

## 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.



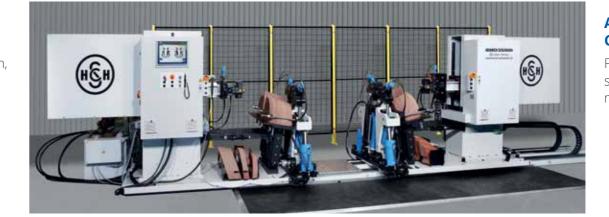
### Automatic Coil Forming Machine 2012

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<sup>2</sup>



### Automatic Coil Forming Machine 2017

For coils with copper crosssections up to 1.500 mm<sup>2</sup> and maximum length



### 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 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), highprecision 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



### **Hydraulic Hot Press 459**

Press box size (W x H): 66 x 124 mm Press force horizontal (per PU): 60.000 N Press force horizontal (per PU): 180.000 N Press force vertical (per PU): 30.000 N Press force vertical (per PU): 70.000 N



### **Hydraulic Hot Press 461**

Press box size (W x H): 170 x198 mm Press force horizontal (per PU): 280.000 N Press force vertical (per PU): 140.000 N

### HOT PRESSES



#### **Hydraulic Hot Press 462**

Press box size (W x H):

or 160 x 220 mm Press force horizontal (per PU): 280.000 N

120 x 220 mm

Press force vertical (per PU): 140.000 N

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

# TAPING MACHINES

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.





### **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 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



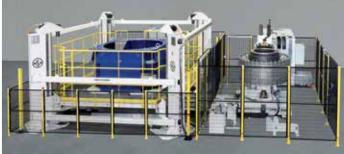
#### **Universal Winding Machines**

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



MATTER PROPERTY AND THE

MORE HIGHLIGHTS

### **Joining Machines**

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

### **Automation**

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





