

MS 73 Titanium microtip
Order no. 529

The microtip MS 73 is an exponentially tapered probe made of high grade titanium alloy Ti-Al6-V4.

MS 73 is used to expose very small volumes to ultrasound.

- HD 2070/HD 3100: 2 to 50 ml
- HD 2200/HD 3200: 5 to 90 ml

The MS 73 probe may only be immersed in the liquid up to 2 cm.

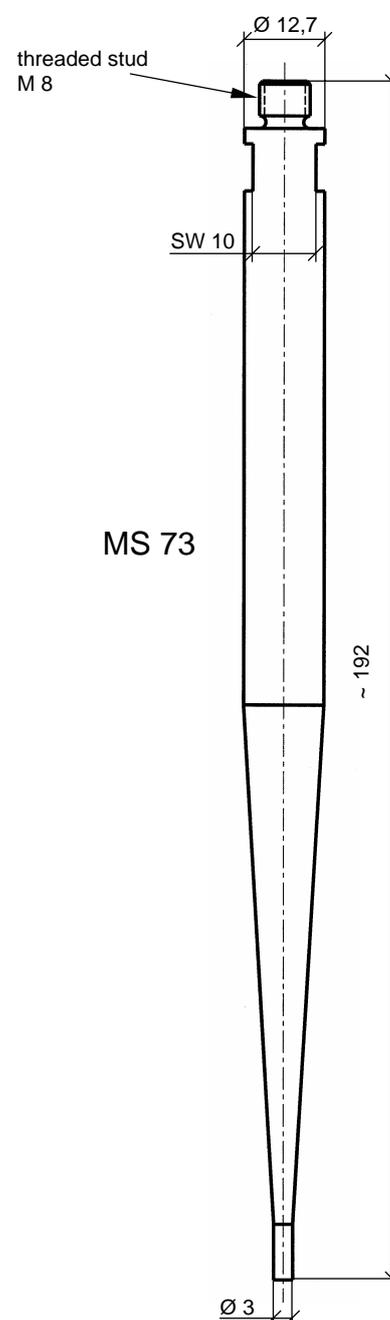
Due to its shape (diameter 3 mm) it achieves a multiple amplitude magnification and therefore achieves highest ultrasound density in liquids. It is used for complicated laboratory tasks such as the disruption of cells and bacteria in biology and to speed up reactions in chemistry.

Supply

- 1 MS 73 microtip
- 1 spanner SW 10

Assembly

Microtip MS 73 is screwed tightly with stud M 8 to standard horn SH 70 G or to high gain horn SH 213 G. Use sickle spanners HS 40 / 42 and spanner SW 10. See operating instructions. Please ensure that the mating surfaces on microtip and standard or high gain horn are clean.



Attention !

- The delicate microtips are sensitive to impact, bent microtips can break due to transverse oscillations, lead to decreased performance and can cause damage to the generator.
- Damaged microtips cannot be repaired.
- Do not touch MS 73 during operation, danger of injury.
- MS 73 must not come into contact with the processing vessel during operation as this leads to breakage or consumption of the microtip or walls of the vessel (glass vessels break).
- High density at the surface emitting ultrasonic waves causes metal particles to wear away (erosion) from microtip. If erosion reaches a value of approx. 1mm, performance is reduced. If high amplitudes are being used, the MS 73 must be replaced if erosion has reached 1 mm.
Detailed information can be found in the operating instructions.
- Life of the tip can be increased if it is not used at maximum amplitude setting but at the setting necessary for the particular task.
 - HD 2070 → max. amplitude 100 % = 212 µm peak to peak
 - HD 3100 → max. amplitude 100 % = 245 µm peak to peak

Due to the high density, the amplitude for the HD 2200/HD 3200 is limited as follows:

- HD 2200 → max. amplitude 65 % = 302 µm peak to peak
- HD 3200 → max. amplitude 65 % = 308 µm peak to peak

Possible malfunctions

Malfunctions	Cause	Remedy
Fluctuating percentage indication or "whistling" tips	Attachment to the standard horn not tight enough	attach correctly in accordance with operating instructions
	damaged stud	use new probe
	Attaching surface damaged	return to manufacturer
	Tip bent	use new probe