

## Introduction

ULTRAAUTOSONIC are Manufacturers, Suppliers, and Exporters of Ultrasonic Plastic Welding Machine. We designed the ultrasonic welding machine for plastic parts in different industries like automotive, electronics, medical, packaging, textile, toy, Aerospace, etc.

ULTRAAUTOSONIC introduces our latest innovation in Ultrasonic Plastic Welding Machines are devices used in industrial manufacturing processes to join thermoplastic materials together using ultrasonic vibrations. The process involves applying high-frequency ultrasonic vibrations to the materials being welded, which generates heat through friction at the interface of the materials. This localized heat causes the plastic to melt and form a bond when pressure is applied.

## SPECIFICATION

Frequency (Khz)	15	20
Power (Watt)	2600	1000/1200/1500/1800/2000
Horn	Design as per the customized application	
Actual Weight	Approx. 96 kg	
Actual Size (L X W X H)	Approx. ( 728 x 434 x 1193 ) mm	
Packaging Type and Size	Wooden Box and Approx. Size ( 875 x 581 x 1340 ) mm	

## Operational Requirement

Input Power Supply	AC 230V 50/60Hz, 16Amp
CVT / Stabilizers	If the voltage is unstable then use CVT / Stabilizer to avoid damage
Working Pressure	2 to 10 bars (Air Compressor required 1 Hp 50Ltr)

## FEATURES

- 1. Ultrasonic Generator:** This is the heart of the machine, producing high-frequency electrical energy which is then converted into mechanical vibrations.
- 2. Transducer:** These vibrations are then transmitted to the plastic parts to be welded.

**3. Amplitude Adjustment :** Many machines allow adjustment of the amplitude of the ultrasonic vibrations. This helps optimize the welding process for different materials and joint configurations.

**4. Horn (Sonotrode):** The horn amplifies and transfers the ultrasonic vibrations from the transducer to the plastic parts. It's designed to match the shape of the joint to ensure proper energy transmission.

**5. Welding Fixture :** This holds the plastic parts in place during the welding process.

**6. Control System :** Modern machines come with sophisticated control systems that allow operators to set parameters such as welding time, pressure, and energy levels.

**7. Safety Features :** These include features like emergency stop buttons, protective enclosures, and sensors to ensure the safe operation of the machine.

**8. User Interface :** This may include digital displays, touch screens, and simple control panels.

**9. Cooling System :** Ultrasonic welding generates heat, so machines often include cooling systems to prevent overheating and maintain consistent performance.

## ADVANTAGES

1. Plastic welding machines can be used to join various types of plastic materials, including thermoplastics like PVC, PE, PP, and others.
2. Properly welded plastic joints can be as strong as or even stronger than the original material, depending on the welding technique used.
3. Plastic welding processes can often be completed quickly, leading to improved production efficiency.
4. Welding can be done in a single step, reducing assembly time and increasing throughput.
5. Some crucial in industries like packaging, where maintaining product integrity and freshness is paramount.
6. This simplifies the manufacturing process, reduces material waste, and eliminates the need for potentially harmful chemicals found in adhesives.
7. Plastic welding machines can provide consistent results, ensuring uniformity in joint quality and strength across production batches.
8. Plastic welding allows for greater design flexibility, as it can create joints in complex shapes and configurations that may be challenging or impossible with other joining methods..
9. Compared to some other joining methods that involve high temperatures, solvents, or mechanical forces, plastic welding can be safer for operators and the environment, particularly when using techniques like ultrasonic or hot plate welding.

## APPLICATION

- ◆ **AUTOMOBILE INDUSTRY :** Bicycle Light, Bumper, Centre Console, Glove Box, Indicator Light, Instrument Cluster Instrumental Panel, Tail Light, Toyota Logo
- ◆ **ELECTRONICS INDUSTRY :** Airbuds, Battery Charger, Holder, Horn Fixture, Mobile Handset & Charger Pendrive, PLC Panel, Powerbank
- ◆ **HOME APPLIANCES INDUSTRY :** Air Conditioner, Cooler, Fans, Iron & Geyser, Mixture & Grinder, Tea Maker, Vaccum Cleaner
- ◆ **MEDICAL INDUSTRY :** Asthma Inhaler, Medical Equipment, Medical Tray , Nebulizer, Saline Cock, aline Tube, Small Tablet Bottle , Tablet Bottle
- ◆ **PACKAGING INDUSTRY :** Corrugated Box, Cosmetic Packing, Spouts, Standing Pouches, Tetra Packing, Tube Sealing
- ◆ **RENEWABLE ENERGY INDUSTRY :** Clamp for EV Charger, Solar Light, Mist Humidifier, Plastic Panel, Solar Charger, Solar Lamp, Solar Light
- ◆ **TEXTILE INDUSTRY :** Filter Bag, Liquid Filter Bag , PP Kit , Safety Jacket, Woven Bag Material
- ◆ **STATIONARY INDUSTRY :** Different Types Of Pouches , Education Slate, Plastic Folder, I-Card Holder, Plastic Paper Clip , Pencil Box, Stationary Item Holder, Stationary Item
- ◆ **Toy Industry**
- ◆ **Aerospace Industry**

## AUTOMOBILE INDUSTRY



Bicycle Light



Bumper



Centre Console



Glove Box



Indicator Light



Instrument Cluster



Instrumental Panel

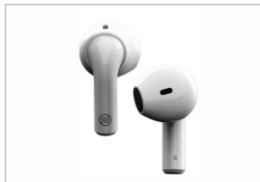


Tail Light



Logo

## ELECTRONICS INDUSTRY :



Airbuds



Battery Charger



Holder



Horn Fixture



Mobile Handset & Charger



Pendrive



PLC Panel



Powerbank

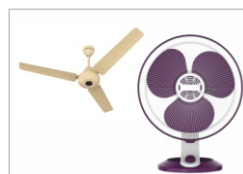
## HOME APPLIANCES INDUSTRY :



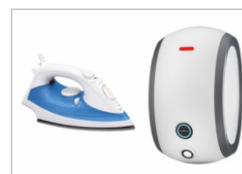
Air Conditioner



Cooler



Fans



Iron & Geyser



Mixture & Grinder



Tea Maker



Vaccum Cleaner

## MEDICAL INDUSTRY :



Small Tablet Bottle



Asthma Inhaler



Tablet Bottle



Medical Equipment



Medical Tray



Nebulizer

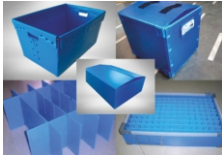


Saline Cock



Saline Tube

### PACKAGING INDUSTRY :



Corrugated Box



Cosmetic Packing



Standing Pouches



Tetra Packing



Tube Sealing

### RENEWABLE ENERGY INDUSTRY :



Clamp for EV Charger



Solar Light



Mist Humidifier



Plastic Panel



Solar Charger



Solar Lamp

### TEXTILE INDUSTRY :



Woven Bag Material



Safety Jacket



Liquid Filter Bag



Filter Bag



PP Kit

### STATIONERY INDUSTRY :



Big Pouches



Education Slate



Folder



I-Card Holder



Pencil Box



Zip Lock Pouches



Plastic folder



Plastic Paper Clips



Pouches



Stationery Item Holder



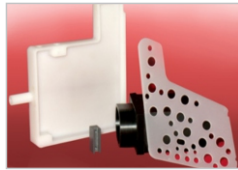
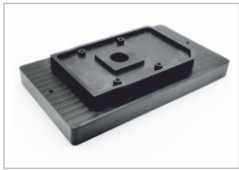
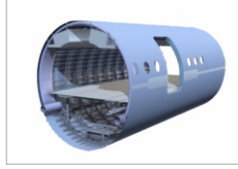
Stationery Item

### TOY INDUSTRY





## AEROSPACE INDUSTRY



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## **ULTRAUTOSONIC LLP**


*World Class Ultrasonic Equipments Manufacturer & Exporter*


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