# Multi-Turbine Disperser Model- JJ 1105

### LLOYDS HIGH SPEED MULTI TURBINE DISPERSER MODEL: JJ

1105 for fast batch wise ultra fine grinding down to colloidal fineness of less than one micron (< 1 um) of hard to soft materials dry or in suspension, for mixing and grinding of materials that may otherwise require very large amount of time and efforts to grind, mix and perfect homogenizing of emulsion, ink and pastes with soft to hard materials.

### Method of Operation :

Lloyds Turbine Disperser uses a advantage of the formulae for centrifugal force which is directly proportional to the square of speed. so if the speed of the system is increased by 5 times the resultant force effect will be 25 times.

The material sample is primarily crushed by the high-energy impact of grinding balls and in part by friction between the balls and the wall of the grinding bowl.

The grinding bowls with materials and bowls rotate around their own axis on a counter rotating supporting disc. The centrifugal forces caused by the rotation of the grinding bowls and supporting discs work on the contents of the grinding bowls.

At a certain point in time the stronger centrifugal force of the supporting disc causes the grinding material and balls to separate from the inner wall of the grinding bowl. The grinding balls cross the bowl at high speeds impacting with the grinding material on the opposite wall creating size reduction by impact.

## **Specification**

- Attainable final fineness :< 1 um
- Speed :1200 rpm.
- Timer :999 min.
- Container: SS 125 ml x 4 (50% material filling capacity)
- Max. feed size :10 mm
- Suitable for the following sample materials:Hard, Medium hard, Soft, Brittle, Tough, Fibrous, Temperature sensitive
- Weight Gross :380 kg.
- Electrical details : 240 V / 50 60 Hz / 1500W

Features

# Attainable final particle size of < 1 um (less than 1 micron)

- Accurate and reproducible grinding results due to its precise three dimensional dynamic balancing, precise quartz time and speed control. Therefore energy consumption in all the 4 canisters are absolutely equal to be compared to the sharpest level.
- Analytically pure and contamination free grinding.
- No grinding loss including suspensions because of inclined grinding canisters design and therefore centrifugal forces retains the material absolutely within the canisters.
- Simultaneous grinding in upto 4 X 125 ml OR 2 X 250 ml and 2 X 125 ml grinding canisters.
- Digital display of actual rotational speed of Turbine disc.
- Programmable grinding and cooling time.
  Grinding sequences and grinding time can be set to the exact number of seconds for short time operation.
- Easy cleaning.
- State of the Art robust design.

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