

## MICROTIPS

Two types of microtips are available to enable processing small samples at very high intensity – a tapered microtip and a stepped microtip.

The tapered microtip screws into the ½" (13 mm) threaded end probe in place of the replaceable tip.

The stepped microtip/probe assembly which consists of two parts, the coupler and the microtip or probe, screws into the converter in place of the probe. Capable of reaching into narrower vessels than the tapered microtip, the stepped microtip assembly can process volumes as small as 150 µl. Microtips are fabricated from titanium alloy Ti-6Al-4V and are auto-clavable.

**CAUTION:** In order not to exceed the tensile limit of the titanium, and causing the microtip to fracture, do not operate the equipment beyond the maximum amplitude limits listed below.



## MICROTIPS

PART NO.	TAPERED MICROTIP*			STEPPED MICROTIP/PROBE ASSEMBLY**			
	630-0418	630-0419	630-0420	COUPLER*** 630-0421	STEPPED MICROTIP 630-0423	STEPPED MICROTIP 630-0422	PROBE 630-0435
TIP DIAMETER	⅛" (3 mm)	⅜" (5 mm)	¼" (6 mm)		⅝" (2 mm)	⅛" (3 mm)	¼" (6 mm)
INTENSITY	Ultra high	Very high	High		Ultra high	Very high	High
VOLUME (batch)	1-10 ml	3-20 ml	5-50 ml		150µl-5 ml	250µl-10 ml	10 ml - 50 ml
MAXIMUM AMPLITUDE	40%	65%	75%		40%	40%	40%
micrometers <sup>†</sup>	160	212	180		89	105	75
(microns)							
inches <sup>†</sup>	.0060	.0083	.0070		.0035	.0040	.0030
LENGTH <sup>#</sup>	6⅝" (159 mm)	6" (155 mm)	5⅝" (142 mm)	3⅝" (9.2 mm)	4½" (116 mm)	5⅜" (136 mm)	4⅞" (113 mm)

\* Screws into a ½" (13 mm) threaded end probe Part No. 630-0220 in place of the replaceable tip. Connecting stud ¼" - 20.

\*\* Consists of coupler and stepped microtip or probe. Screws into the converter instead of the ½" (13 mm) probe.

\*\*\* Connecting stud ½" - 20.

† With the amplitude control set at the maximum amplitude listed above.

# Because microtips are tuned to resonance, their length may vary slightly due to variation in the titanium's modulus of elasticity.

## EXTENDERS

Extenders screw into threaded end probes of identical diameter in place of the replaceable tip. Recommended when working with tall narrow vessels such as Erlenmeyer flasks. Extenders are fabricated from titanium alloy Ti-6Al-4V and are auto-clavable. Also available on special order with threaded ends to accept replaceable tips.\* Connecting stud ¼" - 20.

½" (13 mm) half wave extender - 5" (127 mm) long. Part No. 630-0410.

¾" (19 mm) half wave extender - 5" (127 mm) long. Part No. 630-0409.

1" (25 mm) half wave extender - 5" (127 mm) long. Part No. 630-0444.

½" (13 mm) full wave extender - 10" (254 mm) long. Part No. 630-0517.

¾" (19 mm) full wave extender - 10" (254 mm) long. Part No. 630-0518.

1" (25 mm) full wave extender - 10" (254 mm) long. Part No. 630-0519.



\*Do not use an extender with replaceable tip when processing samples containing organic solvents or low surface tension liquids. Use a solid extender instead. See caution in catalog.

Note: Because extenders are tuned to resonance, their length may vary slightly due to variations in the titanium's modulus of elasticity.

Longer extenders are available upon request.