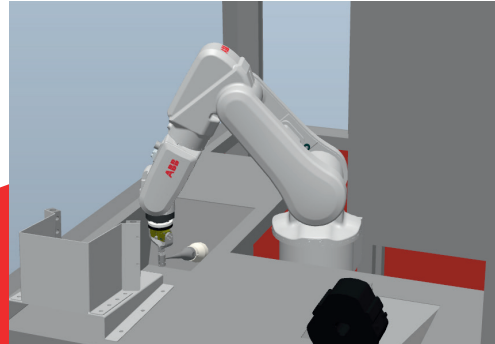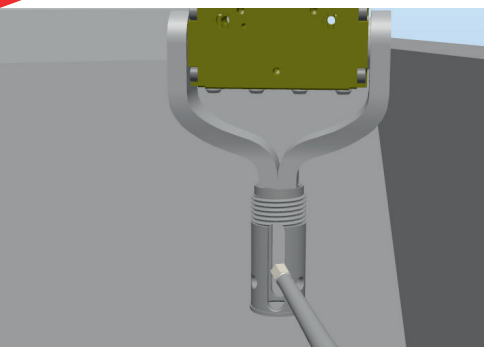# ...reality

ultraTEC innovation

Your ultrasonic deburring machine always has a duplicate/replica:

1x of course as a real-life machine for your deburring process and 1x as a digital twin for the offline-programming, visualization, simulation and collision monitoring.
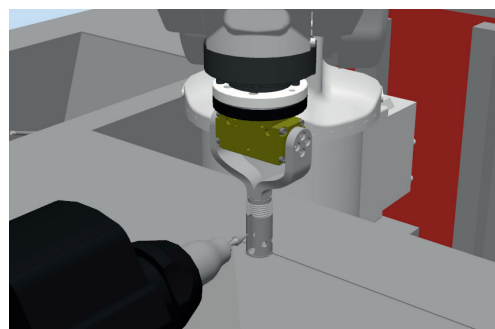
Restrictions of the component geometry was yesterday

Within your digital twin you can easily simulate and monitor the production process. Collisions are a thing of the past. A maximum of 3 adjustment components makes it possible to deburr nearly any component geometry.

Therefore, batch sizes of approx. 100 pieces can be deburred economically

With the digital twin you can also optimize your classical robot deburring. With the compressed air control of the robot compensation joint it is possible to vary the chamfer size.
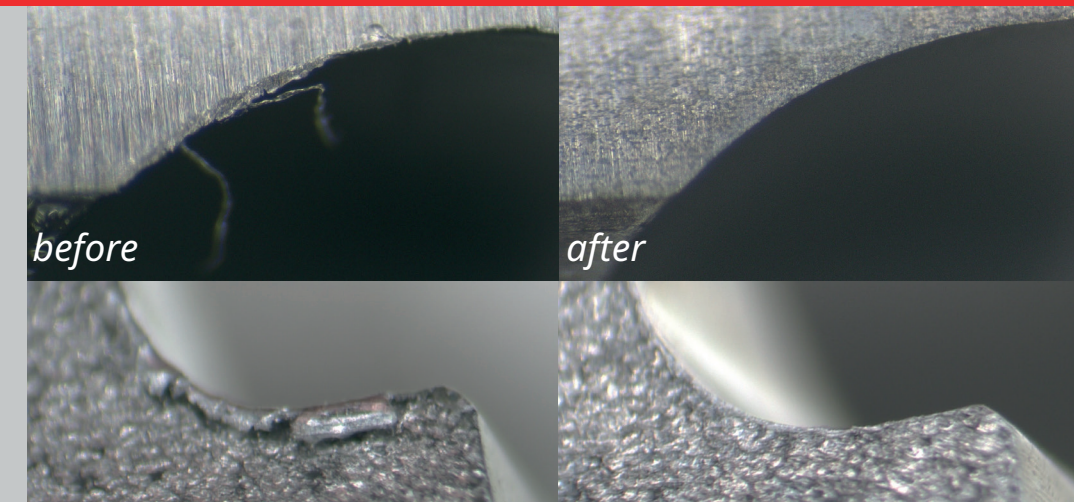
Technical Data

Machine type:	Ultrasonic deburring	
Usage:	Ideal for deburring metals and plastics which are difficult to deburr.	
Contamination:	The components must be oil free before deburring.	

Machine dimensions:	**A25**	**A100**
Transport:		
Width (Standard):	1.350 mm	2.000 mm
Width (4 Treys):	1.500 mm	2.000 mm
Length:	1.500 mm	2.200 - 2.500 mm
Height:	2.150 mm	2.200 mm
In operation (installation dimensions):		
Width (Standard):	1.350 mm	2.000 mm
Width (4 Treys):	1.900 mm	2.500 mm
Length:	1.500 mm	2.200 - 2.500 mm
Height:	2.150 mm	2.200 mm
Total weight:	900 - 960 kg	1.500 - 1.650 kg
Maximum Component size:	150x150x150 mm	300x300x300 mm
Maximum Component weight:	1,5 kg	10 kg / 20 kg
Content Process water basin:	40 Liter	190 - 350 Liter
Maximum Connection value:	4,6 kVA	6,5 kVA
Robot:	ABB IRB 120/ IRB 1200	ABB IRB 1300 ABB IRB 1200

Connections:
Power: CEE 400V; 16A
Domestic water supply
Wastewater connection or possibility of accumulation of the water (e.g. barrel), data connection

Ultrasonic:
Frequency: rd. 20 kHz
Amplitude: ±80 bis ±130µm

Contact
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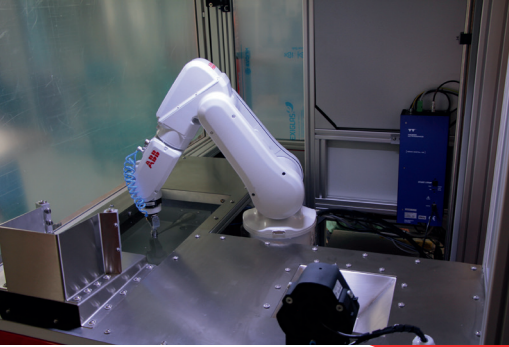info@ultratec-innovation.de
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ULTRASONIC DEBURRING MACHINE A25/A100

before

after

The solution to your deburring problem!

Cross holes starting at Ø 0,1mm without device

Sharp-edged but free of burrs

Validatable process (ideal for medical devices)

Only punctual deburring on demand

Concealed edges

Lot sizes 100 – 1Mio.

Materials difficult to deburr
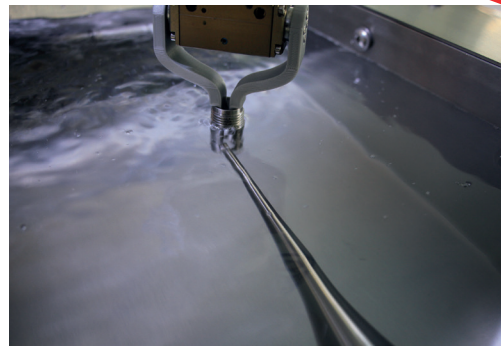
The future is...   ...now

The solution to your deburring problem:

Compact deburring machine for deburring metals and plastics which are difficult to deburr and difficult to reach geometries based on ultra-sonic deburring and cavitation.

1 Ultrasonic basin made of high-quality stainless steel with the monitoring of the water level and temperature.

2 Two opposed ultrasonic horns are built in the basins for various applications.

How it works:

In a process water basin, an ultrasonic horn oscillates and generates sound waves as well as cavitation. The ultrasonic sound waves in combination with cavitation cleanses even interior and concealed edges while being process reliable.

3 Compressed air-drying station for blowing the components dry after the deburring process.

4 High quality 6-axis industrial robot ABB IRB 120/IRB 1100 (A25) or ABB IRB 1300 (A100).

Never imagined flexibility:

With the option of a motor spindle in the robot compensation joint the possibilities of deburring with the machine multiply. Sharp edges and different sized chamfers of one component, not a problem for our ultraTEC A25 and A100.

We can prove it to you.

5 Various waterproof grabbing systems for picking the components.

6 HÄWA-industrial switch gear cabinet with high quality components, Siemens S7 SPS-Controlling, remote maintenance module and Schmersal safety components.

11 Optional: Various motor and air pressure spindles with and without robot compensation joints.

10 Various sensors for requirement-dependent part orientation.

9 Station for turning the part for deburring on both sides.

8 Various options for the feeding of parts, such as 2 or 4 treys, conveyor belts, etc.

7 Water purification system with water cooling, heat exchanger and particulate filter.

A25

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