

# **Cooling coil**

# for the connection to a cryostat

# **Elma Order Nos**

Cooling coil for unit sizes Elmasonic S 30, S 40, S 70, S 150	103 8735
Cooling coil for unit sizes Elmasonic S 60, S 80 – S 130, S 180, S 300	103 7515



## Intended use / operation

Cooling coil for the connection to a cryostat. The cooling coil stabilizes the temperature of the liquid\*, e.g. in an ultrasonic cleaning unit, by counteracting the heat energy which is taken into the cleaning bath by the ultrasound.

During ultrasonic operation the ultrasonic energy transmitted into the cleaning liquid is transformed into heat in an ordinary physical process due to which the cleaning bath is continuously heated. If a specific cleaning bath temperature must not be exceeded (e.g. 40°C for the removal of proteins or for special laboratory applications), the use of a cooling coil is required to stabilize the cleaning bath temperature.

The cooling coil must be connected to a closed cycle cooling system (cryostat) only.

\* The liquid in an ultrasonic tank may be cooled down to temperatures below the ambient room temperature only up to a certain degree to prevent the forming of condensation. A table containing the relevant data is included in the operating instructions.

If necessary, you can also 2 cooling coils in series or be operated in a row.

#### Suitable cryostats

For ultrasonic units with a capacity of up to 15 litres and an ultrasonic power (effective) of up to 200 watts we recommend the Julabo F250.

For ultrasonic units with a capacity of 15 - 28 litres and an ultrasonic power (effective) of up to 300 watts we recommend the Julabo FL300.

http://www.julabo.de/

### Examples:



Cooling coil in a deep-drawn ultrasonic tank, connected



Cooling coil connected to a cryostat (Julabo F250)

#### **Technical Data**

Unit sizes S 30, S 40, S 70, S150: dimensions W x H (mm)	ca. 180 x 130	Depth of immersion / width of immersion (mm)	ca. 145 / 200
Depth of immersion / width of immersion (mm)	ca. 100 / 145	Inner diameter	Ø 7 mm
Unit sizes S 60, S 80 - S 130, S 180, S 300: dimensions W x H (mm)	ca. 230 x 170	Outer diameter	Ø 10 mm