

Probes for Ultrasonic Processor



Description

Probes (sometimes referred to as horns) are one-half wavelength long tools that act as mechanical transformers to increase the amplitude of vibration generated by the converter. They consist of two sections each having different cross-sectional areas.

The greater the mass ratio between the upper section and the lower section, the greater the amplification factor, and the greater the peak-to-peak excursion at the tip of the probe. Probes with smaller tip diameters produce greater intensity of cavitation, but the energy released is restricted to a narrower, more concentrated field. Conversely, probes with larger tip diameters produce less intensity, but the energy is released over a greater area. The larger the tip diameter, the larger the volume that can be processed, but at lower intensity. **High gain probes produce higher intensity than standard probes of the same diameter, and are usually recommended for processing difficult applications.**

Probes are fabricated from high grade titanium alloy Ti-6Al-4V because of its high tensile strength, good acoustical properties at ultrasonic frequencies, high resistance to corrosion, low toxicity, and excellent resistance to cavitation erosion.

Probe Options



Model	Inch	Frequency	Power Range	Crushing Capacity
Φ2	1/12"	20-25KHz	min-150W	0.2-5ml
Φ3	1/8"	20-25KHz	min-250W	3-10ml
Φ6	1/4"	20-25KHz	20-400W	10-100ml
Φ10	5/12"	20-25KHz	100-600W	30-300ml
Φ12	1/2"	20-25KHz	200-900W	50-500ml
Φ15	5/8"	20-25KHz	300-1000W	100-600ml
Φ20	4/5"	19.5-20.5KHz	400-1100W	100-1000ml
Φ22	5/6"	19.5-20.5KHz	400-1100W	200-1000ml
Φ25	1"	19.5-20.5KHz	800-1500W	500-1200ml