

## TUE Series Ultrasonic Homogenizer

### Function description:

Ultrasonic Homogenizer through its “cavitation effect” achieve oil blended with water emulsification, water blended with oil emulsification, dispersion phase and continuous phase mixing homogenization, it’s an advanced phonochemistry method to replace the traditional emulsify process such as propeller and colloid mill, etc. An important feature of ultrasonic emulsify is that you don’t need use or use little emulgator to get most stable emulsion.

Application: food industry, paper making, oil paint, chemical industry, pharmaceutical, spinning, fuel oil thermoelectricity, fuel oil central air-conditioning, oil, metallurgy, etc. Fuel oil blended with water combustion is an important arisen program now.

The core content of ultrasonic nanotechnology is to solve agglomeration of nano particles problem, as nano particles themselves is easy to reunite, want to get single dispersive nano particle is very difficult, so how to make nano particles uniform disperse into basal body, this is the key technology of nanotechnology.

TOPTION brand ultrasonic series products all use ultrasonic “cavitation effect” to disperse the glomerate particles. Add particle suspension liquid (liquid phase) in super strong sound field, use suitable ultrasonic amplitude to process.

As the inherent feature of powder particle aggregation, for some powder which is dispersed not well in medium, you could add suitable dispersing agent to make dispersion keep stable, generally could reach dozens of nano, even smaller. This type ultrasonic material emulsifying dispenser is most suitable to disperse nanometer materials (such as carbon nano tube, graphene, silicon dioxide).



**technical parameter:**

Model (laboratory / small capacity test)	TUE-500	TUE-1000	TUE-1500	TUE-3000
Frequency (KHz)	20-30KHz Automatic tracking	20-25KHz Automatic tracking	19.5-20.5KHz Automatic tracking	19.5-20.5KHz Automatic tracking
Power (W)	5-500W adjustable	10-1000W adjustable	20-1500W adjustable	300-3000W adjustable
Horn (mm)	Φ6	Φ10	Φ20 or 22	Φ35
Optional Horn (mm)	Φ2、Φ3、Φ8、Φ10	Φ6、Φ8、Φ10、Φ12、Φ15	Φ10、Φ15、Φ25	Φ15、Φ25、Φ28
Crush capacity (ml)	0.2-400	10-600	50-1500	500-5000
Instrument protection function	Over-temperature protection	Over-temperature protection	Over-temperature, protection	Over-temperature, protection
Display	LCD display	LCD display	LCD display	LCD display