



# HIGH TECH EQUIPMENTS FOR PLASTIC AND METAL WELDING

**ROOP TELSONIC ULTRASONIX LTD (RTUL)** is a joint venture with a well know Ultrasonic Machine Manufacturer, M/s. Telsonic AG, Switzerland. RTUL is a leader in design, development, manufacture and marketing of a wide range of Ultrasonic Machines. It has the most modern manufacturing facilities at Gandhinagar, Gujarat and at Mumbai, with a well equipped application lab, tool room &

machine shop, sophisticated testing & designing centre and high-tech measuring instruments.

Apart from Mumbai and Gandhinagar, RTUL has its sales and service offices in Delhi, Chennai and has a well spread representative network in the country. The Company's emphasis is always on delivering the latest of Ultrasonic to the industry. Constant upgradation of

instruments through research keeps pace with the times.

RTUL manufactures all its products with exceptional quality and value. The company's commitment to providing the very best customer service is evident from its continuing investment in manufacturing technology and productivity enhancing capital equipments.

## PLASTIC WELDING

### ULTRASONIC WELDING MACHINE / SYSTEM

Joining of thermoplastic & insertion of metal components in plastic can be performed with help of this machine. Higher strengths, better finish and leak proof joints can be achieved.



#### APPLICATION

Toys, Gifts & Novelty articles, Industrial components, Laminated foils & Tubes, Thermowares, Automobile filters & accessories.

### SPECIAL FEATURES

- \* Microprocessor controlled, MPS-3 & MPS-2 options.
- \* Energy & time mode selection.
- \* Rigid, heavy duty pneumatic press.
- \* Printing of welding data & calibration of parameters.

Model	Ultrasonic output watts	Frequency KHz	Generator
UHG-500	500	36	SG25-1000-36
USP 10-500	500	36	SG25-500-36
USP 2500-1000	1000	20/36	SG22-1000-20/36
USP 2500-2000	2000	20	SG22-2000
USP 2500-3000	3000	20	SG22-3000
LAMI/PLASTIC TUBE SEALING SYSTEM			
TS-1000	1000	36	SG 25-1000
TS-1500	1500	36	SG 25-1500

For Sealing ends of Tubes (after filling) which are used in packing of toothpaste, creams, ointments in cosmetic / pharmaceutical industry.

**SPIN WELDING MCHINE :-** Joining of circular part can be achieved by this friction welding technique to join thermoplastic parts. Machine operates at 300 to 4000 rpm with a robust press exerting a force of 2500 Newton.



**APPLICATION :-** Specially useful for nylon and poly propylene parts mainly cream jar, bottle, oil containers etc.

### VIBRATION WELDING MACHINE:-

The process similar to a Spin Welder where frictional heat is generated using a reciprocating and sometimes a multi direction motion. The heat energy is achieved by moving one part relative to its mating part under pressure through a given amplitude.



**APPLICATION:-** Large automotive parts such as head lamps, brake fluid reservoir, fuel tanks, bumpers, consumer durables like washing machine and dish washer.

### METAL WELDING MACHINE :-

Joining of similar & dissimilar metals can be achieved with higher strength & better finish, Higher production rates with consistent quality are possible.

#### APPLICATION :-

Switchgears, Electrical connectors, Coils, Solar panels, Telecommunications.



### FEATURES :-

- \* Welds similar & dissimilar / Ferrous-non ferrous material.
- \* Fast reliable consistent welding quality with microprocessor controller.
- \* No need of any filler materials.
- \* Low power consumption .
- \* Environmental friendly.
- \* 100% bond conductance.



# ULTRASONIC EQUIPMENTS

## FOR CLEANING, TESTING, THICKNESS MEASUREMENT AND POWDER SIEVING

### ULTRASONIC CLEANERS

High intensity Ultrasonic waves are used for degreasing / cleaning through cavitation effects. Addition of vapour degreasing helps to achieve higher degree of cleaning & higher output through automation.

#### APPLICATION

Surgical & hospital equipments, Watches, Diamonds & Jewellery, Lenses & glass frames, PCB, Industrial & Mechanical components, Bearings etc.

#### COMPACT CLEANERS FEATURES

- \* Compact inbuilt generator.
- \* Stainless steel body.
- \* Heater & timer provided.
- \* Uniform output due to high performance transducers.
- \* Automatic frequency tuning.
- \* Maintenance free.



Model	Ultrasonic Output Watts	Capacity Litres	Frequency KHz	Inside Tank Dim. L x W x H
Multiclean	20	0.5	33	Ø110x45
TEC-15	70	1.5	33	150x135x100
TEC-25/H*	100	2.5	33	235x135x100
TEC-40/H*	150	4.0	33	235x135x150
TEC-110/H*	300	11.0	35	300x235x200
TEC-280/H*	600	28.0	35	505x300x200

\* with Heater (optional)

#### TUBE RESONATOR FEATURE

- \* Unique, immersible Rod type resonator.
- \* Replaceable, carry-on type.
- \* Can be installed in existing system.



Model	Ultrasonic Output Watts	Capacity Litres	Frequency KHz	Length mm.
RS 36-150	150	11-12	36	300
RS 20-1000	1000	50-55	20	517-1720

#### CUSTOM BUILT CLEANING SYSTEM

For large cleaning volumes & high degree of cleanliness level, either large capacity single tank systems or multi-chamber systems are offered with solvent or water based cleaning media, complete with recirculation, filtration & Material Handling system.

### ULTRASONIC TESTING

#### FLAW DETECTOR-MODEL 4400AV & 4400MV

Ultrasonic flaw detectors detect internal Flaws such as cracks, blow holes etc. They can also be used for finding out elastic constant and correlating sonic velocity to mechanical parameters.

#### APPLICATIONS

For Casting, forging & Rolled products, weld inspection, Bond testing, Automatic immersion testing for tubes & rods, Research & Laboratory studies.

Both Models 4400A & 4400M are light weight, portable, battery operated and conform to international standards.



#### SPECIAL FEATURES OF 4400M.

- \* Direct digital readout.
- \* Inbuilt software for plate, pipe & rods.
- \* Storage of calibration & measured data.
- \* RS 232 output & software for downloading on PC & graphical representation of flaw location.

#### THICKNESS GAUGES

Three different models of Ultrasonic Thickness Gauges are offered to suit different areas of application. All these are suitable, mostly where only one side access is available.

#### APPLICATION

- \* 4510 - Handy, high Accuracy.
- \* 4503/4504 - For high accuracy (with Memory & PC compatibility).
- \* 4553 - Handheld for corrosion monitoring (LCD).

#### FEATURES

- \* Light weight, easy to use.
- \* Thickness measurement for one side access components.
- \* High temperature thickness measurement upto 450°C.
- \* On line thickness monitoring, with suitable fixtures.



Model	Transducer Type	Range mm.	Accuracy mm.
4551	Single	2-100	0.01
4552/4553	Dual	1.5-50	0.1
4503*	Single	1-25/2-100	0.01

\* Microprocessor controlled with facility to store calibration & measured data & RS 232 output for connection to computer.

#### CONCRETE TESTER

Sonic velocity is used to measure strength & homogeneity of concrete and also to detect internal voids & cracks.



#### APPLICATIONS

For assessment of in situ & precast concrete structure, damage of structure due to fire etc.

#### FEATURES

- \* Light weight, easy to operate.
- \* Range upto 5 meters.
- \* Fast, Reliable results.

#### TRANSDUCERS

Transducers for various application from 30 KHz to 70 MHz are available in various sizes & types with different types of connectors. Corresponding cables can also be supplied.



#### US-PROCESSOR/REACTOR

Processing of liquids for various reactions like emulsification, homogenise, cell disruption/extraction can be done by Ultrasonic. Lab models, pilot plants and production units available in various capacities



#### ULTRASONIC SIEVE DEBLINDING ATTACHMENT ("SONOSCREEN")

*SONOSCREEN* Deblinding attachment facilitates in improving / increasing output, efficiency in powder sieving through vibroscreens. Due to increased through-put process speed can also be increased & cost on number of Vibroscreens, spares, labour, power can be reduced.



## CONTACT US

**Mr. William Woods**  
**San Diego, California, USA**  
**Phone: US (858) 581-3077**  
**Fax: US (858) 274-5523**  
**Email: [rooptelsonic@williamjwoods.com](mailto:rooptelsonic@williamjwoods.com)**  
**<http://williamjwoods.com/rooptelsonic/>**