WELDING MACHINES

Ultrasonic welding machines

electrical motion

Faster, safer, more accurate and economical.
New, all-in-one technology.

rinco ultrasonics

AROUND YOU EVERY DAY

RINCO ultrasonic welding machines

ULTRASONIC WELDING – THE ECONOMICAL WAY TO JOIN PLASTICS

Thanks to the short cycle times it requires, ultrasonic welding is the most efficient way to join two thermoplastic materials without additives and is therefore a particularly economical joining method. Injection-moulded parts, films or synthetic textiles can be welded using ultrasound in milliseconds and without leaving marks. The high-frequency mechanical oscillations also allow metal parts to be embedded into a plastic component.

We have designed a number of different ultrasonic welding machines to reflect the different materials used in applications and the different demands that the final welding results have to meet.

RINCO manufactures ultrasonic welding machines in three product series:

ELECTRICAL MOTION SERIES
STANDARD SERIES and
EASY SERIES

These machines meet every single requirement – from welding the very smallest through to large components.

Our ***ABW blister welding machine*** is the perfect solution for blister and film packaging.

Would you like a tailor-made solution for your specific requirements? Contact us and we will be happy to advise you.

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COME AND DISCOVER THE OUTSTANDING QUALITY OF RINCO PRODUCTS FOR YOURSELF

We are proud that our efforts to achieve perfection have been recognised by official bodies. The ISO certifications awarded to us prove that Swiss values such as reliability and precision are important roots from which our corporate culture has grown. We will always offer consistently high quality and the very best service.

CE

All RINCO machines are **CE-compliant** and therefore meet high European standards.

RELIABILITY

RINCO machines operate very **reliably**, are practically maintenance-free and have a **long service life**.

EFFICIENT RINCO
AFTER SALES SERVICE

AFTER-SALES SERVICE

We help our customers out with **technical support** even after they have made a purchase.

ACCURATE ALIGNMENT

Base plates can be made level on the pedestal using jack screws, so the mount attached to the base plate will line up precisely with the horn.

QUALITY RIGHT FROM THE START

Our machines boast a **robust and rigid construction**, offer stability, provide great performance and guarantee optimum functionality and perfect welding results.

CERTIFIED ISO 9001 ZERTIFIZIERT

CERTIFIED ISO 13485 ZERTIFIZIERT

CERTIFIED ISO 14001 ZERTIFIZIERT

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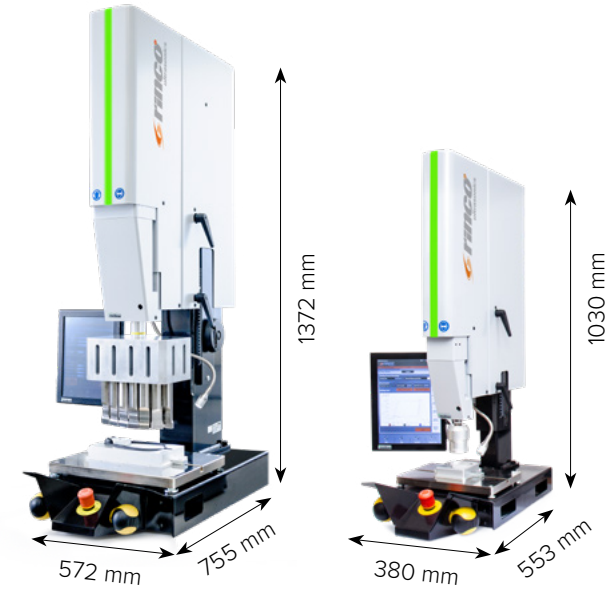
ELECTRICAL MOTION SERIES – Powerful and precise



Electrical Motion 20 ***Electrical Motion 35***

The Electrical Motion series is the perfect partner for complex ultrasonic welding operations that demand **maximum precision and great flexibility**.
Thanks to the electric drive and the fact that the welding force, speed and amplitude can be regulated exactly, you can achieve outstanding welding results. The trigger and braking point parameters can be regulated independently of one another.

Events and changes are logged in the audit trail, which cannot be deleted, meaning that **traceability and process reliability** are guaranteed.

Ultrasonic welding machines from the Electrical Motion series are ideal for welding and punching thermoplastics, non-wovens and textiles.

electrical motion

		Electrical Motion 20	***Electrical Motion 35***
KHZ	Operating frequency:	20 kHz	35 kHz
3000N	Maximum force:	3000 N	750 N
	Drive:	Electric (230 V AC)	Electric (230 V AC)
	Maximum stroke:	100 mm	100 mm
KG	Weight:	135 kg	53 kg
	Height adjustment:	0–280 mm	0–180 mm

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COMPATIBLE GENERATORS

	Electrical Motion 20	*Electrical Motion 35*
Compatible generator:	XDG20 with SCU20	XDG35 with SCU35
Output power:	2000 W, 3000 W	900 W

XDG ULTRASONIC GENERATOR AND SCU SERVO CONTROL UNIT

You can find more information about performance and features in the "Ultrasonic generators" product brochure.

FEATURES

e-DRIVE

The electric drive makes the ultrasonic welding machines in the Electrical Motion series **economical** and **highly precise**.

CALIBRATION

The force and amplitude **can be calibrated**. This makes the welding results reproducible and upholds the quality of your products.

12" TOUCH COLOUR DISPLAY

The touch colour display makes it easier to enter parameters and operate the machines. It **can swivel and is ergonomic**. What's more, it displays a graphic or table showing the most recent welding operations.

FIELDS OF APPLICATION

- AUTOMOTIVE
- HIGH-TECH
- PACKAGING
- FOOD
- NON-WOVEN & TEXTILE
- MEDICAL
- HOUSEHOLD
- COSMETICS

WELDING
PUNCHING
RIVETING
EMBOSSING
FLANGING
EMBEDDING
INSERTING
SEALING

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ELECTRICAL MOTION SERIES – Powerful and precise

SUITABLE FOR CLEANROOMS

The Electrical Motion series is suitable for cleanrooms and certified to ISO 14644-1 **ISO class 6**. As such, it meets the high requirements placed on devices used in the medical sector.

PERFORMANCE LEVEL ■ PL e

Our machines deliver optimum safety for operators and maintenance personnel.

START POSITION CAN BE SELECTED AT WILL

The position of the actuator can be selected at will, reducing the cycle time.

MAXIMUM REPEATABILITY

The database for the ultrasonic welding machines can store **as many parameter data sets** as required. **Welding data can also be saved on the internal hard drive or on an external storage medium.**

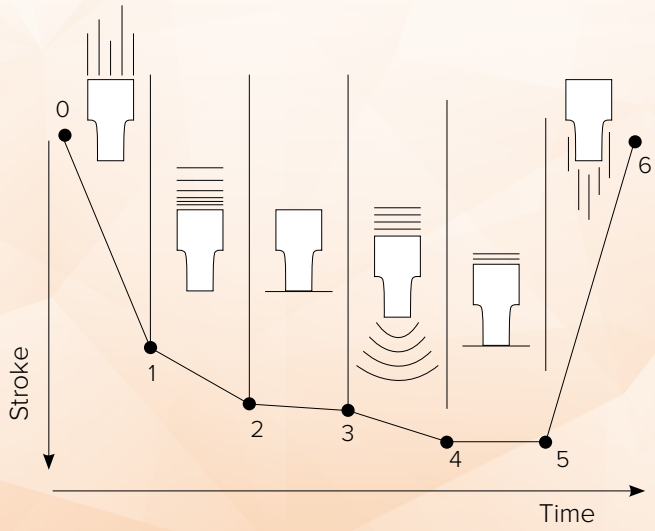
78% saving on energy costs*

* Compared to a pneumatic ultrasonic welding machine

FREELY PROGRAMMABLE STROKE MOVEMENT

Optimise your welding process by adjusting the stroke movement of the application accordingly.

0–1	Actuator moves from start position to brake position
1–2	Braking point from actuator speed to touchdown speed
2–3	Force builds up until trigger is reached
3–4	Welding process (up to 10 steps)
4–5	Firming up and cooling-down phase
5–6	Actuator moves back



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WORK LIGHT
Work light mounted on the side, can be swivelled

TWO-HAND RELEASE
Ergonomic safeballs (button option also available)

WARRANTY 3

3-YEAR WARRANTY
Excluding converter, booster and tools

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ELECTRICAL MOTION SERIES

ELECTRICAL MOTION SERIES – Powerful and precise

FUNCTIONS

ADJUSTABLE AMPLITUDE

You can change the value for the internal or external amplitude to between **40 and 100%** in 1% increments so as to achieve the best possible welding result.

8 WELDING MODES TO CHOOSE FROM

Thanks to the multitude of welding modes, you can find the **right setting for every application**, guaranteeing perfect welding. The following welding modes can be selected on the Electrical Motion series:

- Welding time
- W/S — Welding energy
- W/S — Welding time AND/OR welding energy
- Welding travel (absolute or differential)
- Contact cut-off
- Melting rate

MELTING RATE

This mode precisely controls the speed of the melting process.

ABSOLUTE QUALITY CONTROL

A **bar code reader** can be used to scan a welded component's bar code/ QR code and assign it to a specific welding result.

SOUNDPROOF CABIN
Reliable noise protection solution

BAR CODE READER
Available as a hand unit or permanently mounted

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MELTING PROCESS

The melting process can be split into 10 steps, meaning that it can be controlled precisely, and the parameters can also be set individually for each step. These features ultimately lead **to an optimum welding result**.

FORCE AND SPEED PROFILE

To optimise the welding process, a linear force build-up can be programmed.

AFTER-PULSE

To prevent lightweight workpieces from potentially getting stuck on the horn, an after-pulse can be activated.

TRIGGER (ULTRASONIC TRIGGER POINT)

The welding operation can be initiated using a trigger. You can choose from the following triggers:

- Time
- Travel
- Force
- Off
- External signal
- Travel absolute and force

DATA EXPORT

A data string can be exported via RS232, Ethernet/a company network or a storage medium like a USB stick in order to log welding data.

REMOTE ACCESS SERVICE

Remote maintenance can be set up for our RINCO after-sales service to carry out quick and efficient troubleshooting.

You can find other features as well as options and accessories for the ultrasonic welding machines from the Electrical Motion series at the end of this brochure.

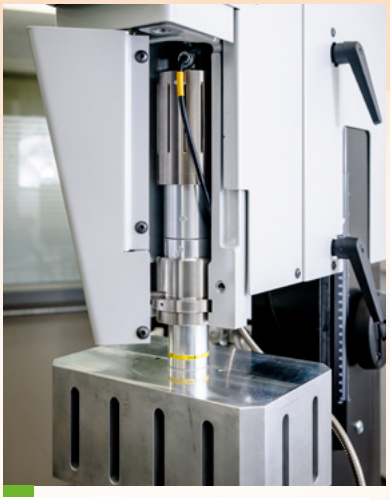
ELECTRICAL MOTION SERIES

TOOL CHANGE

QUICK AND EASY

Thanks to the quick-change system, tools can be replaced **within just a few minutes**. This minimises the risk of errors. The removable carriers are indexed.

CHANGE THE MOUNT
Quickly and easily



CHANGE THE OSCILLATOR UNIT
In just a few steps

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Lots of parameters need to be coordinated with one another if you are to achieve a perfect weld.
RINCO ultrasonic generators are designed to control ultrasonic welding machines. These generators provide options for you to set the precise parameters you need for your ultrasonic welding process. You can enter a range of values to specify **when the ultrasound will be triggered**.

The ultrasonic trigger point, also known simply as the trigger, can be linked to a number of different conditions.

These conditions, for example the type of material used to make the component, the configuration of the weld seam and the component size, are all taken into consideration and the appropriate trigger is used to define the exact parameters and, therefore, the perfect ultrasonic trigger point for the application in question. Your welding results will be top quality. What's more, these conditions can also help to protect tools.

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Choosing the right welding mode is one way of achieving a perfect end result. This mode can be customised for each application.

One welding mode can ensure that the end mass of the product being welded is always exactly the same once the welding process is complete, for example, whereas another welding mode will always perform the exact same welding steps on all components, but the end mass may vary. Wear to the welding tool, as experienced in cutting and punching applications, for example, can also be reduced by choosing the right mode. Whatever your desired result: **together we will find the perfect, reliable solution**.

You can count on our knowledge and commitment right from the start. And even after projects are complete, we are always ready to answer your questions. Our devices have been designed such that we can perform remote diagnostics at any time, so any errors can be rectified efficiently.

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COMPARISON TABLE

	Electrical Motion 20	Electrical Motion 35	Standard 3000	Standard 745	Standard 50	Easy 3000	Easy 745	ABW35
Compatible generator	XDG20/SCU20	XDG35/SCU35	ADG20	ADG35	ADG70	SDG20	SDG35	SDG35
Frequency	20 kHz	35 kHz	20 kHz	35 kHz	70 kHz	20 kHz	35 kHz	35 kHz
Force	3000 N	750 N	3000 N	745 N	50 N	3000 N	745 N	745 N
Output power (W)	3000, 2000	900	3000, 2000, 1500, 1000	900, 600, 400	100	2000, 1500, 1000	750, 400	750, 400
Dimensions W x L x H (mm)	572 x 755 x 1372	380 x 553 x 1030	400 x 760 x 1345	316 x 520 x 1066	316 x 500 x 505	400 x 727 x 1345	316 x 529 x 1066	120 x 156 x 489
Weight	135 kg	53 kg	115 kg	41 kg	15.5 kg	120 kg	41 kg	11.2 kg
Stroke	100 mm	100 mm	100 mm	100 mm	25 mm	100 mm	100 mm	6 mm
Warranty: 2 years	3 years	3 years	✓	✓	✓	✓	✓	✓
Amplitude adjustment	40–100%, 1% increments/ external	40–100%, 1% increments/ external	40–100%, 1% increments/ external	40–100%, 1% increments/ external	40–100%, 1% increments/ external	15–100%, 1% increments/ external	15–100%, 1% increments/ external	15–100%, 1% increments/ external
Audit trail	✓	✓						
Calibration	✓	✓						
Cleanroom, ISO class 6	✓	✓	✓					
Welding time	✓	✓	✓	✓	✓	✓	✓	✓
Welding energy	✓	✓	✓	✓	✓	✓	✓	✓
Welding travel	✓	✓	✓	✓	✓			
Contact cut-off (mode)	✓	✓	✓	✓	✓	✓	✓	✓
Continuous mode						✓	✓	
Melting rate (mode)	✓	✓						
Trigger point	Time, travel, force, off, external signal, travel absolute & force	Time, travel, force, off, external signal, travel absolute & force	Time, travel, pressure, off, external signal	Time, travel, pressure, off, external signal	Time, travel, pressure, off, external signal	On, off, time, start	On, off, time, start	On, off, time, start
Data transmission	✓	✓	✓	✓	✓	✓	✓	✓
Database	✓	✓	✓	✓	✓			
Associated software	✓	✓						
Digital technology	✓	✓	✓	✓	✓	✓	✓	✓
Electric drive	✓	✓						
Pneumatic drive			✓	✓	✓	✓	✓	✓
Height adjustment	✓	✓	✓	✓	✓	✓	✓	✓
Multilingual	✓	✓	✓	✓	✓	✓	✓	✓
Protection against power overload	✓	✓	✓	✓	✓	✓	✓	✓
Protection against overheating	✓	✓	✓	✓	✓	✓	✓	✓
Part counter	✓	✓	✓	✓	✓	✓	✓	✓
Remote access	Internal, external							
Softstart, softstop	✓	✓	✓	✓	✓	✓	✓	✓
Touch display	✓	✓						
User administration	✓	✓	✓	✓	✓	✓	✓	✓
Quick tool change system	✓	✓	✓	✓	✓	✓	✓	

OPTIONS AND ACCESSORIES

	Electrical Motion 20	Electrical Motion 35	Standard 3000	Standard 745	Standard 50	Easy 3000	Easy 745	ABW35
Workstation	✓	✓	✓	✓				
SSK soundproof cabin	✓	✓	✓			✓		
35 kHz tool case		✓		✓			✓	✓
20 kHz tool case	✓		✓			✓		
Footswitch with emergency stop								✓
Footswitch								✓
Film transport	✓	✓	✓	✓		✓	✓	
ADG device switch box			✓	✓	✓			
Device switch box for hand units						✓	✓	✓
DUO TOUCH two-hand control device			✓	✓	✓		✓	
Compound table					✓			
Column extension	300 mm/200 mm	100 mm	300 mm/200 mm	100 mm		300 mm/200 mm	100 mm	

Workstation

Available with automatic drawer or rotative table for ergonomic working. Equipped with soundproofing.

SSK sound enclosure cabin

Reduces the noise level by up to 20 dB.

35 kHz tool case

Tool for setting up service work.

20 kHz tool case

Tool for setting up service work.

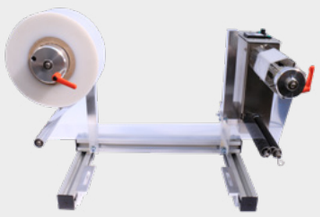
Footswitch with emergency stop button

To trigger the welding cycle using your foot, complete with emergency stop button.

Footswitch

To trigger the welding cycle using your foot.

Film transport



To protect the application from marks.

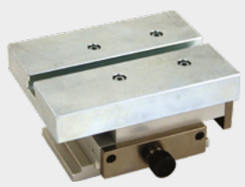
ADG device switch box

Designed for small multi-head systems if no higher-level control is required or if PLC is to be kept to a minimum. This enables small special systems to be built from only standard components.

DUO TOUCH two-hand control device

For increased ergonomic requirements, compatible with cleanrooms.

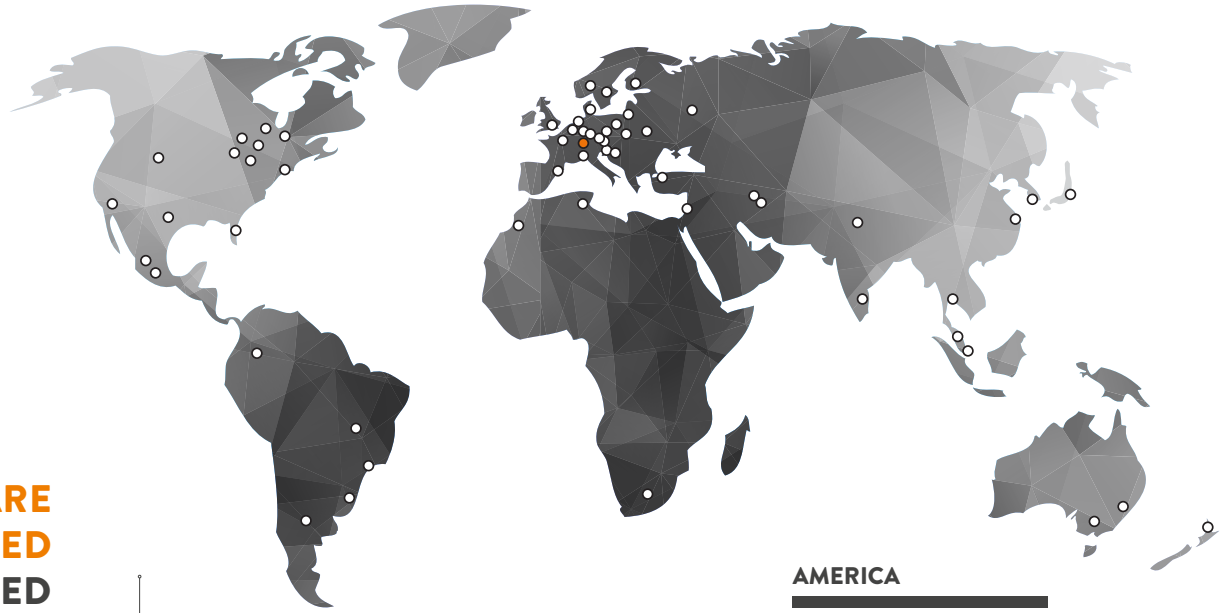
Compound table



Precise compound table for fine-tuning. Mounted using clamps.

Column extension

Extension for large components.



WE ARE
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