COMPETENCE CENTER

ultrasonic competence center

# MEASUREMENT AND TESTING SERVICES

## IN APPLICATION TECHNOLOGY


QUALITY THROUGH COMPE-TENCE

rinco® ultrasonics

AROUND YOU EVERY DAY

# MEASUREMENT AND TESTING SERVICES
## IN APPLICATION TECHNOLOGY

**WE PROVIDE THE FOLLOWING SERVICES:**

**PARTS ANALYSES**

- Defect analysis
- Moldflow simulation
- Internal measurement (computer tomography)
- Tactile measurement
- Microscopy

**ANALYSES OF ULTRASONIC TOOLS AND WELDING PROCESSES**

- FEM analysis
- Heat distribution checks (infrared image)

**ENGINEERING**

- Optical measurement (3D camera)
- Stereolithography / 3D printer
- Pre-series production
- Reverse engineering

**TROUBLESHOOTING AND AFTER-SALES SERVICE**

- Local troubleshooting
- After-sales service
- Remote maintenance

**WE WOULD BE HAPPY TO CONDUCT A FREE FEASIBILITY STUDY FOR YOU**

to test the viability and feasibility of your part.

**REDUCING COSTS AND PROCESS CYCLE TIMES**

is part of all of our projects and is taken into account at every step. We will gladly advise you on how you can optimise your costs and processes.

**WE WILL SUPPORT YOU THROUGH THE ENTIRE DURATION OF YOUR PROJECT**

and will also be happy to provide assistance afterwards at any time.

**OUR BROAD SPECTRUM OF MEASURING AND TESTING METHODS**

will cover virtually all of your needs.

# MAKE USE OF THE RANGE OF COMPETENCIES OFFERED BY RINCO ULTRASONICS!

**OUR EXPERTISE**
is at your disposal when optimising your parts and processes. Thanks to our years of experience, we are able to find the ideal solution to every problem.

**RINCO ULTRASONICS IS CERTIFIED TO ISO 9001, ISO 13485 AND ISO 14001**
Our project management meets the highest standards and ensures a smooth process for you, as well as the best quality for your products.

**THE TACTILE TESTING LABORATORIES ARE CERTIFIED TO ISO/IEC 17025**
and therefore guarantee consistently reliable measurement results. You will receive all measurement reports from us in a digital format.

**WE WORK WITH CERTIFIED PARTNERS.**
The company **Units** is one of our certified partners who provide us with reliable support for our services.

Thanks to the Moldflow simulation, critical quality defects are discovered and corrected before production begins.

# PARTS ANALYSES

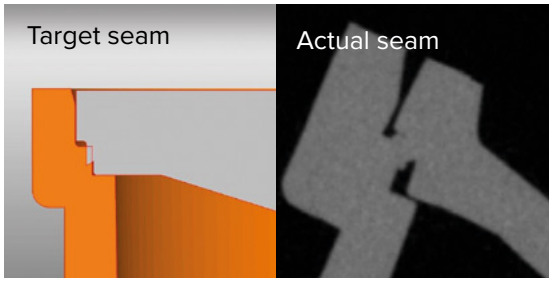
We have many methods which we can use to check and optimise your parts.  But even before the parts are produced, we will provide help and advice to enable you to achieve a perfect design from the start.

- Defect analysis
- Moldflow simulation
- Internal measurement (computer tomography)
- Tactile measurement
- Microscopy


Tactile analysis measures inaccuracies in the part with micrometre accuracy.

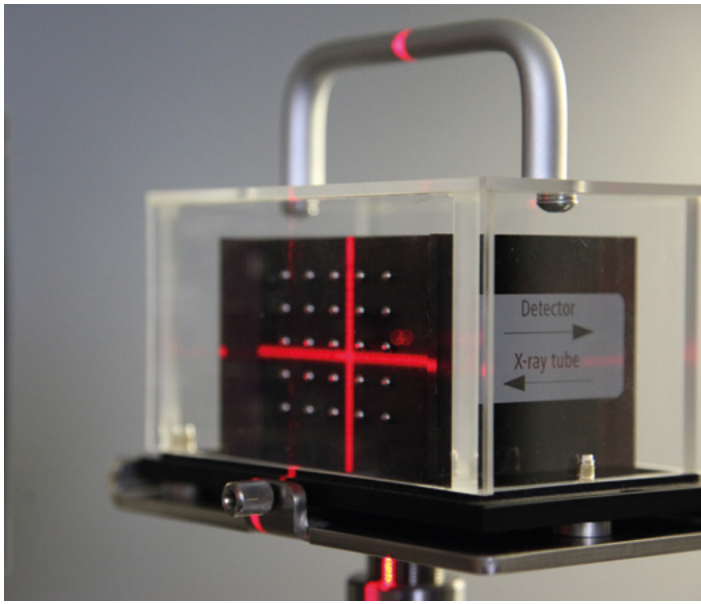
Computer tomography makes defects or inconsistencies inside the product visible without having to destroy the product in the process. Production plans can then be adapted precisely, significantly reducing the tool correction loops required.

WE CHECK SHAPE, SIZE, MATERIAL AND PROCESSING.




Computer tomography provides in-depth insights into the part, enabling defects to be located quickly.


Material and geometric analyses are carried out using computer tomography.

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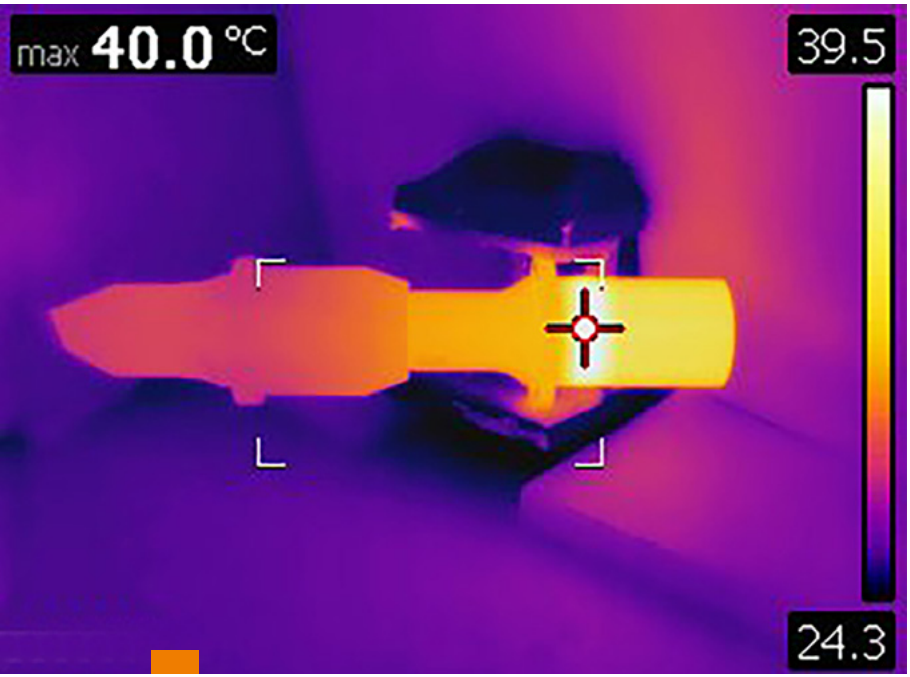
# ANALYSES OF
# ULTRASONIC TOOLS AND WELDING PROCESSES

It is not only the tools that must be perfectly designed – the welding process must also be correct. The parameters of our machines are set with such tailored precision that the perfect welding result can be achieved for every application.




The infrared camera enables us to see how much the tool or plastic part heats up during welding.

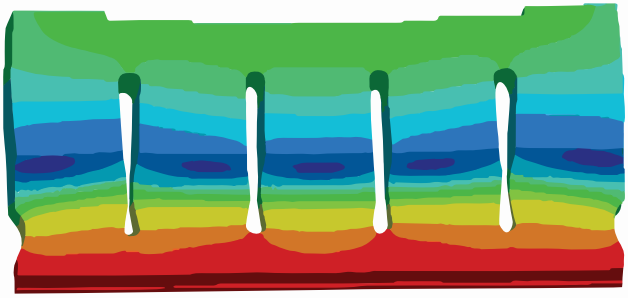
Design flaws have a huge influence on the welding result. If the tool or plastic part overheats, it could crack or mean that the reproducibility of the welding results can no longer be ensured. Using an infrared camera enables any overheating caused by vibrations to be ruled out before production gets under way. We produce our tools in-house in Switzerland, ensuring the highest levels of precision and quality.

FEM analysis

Heat distribution checks (infrared image)

WE INVESTIGATE HEAT DISTRIBUTION AND THE INFLUENCE OF FORCE.

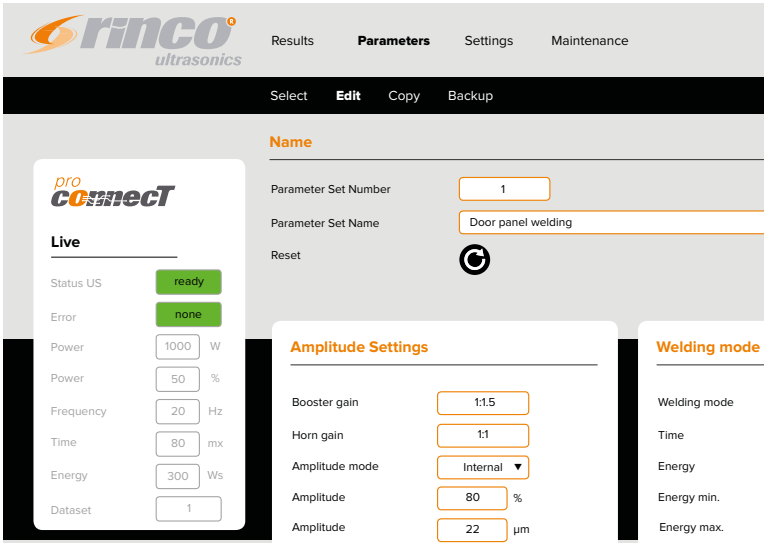
The FEM analysis demonstrates whether amplitude and stress are evenly distributed and whether the horn will have a long service life as a result.



FEM analysis is used to calculate amplitude distribution. When distribution is even, the shape of the welding tool (horn) is ideal. FEM analysis can also be used to calculate vibration-induced stress positions, thus locating weak points. We can analyse your horn using FEM and then optimise its shape for your application.

Welding processes can be analysed extremely quickly via remote access. Our experienced team can then make any corrections to parameters straight away. Naturally, access is password-protected.

Selected products can be analysed or have their status checked via remote access.

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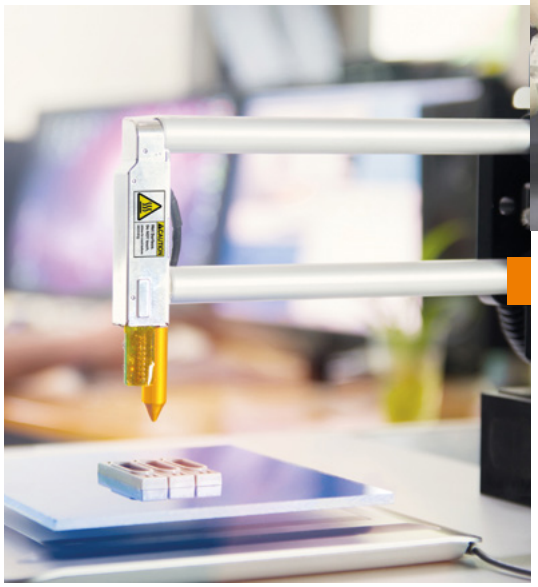
- Optical measurement (3D camera)
- Stereolithography / 3D printer
- Pre-series production
- Reverse engineering

# ENGINEERING,
# REVERSE ENGINEERING, 3D PRINTING, STEREOLITHOGRAPHY

SMALL-SCALE/PRE-SERIES PRODUCTION AS A SUITABILITY TEST.

Do you have a part, but no production plans? Or perhaps you do have plans, but would like to be sure that your part has the ideal design before starting series production? We can help you in this case too, by using a 3D camera and 3D printer.

With the highly precise 3D camera, parts can be captured digitally. The data obtained from this process enables the workpiece to be reconstructed, also known as “reverse engineering”.



3D printers make it possible to create individual workpieces to check their properties. During this process, plastic or synthetic resin, for example, is applied layer by layer. This is ideal for small-scale or pre-series production in order to check suitability for operation.

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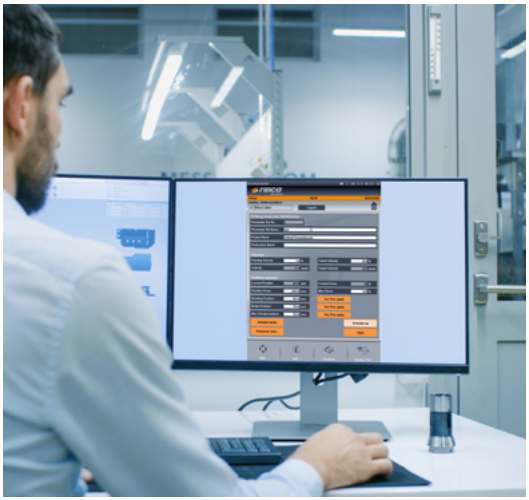
Swiss technology

# TROUBLESHOOTING
# AND AFTER-SALES SERVICE

WE ARE THERE FOR YOU ALL AROUND THE WORLD.



- Local troubleshooting
- After-sales service
- Remote maintenance

Selected machines are equipped with remote access which means we can check your machine for incorrect parameters straight away.

We will gladly provide assistance even after the project phase and offer advice on rectifying process and parts errors. Wherever you are in the world, our global after-sales service will be close at hand to avoid unnecessary downtime. We also guarantee a quick and easy repair service and immediate spare parts delivery.

**Call us: +41 (0) 71 466 41 00**
**or send us an e-mail: info@rincoultrasonics.com**

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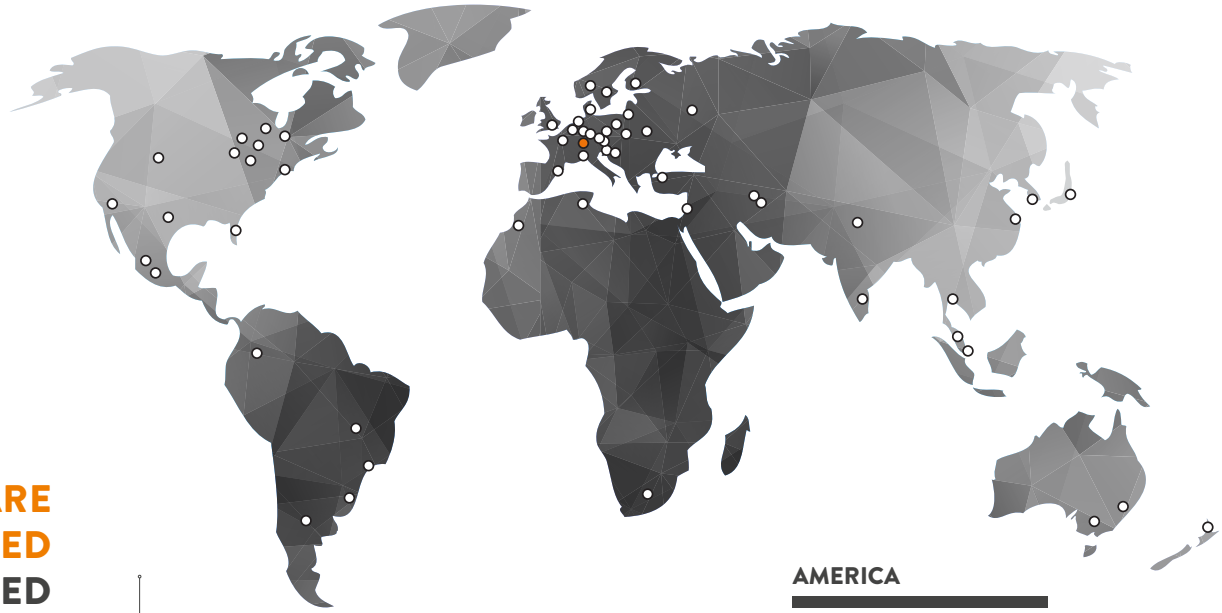

**WE ARE**
**FOCUSED**
**COMMITTED**
**GLOBAL**
**LOCAL**

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**CONTACT US FOR MORE INFORMATION**


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