

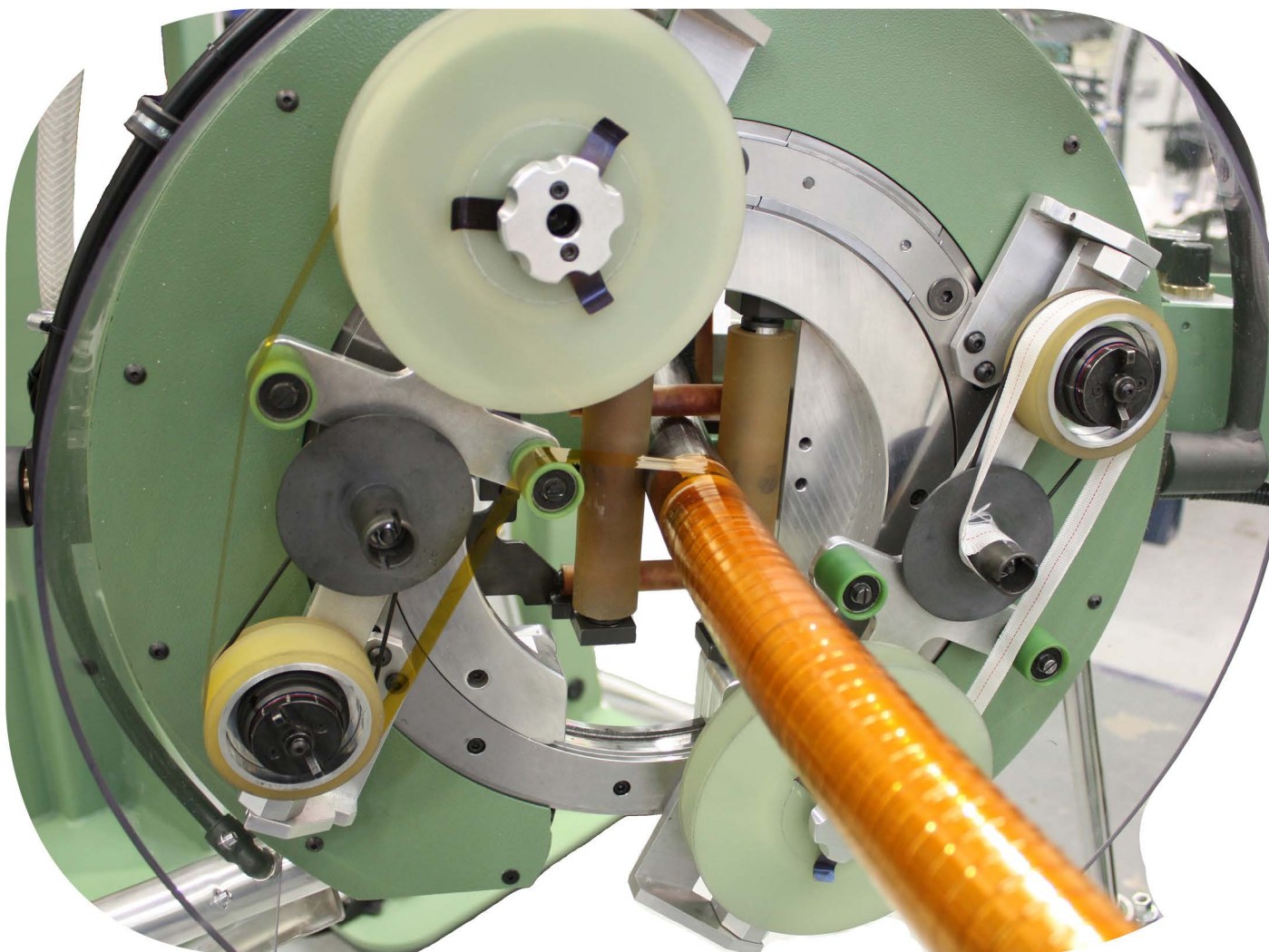


Ridgway

World Leaders in Taping Machinery

RANGE OF COIL TAPING SOLUTIONS

BCT - MACHINE SPECIFICATION



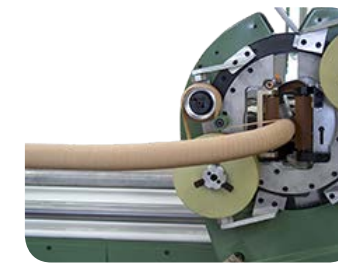
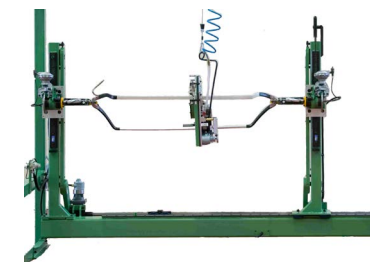
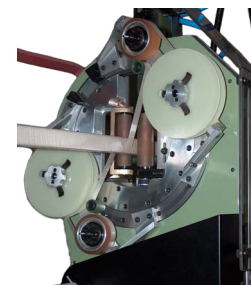
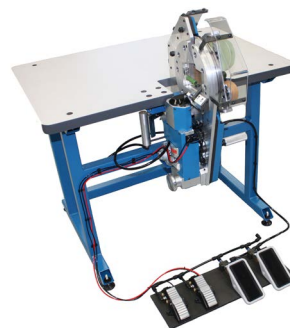
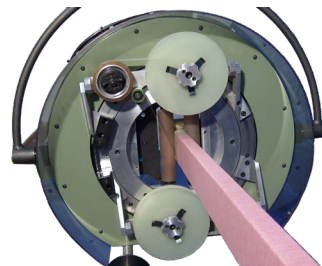
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Fast Precision Coil Taping

About Ridgway Machines

Ridgway are the leading manufacturer of precision taping and winding machines for the electrical and energy industries, with over 95 years engineering experience. Ridgway machines are widely used for manufacturing electrical coils, cable and conductors. They are also used to manufacture Reinforced Thermoplastic Pipe (RTP) for oil and gas pipelines. From innovative flexible designs to worldwide customer support, we provide expert solutions developed from a close understanding of our customer's individual needs.

Ridgway are an independent owner managed company, an expert team of specialist and experienced engineers with a flexible approach to a variety of applications. Customer focus and satisfaction are key to our successful long term partnerships. Ridgway offer a complete service from machine design, manufacture and testing to installation, training and worldwide technical support.

80% OF SALES
EXPORTED
WORLDWIDE

EXPERTS IN
INTERNATIONAL
TRADE



WORLD
LEADING
CUSTOMER
BASE

INNOVATIVE
SOLUTIONS
WITH 97YRS
EXPERIENCE



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Our Mission

Ridgway aim to be the world leader in precision taping, winding and associated coil manufacturing machines for the energy and electrical power industries.

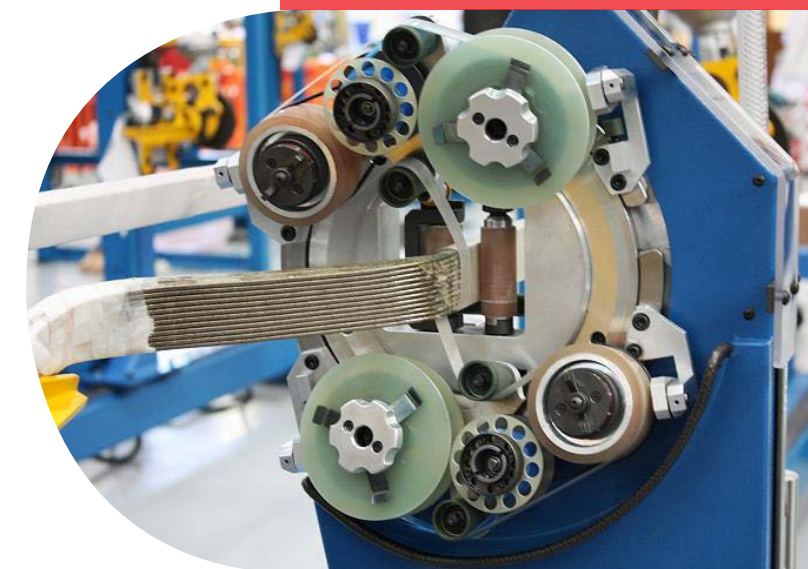
Based on our innovative added value designs and highly specialised experience we produce excellent quality products and value for money solutions. By having a close understanding of our customer's operational and service needs and remaining flexible in our approach, Ridgway aim to be their preferred supplier of choice.

To achieve profitable business growth and meet the needs of our stakeholders we employ highly motivated and skilled employees who support team working and feel personally empowered and engaged.

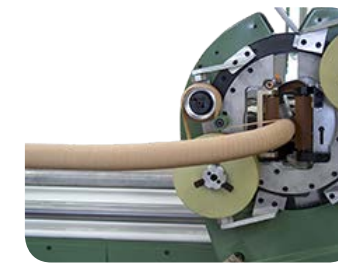
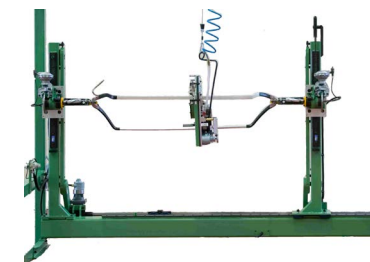
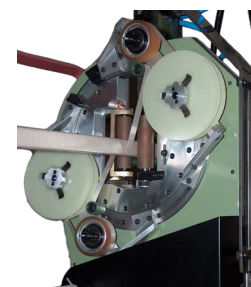
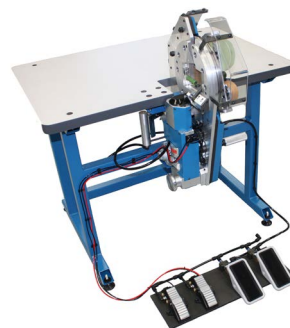
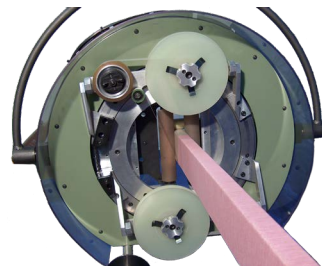
Ridgway work within a culture that embraces continuous improvement, dynamic business systems and remain passionate about our quality, customer service and innovation.



British Engineering at its Finest



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Fast Precision Coil Taping

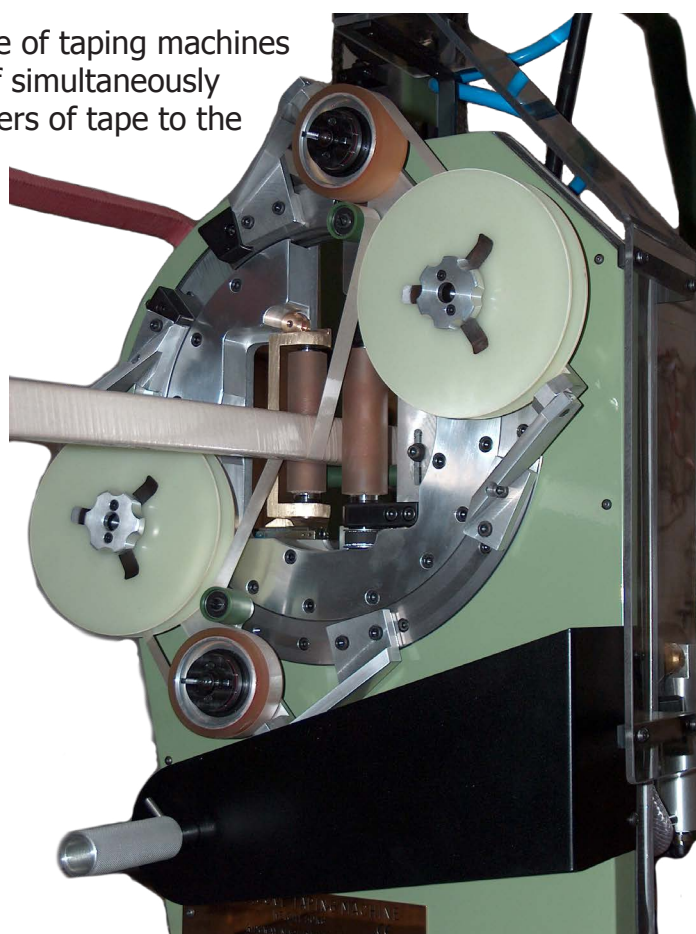
Overview

The model BCT VL unit is specifically designed for the application of tape insulation systems to motor and generator coils and bars. The machine being weightlessly suspended from an overhead track way provides a fast, accurate and consistent method of operator guided mechanised tape application with virtually no preparation or set up time being required.

The quality of tape application is assured by the powered drive roller and traverse reversing gearbox arrangement guaranteeing consistent tape overlap.

Both the tape tension settings are variable and easily adjusted by the operator when required.

The BCT range of taping machines are capable of simultaneously applying 2 layers of tape to the coil or bar.



Key Features

- Designed for fast, precision application of tape insulation systems
- Effortlessly tape at upto 8 times faster than traditional methods
- Apply tape in both direction without adjusting set up
- Variable tape overlap selection
- Ease of use
- Compressed air driven
- Suitable for a wide variety of tapes and tape widths
- Effective noise control by machine mounted silencer



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TECHNICAL SPECIFICATION

Suspended BCT Parameters

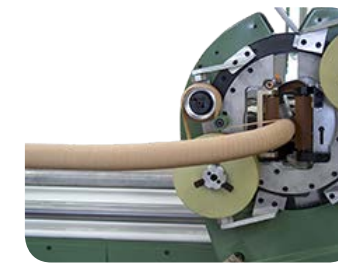
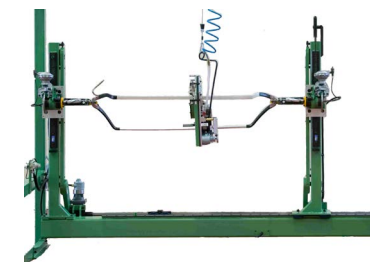
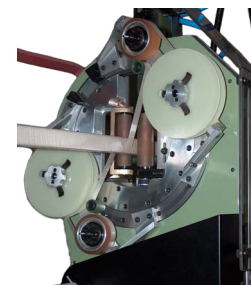
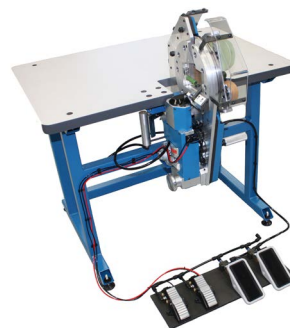
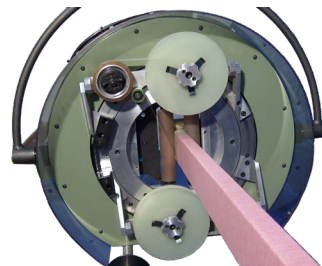
	BCT16/30VL	BCT20/50VL	BCT35/100VL	BCT50/150VL
CAPACITY - Max. Cross Section of conductor to be taped Min.	16mm x 30mm	20mm x 50mm	35mm x 100mm	50mm x 150mm
	5mm x 10mm	10mm x 18mm	15mm x 30mm	25mm x 45mm
TAPE WIDTH	15mm or 20mm	20mm or 25mm	20mm or 25mm	20, 25 or 30mm
LAP	Variable	Variable	Variable	Variable
TAPE SPOOL - Core	Ø25mm	Ø25mm	Ø25mm to 55mm	Ø25mm to 55mm
TAPE SPOOL - Outside Diameter	Ø80mm or 90mm	Ø110mm	Ø170mm	Ø170mm
TAPING SPEED	250 rpm max	240 rpm max	200 rpm max	150 rpm max
DISTANCE BETWEEN COIL LEGS FOR ACCESS	115mm min	200mm min	350mm min	350mm min
AIR SUPPLY PRESSURE	5.5 Bar	5.5 Bar	5.5 Bar	5.5 Bar
RECOMMENDED MIN BORE	Ø12mm	Ø12mm	Ø12mm	Ø12mm
FREE AIR USE AT FULL SPEED	18 litres / sec	18 litres / sec	18 litres / sec	26 litres / sec

http://www.ridgwayeng.com/bct_suspended_coil_taping_machines.php

Contact us to discuss your requirements or for more information:



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Fast Precision Coil Taping

Bench Mounted BCT

The bench mounted BCT is ideal for taping smaller and open coils that can easily be manipulated by hand.

The BCT is exactly the same as the suspended design but is mounted in a workbench. Operation of the bench mounted configuration is controled via foot pedals, leaving the operators hands free to guide the coil being taped.

Two sizes of BCT are available for bench mounted configurastion – the **BCT 16/30 VLBM** and **BCT 20/50 VLBM**. The performance parameters are the same as described above.

Colour

The standard Ridgway colour scheme is blue machinery (RAL 5019). We can accommodate different colour schemes to suit your requirements.

BCT 20/50 VLBM



BCT 16/30 VLBM



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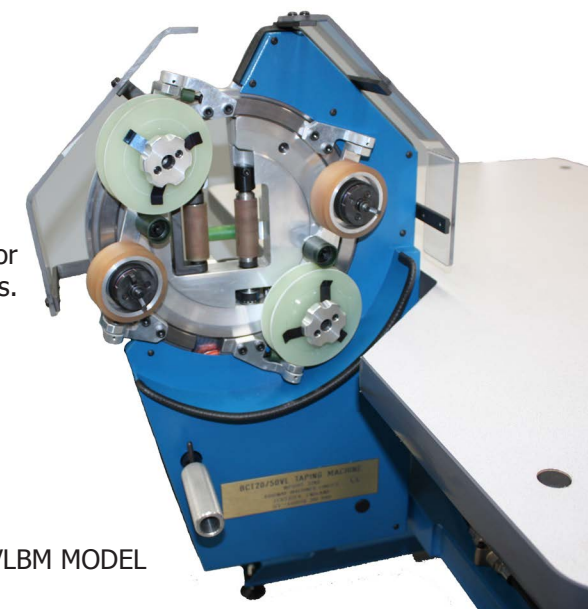
The Ridgway BCT-VLDM series is available in 2 sizes:

BCT 16/30VLBM
BCT 20/50VLBM

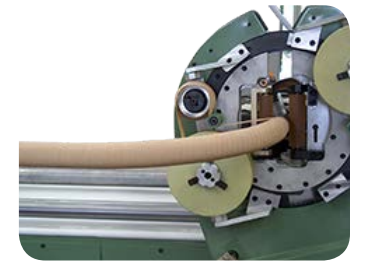
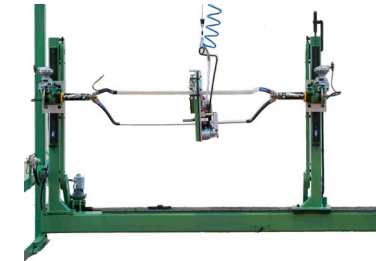
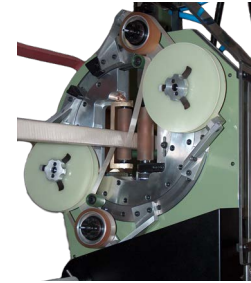
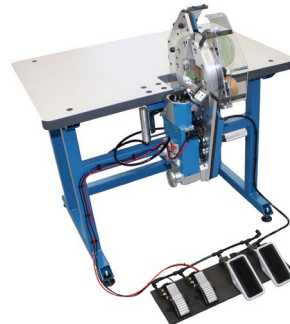
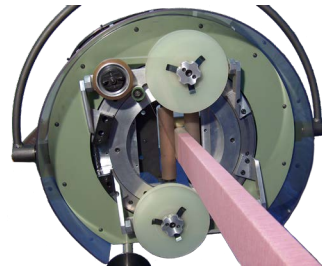
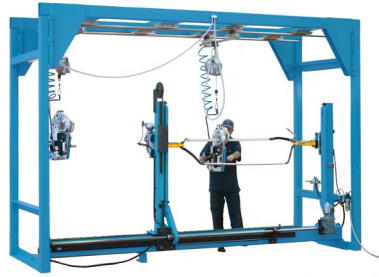
Full details are shown in the table below.

MODEL	BCT 16/30VLBM	BCT 20/50VLBM
Capacity: Cross Section of Conductor to be taped (max/min)	16mm x 30mm	20mm x 50mm
	5mm x 10mm	10mm x 18mm
Tape Width	15mm or 20mm	20mm or 25mm
Tape Spool - Core	Ø 25mm	Ø 25mm
Tape Spool - Outside Diameter	Ø 80mm or 90mm	Ø 110mm
Taping Speed	250 rpm max	240 rpm max
Distance between Coil legs for access	115mm min	200mm min
Air Supply	5.5 Bar Pressure	5.5 Bar Pressure
Recommended Min bore	Ø 12mm	Ø 12mm
Free air use at full speed	18 litres / sec	18 litres / sec
Bench size	W 106 cm x D 72 cm x H 84 cm	

Designed for cost effective, quality insulation for motor and generator coils and bars.



CLOSE UP OF VLBM MODEL



Fast Precision Coil Taping

Coil Handling Solutions

Gantry

To enable an increase in production effectiveness the BCT range can be complemented by a range of Ridgway's dedicated coil handling equipment. These are used to provide fast, accurate and consistent operator guided tape application with minimal preparation and set up time needed.

Ridgway have designed a range of gantry sizes to suit a given maximum coil length requirement.

Gantry solutions are available from 3.5m and in increments of additional 1.0m lengths.



GANTRY WITH CTU

Key Features

- Designed as a workstation to weightlessly suspend BCT taping machines
- The gantry range accommodates the CTU coil handling systems
- A free-running carriage mounted to linear rails ensures smooth lateral motion of the taping head
- Multiple carriages can be added to allow a variety of taping machines to be used
- Quick and easy connection of the taping machine to the pneumatic circuit
- Manufactured in a range of sizes



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Coil Turnover Unit - CTU

The CTU offers a versatile means of supporting and turning the coil over for taping of both sides. Used in conjunction with a gantry CTU's are sized for maximum coil lengths of **2.5m, 3.0m, 4.0m** and **5.0m**.

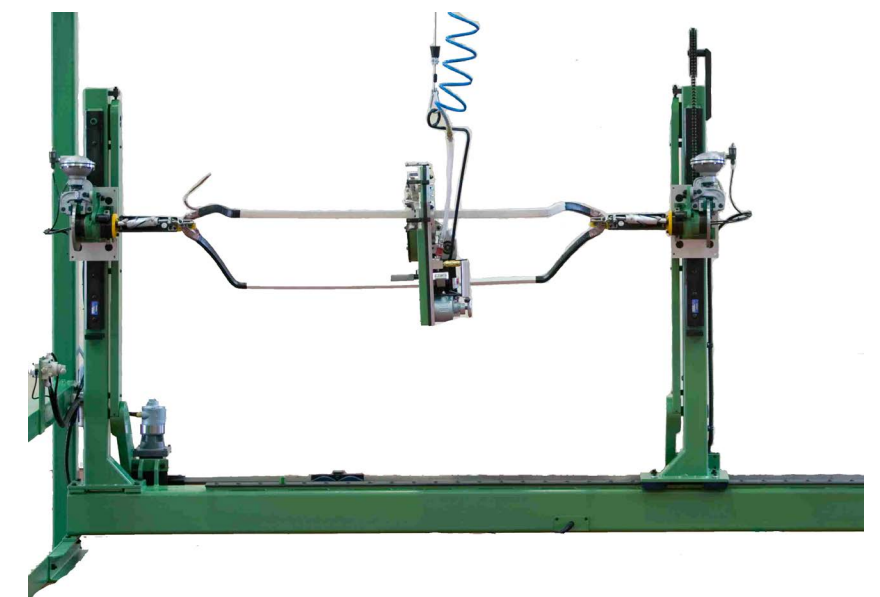
MODEL	CTU2500	CTU3000	CTU4000	CTU5000
Gantry required	3.5m	4.0m	5.0m	6.0m
Max. coil length	2500mm	3000mm	4000mm	5000mm

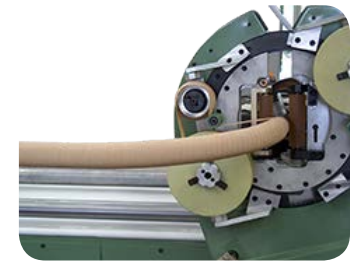
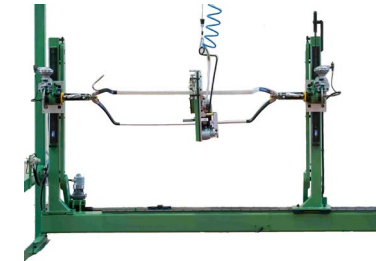
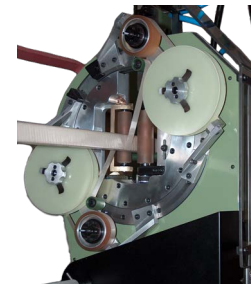
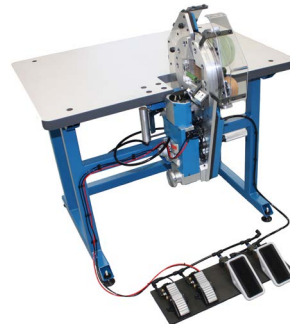
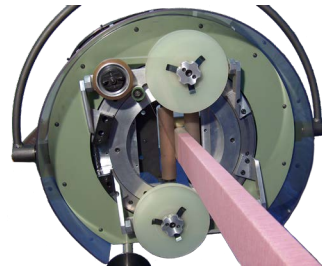
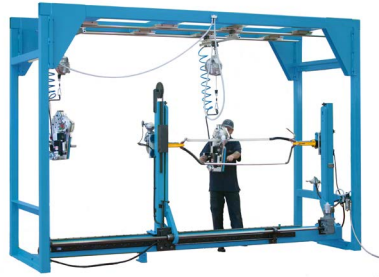
The CTU incorporates pneumatically operated over-centre clamps that hold the eye of the coil during taping. The clamps are opened and closed by an operator foot pedal allowing the hands to be free to position the coil for insertion or removal. The centre line height of the clamps/coil to be taped is set via an operator level mounted on the gantry frame and once at the desired height is locked into place.

The CTU has one fixed post and one movable post for varying coil lengths upto the specified maximum. The movable post slides on a linear bearing rail and is manually locked into position for taping.

Key Features

- Only one setup required to tape both coil sides
- Coil rotation and work height adjustment easily achieved
- Coil securely held by two pneumatic clamps activated via a foot pedal
- Adjustable mechanical stops ensure repeat rotational positioning
- Retractable front and rail mounted rear coil supports are available if required





Fast Precision Coil Taping

Coil Supports and Clamps

In conjunction with the CTU, additional coil supports can be provided – depending on the width or geometry of the coil design. Alternatively, free standing rear coil supports can be used offering quick and easy operation for manual vertical adjustment.



CTU MOUNTED
COIL SUPPORTS



COIL
SUPPORTS

In place of a CTU, Ridgway also have designed a Bench configuration that enables the use of 2 or more clamp units mounted on posts that slide into position on linear rails. The clamps can be either over-centre type for clamping coil eye or parallel type for bars.

In addition, Ridgway offer heavy duty end clamps for supporting bar ends. These free standing heavy duty supports incorporate a bar clamp with manual vertical adjustment. The clamp is set via a pneumatically actuated foot pedal. A Uni-ball joint configuration enables easy adjustment and clamping position for differing bar ends.

Complete taping solutions..

For...

- **AC stator coils**
- **AC stator bars**
- **DC armature coils**
- **DC armature bars**
- **Compensating bars**
- **Busbars**
- **Cable harnesses**
- **Bespoke products**

Applying a wide range of materials..

- **Mica**
- **Glass / Mica**
- **Nomex ®**
- **Kapton ®**
- **Glass yarn**
- **Mylar ®**
- **Paper**
- **Polyester / Aluminium**
- **Film / Foil Laminates**

Thank you for taking the time to read our specification and if you require anything else then please get in touch!