

Weldsonic Filter

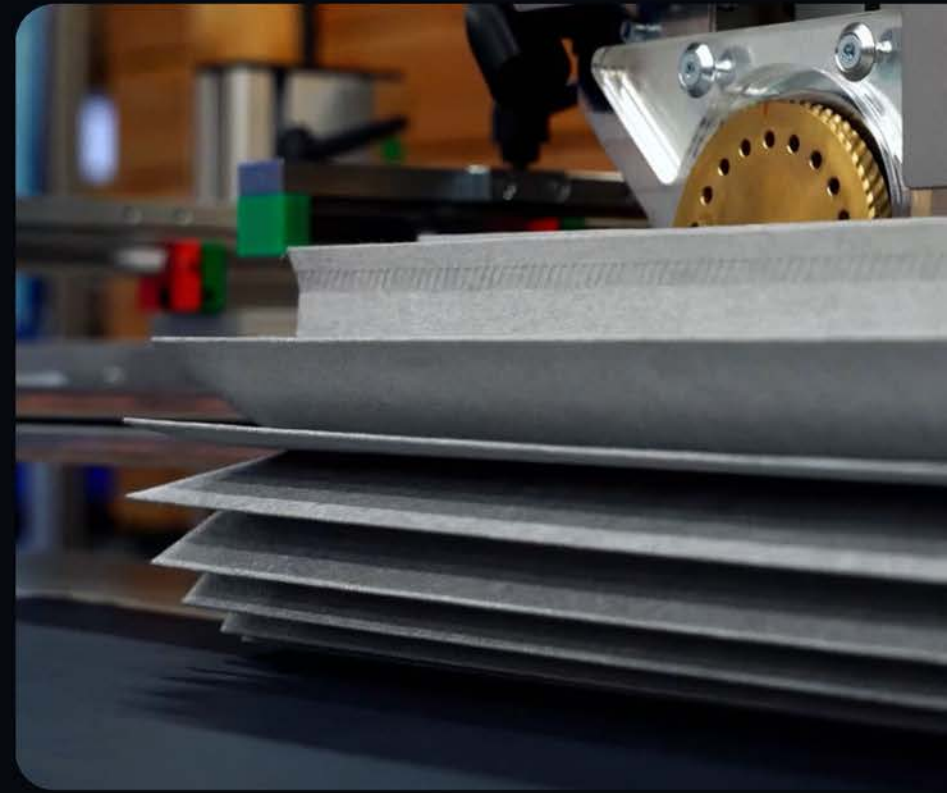
HIGH-PERFORMANCE
ULTRASONIC
WELDING MACHINE



PRODUCT DESCRIPTION

Weldsonic Filter

The Jentschmann Weldsonic Filter is an ultrasonic welding machine designed for the continuous welding or bonding, as well as the cutting and edge sealing of filter materials. During welding, the filter materials are joined directly to one another, whilst during bonding, hot-melt adhesive tapes precisely matched to the filter material are inserted into the seam and activated by ultrasound. On request, the edge can also be cut and sealed simultaneously during the welding or bonding process.



STANDARD EQUIPMENT

Subject to technical changes

Weldsonic Filter



MODERN HMI

The machine features a 7-inch touchscreen with a resolution of 800 x 480 and a state-of-the-art user interface design.



ELECTRONIC HEIGHT ADJUSTMENT

The guide and the welding head can be adjusted to the fold height by electronically adjusting their vertical position.



PRECISE GUIDING

Guides specifically designed to match the height and thickness of the pleats ensure that both pleats are guided precisely right up to the anvil roller.



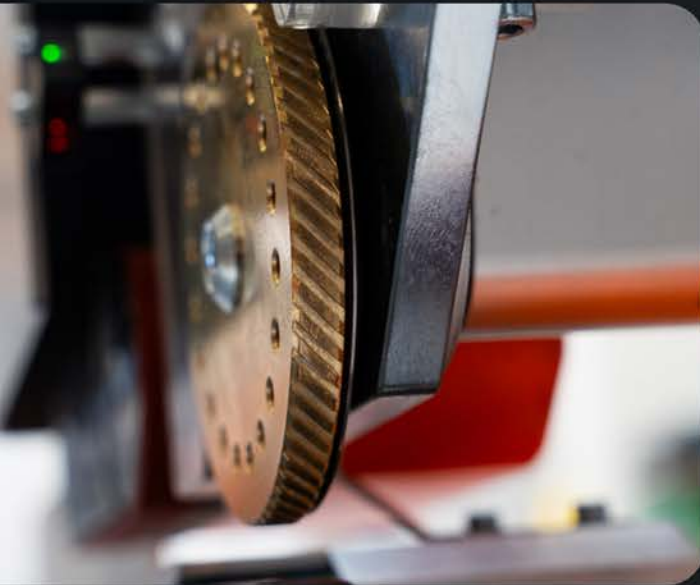
ADJUSTABLE SEAM POSITION

The position of the seam can be adjusted very quickly and easily without the need for tools, depending on the height of the pleat.

OPTIONAL EQUIPMENT

Subject to technical changes

Weldsonic Filter



CUT & WELD

Folds can also be trimmed directly using the Cut&Weld function. A cutting anvil runs directly alongside the welding anvil wheel. It can be switched on or off manually.



TABLE EXTENSION

To make it easier to handle longer filters, an additional support surface can be fitted, which can be swung up if required.



TEMPERATURE MONITORING

To monitor the quality of the welded or bonded joint, a temperature sensor continuously measures the surface temperature behind the anvil roller.

SPECIAL FEATURES

Subject to technical changes

Weldsonic Filter

YOUR BENEFITS

- **Continuous welding process** using rotating ultrasonic roller sonotrodes.
- A **programmable feed ratio** between the sonotrode and the counter-pressure roller ensures a uniform feed of the top and bottom materials, resulting in perfectly flat weld seams.
- **Precise material guidance** using application-specific guide devices.
- **Continuous real-time control** of the preset welding power throughout the entire welding process.
- Input and selection of a **wide range** of welding parameters via touchscreen with automatic adjustment.
- **Very low energy consumption** with no power peaks.
- **Environmentally friendly!** No microwaves, no air pollution.
- **Low-noise** stepper motors minimise noise emissions.

SPECIAL FEATURES

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Weldsonic Filter

ADVANTAGES OVER LIQUID HOT GLUE APPLICATIONS

- **No need to warm up** the adhesive or hoses. Ultrasound is ready for use immediately.
- **No waiting time** for the adhesive to cure.
- **No adhesive is required** for materials that can be welded directly.
- **Significantly lower energy** consumption when using ultrasound.

Machine operation

The machine is operated primarily via a touchscreen display. Pressing the buttons shown on the display executes the corresponding functions.

The material-specific welding and machine parameters can be stored in the working memory and retrieved in a matter of seconds when required.

With the Weldsonic Filter, the material to be processed is continuously melted and pressed together using ultrasound. To achieve this, the material passes between a rotating sonotrode and an anvil wheel. By adjusting the anvil wheel's width and surface, the seam geometry and appearance are also defined. Energy transfer to the material is controlled by the ultrasonic amplitude, the anvil roller pressure and the welding speed.

Depending on the filter pack dimensions, additional manual adjustments to the machine may be necessary. This mainly concerns the material guide and the height adjustment of the work table. The material guide can be loosened using an adjusting screw and moved into the desired position.

The height of the work table is electrically adjustable and is set according to the pleat height.

Once the guide mechanism has been aligned, the material to be welded is inserted into the fixture, pushed forward until it stops against the anvil wheel, and aligned. The machine is then started and the material is gently pressed in the direction of travel.

TECHNICAL DATA

Subject to technical changes

Weldsonic Filter

GENERAL INFORMATION

Welding head made from solid sheet steel

Ultrasonic:	35 kHz, 600W Generator
Welding width:	up to 10mm
Program memory slots:	up to 99
Pleat height of the filter packs:	10 – 100 mm, other dimensions optional
Pleat length of the filter packs:	variable



TECHNICAL DATA

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Weldsonic Filter

Filter materials

Typical filter media made from thermoplastic material or cellulose, available as single-layer or multi-layer versions.

Dimensions, weight and connection data

Height:	1.545mm (variable when adjusting the welding head)
Depth:	862mm
Length:	2.150mm (table 1.900mm, can be extended if required)
Weight:	260kg
Electrical power:	400V / 50Hz, N, PE, 16A <i>(Changes to country-specific infrastructure may be possible)</i>
Pneumatics:	ø8mm, stable 6bar, dry, oil-free (class 0), 10l/min
Network connection:	LAN (100/1000 Mbit)

TECHNICAL DATA DRAWING

Subject to technical changes

Weldsonic Filter

