

Transformer coil winding machines.

Seven machines covering the whole winding shop — from small distribution HV coils to disc and helical windings for large power transformers. Supplied, commissioned and supported by Mahabir.



01 Layer insulation wire winding

02 Wire guiding winding

03 LDT winding

04 Traction coil winding

05 Foil winding, copper and aluminium

06 Vertical winding

07 Horizontal winding

Mandrels, de-reelers and tooling

The winding shop, machine by machine.

A transformer works is defined by what it can wind. This range covers the full span — fine wire with graded paper insulation at one end, thirty-five tonne disc coils at the other. Every machine is specified against the coils you actually build, not chosen from a page.



Layer Insulation Wire Winding Machine

HV coils for small distribution transformers, wound with no manual intervention. Graded and double-layer strip insulation applied automatically.



Wire Guiding Winding Machine

HV and LV distribution coils in round and flat wire, with automatic wire guiding, up to four wires in parallel and full-width insulation paper.



LDT Winding Machine

Large wire winding for high-capacity distribution transformer coils. Structure customised to the coil, up to three round or four flat wires at once.



Traction Coil Winding Machine

Purpose-built for traction transformer coils for rail. Compact envelope, fine control, built around a demanding and tightly toleranced product.



Foil Winding Machine

Copper and aluminium foil for LV windings and dry-type coils. TIG or cold-press welding, off-set regulation and constant tension to 30 kN.



Vertical Winding Machine

HV windings, EHV helical coils and disc coils for medium and large power transformers. Patented three-column support, pit or floor mounted.



Horizontal Winding Machine

Coils for high-capacity transformers and inductors. Loads to 35 tonnes, coil diameter to 3000 mm, torque to 40,000 N·m.



Layer Insulation Wire Winding Machine

HV · DISTRIBUTION

Wire winding with layer insulation for HV coils in small distribution transformers. The coil is wound without manual intervention — wire and strip insulation are laid together, tension is held by the machine, and the operator is not the variable.

High winding efficiency

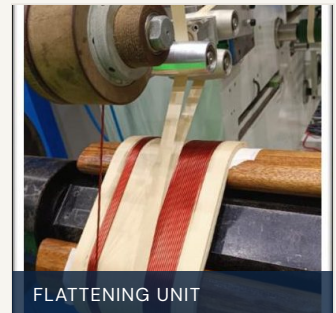
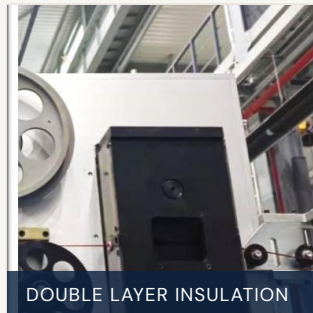
- No manual intervention during the winding cycle
- Flattening unit for round wires
- Progressive insulation applied automatically

Constant tension

- Air-cylinder controlled wire dancing roller
- Separate strip insulation dancing roller
- Constant wire tension through the full cycle

Cost saving, stable winding

- Graded insulation saves insulation material
- Double-layer strip insulation for a better result
- Servo motor control on all axes





Wire Guiding Winding Machine

HV & LV · ROUND AND FLAT

For HV and LV distribution transformer coils in round and flat wire, with automatic wire guiding. Up to four wires are wound in parallel and full-width insulation paper is fed between layers.

Features

- Touch screen operation
- High accuracy wire guiding position
- Double-direction movable tailstock
- Round and flat wire
- Winding in parallel
- Full width insulation paper

MAIN TECHNICAL DATA	
Round wire diameter	0.5 – 4.0 mm
Flat wire	up to 4 × 14 mm
Wires in parallel	up to 4
Load	up to 2,000 kg
Chuck to tailstock	1,600 mm
Winding diameter	1,000 mm



WIRE GUIDING ARM



SERVO MOTOR CONTROL



FLAT WIRE DE-REELER



LDT Winding Machine

Large-size wire winding for high-capacity distribution transformer coils. The structure is customised to the coil you build. Flat CTC and round wire, strip, end and full-width insulation, flattening unit and movable tailstock. Up to three round wires or four flat wires run simultaneously through an integrated de-reeler.

Round wire diameter	2 – 5 mm
Flat wire size	1.2 × 4.0 to 5.0 × 15.0 mm
Chuck to tailstock	up to 3,000 mm
Max swing diameter with busbar	1,400 mm
Max wire quantity	3 round / 4 flat
Max load	3,000 kg



GUARDED WINDING STATION



INTEGRATED ROUND AND FLAT WIRE DE-COILER WITH FLATTENER



MACHINE LINE



Traction Coil Winding Machine

A special machine for traction transformer coils fitted to trains. A demanding, tightly tolerated product in a compact envelope — fine wire control, multiple insulation stations and repeatable tension across every coil in the set.

Round wire diameter	1 – 5 mm
Flat wire cross-section	40 mm ²
Chuck to tailstock	1,800 mm
Max swing diameter with busbar	900 mm
Coil diameter	275 – 800 mm
Max load	1,000 kg



MULTIPLE INSULATION STATIONS AND PAPER DE-REELERS ON THE TRACTION MACHINE



Foil Winding Machine

LV · CAST RESIN DRY TYPE

Copper and aluminium foil winding for low-voltage transformer windings and dry-type coils. Foil is a different machine from wire, not a variant of one — the payoff, the edge guidance, the welding and the tension across the full strip width are all specific to it.

Constant tension

- Radius compensation
- Tension set and displayed on screen
- Pressing rollers

Two welding options

- TIG welding
- Cold-press welding
- Double type welding available

Accurate winding

- Off-set regulating system
- Video monitor for foil shearing
- Remote control and winding data port

TECHNICAL DATA

Foil width	200 – 1,600 mm
Foil thickness, copper	0.3 – 2.5 mm (0.3 – 1.8 double layer)
Foil thickness, aluminium	0.3 – 3.0 mm (0.3 – 2.0 double layer)
Layers of foil	up to 2
Coil external diameter	200 – 1,200 mm
Chuck to tailstock	600 – 1,600 mm
Foil tension	up to 30 kN





Vertical Winding Machine

The machine for high-voltage windings, EHV helical coils and disc coils on medium and large power transformers. Patented three-column support, available pit type or floor type, with mandrels, an optional 90° rotating de-reeler and a conductor tension system.

Max load	5 – 35 tonnes
Chuck diameter	1,500 – 3,200 mm
Chuck travel distance	2,000 – 4,000 mm
Coil outer diameter	2,000 – 3,600 mm
Chuck to tailstock	up to 4,600 mm
Winding speed	0 – 10 rpm
Height of spindle	1,200 – 1,800 mm



THREE COLUMN SUPPORT



CHUCK



WINDING IN PROGRESS



EXPANDABLE MANDREL



Horizontal Winding Machine

For the coils of high-capacity transformers and inductors. Where the vertical machine takes disc and helical work, the horizontal takes the long, heavy jobs — with a motorised wire de-reeler line feeding it.

Weight of coil and mandrel	5 – 35 tonnes
Max coil diameter	3,000 mm
Chuck to tailstock	up to 4,600 mm
Height of spindle centre	1,200 – 1,800 mm
Spindle speed	0 – 10 rpm
Max torque	40,000 N-m



MACHINE LINE UNDER BUILD



MOTORISED WIRE DE-REELER LINE

One company to deal with, from enquiry to the first coil.

Buying a winding machine across a border is rarely difficult because of the machine. It is difficult because of everything around it — the specification that was never pinned down, the inspection nobody attended, the drawing approved late, the engineer who could not get a visa. We take that away.

01

Specify

We start from the coils you actually wind — sizes, wire, paper, turns — and write the specification from that. Not from a page in a catalogue.

02

Supply

We place and manage the order, hold the schedule, and attend the factory acceptance test before anything is packed. Third-party inspection at no cost.

03

Commission

Installation, commissioning, and training for your operators and maintenance team on your floor, in your language.

04

Support

Spares, remote support and site attendance afterwards. Across most of Africa there is no local agent for this equipment. We are the one to call.

Also available from the same programme

Core cutting and CRGO slitting lines · automatic core stacking · insulation and pressboard processing · corrugated fin and tank lines · vacuum drying, oil treatment and impregnation plant · test bay equipment · expanding mandrels, de-reelers, tensioners and winding tooling.

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Send us the coil, not the model number.

Tell us the smallest and largest coil you wind, the wire, the paper you stock and the output you need. We will come back with the right machine from this range, a specification written against your coils, and a delivered price.

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