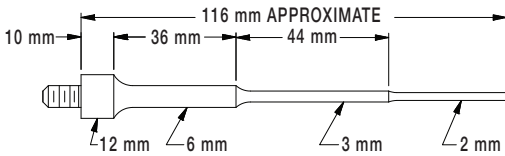


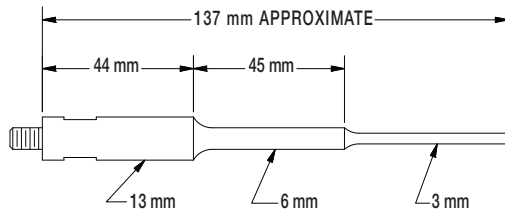
STEPPED MICROTIPS AND PROBES

Microtips and probes amplify and radiate the ultrasonic energy into the sample. Smaller diameter tips produce greater intensity of cavitation, but the energy released is restricted to a narrower, more concentrated field. Conversely, larger diameter tips produce lower intensity, but the energy is released over a greater area permitting larger volume to be processed. Connecting stud 1/4 - 20. Microtips and probes are fabricated from titanium alloy Ti-6Al-4V and are autoclavable.

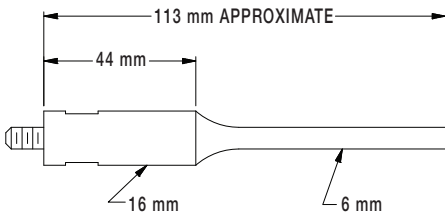
5/64" (2 mm) stepped microtip
Part No. 630-0423



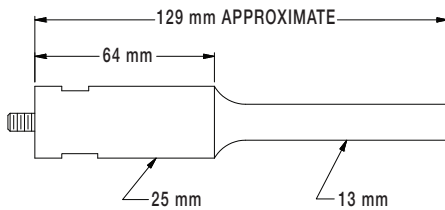
1/8" (3 mm) stepped microtip
Part No. 630-0422



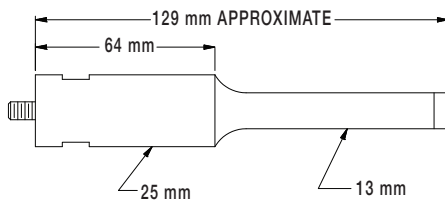
1/4" (6 mm) probe
Part No. 630-0435



1/2" (13 mm) probe
Part No. 630-0561



1/2" (13 mm) probe with replaceable tip*
Part No. 630-0560



PART NO.	STEPPED MICROTIPS			PROBES
	630-0423	630-0422	630-0435	630-0561 630-0560**
TIP DIAMETER	5/64" (2 mm)	1/8" (3 mm)	1/4" (6 mm)	1/2" (13 mm)
INTENSITY	Very high	Ultra high	High	Medium
VOLUME (batch)	0.2 ml-5 ml	0.5 ml-10 ml	5-50 ml	50-150 ml
AMPLITUDE* micrometers (microns)	160	201	144	76
inches	.0063	.0080	.0060	.0030

*With the amplitude control set at 100%.

Note: With the amplitude control set at 100% the amplitude at the converter tip is 20 micrometers (.0008 inch). **With replaceable tip.

EIGHT-ELEMENT PROBE

The eight-element probe increases productivity and minimizes repetitive tasks by processing identically 8 samples simultaneously. Consists of an aluminum coupler and eight 1/8" (3 mm) mini microtips. Processing capabilities: 250 µl-2ml. Spacing between tips: 11/32" (9 mm). Mini microtip length: 11/16" (17 mm). Part No. 630-0602



REPLACEABLE TIP

The replaceable tip for probe Part No. 630-0560 is fabricated from titanium alloy Ti-6Al-4V and is autoclavable. Diameter: 1/2" (13 mm). Thread: 1/4 - 20 Part No. 630-0406



LOW VOLUME CONTINUOUS FLOW CELL **

The continuous flow cell screws into the converter in place of the probe. Recommended only for the treatment of low viscosity samples which do not require prolonged exposure to ultrasonics. Designed primarily for dispersing and homogenizing at rates up to 15 liters/hour. The cup is fabricated from glass. The probe and processing chamber are fabricated from titanium alloy Ti-6Al-4V and are autoclavable. Ease of disassembly facilitates cleaning. Volume of liquid with probe in place: 35 ml. Connecting stud: 1/4 - 20 Replacement glass chamber. Part No. 630-0565 Replacement probe. Part No. 630-0563 For low pressure applications only. Part No. 630-0566



NOTE: All probes and replaceable tips are fabricated from high grade titanium alloy Ti-6Al-4V and are autoclavable.

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

* Do not use this probe with replaceable tip when processing samples containing organic solvents or low surface tension liquids. Use solid probe Part No. 630-0561 instead. See caution on page 8.

** Outlet connects to 1/2" (13 mm) I.D. tubing. Inlet connects to 3/8" (9.5 mm) I.D. tubing.