

# Ultrasonic welding machines

## ***Standard Series***



 **rinco**<sup>®</sup>  
ultrasonics

AROUND YOU EVERY DAY

# ***RINCO ultrasonic welding machines***



## **ULTRASONIC WELDING – THE ECONOMICAL WAY TO JOIN PLASTICS**

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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 MOTION2 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.

# COME AND DISCOVER THE OUTSTANDING QUALITY OF RINCO PRODUCTS FOR YOURSELF

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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.

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## RELIABILITY

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

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**EFFICIENT RINCO**  
AFTER SALES SERVICE

## AFTER-SALES SERVICE

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

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## 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.

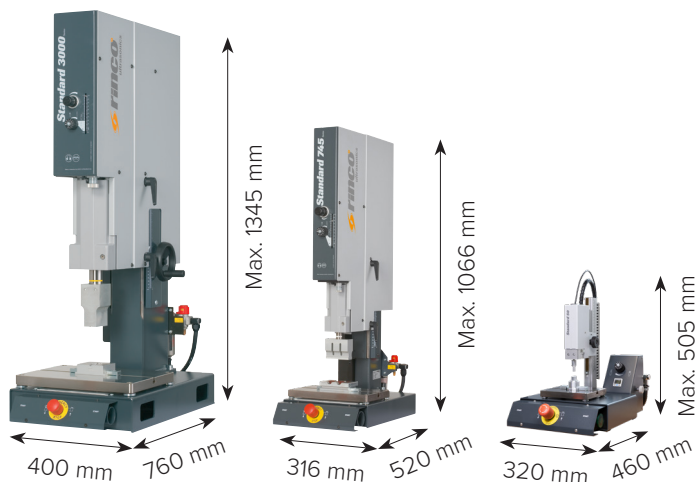
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## QUALITY RIGHT FROM THE START

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



# STANDARD SERIES – Versatile



**Standard 3000**

**Standard 745**

**Standard 50**

The ultrasonic welding machines in the Standard series with **pneumatic drive** are ideal for welding, cutting and punching thermoplastic moulded parts, non-wovens and textiles as well as films, or for embedding metals in plastic. Standard models can be used for high-precision machining of parts made from plastic with **designs of average complexity**.

The Standard 3000 and 745 are also available with chrome steel housings for use in cleanrooms. Moreover, the Standard 3000 CR is certified to **ISO class 6**.

**Multi-level user administration** controls permission to make changes to welding parameters, thereby increasing process reliability in operation.

	<b>Standard 3000</b>	<b>Standard 745</b>	<b>Standard 50</b>
<b>KHZ</b> Operating frequency:	20 kHz	35 kHz	70 kHz
<b>F</b> Maximum force:	3000 N	745 N	50 N
<b>Drive/compressed air:</b>	Pneumatic/6 bar nominal	Pneumatic/6 bar nominal	Pneumatic/6 bar nominal
<b>Maximum stroke:</b>	100 mm	100 mm	25 mm
<b>KG</b> Weight:	115 kg	41 kg	15.5 kg
<b>Height adjustment:</b>	0–280 mm	0–180 mm	0–240 mm

# COMPATIBLE GENERATORS

Compatible generator: ADG20 / ADG35 / ADG70

Output power: 100 W, 400 W, 600 W, 900 W,  
1000 W, 1500 W, 2000 W,  
3000 W



**ADG ULTRASONIC GENERATOR**  
You can find more information about  
performance and features  
in the “Ultrasonic generators”  
product brochure.

# FEATURES

## FLEXIBILITY

Thanks to the modular construction of our components, a manual workstation can be **developed** into an automation line or **integrated** into a special-purpose machine at any time.



## MAXIMUM REPEATABILITY

Up to **32 parameter data sets** can be stored in the database.



## SIMPLE QUALITY CONTROL

All welding results can be exported and stored. The values from the last **25 welding operations are also saved in the machine** until it is shut down.

## AFTER-PULSE

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

# FIELDS OF APPLICATION



**AUTOMOTIVE**



**HIGH-TECH**



**PACKAGING**



**FOOD**



**NON-WOVEN & TEXTILE**



**MEDICAL**



**HOUSEHOLD**



**COSMETICS**

**WELDING  
PUNCHING  
RIVETING  
EMBOSSING  
FLANGING  
EMBEDDING  
INSERTING  
SEALING**

**STANDARD SERIES**

# STANDARD SERIES – Versatile

## FUNCTIONS

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### 7 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 Standard series:



Welding time

**W/S**

Welding energy



**W/S**

Welding time AND/OR welding energy



Welding travel (absolute or differential)



Contact cut-off

### TRIGGER (ULTRASONIC TRIGGER POINT)

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



- Time
- Travel
- Pressure
- Off
- External signal

### 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 or cutting result.



### WORKSTATIONS

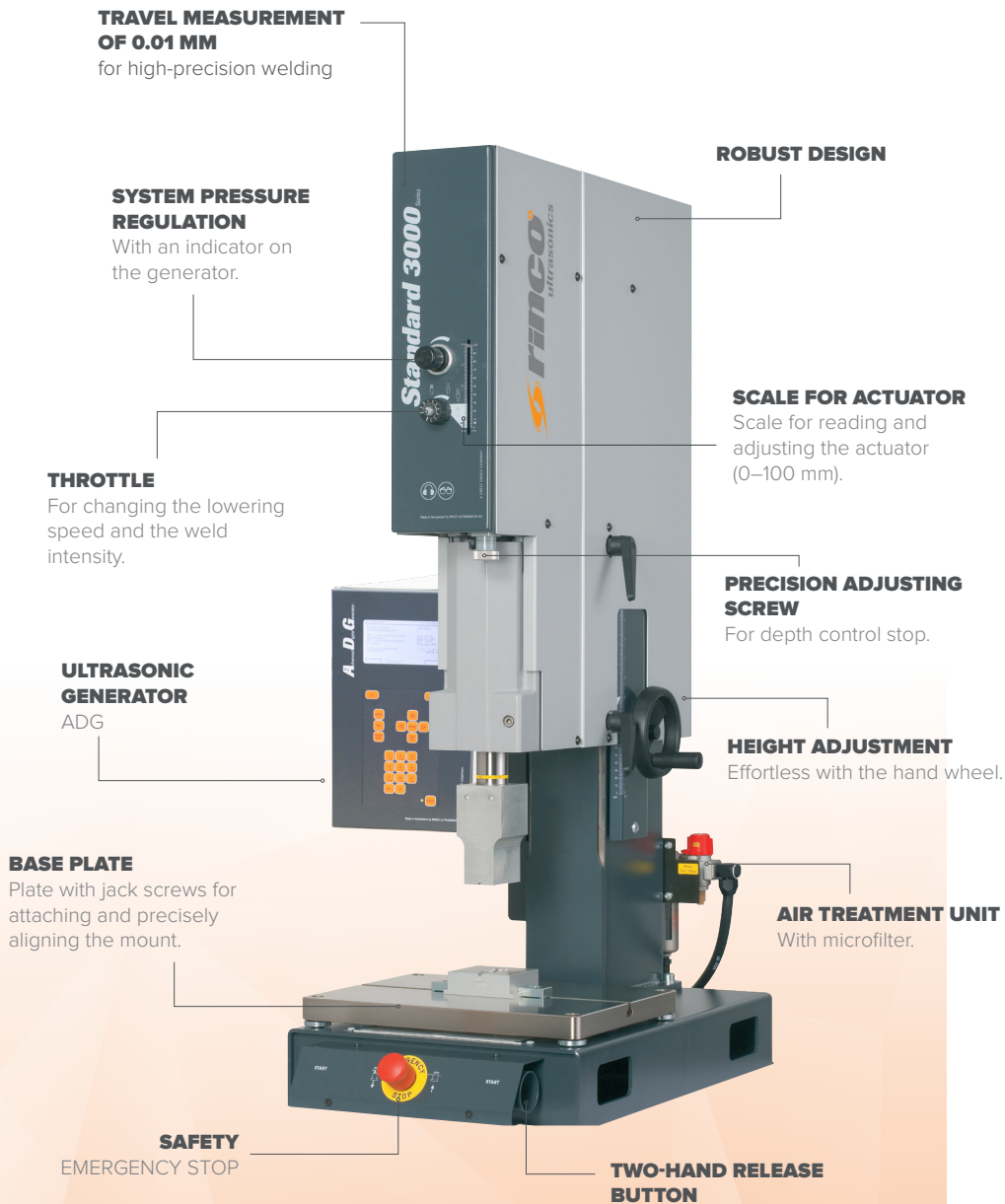
With a rotative table or drawer and noise-reducing features



### SOUNDPROOF CABIN

Reliable noise protection solution





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

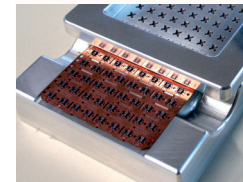
## STANDARD 50 – MICRO WELDING WITH AN OPERATING FREQUENCY OF 70 KHZ

Our Standard 50 is the perfect solution for microcomponents such as those used in very demanding microelectronics applications. RINCO is a world leader in this field. You can use the 70 kHz welding machine to carry out **high-precision welding operations even on microcomponents** like those found in a smartphone or hearing aid.

The **precision pressure** regulator supports a pressure setting of 0.01 bar/psi and maintains constant pressure.



**PRECISION  
PRESSURE  
REGULATOR**



### MICROELECTRONICS

This component has a welding surface of 2 mm<sup>2</sup>.

# STANDARD SERIES

**rinco**  
ultrasonics

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.**

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**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.












































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

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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.



		Electrical Motion2-20	Electrical Motion2-35	Standard 3000	Standard 745	Standard 50	Easy 3000	Easy 745	ABW35
									
	Compatible generator	XDG2-20/SCU2-20	XDG35/SCU35	ADG20	ADG35	ADG70	SDG20	SDG35	SDG35
KHZ	Frequency	20 kHz	35 kHz	20 kHz	35 kHz	70 kHz	20 kHz	35 kHz	35 kHz
	Force	3000 N	745 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	320 x 460 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	✓	✓	✓	✓	✓	✓	✓	✓
W/S	Welding energy	✓	✓	✓	✓	✓	✓	✓	✓
	Welding travel	✓	✓	✓	✓	✓			
	Contact cut-off (mode)	✓	✓	✓	✓	✓	✓	✓	✓
	Continuous mode						✓	✓	
	Multi Melt Control (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	✓	✓	✓	✓	✓	✓	✓	✓
OCTS	Quick Change Tool System (oscillation system)	✓	✓						
SMED	Quick Tool Change (sonotrode and anvil)	✓	✓	✓	✓	✓	✓	✓	

	Electrical Motion2-20	Electrical Motion2-35	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	150 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**

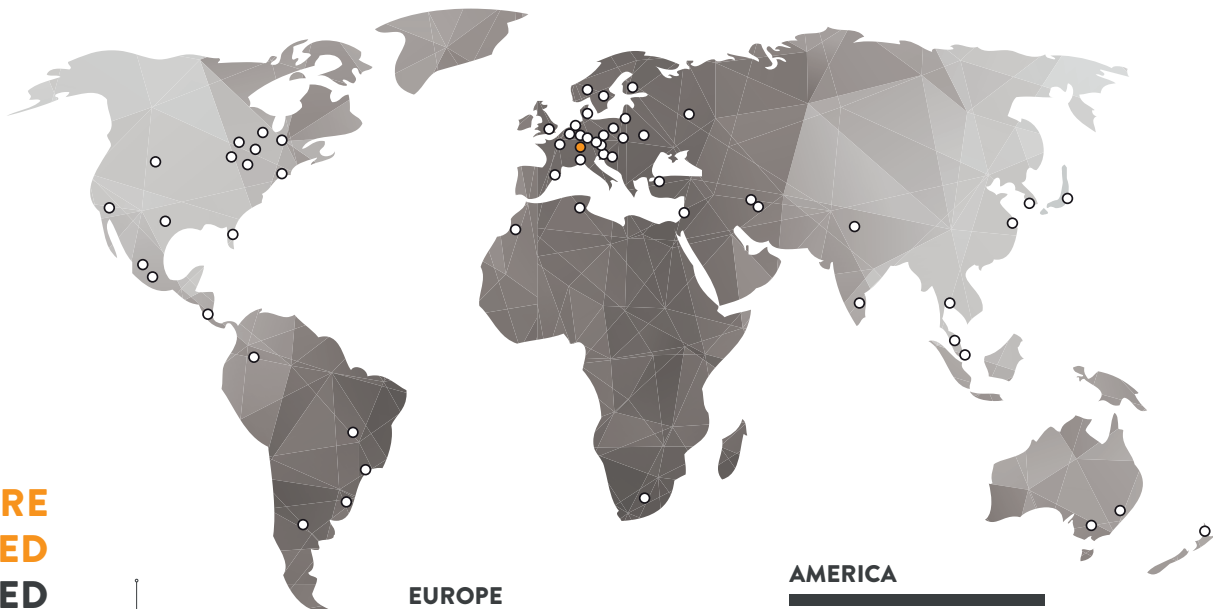


Precise compound table for fine-tuning. Mounted using clamps.

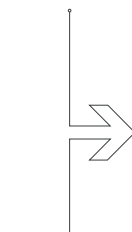
**Column extension**



Extension for large components.



**WE ARE  
FOCUSED  
COMMITTED  
GLOBAL  
LOCAL**



## EUROPE

### SWITZERLAND

[rincoultrasonics.ch](http://rincoultrasonics.ch)

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SINCE 1976**