



# POLYBEND | PBX

Automatic Stirrup Benders



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

*Photo Page 3: EVG assembly bays and headquarters, Austria*



# Automatic Stirrup Benders POLYBEND | PBX



# Technical Data



- Automatic heavy-duty machines for the processing of cold-rolled or hot-rolled rebars paid off from reels or spools.

Highest output at minimum maintenance and best dimensional accuracy of products are ensured by the patented advance system running with a driven roller-type straightening unit and water-cooled electric servo-drive.

Short change-over times and easy handling on account of motorized straightening roll adjustment in the roller-type straightening units adapted to wire diameter and quality.

## PBX:

		<b>12</b>	<b>14</b>	<b>16</b>	<b>16 HD</b>	<b>20</b>
Wire Diameters and Quality						
Wire diameters for single wire mode	mm	6-12	6-14	6-16	6-16	10-20
Wire diameters for double wire mode	mm	6-10	6-10	6-12	6-14	10-16
Max. Advance Speed						
Speed gear	m/min	140	205	185	185	185
Power gear	m/min	110	140	125	125	125
Max. Bending speed	°/sec	1800	1900	1800	1800	1700
Bending Angles	°	+/-200	+/-200	+/-200	+/-200	+/-200
Accuracy of length	mm	+/-1	+/-1	+/-1	+/-1	+/-1
Accuracy of bending	°	+/-1	+/-1	+/-1	+/-1	+/-1
Drive Technology		El. servo motor	El. servo motor	El. servo motor	El. servo motor	El. servo motor

# Components of the Line

## ■ Wire Pay-off

Braked and/or electrically driven turntables enabling forward and reverse mode (e.g. in case of machines equipped with an automatic wire changer) and a wire accumulator ensure that the wires are pulled off in a controlled manner.



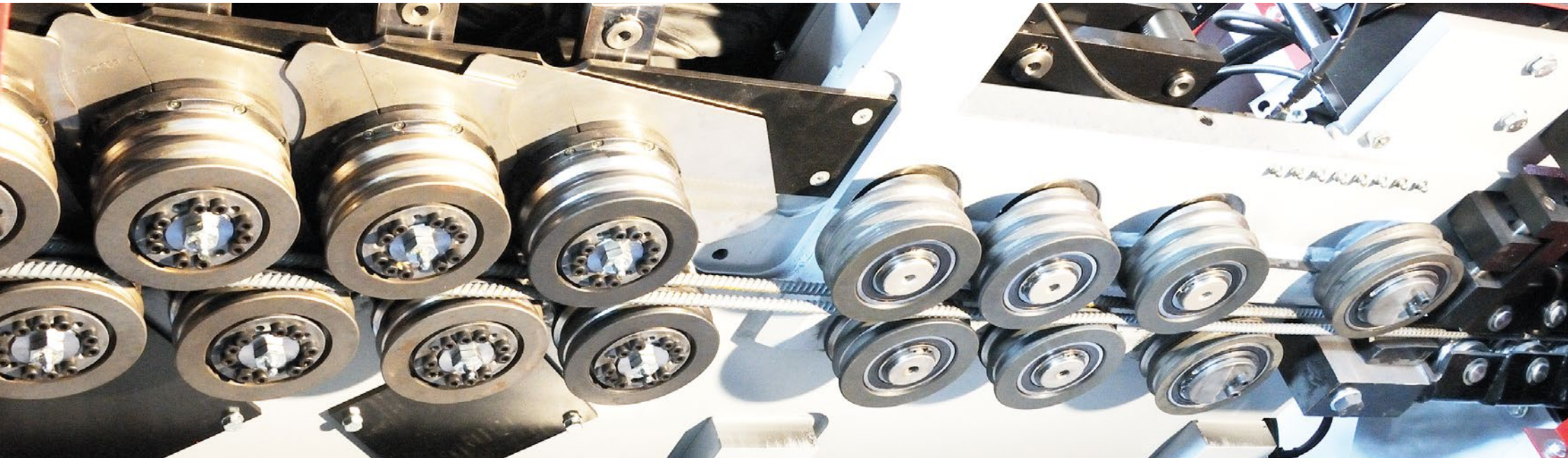


## ■ Automatic Wire Changer

For automatic computer-controlled wire diameter change according to the entered production list even when running in single and double wire mode. All straightening rolls and wire guides are set automatically to the respective diameter.

Optional feature

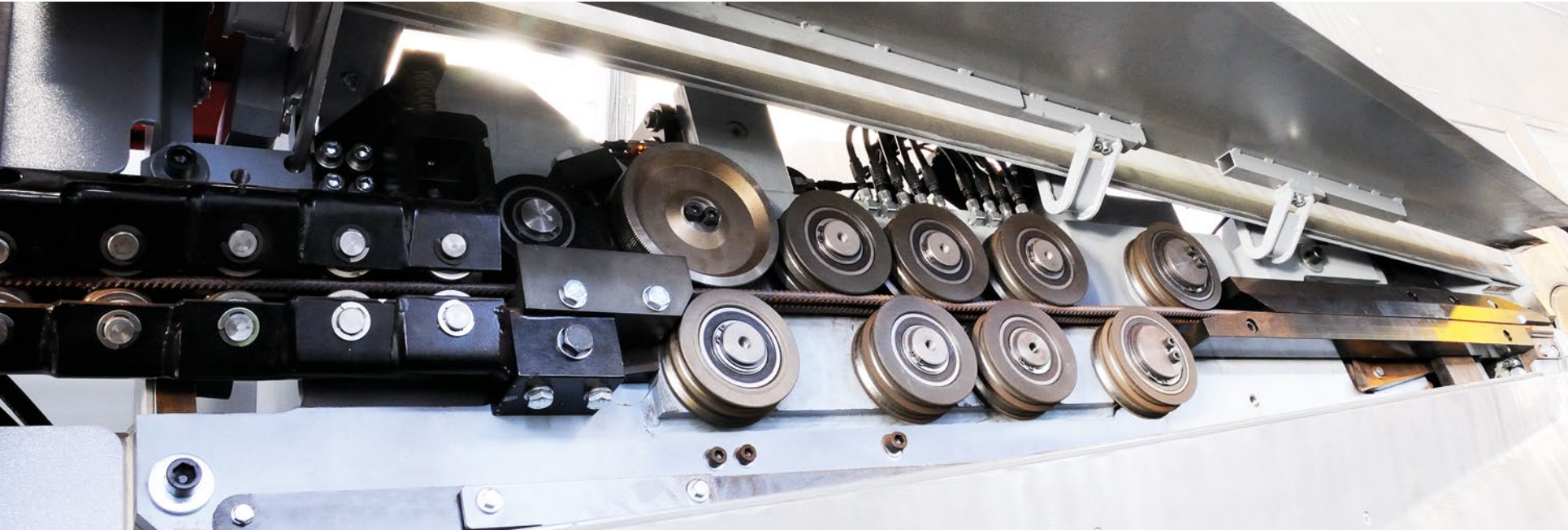
# Components of the Line



## ■ Wire Advance System

Eight straightening rolls are driven by a highly dynamic electric servo drive and a mechanical power take-off gear. Optimized utilization of installed driving power and top energy performance through adaptation of control parameters to wire diameters, state-of-the-art motor cooling system and low dead weight of wire advance system.

The high pull-out force and the optimum distribution of contact pressure onto eight rolls ensure tightest length tolerances and top straightening results even with different retraction of the paid off wires.



## ■ Straightening Unit

A two-plane roller-type straightening unit including 23 straightening rolls ensures optimum straightening results. The straightening unit is adjusted separately for each wire track via data input and/or joystick. Top efficiency through motorized computer-controlled straightening roll adjustment allowing corrections even during operation.

Owing to the novel way of combining wire advance and straightening the wires run through the straightening rolls without being distorted.

Optional execution with automatic adjustment of wire guides when changing over the wire diameter.

# Components of the Line

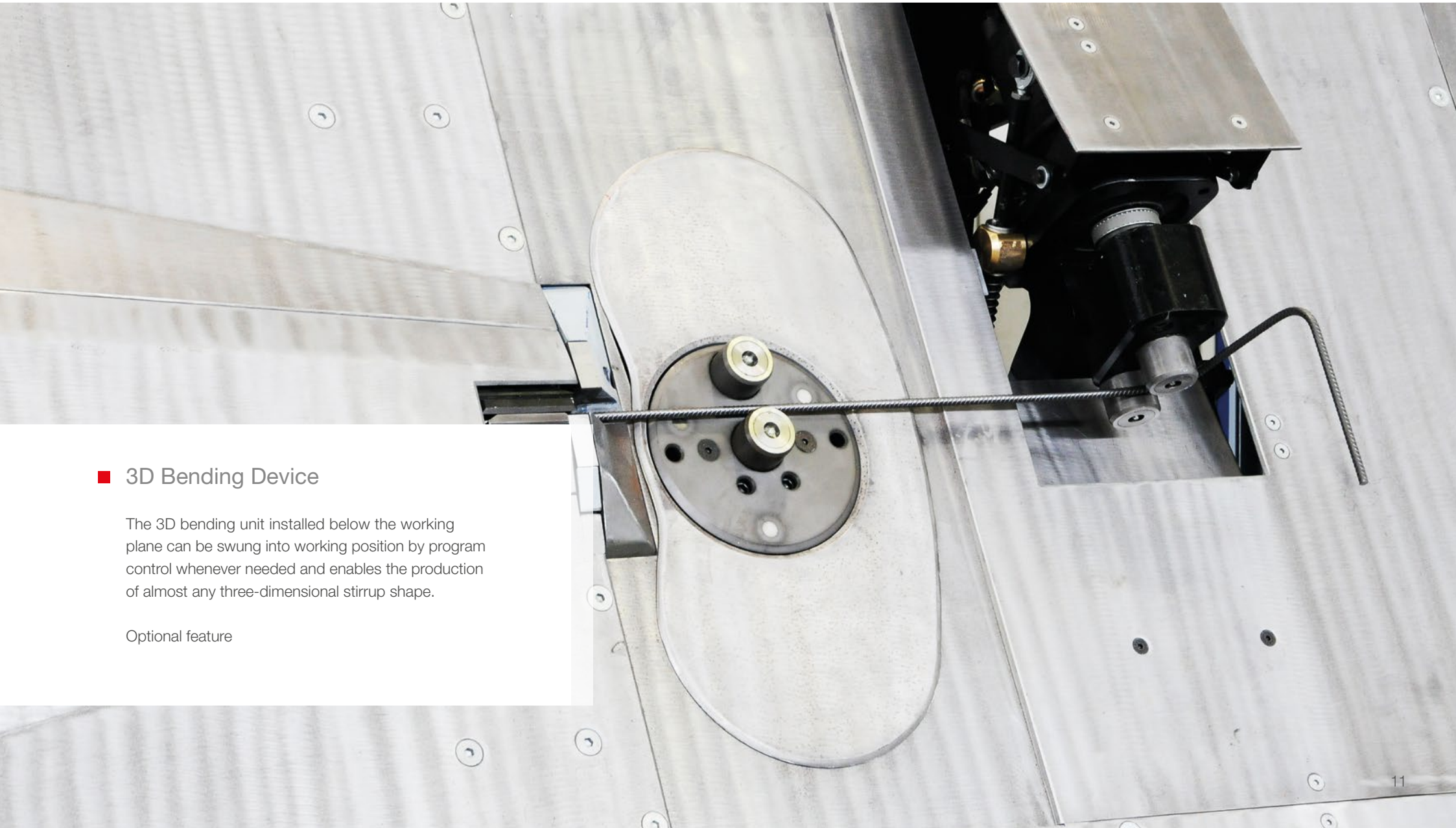


## ■ Bending Head and Shears

A servo-electrically driven bending head allows maximum bending speed and top bending precision. Quick-change bending heads for all wire diameters and standardized bending radii.

Optional execution without servo-electric height adjustment of bending head.

Hydraulically actuated shears for maximum cutting cycles when producing small stirrups. Equipped with cutter blades made of hardened steel for low wear.



### ■ 3D Bending Device

The 3D bending unit installed below the working plane can be swung into working position by program control whenever needed and enables the production of almost any three-dimensional stirrup shape.

Optional feature

# Components of the Line

## ■ ADD-A-BEND module

An additional advance unit integrated in the working surface allows producing long stirrup shapes with tail hooks at both ends. The auxiliary advance system carries out all necessary clamping and advance movements after the wire has been cut to length.

Optional feature





## ■ Rod Collecting Bench

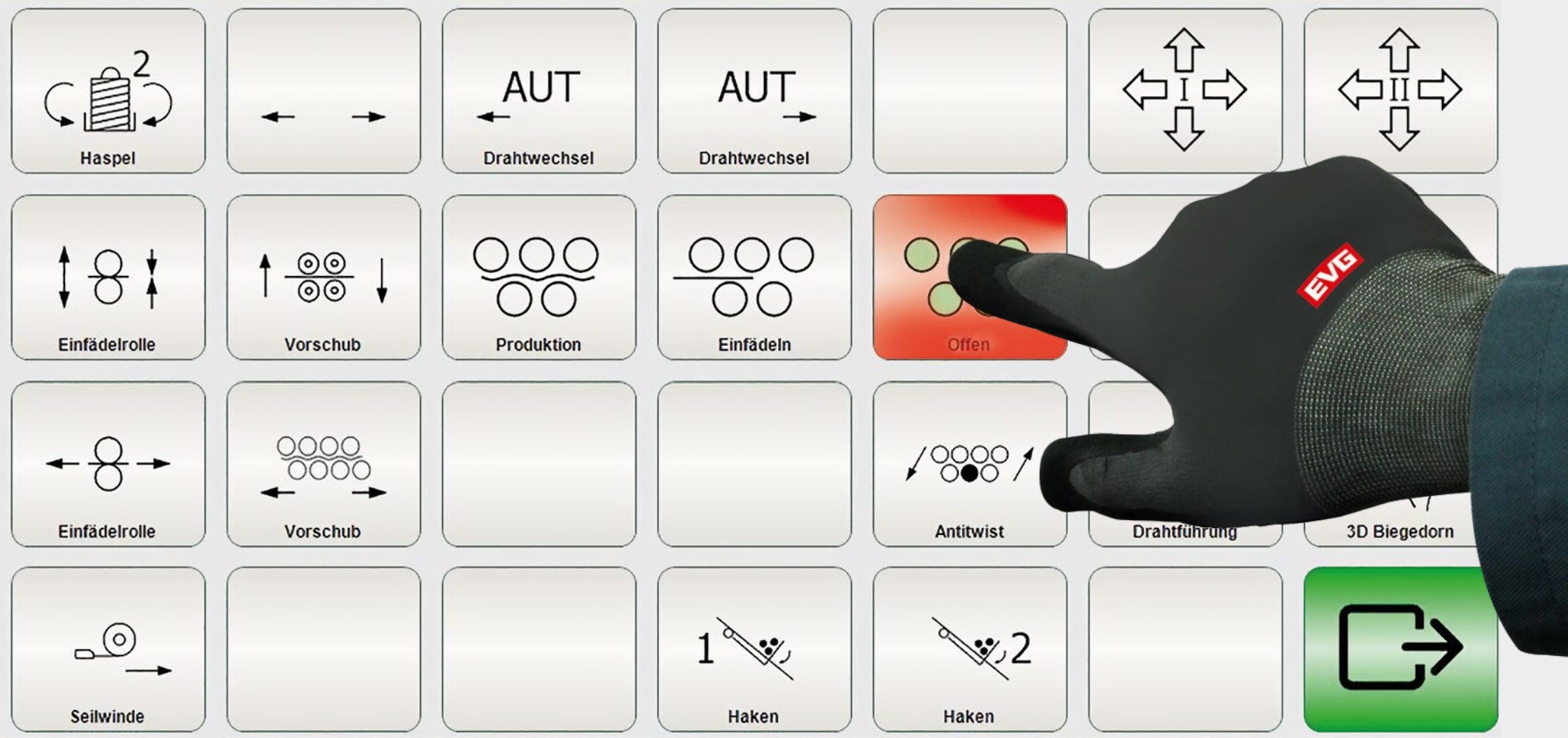
Executable in sections with a length of 3m each and with an overall length of up to 12m.

Consisting of a run-out channel with hydraulically actuated flap and two hook rows.

Optional unsupported execution for the use of a pallet chariot for customized wire bar packages.

Optional feature

# Control Unit



- The line is controlled via a state-of-the-art industrial PC running with Windows operating system, and a control panel with a 19" TFT display. Easy operation through graphically supported input of data via an extremely sturdy industrial-type touchscreen. The control unit is ready for connection to existing data processing systems including extended communication. The integrated network connection allows telemaintenance of the equipment.





# Competence



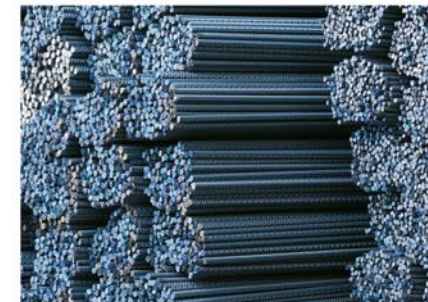
## ■ Group of Companies

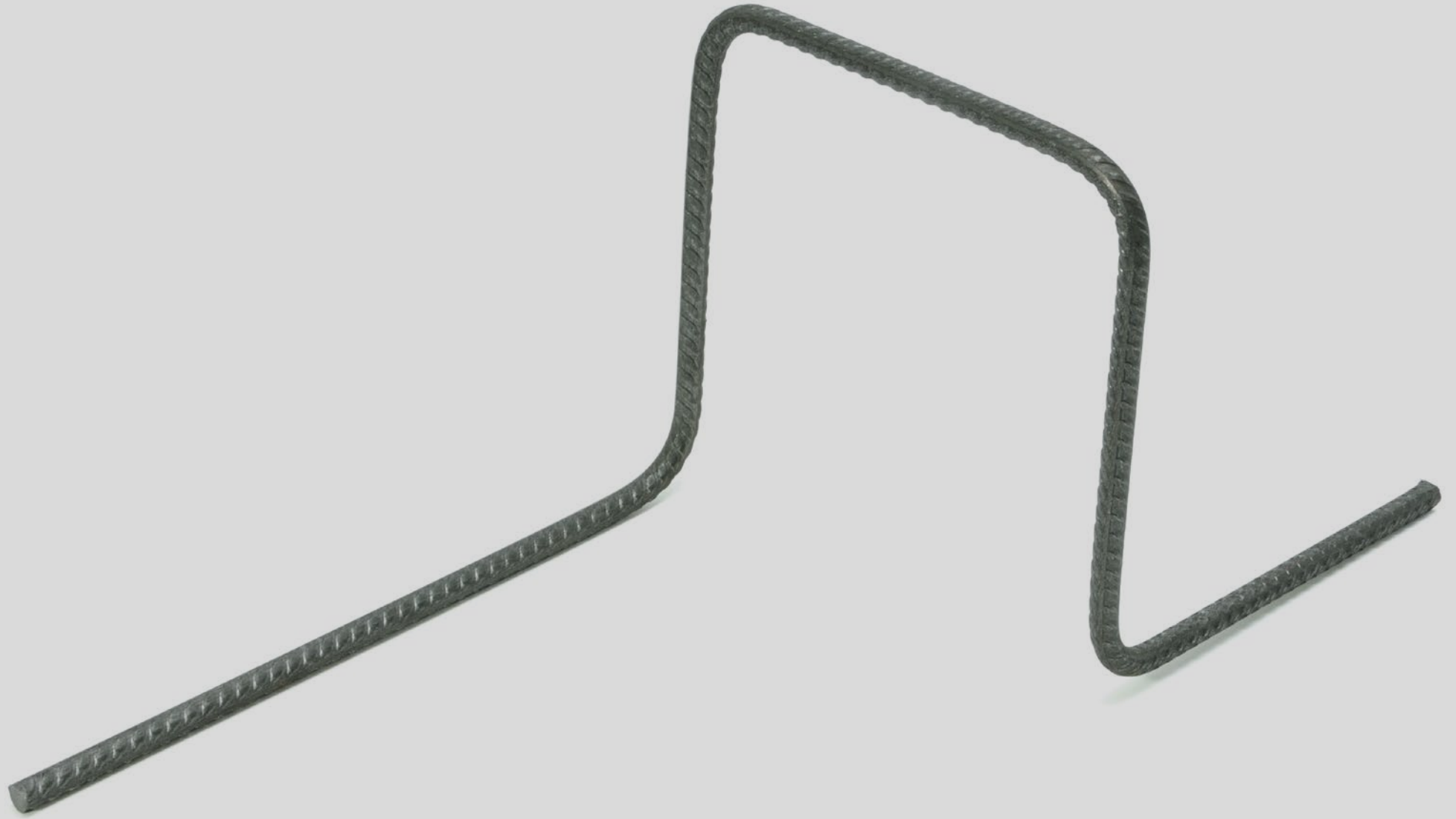
The group of companies EVG - AVI - MARIENHÜTTE with its complete program for the production of reinforcing steel and welded mesh is your reliable and experienced partner when it comes to reinforcement of concrete, wire products, production equipment and knowhow.

- EVG as supplier of complete production lines
- AVI as producer of cold-rolled reinforcing steel, truss girders, spacer strips and reinforcing cages
- BSTG (joint venture with Gruppo Pittini) as producer of reinforcing steel sheets
- 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.







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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.