



**TS | TSD**  
Truss Girder Welding Lines



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



# Truss Girder Welding Lines TS | TSD



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# Table of Contents



Technical Data	6 - 7
Basic Configuration	8 - 9
Wire Feeding	10 - 11
Welding Machine	12 - 13
Shears and Stacker	14 - 15
Integrated Foot Bending Device	16 - 17
Competence	18 - 19

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■ 217 lines of type TS/TSD supplied worldwide as per 06/2012

# Technical Data

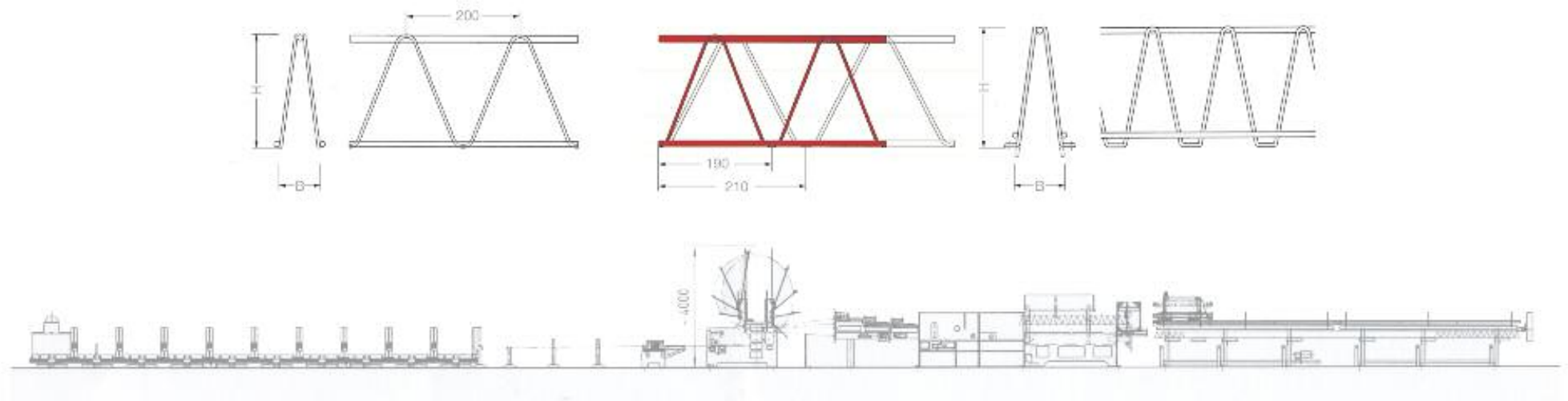


- Fully automatic truss girder welding lines for the production of standard and special girder styles. Programmable feeding and welding of chords and diagonal wires from spools or coils, cold rolled or hot rolled material.

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

			<b>TS 7-35</b>	<b>TS 7-35 S</b>	<b>TS 10-35 S</b>	<b>TSD 7-35 L</b>	<b>TSD 7-35</b>	<b>TSD 7-35 S</b>	<b>TSD 10-35 S</b>	<b>TSD 10-35 S B V</b>
Girder height	H	mm	70 - 350	70 - 350	100 - 350	70 - 350	70 - 350	70 - 350	100 - 350	100 - 350
Upper chord	ø	mm	5 - 12	5 - 14	6 - 16	5 - 8	5 - 12	5 - 14	6 - 16	5 - 14
Diagonal wire	ø	mm	3,5 - 6,5	3,5 - 6,5	4 - 8	3,5 - 6,5	3,5 - 6,5	3,5 - 6,5	4 - 8	5 - 8
Lower chord	ø	mm	4 - 12	5 - 14	6 - 16	4 - 8	4 - 12	4 - 14	6 - 16	4 - 14
Bottom width	B	mm	60, 80	60, 80	60, 80	60, 80	60, 80	60, 80	60, 80	60, 80
Max. working speed	m/min		21	20	18	40	40	36	33	36
Diagonal wire pitch	mm		200	200	200	200	200	200	200	190-210

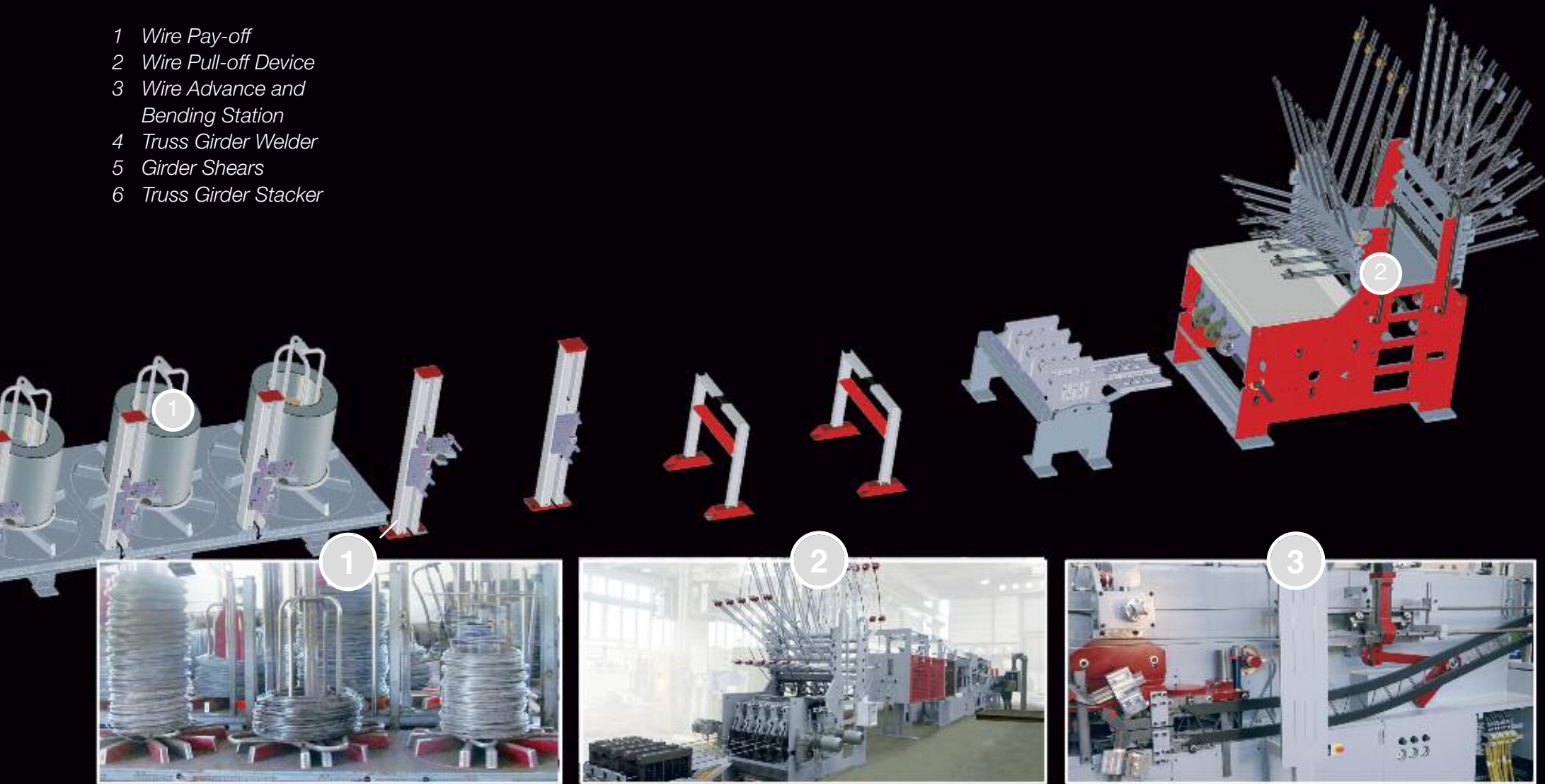
Special girder welding machines with varying specifications are available upon request.



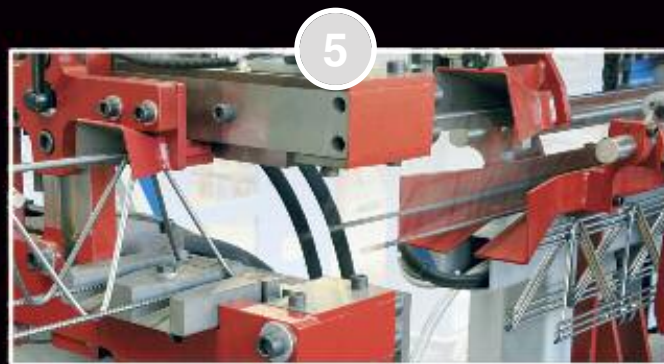
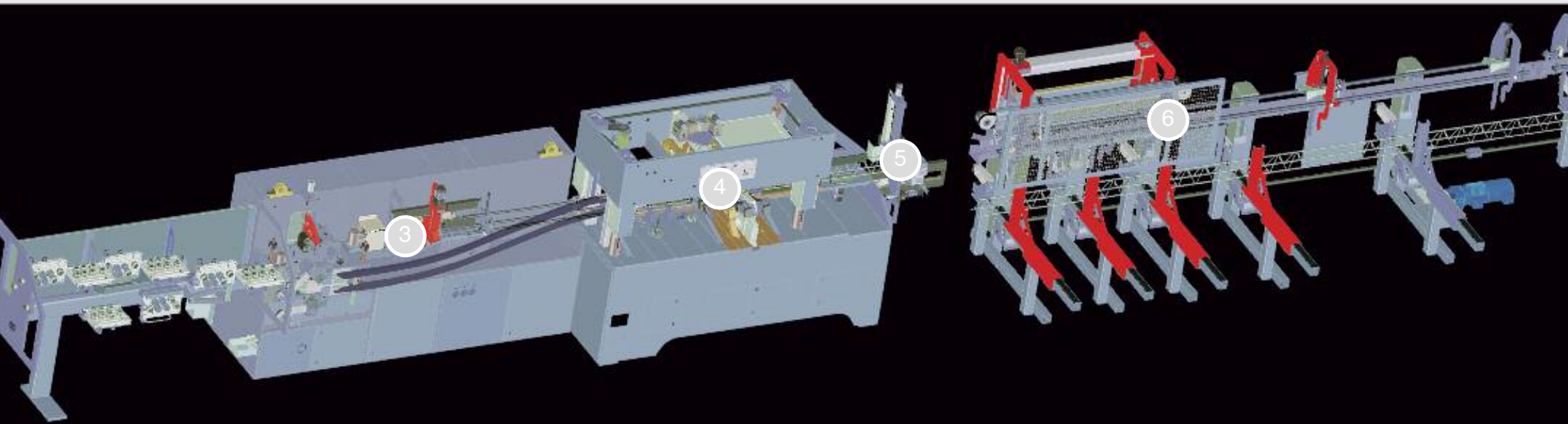
# Basic Configuration

## Components

- 1 Wire Pay-off
- 2 Wire Pull-off Device
- 3 Wire Advance and Bending Station
- 4 Truss Girder Welder
- 5 Girder Shears
- 6 Truss Girder Stacker









## ■ Wire Pull-off Device

The wires are pulled off automatically from spools or coils. The use of a loop accumulator ensures continuous pull-off of wires despite the intermittent operation of the welder.

Speed-controlled motors to drive the machine in a way that pull-off speeds both of the line wires and the diagonal wires can be adapted optimally to machine speed.



## ■ Straightening Unit

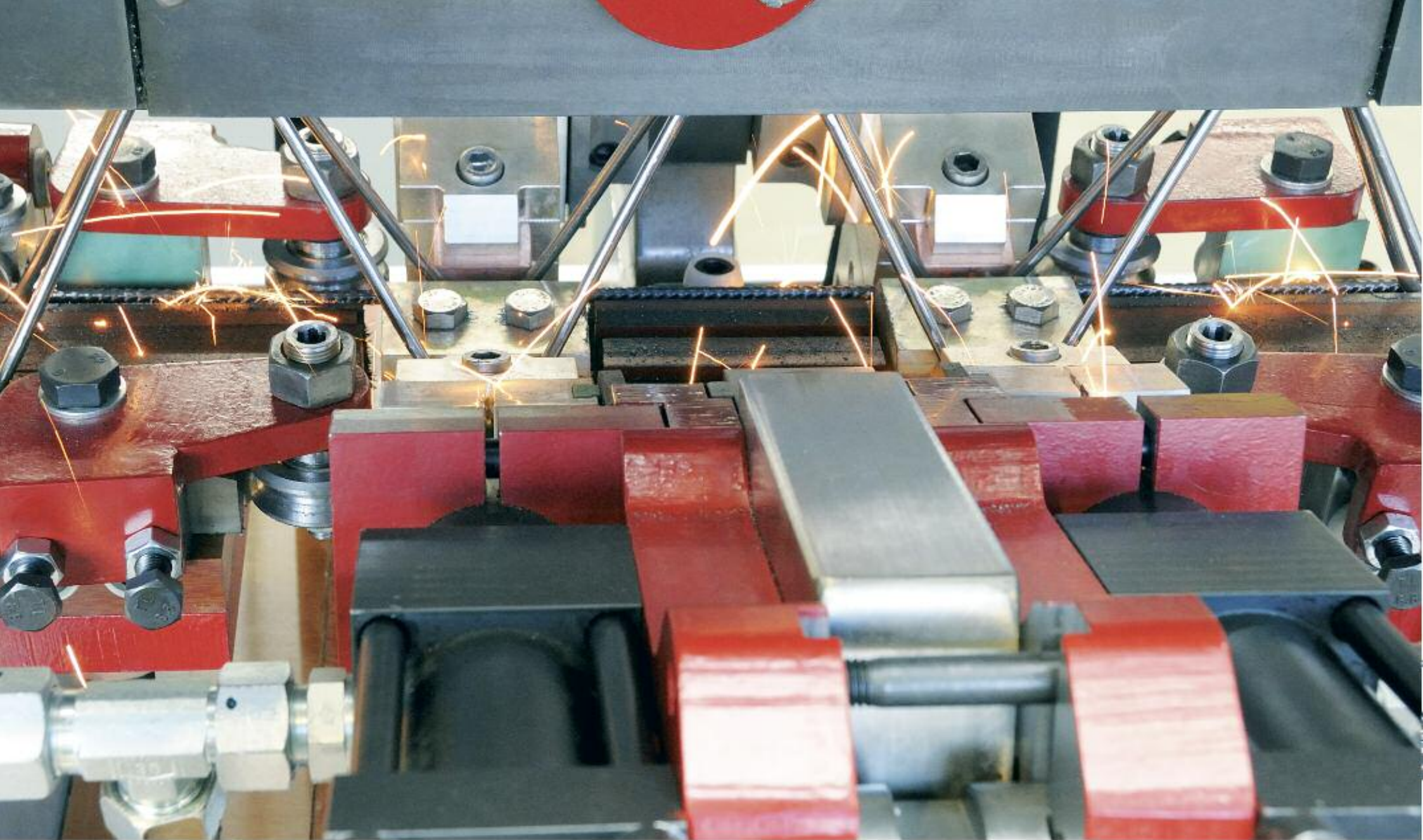
Individually adjustable roller-type straightening units for upper chord, diagonal wires and lower chords ensure optimum girder quality. Configuration with integrated rotor-type straighteners for upper and lower chords optionally available.



## ■ Wire Advance and Bending Stations

Maximum working speeds are achieved by advancing the wires through a crank gear with hydraulic clamping and a mechanically driven bending station for continuous shaping of diagonal wires.





### ■ Double Welding Assembly

An electronically controlled double welding assembly allows simultaneous welding of upper and lower chords.

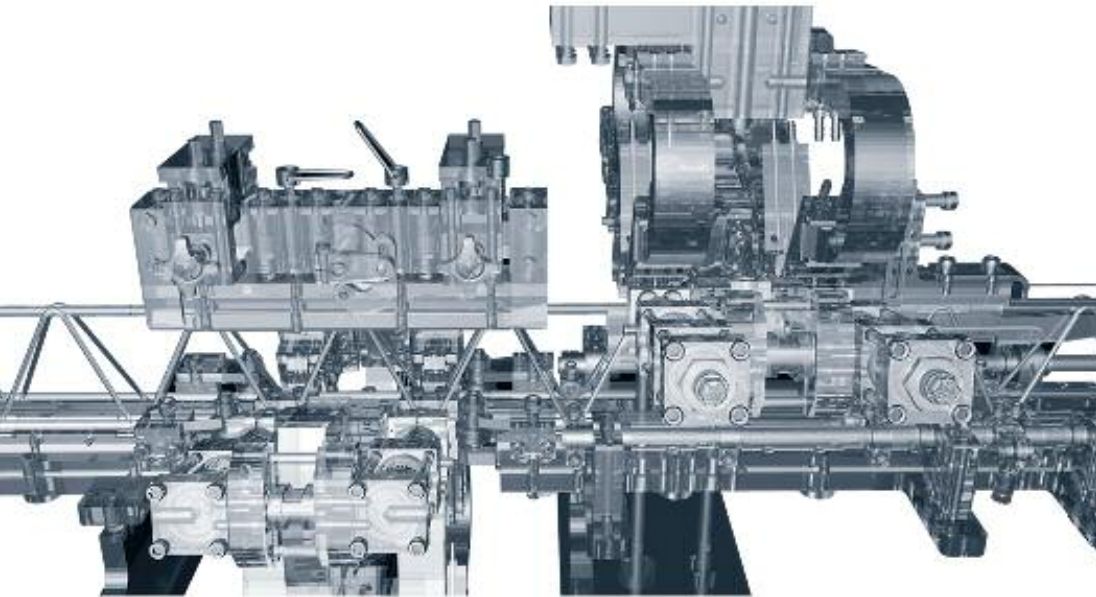
# Welding Machine



## ■ Single-throw and Double-throw Welders

The welders are equipped with hydraulically actuated welding units. This design ensures very tight control of the welding process and, as a consequence, minimum welding cycle times. The hydraulic movements are controlled via an electronic cam.

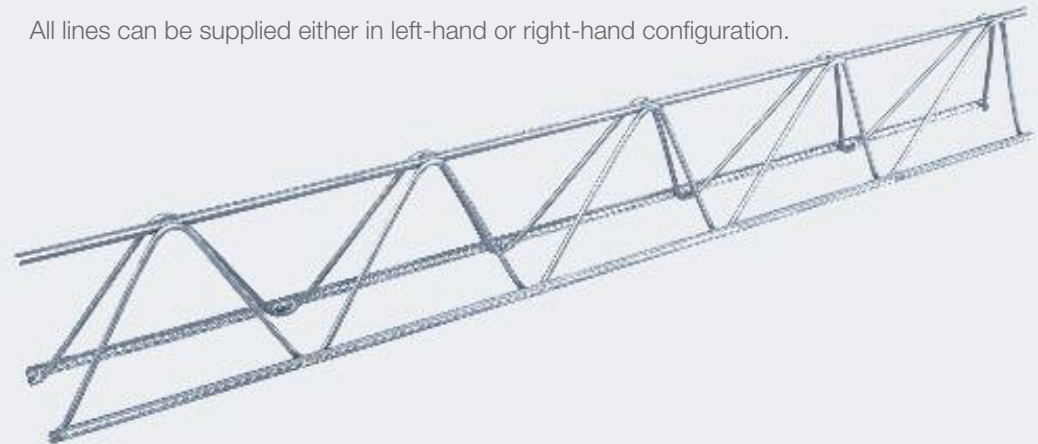
Highest production outputs by using double-throw welding technology. 6 welding joints are welded per advance; 2 x upper chord and 4 x lower chord.



Motorized height adjustment of the entire welding line.

Optimum girder quality is achieved by an integrated hydraulically actuated untwisting device, horizontal and vertical girder aligning devices and accurate base width adjustment.

All lines can be supplied either in left-hand or right-hand configuration.





■ **Comb-type Shears**

Hydraulically actuated comb-type shears allow cutting truss girder without burrs.

# Truss Girder Shears and Stacker



## ■ Truss Girder Stacker

After being cut by the shears the girders are stacked automatically. Servo-electrically driven girder pull-out for transportation into the stacking area and precise depositing on the lifting table. For every girder, the lifting table is lowered automatically by the stacking height.

Stacking device with or without integrated automatic discharge magazines. The preselected number of girder stacks is made available for bundling and discharging from the magazine.

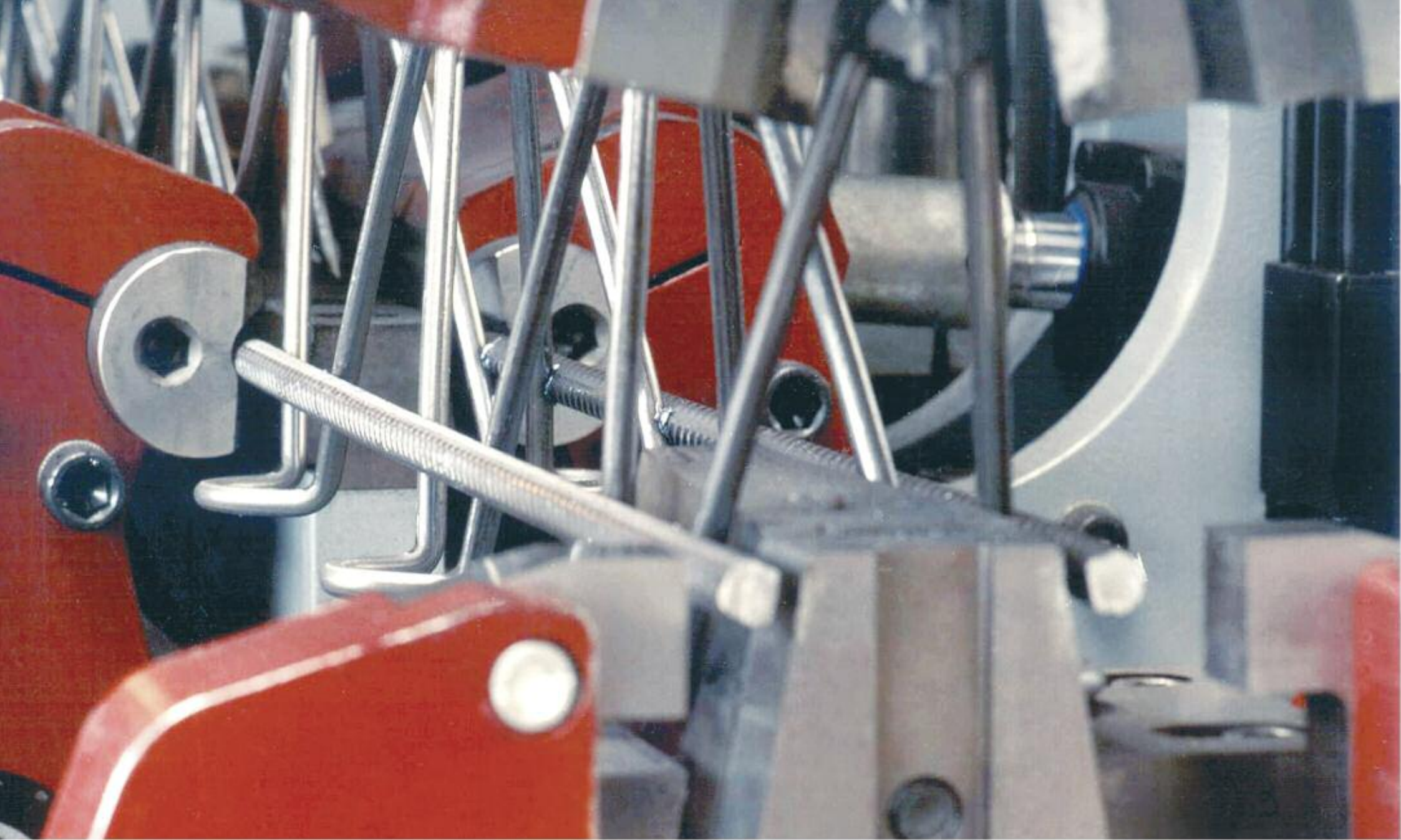


## ■ Special Design Horizontal Truss Girder Stacker

After implementing an integrated automatic tying process the tied sub-batches placed in discharge position of the supporting table are being tilted from vertical into horizontal position. Horizontally placed girder sub-batches are pushed together to form one big girder batch by means of an automatic discharge unit.

The girder batch completed consisting of a defined, pre-set quantity of sub-batches is being discharged onto a lifting table.





■ Foot Bending Device and Truss Girder Shears

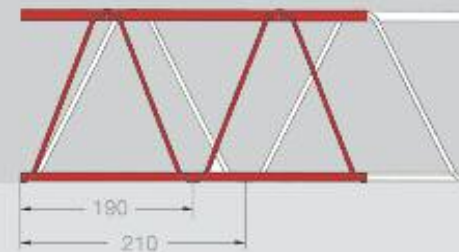
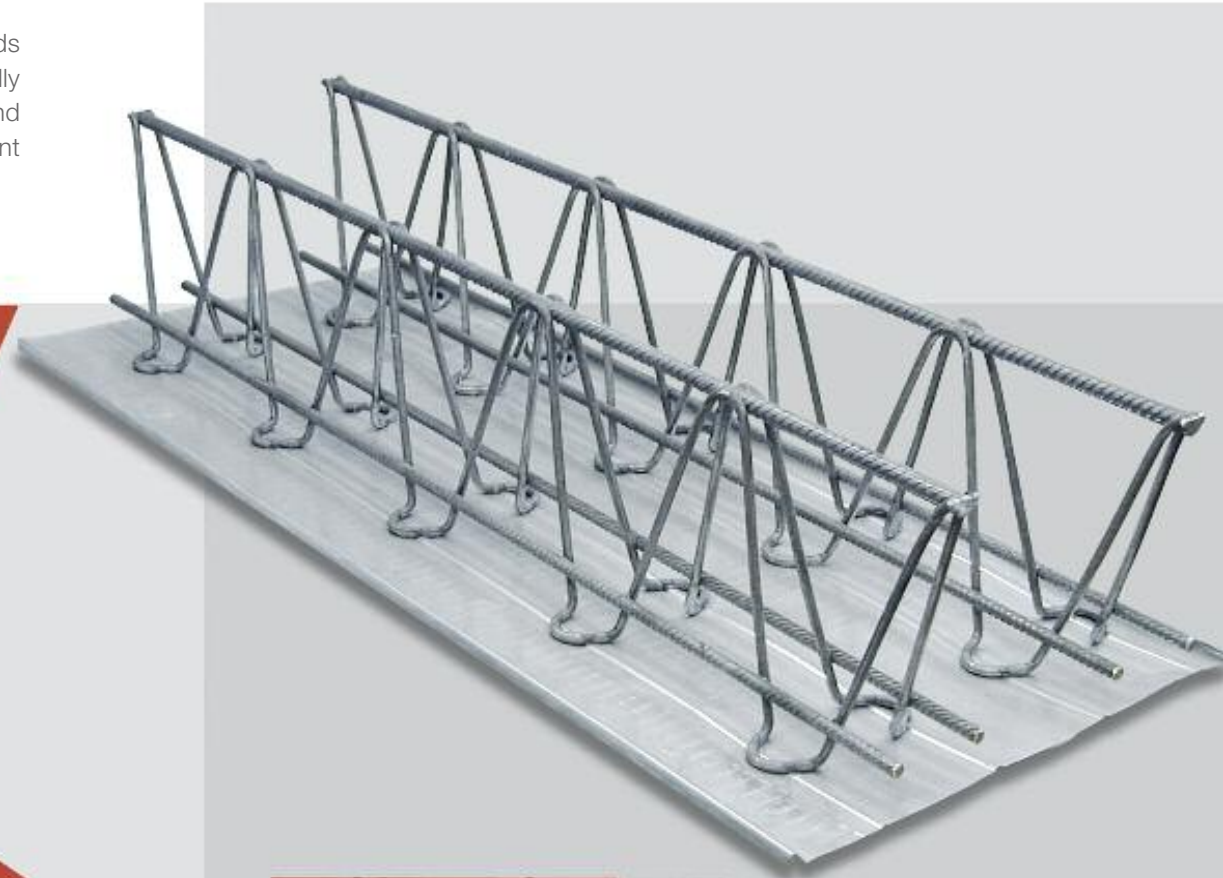
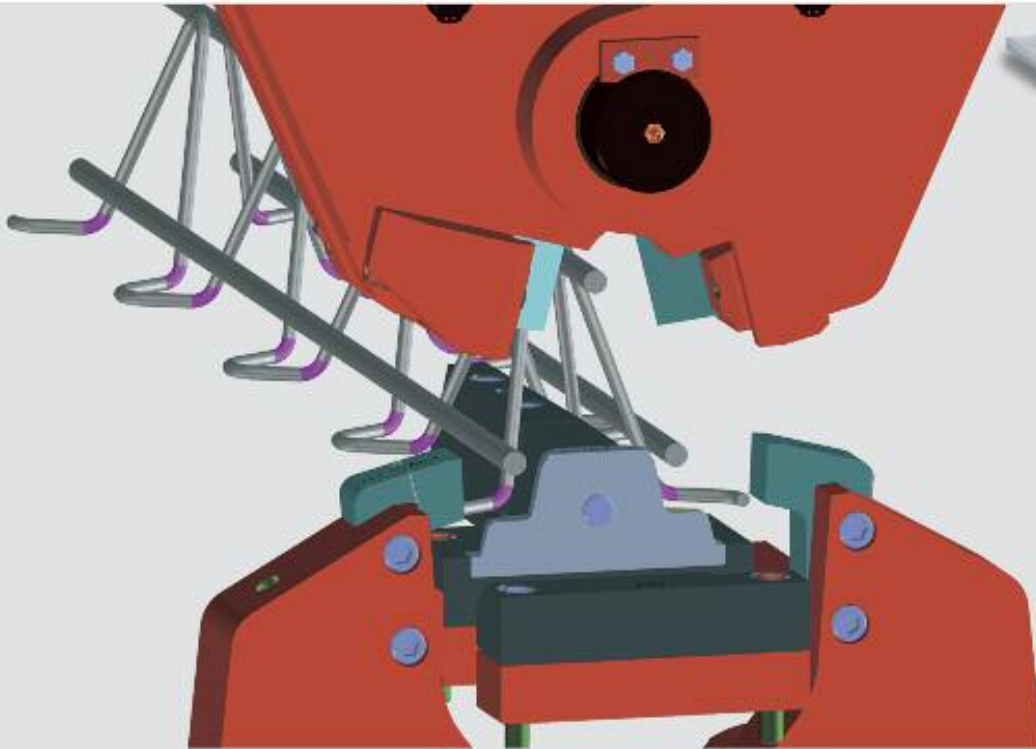


# Integrated Foot Bending Device



## ■ Truss Girder Shears for Foot Center Cut

Integrated, fully automatic bending device to bend diagonal wires upwards the lower chord of the girder as used for „metal deckings“ and hydraulically actuated special shear design allow almost burr-free cutting in the upper and lower welding joints of standard girders, as well as in the upper welding joint and center of “foot” of decking girders.  
Motorized adjustment of shears to selected cutting position.





# 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 and FILZMOSER 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 cooperation with our customers based on partnership, highly-qualified staff and ongoing innovations.



**EVG**

Entwicklungs- u. Verwertungs-  
Gesellschaft m.b.H.  
Gustinus-Ambrosi-Str. 1-3  
8074 Raaba  
AUSTRIA  
phone: +43 316 4005-0  
fax: +43 316 4005-500  
e-mail: [evg@evg.com](mailto:evg@evg.com)  
[www.evg.com](http://www.evg.com)

**EVG, Inc.**

220 East, 42nd Street, Suite 3100  
New York N.Y. 10017  
USA  
phone: +1 212 6970770  
fax: +1 212 6871586  
[www.evg.com](http://www.evg.com)

**Представительство EVG Россия**

ул. Дубининская, 90  
115093, г. Москва  
РОССИЯ  
тел: +7 495 78996-66  
факс.: +7 495 23611-92  
e-mail: [russia@evg.com](mailto:russia@evg.com)  
[www.evg.com](http://www.evg.com)

Subject to modification.

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