

BACTERIAL ZERO-TOLERANCE BY INNOVATION

MADE IN BELGIUM 

ultra **Z**onic<sup>®</sup>  
med

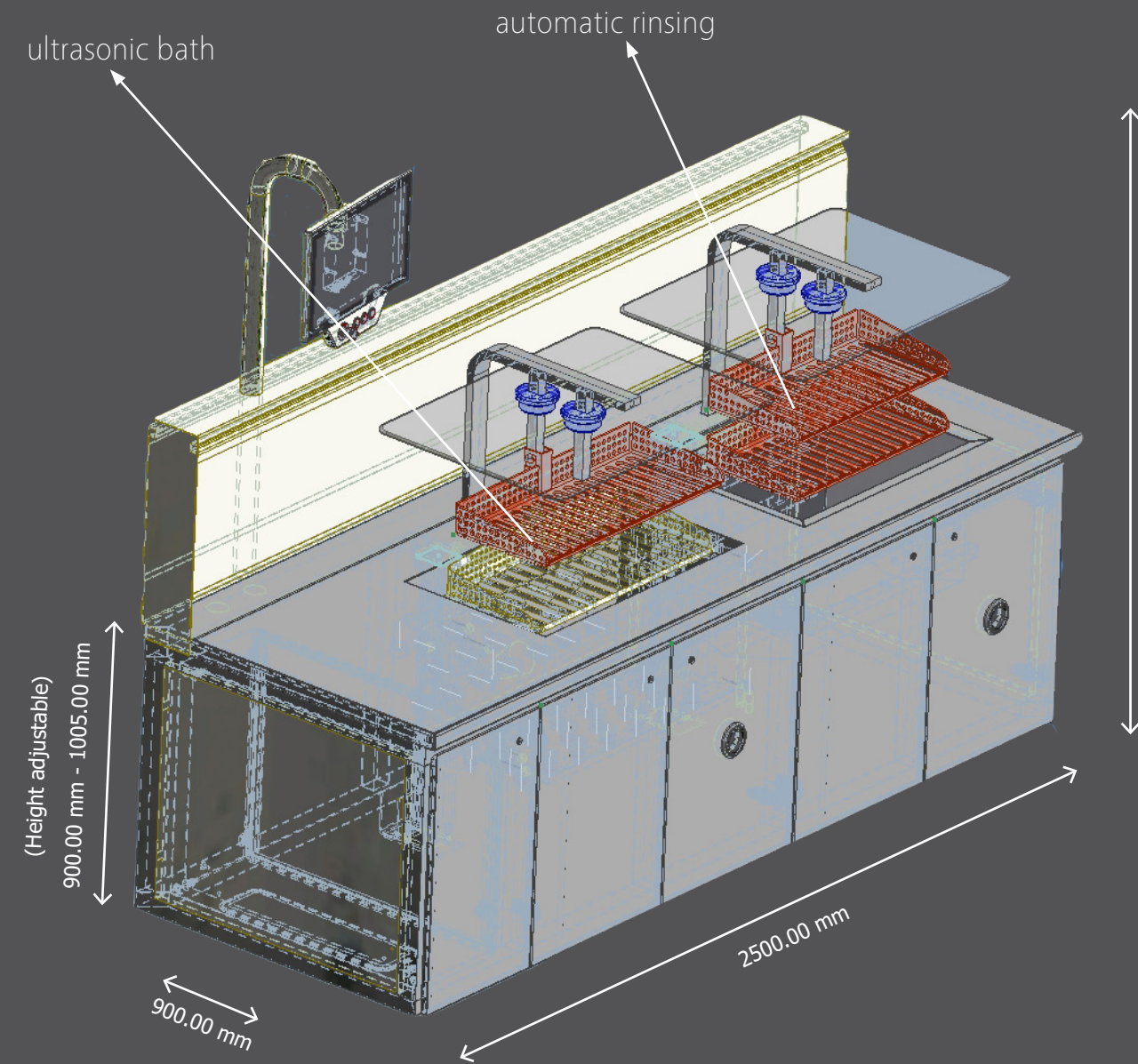


# TECHNICAL AND PERFORMANCE SPECIFICATIONS FOR MEDICAL EQUIPMENT

**Def.: Med** - noun [med] neutral (2017) pronunciation: 'm ε d'

1. A new **(r)evolution in the ultrasonic cleaning of medical instruments.**
2. **a:** An exceptional pre-cleaning device taking the traditional ultrasonic cleaning to the next level with new approaches, such as adjustable frequencies and triple-side irradiation. **<Thanks to this advanced technology, called frequency modulation, even highly sensitive surgical instruments are gently - yet thoroughly- cleaned without damaging the instruments.>**
- b: Def. ultrasonic cleaning:** Sending ultrasonic waves through the cleaning solution generates hundreds of thousands of small bubbles that grow until they implode. The local cavitations resulting from these implosions function like micro-scrubbers that virtually tear impurities off surfaces. Since little bubbles are all that implode, this type of cleaning is completely scratch free and reaches even the smallest cavities that would be impossible to reach by hand or with a spray nozzle.
3. The innovative technology is remarkable, but the process is simple. The Med is a user-friendly device performing all the steps automatically, making manual intervention or supervision unnecessary. Resulting in cost and labor time savings.
4. Microscopic cavitation bubbles and specially formulated eco-friendly solutions seek out every crease and crevice, eliminating stubborn or difficult-to-reach contaminants in the process.
5. **Designed & manufactured in Belgium** by **UltraZonic nv:** a Belgium based hi-tech R&D and manufacturing company specialized in infection control technologies.
6. **Unique** in the world.

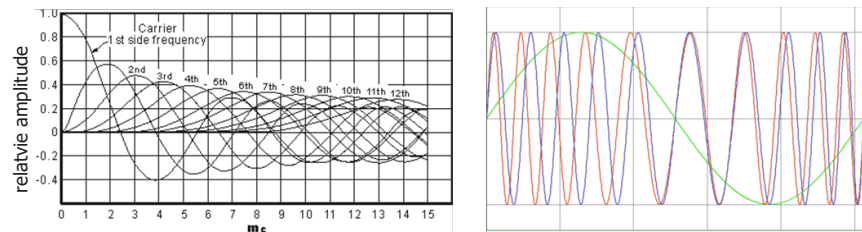
# ULTRAZONIC MED



Model offered	UltraZonic MED TUSAVS
Manufacturer	UltraZonic nv
Country of origin	Belgium
Items description	Automated pre-cleaning station for surgical instruments
Regulatory compliance	MDR CLASS I 2017/745 Annex VIII
Spray tank water usage	Usage of 20 nozzles: 59 l/min at 3bar
Ultrasonic tank water usage	100l tank capacity
Operation conditions	20% - 80% non condensing 19°C - 27°C Indoor use only
Cold water supply	1. Temperature <18°C 2. Connection Ø 22mm tubing with hand valve 3. Water pressure 2,5 - 3,5 bar 4. Water quality According to guideline R4104 < 6°Dh 5. Flow Approx 45 - 55l/min
Warm water supply	1. Temperature 45°C - 60°C 2. Connection Ø 22mm tubing with hand valve 3. Water pressure 2,5 - 3,5 bar 4. Water quality According to guideline R4104 < 6°Dh 5. Flow Approx 45 - 55l/min
Max. pressure difference:	1,5 bar between hot and cold water to optimise thermostatic valve function
Air supply	1. Minimum flow 40l/min 2. Air 3/8" female thread 4 - 6 bar
Drain	1 x Ø 50mm - 2" BSP
Electric supply	1. Type 3 x 380VAC - 20A - 50Hz or 230VAC - 32A - 50/60Hz
2. Fuse/earth leak protection	20A - 32A / 30mA
3. Power consumption	Max. 8000W
Heating	2600W
Ultrasonic frequency	27 kHz LF and/or 80 kHz HF
Ultrasonic transducers	Triple-side irradiation (bottom + 2 sides)
Ultrasonic effective	2600W
Ultrasonic peak power	5000W
Size (custom made possible)	2500mm x 900 mm x 1888 mm
Weight	670 kg
Noise emission value	61dB

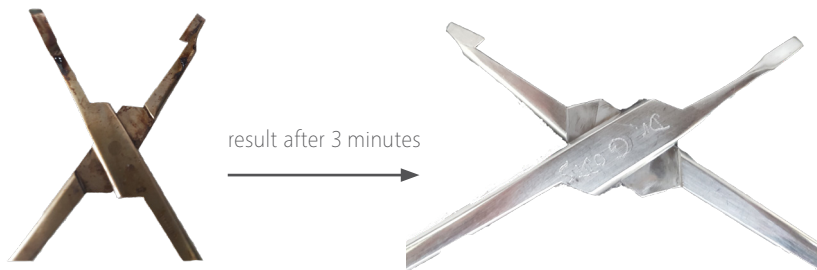
## FLEXIBLE FREQUENCY MODULATION

- Frequency can be modulated from 27 kHz LF and/or 80 kHz HF.
- Cleaning strength is adjusted to match the requirements of the items being processed.
- No risk of damaging highly sensitive instruments (such as Da Vinci instruments) due to wrong frequency approach.
- Minimizes standing waves and ensures an almost homogeneous ultrasound intensity distribution.



## CLEANING TECHNOLOGY LIKE NEVER SEEN BEFORE

Thanks to the frequency modulation, contamination (bones, blood proteins and other) is removed in only 3 minutes. Even in hard-to-reach areas such as corners and lumens.



# UNMISTAKABLY

# REVOLUTIONARY

- Performs **all reprocessing steps 100% automatically**. Including automated pre-rinsing, making the entire procedure hands-free.
- Highly protected cleaning procedure**: safety alarm goes off if prescribed cleaning procedure is incorrect.
- Specific frequency approach** for each instrument.
- Cleaning detergents can be significantly reduced because of the very high cleaning activity of the **acoustic broadband spectrum**.
- Cleaning time is 70% shorter** compared to traditional ultrasonic cleaning technology.
- No supervision or manual intervention** needed. User-friendly.
- Advanced software system** automatically controls entire cleaning cycle.

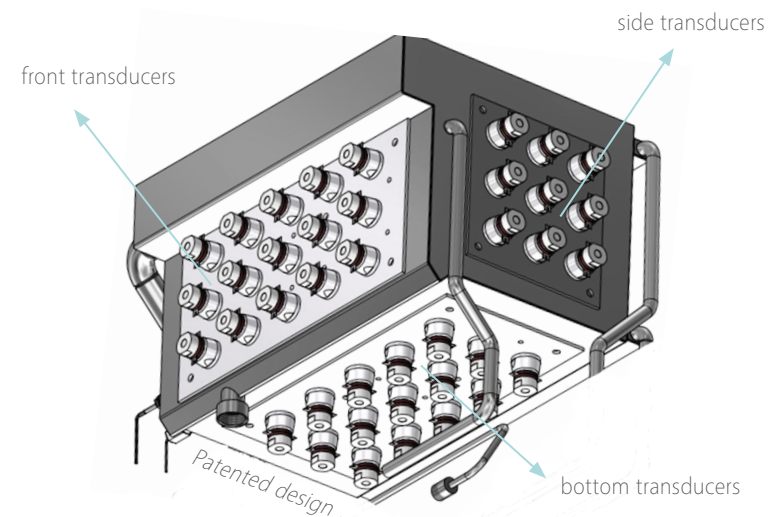
## ONE DEVICE: MANY ADVANTAGES



## STATE-OF-THE-ART DESIGN



- Pneumatic system**: automatic opening and closing of the lids as well as for lifting instruments baskets out of the tank.
- Ergonomic design**: Easy-to-use touchscreen control panel with rotatable arm. Completely height-adjustable.
- Made of stainless steel 304, manufactured out of the **high quality materials**. The ultrasonic tank is fabricated out of 316 stainless steel.



## UNIQUE 3-DIMENSIONAL ULTRASONIC APPROACH

- Triple-side irradiation** (transducers attached on the three sides)
- Intensive ultrasonic field**
- Extremely efficient and powerful electronics and transducer coupling to ultrasonic bath

# PROGRESSIVE ULTRASONIC CLEANING



- All cleaning cycles are performed safely and correctly, procedure after procedure. If not, an alarm is emitted.
- Instant increase in production speed and employee efficiency.
- Includes automated degassing, **sweeping** and top skimming.
- Prolonged operating life of the instruments.



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