



STANDARD OPERATING PROCEDURE

Department: Quality Control	SOP No.:
Title: Operation of Ultra Sonic Bath	Effective Date:
Supersedes: Nil	Review Date:
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1.0 OBJECTIVE:

To lay down a procedure for operation of Ultra sonic bath.

2.0 SCOPE:

This SOP is applicable for operation of Ultra sonic bath in the Quality control department.

3.0 RESPONSIBILITY:

Executive, Officer – Quality Control.

Head- Quality Control

4.0 PROCEDURE:

4.1 Operation:

4.1.1 Ensure that instrument is clean and the tank should be filled with water up to minimum up $\frac{3}{4}$ ” Height the total depth of the tank.

4.1.2 Start the equipment with the red switch of Power in ON condition.

4.2 Setting of Degassing Cycle Timer and PSP:

4.2.1 Press degas button to start a special degassing cycle for preset 5 or 10 minutes and the equipment will run in ON / OFF condition for maximum degassing of dissolved gases in the solvent.

4.2.2 After the degassing cycle is over Press UP or Down arrow to set required time in minutes.

4.2.3 Press ultrasonic ON / OFF button once to start the equipment.

4.2.4 The display will indicate the remaining the time of the cycle.

4.2.5 When display will reach zero the equipment shut OFF automatically.

4.2.6 Press ON / OFF Button once again to stop the equipment before the cycle is over if required.

4.2.7 Pulse Sweep Power:

Press PSP button to run u/s with sweeping frequency for uniform u/s power



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distribution. This will leave no dead spots in liquid.

4.3 Time Setting

4.3.1 Press set / actual button once and Indication for set will appear.

4.3.2 Press time /temp. button once and indication for time will appear.

4.3.3 Press up and down ↓ keys to set the required time.

4.4 Temperature Setting :

4.4.1 Start Heater by pressing the red switch with indication in **ON** condition. Indication will remain in **ON** condition till the desired temperature is achieved.

4.4.2 Press set / actual button again and the indication for set will appear.

4.4.3 Press time / temp. button again and the indication for temperature will appear.

4.4.4 Press up □ and down ↓ keys to sent the require temperature in °C.

4.5 Auto Degassing (If required):

4.5.1 Select & Press degassing switch in **ON** condition to start auto degassing for Pre-set times.

4.5.2 Press the switch again to stop degassing function before set time if required

4.6 Pulse sweep Power (if required)

Select PSP and press the switch in **ON** condition to start the unique state of the art PSP mode then press ultrasonic in **ON** condition.

4.7 Ultrasonic:

After selecting all above parameters. Press Ultrasonic **ON** for required time/ temp. Cycle. The display will show the time completed (count up) by the ultrasonic cycle and by pressing set / actual button you can see the set time / temp. the machine will shutt of automatically after completion of the cycle.

4.8 Precaution:

4.8.1 Cold water will not normally cavitate well although there may be an initial burst of surface activity.

4.8.2 Do not introduce excessively hot water into a cold ultrasonic tank as it will cause undesirable start-up conditions and thermal shock.



PHARMA DEVILS
QUALITY CONTROL DEPARTMENT

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- 4.8.3 Do not use water solutions above 55°C at any time.
- 4.8.4 Do add chemicals to water prior to initial start-up and mix well, especially if powdered material, which should be premixed before adding to ultrasonic tank.
- 4.8.5 Do not use racks, trays, baskets, etc., fabricated from heavy and dense material.
- 4.8.6 Do not use racks, trays, baskets, etc., fabricated from or coated with soft material, namely, rubber, wood, soft thermoplastics, fabrics, etc.
- 4.8.7 Do not overload an ultrasonic cleaning tank with work.
- 4.8.8 Do not allow cleaning solution to become excessively contaminated or sludge to build up on radiating surfaces, causing a loss of ultrasonic cleaning power and possible damage to ultrasonic equipment.

5.0 ANNEXURE (S):

Nil

6.0 REFERENCE (S):

SOP: Preparation, Approval, Distribution control, revision and destruction of Standard operating Procedure (SOP).

7.0 ABBREVIATION (S)/DEFINITION (S):

SOP : Standard operating Procedure

REVISION CARD

S.No.	REVISION No.	REVISION DATE	DETAILS OF REVISION	REASON (S) FOR REVISION	REFERENCE CHANGE CONTROL No.
1.	00	-----	-----	New SOP	-----