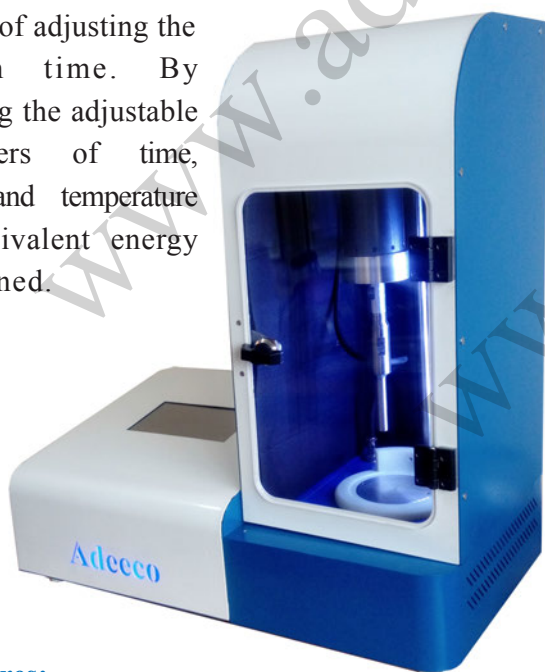


# Ultrasonic Homogenizer

Ultrasonic Homogenizer provided by Adeeco Company is fabricated according to international standards, the unique facilities of which meet all of the research and industry requirements.

We offer one of the most comprehensive ultrasonic processors for dispersing Nano-particles in fluids. Ultrasonic Homogenizer is a programmable laboratory-scale equipment which can be utilized in projects and also in making innovative research idea work. This device is set on 20 kHz working frequency and is capable of applying different output powers with different intensities.

Other feature of APU500-015 is the automatic frequency setting in range of 1 kHz. Adeeco Ultrasonic Homogenizer is also capable of adjusting the reaction time. By changing the adjustable parameters of time, power and temperature the equivalent energy is screened.



### Features:

- Precise control of applied parameters
- Reproducible results
- Flexible settings
- Economic
- High efficiency

## Application

### Nanomaterials

- Dispersing and size reduction
- Improving the accuracy of particle size/ morphology measurement.

### Biotechnology

- Extraction of intracellular materials
- Ultrasonic lysis: cell disintegration and extraction

### Food and Beverage

- Disintegration of cells
- Extracting intracellular components or obtain cell-free bacterial enzyme
- Acceleration of an enzyme reaction in liquid foods
- Acceleration of fermentation
- Mixing, homogenizing, dispersion of a dry powder in a liquid

- Emulsifying of oil/fat in a liquid stream

### Cosmetics

- Produce fine-size emulsions
- Dispersion and distribution of the powder, pigment or mineral particles

### Ink and inkjet

- Size Reduction/distribution of ink pigments

### Paint and Coating

- Dispersion, emulsifying and deagglomeration of pigments, fillers, chemical additives, crosslinkers and rheology modifiers in coating.

### Chemistry

- Sonochemical Reaction and Synthesis

### Oil and Gas

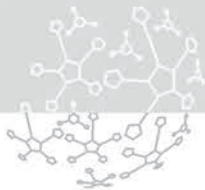
- Processes in the production of fuels: mixing, dispersing, homogenizing and dissolving

### Cement and Concrete

- Mixing of Cement Paste For Concrete

### Wire and Cable

- Cleaning: removing lubrication residues like oil or grease, soaps, stearates or dust before processing likes cladding, extrusion and etc.



Specification						
Models	APU100	APU200	APU500a	APU500b	APU500c	APU1500
Power source	220V-50-60 Hz	220V-50-60 Hz	220V-50-60 Hz	220V-50-60 Hz	220V-50-60 Hz	220V-50-60 Hz
Max output power	100 W	200 W	500 W	500 W	500 W	1500 W
Power range	0-100W	0-200W	0-500 W	0-500W	0-500W	0-1500W
Probe	Titan-3,6,12 mm	Titan-3,6,12 mm	Titan-3,6,12 mm	Titan-3,6,12 mm	Titan-3,6,12 mm	Titan-3,6,12 mm
Working Frequency	20 kHz	20 kHz	20 kHz	20 kHz	20 kHz	20 kHz
Temperature Control	-	-	0-100°C	-	-	-
Temperature Control system			Cooling and Heating Thermoceramic			
Sound box	-	-	✓	✓	-	-
Weight	15 kg	15 kg	22 kg	15 kg	15 kg	22 kg
Probe Holder	✓	✓	✓	✓	✓	✓

**Competitive features** of this device in compare to other devices in internal and external market are a cooling and heating system and IR non-contact temperature sensor. The most important advantage of this device is the feedback circuit , by which the frequency is automatically adjusted with environmental changes.

