

Dear Patrons,

As RAX Unique embarks on another year of innovation and growth, we're excited to share our vision, objectives, and initiatives that will propel our success. The past year was marked by challenges and opportunities that allowed us to explore new equipment and technologies, enhancing our manufacturing capabilities.

With renewed determination, we're poised to deliver high-quality products that meet and exceed customer expectations in the new financial year.



Thank you for your ongoing support and trust in Rax Unique.

Warm Regards,  
Ram

### Rax Unique Products

- **Vibratory Cup Mill**
- **Hammer Mill**
- **Ball Mills**
- **Hydraulic Press**
- **Jaw Crushers**
- **Micro BEE Pulverizer**
- **Roller Crusher**
- **Auto Desiccators**
- **Humidity Chamber**
- **Furnace and Ovens**
- **Riffler – Sample Divider**
- **CON Quad Sample Divider**
- **Fume Hood Cabinet**
- **RAX-TAP Sieve Shaker**
- **Rax Spear**
- **Sound Enclosure for Sieve Shaker**
- **Bomb Calorimeter**

## WHAT'S NEW

### A. Smart VCM

**Our latest Vibratory Cup Mill innovation, combining space-saving design with cost-effective performance.**

### B. 3 Bowl Vibratory Cup Mill

**Process three samples simultaneously in a single run, boosting laboratory productivity and efficiency.**

### C. Rax Spear Mechanical Sieve Shaker

**Our compact, cost-efficient sieve shaker with reduced noise and accurate sample output, ideal for laboratory use.**

### D. 8mm Sample Divider

**Achieve precise sample division with our 8mm divider, ensuring accurate representation and minimizing sample loss.**

### E. Con Quad Sample Divider at Hindalco

**Successful installation and commissioning of our Con Quad Sample Divider at Hindalco Industries, dividing samples into four parts with precision.**

### F. New Referral at NVR Minerals

**Rax Unique's Vibratory Cup Mill successfully supplied, installed, and commissioned at NVR Minerals Lab.**

## Vibratory Cup Mill – Three Bowl Model Three Bowls – Three Samples – Single Run



**Rax Unique State-of –the –art equipment – Three Bowl Vibratory Cup Mill offers same specifications as Single Bowl VCM but with added advantage of 3 Bowls which efficiently processes three different samples simultaneously enhancing productivity and reducing time.**

- **Multiple Sample Processing: Handles 3 bowls at a time with 3 samples.**
- **Increased efficiency: Saves time and boosts laboratory productivity.**
- **Precise Grinding: Delivers consistent results with high accuracy.**
- **Maximum Bowl Capacity: 150ml**

## Smart Vibratory Cup Mill

**Our Latest Innovation, the SMART Vibratory Cup Mill, combines cutting-edge technology with space saving design, offering better cost performance without compromising on quality.**

### **Key Features:**



- **Compact design:**  
**Ideal for laboratories with limited space.**
- **Better cost# Performance Ratio:**  
**Optimised performance at a lower cost.**
- **Upgraded Door Mechanism:**  
**Enhanced safety and ease of use.**
- **Unmatched Performance:**  
**Consistent results and high productivity.**
- **Easy Accessibility of Components:**  
**Simple maintenance and components access**

## Vibratory Cup Mill



- **Clamping of Bowl: Manual, Positive in nature (Slippage of Bowl not Possible), 100% Safe.**
- **Variable Speed, 700-1440 rpm**
- **Safety Interlocking**
- **Maintenance Free Design**
- **Solid Base, No need for Foundation**
- **Feed Size: < 10mm. Output Size: Up to 120  $\mu$ .**
- **Grinding Time: 1-20 minutes depending on the materials.**
- **Unique design for faster grinding than the models available in the market.**
- **Display: Digital, to set Time range 0.5 – 256 minutes.**
- **Manual "QUICK SNAP" Locking Mechanism. Easily detachable single bowl system.**

### **Vibratory Cup Mill is improved in substantial reduction of noise level.**

- **Noise was arrested with 25mm acoustic pads.**
- **The panel fitting has been improved with folds to arrest noise.**
- **The bottom plates have been enhanced with additional 12mm sheets to dampen the vibration.**
- **Locking Mechanism upgraded with TUBE Rubber PADS.**



## Vibratory Cup Mill – Bowl Set

**Capacity: 80ml – 250ml**



- Additional O-Ring for leak proof grinding.
- Heavier Bowl (almost double) compared to competition.
- Faster grinding since heavier Hammer & Ring.
- Finer since Heavy Impact & Friction at the Bowl bottom.

### D2 Grade – Hardened Steel Bowl

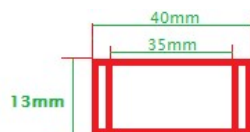
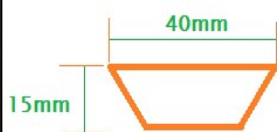
- 7mm Thick Tungsten Carbide,
- Sintered and ground Tungsten Carbide material.
- High performance.
- Heavy Duty Bowl with Handle.



Tungsten Carbide Bowl

### RAX UNIQUE Special Aluminium Cups & XRF Sample Rings

RAX UNIQUE has designed the special Aluminium cups with the customer's requirement in mind. We also specialise in supplying STEEL ring for the XRF Pressed Pellets and automation purposes.



## Hydraulic Press



### **RAX UNIQUE Hydraulic Press – DUAL DIE**

- **Hydraulic Press for High Throughput**
- **25 Tons, 30 Tons and 40 Tons Configuration**
- **Easily exchangeable DIES**
- **Dust free System**
- **Easy Maintenance**
- **High Performance Cylinder**
- ***Comes with Extended Warranty***
- **Special Pressure RECHARGER**
- **Working Speed: 03mm/sec**
- **Electrical Power: 3HP/3Phase**

### **Hydraulic Press with Safety**



- **Sensors for extra Safety**
- **Activation once the Cylinder moves**
- **Pressure Sensing and Tripping**

### **Hydraulic Press Pellet Breaker**



- **Simple, yet Rugged System**
- **Easy Installation & Occupies Less Space**
- **Can be attached in any existing Pelletiser**
- **Both 40mm & 51.5mm Pellet breaking**

## Jaw Crusher



**Crushing Lumps of Limestone, Iron ore, Laterite, Clinker.**

- **Easily movable JAW Fixtures**
- **Belt Guard, Emergency Stop Switch, OLR for motor protection, CE Electrical safety.**
- **Mounting: Systems will be provided with the Anti Vibration Pads, separate Concrete Mounting not required.**
- **Motor: 5HP / 3phase / 1440RPM**

|                             | <b>Principal</b>            | <b>Primary</b>              | <b>Secondary</b>            |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Feed Size</b>            | <b>&lt; 180mm</b>           | <b>&lt; 125mm</b>           | <b>&lt; 80mm</b>            |
| <b>Output</b>               | <b>25 – 40mm (Adj)</b>      | <b>12 – 25mm (Adj)</b>      | <b>2mm – 12mm (Adj)</b>     |
| <b>Jaw MOC</b>              | <b>Hardened Steel</b>       | <b>Hardened Steel</b>       | <b>Hardened Steel</b>       |
| <b>Optional Accessories</b> | <b>Dust Collection unit</b> | <b>Dust Collection unit</b> | <b>Dust Collection unit</b> |

|                             | <b>Mini Jaw Crusher</b>  |
|-----------------------------|--|
| <b>Feed Size</b>            | <b>&lt;40mm</b>  |
| <b>Output</b>               | <b>2mm-10mm (Adj)</b>  |
| <b>Jaw MOC</b>              | <b>High Carbon High Chrome material / Manganese Steel / Tungsten Carbide</b> |
| <b>Optional Accessories</b> | <b>Dust Collection unit</b>  |

**\*\*\*For Ferro Alloys & hard materials, we recommend TUNGSTEN CARBIDE Jaws\*\*\***



## BEE Pulverizer



- **Funnel Size: 1Kg/2Kg/5Kg sizes**
- **Input Feed Size: Fe Pellets of <15mm**
- **Output Size: <212microns**
- **Applications: Iron Ore, Fe Pellets, Dolomite, Si Mn, Sponge Iron, Cement Material.**
- **Motor: 3HP 3phase Motor**
- **RPM: 1440rpm**
- **Direct Drive Power Transmission**
- **Disc Size: 200mm Dia**
- **Disc Type: Specially designed CONE#SLANT arrangement with Hardened Steel/Tungsten Carbide material.**
- **Dust free construction**
- **Heavy construction and hence concrete base not required.**

## Hammer Mill



- **Funnel Size: Can handle 1Kg/2Kg/5Kg.**
- **Input Size: <12mm**
- **Output Size: -212  $\mu$**
- **Application: Coal, Iron Ore, Clinker etc.,**
- **Sample Capacity: 2-5kgs/hr**
- **Motor: 3HP 3 phase Motor**
- **RPM: 2800 & 4000 rpm**
- **Belt driven**
- **Overload Protection incorporated**
- **Heavy construction**

The system is supplied with replaceable 212  $\mu$  Sieve. The same can be replaced with other sizes also.

## **D Supreme<sup>Plus</sup> Auto Desiccator**



- Bench top Desiccator system
- Polycarbonate Walls and Trays
- Customised 6 Trays
- Trays can hold 40mm / 51.5mm XRF Pellets.
- Other sizes can also be supplied on order
- NEW Feature: Hygrometer Controller, for precise control of Humidity
- Optional TESTO Hygrometer with USB cable for ONLINE updates of H% & °C trends
- Temperature Indication
- Humidity Indication
- Auto Desiccation Process
- Operational convenience
- Easy PICK UP of Standards
- LED Illumination

Rax Unique have completed installation of more than 100 units of **D Supreme<sup>Plus</sup> Auto Desiccator**. Our Premium customers include **ULTRATECH, SHREE CEMENT, RAMCO CEMENTS, SAGAR CEMENTS, OWENS CORNING, RCCPL, CSIR, JK CEMENT, BSIP** etc.

## Harrier<sup>Plus</sup> Desiccator



- ❖ **Bench top Desiccator system. Polycarbonate Walls and Trays.**
- ❖ **Trays can hold 40mm / 51.5mm XRF Pellets. Other sizes can also be supplied on order.**
- ❖ **Trays Tailor made with customer needs.**
- ❖ **NEW Feature: Hygrometer Controller, for precise control of Humidity.**
- ❖ **Optional TESTO Hygrometer with USB cable for ONLINE updates of H% & °C trends**
- ❖ **Temperature Indication & Humidity Indication and Auto Desiccation Process.**
- ❖ **Desiccators have 100Lit capacity to hold more samples & heavier samples as well.**

| <i>Particulars</i>                 | <i>UNIT</i>     | <i>HARRIER</i>                   |
|------------------------------------|-----------------|----------------------------------|
| <i>Internal Capacity</i>           | cm <sup>3</sup> | 610mm x 442mm x 372mm (100Litre) |
| <i>Humidity Indication</i>         | Rh %            | From 0% to 100%                  |
| <i>Temperature Indication</i>      | °C              | From Ambient Temp                |
| <i>Material construction Wall</i>  | Quality         | Polycarbonate                    |
| <i>Material construction Trays</i> | Quality         | Polycarbonate                    |
| <i>Electrical Power Supply</i>     | V               | 12V DC Adaptor                   |
| <i>Locks</i>                       |                 | Steel Locks                      |

## RAX-TAP Sieve Shaker



The Industrial Standard Sieve Shaker RAX-TAP, is a Versatile and Rugged system for particle size analysis.

Horizontal Circular motion and a Vertical Tapping motion will segregate the material faster than the conventional type systems.

The system provides most accurate distribution analysis and consistent results.

**Applications:** Size analysis of Sand, Coal, Feldspar and other raw materials, also can be used in Agricultural Applications as well.

Rax-Tap Sieve Shaker can be used with both 8" and 12" Sieves.

## Sound Enclosure



### **Sound Enclosure (Indigenous) for Sieve Shaker**

- **Dimension 790 x 570 x 700**
- **Noise Reduction: 45 dB**
- **ACCOUSTIC FOAM Installed**
- **Lockable Doors**
- **Rust Proof Guarantee**



## Fume Hood

Fume hood is an enclosure that safely contains and ventilates hazardous fumes, vapors, gases and dust generated by chemical processes.



- Stay-On 2 Door System
  - Additional Cupboards on the bottom frame of 3' Height
  - Long Lasting Roof Top Anti-Corrosive Exhaust System
  - Decipher - Ceramic Table TOP 25mm (For to avoid Acid spillage and corrosion)
  - Decipher - High Temperature SAFETY Canopy - to withstand 300°C.
  - Anti-Corrosive FRP Coating
  - Fume Hood can comfortably accommodate 4 Hot Plates.
  - Sockets – 4 Sockets
  - LED Lamps for Illumination - 2 pcs of 9 Watts Bulb
  - RPM – 2500
- DECIPER 2052 Table TOP Size - 5' X 3' Height-8'
  - SIZE - H-8 ft X L-5 ft X B-3ft
  - Weight – 450 Kg
  - Electrical Supply - 3 $\phi$  / 230 Volts / 50 Hz



## CON-QUAD Sample Divider



- **Opening – 20mm Dia**
- **Input Size – 10-12mm**
- **No of Trays – 4 + 1 additional tray for swapping**
- **Dimensions: 140mm (H) X 123mm (W) X 123mm (B)**
- **Tray Capacity – Appx. 2 L**
- **2-5 kg Sample Hopper**
- **2 Litre Sample Trays**

## Riffler Sample Divider



- **Simple in construction, divides sample quantity equally in two parts, loading volume ~ 3-5 Litres**
- **MOC: Divider made for stainless steel**
- **2 Receiving Pans**
- **Weight: ~5 kg**
- **Dimensions: 12" W x 14" D x 12"H**
- **RT 12.5 with Tinned sheet receivers 18 divisions 12.5 mm (1/2 inch) openings. Max. material feed size: >8 mm, receiver volume more than 2 litres.**

## IKA<sup>®</sup>

### Bomb Calorimeter



### Family of Bomb Calorimeters

Rax Unique is an authorised dealer of IKA Bomb Calorimeter and its spares. We have successfully supplied and completed installation at various customer sites. Among them are **SAGAR CEMENTS**, **BHARATHI CEMENTS**, **RAMCO CEMENTS** etc.,

**RAX UNIQUE TECHNOLOGIES HAVE INTRODUCED NEW YouTube Channel for videos of our Products & Performance upgradation.**

[https://youtu.be/\\_6pGJT8wSU0](https://youtu.be/_6pGJT8wSU0) - The BEE Micro Pulveriser – Challenging the Limits  
<https://youtube.com/shorts/BKPX5yFTiNU?> - New “QUICK SNAP” Locking Mechanism  
<https://youtu.be/yFBJkd9D4LA> - Sample Splitter, Riffers  
<https://youtu.be/h2pIGJZF8mU> – Hydraulic Press System  
<https://youtu.be/yQbts5asLnA> – Harder Material Grindability Testing on VCM  
<https://youtu.be/ogw31eEdSrl> – Manual Hydraulic Press for Ceramic & Glass Industries  
<https://youtu.be/noSYIScxYHw> - RAX UNIQUE HARRIER DESICCATOR  
<https://youtu.be/Ok7Imui78M0> -MANUAL HYDRAULIC PRESS  
<https://youtu.be/tAa1ER3QLb8> -TABLE PRESS (KBR PRESS)  
[https://youtu.be/A\\_z0UUIn8bg](https://youtu.be/A_z0UUIn8bg) - The Art of Samples Preparation  
<https://youtu.be/gUtVncu6PRM?si> – D Supreme Plus Auto Desiccator

**Our Partial List of Customers**

1. Shakambari - VCM
2. JSW-Bhushan Steel – 9 VCM / 3 Jaw Crusher/2 Hydraulic Press
3. BMM – 1 VCM / 2 Jaw Crushers
4. ISMT– 1 VCM / 1 Hydraulic Press/1 Jaw Crusher
5. Kirloskar Hiriyur Plant – 1 VCM / 1 Hydraulic Press
6. Sree Metaliks (Raigoda & Barbil Plant) – 2 VCM / 2 Hydraulic Press / 1 DISC Pulveriser/1 Jaw Crusher/1 Rax-TAP Sieve Shaker
7. Shyam Metaliks - 1 DISC Pulveriser
8. Ultratech Aditya Birla – 1 VCM / 1 Hydraulic Press
9. SGS - 1 Hydraulic Press
10. BGR Mining - 1 Hammer Mill /1 Oven/1 Humidity Chamber/2 Jaw Crusher/1 Roller Crusher/1 Furnace
11. IMMT – 1 VCM / Riffler Sample Divider
12. Rain CII Carbon – 1 Hydraulic Press
13. Mitra SK – 2 Jaw Crushers / 1 VCM
14. Saint Gobain - 1 VCM
15. Sagar Cement - 7 Units (3 VCMs / 4 Hydraulic Press / 2 Jaw Crushers)
16. Keshav Cement – 1 VCM/1 Hydraulic press/1 Jaw Crusher
17. My Home Cements – 1 VCM / 1 Hydraulic Press
18. India Cements – 1 VCM / 2 Hydraulic Press
19. India Cements, Chilamkur – 1 VCM / 1 Hydraulic Press
20. JK Cement – 1 VCM / 1 Ball Mill
21. Riddhi Siddhi Cement – 1 VCM / 1 Hydraulic Press

RAX UNIQUE Technologies have Offices in Hyderabad, Jharsuguda & Chennai  
Please email me your comments at ram@raxunique.in



- 22. Vasavadatta Cement - 1 VCM
- 23. Maruthi Cements – 1 VCM/1 Hydraulic Press
- 24. Ultratech Dalla – 1 Fume Hood
- 25. CMTI – 1 VCM/1 Hydraulic Press
- 26. Oil & Natural Gas Corporation – 1 VCM
- 27. Ramco Cements – RRDC – 1 Hydraulic Press
- 28. Orient Cement – 1 Vibratory Cup Mill
- 29. Rail Wheel Factory – 1 Vibratory Cup Mill / 1 Hydraulic Press
- 30. NVR Minerals – 1 Vibratory Cup Mill
- 31. Ramco Cements Vizag Grinding Unit – 1 Hydraulic Press