



ULTRASONIC WELDING AND CUTTING FOR BREATHING MASKS

a SONIMAT solution

ULTRASONIC TECHNOLOGY

Ultrasonic welding and cutting for fabric materials

For the production of respiratory masks (surgical, thermoformed, FFP2, FFP3, N95 and KN95), SONIMAT provides ultrasonic solutions for cutting and welding intermittently or continuously at high speed.

The main advantages of ultrasonic welding and cutting of non-woven products are **an high level of precision, high quality**, but also **an increase in productivity** thanks to the removal of additional components (glue, staples, etc.). These processes ensure a clean finish without fraying the textile.

Our technology is perfectly suitable for these masks



surgical and thermoformed face masks



FFP2 masks



FFP3 masks



N95 and KN 95 masks

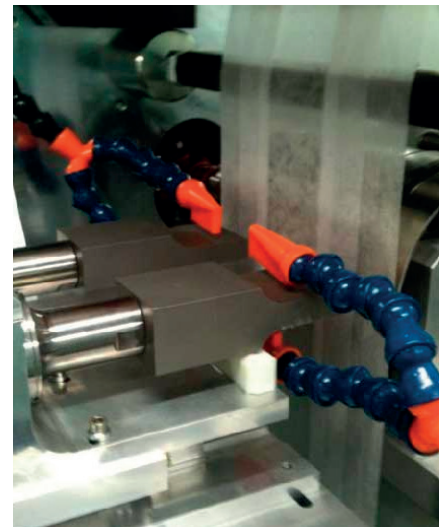
OUR SOLUTIONS

SONIROLL welding modules

We offer you **ultrasonic textile welding modules which can be integrated in your production lines and customized according to your needs**. They allow the welding of up to 8 layers of non-woven fabrics of different composition and the welding of elastic threads or tapes. *See all specifications on the next page.* The association with our ultrasonic cutting technology allows the shaping of your fabrics (ultrasonic cutting of the nasal line, etc.).

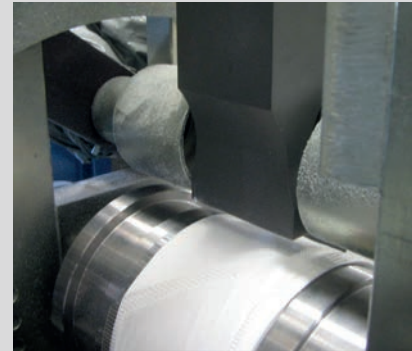
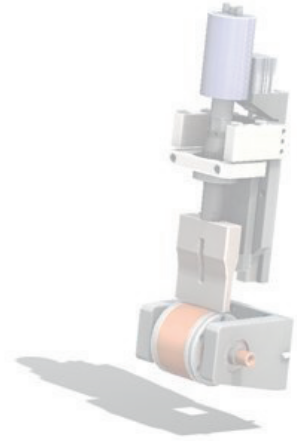
Customized machines

We work in partnership with global manufacturers of respiratory mask production machines. We support you and work closely with them on the study of your needs, on the integration of our technology and on the choice of ultrasonic modules. Contact us !



FEATURES AND ADVANTAGES - SONIROLL MODULES

- Adjustable clamping force from 200 to 2000 N
- Power supply 230V 50Hz 10Amps
- Compressed air for cooling
- 5 or 8 (optional) inches HMI colour touch screen
- Production data (via Ethernet cable)
- **Examples of production rates**
 - 120 masks/min (FFP2, 3 and KN/N95)
 - 250 masks/min (surgical face masks)
- Spot welding
- Possibility of welding several layers, of different composition and consistency (lamination)
- Welding of ear threads/tapes and nose clip
- Configuration and saving of your settings on the HMI interface
- Fast and digital ultrasonic control
- Digital generator
- Simplified integration into a machine



ADVANTAGES OF NON-WOVEN ULTRASONIC CUTTING AND WELDING

- High precision and quality welding and cutting
- Clean process: optimal hygiene with no binding products, (adhesives, staples...)
- Association of cutting and welding (continuous or intermittent) processes
- Elimination of heating time (compared to glue welding)
- Simplified maintenance
- No damage/burning of the material
- For welding, there is no direct mechanical contact between the vibrating element and the anvil drum (no tool wear)
- Multiple possibilities for welding patterns

ULTRASONIC TOOLS AND COMPONENTS

With our experience and know-how on ultrasonic processes (using our own-developed technology), we offer since 1993 the production, development and control of ultrasonic tools and components. Our expertise covers the entire acoustic chain:

- digital ultrasonic generators
- sonotrodes
- boosters
- converters
- anvil drums
- etc.