

hedrich ● winding systems

High Tech made in Germany

HIGH TECH MADE IN GERMANY

This is not just a quality feature that is valued worldwide, but also a promise we give our customers in every aspect of our work. Our competent team of technicians and engineers has not acquired its great reputation in the transformer and electrical industries by chance.

Our reputation is the result of three principles that determine our daily activities, our range of products, and the interactions with our customers in every respect.

EXPERIENCE

Our employees can look back on decades of experience in the business.

Besides, our being part of the extensive know-how of the Hedrich Group pays off for our customers in the truest sense of the word – we can always offer you solutions “out of one source” for the production of electrical parts. Here, I wish to present the service program of Hedrich winding systems from the mutual spectrum of our comprehensive services. Our technicians are well acquainted with the maintenance and repair of machines as well as with extensive repair jobs and mechanical or control modifications. When we deal with the products of other producers, all technical aspects are considered for solutions, too. These are the great advantages of our employees’ long-standing experience.

Their experience is utilized in the optimization of constructive processes as well as in continually developing and improving well-established systems.



QUALITY AWARENESS

True to our motto “High Tech made in Germany”, we put the greatest emphasis on quality in our work. Whether in the conceptual design and development of our winding machines, in the installation or startup or after-sales support:

We ensure that our customers get only the best – best products, best service, best support.

INNOVATIVE SPIRIT

In our workshop we do not only assemble winding machines, but we also try out the latest technologies and ideas which are implemented in future equipment. In that way we can guarantee that our customers get the highest quality and a well-engineered and innovative technology.

Our engineers and technicians do not just have their experience and quality awareness, but also a highly innovative spirit, and they do not just make promises, but they also keep them in every respect: High Tech made in Germany!

A handwritten signature in black ink, appearing to read 'K. Adam'.

Karsten Adam

General Manager Hedrich winding systems

Challenge us...

HEDRICH WINDING SYSTEMS develop, design and assemble fully automatic, semi-automatic and conventional winding machines. Our team of experienced engineers and technicians has been working in this area of business for several years and they have gained a wide range of experience in various application ranges. From the first idea to the acceptance on site, we follow our motto "High

Tech made in Germany". Our product range of winding machines for manufacturing instrument transformers, transformers and inductors combines a well-established technology for the winding of coils with different materials as well as new techniques and applications to improve productivity.

The more difficult and complex our customers' demands, the greater the challenge

for us. Our core capabilities are custom-made solutions. Applying our experience and our technical know-how is our special contribution to finding the perfect solution for every specific need.

We would like to convince you of our professional competence. Challenge us with your demands!

...for perfect solutions

Our range of products, custom-tailored to any specific demand

fully automatic machines		HW 150		HW 800	
products to be manufactured with the machine	insulation material	resin	oil	SF6	oil
instrument transformers (PT)					
medium voltage < 36 kV	P+F	●	●	●	
high voltage > 36 kV	P+C+F	●	●	●	
high voltage > 36 kV	C				●
transformers					
distribution capacity up to 50 kVA	P		●		
distribution capacity up to 400 kVA	P				●

conventional machines		HW 500		HW 3000	
products to be manufactured with the machine	insulation material	resin	oil	resin	oil
transformers					
distribution capacity up to 50 kVA	P	●	●		
distribution capacity up to 400 kVA	P	●	●		
distribution primary and secondary up to 400 kVA	P+G	●	●	●	●
distribution primary and secondary up to 4 MVA	P+G			●	●
traction transformers	P				●
reactores	P		●		●

remarks: **F** = polyester film | **P** = paper, Trivolton, Nomex | **C** = crepe paper | **G** = glass fiber



On location: PZH Hanover

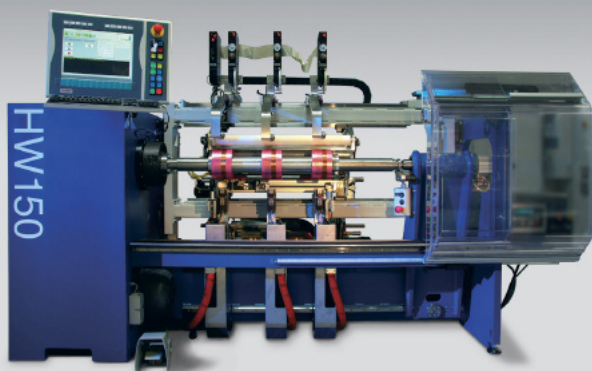
OUR LOCATION IN GARBSEN totally reflects our company motto „High Tech made in Germany“. The Hanover Centre for Production Technology is an independent company that cooperates closely with the Hanover Leibniz University. It is the partner in

charge of the industrial realization of procedures, technologies, and equipment developed at the university. This environment that aims at supporting and utilizing the creative potential of university graduates benefits the corporate orientation of Hedrich wind-

ing systems in every respect. For here, at the future-oriented location of the PZH, we can design and manufacture innovative and perfectly correlated systems in an excellent way.



High Tech systems



HW 150

Coil diameter: max. 550 mm
Winding width: max. 450 mm (single coil)
Coil weight: max. 150 kg
Center height: 1000 mm
Winding speed: 0 - 1200 rpm
Torque: max. 120 Nm
Power winding drive: 9 kW
Dimensions: approx. 3000 x 1800 x 2000 mm
Weight: approx. 2500 kg

Description:

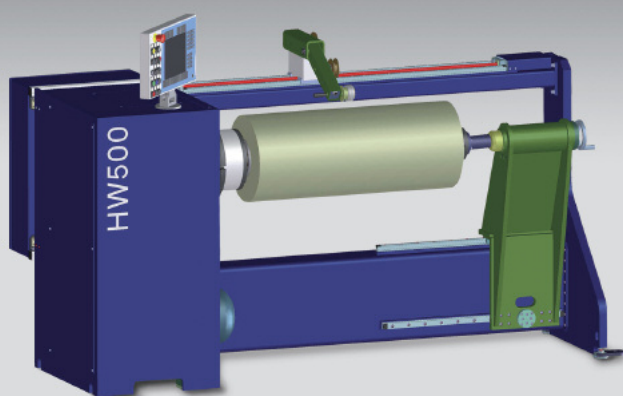
- fully automatic winding machine for medium and high voltage instrument transformers
- single or multiple winding
- diameter measuring and adjustment
- movable pneumatic tailstock
- protection cover
- separate electrical cabinet
- graphical user interface

Accessories:

- automatic insulation feeding system
- cutting to length device
- cutting to width device
- electronic wire tensioners
- wire end detection
- gluing device
- expandable mandrels
- swivel mechanism for the mandrel
- de-reelers

Advantages:

- CNC-controlled
- network connection
- remote service via internet connection
- reproducible and controlled process
- coil description by parameter files
- no permanent operator supervision required
- significant production time reduction



HW 500

Coil diameter: max. 500 mm
Winding width: max. 1000 mm
Coil weight: max. 500 kg
Center height: 1000 mm
Winding speed: 0 - 500 rpm
Torque: max. 250 Nm
(max. 900 Nm w/ gearbox)
Power winding drive: 9 kW
Dimensions: approx. 3000 x 1000 x 1750 mm
Weight: approx. 1500 kg

Description

- conventional winding machine for distribution transformers and similar products
- adjustable wire guide for round and rectangular wire
- manually adjustable tailstock
- separate electrical cabinet
- graphical user interface
- simple programming

Accessories:

- gearbox
- manual insulation feeding system
- cutting device for the insulation
- endfill strip feeder
- wire tensioners for round and rectangular wire
- de-reelers
- expandable mandrels

Advantages:

- CNC-controlled
- network connection
- remote service via internet connection
- coil description by parameter files
- secondary and primary winding on the same machine



Planning perfection

THE EVOLUTION OF AN IDEA

Even in the early stages of the planning phase, the engineers of Hedrich winding systems rely on high tech. At our ultra-modern CAD workstations we use special software to develop the vision of an equipment that perfectly fits our customers' demands. The integration of customer desires has top priority, for it is our objective, true to the Hedrich company philosophy, to plan and design a tailor-made system.

Therefore, all steps of our design department are coordinated in the conceptual stage, together with our customers. The results will be presented to our customers in the design review meeting.

Our CAD systems offer the advantage of a three-dimensional visualization of the desired equipment, so its later operational reliability and feasibility can basically be tested then. Besides, the spatial visualization allows for a much more accurate realization of specific details – which benefits our customers' needs.

BUILDING THE FUTURE

The results obtained with the use of the CAD system are released for production by way of two-dimensional production drawings with the customer's consent.

Highly complex winding machines for the electrical industry are results tailored to customer-specific needs. Permanent tests during the production process and strict final inspection and testing are indicators of highest quality – since we expect to realize future demands just as perfectly.

Branch:
Hedrich winding systems GmbH
An der Universität 2 | D-30823 Garbsen
Fon: ++49 511 762 - 182 28 | Fax: ++49 511 762 - 182 25
E-Mail: winding@hedrich.com



Hedrich winding systems GmbH
Greifenthaler Straße 30 | D-35630 Ehringshausen
Fon: ++49 6449 929 - 0 | Fax: ++49 6449 929 - 149
E-Mail: winding@hedrich.com | www.hedrich.com
Hedrich winding systems is a member of the Hedrich Group