

## HIGH INTENSITY CUP HORNS

The cup horns can process samples in isolation without probe intrusion, precluding any possibilities of cross-contamination or aerosolization. Especially useful when working with infectious materials.

Typical applications include: cell disruption, liposome preparation, protein shearing, and releasing cellular components including DNA and RNA.

The water-filled cup horn is screwed into the inverted converter in place of the probe. The test tube(s) containing the sample(s) is(are) placed inside the cup horn. The vibrations produced in the cup induce cavitation inside the tube(s). Inlet and outlet ports enable cooling water to be circulated within the cup, inhibiting heat build-up during extended operation. Ease of disassembly facilitates cleaning, and in contrast to polycarbonate cup horns with removable plastic fittings, these cup horns are 100% leakproof. The probe is fabricated from titanium alloy Ti-6Al-4V and is autoclavable. Supplied with floating microtube holder Part No. 830-00238 to enable 8 samples to be processed simultaneously, and splash shield. (Microtube holder is not available with Part No. 630-0503.)

Note: Because the intensity of cavitation within the test tube(s) is substantially less than with direct probe contact to obtain comparable results when using the cup horn, multiply the processing time by 4. Connecting a booster Part No. BHNVC21 between the cup horn and the converter, will double the intensity of cavitation within the cup.\*



### HIGH INTENSITY CUP HORNS\* \*

PART NO.	CUP COMPOSITION	OVERALL HEIGHT	OUTSIDE DIAMETER	INSIDE DIAMETER	PROBE DIAMETER
630-0503	Glass	5" (127 mm)	2" (51 mm)	1½" (38 mm)	1¼" (32 mm)
630-0431		6" (152 mm)	3" (76 mm)	2¾" (70 mm)	2" (51 mm)
630-0496		6½" (165 mm)	3 11/32" (85 mm)	3" (76 mm)	2½" (64 mm)

\*When using a booster, always increase the power supply amplitude gradually to inhibit stalling.

\*\*Connecting stud ½ - 20. Available on special order with ¾ - 24 stud to enable connection to a 20 kHz converter manufactured by another company.

Upper outlet port accommodates 0.5" (13 mm) inside diameter tubing.

Bottom inlet port accommodates 0.4" (10 mm) inside diameter tubing.

## FLOATING MICROTUBE HOLDER

The plastic microtube holder conveniently suspends 8 microtubes inside the 2¾" (70 mm) and 3" (76 mm) cup horn. Holder floats and keeps tubes immersed at a constant depth regardless of the fluctuation in water level. Pressure plate holds tubes firmly in place and keeps tube caps closed. Autoclavable. Microtubes not included.

Part No. 830-00238



## MEDIUM VOLUME CONTINUOUS FLOW CELL

The stainless steel continuous flow cell enables closed system operation and ensures safe processing when working with infectious materials. The flow cell screws onto the threaded portion of the ½" (13 mm) probe at the nodal point. Recommended for the treatment of low viscosity samples, which do not require prolonged exposure to ultrasonics. Designed primarily for dispersing and homogenizing one or two dissimilar materials simultaneously at rates up to 20 liters/hour. Suitable for pressures up to 40 psi (276 kPa/3 bar). Volume of liquid in chamber with probe in place: 65 ml. Fitting accepts ⅝" (8 mm) ID tubing. Stainless steel. Autoclavable.

Part No. 630-0495

Note: For most applications the sample should be fed through the lower side port and collected at the bottom port. However it is recommended that for cell disruption, the flow be reversed. Use both the upper side port and the lower side port when processing two different materials simultaneously.

