



# Motor Repair Equipment

## Designed and manufactured in the UK. Used across the world.

Rotary Engineering is a specialist UK engineering business with global reach. We design, manufacture and repair equipment for industries including high voltage coil manufacturers, electric motor and generator repair workshops, in addition to industrial electromagnets for use in the steel, chemical, industrial, and other recycling operations.

Our global agents are supported by our team of experienced engineers.

Rotary's origins can be traced back to 1896 when W.E. Burnand first made industrial equipment here in Sheffield, England.

Today the business has evolved to become Rotary Engineering UK Ltd, proudly established as an innovative, specialist UK manufacturer supplying equipment to the UK and around the world.



### Reasons to choose us



Designed and manufactured in the UK



Specialist advice and support available



Option to configure specifications to meet individual requirements



Easy to operate, cost effective equipment



Worldwide service and support

Our range of motor repair equipment is designed to help you dismantle, rewind and reassemble electric motors. This equipment has been developed based on decades of experience in the motor repair industry and our range is constantly evolving to meet the needs of modern repair workshops. In addition to our standard range of equipment, we can manufacture bespoke equipment to meet your exact requirements.

## Stator Cut Off Machines

Stator Cut Off Machines are used to cut end windings from electrical motors quickly without damaging laminations. This simple and reliable piece of equipment is widely used in workshops worldwide. There are two models in the range, a bench mounted machine for stators up to 460mm bore and a larger floor standing machine for stators up to 1100mm bore

### Features:

- Uses grit edge, long life saw blades
- Depth stop and cutter path guides prevents damage
- Guard around cutting blade for safety
- Maintenance free design



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## Burn Off Ovens

Burn Off Ovens are used to reclaim stators and stator windings safely, quickly and economically, whilst minimising the impact on the environment.

### Features:

- Fired by natural gas or LPG
- Circulation fan for consistent temperature throughout the oven
- **Safety features include:** pressure relief panel / internal door handle / door interlock / overtemperature protection / water suppression



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### Optional Extras:

- Specials – Non-standard specification in size or fuel can be supplied
- Motorised load trolley – Available for larger ovens

## Coil Puller

Pneumatic coil pullers are used when dismantling a motor ready for repair. The pneumatically assisted grips efficiently remove windings from the stator after the stator cut-off and burn-off operations. Using this greatly reduces the risk of damaging the core pack / laminations.

### Features:

- For efficient removal of end windings.
- Stator is secured with by foot pedal operation leaving operator's hands free to remove the coils.
- Requires only a connection to a clean, dry air supply.



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## Motor Test Console

The Rotary Motor Test Console is designed for incremental testing of repaired electric motors prior to recommissioning. The console allows the user to increase the voltage in increments to ensure the motor performs to standard before running at full voltage. This tried and trusted equipment has been sold worldwide and is based on robust transformer technology which will give decades of reliable service.

Two options are available; our traditional push button control test console which allows the operator to fully control the motor test process and record results as required, and the more recent touch screen and PLC controlled model which offers automated testing and data output via USB. A 5kV flash tester is included in all models.

### Features:

- On-load tap changes
- 1 switched voltmeter
- 3 ammeters, one for each phase
- Options to test AC and DC motors up to 60 amps



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Motor test console with PLC control, data output and automatic testing

## Wire Stripper

The Rotary wire stripping machine is used for removing coatings and tapes from the end of sectional and round wire by means of counter rotating wire brushes.

### Features:

- Adjustable depth stop
- Adjustable gap between brushes to suit thickness of the material being stripped
- Grid to protect operators hands
- Internal counter rotating wire brushes direct debris into the machines extraction system
- Heavy duty extraction system
- Simple operation and easy installation



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## Brazing Unit

The Rotary Portable Brazing unit is used to braze copper strips up to 200mm<sup>2</sup>. The unit brazes the copper by passing an electrical current through the joint, no flame is involved making this a clean and safe process.

### Features:

- Portable unit, ideal for site work
- Foot pedal operation to leave hands free
- Requires only a standard 13amp connection
- Option of straight or angled tongs, tongs are interchangeable with the brazing unit.



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## Coil Winding Machines

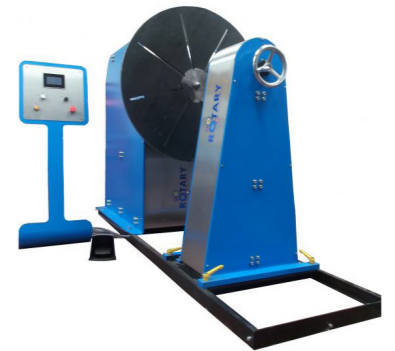
Rotary coil winding machines offer three standard models and feature premium motors of European origin.

### Features of our standard range include:

- 3 models available up to 290Nm torque
- PLC touch screen set up
- Accurate lap count and reverse count.
- Automatic stop at the end of the coil winding cycle
- Infinitely variable speed within the range
- Manual control option
- Constant torque

### Accessories:

- Tailstock for supporting larger coils
- De-reeler for tensioning the wire
- Multiple drum wire dispenser
- Wire Guide to feed the wire accurately to the coil
- Range of aluminium cast faceplates up to 406mm diameter
- Continuity Phase winding formers
- Full range of winding arbors
- Chuck and back-plate for adding extra fixtures



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## Final Form Winder

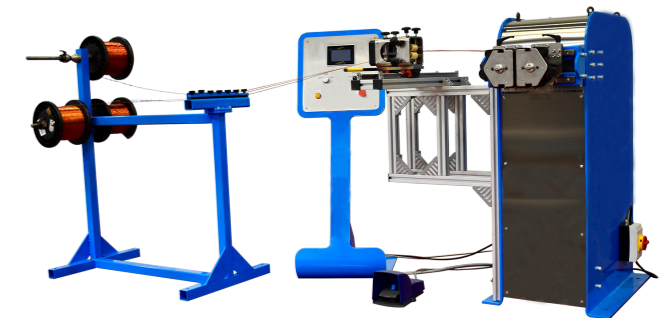
This latest development from Rotary, for one of our UK customers has revolutionised the manufacture of small, diamond coils. Coils are wound on to a bespoke former to match the exact coil geometry required, thus removing the need for subsequent forming operations. The process is PLC controlled with all features found in our standard coil winding machines.

### Features:

- Any number of bespoke formers can be manufactured to match your coil requirements.
- Simple set up and operation
- Significant efficiency savings



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## Varnish Dip Tank

Rotary varnish tanks feature a primary process tank and a secondary tank for storing the varnish when not in use. The product is placed in the process tank, the lid closed, and the varnish is then pumped in from the holding tank to soak the motor windings.

Having a secondary tank maintains the quality of the varnish and reduces losses through evaporation. Safety features are included for the use with flammable varnish.

### Safety Features:

- ATEX compliant pump, fan and motor controls
- Extraction ducting to reduce build up of solvent fumes
- Fused drop down lid



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## Gear Heaters

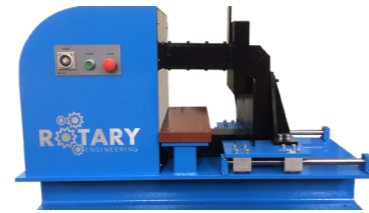
The Rotary Gear Heater is used to quickly raise the temperature of couplings, bearings and gears to expand them ready for fitting to a shaft. The induction heating process is clean and rapid with a built-in timer.

### Features:

- Quick and clean operation
- Induction heating means no flames and no contact that could damage the bearing
- Built in timer



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## Pneumatic Edge Bender

The Pneumatic Edge Bender is designed for easily bending copper strip on edge to form tight radius bends.

### Features:

- Pedestal mounted edge bender with bench mounted option
- Lever operated
- Supplied with three forming-pins – diameters from 6mm to 11mm
- Any angle up to 180° can be formed
- Quick changeover and set up
- Pneumatic in operation - requires only a clean, dry, air supply.



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## Stoving / Curing Oven

Stoving Ovens for curing varnish operate at up to 225°C and can also be used to dry out windings where dampness may have cause low earth leakage. Our range is manufactured to order here in Sheffield and we offer a range of sizes to suit your workshop.

### Options Include:

- Electric, gas or LPG
- Digital Data logging system with colour display or push button control
- Full system monitoring and data output via USB

### Safety Features:

- Pressure relief panels
- Emergency shut down
- Interlocked doors
- Internal handle
- Overtemperature protection



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## Stator Rotator

The Rotary Engineering Stator Rotator is used to position and rotate stators during the repair process. This machine is designed to hold stators so they can be rotated and then locked into position. Larger models are available to order.

### Features:

- Available with manual or motorised rotation.
- Safe working load is up to 700kg, larger models available to order



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## Armature Stands

These robust armature stands are sold as a pair, with one at fixed height and one height adjustable to level up the armature. Combined capacity is 2 tonnes.

### Features:

- Capacity 1,000 kgs per stand
- One stand is adjustable to enable levelling up of armature whilst on the stand
- Rollers allow full rotation of the armature for inspection



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## Bearing Extractors

The Rotary bearing extractor is a robust and reliable item for dismantling motors ready for repair

### Features:

- Available in 30 tonne and 50 tonne versions
- Portable unit with fully independent hydraulic pump
- Robust, proven design



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## Insulation Cutter

Robust insulation cutting table with precision, heavy duty blade for cutting insulations.

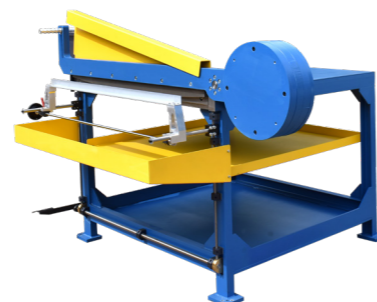
- Counterbalanced cutting blade
- Scale and fence on table for setting up insulations
- Depth stop up to 200mm
- Tray to catch insulations

### Features:

- High quality counterbalanced cutting blade
- Scales and stops on the table and the outfeed
- Tray to catch insulations



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## Rotor Lifter

The Rotary Engineering Rotor Lifter is a simple but highly effective device for handling rotors during insertion into the stator. Two models are available; the RL100 for rotors up to 1000kg and the larger RL400 for rotors up to 4000kg.

### Features:

- Makes the safe insertion of rotors into stators a simple operation
- Sling can be added for extra stability for heavy stators when moving around the workshop
- Handle for ease of guiding the rotor



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Rotary Engineering works in partnership with clients worldwide, manufacturing a range of equipment and offering everything from a one off piece of equipment to an entire workshop.

Our experienced team are happy to provide specialist advice, respond to tenders and support our contacts around the world.

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