# **Innovative Mixing Solutions**





how you think about mixing and processing



ResodynAcoustic<sup>®</sup> Mixers' *Lab***RAM** I<sup>™</sup> features operational and control features for mixing and processing a broad range of applications. Many difficult-to-mix materials can be processed faster, better, more efficiently, and more productively using the Lab**RAM** I<sup>M</sup>.

# Designed for Dynamic Processing Requirements

The *Lab***RAM** I<sup> $\mathbb{M}$ </sup> design and features upgrade the original *Lab***RAM**<sup> $\mathbb{M}$ </sup> with a substantive power increase compared to the first generation. Upgrades include sound level below 70 db, on-board accessory operation, recipe development and data download, while maintaining the speed, quality, and laboratory-to-production scaling on which ResonantAcoustic<sup>®</sup> Mixing's (RAM) reputation is built.



Solids/Powders

Liquids/Gasses

Viscous/Slurry

#### Key Processing Capabilities

- Mixing and processing up to 1.1 lbs. (500 grams)
- Up to 100 g of acceleration for fast, effective, easy processing
- Any combination of Solids/Powders from nano-scale and up, Liquids/Gases, and Viscous/Slurry Materials
- Coating, milling, grinding capability
- Adjustable vessel holder accepts many mixing vessel types
- Manual or automatic/programmable vacuum operation (optional, see back of this sheet)
- Vacuum control before, during, and after mixing and curing (optional)
- Temperature sensor precision resistance temperature detector (RTDs) with m12 connector, (optional, see back of this sheet)
- Monitor and collect vessel content's processing data while mixing
- Monitor mixing parameters in real-time
- Multiple level security and access control
- Develop, store, and secure up to 100 recipes for permanent recording of operations and measured results
- Fully integrated operating system with touchscreen interface and data download
- Acoustic housing dimensions 26"H x 19"W x 26"D (cm: 66.1 x 48.3 x 66.1)
- LabRAM I<sup>™</sup> weighs 155 lbs (70.3 kg)
- Intense, but gentle acoustic mixing for rapid, highly repeatable, ultra-high quality results

# Global Mixing and Processing Technology

Since its introduction to the marketplace in 2007, ResonantAcoustic® Mixers' (RAM) mixers technology has become the choice for many commercial mixing and processing applications. RAM's unique combination of features and performance has proven successful at Fortune 500 laboratories and production facilities in 30+ countries across a broad range of industries.



130 North Main Street, Suite 630 Butte, MT USA 59701 (406) 497-5333 info@ResodynMixers.com www.ResodynMixers.com



Coating/Nano



# **Innovative Mixing Solutions**





change, how you think about mixing and processing

# Automatic Vacuum System

- Control operation and settings through *Lab***RAM**'s<sup>™</sup> operating system
- Integrate vacuum function in recipes
- Operate manually for development, reaching 10 Torr
- Vacuum lids available for a variety of vessel sizes
- Manual Vacuum System also available

### **Temperature Monitoring**

- Resistance Temperature Detector (RTD) feature and fixture available
- Monitor and record temperature changes within a mixing vessel equipped with an optional RTD Port Lid
- Retrieve mixing processing, vacuum, and temperature data with provided **RAM**Tools and **RAM**Viewer software

#### Solids/Powders



### **ResonantAcoustic® Mixing (RAM) Product Line Features**

Lab**RAM** I<sup>™</sup> performance extends across the **RAM** product line, enabling new product development and break-through results not possible with traditional mixing methods. All **RAM** products use *low* frequency acoustic mixing at up to 100 g of acceleration for intense but low-shear mixing resulting in:



**Auto Vacuum** 



Vacuum Lid



Vacuum Lid with RTD







- 10 100x faster processing
- Highly reliable repeatability
- Direct scaling from laboratory to production without increases in processing time
- Capacities for:
  - *Lab***RAM** I<sup>™</sup> 1.1 lbs./500 grams Lab**RAM** II<sup>™</sup> 2.2 lbs./1 kg *Omni***RAM**<sup>™</sup> 11.0 lbs./5 kg **RAM 5<sup>™</sup> 80.0 lbs./36.3 kg RAM 55<sup>™</sup>** 920.0 lbs./417.3 kg
- Exceptional ingredient distribution
- Hazardous material compatible options
  - 130 North Main Street, Suite 630 ™ Butte, MT USA 59701 (406) 497-5333 info@ResodynMixers.com

www.ResodynMixers.com



Witness RAM Technology first-hand with YOUR materials. Arrange a FREE RAM demonstration and mixing text at your facility. 406-497-5333 info@resodyn.com