheet Shears, Sheet Stacker	16
Ancillaries	17
Welding Line Control System	18
Competence	19

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Technical Data

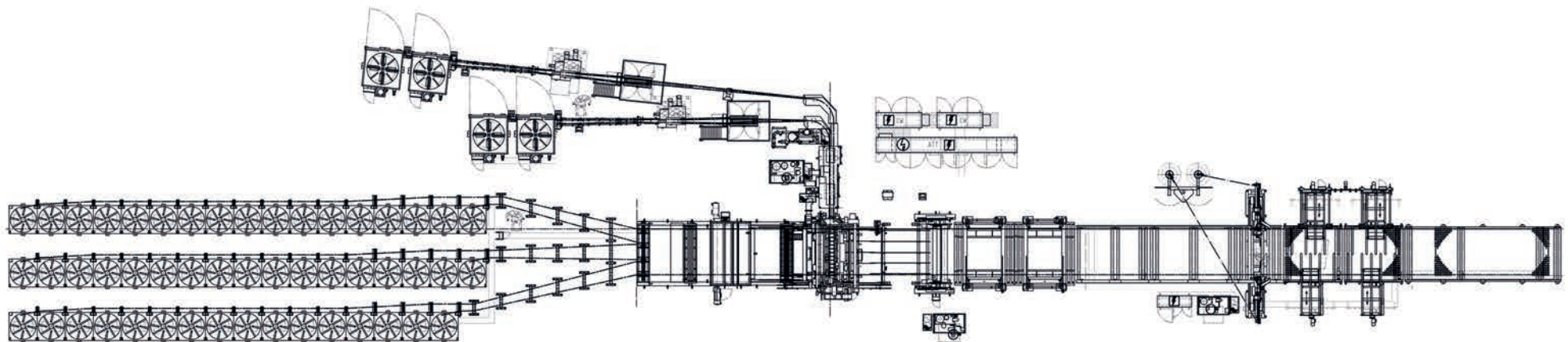
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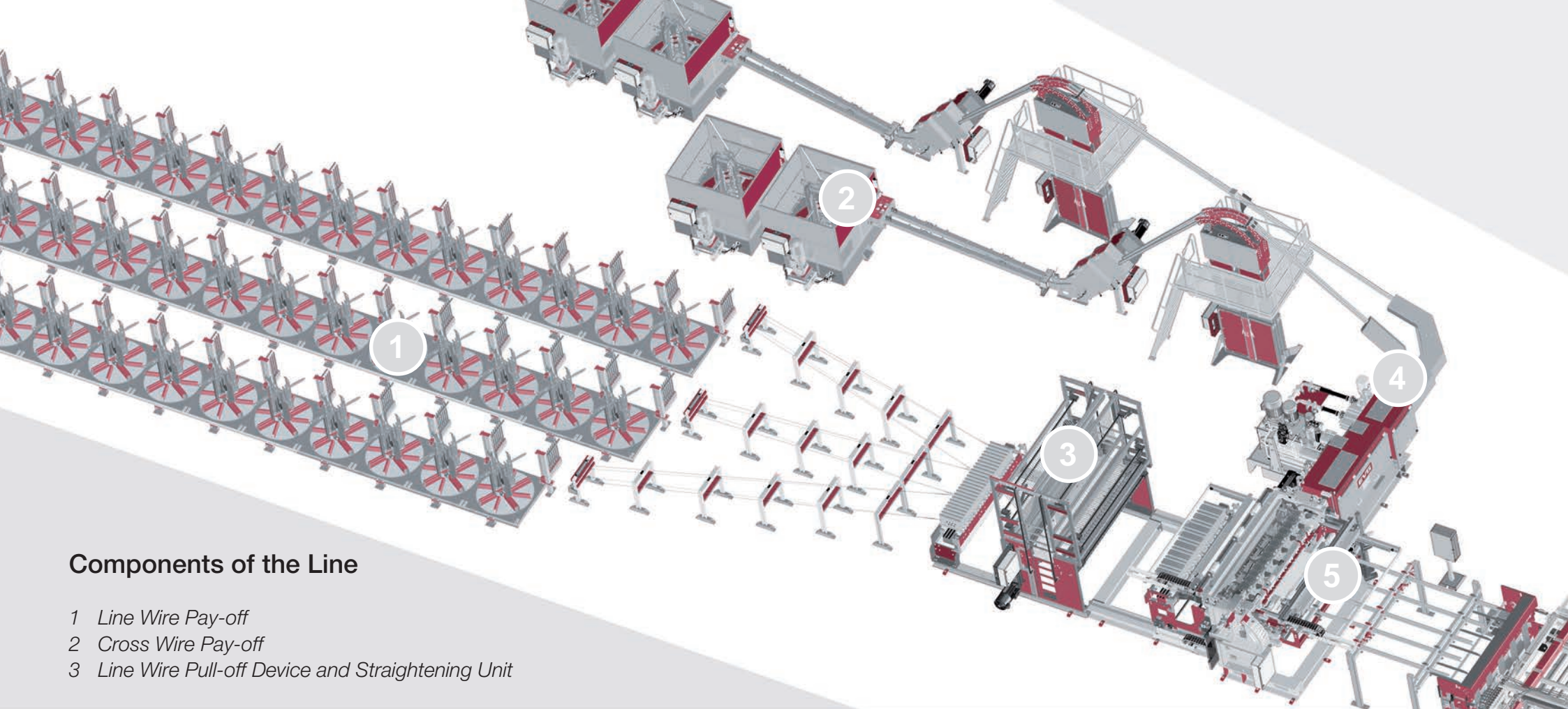
- Fully automatic high speed double-throw wire mesh welding lines for the high-volume production of standard reinforcing mesh in sheets and rolls made of line and cross wires being fed from coils.

Programmable feeding and welding of cross wires above and below the line wires, thus, turning of sheets is not required.

The technical data indicated refer to standard lines which can be adapted to our customers' specific requirements.

Welding width	mm	2.400, 2.600
Line wire:		
Diameter range	mm	3 – 8
Spacings	mm	100, 150 and multiples thereof
Cross wire:		
Diameter range	mm	3 – 8
Spacings	mm	100, 150, 150-300 steplessly adjustable
Max. total diameters	mm	16
Max. working speed	CW/min.	350



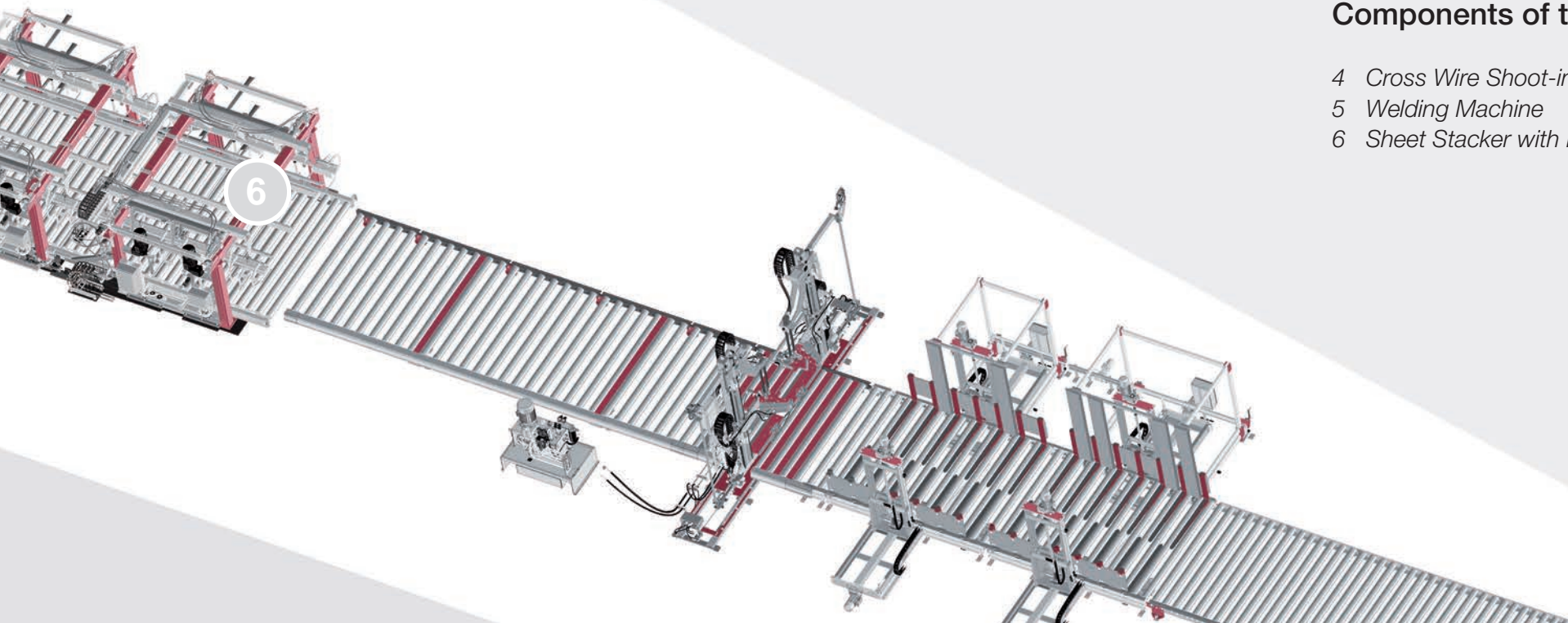
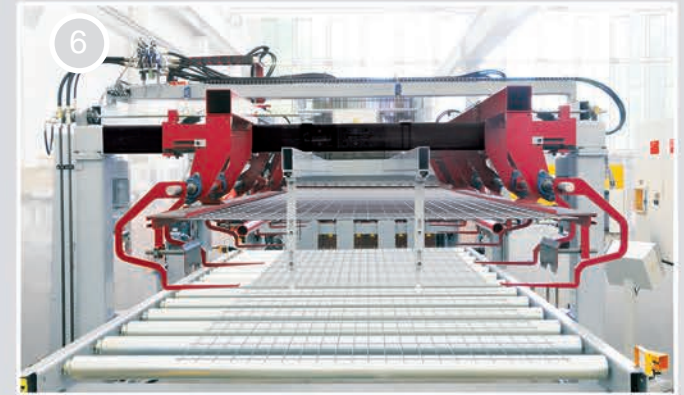
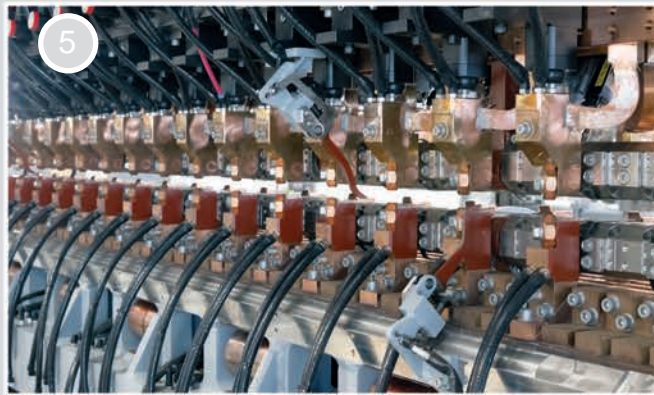
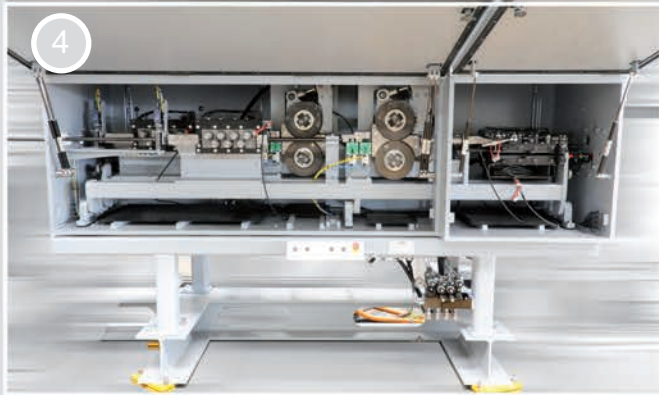


Components of the Line

- 1 *Line Wire Pay-off*
- 2 *Cross Wire Pay-off*
- 3 *Line Wire Pull-off Device and Straightening Unit*



Basic Configuration



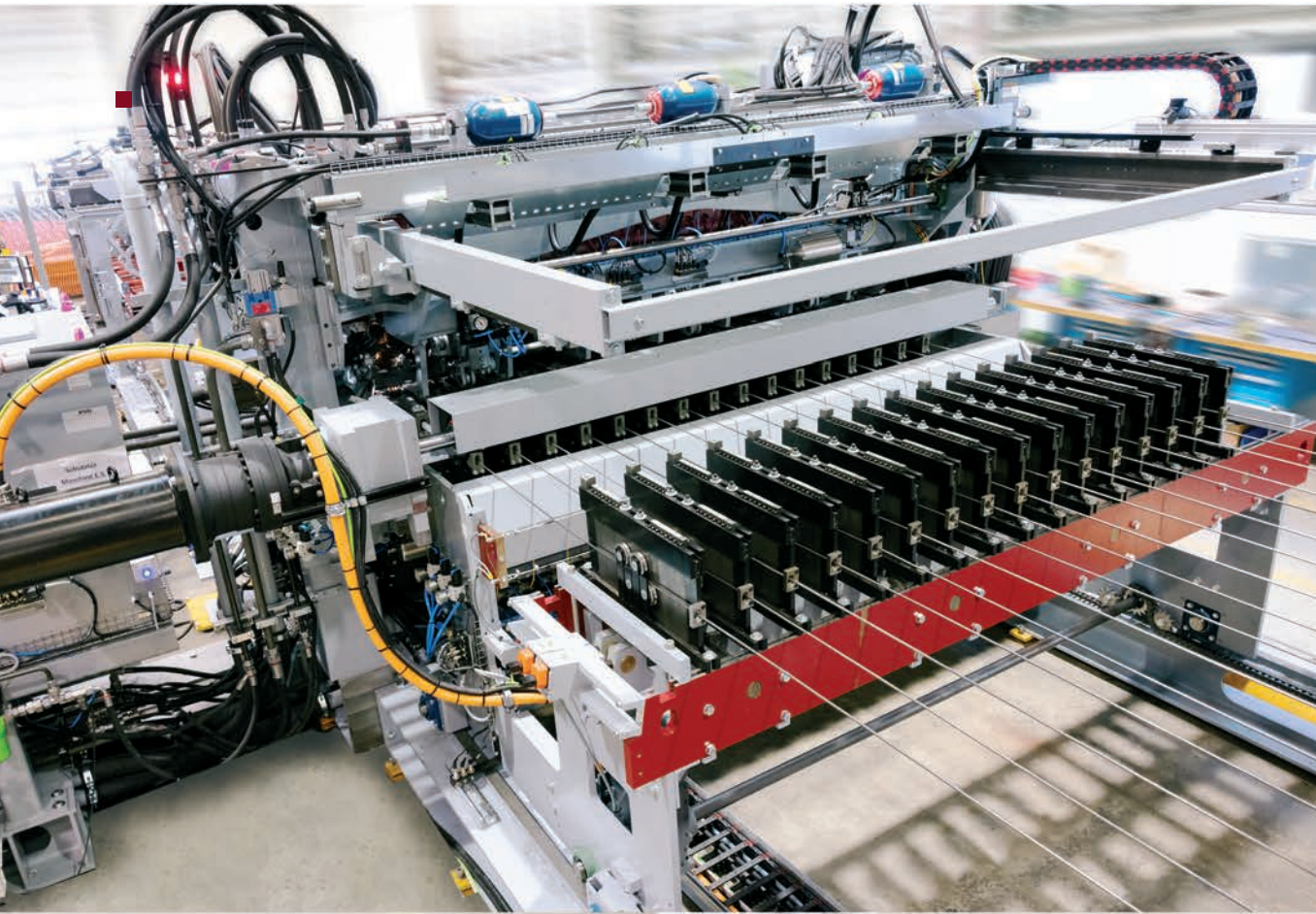
Components of the Line

- 4 *Cross Wire Shoot-in*
- 5 *Welding Machine*
- 6 *Sheet Stacker with Lifting Table*

Line Wire Feeding

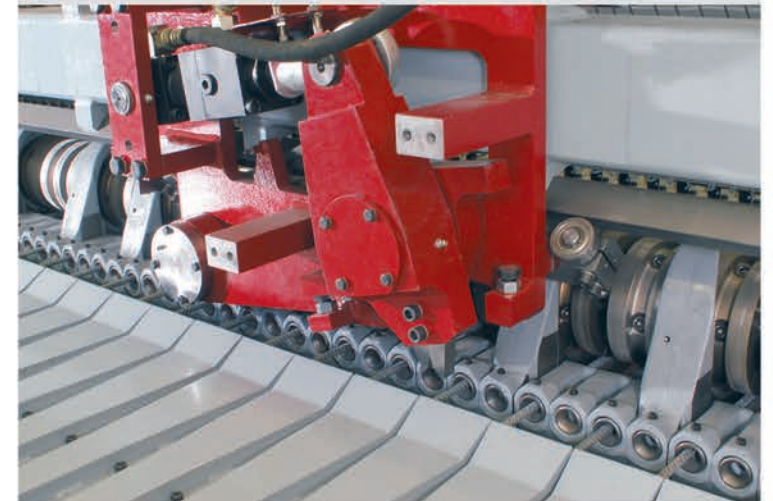
■ Roller Advance System

Highest advance speeds are achieved by a servo-electrically driven roller advance system.



■ Line Wire Switch System

The optional execution of the line with a line wire switch enables continuous production during butt welding of line wires.





■ Line Wire Pull-off Device and Straightening Unit

The line wires are pulled off automatically from spools or coils. A loop accumulator ensures continuous and retraction-free wire feeding despite intermittent operation of the welder.

Cross Wire Feeding



■ Cross Wire Pull-off Device

Electrically driven cross wire pull-off device with loop accumulator of vertical design.

The cross wire pay-off stations either come with vertical or horizontal spool axes.

As an option, integrated cold-rolling lines allow direct feeding of cross wires from wire rod coils.



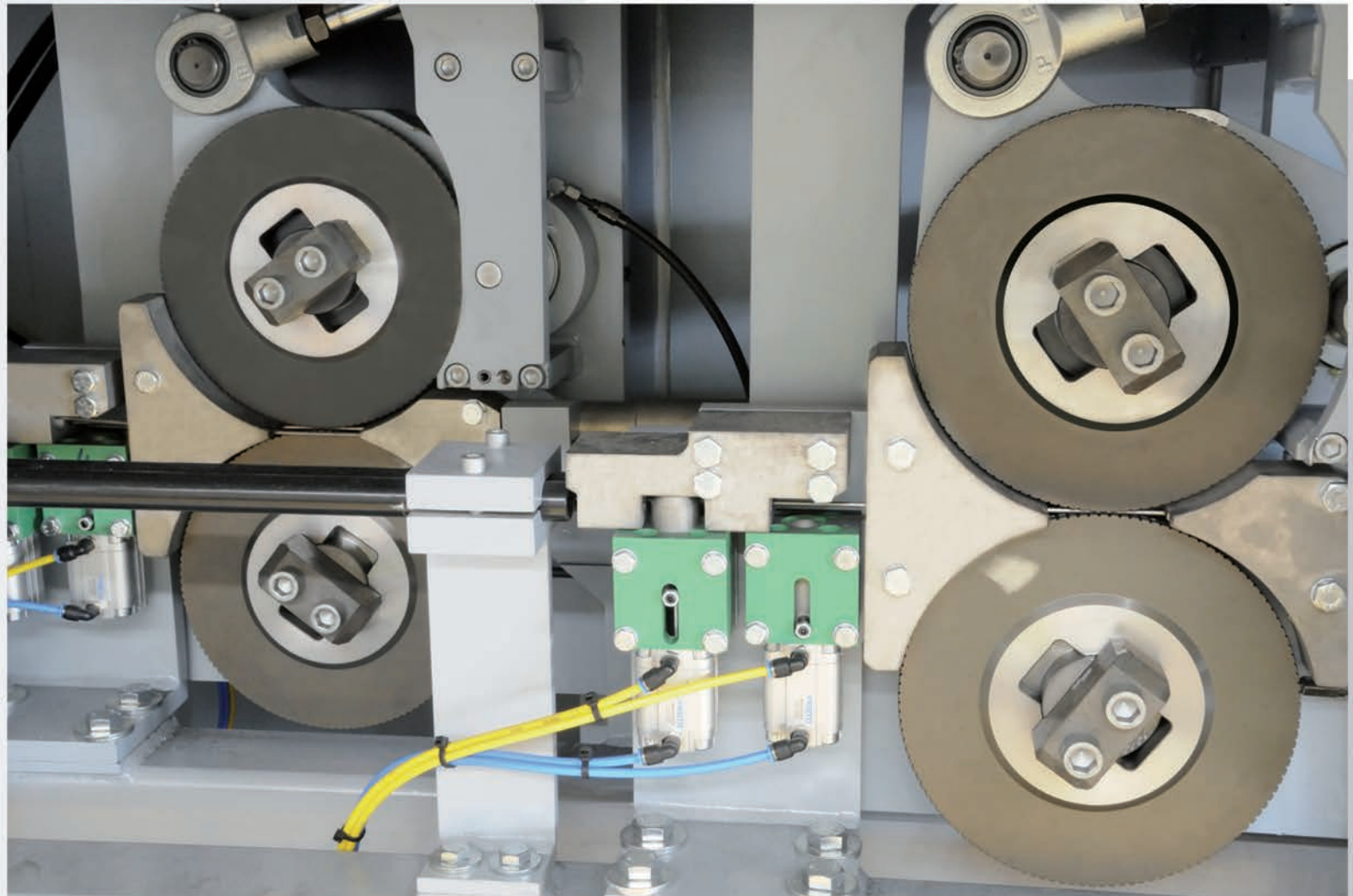
■ Cross Wire Shoot-in

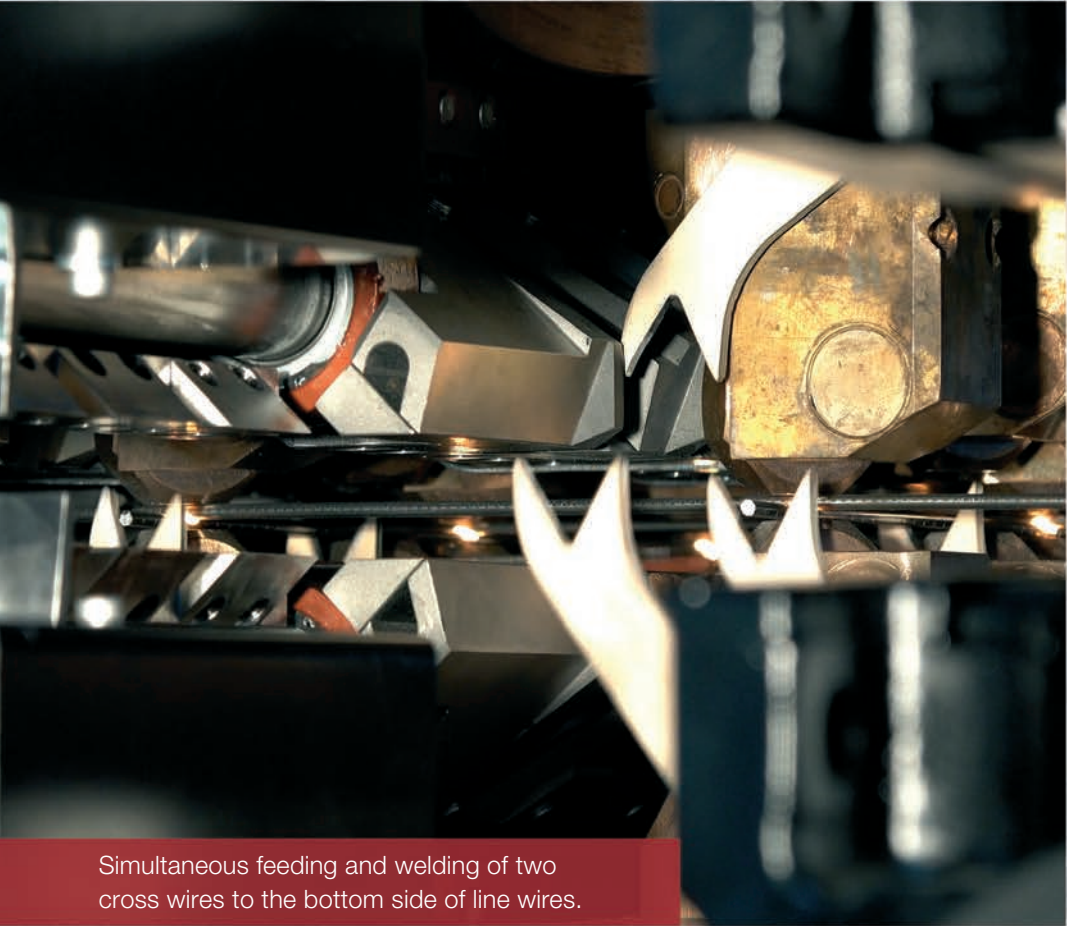
The two highly dynamic servo-electric drives of the cross wire shoot-in system allow **shooting in two cross wires simultaneously** and ensure **working speeds of up to 350 cross wires per minute**.

The cross wires are shot-in above or below the line wires.

On account of the compact arrangement of the cross wire shoot-in channels and of the welding dies, cross wire feeding needs a very short distance only, both to the top side and to the bottom side of the line wires.

An **integrated cross wire switch system** enables continuous operation during butt welding of cross wires and helps increasing efficiency of the welding line significantly.





Simultaneous feeding and welding of two cross wires to the bottom side of line wires.



Simultaneous feeding and welding of two cross wires to the top side of line wires.

Double-Throw Mesh Welding Machine

■ Welding Units

Fully automatic high speed mesh welder for the most efficient production of reinforcing sheets and mesh rolls in large batches.

In the **two separate welding units**, **two cross wires are welded simultaneously** by program control alternatively to the top side or to the bottom side of the line wires. Owing to this technology the **turning of sheets is no longer necessary**. Especially in case of highest production speeds and short sheet lengths this feature allows to utilize maximum possible working speed.

Quick change-over of cross wire spacing through motorized positioning of the second welding unit.

An innovative welding principle called **“push & pull”** technology allows welding of the cross wires above or below the line wires even in case of an alternating cross wire tier.

The top and bottom electrodes of the double point welding units are connected firmly with the transformers via bus bar.

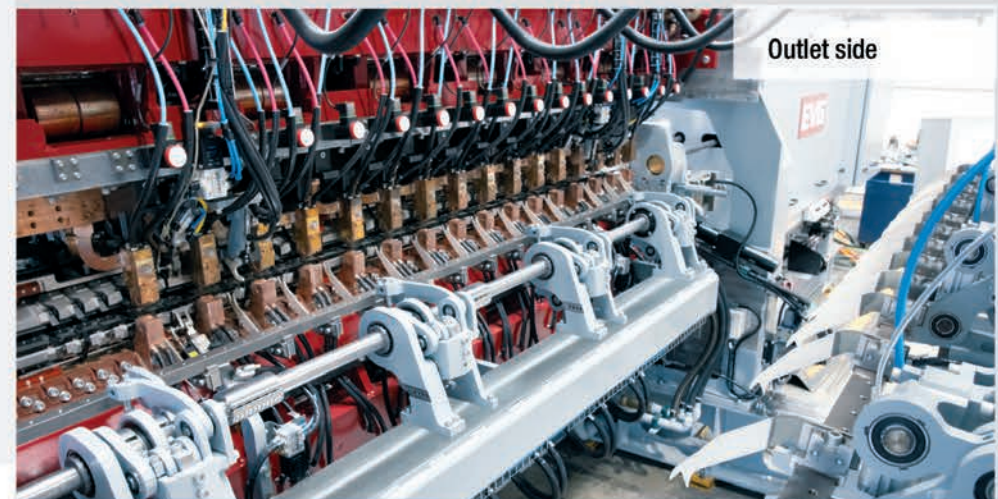
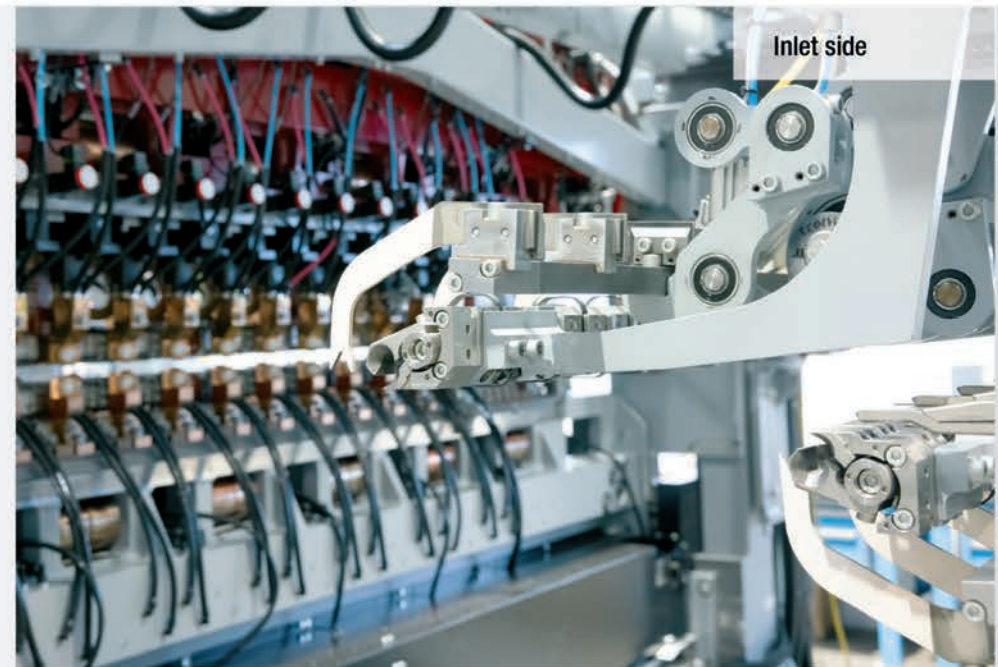
In case of a change of line wire spacing, the welder will hence be changed over fully-automatically.

No modification of current bridges and no change of polarity is necessary.

Welding pressure is centrally adjustable and is applied through an active-hydraulic movement of the top electrodes.

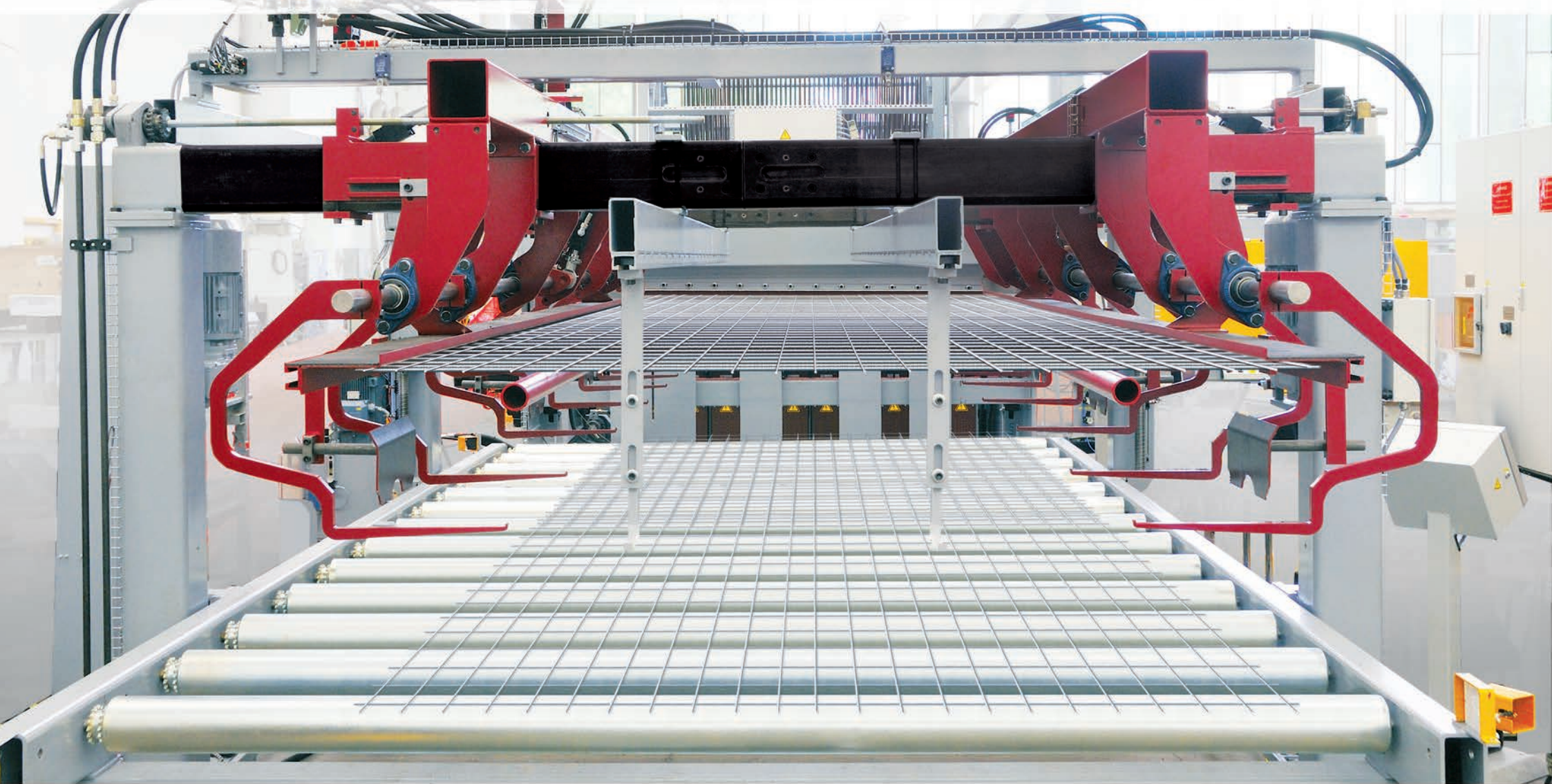
Maximum service life of electrodes is obtained by **optimized welding pressure control** including pre- and post-squeezing times.

The welding current path is made up of massive copper, a feature which ensures **minimum electric resistance and maximum energy efficiency**.



*Motorized shifting of cross wire feeding beams allows excellent maintenance accessibility.

Sheet Shears and Sheet Stacker



■ Sheet Shears and Sheet Stacker

After being cut by the shears, the mesh sheets are stacked automatically. Extremely short cycle times also for short mesh sheets and compact arrangement without the need of a sheet turner.

■ Intermediate Collector

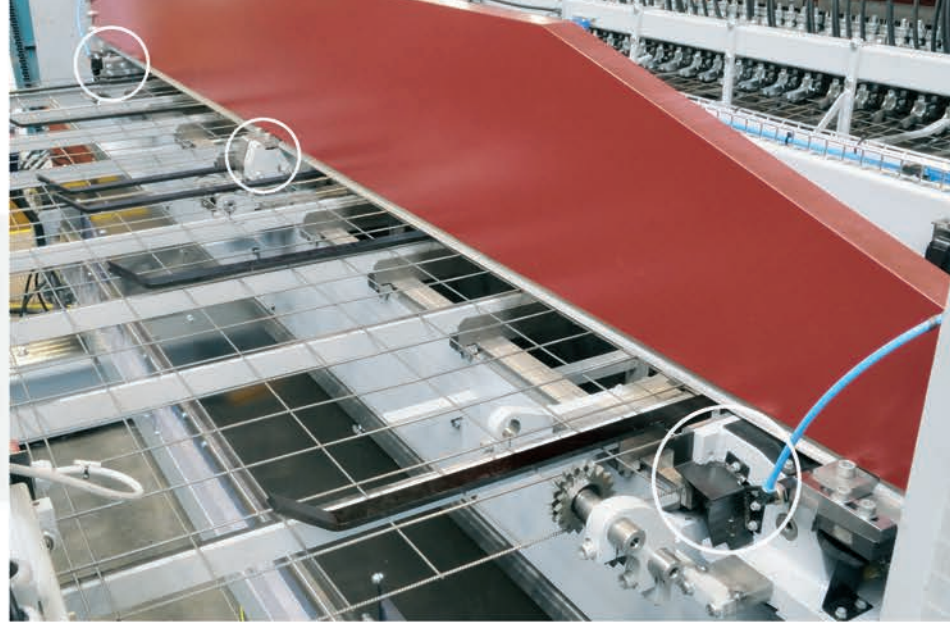
Sheet stackers of double-throw welding lines are equipped with an intermediate collector allowing for continuous production without any interruptions while the sheet stacks are being discharged.

Ancillary Equipment



■ Cross Wire Side Trimming and Slitting Shears

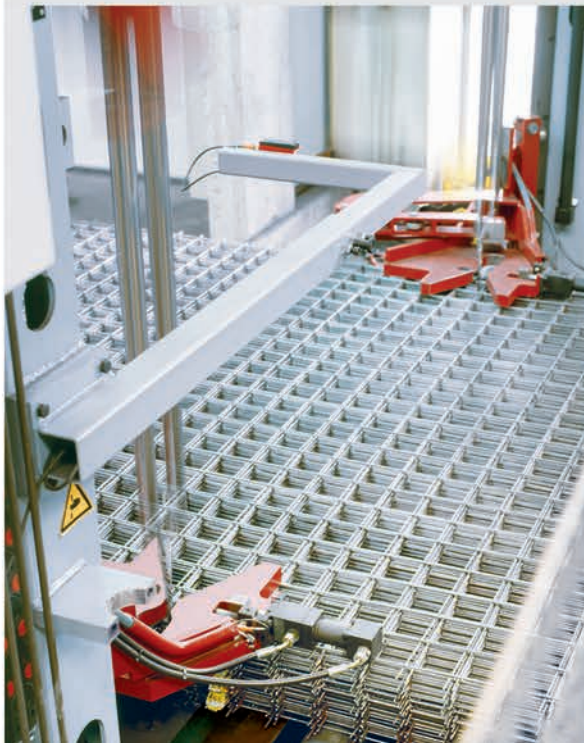
The cross wire side trimming and slitting shears are synchronized with the welder and allow producing mesh sheets without cross wire overhang or slitting the mesh into two strips.



■ Automatic Tying Station

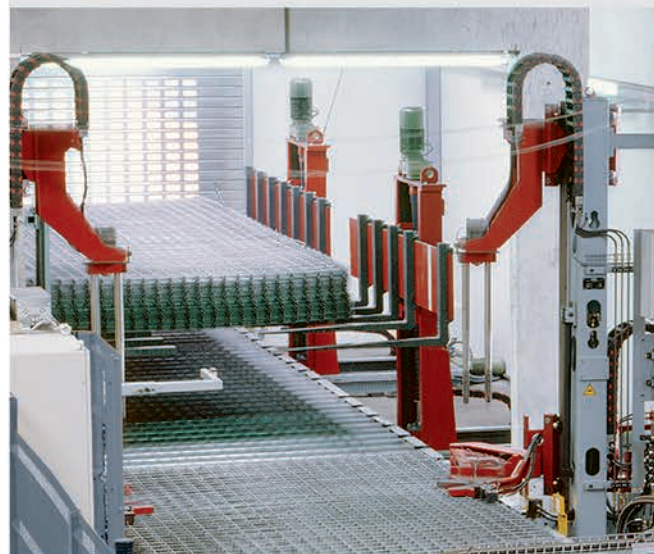
For fully automatic tying of sheet batches once the preprogrammed number of sheets has been reached.

As an option, also complex strapping systems with different functions can be delivered.



■ Mesh Pile Stacker

For precise and efficient stacking of sheet batches.



■ Roll Take-up Machine

Roll take-up machines of different automation levels are available for the production of mesh rolls.



Welding Line Control System

■ Control Unit

The control unit ensures fully automatic operation of the entire production line. Easy handling through central data input via an input computer of state-of-the-art industrial PC design. Monitoring of the line via a diagnosis program with plain text display. Tabular input of product data, production lists, welding parameters and line-dependent functions. Graphical presentation of mesh types.

Owing to an integrated network communication feature it is possible to execute telemaintenance at the line.



■ Wire Up - our digital platform for EVG machines

An optionally available software allows the up-to-the-minute recording, updating and editing of extensive production data

This provides a valuable basis for the optimization of production in real time

A separate licence package for maintenance management can be offered, as well as a smartphone app for location-independent information. Anytime. Anywhere



Competence



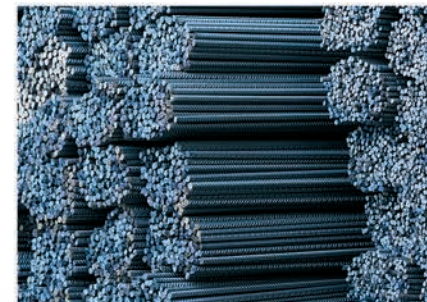
■ Group of Companies

The group of companies EVG - AVI - MARIENHÜTTE with its complete program for the production of reinforcing steel and welded mesh is your reliable and experienced partner when it comes to reinforcement of concrete, wire products, production equipment and knowhow.

- EVG as suppliers of complete production lines
- AVI and BSTG as producers of reinforcing steel sheets, cold-rolled reinforcing steel, truss girders, spacer strips and reinforcing cages
- Steel and rolling mill MARIENHÜTTE as producer of reinforcing steel
- H&S Zauntechnik as supplier of industrial and fencing mesh as well as complete fencing systems

The cooperation within our network of companies allows EVG to become aware of all major challenges inherent in the production and application of mesh and reinforcing products also from a machine operator's point of view. Any knowledge gained this way is constantly introduced in our new projects.

The most important foundations of our success are close co-operation with our customers based on partnership, highly-qualified staff and ongoing innovations.



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Subject to modifications.

"The figures shown are of exemplary nature and do not allow to draw any conclusions on the configuration of the line acquired by the buyer."