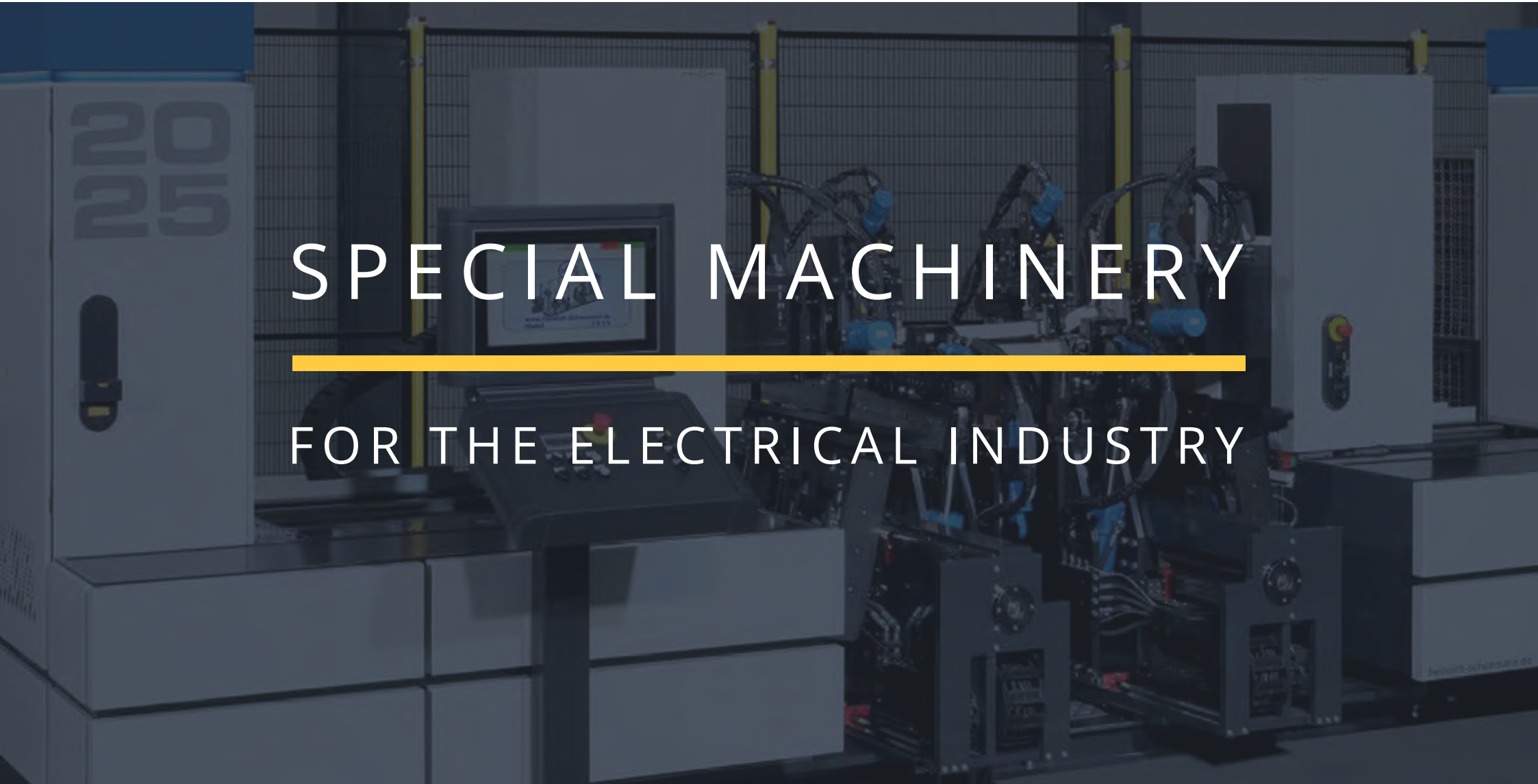
SCHÜMANN

TRADITION · SPIRIT · INNOVATION



SPECIAL MACHINERY

FOR THE ELECTRICAL INDUSTRY

SCHÜMANN

TRADITION · SPIRIT · INNOVATION

TRADITION. SPIRIT. INNOVATION.

For over a century, Heinrich Schümann's path has been characterized by consistent commitment and future-oriented thinking. We draw strength and experience from the past to constantly redefine the limits of what is possible and strive to move forward. We are driven by the continuous search for new solutions that advance the efficiency and performance of the electrical industry worldwide.

The three pillars – tradition, spirit and innovation – are not only a promise to our customers, but also a continuous incentive for us to actively shape the future of mechanical engineering and to be a reliable partner in a rapidly changing world.

COIL FORMING MACHINES

For more than half a century, we have been a leader in the development and manufacture of hydraulic coil forming machines designed for coils from a length of 300 mm. To date, we have supplied more than 150 of these machines to customers all over the world and have developed numerous special designs for specific requirements in close cooperation with them. Contact us – together we will find the perfect solution for your coil production.

In 2023, we have implemented a new machine design that optimally supports the functionality of our machines with cubic shapes and a clear structure, complemented by using our corporate colors.

Automatic Coil Forming Machine 2025

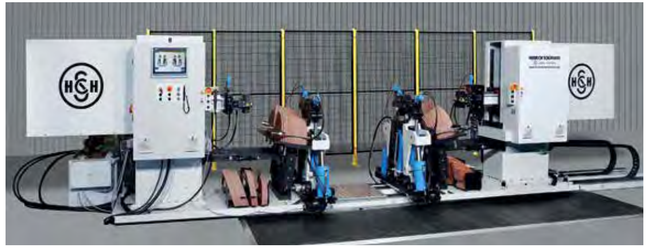
The hybrid machine concept combines the advantages of servo-motoric and hydraulically driven axes: high performance in the smallest of spaces, convenient speed controllability and precise axis positioning for the forming of coils for low and high-pole electric machines

Automatic Coil Forming Machine 2012

For forming smaller coils and traction coils with maximum accuracy

Automatic Coil Forming Machine 2015

Versatile in design and application, for copper cross-sections up to 1.200 mm^2



Automatic Coil Forming Machine 2017

For coils with copper cross-sections up to 1.500 mm^2 and maximum length

Coil Winding Machine “Selekta 245” with Turn Taping Station

Our winding machines offer our customers added value through the possible integration of additional processes, whereby there are almost no limits to the winding length.

Hydraulic Hot Press 470

For pressing loops and Flat Coils
Press box size (W x H): e.g. 195 x 400 mm
Press force horizontal (per PU): e.g. 240.000 N
Press force vertical (per PU): e.g. 100.000 N

COIL WINDING MACHINES

Whether semi-automatic or fully automatic, the modular design of our machines enables easy adaptation to your production area. If you also intend to simplify your coil production, please send us your requirements.

Coil Winding Machine “Selekta 245”

For the semi-automatic or fully automatic winding of regular loops, trapezoidal and fish-shaped loops and Flat Coils with any number of wire de-reelers, pneumatically or electrically braked

Pole and Tooth Coil Winding Machines

Suitable for flat and edgewise stacked windings of several parallel conductors with additional shaping, fully automatable and highly precise

Wire De-reeler 127

Programmable separate wire de-reelers as a supplement to an existing winding machine, which can also be integrated into the existing machine’s control system

HOT PRESSES

Automatic, PLC-controlled hot presses for coils and bars. Press units (PU) of all sizes, adjustable horizontal and vertical pressures, programmable sequences (pressure, temperature, time and cooling), high-precision press beams and special tubular heating elements guarantee high dimensional accuracy and optimal insulation values.

Hydraulic Hot Press 456

Press box size (W x H): 41 x 89 mm
Press force horizontal (per PU): 60.000 N
Press force vertical (per PU): 30.000 N

Hydraulic Hot Press 459

Press box size (W x H): 66 x 124 mm
Press force horizontal (per PU): 180.000 N
Press force vertical (per PU): 70.000 N

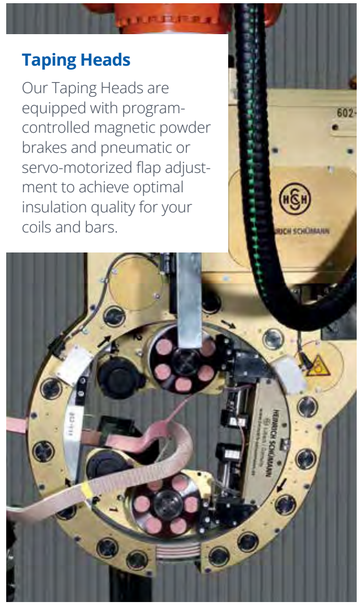
Hydraulic Hot Press 461

Press box size (W x H): 170 x 198 mm
Press force horizontal (per PU): 280.000 N
Press force vertical (per PU): 140.000 N

Hydraulic Hot Press 462

Press box size (W x H): 120 x 220 mm
or 160 x 220 mm
Press force horizontal (per PU): 280.000 N
Press force vertical (per PU): 140.000 N

TAPING MACHINES



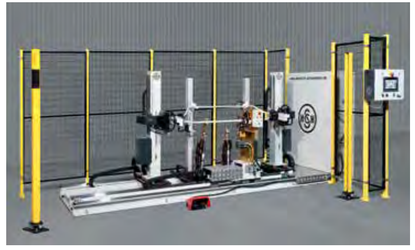
Taping Heads

Our Taping Heads are equipped with program-controlled magnetic powder brakes and pneumatic or servo-motorized flap adjustment to achieve optimal insulation quality for your coils and bars.

Whether semi-automatic or fully automatic – Schümann machines insulate coils and bars up to a length of 15.000 mm. We will also be delighted to develop special designs for your special requirements.

Insulating Robot 670

Automatic, 6-axis taping machine for insulating preformed coils and Flat Coils up to 2.800 mm length incl. the coil heads



Taping Machine 625

Semi-automatic taping machine with 1 to 3 axes for insulating straight parts, transition area and involute of preformed coils

Flat Coil Taping Machine 640

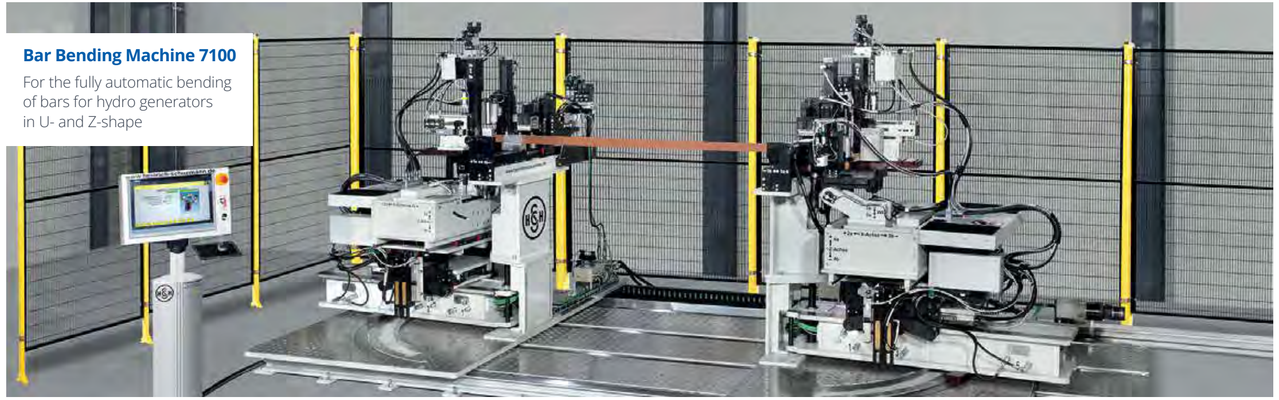
Automatic Flat Coil taping machine, flexibly programmable for different coil head shapes (e.g. constant semicircle, nose flat)

Insulating Robot 672

Automatic, 7-axis taping machine for insulating preformed coils and bars in U- and Z-shape up to the maximum length

Insulating Robot 675

Automatic, 7-axis taping machine for insulating bars in U- and Z-shape up to the maximum length



Bar Bending Machine 7100

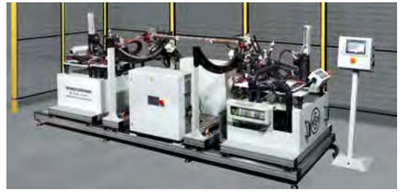
For the fully automatic bending of bars for hydro generators in U- and Z-shape

BAR BENDING MACHINES

Get your bars into the right shape! Our bar bending machines are characterized by fully automatic processes and short cycle times. They can be supplemented with additional machine processes: heaters for pre-consolidation of the involutes, hydraulic cutting and brazing stations as well as 3D bar measuring systems.

Bar Bending Machine 8000

For the fully automatic bending of bars for hydro and turbo generators in U- and Z-shape



Forming and Cutting Station FCB

For the final bending, cutting and brazing of the bar ends

Cut-to-length Machine 810

For the automatic straightening, stripping and cutting of rectangular copper conductors

MORE HIGHLIGHTS

Automation

Optimize the economic performance and profitability of your machines and systems with our intelligent solutions that perfectly combine digitalization and automation.

Universal Winding Machines

Universally applicable: winding round wire coils, rectangular wire windings for pole coils in several layers – also combined in one machine

Bandaging Machines

For bandaging rotors with controlled tape tension and heating or as a layer winding machine for winding large transformers

Joining Machines

For automatic magnetization of the rotor and subsequent horizontal or vertical joining with the stator of permanent magnetic generators

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TRADITION · SPIRIT · INNOVATION

Our machines are used in the electrical industry all over the world. Whether you need a complete production line or a single machine, from standard to custom-made products – Heinrich Schümann is your partner for optimal machines for the manufacture and repair of your motors, generators and transformers.

Originally founded in 1920 as a repair shop for electrical machines, the future of our company now lies in the continuous development of mechanical engineering with a focus on intelligent automation. Whether individual special machines or automated production lines, we focus on the individual needs of our global clients in all our developments.

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