## Ultrasonic welding machines



## Easy Series





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 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

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**.



#### **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.









## **EASY SERIES** – Simple and reliable



The Easy series is your ideal partner for simple welding tasks. With these machines, **you do not need to invest a lot** to achieve clean and repeatable welding results.

The pneumatic ultrasonic welding machines from the Easy series are ideal for welding thermoplastic parts both big and small, depending on the model.

Foor 2000	Focus	745
<i>Easy 3000</i>	<b>Easy</b> 1	/43

	Easy 3000	Easy 745
KHZ Operating frequency:	20 kHz	35 kHz
Maximum force:	3000 N	745 N
Drive/compressed air:	Pneumatic/6 bar nominal	Pneumatic/6 bar nominal
Maximum stroke:	100 mm	100 mm
KG Weight:	120 kg	41 kg
Height adjustment:	0–280 mm	0–180 mm



#### **COMPATIBLE GENERATORS**

Compatible generator:

SDG20 / SDG35

Output power:

2000 W, 1500 W, 1000 W,

750 W, 400 W

#### **SDG ULTRASONIC GENERATOR**

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

#### **FEATURES**

**6rinco**°

#### QUICK AND SIMPLE TO SET UP

Ultrasonic welding machines from the Easy series are set up and ready to go in an instant.

#### **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.

#### **FIELDS OF APPLICATION**



**AUTOMOTIVE** 



HIGH-TECH



**PACKAGING** 



FOOD



**NON-WOVEN & TEXTILE** 



MEDICAL



HOUSEHOLD



COSMETICS

WELDING
PUNCHING
RIVETING
EMBOSSING
FLANGING
EMBEDDING
INSERTING
SEALING





## **EASY SERIES** – Simple and reliable



#### **FUNCTIONS**

#### **6 WELDING MODES TO CHOOSE FROM**

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



Welding time

W/S

Welding energy



W/S

Welding time AND/OR welding energy



Contact cut-off



Continuous

#### TRIGGER (ULTRASONIC TRIGGER POINT)



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

- On
- Off
- Time
- Start

#### **AFTER-PULSE**

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

#### **ADJUSTABLE AMPLITUDE**

You can change the value for the internal or external amplitude to between **15 and 100%** in 1% increments so as to achieve the best possible welding or cutting result.

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

#### **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 ANVIL
Quickly and easily



CHANGE THE OSCILLATOR UNIT In just a few steps





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.



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.





### **COMPARISON TABLE**



		Electrical Motion2-20	Electrical Motion2-35	Standard 3000	Standard 745	Standard 50	Easy 3000	Easy 745	ABW35
Co	ompatible generator	XDG2-20/SCU2-20	XDG35/SCU35	ADG20	ADG35	ADG70	SDG20	SDG35	SDG35
KHZ Fre	equency	20 kHz	35 kHz	20 kHz	35 kHz	70 kHz	20 kHz	35 kHz	35 kHz
3000N Fo	orce	3000 N	745 N	3000 N	745 N	50 N	3000 N	745 N	745 N
Ou	utput power (W)	3000, 2000	900	3000, 2000, 1500, 1000	900, 600, 400	100	2000, 1500, 1000	750, 400	750, 400
Dir	imensions 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
KG We	eight	135 kg	53 kg	115 kg	41 kg	15.5 kg	120 kg	41 kg	11.2 kg
Str	roke	100 mm	100 mm	100 mm	100 mm	25 mm	100 mm	100 mm	6 mm
Warranty	arranty: 2 years	3 years	3 years	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Am	mplitude 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
Au	udit trail	✓	✓						
Ca	alibration	✓	✓						
ISO 6	eanroom, ISO class 6	<b>✓</b>	✓	<b>✓</b>					
₩e	elding time	✓	✓	✓	✓	✓	✓	✓	<b>✓</b>
W/S We	elding energy	✓	✓	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>
ABSOLUTE WE	elding travel	✓	✓	✓	✓	✓			
77	ontact cut-off (mode)	<b>✓</b>	✓	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Co	ontinuous mode						✓	✓	
<u></u> Mu	ulti Melt Control (mode)	✓	<b>✓</b>				Karaman and a second		
Trig	igger 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
Da	ata transmission	✓	<b>✓</b>	✓	<b>/</b>	✓	<b>✓</b>	✓	<b>✓</b>
Da	atabase	✓	✓	✓	✓	✓			
Ass	ssociated software	✓	✓						
Dig	igital technology	✓	✓	✓	✓	✓	✓	✓	<b>✓</b>
Ele	ectric drive	✓	✓						
Pn.	neumatic drive			✓	✓	✓	✓	✓	✓
He	eight adjustment	✓	✓	<b>✓</b>	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>
DE EN Mu	ultilingual	✓	✓	✓	✓	✓	✓	✓	<b>✓</b>
Pro	otection against power overload	✓	✓	<b>✓</b>	✓	✓	✓	<b>✓</b>	<b>✓</b>
Pro	otection against overheating	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
0 0 3 Pai	art counter	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Re	emote access	Internal, external							
So	oftstart, softstop	<b>✓</b>	1	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Tou	ouch display	<b>√</b>	<b>✓</b>						
Us	ser administration	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
QCTS Qu	uick Change Tool System (oscillation system)	<b>√</b>	<b>√</b>						
SMED Qu	uick Tool Change (sonotrode and anvil)	<b>✓</b>	<b>/</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	

## **ULTRASONIC WELDING MACHINES**

### **OPTIONS AND ACCESSORIES**



	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	✓		✓			<b>✓</b>		
Footswitch with emergency stop								✓
Footswitch								1
Film transport	✓	✓	✓	✓		<b>✓</b>	<b>✓</b>	
ADG device switch box			✓	✓	1			
Device switch box for hand units						<b>✓</b>	✓	✓
DUO TOUCH two-hand control device			✓	<b>✓</b>	1		1	
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



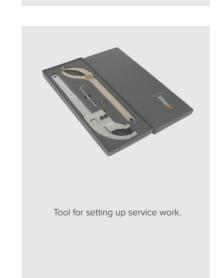
#### SSK sound enclosure cabin



35 kHz tool case



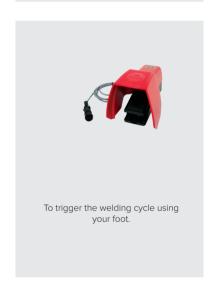
20 kHz tool case



Footswitch with emergency stop button



Footswitch



Film transport



ADG device switch box



DUO TOUCH two-hand control device



Compound table



Column extension



Ultrasonic welding machines GB V1.9







**CONTACT US FOR MORE INFORMATION** 

rincoultrasonics.com info@rincoultrasonics.com +41 71 466 41 00

> Industriestrasse 4 CH-8590 Romanshorn Switzerland

#### **GERMANY**

rincoultrasonics.de

#### **FRANCE**

rinco-france.com

#### **SPAIN**

rincoultrasonics.es

#### **ITALY**

rincoultrasonics.it

#### **SWEDEN**

rincoultrasonics.se

#### **DENMARK**

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#### **AFRICA**

#### **MOROCCO**

rincoultrasonics.com











