

## IWM "AutoAir" - an economic production tool for air coils using thermo-plastic coated wire

Wire is wound onto the former, and the turns are bonded together by means of a controlled stream of hot air. The former is then removed and the finished coil is ejected from the machine. The machine is equipped with a CNC controller, clamp/cut unit, coil eject and tool cleaning system for fully automatic operation.

Suitable products include: RFID coils. laser heads, voice coils, magnet coils, sensor coils, vibrator coils and pancake motor coils.

#### Main features:

- Automatic clamp/cut system, layer winding, material unloading and cleaning of the tool during each cycle, dispensing oil release agent if required.
- Fine programmable pitch control enabling precise layer winding.
- LCD screen for easy setup, with options for PC link.
- Wire tensioner with magnetic braking provides constant tension
- Synchronous tailstock drive ensures precise tool alignment and allows for smaller core ID's.
- Temperature of the hot air system is freely programmable.
- A highly compact machine with small "footprint".







Post: Ingrid West Machinery, Unit 5L, Delta Drive, Tewkesbury, Glos, GL20 8HB, UKWeb:www.coilwindingmachines.euPhone:+44 (0) 1684 273164E-mail:enquiry@ingridwest.co.ukFax:+44 (0) 1684 273171

**CoilTechnica 4th to 8th April**—"a flagship trade show within the internationally famous Hannover Messe".

**CWIEME Berlin 24th to 26th May**—"the largest coil winding show in the world, with over 600 participating companies".

**PRODUCTRONICA Munich 15th to 18th November**—"the world's leading trade fair for innovative electronics production".



### Fully automatic multi-spindle machines

### Efficient, affordable automation technology.

A new multi-spindle series (4 to 12 spindles) with industrial PC and advanced multi-axis motion control card for fast simultaneous axis movement and high precision during the winding process.

Wraps either radial or axial pins, programmable nozzle movement through 0° and 90° angles .

Main technical specifications				
No. of spindles	4,6,8,12			
Wire size	0.02-0.5 mm			
Max traverse width	85 mm			
Spindle pitch	105 mm (4 spindle version)			
Max bobbin diameter	100 mm – 50mm if load unload system used			
Spindle speed	Up to 18,000 rpm			
Spindle position accuracy	+- 0.1°			
Guide head drive motor	200W AC servomotor X , Y and Z axis			
Max movement of guide head	X (left/right) 100 mm Y (front/back) 75 mm Z( up/down) 65 mm			
Nozzle positions	0°, 90° or 120°			
Max pin wrap speed	150 Turns / min			
Control system	Windows interface PC with USB connector & DVD ROM, 15 inch Colour Touch screen, Webcam			



See this machine at CWIEME 2011 Hall 1.1 Stand 1315 CoilTechnica Hall 7 Stand D24



### **Working with local partners throughout Europe** Austria, Czech Republic, Germany, Hungary, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden

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## The 2011 model EZ-1200 winding machine for large power transformers (up to 2000 KVA) is packed full of features for maximum productivity.



**Colour touch screen**—a 12" touch screen (left) makes for simple setup, and the powerful computer provides the user with a choice of up to 5 different operating languages. The logically arranged programming screens clearly display every function that the operator might need.



4-ratio quick change spindle drive provides maximum versatility for fast primary

winding at high speed, whilst smoothly delivering the necessary torque at lower speeds.

Our range of **large wire tensioning systems** (see left) reduce the possibility of damage to the insulation by applying the braking force to the supply spool rather than the wire itself — essential when working with large wires under high tension. Small units are available for mounting single spools, and larger versions can mount up to thirty two spools to assemble more complex wire "packets".



#### TECHNICAL CHARACTERISTICS.

Wire and profile wire				
Max winding length1100 mm				
Max distance between points1200 mm				
Max Winding dia800 mm				
Guider precision0.01 mm				
Main shaft motor 28 Nm @ 3000 rpm				
Guider motor (Brushless) 0.4 HP / 300W (2.2 Nm)				
Winding shaft speed Max 500/750 r.p.m*				
approx Torque Values750 rpm - 112 Nm				
(*Gear box with 4 positions)500 rpm - 168 Nm				
(Quick gear change by levers) 250 rpm - 336 Nm				
111 rpm - 504 Nm				

# COL WINDING MACHINES Foil Winding Machines

### Computer controlled foil winding machines for Low Voltage applications.

A full colour touch screen with graphical user interface and sophisticated "teach-in" functions provide easy programming of automated work cycles for maximum output and productivity.

Foil tension is provided by powerful geared servo motor systems, monitored and synchronised by the advanced industrial PC-based control system.

Electronic sensors detect the position of the foil and paper edges, feeding a continuous stream of data to the control computer to ensure precise alignment throughout the winding process.

Design flexibility provides for various combinations of conductors, interleaved insulation and edge fillers, together with a choice of cold pressure or TIG welding of terminals.

Expanding mandrels are designed and built inhouse, matching the exact requirement of the machine and product to be made.



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## Bench-top coil winding machines — Manufacturing with low capital cost

IWM are the exclusive European partner of Wey Hwang. We've been working together for over 10 years, and this close co-operation between our two companies has produced many improvements in design and quality of our bench top winding solutions.

With improving market conditions come new challenges. Many businesses find that they require increased manufacturing flexibility - the ability to respond to changes in demand quickly, and to exploit new opportunities when they arise.

IWM's range of semi-automatic bench-top machines provide manufacturers with an entry route into new and developing markets with a capital expenditure that is often less than the cost of tooling and setup for an automatic machine.

We keep most popular machines in stock in our UK warehouse ready for immediate despatch, and we can assist with design and manufacture of tooling. IWM even supply machines fully tooled and programmed - almost "ready to wind", straight out of the box.

So next time you have a new product to manufacture, consider using one of our cost-efficient bench-top solutions to reduce your time to market and stay one step in front of your competitors.



No. Spindles	4	1 or 2	1	2	
Max Wire size (mm)	0.6	0.6	3.0	1.6	
Max pitch (mm)	10	10	20	10	
Max winding width (mm)	100	110	300	110	
Max bobbin dia. (mm)	100	110	200	110	
Max speed (rpm)	6000	6000 / 3000 / 1600 (choice on order)	1600 / 400 (belt changeover) 3000 (optional single ratio)	3000	
Power	AC 230 / 110 V ± 10%, 50 – 60 Hz				
Dimensions (mm)	1000 x 500 x 1000	760 x 680 x 720	950 x 520 x 600	600 x 480 x 900	
Net weight approx (kgs)	60	37	68	55	
	60	37	68	55	

Ingrid West Machinery offer a sampling service. Send us a bobbin and wire, and we can wind it, establish accurate cycle times, and then return the wound sample to you for your evaluation of winding quality.

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