

HORNS/ PROBES

HORNS

STANDARD

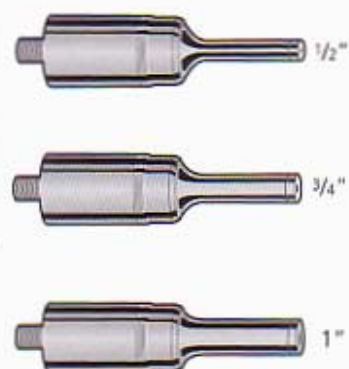
Horns are made of titanium and are offered in 2 different versions.

Solid horns are constructed of a single piece of titanium. **Tapped** horns are furnished with replaceable tips. **Tips** are available in solid titanium or in Sapphire coated titanium (Sapphire coating extends tip life).

Note: consult charts below for available options.

STANDARD

Part #	Processing Vol.*	Tip Diameter	Type	Intensity	Amplitude*
200	10-250 ml	1/2" (12.7 mm)	Tapped	High	120 µm
201	10-250 ml	1/2" (12.7 mm)	Solid	High	120 µm
2015	10-250 ml	1/2" (12.7 mm)	Sapphire	High	120 µm
207	25-500 ml	3/4" (19.1 mm)	Tapped	Medium	60 µm
208	25-500 ml	3/4" (19.1 mm)	Solid	Medium	60 µm
2085	25-500 ml	3/4" (19.1 mm)	Sapphire	Medium	60 µm
209	50-1000 ml	1" (25.4 mm)	Solid	Low	30 µm
210	50-1000 ml	1" (25.4 mm)	Tapped	Low	30 µm
2105	50-1000 ml	1" (25.4 mm)	Sapphire	Low	30 µm



TAPPED VERSION SHOWN

HIGH INTENSITY

High intensity horns generate twice the amplitude (and higher intensities) when compared with standard horns of the same diameter.

HIGH INTENSITY

Part #	Processing Vol.*	Tip Diameter	Type	Intensity	Amplitude*
305	25-500 ml	3/4" (19.1 mm)	Tapped	High	120 µm
310	50-1000 ml	1" (25.4 mm)	Solid	Medium	60 µm
311	50-1000 ml	1" (25.4 mm)	Tapped	Medium	60 µm



TAPPED VERSION SHOWN

*Double (peak-to-peak) amplitude of the radiating face of the tip in micrometers on Sonicators operating at output control setting 10.

* Processing volumes may be doubled by using a magnetic stir bar.

REPLACEMENT TIPS

Solid Titanium Only

Part # 406 for 1/2" (12.7 mm) Tapped horns

Part # 407 for 3/4" (19.1 mm) Tapped horns

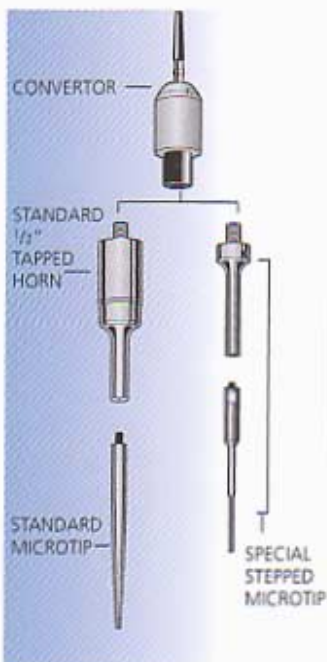
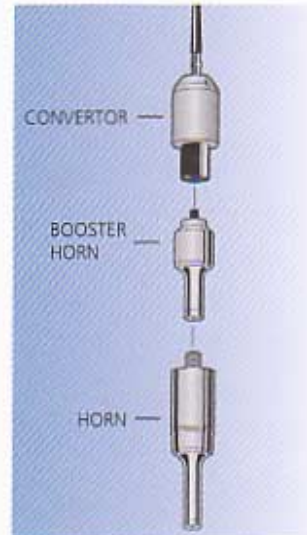
Part # 408 for 1" (25.4 mm) Tapped horns

HORNS/ PROBES *(Continued)*

BOOSTER HORNS

Booster Horns attach between the convertor and standard horn and are used to increase amplitude/intensity of standard horns by the gain ratio indicated.

Part #	For Use With	Gain Ratio
328A	All Standard Horns	2 to 1
328B	3/4" and 1" Standard Horns Only	2.5 to 1
328C	1" Standard Horns Only	3 to 1



MICROTIP HORNS

All Microtip Horns must only be used as extensions of the standard 1/2" tapped horn, part # 200 with the exception of the special Stepped Microtip part # 420.

MICROTIP HORN

Part #	Processing Vol.	Tip Diameter	Type	Intensity	Amplitude*	Length
418	0.2-5 ml	1/16" (1.6 mm)	Tapered	Ultra High	320 µm	7" (17.8 cm)
419	0.5-15 ml	1/8" (3.2 mm)	Tapered	Ultra High	240 µm	6 1/2" (16.5 cm)
419A	2-25 ml	3/16" (4.8 mm)	Tapered	Very High	150 µm	6 1/8" (15.5 cm)
419B	5-50 ml	1/4" (6.4 mm)	Tapered	High	115 µm	5 7/8" (14.9 cm)
420*	0.5-15 ml	1/8" (3.2 mm)	Stepped	Very High	205 µm	5 1/2" (14 cm)

*Double (peak-to-peak) amplitude of the radiating face of the tip in micrometers on Sonicators operating at output control setting 5.
*Two piece probe.

HORN EXTENDERS

Some applications may require the use of long-necked vessels which will not accommodate the standard probe due to their length. To process using such vessels, horn extenders are available. For assistance in selecting the appropriate extender for your application, please call customer service.