

Product Catalogue 2025



Working with local partners throughout Europe



We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

WORKING WITH LOCAL PARTNERS IN THE FOLLOWING COUNTRIES; Austria, Czech Republic, Germany, Hungary, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

Unit 5L, Delta Drive, Tewkesbury, Glos. GL20 8HB. United Kingdom.



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BOBBIN WINDING MACHINE SERIES



Working with local partners throughout Europe



Contact us

Tel: +44 (0) 1684 273164

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WH 800 SINGLE SPINDLE TRANSFORMER WINDING MACHINE

SPECIFICATION

Program Microprocessor controlled, capable of holding 999 program sequences which may be run independently or in selected blocks for compound windings.

Control Spindle drive - High torque brushless DC induction motor producing a max torque 78.5 Ncm. Traverse - Constant current driven 4-phase stepper motor.

Application Wire guide is capable of holding four wires at the same time for multiple windings e.g. standard EI transformers.

Package Includes wire guide, margin tape & cover tape attachments and wire feeder system, with comprehensive manual.

Wire size ___ 0.02 - 1.0 mm

Max pitch _____ 10 mm

Winding Width _____ 110 mm (max)

Bobbin dia ___ 110 mm (max)

Max speed _____ 6000,
_____ (optional)
_____ 3000 Rpm

Power ___ AC 230 / 110V
_____ ± 10%, 50-
_____ 60hz

Dims _____ 760 x 680 x
_____ 720 mm

Net Weight _____ 34 kg

CE cert. no. _ 1377-CI32017.R1



We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

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WORKING WITH LOCAL PARTNERS IN THE FOLLOWING COUNTRIES; Austria, Czech Republic, Germany, Hungary, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.



WH 800i TWO SPINDLE TRANSFORMER WINDING MACHINE

SPECIFICATION

| | |
|--------------------|---|
| Program | Microprocessor controlled, capable of holding 999 program sequences which may be run independently or in selected blocks for compound windings. |
| Control | Spindle drive - High torque brushless DC induction motor producing a max torque 78.5 Ncm. Traverse - Constant current driven 4-phase stepper motor. |
| Application | Nozzle type wire guides feed each spindle, these are adjustable so that dual winding may be carried out successfully. Each guide is fed via a tension unit. |
| Package | Includes 2 x nozzle wire guides, 2 x tension units and cover tape attachment, with comprehensive manual. |

Wire size _____ 0.02 - 0.6 mm
_____ (1.0mm in single
_____ spindle mode).

Max pitch _____ 10 mm

Winding _____ 110 mm (max)
Width

Bobbin dia _____ 110 mm (max)

Max speed _____ 6000, 3000
_____ (optional)

Power _____ AC 230 / 110V
_____ ± 10%, 50-60hz

Dims _____ 760 x 680 x 720 mm

Net
Weight _____ 34 kg

CE cert. no. _____ 1377-CI32017.R1



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WH 752 HEAVY DUTY TWO SPINDLE COIL WINDING MACHINE

SPECIFICATION

| | |
|--------------------|---|
| Program | Microprocessor controlled, capable of holding 999 program sequences which may be run independently or in selected blocks for compound windings. |
| Control | Spindle drive - High torque brushless DC induction motor producing a max torque of 157 Ncm. |
| Traverse | Constant current driven 4-phase stepper motor. |
| Application | Roller type wire guide and separate tension unit for each spindle. Wire guides adjust for dual winding. |
| Package | Includes 2 x roller wire guides and 2 x tension units, with comprehensive manual. |

Wire size _____ 0.3 - 1.6 mm

Max pitch _____ 10 mm

Winding _____ 110 mm (max)
Width

Bobbin dia. ____ 110 mm (max)

Max speed _____ 3000 rpm

Power _ AC 230 / 110 V + 10%
_____ 50 - 60 Hz

Dims __ 600 x 480 x 900 mm

Net weight _____ 55 kg.

CE cert. no. _ 1377-CI-32017.R1



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WH 764 FOUR SPINDLE COIL WINDING MACHINE

SPECIFICATION

Program Microprocessor controlled, capable of holding 999 program sequences, which may be run independently or in selected blocks for compound windings.

Control Spindle drive - High torque brushless DC induction motor producing a max torque of 78.5 Ncm.
Traverse - Constant current driven 4-phase stepper motor.

Application Nozzle type wire feeder heads on each spindle; these have adjustable parallelism so that multiple winding may be carried out. Each spindle is fed via a separate tension unit.

Package Includes 4 x nozzle type wire feeder heads, 4 x tension units, and comprehensive manual.

Wire size _____ 0.02 - 0.6 mm

Max pitch _____ 10 mm

Winding Width _____ 100 mm (max)

Bobbin dia. _____ 100 mm (max)

Max speed _____ 6000 rpm

Power _____ AC 230 / 110
_____ V ± 10%, 50 - 60 Hz

Dimensions ___ 1000 x 500 x 1000 mm

Net weight _____ 60 kg

CE cert. no. _____ 1377-CI-32017.R1



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WH 766T SKEINING SIX SPINDLE COIL WINDING MACHINE

SPECIFICATION

Programming Microprocessor controlled, capable of holding 999 program sequences, which may be run independently or in selected blocks for compound windings.

Control Spindle drive - High torque brushless DC induction motor producing a max torque of 78.5 Ncm.
Traverse - Constant current driven 4-phase stepper motor.

Application Designed for thin wires that require skeining. Nozzle type wire feeder heads on each spindle; these have adjustable parallelism so that multiple winding may be carried out. Each spindle is fed via a separate tension unit through a skeining device.

Automated skein function - The winding is stopped a few turns from the end, and the machine automatically performs the skeining function. Half of the skeined length is then wound into the bobbin, and the remaining skeined length is used for the start of the next coil.

Package Includes 6 x nozzle type wire feeder heads, 6 x skeiner units, and comprehensive manual.

Wire size _____ 0.03 - 0.30 mm

Max pitch _____ 10 mm

Winding _____ 100 mm (max)
Width

Bobbin dia. _____ 100 mm (max)

Turns _____ 9999.9 turn or
_____ 99999

Max speed _____ 6000 rpm

Power _____ AC 230 / 110 V ±
_____ 10%, 50 - 60 Hz

Net weight _____ 85 kg

CE cert. no. _____ 1377-CI-32017.R1



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WH 751 HEAVY DUTY VERSATILE SINGLE SPINDLE COIL WINDING MACHINE

SPECIFICATION

- Program** Microprocessor controlled, capable of holding 999 program sequences which may be run independently or in selected blocks for complex windings.
- Control** Spindle drive - High torque brushless DC induction motor.
- Traverse** Constant current driven 4-phase stepper motor.
- Application** Bigger transformers and large wire windings, long coils, antennas.
- Package** Base machine with belt selectable drive ratios for 3000 and 800 max. rpm, tensioner stand, tailstock, footswitch and comprehensive manual.
- Accessories** Large choice of wire feeder heads and tensioners, taping attachments, variable speed foot pedal

- Wire size:** _____ 0.02 - 3.0 mm
- Max pitch:** _____ 10 mm
- Bobbin dia** _____ 200 mm
- Winding width** _____ 300 mm (max)
_____ 700mm (option)*
- Net weight** _____ 83 kg
- Dims** _____ 950 x 520 x 600 mm
- Power** _____ AC 230 / 110
_____ V±10% 50/60 Hz
- CE cert. no.** _____ 1377-CI-32017.R1



| Max Speed (Rpm) | Max Torque (Nm) |
|-----------------------|-----------------|
| 800 / 3000 (standard) | 8.8 / 1.1 |
| 400 / 1600** | 17.6 / 2.2 |

* This machine is also available with an extended bed for coils longer than 300mm.

** High Torque version available as an option.

For examples of wire feeder heads and other accessories, please see overleaf

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COIL WINDING SOLUTIONS YOU CAN RELY ON

WH 751 Accessories



Roller feeder head



Digital wire tension display



Variable speed foot pedal



Multi wire feeder head
with margin taping



Guide tube feeder head



Dual Servo electronic
tensioner



Type TCS~TCM



TCL-x heavy wire tensioner



TC3L heavy wire tensioner

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Unit 5L, Delta Drive, Tewkesbury, Glos. GL20 8HB. United Kingdom.



WH 751 AIR COIL WINDER WITH HOT-AIR BONDING

Many people believe that it is impossible to make air coils on a bench-top machine, but with the help of IWM

YOU can do it!

The advantages of making your own air coils include:-

- Fast turn-around for prototypes
- Full control over the production process
- Flexibility and cost control

All you need is:-

- A Wey Hwang 751 air coil winding package
- Tooling design and manufacture
- & IWM know-how!

Package includes:-

- WH-751 bobbin winding machine
- Tensioner and wire guide as required
- Safety heat-shield
- Heat gun
- Manual tailstock

Precise control of the heat-gun air temperature and air flow rate, and exact positioning of the nozzle, warm the wire and the tooling just enough to guarantee perfect adhesion of wire to wire, with correct release from the tooling.

Careful design of the tooling, and Wey Hwang's advanced machine controllability, ensure reliable wire entry and exit from the coil every time.

For the price of the tooling - refundable against machine order we can create tooling and wind you some samples to demonstrate quality (and cycle time) created from this package.



Exact Air flow & Temperature control are essential



Precision tooling creates precision coils

As these machines are custom made, please speak to us about the coil specification you wish to produce

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WH 751 AIR COIL WINDER WITH HOT AIR BONDING

We want to show you **some examples of the capabilities of the machine.**

| Coil Data | Wire (mm) | ID (mm) | Turns | Cycle time (Sec) |
|---|-----------|------------|-------|------------------|
|  | 0.06 | 13 | 220 | 35 |
|  | 0.2 | 62 * 36 | 74 | 40 |
|  | 0.315 | 13 | 54 | 25 |
|  | 0.71 | 90 | 150 | 45 |
|  | 0.18 | 13 | 243 | 40 |
|  | 0.315 | Triangular | 277 | 45 |



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WH 520 TWO SPINDLE “FLY WINDING” MACHINE

SPECIFICATION

- Program** Microprocessor controlled, capable of holding 999 program sequences which may be run independently or in selected blocks for compound windings.
- Control** Spindle drive, high torque brushless DC induction motor producing a max torque 78.5 Ncm.
 Traverse - Constant current driven 4-phase stepper motor.
 Index - Constant current driven 4-phase stepper motor.
- Application** Nozzle type wire guides feed each spindle. Each guide is fed via a separate tension unit. With the *Fly winding* principle, wire is wound around the stationary core - ideal for motors.
- Package** Includes 2 x nozzle wire guides, 2 x tension units and cover tape attachment, with comprehensive manual.



- Wire size _____ 0.03 - 0.6 mm
- Max pitch _____ 10 mm
- Winding _____ 70 mm (max)
Width
- Motor OD _____ 8 - 50 mm
- Motor Height _____ 20 mm (max)
- Max speed _____ 3000 rpm
- Power _____ AC 230 / 110V ± 10%, 50-60 Hz
- Dims _____ 700 x 350 x 100 mm
- Net weight _____ 110 kg
- CE cert. no. _____ AE9955093 01



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COIL WINDING SOLUTIONS YOU CAN RELY ON

WH 521 SINGLE SPINDLE “FLY WINDING” MACHINE

SPECIFICATION

| | |
|--------------------|--|
| Program | Microprocessor controlled, capable of holding 999 program sequences which may be run independently or in selected blocks for compound windings. |
| Control | Spindle drive-High torque brushless DC induction motor producing a max torque 78.5 Ncm. Traverse - Constant current driven 4-phase stepper motor. Index - Constant current driven 4-phase stepper motor. |
| Application | Nozzle type wire guides feed each spindle. Each guide is fed via a separate tension unit. With the Fly winding principle, wire is wound around the stationary core - ideal for motors. |
| Package | Includes nozzle wire guide, 1 x tension units and cover tape attachment, with comprehensive manual. |



| | |
|----------------------------|-------------------------------|
| Wire size _____ | 0.03 - 0.8 mm |
| Max pitch _____ | 10 mm |
| Winding Width _____ | 70 mm (max) |
| Motor OD _____ | 8 - 140 mm |
| Motor Height _____ | 30 mm (max) |
| Max speed _____ | 3000 rpm |
| Power _____ | AC 230 / 110V ± 10%, 50-60 Hz |
| Dims _____ | 700 x 350 x 100 mm |
| Net weight _____ | 105 kg |
| CE cert. no. _____ | AE9955093 01 |



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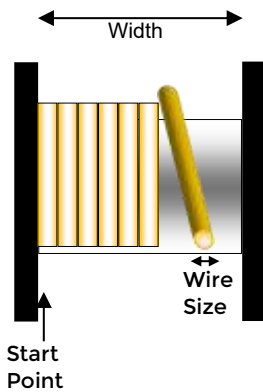


BOBBIN WINDING CONTROLLERS

Setting up a winding machine can be a long process, especially when adjustments can only be made mechanically. For a short production run - or even a one-off prototype - a fast solution is vital.

The CWC-01 digital controller is **designed for rapid programming**. Its design philosophy is based on moving as many mechanical adjustments into software as possible, giving **fast change-over times** from one job to another.

Simple setup



Footswitch can be used to start winding or as 'deadman switch' Option for variable speed control footswitch

Parameter display shows Data Entered, or Turns Wound

Display shows Spindle speed or Quantity produced

Turns count can allow up to 99,999 turns to

Memory allows up to 999 different coils to be stored

Option to start next winding from previous position, automatically

Operator can lock spindle when in idle mode

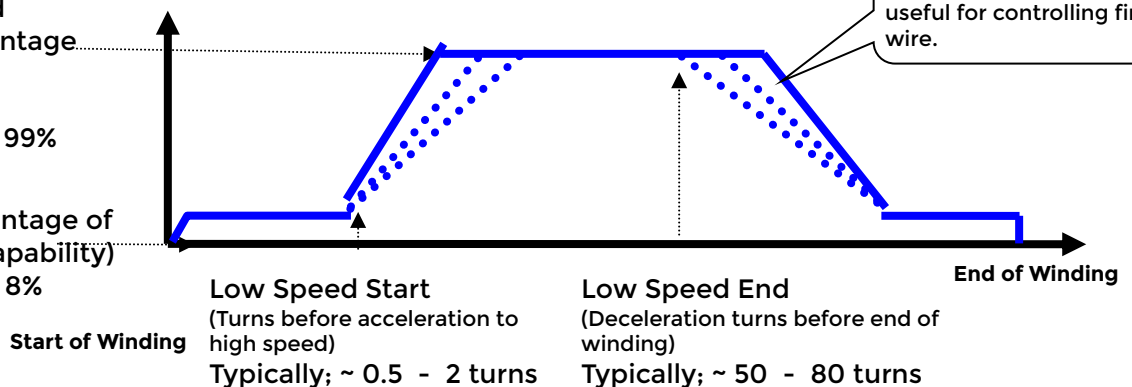
Set the machine to re-synchronise after 1 - 99 cycles - or on reset

The Start position and Winding Width can be set by jog buttons, physically moving the winding head to your chosen position, in steps of 0.02 mm.

Full Speed Control

High Speed
(As a percentage of machine capability)
Typically; ~ 99%

Low Speed
(As a percentage of machine capability)
Typically; ~ 8%



Rate of Acceleration and deceleration can be set, useful for controlling fine wire.

The CWC-01 digital controller...
"full of features" & "quick to set up"

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TENSIONERS – FINE WIRE, LOW COST

SPECIFICATION

These mechanical tensioners provide precision control of winding tension for wires in the range from 0.02 mm to 2.0 mm.

The arm position provides feedback to the system, adjusting the main friction wheel to regulate and maintain constant tension during the winding cycle.

Felt pads provide pre-tension and remove dust and other debris from the wire.

Ceramic eyelets and roller guides at each point of contact protect insulation from mechanical damage, and the guide wire.

The performance of these units is exceptional given the low cost, providing outstanding value for money.

*The wire sizes shown are a guide only, for copper magnet wire at recommended "Standard Tension". The tension required in practical applications may vary considerably.



| Models TC3S -TCM | Model TCL-X/TCLL-X | Model TC3L |
|---------------------|-----------------------|---------------|
|---------------------|-----------------------|---------------|

| Model Type | Min Tension (grams) | Max Tension (grams) | Min Wire Gauge (mm)* | Max Wire Gauge (mm)* |
|------------|---------------------|---------------------|----------------------|----------------------|
| TC3S | 2 | 11 | 0.02 | 0.04 |
| TCSS-X | 7 | 30 | 0.03 | 0.06 |
| TCSS | 9 | 50 | 0.04 | 0.08 |
| TCS-E | 20 | 130 | 0.06 | 0.13 |
| TCS | 40 | 200 | 0.08 | 0.16 |
| TCM | 90 | 500 | 0.16 | 0.25 |
| TCL-X | 200 | 2000 | 0.20 | 0.60 |
| TCLL-X | 1000 | 5000 | 0.50 | 1.2 |
| TC3L | 2000 | 10000 | 0.70 | 2.0 |

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MAGNETIC TENSIONERS

Providing stable & consistent tension control over long periods

Wire tension is one of the critical parameters of any coil winding process, having an influence on product characteristics, particularly DC resistance. Tensioning devices are therefore required to ensure constant wire tension throughout the winding process.

One major disadvantage of mechanical tensioning devices is that the friction materials are in contact with each other, resulting in mechanical wear. Therefore the tension may change from the set value over time.

KEY ADVANTAGES OF MAGNETIC TENSIONERS

These magnetic tensioners use a permanent magnet as a non-contact method of generating a variable friction on the main wheel of the tensioner, maintaining wire tension at the set value for long periods with no requirement for adjustment.



The arm position provides feedback to the system, adjusting the main friction wheel to regulate and maintain constant tension during the winding cycle.

Felt pads provide pre-tension and remove dust and other debris from the wire.

Ceramic eyelets and roller guides at each point of contact protect insulation from mechanical damage, and guide the wire.

The performance of these units is exceptional given the low cost, providing outstanding value for money.

| Model Type | Min Tension (grams) | Max Tension (grams) | Min Wire Gauge (mm) | Max Wire Gauge (mm) |
|------------|---------------------|---------------------|---------------------|---------------------|
| MTCSS | 4 | 40 | 0.03 | 0.07 |
| MTCS | 10 | 120 | 0.04 | 0.14 |
| MTCM | 50 | 400 | 0.08 | 0.25 |
| MTCL | 80 | 600 | 0.12 | 0.35 |
| MTCLL | 100 | 800 | 0.12 | 0.40 |

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Unit 5L, Delta Drive, Tewkesbury, Glos. GL20 8HB. United Kingdom.



MAGNETIC TENSIONERS WITH TENSION RELEASE

Providing stable and consistent tension control over long periods

Wire tension is one of the critical parameters of any coil winding process, having an influence on product characteristics, particularly DC resistance. Tensioning devices are therefore required to ensure constant wire tension throughout the winding process.

One major disadvantage of mechanical tensioning devices is that the friction materials are in contact with each other, resulting in mechanical wear. Therefore, the tension may change from the set value over time.



KEY ADVANTAGES OF MECHANICAL TENSIONERS

These magnetic tensioners use a permanent magnet as a non-contact method of generating a variable friction on the main wheel of the tensioner, maintaining wire tension at the set value for long periods with no requirement for adjustment.

The arm provides feedback to the system, adjusting the main friction wheel to regulate and maintain constant tension during the winding cycle.

Felt pads provide pre-tension and remove dust and other debris from the wire.

Ceramic eyelets and roller guides at each point of contact protect insulation from mechanical damage, and guide the wire.

Ceramic eyelets and roller guides at each point of contact protect insulation from mechanical damage, and guide the wire.



The models shown have a pneumatic cylinder (controllable from the winding machine) for tension release as required during pin wrapping operations as well as microswitch detecting arm moving up indicating wire brake.

| Model Type | Min Tension (grams) | Max Tension (grams) | Min Wire Gauge (mm) | Max Wire Gauge (mm) |
|------------|---------------------|---------------------|---------------------|---------------------|
| MTA20 | 4 | 40 | 0.03 | 0.07 |
| MTA100 | 10 | 120 | 0.04 | 0.14 |
| MTA300 | 50 | 400 | 0.08 | 0.25 |
| MTA600 | 80 | 600 | 0.12 | 0.35 |
| MTA800 | 100 | 800 | 0.14 | 0.40 |

We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

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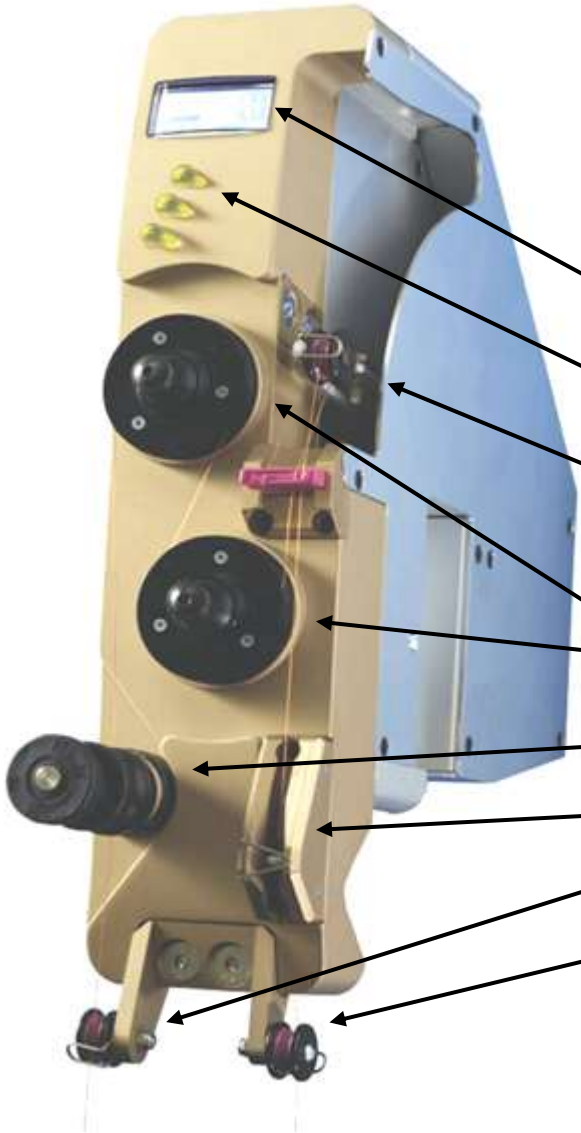


Contact us

Tel: +44 (0) 1684 273164

Email: enquiry@ingridwest.co.uk

TENSIONERS - CWF “DUAL SERVO”



Combining advanced digital control techniques with unique “twin servo” technology, the CWF tensioner is the ultimate wire tension control device for coil winding applications.

Introducing our new electronic tensioner with Intelligent Digital Feeding for precision control of wire tension.

LCD display is easily legible even in poor lighting conditions.

Ergonomic keys for easy setting and adjustment

Motorised “Storage and Release” system compensates for sudden changes in wire demand and reduces wire breaks and stretching.

The system detects fluctuations in input tension; the Dual Servo Drive automatically compensates and adjusts output tension and controls wire stretch.

Wire cleaning device

Load cell continuously measures wire tension

Input wire feed roller

Output wire feed roller

The CWF device offers manufacturers of wound products an opportunity to reduce unit costs by increasing productivity, reducing cycle times and improving product quality.

The device is an ideal partner for today’s high spindle speed automatic winding machines, enabling rapid acceleration from rest to high wire velocities together with reduced incidence of wire breakage, and close control of DC resistance.

The optional SMART MATRIX external terminal together with PC-LINK software allows the user to store, upload, visualise and control in graphic form all parameters and statistics, e.g. wire tension, speed and wire consumption of up to 100 CWF devices.



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FEEDER HEAD OPTIONS

MULTI WIRE AND TAPE FEEDER HEAD

- Used for producing multi-winding transformers at one workstation
- Allows use of up to 4 different wire sizes without rethreading
- Felt pads for cleaning of wire and back tension
- Includes margin tape and cover tape attachment



GUIDE TUBE FEEDER HEAD

- Ceramic parts at every wire contact point, to protect the wire coating
- Guide tube places wire accurately
- Independent micro-adjustment for more than one spindle
- Felt pad for cleaning of wire and back tension
- Takes guide tubes of inside diameter 0.3-1.2 mm



FIXED ROLLER FEEDER HEAD WITH MICRO ADJUSTMENT

- Durable brass rollers to control heavy gauge wire
- Independent micro-adjustment for more than one spindle
- Felt pad for cleaning of wire and back tension



VARIABLE ANGLE ROLLER FEEDER HEAD

- Durable brass rollers to control heavy gauge wire
- Adjustable angle of feed
- Adjustable roller position enables wire pre-bend/straightening



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TAILSTOCKS



Large bobbins/solenoids and air coils need a tailstock to support the outer flange during winding.

The WH-751 machine can be fitted with either a manual or a pneumatic tailstock, and either option can be mounted or removed in minutes. All tailstocks are adjustable for left-to-right position, and are provided with a removable precision angular contact bearing.

| Heavy Duty | Specifications | Pneumatic |
|------------|---------------------------|-----------|
| 25 mm | Stroke Length | 50 mm |
| 10 mm | Bearing ID to locate tool | 8 mm |
| N/A | Air supply | 5 Bars |

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COIL WINDING SOLUTIONS YOU CAN RELY ON

FLOOR STANDING HEAVY DUTY BOBBIN WINDING MACHINE SERIES



Working with local partners throughout Europe



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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E-300W WINDING MACHINE - “Industry 4.0”

DESCRIPTION

Small-sized bench winding machine Equipped with:

- Traverse head
- Sturdy base
- Tailstock - with security lock,
- Guider system
- Controlled by numeric PLC and electronic programming.
- Safety shielded foot pedal (Optional).

This machine is designed for the manufacture of solenoids, inductors and transformers, (with capacity to make multiple windings).

There are various configurations of speed ranges, up to 13,000 rpm (depending on machine version). This produces a fast cycle time for high turn primary windings.



TECHNICAL CHARACTERISTICS

| | |
|------------------------------------|----------------------|
| Max. Winding length | 285 mm |
| Max Wire pitching Ø..... | 99 mm |
| Max. distance between points | 370 mm |
| Max. Winding Ø..... | 240 mm |
| Face plate diameter..... | 60 mm |
| Guider precision | 0.001 mm |
| Spindle Resolution..... | 0.01 turns |
| Main shaft motor | Brushless servomotor |
| Guider motor..... | Brushless servomotor |
| Power Supply..... | 230Vac - 50/60 Hz |
| Dimensions (L*W*H)..... | 1000 x 520 x 310 mm |
| Net Weight (approx.)..... | 140 kg |

TORQUE AND SPEED

There are many versions of the drive system, please contact your local representative to discuss your requirements.

| E300W | | E300W -1 speed Direct Drive | | E300W -1 speed Direct Drive | |
|-------------|-------------|-----------------------------|-------------|-----------------------------|-------------|
| SPEED (rpm) | TORQUE (Nm) | SPEED (rpm) | TORQUE (Nm) | SPEED (rpm) | TORQUE (Nm) |
| 13.000 | 1 | 200 | 19 | 300 | 50 |
| 2.750 | 5 | | | | |

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| E300W R | | E300W N | | E300W G | | E300W G+ | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| SPEED (rpm) | TORQUE (Nm) | SPEED (rpm) | TORQUE (Nm) | SPEED (rpm) | TORQUE (Nm) | SPEED (rpm) | TORQUE (Nm) |
| 9.000 | 2 | 6000 | 3 | 3000 | 5 | 1600 | 9 |
| 6.000 | 3 | 3000 | 6 | 1500 | 10 | 800 | 18 |
| 3.000 | 6 | 1500 | 12 | 750 | 20 | 400 | 36 |

PROGRAMMING CHARACTERISTICS

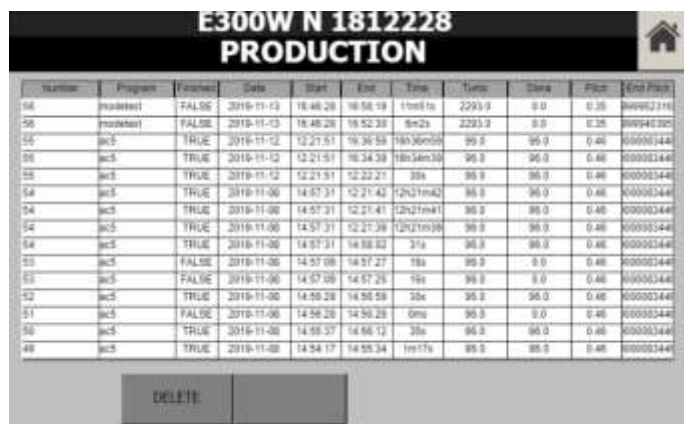
User interface7 inch (178 mm) Colour Touch Screen
 No. of programmable windings Max. 1,000
 No. of windings per coil..... 10,000 program & 200 winding per program
 - when connected to a local network virtually infinite storage
 Software language Main European
 Type of programming CNC
 Network Connectivity (Ethernet plug)RJ45
 Delivery Time60 Days from order confirmation

KEY BENEFITS OF THE NEW E-300W

- The new range of solutions has been designed in accordance with the “Industry 4.0” concept, providing capabilities of traceability, remote control and process monitoring
- The E-300W provides a combination of high performance with reduced cost and a “state-of-the art” control system.
- The new hardware platform reads variables and parameters in “real time” and makes them available online.
- Operators, managers, quality controllers and engineers can view the “live” information via the Internet from anywhere in the world using any “smart” device - for example, a laptop, tablet computer or even a Smartphone.

BUILT-IN NETWORK FUNCTIONALITY

- Save and recall programs from the main company server.
- Check the status of the winding machine from anywhere in the world.
- Setup using the touch screen or remote control using laptop or tablet.
- Programs are easily searched and selected.
- Easy back up to Cloud storage.



| Number | Program | Finished | Date | Start | End | Time | Total | Date | Pch | End Pch |
|--------|-----------|----------|------------|----------|----------|-----------|--------|------|------|-----------|
| 50 | prodtest1 | FALSE | 2019-11-13 | 18:48:20 | 18:58:19 | 11m01s | 2293.0 | 0.0 | 0.00 | 800002446 |
| 50 | prodtest1 | FALSE | 2019-11-13 | 18:48:20 | 18:52:30 | 4m23s | 2293.0 | 0.0 | 0.00 | 800002446 |
| 50 | ac5 | TRUE | 2019-11-12 | 12:21:51 | 18:36:58 | 18m36m50s | 90.0 | 90.0 | 0.00 | 800002446 |
| 50 | ac5 | TRUE | 2019-11-12 | 12:21:51 | 18:34:38 | 18m34m38s | 90.0 | 90.0 | 0.00 | 800002446 |
| 50 | ac5 | TRUE | 2019-11-12 | 12:21:51 | 12:22:21 | 30s | 90.0 | 90.0 | 0.00 | 800002446 |
| 54 | ac5 | TRUE | 2019-11-00 | 14:57:31 | 12:21:42 | 12h21m42s | 90.0 | 90.0 | 0.00 | 800002446 |
| 54 | ac5 | TRUE | 2019-11-00 | 14:57:31 | 12:21:41 | 12h21m41s | 90.0 | 90.0 | 0.00 | 800002446 |
| 54 | ac5 | TRUE | 2019-11-00 | 14:57:31 | 12:21:39 | 12h21m39s | 90.0 | 90.0 | 0.00 | 800002446 |
| 54 | ac5 | TRUE | 2019-11-00 | 14:57:31 | 14:58:02 | 31s | 90.0 | 90.0 | 0.00 | 800002446 |
| 53 | ac5 | FALSE | 2019-11-00 | 14:57:08 | 14:57:27 | 19s | 90.0 | 0.0 | 0.00 | 800002446 |
| 53 | ac5 | FALSE | 2019-11-00 | 14:57:08 | 14:57:25 | 16s | 90.0 | 0.0 | 0.00 | 800002446 |
| 51 | ac5 | FALSE | 2019-11-00 | 14:56:28 | 14:56:59 | 30s | 90.0 | 0.0 | 0.00 | 800002446 |
| 50 | ac5 | TRUE | 2019-11-00 | 14:56:37 | 14:56:12 | 25s | 90.0 | 90.0 | 0.00 | 800002446 |
| 49 | ac5 | TRUE | 2019-11-00 | 14:54:17 | 14:55:34 | 1m17s | 90.0 | 90.0 | 0.00 | 800002446 |

This is the first in a new line of machines from ERASAN - “value engineered” without losing the focus on maximum performance.

We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

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Contact us

Tel: +44 (0) 1684 273164

Email: enquiry@ingridwest.co.uk

E-300 WINDING MACHINE

DESCRIPTION

Small Sized Bench Winding Machine Equipped with: -

- Traverse head
- Sturdy base
- Tailstock - with security lock,
- Guider system
- Controlled by numeric PLC and electronic programming.
- Safety shielded foot pedal (Optional).



This machine is designed for the manufacture of solenoids, inductors and transformers, (with capacity to make multiple windings), and small distribution and power transformers.

There are various configurations of speed ranges, up to 9,000 rpm (depending machine version). This produces a fast cycle time for high turn primary windings.

TECHNICAL CHARACTERISTICS.

| | | |
|------------------------------|--------------------------------------|-----------------|
| Max. Winding length | ----- | 390 mm |
| Max Wire pitching | ----- | 99 mm |
| Max. distance between points | ----- | 500 mm |
| Max. Winding | ----- | 350 mm |
| Face plate diameter | ----- | 80 mm |
| Guider precision | ----- | 0.01 mm |
| Spindle Resolution | ----- | 0.01 turns |
| Main shaft motor | (Brushless servomotor) 6 Nm/3000 rpm | |
| Guider motor | (Brushless servomotor) 1.4 Nm | |
| Power supply | ----- | 220 Vac - 50 Hz |

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TORQUE AND SPEED

Winding shaft speed _____ 3000 rpm / 6000 rpm / 9000 rpm

Torque and speed (** There are three version of this machine each having three belt positions)

| Belt Position | G version - 3000 RPM | | N version - 6000 RPM | | R version - 9000 RPM | |
|---------------|----------------------|-------------|----------------------|-------------|----------------------|-------------|
| | Speed (rpm) | Torque (Nm) | Speed (rpm) | Torque (Nm) | Speed (rpm) | Torque (Nm) |
| 1 | 3000 | 6 | 6000 | 3 | 9000 | 2 |
| 2 | 1500 | 12 | 3000 | 6 | 6000 | 3 |
| 3 | 750 | 24 | 1500 | 12 | 3000 | 6 |

PROGRAMMING CHARACTERISTICS.

User interface _____ 7inch (178 mm) T.Screen Colour
 No. of programmable windings _____ Max. 10,000 (per SD card)
 No. of windings per coil _____ Max. 200
 Software language _____ Main European
 Type of programming _____ CNC
 Delivery Time _____ 60 Days from order confirmation

KEY BENEFITS OF THE NEW E-300

Energy Efficiency

The “green efficiency” design concept of this machine reduces power consumption. All motors are synchronous and each movement has been optimised for improved energy efficiency.

Simple & effective machine operating software

The all-new machine operating software has an intuitive graphical interface and a 7-inch (178 mm) full colour touch screen with user’s choice of language - making programming a new coil easier than it has ever been.

Programs are stored on solid-state media - directly to a standard SD memory card. This allows a fast and simple backup, with the option of Windows™ software - “WINbobbin” - for full PC connectivity.



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COIL WINDING SOLUTIONS YOU CAN RELY ON



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E-600 WINDING MACHINE

DESCRIPTION

Medium-sized “Power house!” Winding Machine

Equipped with: -

- Traverse head
- Sturdy base
- Tailstock - with security lock,
- Guider system
- & Safety shielded foot pedal.
- Controlled by numeric PLC and electronic programming.

This machine is designed for the manufacture of solenoids, inductors, distribution and power transformers, with capacity to make multiple windings and a wide range of wire sizes.



There are various configurations of speed ranges, (depending machine version). This produces a fast cycle time for high turn primary windings.

TECHNICAL CHARACTERISTICS

| | |
|--|---------------------------|
| Max. Distance between points | 650 mm |
| Max winding length. | 480 mm |
| Max. Ø of winding. | 600 mm |
| Height from centre face plate to machine base..... | 300 mm |
| Tailstock Morse Cone | N° 2 |
| Guider programmable resolution | 0.001 mm |
| Spindle Resolution..... | 0.01 turns |
| Main shaft motor (Parker) | Brushless servomotor |
| Guider motor (Brushless servomotor) | 1.2 Nm |
| Weight (approx.)..... | 250 kg |
| Electrical source..... | 380 V + N + GND- 50/60 Hz |
| Wire guide. | Included |
| Machine aluminium base table (with electrical cabinet) | Included |

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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TORQUE AND SPEED

Winding shaft speed 400 rpm / 300 rpm
(** There are many versions of this machine, two examples are shown here)

| Belt Position | Version - 400 RPM | | Version - 300 RPM | |
|---------------|-------------------|-------------|-------------------|-------------|
| | Speed (rpm) | Torque (Nm) | Speed (rpm) | Torque (Nm) |
| 1 | 420 | 85 | 300 | 130 |

PROGRAMMING CHARACTERISTICS.

User interface 7inch (178 mm) Colour Touch Screen
 No. of programmable windings Max. 10,000 (per SD card)
 No. of windings per coil Max. 200
 Software languages. (English/German/Spanish/Czech/Hungarian/ Norwegian)
 Type of programming CNC
 Delivery Time 60 Days from order confirmation

KEY BENEFITS OF THE NEW E-600

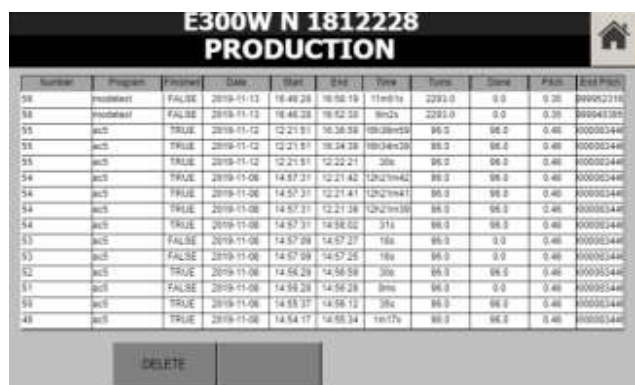
Energy Efficiency

The “green efficiency” concept of this machine reduces power consumption. All motors are synchronous and each movement has been optimised for improved energy efficiency.

SIMPLE & EFFECTIVE MACHINE OPERATING SOFTWARE

The all-new machine operating software has an intuitive graphical interface and a 7-inch (177 mm) full colour touch screen - with user’s choice of language - making programming a new coil easier than it has ever been.

Program storage is now done directly to a standard SD card. This allows a fast simple backup, with the option of windows™ software, WIN bobbin for full PC connectivity



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COIL WINDING SOLUTIONS YOU CAN RELY ON



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E-900 WINDING MACHINE

MEDIUM-SIZED BENCH WINDING MACHINE



Equipped with: -

- Face plate.
- Guider system.
- Safety shielded foot pedal.
- CNC motion controller and simple electronic programming.
- Tailstock - with security lock.
- Traverse head.
- Sturdy base - constructed from welded steel for strength and durability.

State-of-the-art winding machine. The E-900 is a floor standing style winding machine, medium sized to be easily placed in a factory or workshop, equipped with head and bench in galvanised steel and covered in stainless steel, fixation plate, tailstock with security closure, guider system protection and pedal. With highly advanced features, including, energy efficient servo motors, and intelligent torque boosting technology.

The applications of this machine include the manufacture of solenoids, inductors, and transformers, with capacity to make multiple windings and even distribution and power transformers from 10 to 600 KVA.

The wide range of velocities, up to 400 rpm, permits primary and secondary windings on the same machine, thus reducing the production processes.

The concept and design facilitates the placement of necessary accessories such as end-fillers, insulation paper or foil, of various types.

TECHNICAL CHARACTERISTICS

| | |
|-----------------------------------|-------------|
| Wire Ø and profile wire | 0.01 - 10mm |
| Max winding length | 800 mm |
| Max distance between points | 900 mm |
| Max Winding Ø | 560 mm |
| Guider precision | 0.01 mm |

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SPEED & TORQUE

| One speed version | | |
|-------------------|-----------------|-------------|
| Belt Position** | 200 RPM version | |
| | Torque (Nm) | Speed (Rpm) |
| 1 | 300 | 0-200 |

| Two speed version | | |
|-------------------|-----------------|-------------|
| Belt Position** | 400 RPM version | |
| | Torque (Nm) | Speed (Rpm) |
| 1 | 165 | 0-400 |
| 2 | 300 | 0-200 |

**We can make the torque and drive to your requirements, shown below are typical speed & Torque options for the E900 model. However please contact us should you require other ratings

Main shaft motor Brushless Servo Motor
 Guider motor (Brushless)..... 0.4HP / 300W (2.2 Nm)
 Electrical supply 3 x 380Vca - 50/60 Hz

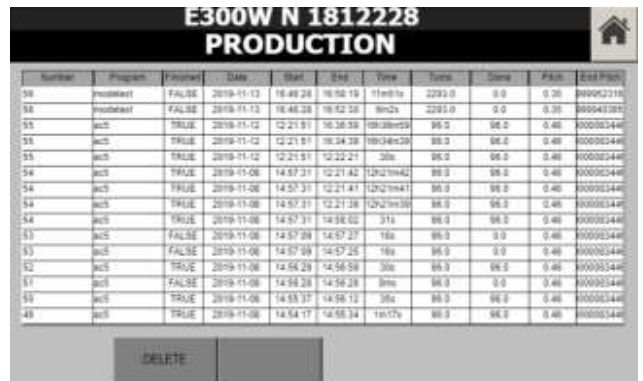
PROGRAMMING CHARACTERISTICS

User interface (touch screen)..... 15inch (381mm)
 No. of winding programs (per SD card)..... Max. 10,000
 No. of windings per coil..... Max. 200
 Type of programming CNC
 Typical delivery time 60 to 90 Days
 (Please confirm at time of order)

SIMPLE & EFFECTIVE MACHINE OPERATING SOFTWARE

The all-new machine operating software has an intuitive graphical interface and a 15-inch (381mm) full colour touch screen - with user's choice of language - making programming a new coil easier than it has ever been.

Program storage is directly to a standard SD memory card. This allows a fast, simple program backup, with the option of FTP, users can even edit / document and backup winding programs using Microsoft© excel.



ACCESSORIES

The wide range of accessories designed to work with the E-900 includes guiders for round and square wires, wire tensioning and de-reeling systems, paper and insulation material feeders.

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COIL WINDING SOLUTIONS YOU CAN RELY ON



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E-1200W WINDING MACHINE

DESCRIPTION

The E-1200 is a floor standing style winding machine, medium sized to be easily placed in a factory or workshop, equipped with head and bench in galvanised steel and covered in stainless steel, fixation plate, tailstock with security closure, guider system protection and pedal.

The machine is governed by numeric control and CNC electronic programming.



This machine is specially designed for the manufacture of solenoids and power and distribution transformers from 10 to 1.200 KVA, using aluminium or copper wires, including rectangular or flat wires with a special guider.

The wide range of velocities, up to 500 r.p.m, permits primary and secondary windings on the same machine, thus reducing the production processes.

The concept and design facilitate the placement of necessary accessories such as end-fillers, insulation paper or foil, of various types.

TECHNICAL CHARACTERISTICS

Wire Ø (and profile wire) _____ 0.01 - 30 mm
 Max winding length _____ 1.100 mm
 Max distance between points _____ 1.200 mm
 Max winding Ø _____ 800 mm
 Guiding precision _____ 0.01 mm
 Winding shaft speed _____ 500/250 rpm*
 Main shaft motor _____ Brushless Servo Motor
 Guider motor (Brushless) _____ 0.4 HP / 300 W
 Power supply _____ 3 x 380 Vca-50/60 Hz
 Max load between points (coil weight) 1,000 kg
 Approx machine weight _____ 1,200 kg

| Belt Position * | High Speed 500 RPM | | Low Speed 250 RPM | |
|-----------------|--------------------|-------------|-------------------|-------------|
| | Torque (Nm) | Speed (rpm) | Torque (Nm)** | Speed (rpm) |
| 1 | 172 | 500 | 413 | 242 |
| 2 | 1033 | 96 | 1447 | 69 |

* The standard machine is available in two models, high speed and low speed

** The head has two belt positions; the position directly depends on the product to be wound. E.g. Wire cross-sectional area & Coil diameter > torque required.

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PROGRAMMING CHARACTERISTICS

User interface (touch screen) _____ 10inch (254 mm)
 No. of winding programs (per SD card) _____ Max. 10,000
 No. of windings per coil _____ Max. 200
 Type of programming _____ CNC
 Typical delivery time (please confirm at time of order) _____ 90 Days

SIMPLE & EFFECTIVE MACHINE OPERATING SOFTWARE

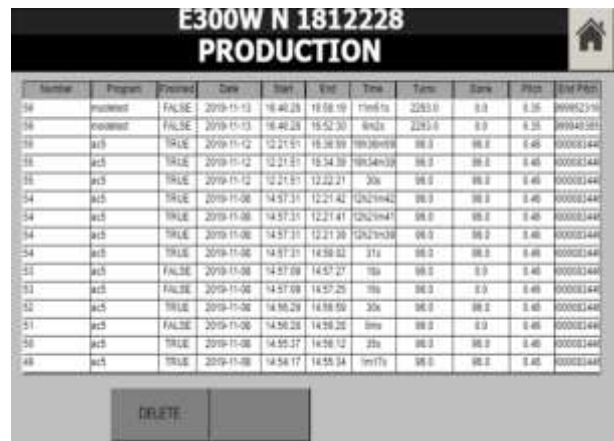
The new range of solutions has been designed in accordance with the “Industry 4.0” concept, providing capabilities for traceability, remote control and process monitoring.

The E-1200W provides a combination of high performance with reduced cost and a “state-of-the-art” control system. The new hardware platform reads variables and parameters in “real time” and makes them available online.

Operators, managers, quality controllers and engineers can view the “live” information via the Internet from anywhere in the world using any “smart” device - for example, a laptop, tablet computer or even a Smartphone.

BUILT-IN NETWORK FUNCTIONALITY

- Save and recall programs from the main company server,
- Check the status of the winding machine from anywhere in the world.
- Setup using the touch screen or remote control using laptop or tablet.
- Programs are easily searched and selected.
- Easy back up to Cloud storage.



| Machine | Program | Control | Date | Start | End | Time | Turns | Spool | Price | Unit Price |
|---------|---------|---------|------------|----------|----------|---------|--------|-------|-------|------------|
| 50 | Program | FALSE | 2019-11-13 | 18:40:28 | 19:08:19 | Time to | 2283.0 | 0.0 | 0.50 | 000002310 |
| 50 | Program | FALSE | 2019-11-13 | 18:40:28 | 19:52:30 | Time to | 2283.0 | 0.0 | 0.50 | 000002310 |
| 50 | u15 | TRUE | 2019-11-12 | 12:21:51 | 18:38:09 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 50 | u15 | TRUE | 2019-11-12 | 12:21:51 | 18:54:39 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 50 | u15 | TRUE | 2019-11-12 | 12:21:51 | 12:22:21 | Time to | 306 | 98.0 | 0.40 | 000003440 |
| 54 | u15 | TRUE | 2019-11-08 | 14:57:31 | 12:21:42 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 54 | u15 | TRUE | 2019-11-08 | 14:57:31 | 12:21:41 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 54 | u15 | TRUE | 2019-11-08 | 14:57:31 | 12:21:39 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 54 | u15 | TRUE | 2019-11-08 | 14:57:31 | 14:58:02 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 51 | u15 | FALSE | 2019-11-08 | 14:57:09 | 14:57:27 | Time to | 98.0 | 0.0 | 0.40 | 000003440 |
| 51 | u15 | FALSE | 2019-11-08 | 14:57:09 | 14:57:29 | Time to | 98.0 | 0.0 | 0.40 | 000003440 |
| 52 | u15 | TRUE | 2019-11-08 | 14:56:29 | 14:58:59 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 51 | u15 | FALSE | 2019-11-08 | 14:56:28 | 14:58:28 | Time to | 98.0 | 0.0 | 0.40 | 000003440 |
| 50 | u15 | TRUE | 2019-11-08 | 14:55:37 | 14:58:12 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |
| 49 | u15 | TRUE | 2019-11-08 | 14:54:17 | 14:55:34 | Time to | 98.0 | 98.0 | 0.40 | 000003440 |

ACCESSORIES

The wide range of accessories designed to work with the E-1200W includes guiders for round and square wires, wire tensioning and de-reeling systems, paper and insulation material feeders.

We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON



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E-2500 WINDING MACHINE

DESCRIPTION.

The EZ-2500 is a floor standing style winding machine, Large size to be easily placed in a factory or workshop, equipped with head and bench in galvanised steel and covered in stainless steel, face plate, tailstock with security closure, guider system and foot pedal.



The machine is governed by numeric control and CNC electronic programming.



This machine is specially designed for the manufacture of re-winds, large rotor coils for use in wind turbine industry, using aluminium or copper wires, including rectangular or flat wires with a special guider.

The concept and design facilitates the placement of necessary accessories such as end-fillers or insulation paper in foil, of various levels.

TECHNICAL CHARACTERISTICS.

| | |
|------------------------------|-----------------------|
| Wire Ø | 0.01 - 30 mm |
| Winding speed | 0 - 60 rpm |
| Max. winding length | 2,250 mm |
| Max. Distance between points | 2,500 mm |
| Spindle height (from floor) | 1,300 mm |
| Tailstock movement | 1,500 mm |
| Guider precision | Manual |
| Main shaft motor | 7.5 HP |
| Guider motor | 0.3HP (Brushless) |
| Power supply | 3 x 380 VCA- 50/60 Hz |
| Air supply | 6 bar (minimum) |
| Weight | 1,500 kg |

PROGRAMMING CHARACTERISTICS.

| | |
|--|----------------------------------|
| Standard with the machine, turns counter, simple program | |
| By request, electronic control | CMZ240 |
| Max. No. of programmable windings | Max. 130 |
| Max. No. of windings per coil | Max. 12 |
| Type of programming | CNC |
| Delivery Time | 60 Days from order confirmation. |

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E-1200 C WINDING MACHINE

DESCRIPTION

Robust and reliable, the E-1200C winding machine is a floor standing style winding machine.

The sturdy chassis is manufactured from heavy gauge welded steel for durability, painted for ease of cleaning and maintenance.

The machine consists of a headstock with speed change, face plate, and pedal.

Due to the intended application of this machine, it does not have a bench or wire guiding system



This machine is specially designed for the manufacture of solenoids and power and distribution transformers from 10 to 1.200 KVA, using aluminium or copper wires, including rectangular or flat wires.

TECHNICAL CHARACTERISTICS

| | |
|----------------------------------|---|
| Maximum winding shaft speed..... | 500 rpm |
| Winding shaft slow speed. | 0 - 20-60-120 rpm |
| Maximum coil diameter. | 1,600 mm |
| Maximum torque (low speed)..... | 80 kgm |
| Main motor. | 5 HP (3.7 kW) |
| Power supply. | 3 x 380Vca - 50/60 Hz |
| Air supply | 6 bar (minimum) |
| Delivery..... | 90 DAYS from confirmation of the order. |

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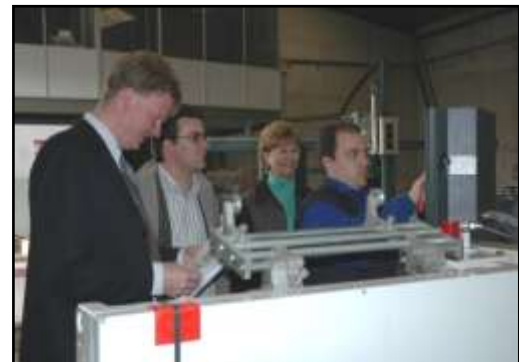
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BOBIFIL RESTORATION PROGRAM

Why not give your old Bobifil machine a new lease of life with a comprehensive rebuild?

A typical machine restoration includes:

- Change the 500 pulse head encoder for a 10,000 pulse unit.
- Change the main motor for a brushless DC motor with brake.
- Change the guider motor for a brushless DC unit. (Mechanical machines require the installation of an electronically controlled endless feedscrew for the guider system).
- Frequency controller for the main motor.
- Motion control of machine axes through PLC and electronic programming.
- Electrical cabinet separate from the machine to eliminate electrical noise and interference produced by the motors.
- Mechanical modifications, as required for fitting of new components, e.g. guide heads, tooling.
- Latest generation software.
- Total repainting and refinishing of the machine.
- New accessories at client request.
- Full compliance with CE regulations.



Top Image: A restored ER-900
Bottom Image: IWM and Erasan staff test a newly refurbished ER-900

A fully restored machine is capable of giving you many more years of reliable service on your shop floor

This refurbishment program is covered by a 12 month guarantee, for all of the newly installed components, (but excluding the original mechanical parts, such as the head stock and gear box, pulleys, guides from the guiding system, wormscrews and tailstock, since these parts are not changed under this program.)

However, the correct function of the above mentioned parts will be verified by our technicians during the machine rebuild, and should need repair or replacement, the client will be duly notified

All parts including mechanical and electronic that have been removed from the machine during refurbishment will be returned with the machine.

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Below: An ER-33 following restoration



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EXAMPLE -SEIPP USWA-5050 MACHINE REBUILD

BEFORE



AFTER



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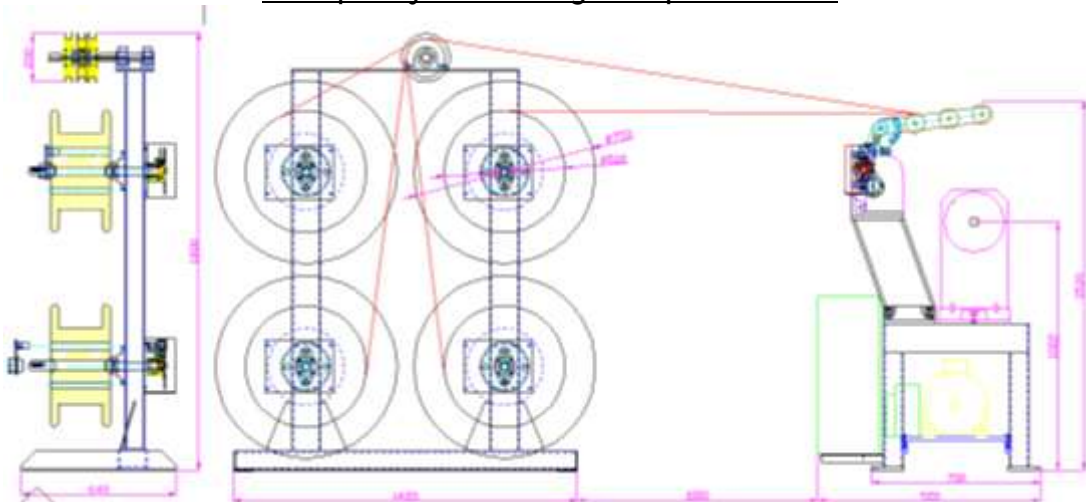
ERASAN SPOOL TENSIONING SYSTEM - (DP Series)

The Erasan range of heavy duty coil winders often require a tensioning device mounted behind the machine. For wire sizes greater than 1.0 mm the best method is to apply a braking force to the supply spool itself and not the wire.

Shown below are some the devices previously commissioned.

| Number of spools | | | |
|--|--|---|--|
| 1 | 2 | 4 | 32 |
|  |  |  |  |

Example layout drawing of 4 spool version.



TECHNICAL CHARACTERISTICS

| | | |
|------------------|-------|--|
| Number of spools | _____ | 1, 2, 4, 32 versions available |
| Wire Ø | _____ | 0.01 - 99 mm |
| Spool Diameter | _____ | up to 500/750 mm |
| Braking method | _____ | pneumatic controlled hydraulic caliper |
| Delivery time | _____ | 60 Days from order confirmation |

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4 COIL DE-SPOOLER - DESCRIPTION

This is a floor standing de-coiling machine, medium sized and easily placed in a factory or works. Profile wire de-coiling device, two levels, 4 spool capacity, with hydraulic disc braking system pneumatically controlled. All controls brought up to the machine, as shown below with hydraulic gauge indicators, and tension release switch:-



TECHNICAL CHARACTERISTICS

Max Weight per coil _____ 250 kg
 Max coil (spool) Ø _____ 750 mm
 Max No Spools _____ 4 pcs
 Please note that 1, 2, 8 & 32 spool versions are also available

Please speak with your local representative for further information or custom requirements.

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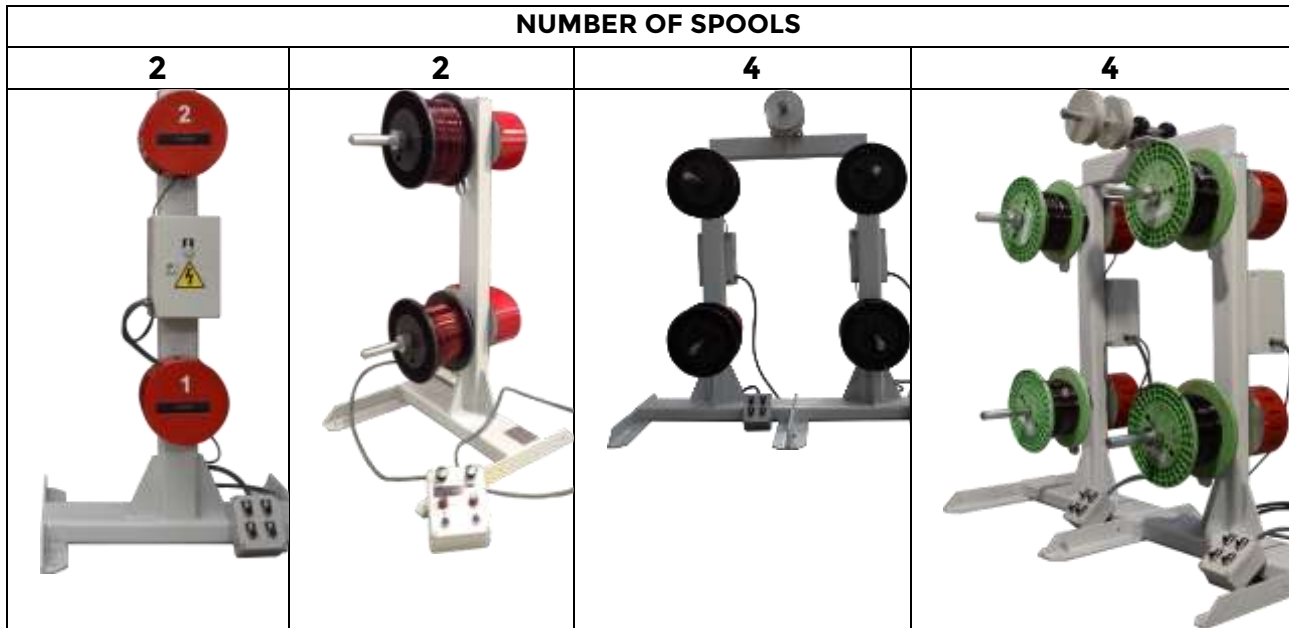
COIL WINDING SOLUTIONS YOU CAN RELY ON

ELECTRIC SPOOL TENSIONING SYSTEM (DPE Series)

DESCRIPTION

The Erasan range of heavy duty coil winders often require a tensioning device mounted behind the machine. For wire sizes greater than 1.0 mm the best method is to apply a braking force to the supply spool itself and not the wire.

Shown below are some the devices previously commissioned.



TECHNICAL CHARACTERISTICS

Number of spools _____ 1, 2, 4, 32 versions available (others configurations on request)

Wire _____ 0.01 - 99 mm

Spool Diameter _____ up to 500/750 mm (others configurations on request)

Braking device _____ Electric brake (pneumatic device on request)

Electric brake features:

Max tension _____ 35 Nm*

Max. speed _____ 2.000 rpm

Max. service temperature _____ 70 °C

Power supply _____ 230 V

Power consumption _____ 25 W

Delivery time _____ 60 Days from order confirmation

*Other brake sizes available on request

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REPRESENTING



ERASON
ACROSS EUROPE

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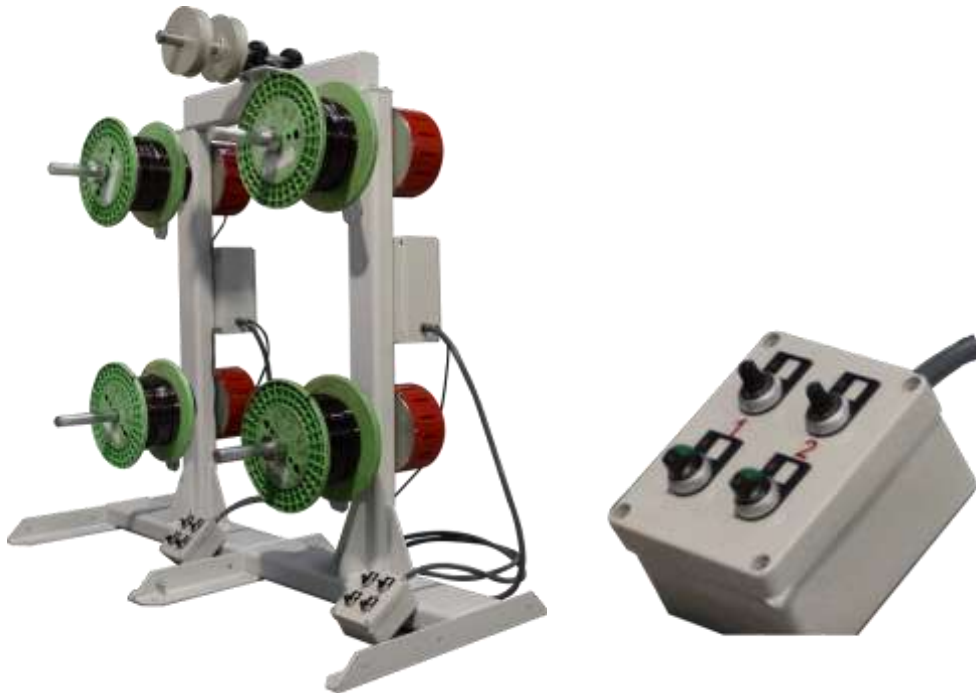
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4 COIL DE-SPOOLER - DPE -4 -DESCRIPTION

This is a floor standing de-coiling machine, medium sized and easily placed in a factory or works. Profile wire de-coiling device, two levels, 4 spool capacity, The brake pulley is controlled by electrically powered magnetic particle braking system, giving *highly repeatable settings*, adjustable by potentiometer or integrated digitally into the main winding machine software.

All controls brought up to the machine, as shown below with Pot and tension release switch. Alternatively, the tension can be controlled from the winding machine's operating software, setting the desired tension independently for each winding and stored with that program / coil setup.



TECHNICAL CHARACTERISTICS

| | | |
|------------------------|-------|--|
| Max Weight per coil | ----- | 250 kg |
| Max coil (spool) Ø | ----- | 750 mm |
| Max No Spools | ----- | 4 pcs |
| Standard spool shaft Ø | ----- | 36 mm (others configurations on request) |
| Dimensions | ----- | 750 X 780 X 1600 mm |
| Net weight | ----- | 260 kg |

Please note that 1, 2, 8 & 32 spool versions are also available Please speak with your local representative for further information or custom requirements

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SERVO DRIVEN SPOOL TENSIONING SYSTEM (DPSD Series-GB option)

The Erasan range of heavy duty coil winders often require a tensioning device mounted behind the machine. For wire sizes greater than 1.0 mm the best method is to apply a braking force to the supply spool itself and not the wire.

To meet the growing customer demand, working to improve control of the higher wire tensions required for larger wires and profile.

A new generation in profile wire tensioning and de-coiling.

Working similar to a foil machine in “**torque following**” mode, the torque to the winding axis is monitored and the reverse torque to driven de-coiler is controlled according to the required tension.

The operator can program a digital tension value that is measured and kept constant during the winding cycle.

Shown below: a previously commissioned device.



The range is available in standalone fixed units similar to the DP series of 1,2,4 up to 32 spool varieties.

GB - (GUIDER BASE) OPTIONS

However as shown above, there is the option to mount the whole de-coiler onto a ballscrew carriageway.

Reducing factory space requirements, the servo-driven de-coiler monitors the exact position of the guider on the machine, so the spool moves the same distance and with the same speed as the machine guider.

Example layout drawing of 4 spool version - fixed.

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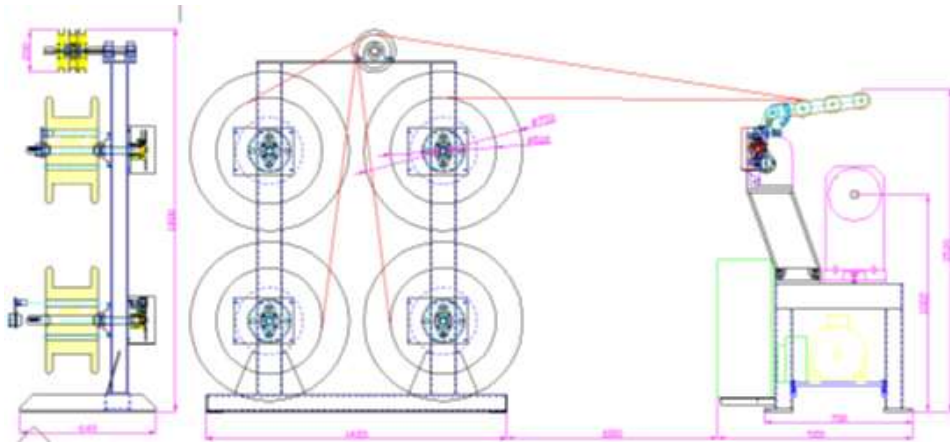
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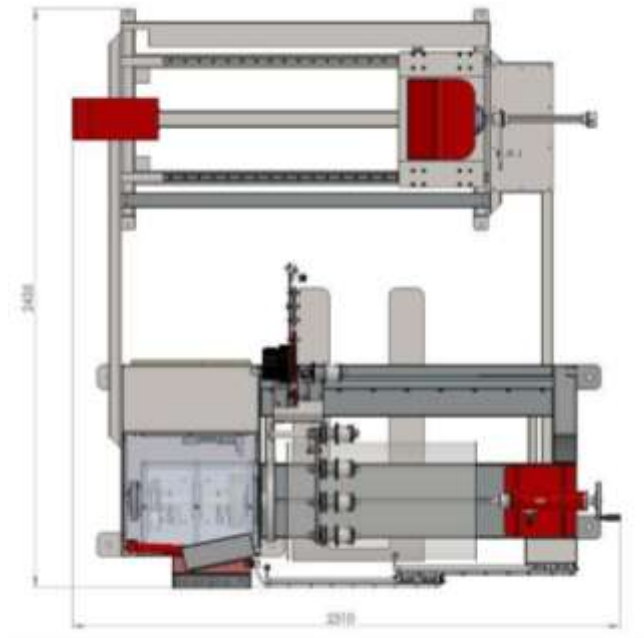
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Example layout drawing of 1 spool version - Guider Base (reduced footprint).



TECHNICAL CHARACTERISTICS

| | | |
|---------------------------------|-------|--|
| Number of spools | _____ | 1, 2, 4, 32 versions available |
| Wire | _____ | 0.01 - 99 mm |
| Spool Diameter | _____ | up to 500/750 mm |
| Standard spool shaft | _____ | 36 mm (others configurations on request) |
| Tension control method | _____ | Servo motor "torque control" |
| Max torque (for DP1-SD model) | _____ | 87 Nm (others configurations on request) |
| Power supply (for DP1-SD model) | _____ | 2 kW (others configurations on request) |
| Max weight per coil | _____ | 250 kg |
| Delivery time | _____ | 60 Days from order confirmation |

Please speak with your local representative for further information or custom requirements.

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TH3 - ELECTRONIC TENSIONER (For Heavy Duty Winding Machines)

DESCRIPTION

The TH3 is a floor standing style heavy duty tensioner. Suitable for wires 0.5 to 3 mm in diameter.

For maximum stability, provision has been made to enable this unit to be bolted to the floor.

The wire is perfectly guided as soon as it leaves the supply spool, through ceramic eyelets with soft felt pads and a set of adjustable pulleys to give the desired pre-tension, according to the thickness of the wire and without damaging the insulation.

The brake pulley is controlled by electrically powered braking system, giving **highly repeatable settings**, adjustable by digital potentiometer or integrated into the main winding machine software.

There are 2 different versions of the tensioner TH3.

The **TH3-S (Standalone)** version - This version is ideal to mount onto any machine; also available with the support stand.



The supply voltage is 230V single phase and the maximum power consumption is 25W.

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In the TH3-I (integrated) full version, the tensioners are integrated with an Erasan winding machine and its controller.



The tension is controlled from the machine's operating software, setting the desired tension independently for each winding and stored with that program / coil setup.

SPECIFICATION

| Model | TH3-S | TH3-I |
|------------------------|----------|---------------------------------|
| Control Box | Yes | No (in winding machine program) |
| Floor stand | Optional | Optional |
| Erasan Machine Bracket | Optional | Optional |

Maximum spool diameter _____ 500 mm
 Maximum spool height _____ 650 mm
 Working method _____ ELECTRICAL
 Max. Torque _____ 12 Nm
 Diameter TH3 _____ 137 mm
 Max. Tension _____ 18 kg
 Max. Speed _____ 2000 rpm
 Min. Speed _____ 40 rpm
 Max. Working Temp _____ 70° C
 Power Supply _____ 220Vac - 50/60 Hz
 Dimensions (mm) _____ 670x540x1755
 Weight _____ 95 kg
 Delivery Time _____ 30-60 Days from order confirmation
 (Please confirm at time of order)

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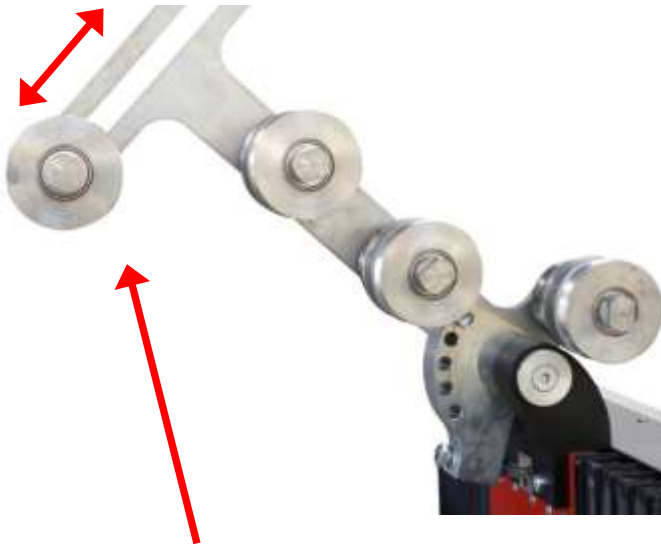
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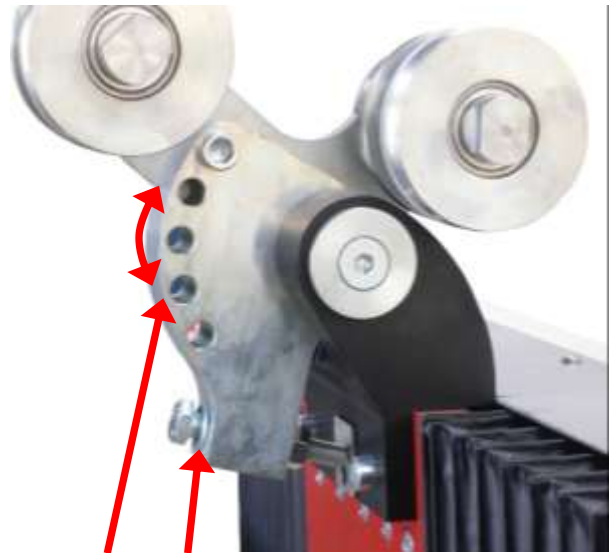
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PROFILE WIRE GUIDER GP1 - SINGLE WIRE

The Erasan range of heavy duty coil winders require a guide head system suitable for the application to be wound, many factors influence the choice of guide head, from wire size to wire type / profile etc. Shown below is the single profile wire guider, please do ask your local agent if you require a custom solution.



The front roller is also adjustable in height / angle. This "negative effect" roller can be used to produce an upward curve on the wire. When wound onto the flat sides of the bobbin the inverse curve of wire presses against the long flat edges of the bobbin, reducing the bow effect



The guide head angle is adjustable; Course adjustment in steps of 18° Fine adjustment from bolt underneath

The guide head has four profile rollers - adjustable width & wire insulation protecting Teflon side walls, as well as outer "V" groove roller for round wire



Standard Max wire width 40 mm
Option GP1-D Max Wire width 80 mm

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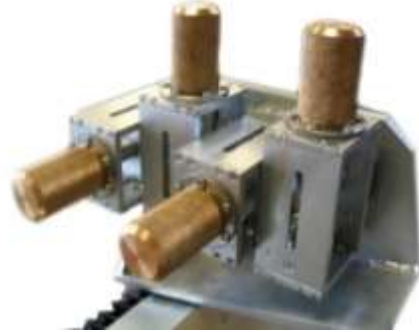
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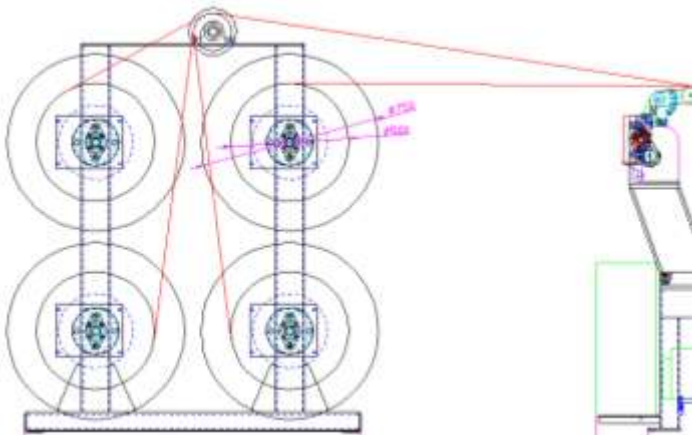
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PROFILE WIRE GUIDER GP2 - MULTIPLE WIRES

The Erasan range of heavy duty coil winders require a guide head system suitable for the application to be wound, many factors influence the choice of guide head, from wire size to wire type / profile. Shown below is the multi profile wire guider, however please do ask your local agent if you require a custom solution.



This guide has at the rear, a series of four parallel roller sets, each is mounted at 90° to the previous one and independently adjustable.

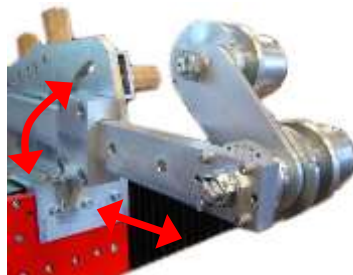


The reason for this is to bring multiple wires coming from different supply spools together - forming a single packet to then wind onto the core / bobbin.

The front section of the guider head has two profile rollers, adjustable width & Teflon side walls to protect the wire insulation.

Standard* Max packet size 55 mm * 55 mm
*larger options available

The front roller is also adjustable in angle. This "negative effect" roller can be used to produce an upward curve on the wire, meaning when wound onto flat sides of bobbin, the inverse curve of wire presses against the long flat edges, reducing the bow effect



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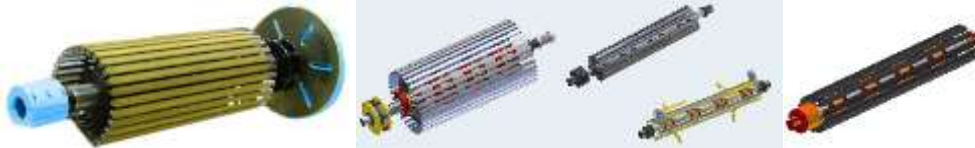
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RANGE OF EXPANDABLE MANDRELS

ROUND style for heavy duty winding machines

Customers often need to wind foil or wire onto a mandrel which can be expanded during the winding process and then collapsed to allow the finished coil to be removed. Iron cores or laminations can then be inserted later in the production process.

Shown below are some examples of the previous designs we have made.



As can be seen in the photos, the expanding mandrel are finished with aluminium bars and wood mounted on the outer diameter. Each mandrel has a built in gearbox which is driven by a pneumatic hand tool, which expands the mandrel for winding and then collapses it for easy removal of the coil at the end of the winding process. Larger versions can be provided with an expanding and contracting mechanism that is powered by hydraulics.

TECHNICAL CHARACTERISTICS

| Diameter | | Length |
|----------|------|--------|
| Min | Max | |
| 140 | 200 | 1100 |
| 250 | 425 | 1800 |
| 400 | 650 | 1800 |
| 500 | 820 | 2000 |
| 820 | 1300 | 2000 |

However, please do note that this is only a representative range, and nearly 90% of these mandrels are made to customer order and specifications.



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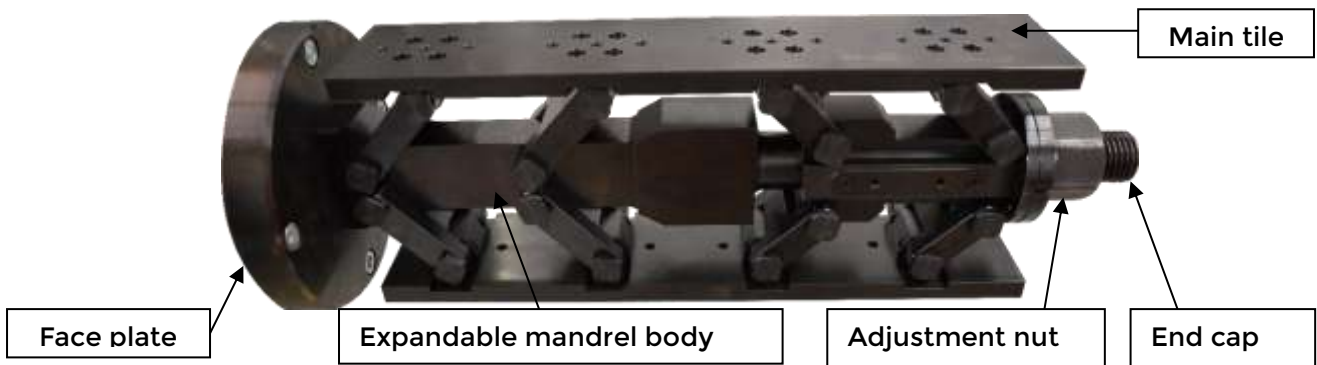
RANGE OF EXPANDABLE MANDRELS -

RECTANGULAR style for heavy duty winding machines



The new generation of expandable mandrels provide the possibility of winding with rectangular, circular or ovoid shape coils, without changing mandrel.

Allows winding with round & flat / profile wires as well as foil. Over the main tile the customer can assemble supplements with geometries according to the application. Simple manual opening & can be mounted in cantilever or between points.

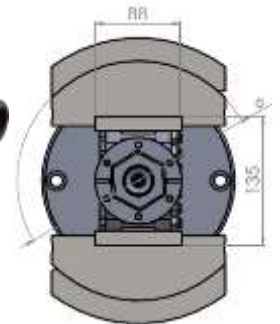


Both the main body and tiles are made of treated steel which ensures robustness and protection against rust and corrosion.

Wide range of opening add to its versatility.



Additional supplements can be mounted on the main mandrel to allow a variety of rectangular or ovoid cores to be wound.



Strong and robust design leads to high loading capacity

Faceplate & Tailstock coupling as well as the main dimensions of expandable mandrel are configurable to your requirements.



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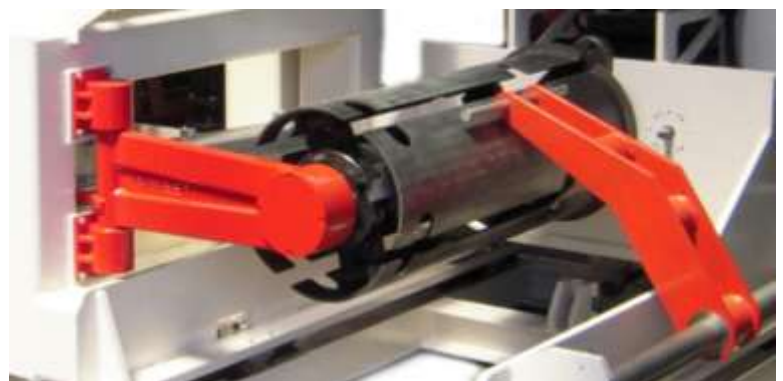
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FOIL WINDING MACHINE SERIES

One of the latest developments at Erasan Technology is the range of foil winding equipment, with high-tech control features, improving quality of winding and reducing maintenance to a minimum.

Shown below are some of the machines already delivered along with concept drawings showing a basic machine layout.

There are various configurations possible, up to 1500mm width. This allows winding of primaries easily and with very short production cycle times.



We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

Page 50

WORKING WITH LOCAL PARTNERS IN THE FOLLOWING COUNTRIES; Austria, Czech Republic, Germany, Hungary, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

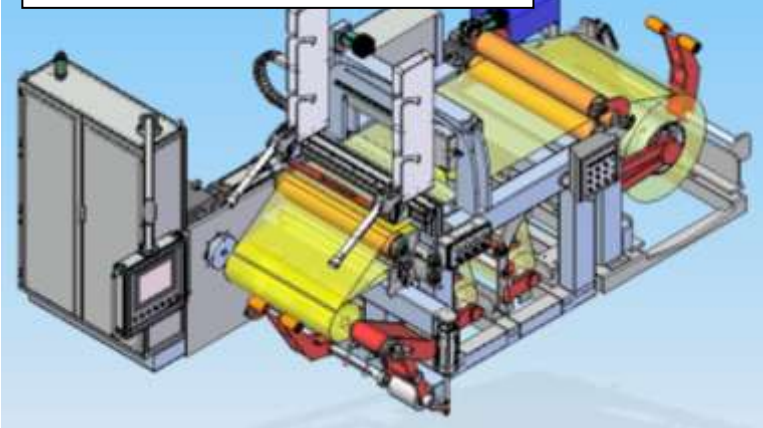


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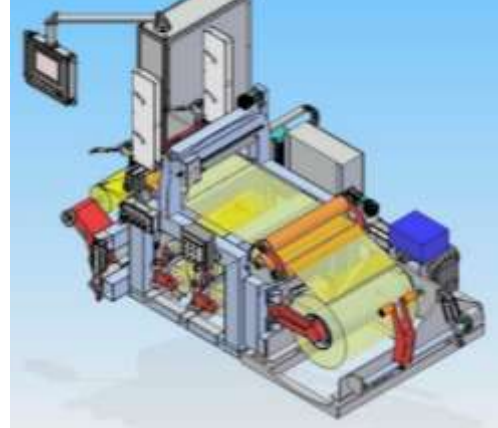
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Email: enquiry@ingridwest.co.uk

The system incorporates high torque Parker servo motors with integrated reduction drive systems for precision control.



Expanding mandrels are made in house, to suit the exact requirement of the machine and product to be made.



Additional processes and stages of automation can be included in the function of the machine according to your requirements. Shown here is a cold pressure welding station, used for fixing the terminal leads "in-line" during the winding.

TECHNICAL CHARACTERISTICS

Various configurations of machine are available depending on your application requirements, Eg:1 foil, 1 insulator // 1 foil, 2 insulators // 2 foils, 2 insulators.

Max foil width _____ 300, 600, 900 up to 1500 mm
 Guider precision _____ built in sensor detecting the foil edge creates
 _____ a continuous feedback loop to ensure precise turn on turn foil layering
 Type of programming _____ CNC- industrial PC
 Approximate delivery time _____ 6-9 months from order confirmation.
 _____ (Please confirm at time of order)

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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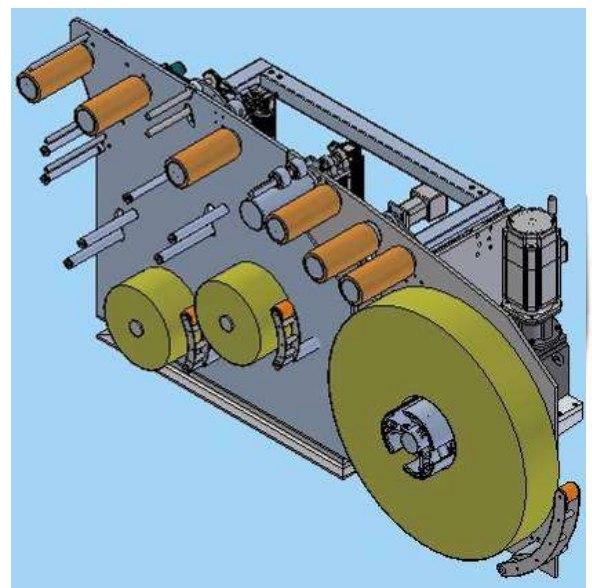
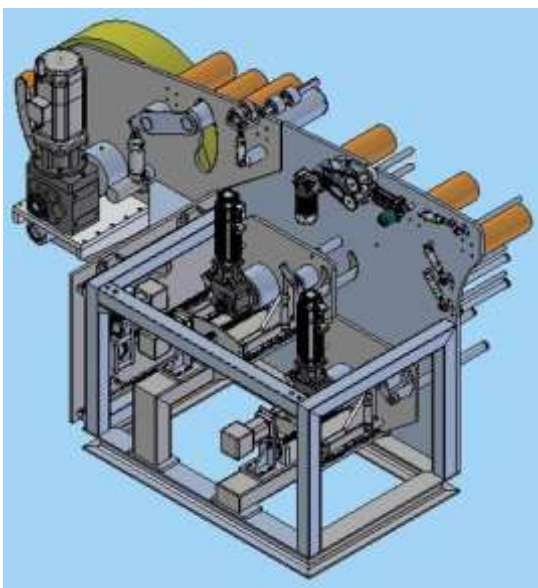
Email: enquiry@ingridwest.co.uk

STRIP FOIL WINDING MACHINE SERIES

One of the latest developments at Erasan Technology is the range of foil winding equipment, with high-tech control features, improving quality of winding and reducing maintenance to a minimum.

Primarily used for winding of *Cast Resin / Air Cooled* transformers, the machines shown below are some of those already delivered, along with concept drawings showing a basic machine layout.

There are various configurations possible, with coil widths up to 2.3M with a winding area of 1.8M. This allows winding of a wide range of transformer sizes and number of strips as required



We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

Contact us

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Email: enquiry@ingridwest.co.uk



Each mandrel's foil or insulation has independent traversing system, with feedback from an edge sensor, producing perfectly aligned coils

The system incorporates high torque Parker servo motors with integrated reduction drive systems for precision control.

Additional processes and stages of automation can be included in the function of the machine according to your requirements.
Shown here is a cold pressure welding station, used for fixing the terminal leads "in-line" during the winding.

TECHNICAL CHARACTERISTICS

Various configurations of machine available depending on your application requirements.
Eg. 1 foil, 1 insulator // 1 foil, 2 insulators.

| | | |
|-----------------------------|-------|---|
| Max foil width | ----- | 25 up to 150 mm |
| Max foil Thickness | ----- | 0.1 up to 1.5mm-Al (1.2mm-Cu) |
| Extent of traverse | ----- | up to 6,000 mm |
| Max Distance between points | ----- | up to 2,300 mm |
| Max coil width | ----- | up to 1,800 mm |
| Max coil Diameter | ----- | up to 1,300 mm |
| Max coil weight | ----- | up to 2,000 kg |
| Guider Precision | ----- | Built in sensor detecting the foil/paper edge creates independent feedback loop to ensure precise turn on foil layering |
| Type of programming | ----- | CNC- industrial PC |

We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON



FULLY AUTOMATIC BOBBIN WINDING MACHINE SERIES



Working with local partners throughout Europe



We aim to be the most reliable partner in the coil winding industry, with over 50 years of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

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WORKING WITH LOCAL PARTNERS IN THE FOLLOWING COUNTRIES; Austria, Czech Republic, Germany, Hungary, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

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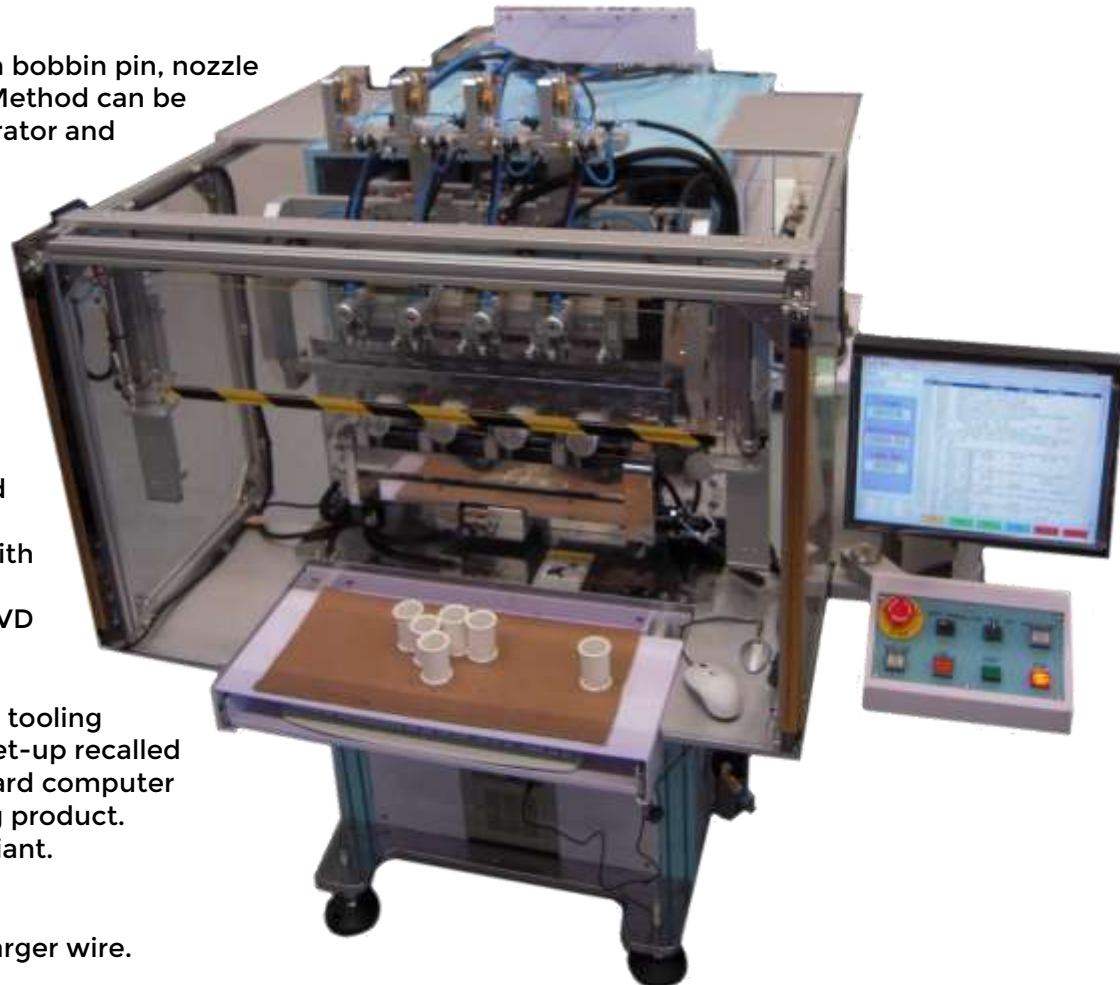
4 SPINDLE MULTI AXIS AUTOMATIC WINDING MACHINE

APPLICATION:

Relays, Automotive ABS coils, LCD coils, transformers, ignition coils, inductors, sensor coils, solenoids DVD reader, Inverter, Switching Power Supplies, Ballast Transformer and other bobbin-wound products....

Main features:

- The wire guide movement can be freely programmed in all 3 axes (X, Y, and Z).
- Wraps either radial or axial pins, - programmable nozzle movement through 0° and 90° angles.
- Wire cutting on bobbin pin, nozzle cut or nipper. Method can be chosen by operator and setup in the program.
- Simplified programming with teach-in programming system using 15" touch screen, windows based interface, industrial PC with USB, Ethernet network and DVD ROM facilities.
- Easy to change tooling and machine set-up recalled from the onboard computer when changing product.
- Fully CE compliant.



Options:

- Air nipper for larger wire.
- Load and unload shuttle transfer system (as shown).
- Skeining (twisting) unit.
- Customised accessories to suit your application.

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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| Main technical specifications | | |
|-------------------------------|---|--------|
| No. of spindles | 4 | |
| Wire size | 0.02-0.5 mm | |
| Max traverse width | 85 mm | |
| Spindle pitch | 105 mm | |
| Max bobbin diameter | 100 mm - less if load unload system used | |
| Spindle speed | 9,000 rpm | |
| Spindle position accuracy | +/- 0.1° | |
| Guide head drive motor | 200W AC servomotor X, Y and Z axis | |
| Max movement of guide head | X (front/back) | 100 mm |
| | Y (left/right) | 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 | |
| Interface | RS232 or USB | |
| Touch screen | 15 inch | |
| Air supply | 6 Bar | |
| Power supply | single phase 220V +/-10% 50Hz | |
| Power consumption | 3 KVA | |
| Weight | 450 kg | |
| Dimensions (cm) | 110(W) x 130(L) x 155(H) - excluding wire spool stand | |



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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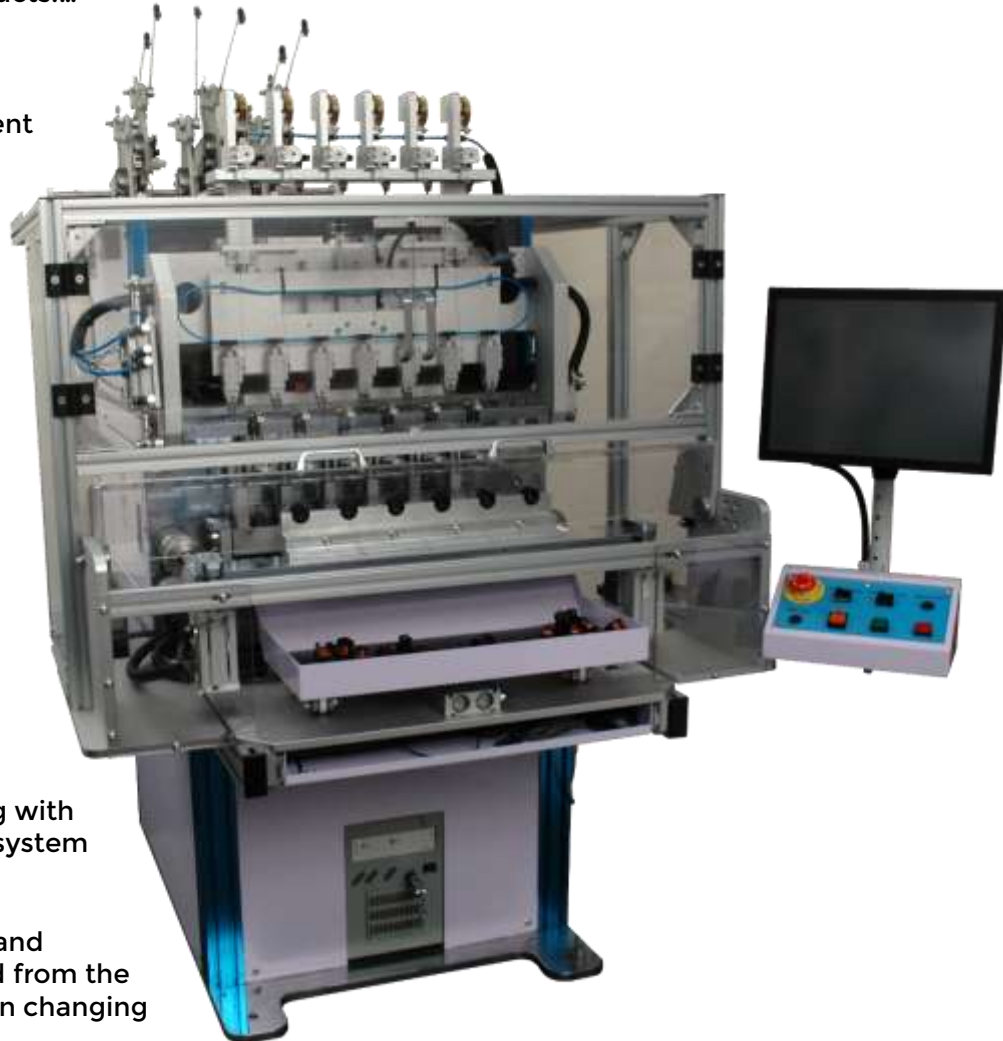
6 SPINDLE MULTI AXIS AUTOMATIC WINDING MACHINE

APPLICATION:

Relays, Automotive ABS coils, LCD coils, transformers, ignition coils, inductors, sensor coils, solenoids DVD reader, Inverter, Switching Power Supplies, Ballast Transformer and other bobbin-wound products....

Main features:

- The wire guide movement can be freely programmed in all 3 axes (X, Y, and Z).
- Wraps either radial or axial pins, - programmable nozzle movement through 0° and 90° angles.
- Wire cutting on bobbin pin, nozzle cut or air nipper. Method can be chosen by operator and setup in the program.
- Password function, prevent accidental program change.
- Simplified programming with teach-in programming system using 15" touch screen.
- Easy to change tooling and machine set-up recalled from the onboard computer when changing product.
- Fully CE compliant.



Options:

Air nipper for larger wire.
Load and unload shuttle transfer system (as shown).
Skeining (twisting) unit (as shown).
Customised accessories to suit your application.

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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Contact us

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Email: enquiry@ingridwest.co.uk

| Main technical specifications | | |
|-------------------------------|---|--------|
| No. of spindles | 6 | |
| Wire size | 0.02-0.5 mm | |
| Max traverse width | 85 mm | |
| Spindle pitch | 70 mm | |
| Max bobbin diameter | 62 mm - 32 mm if load unload system used | |
| Spindle speed | 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 (front/back) | 100 mm |
| | Y (left/right) | 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 | |
| Interface | RS232 or USB | |
| Touch screen | 15 inch | |
| Air supply | 6 Bar | |
| Power supply | single phase 220V +-10% 50Hz | |
| Power consumption | 3 KVA | |
| Weight | 450 kg | |
| Dimensions (cm) | 110(W) x 130(L) x 155(H) - excluding wire spool stand | |



We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

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8 SPINDLE MULTI AXIS AUTOMATIC WINDING MACHINE

APPLICATION:

Relays, Automotive ABS coils, LCD coils, transformers, ignition coils, inductors, sensor coils, solenoids DVD reader, Inverter, Switching Power Supplies, Ballast Transformer and other bobbin-wound products....

Main features:

- The wire guide movement can be freely programmed in all 3 axes (X, Y, and Z).
- Wraps either radial or axial pins, - programmable nozzle movement through 0°, and 90° angles.
- Wire cutting on bobbin pin, nozzle cut or air nipper. Method can be chosen by operator and setup in the program.
- Password function, prevent accidental program change.
- Simplified programming with teach-in programming system using 15" touch screen.
- Easy to change tooling and machine set-up recalled from the onboard computer when changing product.
- Fully CE compliant.

Options:

- Air nipper for larger wire.
- Load and unload transfer system (as shown).
- Skeining (twisting) unit (as shown).
- Customised accessories to suit your application.



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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Email: enquiry@ingridwest.co.uk

| Main technical specifications | |
|-------------------------------|---|
| No. of spindles | 8 |
| Wire size | 0.02-0.5 mm |
| Max traverse width | 85 mm |
| Spindle pitch | 55 mm |
| Max bobbin diameter | 50 mm - 25 mm if load unload system used |
| Spindle speed | 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 |
| Interface | RS232 or USB |
| Touch screen | 15 inch |
| Air supply | 6 Bar |
| Power supply | single phase 220V +-10% 50Hz |
| Power consumption | 3 KVA |
| Weight | 540 kg |
| Dimensions (cm) | 110(W) x 130(L) x 155(H) - excluding wire spool stand |



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12 SPINDLE MULTI AXIS AUTOMATIC WINDING MACHINE

APPLICATION:

Relays, Automotive ABS coils, LCD coils, transformers, ignition coils, inductors, sensor coils, solenoids DVD reader, Inverter, Switching Power Supplies, Ballast Transformer and other bobbin-wound products....

Main features:

- The wire guide movement can be freely programmed in all 3 axes (X, Y, and Z).
- Wraps either radial or axial pins, - programmable nozzle movement through 0°, and 90° angles.
- Wire cutting on bobbin pin, nozzle cut or nipper. Method can be chosen by operator and setup in the program.
- Password function, prevent accidental program change.
- Simplified programming with teach-in programming system using 15" touch screen.
- Easy to change tooling and machine set-up recalled from the onboard computer when changing product.
- Fully CE compliant.



Options:

- Automatic load / unload system.
- Load and unload shuttle transfer system (as shown below).
- Skeining (twisting) unit.
- Customised accessories to suit your application.

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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| Main technical specifications | | |
|-------------------------------|---|--------|
| No. of spindles | 12 | |
| Wire size | 0.02-0.3 mm | |
| Max traverse width | 85 mm | |
| Spindle pitch | 55 mm | |
| Max bobbin diameter | 45 mm | |
| Spindle speed | 12,000 rpm | |
| Spindle position accuracy | +- 0.1° | |
| Guide head drive motor | 200W AC servomotor X , Y and Z axis | |
| Max movement of guide head | X (front/back) | 100 mm |
| | Y (left/right) | 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 | |
| Interface | RS232 or USB | |
| Touch screen | 15 inch | |
| Air supply | 6 Bar | |
| Power supply | single phase 220V +-10% 50Hz | |
| Power consumption | 3kVA | |
| Weight | 650 kg | |
| Dimensions (cm) | 110(W) x 150(L) x 155(H) - excluding wire spool stand | |



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OPTIONAL ACCESSORIES FOR MULTI SPINDLE SERIES

When configuring the range of multi spindle machinery, several customer/application specific accessories may be required. We like to think we have one of the most comprehensive available, and can offer a solution to almost any winding requirement.

OPTIONS

Air Nipper for wire range 0.2mm-0.8mm



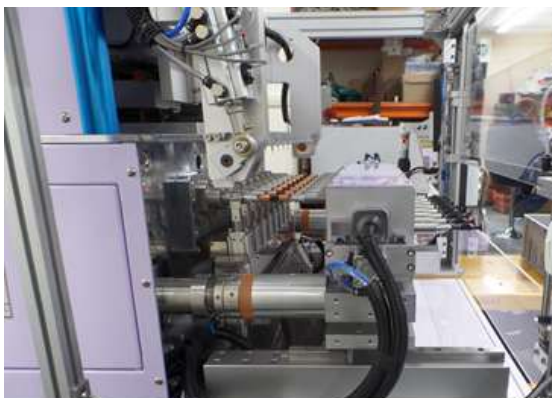
For cutting larger wire diameters the pin tear method will no longer work. In this case we can fit air operated cutters close to the nozzle head.

Tensioners stand



An essential piece of equipment to mount all supply spools of wire, the unit can be built to hold the required number of spools for the number of spindles on the winding machine. Offered with mobile options, changing reels can be done away from the machine.

Load and unload Turret Tailstock



Allows automated load and unload, improving the machine throughput/cycle, and allowing easy access for extra stations to be added to the line, e.g soldering, welding etc.

Skeining unit



When making a solder connection to fine wire, the mechanical strength of a single strand of wire may not be sufficient. The skeining unit reinforces the start and finish leads of the winding by twisting multiple strands of the wire together, so that they can withstand the soldering process.

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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FULLY AUTOMATIC "AIR COIL" WINDING MACHINE

APPLICATION:

For winding self supporting coils using thermo-plastic coated wire.

The wire is heated using hot air as it is wound onto a former, bonding the turns together. At the end of the cycle, the former is then removed and the finished coil ejected from the machine.

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



Main features:

- Clamp/cut system, layer winding, coil unloading arm, wire lead picker, all fully automatic during each cycle - operatorless.
- Freely programmable pitch control & guider movements enabling precise layer winding.
- Freely programmable servo driven tailstock movements provides programmable coil width.
- Easy to integrate to other devices utilising available I/O; such as:-
 - Cold air jet,
 - Skeining unit,
 - Alcohol dispensing.
 - Electronic tensioner - with selectable tension during the wind cycle.
- 15" touch screen for easy setup, with industrial PC, network card, simple program backup to USB memory stick.
- Synchronously driven tailstock ensures precise tool alignment and allows for smaller core ID's.
- Temperature & Air flow of the hot air system is freely programmable.



We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON

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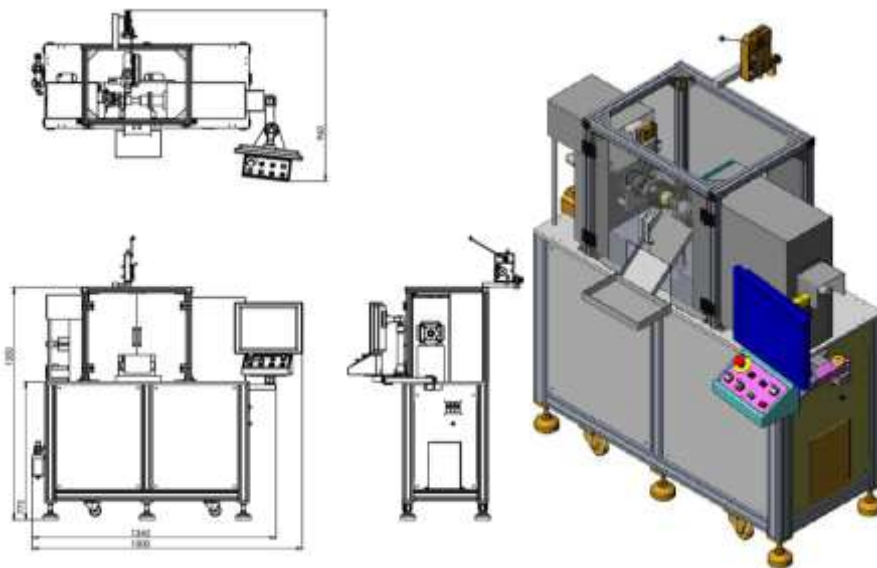


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Email: enquiry@ingridwest.co.uk

| Main technical specifications | |
|--|---|
| Coil diameter - max | 80 mm |
| Max Coil width larger available on request | < 25 mm |
| Wire size | 0.04 - 0.60 mm |
| Motor driver | CNC 3 Axis AC servo motor synchronizing control |
| Controlling system - freely programmable | Windows interface PC with USB connector & DVD ROM |
| Programmable pitch resolution | 0.001 mm |
| Bonding method | Hot air Max 600°C, 2.5Kw heater element Available with alcohol application |
| Spindle position accuracy | ±0.1° |
| Max spindle speed | 3000 rpm |
| Air supply // consumption | 4.5-6 Bar // 80-100 L/min |
| Power supply | AC220V ±5% 50HZ |
| Power consumption | 4KVA (including hot air bonding) |
| Weight (approx) | 250kg |



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MULTI AXIS AUTOMATIC WINDING MACHINE - RFID CHIP INDUCTOR WINDING.

APPLICATION:

0402, 0603, 0805, 1008 chip sizes and other ferrite-wound products....

Main features:

- The wire guide movement can be freely programmed in all 3 axes (X, Y, and Z).
- Built-in welding system to connect start and finish leads.
- Bowl fee ferrite component, Wire cutting on tooling clamp, guide over start pad on ferrite, weld, winding, guide over end pad, weld, cut end wire, remove ferrite, unload - all preformed in a fully automatic way.
- Password function, prevent accidental program change.
- Simplified programming with teach-in programming system using 15" touch screen.
- Easy to change tooling and machine set-up recalled from the onboard computer when changing product.
- Fully CE compliant.

Options:

- Load and unload to tape and reel.
- Various tooling can be designed depending on component requirements.
- Customised accessories to suit your application.



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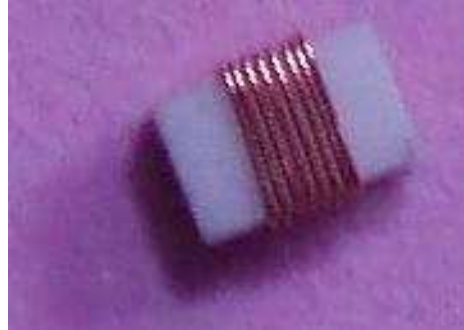


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| Main technical specifications | |
|-------------------------------|--|
| No. of spindles | 1 |
| Wire size | 0.025-0.1 mm |
| Spindle speed | 3,000 rpm |
| Spindle position accuracy | => 0.1° |
| Nozzle movement | 0.001 mm |
| Spindle control | Winding spindle 3 Axis servo motor |
| | Welding table 2 axis stepper motor |
| Welding machine | Adjustable parameters, 0-300 / Touch time 3 ms |
| Control system | Panasonic FP Σ system |
| Interface | Delta DOP-A57 |
| Touch screen | 15 inch |
| Air supply | 6 Bar |
| Power supply | single phase 220V +-10% 50Hz |
| Power consumption | 3 KW |
| Weight | 120 kg |
| Dimensions (cm) | 1070(W) x 800(L) x 1880(H) - excluding wire spool stand |



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E-FLY FLY WINDING MACHINE

DESCRIPTION.

This is a special machine for conducting coils used in alternators. As a single head, it produces one coil per cycle.

This machine is built on a steel chassis welded and aluminium profiles. The wire guide system is placed on linear bearing guides, which ensures a precise guide control and great robustness.

Key Features:

- Programmable aperture of “nose tooling”, using slip rings and servo motor
- Motor of wire guide Brushless servo motor
- Main motor Brushless servo motor with break
- Table positioning motor Brushless servo motor
- Protection Shield with pneumatic function controlled by program
- Specific software for this application.
- CE normative.



Technical Characteristics

| | |
|--|---------------------|
| Max Wire Ø (round) | 1.2 mm |
| Max winding length..... | 150 mm |
| Max. Ø of winding | 270 mm |
| Main Motor, Brushless. (Medium Inertia)..... | 6,36 Nm |
| Wire guide motor, Brushless | 2.2 Nm |
| Drive motors | By 3 Hi-tech Servos |
| Max. Winding speed | (1500 r.p.m) |
| Main controller | CTE-240 |
| Software language (others available on request)..... | English |
| Max. Programmable Pitch..... | 9 mm |
| Spindle Accuracy | 1/10 |
| Guiding precision | 0.01 mm |
| Dimensions (approx) | 1250 x 1050 x 1250 |
| Weight approx. | 450 kg |

Programming Characteristics

| | |
|--|----------|
| Max. No. of programmable windings (Standard 50)..... | Max. 175 |
| Max. No. of windings per coil (Standard 20) | Max. 200 |
| Type of programming | CNC |

DELIVERY TIME – 60 days from order confirmation

We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.

COIL WINDING SOLUTIONS YOU CAN RELY ON



BENCH TOP TOROID WINDING MACHINE SERIES



Working with local partners throughout Europe



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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WORKING WITH LOCAL PARTNERS IN THE FOLLOWING COUNTRIES; Austria, Czech Republic, Germany, Hungary, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

Unit 5L, Delta Drive, Tewkesbury, Glos. GL20 8HB. United Kingdom.



Contact us

Tel: +44 (0) 1684 273164

Email: enquiry@ingridwest.co.uk

WH 900 TOROID WINDING MACHINE

SPECIFICATION

- Program** TWC-01 digital controller holds up to 999 program sequences
- Control** DC 400 W spindle motor with stepping motor for spreading
- Features** Choice of Belt or Slider type winding heads both available in 4 or 6 inch versions
- Package** Includes base, core rotator, winding head and your first shuttle

Wire size 0.05 - 1.1 mm (depending on machine head type and shuttle size)

O D Range 8 - 60 mm

Min finished I.D 3 mm (depends on shuttle size & core height)

Min wire size depends on shuttle size and head type

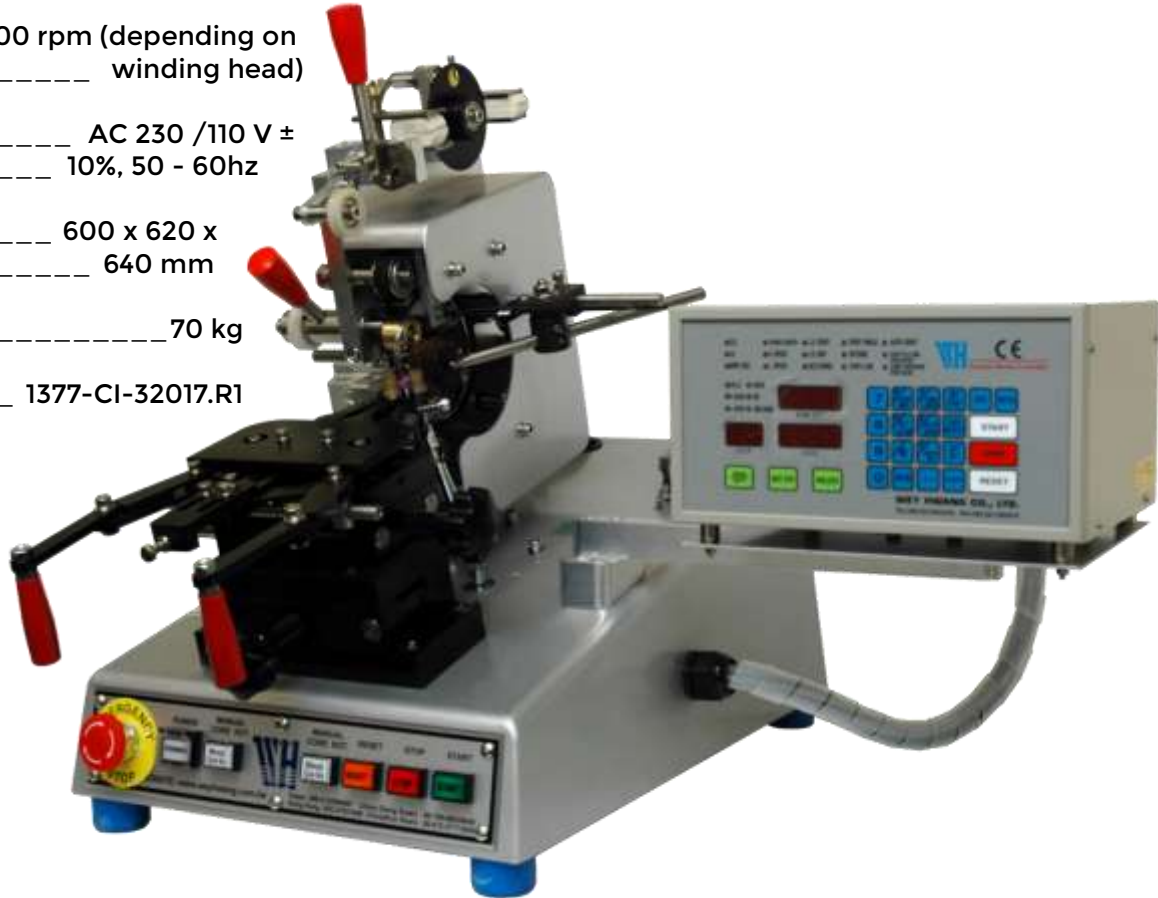
Max speed 1500 rpm (depending on winding head)

Power AC 230 /110 V ± 10%, 50 - 60hz

Dims 600 x 620 x 640 mm

Net weight 70 kg

CE cert. no. 1377-CI-32017.R1







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OTHER HEADS THAT FIT THIS MACHINE BASE

| HEAD TYPE | B4 BELT TYPE | B6 BELT TYPE | S4 SLIDER TYPE | S6 SLIDER TYPE |
|---------------|---|---|--|---|
| PICTURE |  |  |  |  |
| COIL O.D. | 5~60 mm | 8~60 mm | 8~60 mm | 8~60 mm |
| MIN.FIN. I.D. | 3 mm | 6 mm | 7 mm | 7 mm |
| MAX. HEIGHT | 25 mm | 45 mm | 25mm | 45 mm |
| WIRE SIZE | 0.12~0.8 mm | 0.25~0.9 mm | 0.04~0.35 mm | 0.05~0.4 mm |
| SHUTTLE DIA. | 100 mm | 150 mm | 100 mm | 150 mm |
| SHUTTLE TYPE | 1.8, 2.0, 2.4, 2.5, 2.8, 3.4, 4.7, 6.3, 7.9, 9.5 | 4.7, 6.3, 7.9, 9.5 | 3.4, 4.7, 6.3, 7.9, 9.5 | 4.7, 6.3, 7.9, 9.5 |

Min. Finished I.D. Will be different by shuttle size and coil height.

SHUTTLE WIRE CAPACITY CHART (IN FEET) - 1 FOOT = 304.8 mm

| SHUTTLE PN | FOR B4 & S4 TYPE | | | | | | | | | | | FOR B6 & S6 TYPE | | | |
|--------------------------|---|-----|-----|-----|-----|-----|-----|------|------|------|-----|---|------|------|----|
| | 1.8 | 2.0 | 2.4 | 2.5 | 2.8 | 3.4 | 4.7 | 6.3 | 7.9 | 9.5 | 4.7 | 6.3 | 7.9 | 9.5 | |
| SHUTTLE WIDTH AWG NO. | 1.8 | 2.0 | 2.4 | 2.5 | 2.8 | 3.0 | 3.7 | 5.1 | 6.4 | 7.1 | 3.7 | 5.1 | 6.4 | 7.1 | |
| 0.912MM 19 | | | | | | | | | | 13 | 23 | | | | |
| 0.813MM 20 | | | | | | | 3 | 5 | 12 | 16 | 28 | 8 | 18 | 24 | 43 |
| 0.724MM 21 | | | | | | | 4 | 7 | 14 | 20 | 35 | 11 | 22 | 30 | 53 |
| 0.643MM 22 | | | | | | | 5 | 8 | 18 | 25 | 43 | 12 | 27 | 38 | 65 |
| 0.574MM 23 | | | | | 4 | 6 | 10 | 22 | 30 | 54 | 15 | 33 | 46 | 81 | |
| 0.511MM 24 | | | | 4 | 5 | 8 | 13 | 27 | 38 | 67 | 20 | 41 | 57 | 101 | |
| 0.455MM 25 | | | 4 | 5 | 7 | 10 | 16 | 34 | 48 | 84 | 24 | 51 | 71 | 125 | |
| 0.404MM 26 | | | 5 | 6 | 8 | 12 | 20 | 42 | 59 | 104 | 30 | 63 | 87 | 153 | |
| 0.361MM 27 | | | 6 | 7 | 10 | 15 | 24 | 52 | 73 | 128 | 36 | 78 | 108 | 191 | |
| 0.320MM 28 | | | 7 | 9 | 12 | 18 | 30 | 65 | 90 | 159 | 45 | 98 | 134 | 236 | |
| 0.287MM 29 | | | 10 | 11 | 15 | 23 | 38 | 80 | 113 | 198 | 56 | 120 | 167 | 293 | |
| 0.254MM 30 | | | 12 | 14 | 19 | 28 | 47 | 100 | 140 | 245 | 69 | 150 | 206 | 363 | |
| 0.226MM 31 | | | 14 | 18 | 24 | 35 | 58 | 123 | 173 | 304 | 86 | 186 | 255 | 450 | |
| 0.203MM 32 | | | 23 | 22 | 29 | 44 | 72 | 153 | 215 | 377 | 107 | 230 | 318 | 558 | |
| 0.180MM 33 | | | 28 | 27 | 36 | 54 | 89 | 190 | 267 | 468 | 132 | 284 | 393 | 690 | |
| 0.160MM 34 | | | 35 | 33 | 45 | 67 | 110 | 235 | 330 | 579 | 165 | 354 | 487 | 854 | |
| 0.142MM 35 | | | | 41 | 56 | 83 | 136 | 292 | 410 | 719 | 204 | 438 | 602 | 1057 | |
| 0.127MM 36 | | | | | | | 169 | 362 | 508 | 891 | 252 | 542 | 746 | 1309 | |
| 0.114MM 37 | | | | | | | 209 | 449 | 630 | 1105 | 312 | 671 | 923 | 1620 | |
| 0.102MM 38 | | | | | | | 260 | 556 | 781 | 1370 | 387 | 830 | 1142 | 2005 | |
| 0.089MM 39 | | | | | | | 322 | 690 | 969 | 1700 | 479 | 1027 | | | |
| 0.079MM 40 | | | | | | | 399 | 855 | 1200 | 2108 | 592 | 1272 | | | |
| 0.064MM 41 | | | | | | | 495 | 1060 | 1490 | 2614 | | | | | |
| 0.056MM 42 | | | | | | | 615 | 1315 | 1847 | 3240 | | | | | |
| 0.051MM 43 | | | | | | | 763 | 1631 | 2290 | 4020 | | | | | |
| 0.046MM 44 | | | | | | | 946 | 2022 | | | | | | | |
| COLOUR INDICATION | WHITE : FOR B4 TYPE YELLOW : FOR B4 & S4 TYPE GREEN : FOR S4 TYPE | | | | | | | | | | | WHITE : FOR B6 TYPE YELLOW : FOR B6 & S6 TYPE GREEN : FOR S6 TYPE | | | |

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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Contact us

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WH 900A TOROID WINDING MACHINE

SPECIFICATION

- Program** TWC-01 digital controller holds up to 999 program sequences
- Control** DC 400 W spindle motor with stepping motor for spreading
- Features** Choice of Belt or Slider type winding heads both available for 8 inch shuttle diameter
- Package** Includes base, core rotator, winding head, your first shuttle, and comprehensive manual

Wire size _____ 0.3 - 1.2 mm
_____ (depending on machine head
_____ type and shuttle size)

O D Range _____ 40 - 120 mm

Min finished I.D __ 12 mm (depends on
_____ shuttle size & core height)

Min wire size _____ depends on
_____ shuttle size and head type

Max speed __ 1200 rpm (depending on
_____ winding head)

Power _____ AC 230 / 110 V ± 10%,
_____ 50 - 60 Hz

Dims _____ 770 x 690 x 550 mm

Net weight _____ 80 kg

CE cert. no. _____ 1377-CI-32017.R1



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| HEAD TYPE | B8 BELT TYPE | S8 SIDE SLIDER TYPE |
|--|---|--|
| PICTURE |  |  |
| COIL O.D. | 40~120 mm | 40~120 mm |
| MIN.FIN. I.D. | 12 mm | 15 mm |
| MAX. HEIGHT | 80 mm | 80 mm |
| WIRE SIZE | 0.3~1.1 mm | 0.3~0.8 mm |
| SHUTTLE DIA. | 220 mm | 220 mm |
| SHUTTLE TYPE | 8, 10, 12, 15, 17, 20 | 8, 10, 12, 15, 17, 20 |
| * Finished ID will vary according to shuttle specification and coil height | | |

SHUTTLE WIRE CAPACITY CHART (FEET)
1 FOOT = 304.8 mm

| SHUTTLE WIDTH | | FOR B8 & S8 TYPE | | | | | |
|---------------|-----------|------------------|-----|------|------|------|------|
| | | 8 | 10 | 12 | 15 | 17 | 20 |
| 1.290 mm | AWG NO.16 | | 60 | 77 | 99 | 149 | 240 |
| 1.151 mm | AWG NO.17 | | 76 | 97 | 125 | 186 | 302 |
| 1.024 mm | AWG NO.18 | 49 | 95 | 122 | 158 | 236 | 382 |
| 0.912 mm | AWG NO.19 | 61 | 121 | 155 | 199 | 297 | 481 |
| 0.813 mm | AWG NO.20 | 77 | 151 | 194 | 250 | 374 | 605 |
| 0.724 mm | AWG NO.21 | 97 | 204 | 246 | 315 | 471 | 763 |
| 0.643 mm | AWG NO.22 | 123 | 246 | 311 | 400 | 598 | 968 |
| 0.574 mm | AWG NO.23 | 155 | 303 | 391 | 501 | 750 | 1214 |
| 0.511 mm | AWG NO.24 | 194 | 383 | 492 | 633 | 946 | 1532 |
| 0.455 mm | AWG NO.25 | 247 | 483 | 621 | 798 | 1193 | 1932 |
| 0.404 mm | AWG NO.26 | 312 | 613 | 788 | 1013 | 1513 | 2451 |
| 0.361 mm | AWG NO.27 | 393 | 768 | 986 | 1268 | 1895 | 3069 |
| 0.320 mm | AWG NO.28 | 498 | 972 | 1256 | 1614 | 2411 | 3906 |

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Contact us

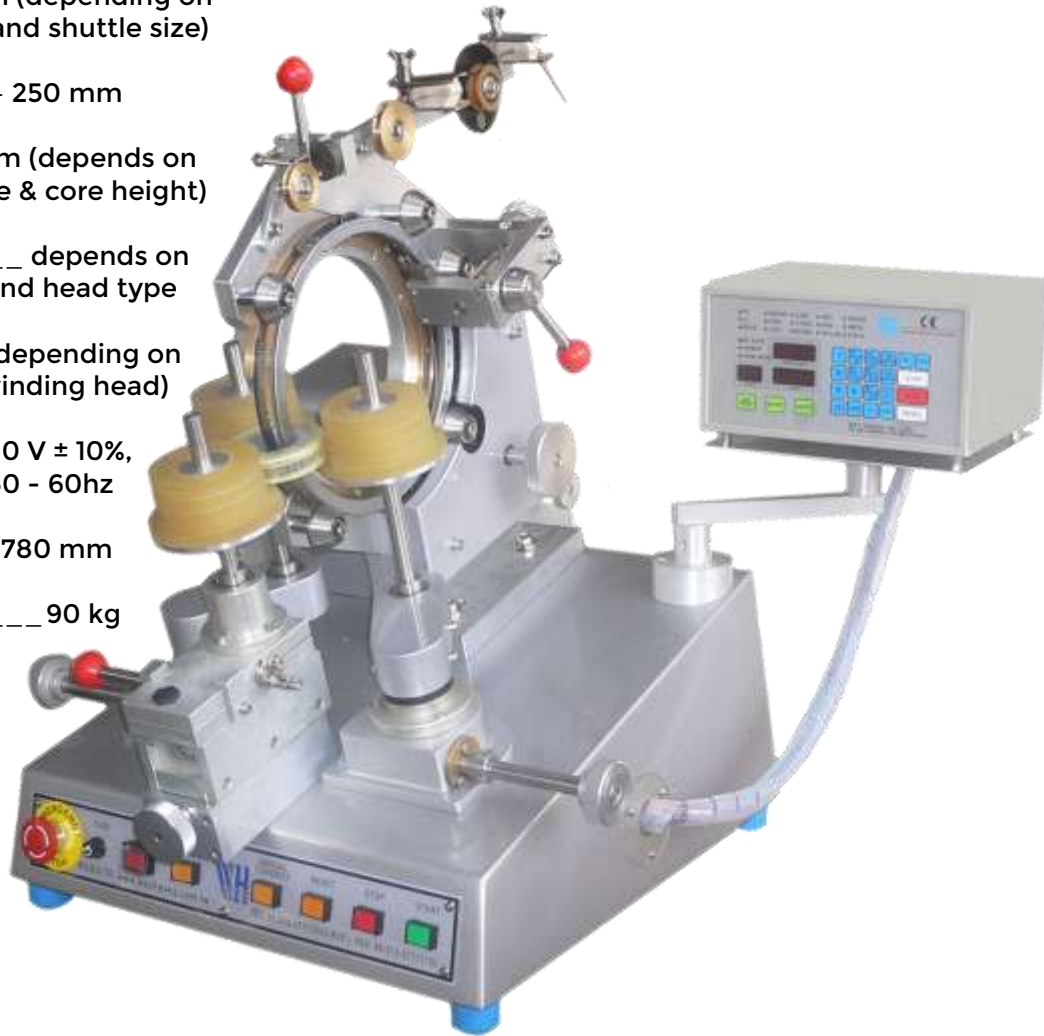
Tel: +44 (0) 1684 273164

Email: enquiry@ingridwest.co.uk

WH 300 TOROID WINDING / TAPING MACHINE

SPECIFICATION

- Program** TWC-01 digital controller holds up to 999 program sequences
- Control** DC 400 W spindle motor with stepping motor for spreading
- Features** Choice of three Gear type winding heads & three taping heads, fully controllable spreading
- Package** Includes base, core rotator, head and your first shuttle
- Wire size** _____ 0.5 - 2.6 mm (depending on _____ machine head type and shuttle size)
- O D Range** _____ 40 - 250 mm
- Min finished I D** _____ 25 mm (depends on _____ shuttle size & core height)
- Min wire size** _____ depends on _____ shuttle size and head type
- Max speed** _____ 250 rpm (depending on _____ winding head)
- Power** _____ AC 230 /110 V ± 10%, _____ 50 - 60hz
- Dims** _____ 690 x 630 x 780 mm
- Net weight** _____ 90 kg
- CE cert. no.** 1377-CI32017.R1



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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| HEAD TYPE | G10S WINDING | G10B WINDING | G13 WINDING | T10S TAPING | T10B TAPING | T13 TAPING |
|---|---|---|---|---|---|---|
| PICTURE |  |  |  |  |  |  |
| COIL O.D. | 40~150 mm | 60~150 mm | 80~250 mm | 40~150 mm | 60~150 mm | 80~250 mm |
| MIN.FIN. I.D. | 25 mm | 35 mm | 45 mm | 25 mm | 35 mm | 45 mm |
| MAX. HEIGHT | 80 mm | 80 mm | 120 mm | 80 mm | 80 mm | 120 mm |
| WIRE SIZE | 0.5~1.5 mm | 0.5~2.2 mm | 0.5~2.6 mm | - | - | - |
| SHUTTLE DIA. | 250 mm | 250 mm | 350 mm | 250 mm | 250 mm | 350 mm |
| SHUTTLE TYPE | 8, 12, 16, 20, 25 | 8, 12, 16, 20, 25 | 11, 14, 17 20, 23, 26 | TAPE WIDTH 4~8 mm | TAPE WIDTH 8~15 mm | TAPE WIDTH 12~25 mm |
| Min. Finished I.D. Will be different by shuttle size and coil height. | | | | | | |

SHUTTLE WIRE CAPACITY CHART (FEET)
1 FOOT=304.8mm

| SHUTTLE WIDTH - MM | G10S | | | | | G10B | | | | | G13 | | | | | |
|------------------------|------|-----|-----|-----|------|------|-----|------|------|------|------|------|------|------|------|------|
| | 8 | 12 | 16 | 20 | 25 | 8 | 12 | 16 | 20 | 25 | 11 | 14 | 17 | 20 | 23 | 26 |
| Approx Min Finished ID | 25 | 29 | 33 | 38 | 42 | 35 | 39 | 43 | 48 | 52 | 45 | 48 | 51 | 54 | 57 | 60 |
| 2.590mm AWG 10 | | | | | | | | | | | 68 | 95 | 124 | 153 | 182 | 211 |
| 2.300mm AWG 11 | | | | | | 17 | 34 | 51 | 68 | 88 | 86 | 122 | 158 | 194 | 231 | 267 |
| 2.050mm AWG 12 | | | | | | 21 | 42 | 63 | 84 | 109 | 107 | 153 | 199 | 245 | 291 | 337 |
| 1.830mm AWG 13 | | | | | | 27 | 54 | 81 | 108 | 140 | 134 | 192 | 249 | 307 | 365 | 422 |
| 1.630mm AWG 14 | 19 | 38 | 57 | 76 | 99 | 34 | 68 | 102 | 136 | 177 | 169 | 242 | 314 | 387 | 460 | 532 |
| 1.450mm AWG 15 | 24 | 48 | 72 | 96 | 125 | 42 | 84 | 126 | 168 | 218 | 214 | 306 | 398 | 490 | 581 | 672 |
| 1.290mm AWG 16 | 31 | 62 | 93 | 124 | 161 | 53 | 106 | 156 | 212 | 276 | 270 | 386 | 502 | 618 | 734 | 850 |
| 1.151mm AWG 17 | 39 | 78 | 117 | 156 | 203 | 67 | 134 | 201 | 268 | 348 | 339 | 485 | 631 | 777 | 922 | 1067 |
| 1.024mm AWG 18 | 49 | 98 | 147 | 196 | 255 | 84 | 168 | 252 | 336 | 437 | 429 | 613 | 797 | 981 | 1165 | 1349 |
| 0.912mm AWG 19 | 61 | 122 | 183 | 244 | 317 | 107 | 214 | 321 | 428 | 556 | 541 | 773 | 1004 | 1237 | 1469 | 1700 |
| 0.813mm AWG 20 | 77 | 154 | 231 | 308 | 400 | 135 | 270 | 405 | 540 | 702 | 680 | 973 | 1265 | 1556 | 1848 | 2139 |
| 0.724mm AWG 21 | 97 | 194 | 291 | 388 | 504 | 170 | 340 | 510 | 680 | 884 | 859 | 1227 | 1594 | 1962 | 2330 | 2698 |
| 0.643mm AWG 22 | 123 | 246 | 269 | 492 | 640 | 220 | 440 | 660 | 880 | 1144 | 1088 | 1555 | 2021 | 2488 | 2954 | 3421 |
| 0.574mm AWG 23 | 155 | 310 | 465 | 620 | 806 | 275 | 550 | 825 | 1100 | 1430 | 1366 | 1951 | 2536 | 3122 | 3707 | 4292 |
| 0.511mm AWG 24 | 195 | 390 | 585 | 780 | 1014 | 350 | 700 | 1050 | 1400 | 1820 | 1724 | 2462 | 3200 | 3939 | 4677 | 5416 |

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COIL WINDING SOLUTIONS YOU CAN RELY ON

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WH 900 T6 TOROID TAPING MACHINE

SPECIFICATION

- Program** TWC-01 digital controller holds up to 999 program sequences
- Control** DC 400 W spindle motor with stepping motor for spreading
- Package** Includes base, core rotator, Taping head and your first shuttle
- Tape Width** _____ 4 mm - 10 mm
_____ (depends on shuttle Width)
- O D Range** _____ 8 - 60 mm
- Min finished I D** _____ 15 mm (depends on shuttle size & core height)
_____ 45mm Max. Height
- Shuttle Dia** _____ 150 mm
- Max speed** _____ 300 rpm
_____ (depending on winding head)
- Power** _____ AC 230 /110 V ± 10%,
_____ 50 - 60 Hz
- Dims** _____ 780 x 780 x 1250 mm
- Net weight** _____ 90 kg
- CE cert. no.** _____ 1377-CI-32017.R1



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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WH 300 G7 TOROID WINDING MACHINE

SPECIFICATION

| | |
|-------------------------|---|
| Program | TWC-01 digital controller holds up to 999 program sequences |
| Control | DC 400 W spindle motor with stepping motor for spreading |
| Features | The Gear type winding heads was designed for winding small coil with precise winding requirement. |
| Package | Includes base, core rotator, head and your first shuttle |
| Wire size | _____ 0.5 - 2.6 mm (depending on shuttle size) |
| O D Range | _____ 28 - 80 mm |
| Min finished I D | _____ 15 mm (depends on shuttle size & core height) |
| Shuttle Dia. | _____ 175 mm |
| Max speed | _____ 300 rpm |
| Power | _____ AC 230 /110 V ± 10%, 50 - 60 Hz |
| Dims | _____ 690 x 630 x 780 mm |
| Net weight | _____ 85 kg |
| CE cert. no. | _____ 1377-CI-32017.R1 |



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COIL WINDING SOLUTIONS YOU CAN RELY ON

WH 200 HOOK WINDER

SPECIFICATION

Program Digital controller capable of holding data for 999 winding operations, Fully programmable pitch per turn (wire spacing). Start position, winding direction and segment winding angle programmable.
In semi-automatic mode, hold-time is programmable at top and bottom of stroke

Control Pneumatically operated hook
Mechanically adjustable stroke length
Turns counted digitally

Full control of core rotation using stepping motor

Package Includes full height cabinet, digital controller and one hook
Air cylinder, filter & regulator;
stepper motor system

Hook sizes ___ 3 standard hook sizes, with
_____ specials available

Wire size _____ 0.3 ~ 2.2 mm

O.d. range _____ 15 ~ 80 mm

Air supply _____ Typically 5 Bar

Power supply _ AC 230 /110 V ± 10%, 50 - 60 Hz

Dimensions _____ 70 x 55 x 150 cm

Hook data

| Hook type | H5 | H8 | H10 |
|-------------------|------|-------|-------|
| Hook size | 5 mm | 8 mm | 10 mm |
| Min. finished i.d | 8 mm | 11 mm | 14 mm |



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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HOOK WINDER SKS "PULLWINDER"

Pneumatically driven needle hook

Package Bench mounting base and one hook, Air cylinder, filter & regulator with pneumatic foot pedal

Hook sizes _____ 3 standard hook sizes
_____ -with specials available

Wire Range _____ 0,2 ~ 3.5 Ø mm

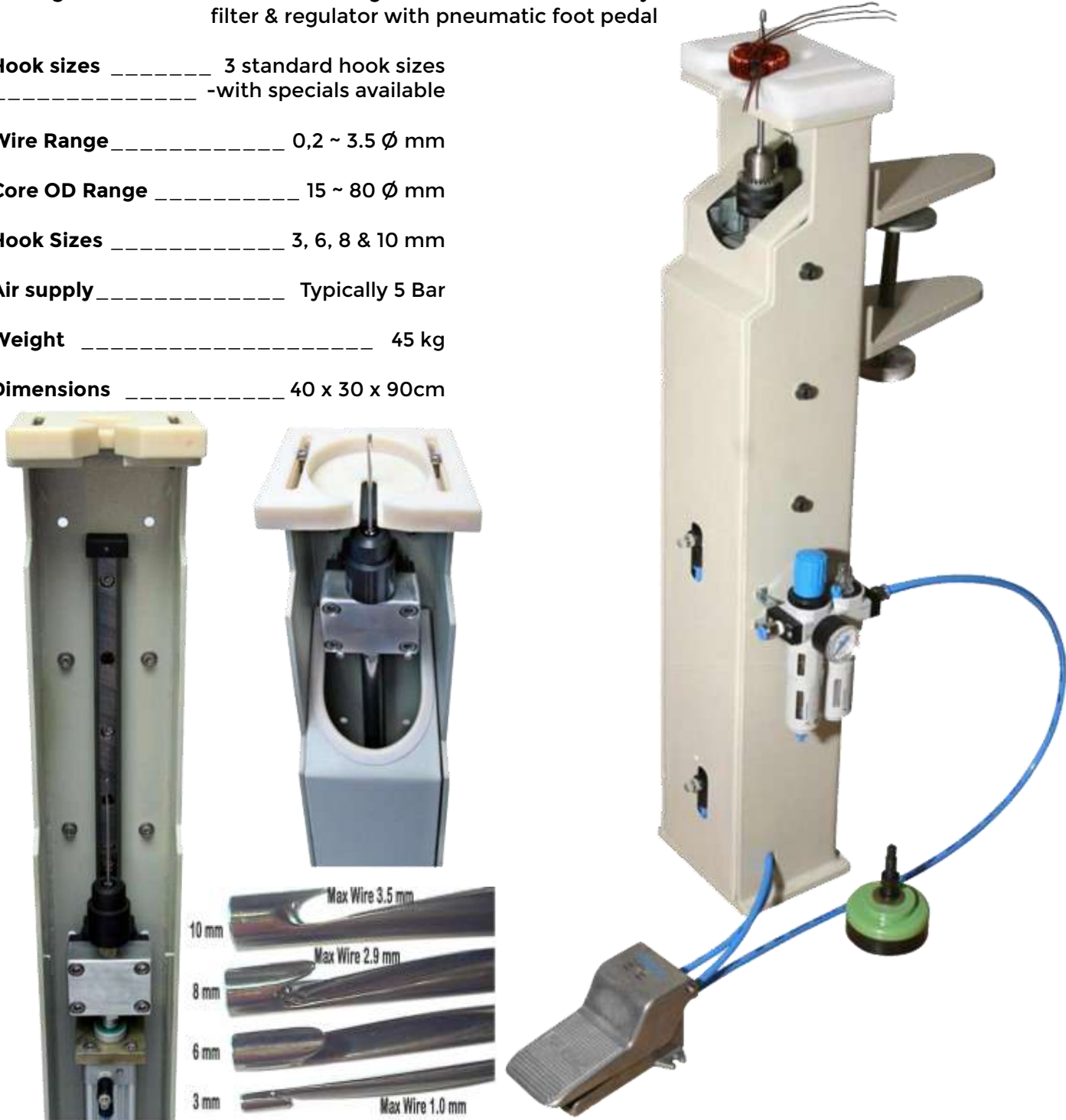
Core OD Range _____ 15 ~ 80 Ø mm

Hook Sizes _____ 3, 6, 8 & 10 mm

Air supply _____ Typically 5 Bar

Weight _____ 45 kg

Dimensions _____ 40 x 30 x 90cm



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COIL WINDING SOLUTIONS YOU CAN RELY ON

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Email: enquiry@ingridwest.co.uk

Hook winder with 3 stroke dimensions:

| Type | SKS 50-200 | SKS 50-320 | SKS 50-400 |
|------------------------|--------------------|------------|------------|
| Height mm ca. | 920 | 1160 | 1280 |
| Wire range | ø0,2 mm to ø3,5 mm | | |
| Coil diameter (OD MAX) | ø15 mm ~ ø150 mm | | |
| Air supply | 8 bar | 8 bar | 8 bar |
| Cylinder Festo | DNC-50-200 | DNC-50-320 | DNC-50-400 |



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TAPE WINDER - "AIR JET"

The Air jet is a rapid way to tape small Toroidal cores, giving machine wound repeatability and quality on every product run.



- Cutting length between 20-999 mm
- Tape width from 7mm up to 50 mm

Simple operation process...

Place the core



Hold tape over top of toroid



With the help of "Air Jet", the tape will be pushed through the core, after that, we have to bring the tape over the top of the toroid to produce the wound tape turns...

The finished taped core



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COIL WINDING SOLUTIONS YOU CAN RELY ON

WINDING SHOP FLOOR PRODUCTION AIDS



Working with local partners throughout Europe



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COIL HANDLING / PACKING TRAYS

Damage, rework and scrap currently adds to manufacturing costs, making companies uncompetitive in World markets. Prevention is the key; maintain the conformance of each part by using good work handling practices.

A range of standard containers available for protection of precision components. We can also create customised containers to protect even the most complex shapes and sizes. These are precision moulded to offer smart presentation and protection, especially ideal for transportation of coils. Made from High density EPS, these trays very light (55 grams / Litre) whilst still very strong means they can be used again and again and again...

Features and benefits include:

EXCELLENT PROTECTION:

Prevent accidental impact, Protection from contamination / oil, Thermal properties protect from extreme temperatures. Protection when shipped to and from subcontractors

PRECISION MOULDED:

Smart presentation and good part location

PARTS SEGREGATION:

Reduces transit damage and rework. Up to 250 stock sizes / types available, however this method of tray production results in LOW tooling costs, meaning we can produce new designs to exactly match your product / assembly... Option available for foam lined base for use with PCB / Pin type bobbins.

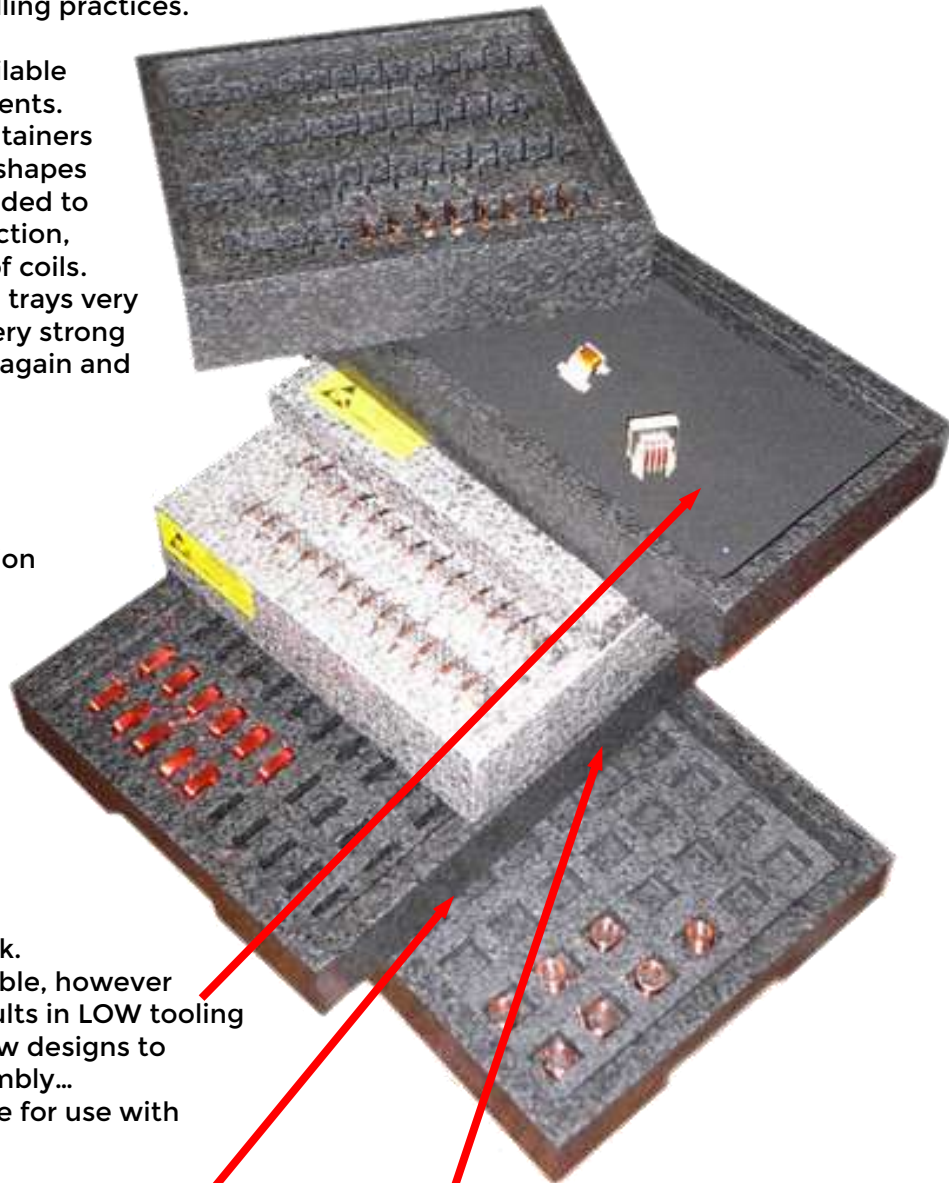
CONDUCT-A-PAK:

Option for material to be static/electrical compliant
STACKABILITY:

Fitted lids are available to make trays stackable to minimise storage costs

PRODUCT ENHANCEMENT:

Can be made with embossed company logo for clear identification. Available in range of colours, either to support corporate identity or for product coding



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CREATE YOUR OWN DESIGN

For simple Box section cavity designs, please fill in the following form, and return to us, we will then be able to make a quotation.

Name _____ Company _____

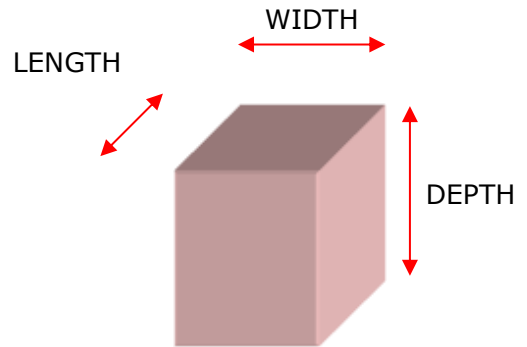
E-mail _____ Phone _____

Compartment / Cavity size

LENGTH _____ MM

WIDTH _____ MM

DEPTH _____ MM



Tray size

Column across _____ PIECES

Rows Down _____ PIECES

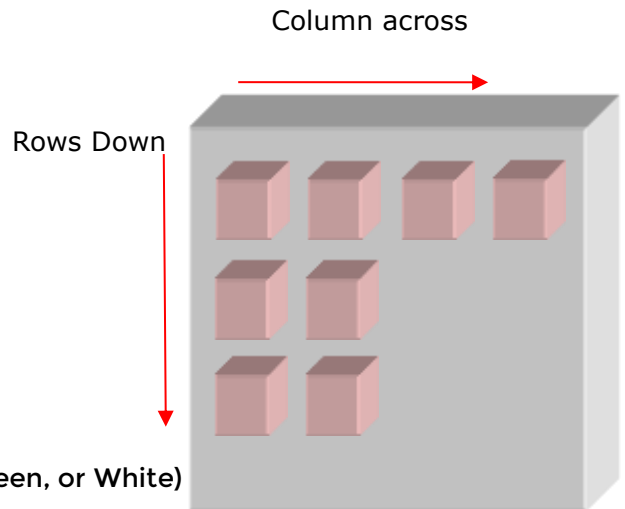
Options

Tray Lid required YES / NO (allows stacking)

Antistatic material YES / NO

Colour: (Black, Blue, Brown, Yellow, Olive Green, or White)

Number of trays required _____ PIECES



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COIL WINDING SOLUTIONS YOU CAN RELY ON

Contact us

Tel: +44 (0) 1684 273164

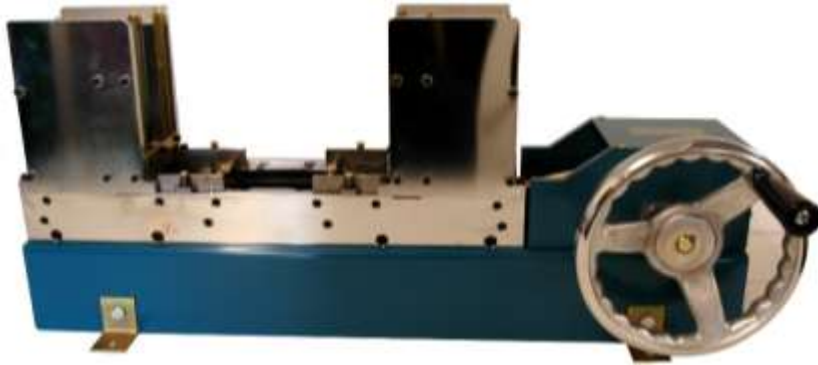
Email: enquiry@ingridwest.co.uk

E I LAMINATION STACKING MACHINES



These machines stack standard EI laminations in a wide range of sizes, from EI-19 to EI-180 & UI & EE ranges.

Other sizes are available; please contact us to discuss your requirements.



Laminations of 0.35 mm to 0.5 mm thick are stacked at up to 300 pieces per minute, manually or automatically, with full interleaving.

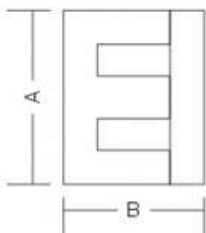
Standard range, manual: -

| | | | | | | | | | |
|----------|---------|----------|--------|--------|-------------|---------|----------|---------|--------|
| EI-19 | EI-24 | EI-25.4 | EI-28 | EI-30 | EI-35 | EI-36 | EI-38 | EI-41 | EI-42 |
| EI-43 | EI-48 | EI-54 | EI-57 | EI-60 | EI-66 | EI-66.7 | EI-75 | EI-76.2 | EI-78 |
| EI-84 | EI-85.8 | EI-96 | EI-105 | EI-114 | EI-4.5-3.75 | EI-120 | EI-133.2 | EI-135 | EI-150 |
| EI-152.4 | EI-162 | EI-6 3/8 | EI-171 | EI-180 | EI-196 | | | | |

Standard range, automatic: -

| | | | | | | | | | |
|---------|---------|-------|--------|--------|----------|----------|--------|--------|---------|
| EI-36 | EI-38 | EI-41 | EI-42 | EI-43 | EI-54 | EI-57 | EI-60 | EI-66 | EI-66.7 |
| EI-76.2 | EI-85.8 | EI-96 | EI-105 | EI-114 | EI-133.2 | EI-152.4 | EI-162 | EI-196 | |

Other sizes & OEM laminations available to order.



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COIL WINDING SOLUTIONS YOU CAN RELY ON

RANGE OF WIRE STRIPPING MACHINES


We offer three types of enamel Wire removal systems, the choice between them mainly depends of wire size and application.

| Features | Wire Range (mm) | Stripping | Dimensions (mm) | Product Picture |
|----------|-----------------|-----------|-----------------|-----------------|
|----------|-----------------|-----------|-----------------|-----------------|


WH-S03

| | | | | |
|--|-----------|--|--------------------|---|
| <p>A fast and inexpensive method of wire stripping, Removal of enamel coating on copper wire with automatic dust collection</p> <p>In-feed length - 1.7 mm - how close the machine can strip from coil body</p> <p>Tooling - Five blades to remove wire enamel</p> | 0.4 - 3.0 | <p>Single wire only</p> <p>(round)</p> <p>5 Knife Blades</p> | 280L * 160W * 200H |  |
|--|-----------|--|--------------------|---|

WH-S02

| <p>Removal of enamel coating on copper wire with fine adjustability for small wire diameters</p> <p>In-feed length - 2.7 mm - how close the machine can strip from coil body</p> <p>There are 2 Fiberglass wheels types available, each suited to a specific wire range.</p> <table border="1"> <thead> <tr> <th>Size</th> <th>Recommended wire range</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.18 mm to 0.40 mm</td> </tr> <tr> <td>0</td> <td>0.03 mm to 0.16 mm</td> </tr> </tbody> </table> | Size | Recommended wire range | 1 | 0.18 mm to 0.40 mm | 0 | 0.03 mm to 0.16 mm | Max 0.4 | <p>Single wire only</p> <p>2 Fiberglass wheels</p> | 280L * 160W * 200H |  |
|--|------------------------|------------------------|---|--------------------|---|--------------------|---------|--|--------------------|--|
| Size | Recommended wire range | | | | | | | | | |
| 1 | 0.18 mm to 0.40 mm | | | | | | | | | |
| 0 | 0.03 mm to 0.16 mm | | | | | | | | | |

WH-S01

| <p>To strip the wire, simply insert the end of the enamelled wire, turn by 90 degrees and then remove the stripped wire.</p> <p>There are 3 brush types available, each suited to a specific wire range.</p> <table border="1"> <thead> <tr> <th>P/N</th> <th>Wire range</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>S01-0.06 mm</td> <td>0.1 mm - 0.2 mm</td> <td>Steel brushes with 0.06 mm wire - Set of two</td> </tr> <tr> <td>S01-0.1 mm</td> <td>0.2 mm - 0.3 mm</td> <td>Steel brushes with 0.1 mm wire - Set of two</td> </tr> <tr> <td>S01-0.2 mm</td> <td>> 0.3 mm</td> <td>Steel brushes with 0.2mm wire - Set of two</td> </tr> </tbody> </table> | P/N | Wire range | Description | S01-0.06 mm | 0.1 mm - 0.2 mm | Steel brushes with 0.06 mm wire - Set of two | S01-0.1 mm | 0.2 mm - 0.3 mm | Steel brushes with 0.1 mm wire - Set of two | S01-0.2 mm | > 0.3 mm | Steel brushes with 0.2mm wire - Set of two | 2.0 - 8.0 | <p>Single & Litz wire</p> <p>2 Brush wheels</p> | 390L * 180W * 180H |  |
|---|-----------------|--|-------------|-------------|-----------------|--|------------|-----------------|---|------------|----------|--|-----------|---|--------------------|---|
| P/N | Wire range | Description | | | | | | | | | | | | | | |
| S01-0.06 mm | 0.1 mm - 0.2 mm | Steel brushes with 0.06 mm wire - Set of two | | | | | | | | | | | | | | |
| S01-0.1 mm | 0.2 mm - 0.3 mm | Steel brushes with 0.1 mm wire - Set of two | | | | | | | | | | | | | | |
| S01-0.2 mm | > 0.3 mm | Steel brushes with 0.2mm wire - Set of two | | | | | | | | | | | | | | |

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COIL WINDING SOLUTIONS YOU CAN RELY ON

Page 86

Contact us

Tel: +44 (0) 1684 273164

Email: enquiry@ingridwest.co.uk

IWM-LD ELECTRONIC LABEL DISPENSER

SPECIFICATION & FEATURES

- Ideal for small labels and small work areas
- Will dispense labels and die-cut parts
- Photosensor Accuracy and Reliability
- Automatically removes paper, vinyl, acetate, polyester, foil, etc from its liner
- Automatically rewinds liner scrap for a cleaner working environment
- Liner scrap is easily removed
- No maintenance required
- Adjustable strip plate for hard-to-release labels
- High Torque Motor for large diameter label roll
-



| | | |
|---------------|-------|---------------------------------------|
| Label counter | ----- | 0-999999 pcs |
| Roll ID (min) | ----- | 25 mm |
| Roll OD (max) | ----- | 250 mm |
| Label Length | ----- | 3 to 150 mm |
| Label Width | ----- | 4 to 140 mm |
| Feed Speed | ----- | 16 - 130 mm/Sec - adjustable via dial |
| Power supply | ----- | 110 / 220 / 240 VAC 50 / 60 Hz |
| Dimensions | ----- | 210L x 210W x 220H |
| Weight | ----- | 4.5 kg |

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IWM TAPING SOLUTIONS

TAPE - CUT TO LENGTH MACHINES

| Model | IWM1000 | IWM025 | IWM006 |
|------------------|---|--|---|
| Characteristics |  |  |  |
| Cutting Length | 30 mm to 999 mm | 12 to 60 mm | 40 mm to 999 mm |
| Tape Width | 7 mm to 50 mm | 3 mm to 25 mm | 15 mm to 80 mm |
| Power | AC 230 / 110 V ± 10%, 50 - 60 Hz | | |
| Dimensions (mm) | 218 * 137 * 150 | 300 * 160 * 160 | 166 * 245 * 243 |
| Net weight (kgs) | 2.5 | 2.96 | 9.4 |

| Model | IWM009 | IWM870 | IWMLD |
|------------------|---|--|---|
| Characteristics |  |  |  |
| Cutting Length | 5 mm to 999 mm | 15 to 70 mm | 40 mm to 999 mm |
| Tape Width | 6 mm to 60 mm | 3 mm to 25 mm | 15 mm to 80 mm |
| Power | AC 230 / 110 V ± 10%, 50 - 60 Hz | | |
| Dimensions (mm) | 218 * 137 * 150 | 300 * 160 * 160 | 166 * 245 * 243 |
| Net weight (kgs) | 2.5 | 2.96 | 9.4 |

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WH-TP01 CORE TAPING MACHINE

SPECIFICATION

- Features:** Automatic taping with bobbin change-over. Tape cutter with start and finish wiper and automatic unload. 2 handed start button operation. Number of turns of tape is programmable from 1 to 9 turns.
- Cycle time:** Typically 3 seconds per bobbin for 2 turns of tape, cut and auto unload.
- Application:** Taping of ferrite cores, EI laminations and wound coils.



| | |
|---------------------------|---------|
| Bobbin range / sizes | WH-TP01 |
| Ferrite core taping (Max) | EI-48 |
| Ferrite core taping (Min) | EI-16 |
| Insulation taping (Max) | EI-61 |

Min. Bobbin Size: 12 mm of wound coil cross section.

Supply reel dia.: 76 mm I.D standard - other sizes available.

Changeable Parts: Tape roller attachment, winding jigs (tooling), cutter and wiper fixture
..... safety cover, tape backing removal feature.

Tape width (Max): 50 mm

Power supply: 110 / 220 / 240 VAC 50 / 60 Hz.

Dimensions: 600 L * 350 W * 300 H

Net weight: 33 kg

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TENSIONER METERS

| Model No. | Range | Resolution | Tension Units | Copper Wire |
|-----------|----------|------------|-----------------|--------------------------------|
| TX-1-125 | 0-125g | 0.1 to 1g | cN, grams or lb | 54 - 37 AWG .01 - .11 mm |
| TX-1-1000 | 10-1000g | 1 to 5g | N, grams or lb | 40 - 32 AWG .08 mm - .20 mm |
| TX-1-5000 | 50-5000g | 5 to 10g | N, grams or lb | 40-28 AWG .08 mm - .30 mm |

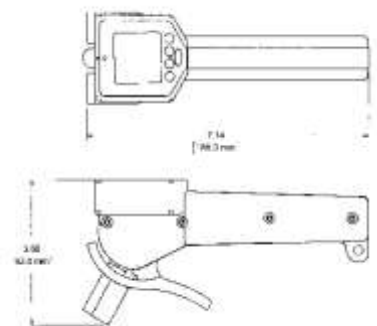
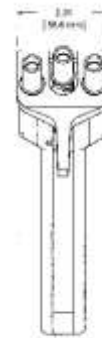


Large, easy to read backlit, graphic display with adjustable backlighting and contrast. Data Logging feature included; Capture and view data within a user-defined time window. Select the time window; then select the sampling rate (from 1-100 Hz).

- Active, colour changing Bar Graph
- Select Material and Size. Instrument automatically adjusts the calibration
- Minimum and Maximum values

S - Speed and Length Option

Indicate real-time speed in FPM, or MPM. Maximum measurable speed is 9,999 FPM or 9,999 meters per minute, however line speeds in excess of 2,000 FPM are generally unsafe for hand-held applications. Read length of part run in feet or meters. Maximum length measuring up to 9,999 meters or feet.



A - Analog Output Option

Analog Output Option for both speed and tension values. 0-5 VDC or 4-20 mA with software-definable ending sequences. Provided with 10' cable. Data outputted at 40 Hz.

E - RS-232 Serial Output Option

Provided with 10' cable to interface with your receiving device. Select data sampling rate from 1, 2 or 5 Hz. After capturing the data, review the data on the instrument's display or upload it using the 10' serial interface cable.



| | |
|---|-----|
| 1 | 175 |
| 2 | 180 |
| 3 | 185 |
| 4 | 215 |
| 5 | 210 |
| 6 | 200 |
| 7 | 175 |

Order code:- [Model number] + [options]
e.g. tx-1-1000-S-E

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DIGITAL TENSIONER DISPLAY



B500 / TD-J1000 tension measurement indicators can be mounted on a winding machine independently of the tension unit for real-time measurements, easy installation features, access to DC24V power required.

E1000 This tension monitor tension values, in addition to real-time display, its highlight feature is the ability to connect to the computer, gathering accurate records through the PC software, you can carry out after the required data analysis or set the alarm. This software can work simultaneously detecting / recording 100 measuring points, to enhance the quality of your wound product.

- Direct display of real time measurement reading
- Wide tension range
- Independent operation ; for single or multi-spindle applications.
- Compact design, simple operation.

Accuracy: _____ +/- 1% FS
 Power: _____ 24V DC (external power sources required.)
 Dimensions: _____ 25 (W) x 140 mm (H) x 45 mm (D)
 Weight: _____ 102g



Range Options

| Model | Range | Resolution | Features |
|----------|----------|------------|---|
| B500 | 3g-500g | 0.5g | Real-time display of tension / plastic housing |
| J1000 | 3g-1000g | 1g | Real-time display of tension / aluminium alloy housing |
| ** E1000 | 3g-1000g | 2g | Tension computer records the data real-time display / aluminium alloy shell |

Order code:- [Model number] + [MAX tension]
 e.g. TD-J1000

**** Available soon**

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CERAMIC ROLLER GUIDES



| Part No. | Dimensions in mm | | | |
|-----------|------------------|----|------|-----|
| | A | B | C | H |
| IWM1001 | 20 | 15 | 3.0 | 5 |
| IWM1002 | 29 | 20 | 4.0 | 6.5 |
| IWM1003 | 30 | 15 | 3.0 | 10 |
| IWM1004 | 40 | 20 | 4.0 | 15 |
| IWM1005-6 | 45 | 30 | 6.0 | 10 |
| IWM1006 | 60 | 38 | 8.0 | 13 |
| IWM1008 | 79.2 | 50 | 10.0 | 15 |

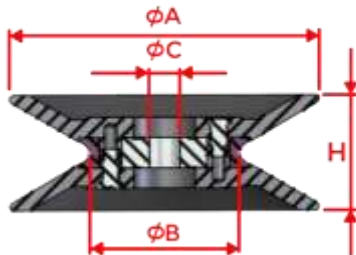
Our ceramic roller guides are made from fine Alumina (Al₂O₃), which provides excellent resistance to wear and reduces heat and friction.

The ceramic surfaces are polished to a mirror finish in order to reduce friction to a minimum.

The ceramic ring is enclosed in plastic flanges to reduce weight and inertia; the core of the ceramic part is mounted onto a precision bearing to optimise performance.

These rollers are normally used for guiding the wire during coil winding operations, but also have many applications in the wire manufacturing and textile industries.

Standard stock sizes are highlighted in **green**; all other sizes are available subject to minimum order quantities.



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COIL WINDING SOLUTIONS YOU CAN RELY ON

CERAMIC CAPTIVE ROLLERS

Our ceramic captive rollers are made from fine Alumina (Al_2O_3), which provides excellent resistance to wear and reduces heat and friction.

The ceramic surfaces are polished to a mirror finish in order to reduce friction to a minimum.

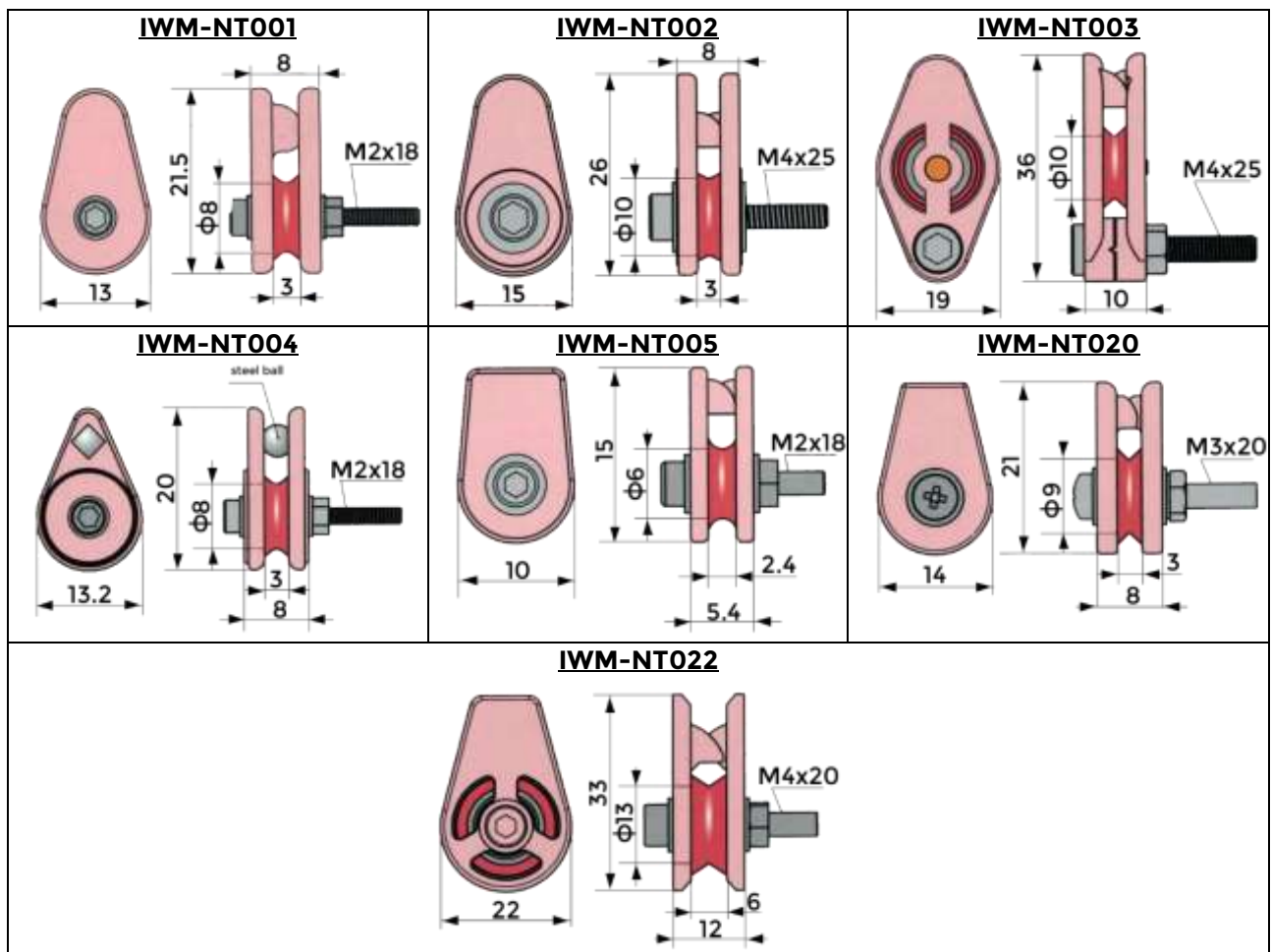
The wire jump preventer is used in instances in which there are radical changes in direction and prevents wire jumping out of the pulley during winding processes.

There is a high speed bearing within the pulley's porcelain circle which keeps the sliding distance between the enamelled wire and the OD under 0.2 mm.

Normally used for guiding the wire during coil winding operations, but also have many applications in the wire manufacturing and textile industries.

| Part No. | Weight (g) |
|-----------|------------|
| IWM-NT001 | 4 |
| IWM-NT002 | 10 |
| IWM-NT003 | 14 |
| IWM-NT004 | 4 |
| IWM-NT005 | 2 |
| IWM-NT020 | 4 |
| IWM-NT022 | 12 |

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CERAMIC EYELET GUIDES AND GROMMETS

| Part No | Dimensions in mm | | | | |
|---------|------------------|------|-----|------|-----|
| | A | B | C | D | E |
| IW-001 | 4.5 | 2.8 | 1.0 | 3.0 | 1.0 |
| IW-002 | 5.0 | 3.5 | 2.4 | 3.6 | 1.0 |
| IW-003 | 6.8 | 4.7 | 2.6 | 3.3 | 1.3 |
| IW-004 | 10.0 | 7.2 | 4.8 | 8.8 | 1.7 |
| IW-005 | 10.0 | 7.0 | 4.8 | 8.8 | 1.7 |
| IW-006 | 11.0 | 8.0 | 3.7 | 9.2 | 3.0 |
| IW-007 | 7.8 | 5.2 | 3.0 | 5.5 | 1.5 |
| IW-008 | 9.2 | 7.0 | 4.5 | 8.0 | 2.0 |
| IW-009 | 6.0 | 4.2 | 2.6 | 3.2 | 1.2 |
| IW-010 | 10.2 | 6.2 | 4.2 | 10.0 | 2.0 |
| IW-011 | 9.7 | 7.0 | 4.0 | 9.0 | 2.0 |
| IW-012 | 6.0 | 3.8 | 2.0 | 3.6 | 1.0 |
| IW-013 | 7.0 | 3.8 | 2.0 | 4.0 | 1.5 |
| IW-014 | 7.7 | 6.0 | 3.4 | 6.0 | 2.0 |
| IW-015 | 6.0 | 4.5 | 2.0 | 5.0 | 1.5 |
| IW-016 | 12.0 | 10.0 | 7.0 | 8.3 | 2.0 |
| IW-017 | 12.0 | 9.0 | 5.5 | 8.5 | 1.5 |
| IW-018 | 5.5 | 4.0 | 1.8 | 4.3 | 1.3 |
| IW-019 | 5.9 | 4.3 | 2.0 | 5.0 | 1.5 |
| IW-020 | 6.2 | 3.7 | 1.7 | 5.0 | 1.0 |
| IW-021 | 13.0 | 9.0 | 4.3 | 7.0 | 2.0 |
| IW-022 | 10.0 | 6.8 | 4.2 | 10.0 | 2.0 |
| IW-023 | 14.0 | 10.0 | 6.5 | 9.8 | 3.0 |
| IW-024 | 15.3 | 11.8 | 7.5 | 10.0 | 3.0 |
| IW-025 | 12.0 | 10.0 | 7.1 | 6.0 | 2.0 |
| IW-026 | 6.5 | 4.9 | 3.3 | 6.5 | 1.5 |
| IW-027 | 7.8 | 6.0 | 3.4 | 4.8 | 1.8 |
| IW-028 | 4.2 | 3.0 | 2.0 | 5.0 | 1.0 |
| IW-029 | 4.2 | 3.0 | 1.0 | 4.0 | 1.0 |
| IW-030 | 5.9 | 4.0 | 2.0 | 8.0 | 1.2 |
| IW-031 | 7.8 | 6.0 | 3.5 | 8.0 | 1.6 |
| IW-032 | 17.7 | 12.8 | 7.0 | 18.7 | 3.0 |
| IW-033 | 14.0 | 10.4 | 6.6 | 18.0 | 2.5 |
| IW-034 | 11.7 | 9.5 | 5.5 | 8.2 | 2.4 |
| IW-035 | 12.0 | 9.6 | 6.2 | 10.5 | 2.1 |
| IW-090 | 8.0 | 5.4 | 2.5 | 5.5 | 1.5 |

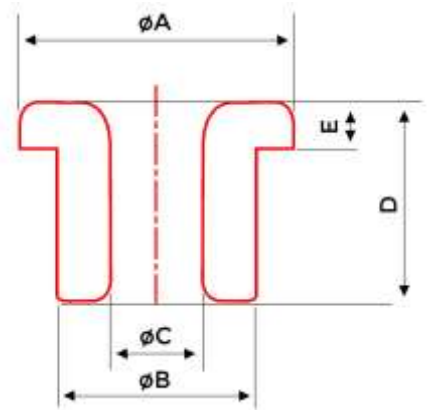


Our ceramic eyelet guides are made from fine Alumina (Al₂O₃), which provides excellent resistance to wear from heat and friction.

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These eyelets are normally used for guiding the wire during coil winding operations, but also have many applications in the wire manufacturing and textile industries.

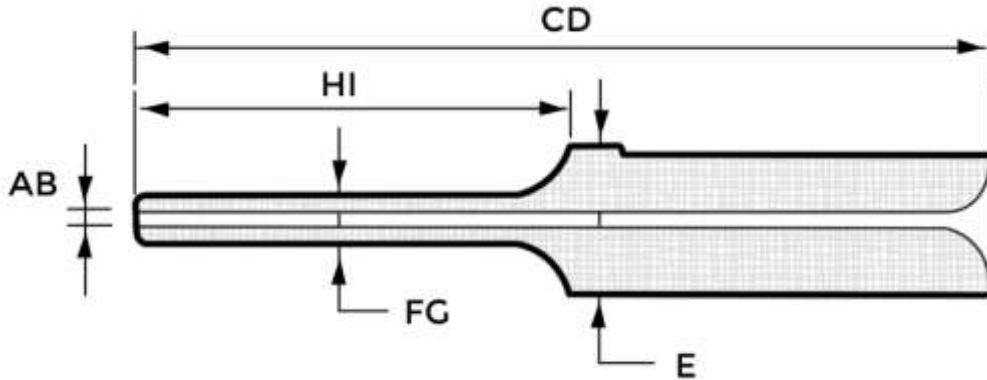
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COIL WINDING SOLUTIONS YOU CAN RELY ON

GUIDE TUBES - IWM STANDARD STOCK SIZES



Part number format
W ABCD-E-FGHI

How to specify the tube...

AB = Bore size in mm (12>1.2; 08>0.8; 03>0.3 etc..)

CD = Tube length in mm (30>30 mm; 45>45 mm etc..)

E = Tube OD in mm (030>3 mm is standard)

FG = Shank Diameter in mm (12>1.2; 08>0.8; 03>0.3 etc..)

HI = Shank Length in mm (15>15 mm; 06>6 mm etc..)



| Standard stock sizes | AB = Bore size | CD = Tube length | E = Tube OD | FG = Shank Diameter | HI = Shank Length |
|----------------------|----------------|------------------|-------------|---------------------|-------------------|
| W0230-030-0806 | 0.2 | 30 | 3 | 0.8 | 6 |
| W0330-030-0806 | 0.3 | 30 | 3 | 0.8 | 6 |
| W0530-030-1406 | 0.5 | 30 | 3 | 1.4 | 6 |
| W0830-030-2015 | 0.8 | 30 | 3 | 2.0 | 15 |
| W1030-030-2515 | 1.0 | 30 | 3 | 2.5 | 15 |
| W1230-030-2515 | 1.2 | 30 | 3 | 2.5 | 15 |
| W1530-030-2915 | 1.5 | 30 | 3 | 2.9 | 15 |

Custom guide tubes
- Made to order

We can produce a vast range of custom guide tubes, for many applications.

Simply send us your drawings for a competitive quote.

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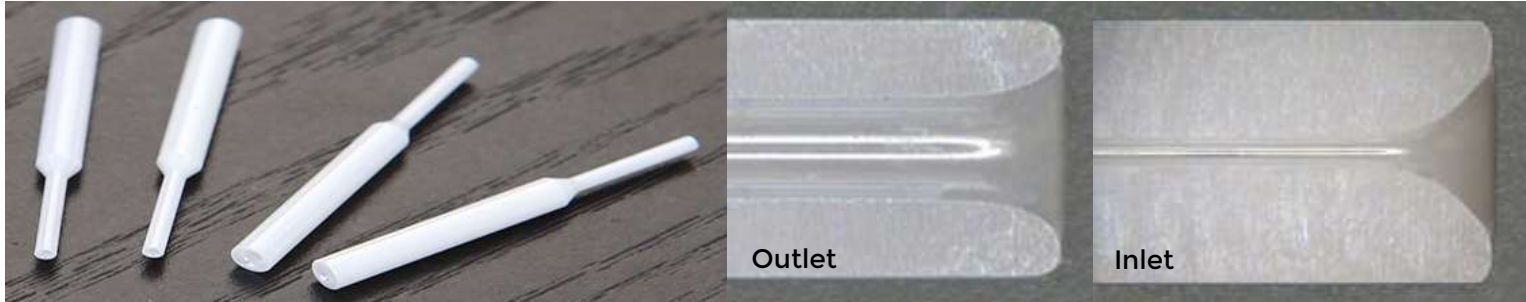


Contact us

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Email: enquiry@ingridwest.co.uk

SPECIAL CERAMIC GUIDE TUBES (NOZZLES)



Description:

The coil winding guide tube (or nozzle) is a vital component for high quality coil winding. Our ceramic guide tubes are made for advanced coil winding requirements. They are precision engineered for high speed winding with excellent accuracy, and minimise stress to the wire.

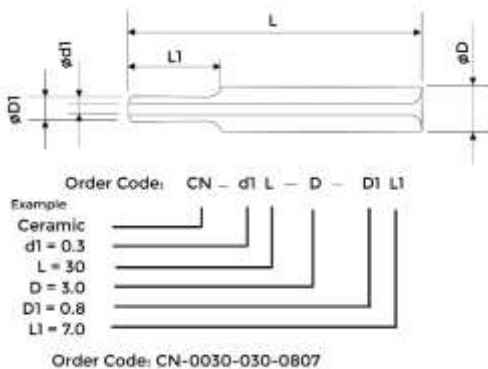
Advantages:

Precision: Concentricity between the clamping diameter and the outlet diameter is 0.01 mm. The inner bore diameter's tolerance is 0.01 mm - excellent for precision coil layering.

Minimum Friction: Made of a solid piece of high grade ceramic; there are no joints for easy threading, which also ensures a smooth path for wire travel. Every inner bore is fully polished. Both the inlet and outlet radius are carefully calculated, shaped and polished to a mirror finish to minimize stress to the wire.

High Wear Resistance: The characteristics of these ceramic guide tubes offer significant advantages over both tungsten carbide and ruby guide tubes. The special ceramics are harder than tungsten carbide and are more rigid than the stainless sleeve of ruby guide tubes.

Ordering Information:



| Part Number | d1 | L | D | D1 | L1 |
|------------------|-----|----|-----|-----|------|
| CN-0330-030-0807 | 0.3 | 30 | 3.0 | 0.8 | 7.0 |
| CN-0430-030-1010 | 0.4 | 30 | 3.0 | 1.0 | 10.0 |
| CN-0530-030-1010 | 0.5 | 30 | 3.0 | 1.0 | 10.0 |
| CN-0730-030-1410 | 0.7 | 30 | 3.0 | 1.4 | 10.0 |

We aim to be much more than a machinery supplier. Our team has a vast range of winding experience and is able to offer help and advice on all aspects of coil winding, from tooling design to machine choice and set-up.





COIL WINDING SOLUTIONS YOU CAN RELY ON

Contact us

Tel: +44 (0) 1684 273164

Email: enquiry@ingridwest.co.uk

OUR EUROPEAN PARTNERS

| PARTNER IN : | GERMANY | ROMANIA | SPAIN AND PORTUGAL | POLAND |
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| PARTNER IN: | AUSTRIA & SLOVENIA | HUNGARY | CZECH | SLOVAKIA |
|----------------|--|--|---|--|
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| Email | info.vie@komaxgroup.com | info.bud@thonauer.com | info.brn@komaxgroup.com | peter.ziska@komaxgroup.com |

| PARTNER IN: | The Netherlands | | | |
|----------------|--|--|--|--|
| Company |  | | | |
| Contact | Mr Martijn Stauthamer | | | |
| Postal address | Huibers Elektrotechnische Isolatiesystemen BV Haarbos 3 3953 HA Maarsbergen The Netherlands | | | |
| Phone | + 31 (0)343-461104 | | | |
| Email | martijn@huibers.info | | | |

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WORKING WITH LOCAL PARTNERS IN THE FOLLOWING COUNTRIES; Austria, Czech Republic, Germany, Hungary, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

Unit 5L, Delta Drive, Tewkesbury, Glos. GL20 8HB. United Kingdom.

