



LABINDIA
A N A L Y T I C A L

WHERE COMMITMENT IS CULTURE

Geology and Mining Solution

Presented by
Sandip S Jagtap

9004842578

Sandip.Jagtap@labindia.com
(Product Manager)



LABINDIA
ANALYTICAL
WHERE COMMITMENT IS CULTURE

**Manufacturer / Exporter / Distributor
of a Wide Range of Analytical Instruments**



History & Growth



State-of-the-art **MANUFACTURING**

Mahape Factory, New Mumbai 



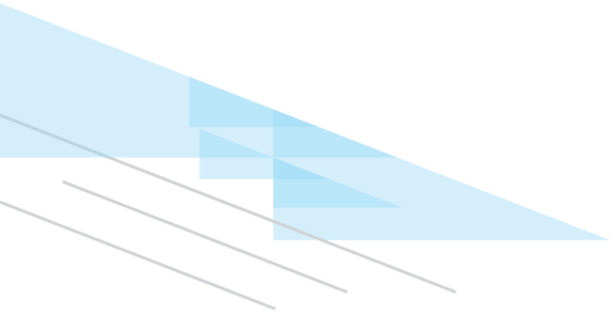
Machine Shop | CNC Facility | Production | Quality Control Lab

Application Lab & Training Centre

R&D | Training

RABALE, New Mumbai 





INSTRUMENTS

Manufactured, Exported & Serviced



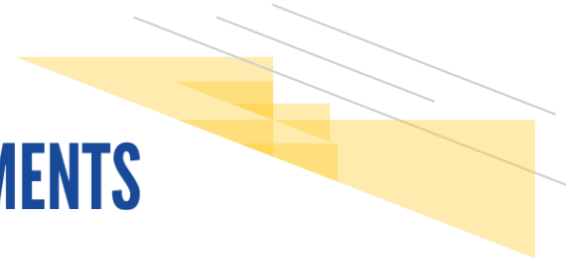
TABLET DISSOLUTION SYSTEMS

(DS 8000 Series & DS 14000 Series)

Basic System



TABLETS PHYSICAL TESTING EQUIPMENTS



TABLET HARDNESS TESTER

Single Station



12 Carousal



24 Carousal



pH & Conductivity Testers

PICO pH / Conductivity Meter



Microprocessor Controlled pH Analyser (PHAN)



TITRATORS

Automatic Titrator

TITRA+



Karl Fischer Titrator

KAFI+



Touch Screen Variants TITRA SMART & KAFI SMART



Melting Range Apparatus

Visual Melting Range (MR-VIS+)



Melting Point Apparatus (MEPA)





UV-VIS 1000



UV-VIS 3092



UV-VIS - T60V



UV-VIS 3000+



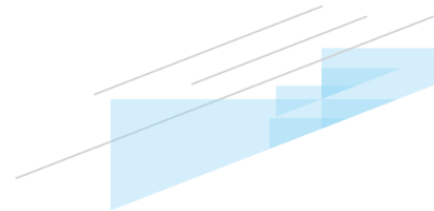
UV-VIS 3200



UV-T60



SPECTROPHOTOMETERS



Atomic Absorption Spectrophotometer (AA 8000)

SPECTROPHOTOMETERS



**Our Success.
Our Clients.**



FTIR Spectrophotometer

Tensor II



Alpha II



CEM

MICROWAVE SERIES

Digestion System

Discover SP-D



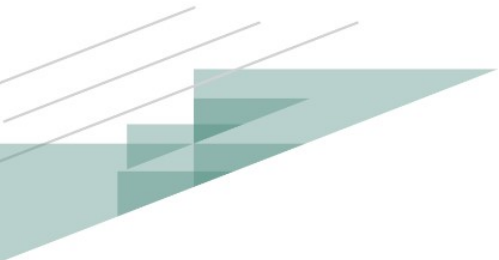
Mars One



Mars 6



Mars 6
with iWAVE



CEM

**MICROWAVE
SERIES**

Fat Moisture Analyser



Peptide Synthesiser



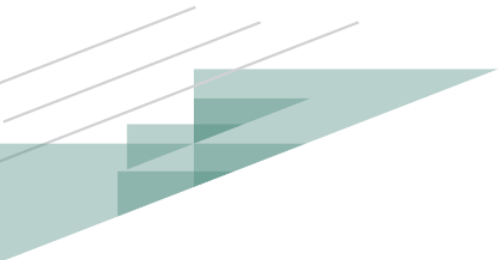
Synthesis System



Ashing System (Sulphated Ash)



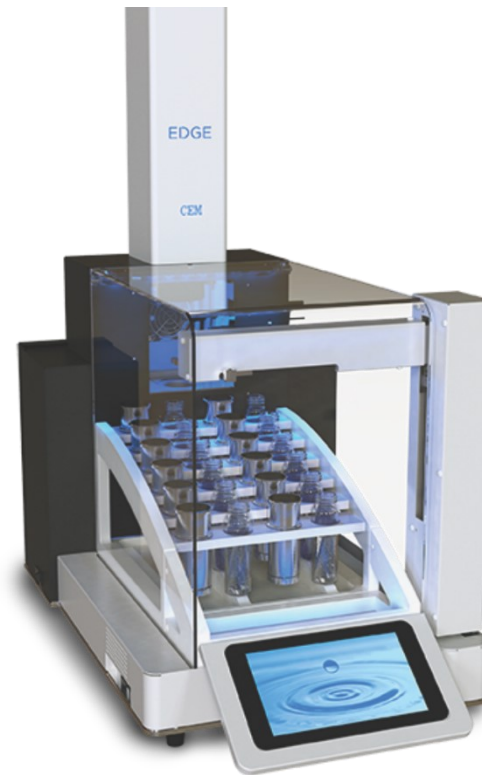
Protein Analyser





EDGE

(Automated Pressurized Fluid Extraction)



Elvatech



Mercury Analyser Solid/Liquid – no sample preparation



Prodigy 7 Spectrometer (ICP-OES)





Spinsolve Benchtop NMR Spectrometer

CRYOGEN FREE

Sample Format : 5 mm OD 7 inch std NMR tube

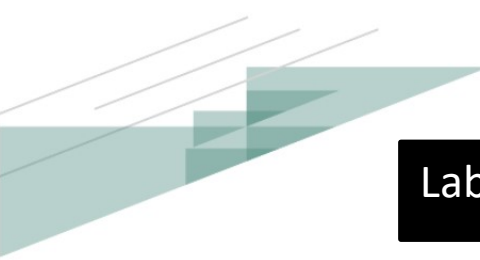
Sensitivity : For 1% Ethyl benzene : > 100

Signal to Noise ratio :- > 100,000

Expt : 2D COSY , JERS

Molecules : ^1H , ^{13}C , ^{19}F





Labindia

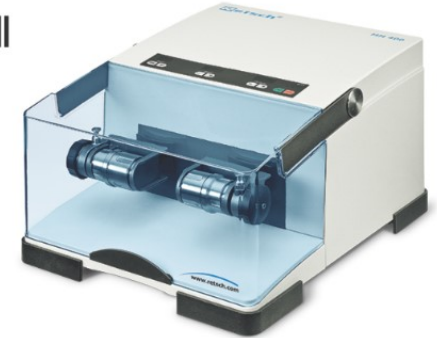
Fluid Bed Dryer



Vibratory Sieve Shaker



Mixer Mill



Air Jet Sieving Machine



ElvaX Pro



Prospector 2



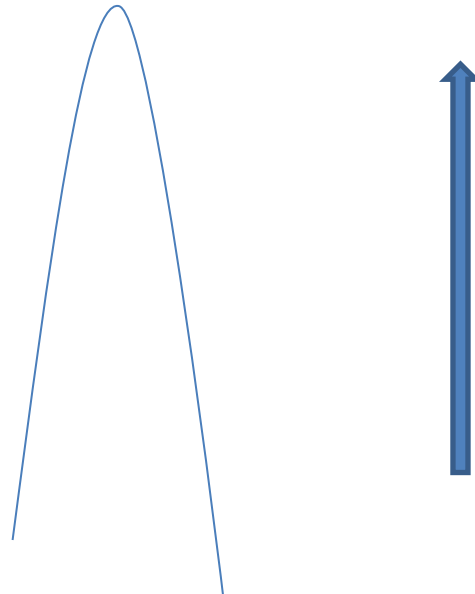
is a powerful handheld analyzer employing
velopments in XRF analysis. Due to the advanced
nd state-of-the-art mathematical algorithms
rovides ultimate quality of measurement

ElvaX Pro

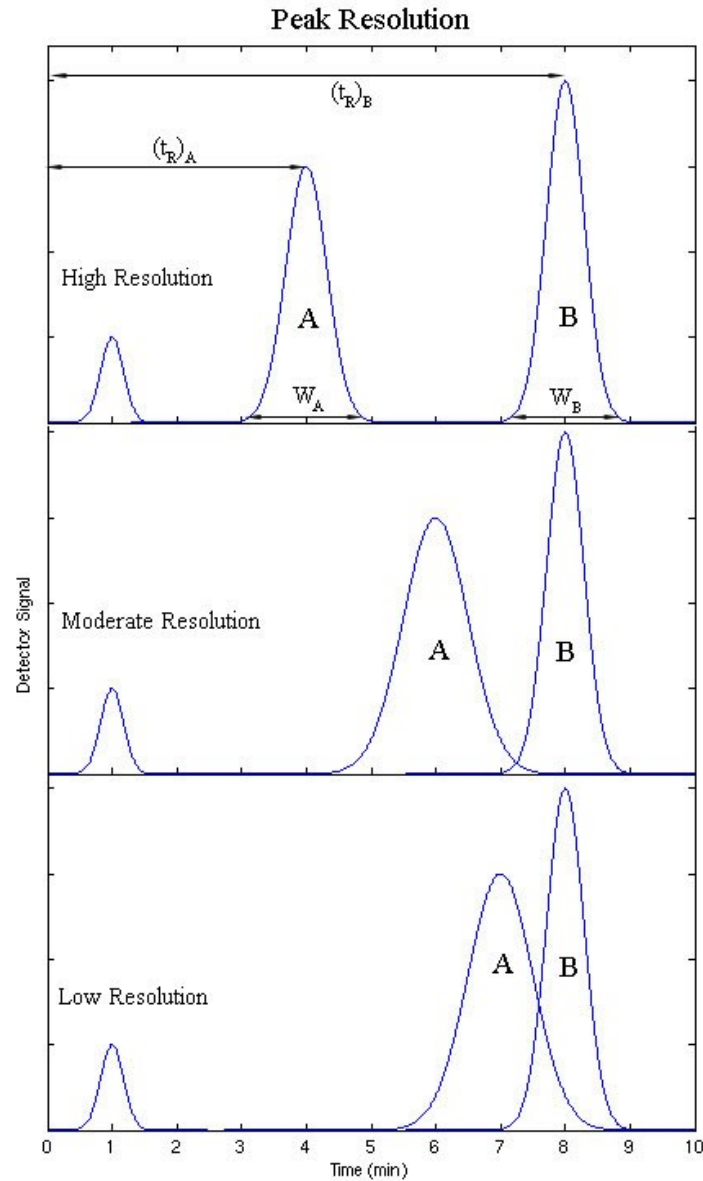
- ElvaX Pro is the next-generation benchtop X-ray fluorescence analyzer. It offers a new level of analysis accuracy, speed and detection limits for a wide range of elements from Na(11) to U(92) due to the new 60kV, 0.5 - 2000 μA in 20 μA steps X-ray tube and the ultra large area Fast SDD detector. Powerful hardware combined with unique software algorithms make ElvaX Pro a multipurpose lab instrument for elemental analysis of various materials including solids, powders, liquids etc.

What is CPS?

In general, the intensity of radiation is usually measured in counts per minute (cpm) or counts per second (cps), which expresses a rate of counts per unit time as registered by a radiation monitoring instrument.



What is resolution?



ElvaX Pro

Profile from 'E201.elvaxprofile':

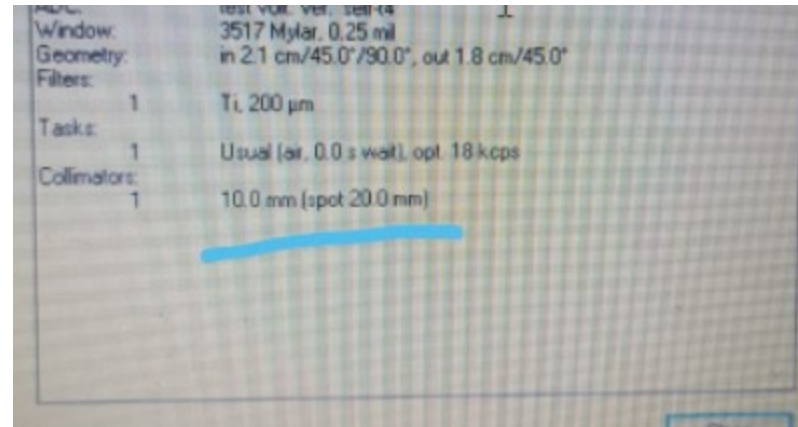
Serial number:	E201
Model:	3
Lid:	yes
Task switcher:	yes
Filter changer:	yes
Spot contro:	independent collimator changer
Camera:	accessible from PC, view 11.8 mm shrink 0.15 FH R270
Outer camera:	no
Add. mechanics:	changer (16 pos), spinner (100%)
Periphery:	no
Try-before-buy:	no
Aux. power supply:	no
Tube:	Moxtek, Rh50W, 4-60 kV, 0.5-2000 μ A, <+60°C (#136412)
Detector:	Ketek, Fast SDD, 0.50 mil C, <-30°C, <+60°C (#VK6189)
DSP:	ver. A2, slots 4, 115 kBd, E1(t*)=0
ADC:	test volt. ver. 'self-t4'
Window:	3525 Ultralene, 0.16 mil
Geometry:	in 2.5 cm/90.0°/90.0°, out 1.4 cm/45.0°
Filters:	
1	Ti, 400 μ m
2	Al, 800 μ m
3	Ni, 100 μ m
4	no filter
5	Ni, 300 μ m + Al, 300 μ m
6	Mo, 100 μ m
7	Al, 300 μ m
8	Ti, 200 μ m

Tasks:

Devices:

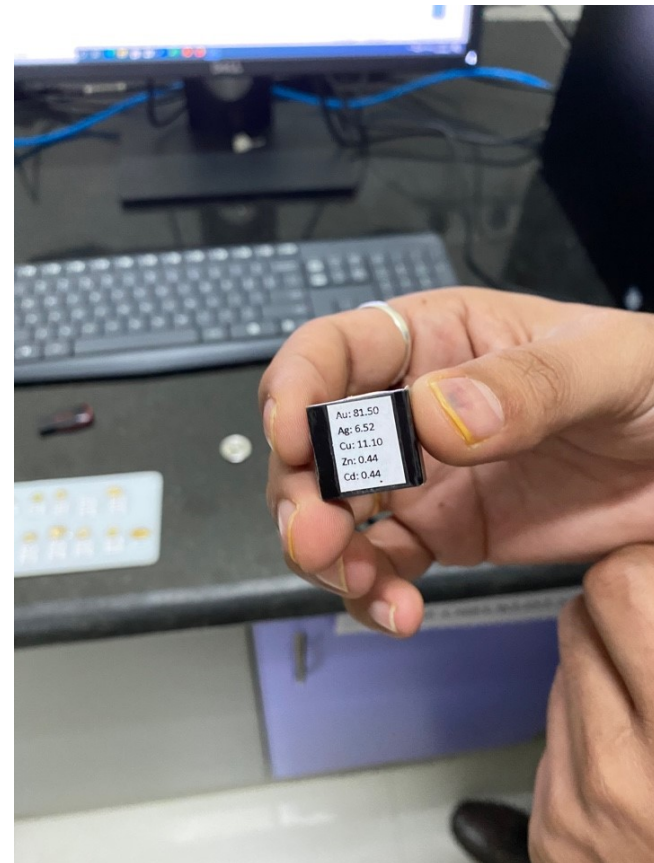
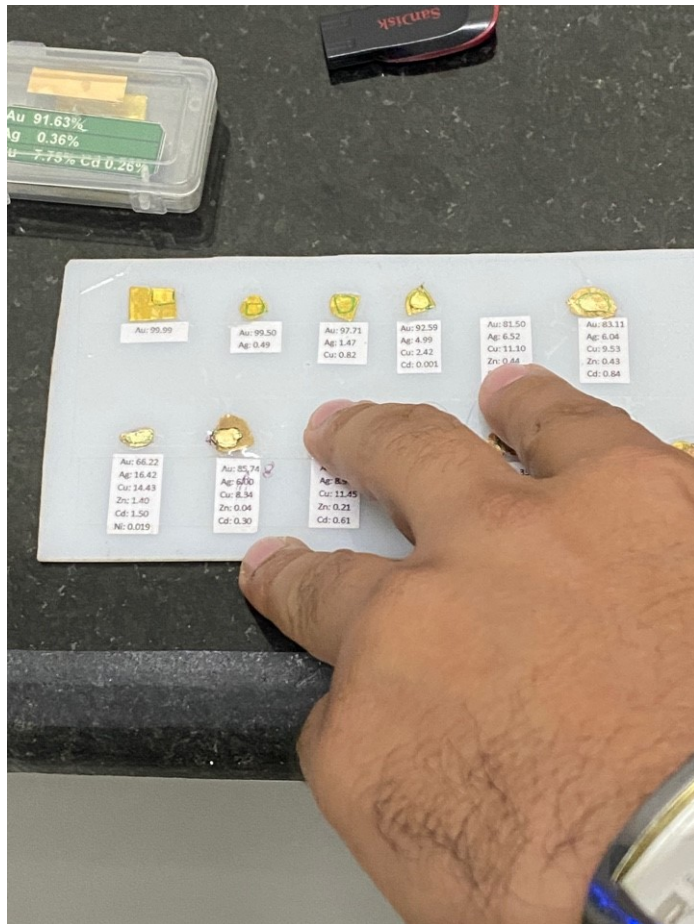
Buttons: Edit..., Clear, Open..., Save, Save as..., Compare..., Read from device

Spot size with 5 collimator

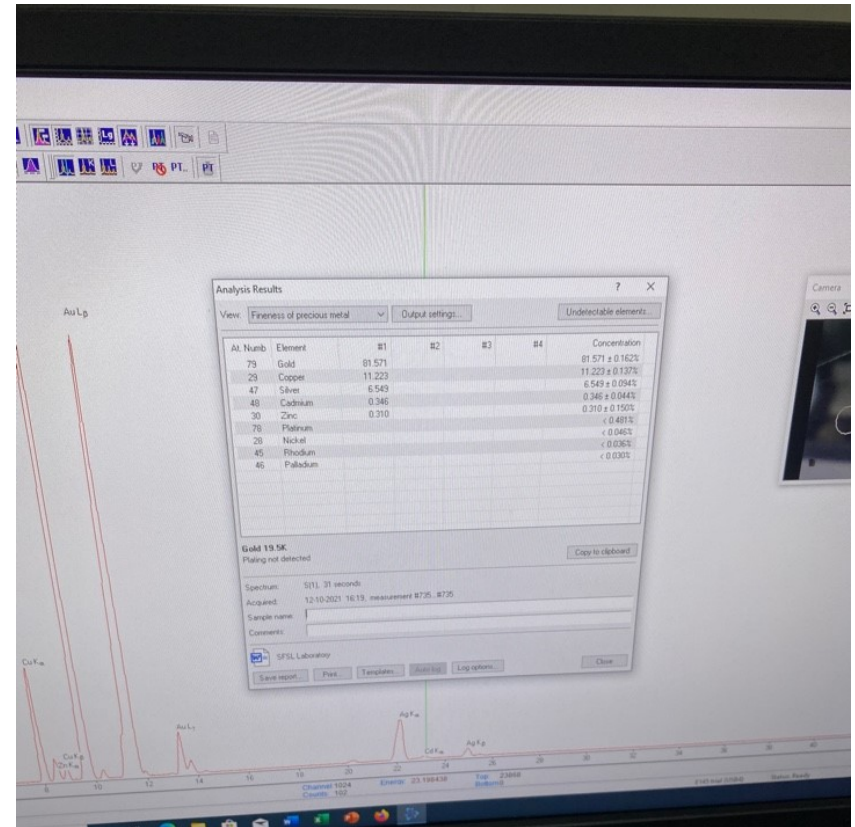


smallest the spot size can check small samples e.g. Nosepin

Chemistry Application Demo

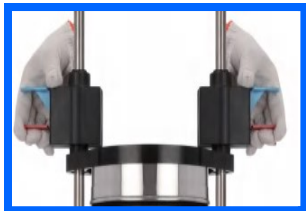


Gold analysis results, due to high CPS we can do 2 ppm gold detection



Vibratory Sieve Shaker

Dry Sieving



Wet Sieving



Features & Advantages

- 2 Sieving methods - Dry & Wet sieving.
- Low noise, maintenance-free (<60 Db)
- Adjustable Amplitude from 0.2 to 3.0 mm
- Sieving Time selectable from 1 to 99 Min.
- Two modes of Operation (Continuous & Intermittent)
- Interval Operation selectable from 01 to 99 sec.
- Pause time programmable from 01-09 Sec.
after set interval of 01-99 sec during sieving process
- Electromagnetic Drive with Unique sieving with 3D motion
- Reliable, repeatable and high efficient sieving result.
- LED 5 inch touch screen, intelligent control, convenient operation.
- Digital setting, all sieving parameters can be preset, simple operation.
- Can be connected to the computer and controlled by the Smart screen software to perform data processing and analysis, Screening evaluation.



VS1100(Touch Screen)

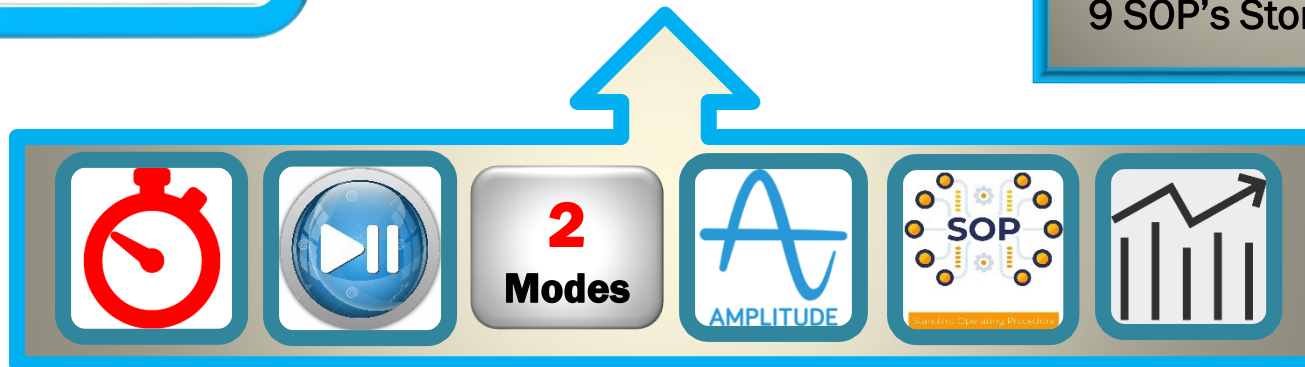
Control Panel

5" LED TOUCH SCREEN



Programmable
Digital Settings

Sieving Time (1~99 min.)
2 Modes of Operation shift
(Continuous / Intermittent)
Interval Time (01~99 Sec)
Pause Time (0~9 Sec)
Amplitude (0.2 ~ 3.0)
9 SOP's Storage Memory



Air Jet Sieve Shaker

JS1100



•Applications: JS 1100 is the best solution to separate and deagglomerate particle for Sieves cuts of powder material

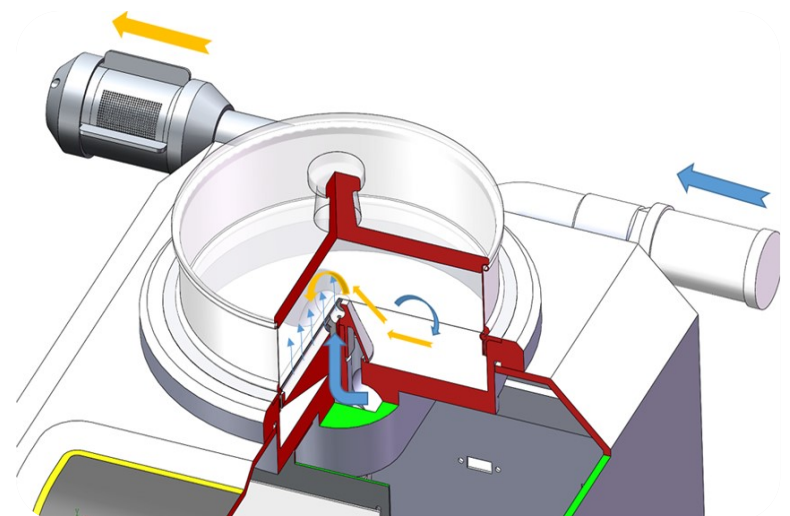
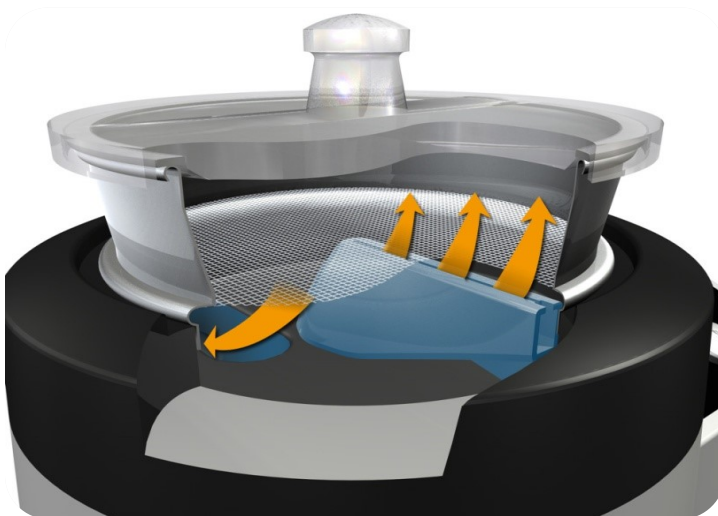
- If, Vibratory sieving method can't produce proper sieving quality
- If, Application demands sieving $<20\mu\text{m}$ (15 / 10 / 5 μm)
- If, Sample has agglomeration effect



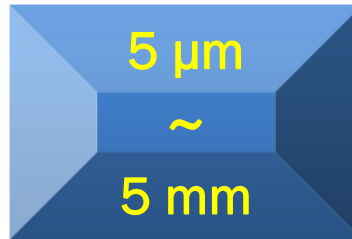
SOLUTION



AIR JET SIEVING METHOD



JS1100(Touch Screen)



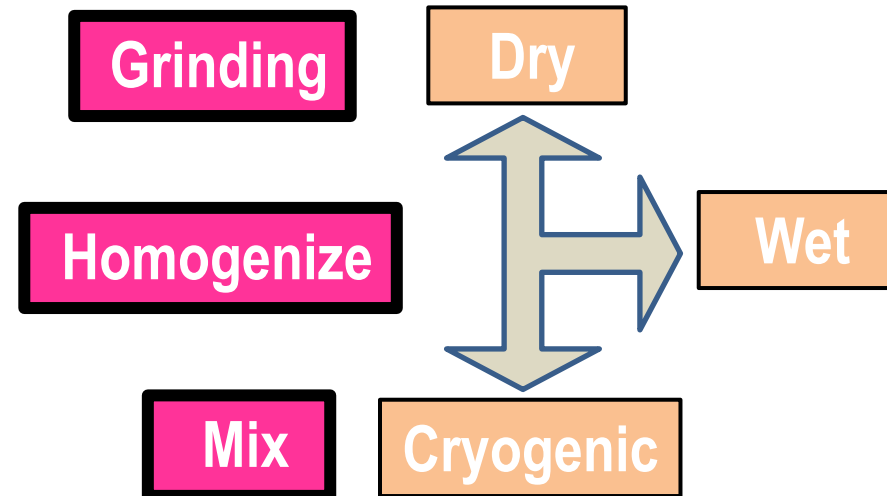
Features

- Air Jet Technology for dispersion and Deagglomeration
- Unique Nozzle Movement design Function for better reproducibility minimize the sieving time and effort of cleaning and increases the life of the sieves used
- Built-In Graphical 5" Touchscreen Display
- Digitally controlled Adjustment of all process parameters
(Time 001 - 999 min, Vacuum 20 - 99 mbar / 0.3 - 1.45 psi,
- Speed digital controlled, 5-55 min⁻¹(nozzle))
- Measuring range 5 μm to 5 mm
- Fitted with standard sieves in dia. of 203 mm (8" ø) or 200mm
(Fit with adapter)
- 9 Standard Operating Procedures (SOP's) memory
- Quick Start Mode is used to start the sieving process under standard conditions without entering parameters.
- Digital controlled Variable Nozzle speed , 5-55 min⁻¹
- Options of Automatic Vacuum regulation, permanently monitors the air jet and keeps it at a constant rate. This increases the reproducibility of the sieve analysis.
- Option of Cyclone accessory for Sample retrieval
- Collection of two fractions possible by use of cyclone
- Air Jet produced by powerful industrial vacuum cleaner
- Optional SMART SCREEN Software to perform data processing and analysis, screening evaluation & Documentation of Results.
- RS232 Interface for Smart Screen Software & Balance Interface through Software

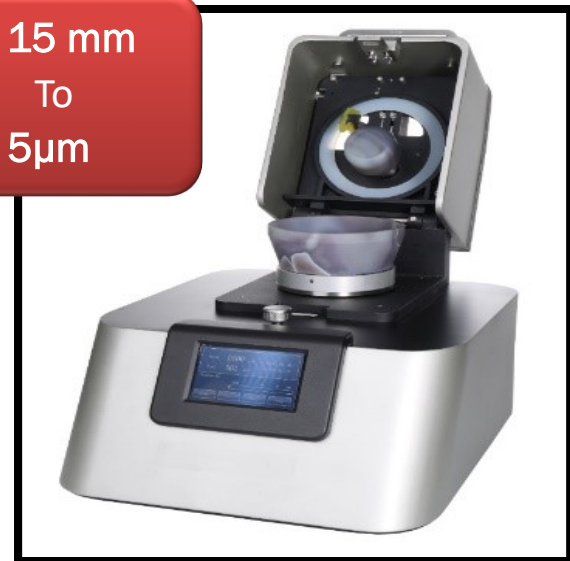


Mortar Grinder Features

- Built-In 5" Touchscreen Display with all digital programme parameters
- Easy to clean & Safe to operate
- Grinding Chamber volume of 700 ml with batch quantity 10-200 ml
- Safe Locking Mechanism through Helix Screw
- Skills to achieve the best grinding effect
- Pre-Treatment for some rough samples
- Adding samples through the filling opening during operation
- A variety of Grinding tools available (Hardened Steel, Stainless Steel, Tungsten Carbide, Agate, Sintered Aluminum Oxide, Zirconium Oxide) to meet all applications

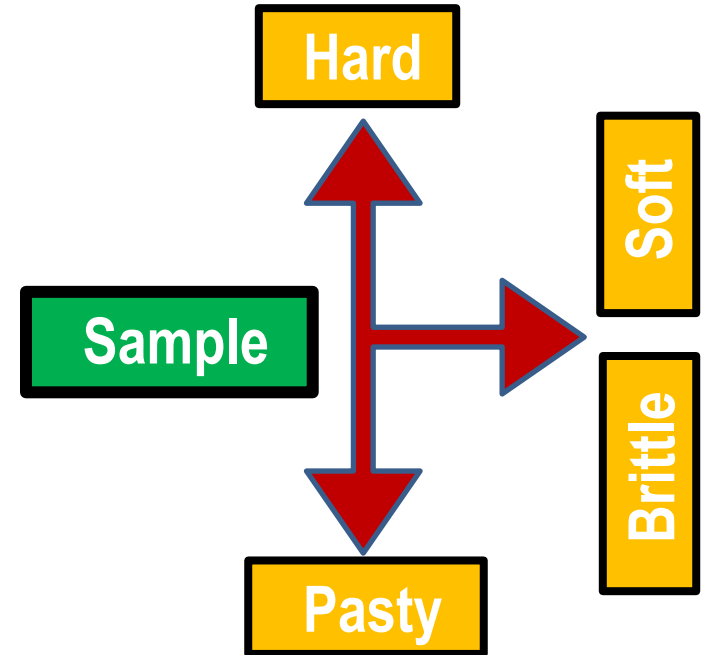


< 15 mm
To
5 μ m



Features

- A variety of scraper materials are available (polyurethane, PTFE, beech wood) to meet all application requirements.
- Freely adjustable Pause/Holding time from 01 to 99 min, ensures mixing of two different tablets or dosage forms during the run
- Memory for upto 9 SOP's , programming upto 99 Cycles & a quick start
- Variable pestle speed selectable from 50 to 130 RPM, which avoids over loading of motor
- Motor Capacitor does not get heated during the run. Other grinders gets heated during the run which destroy the API dosage form.
- Overload protection and auto switch-off during overload



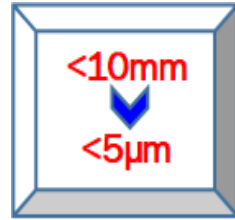
Micro Ball Mill

MM1100



< 10 mm
To
5 microns

- **Applications:** Ball mill designed for modern laboratory application specially for Dry, Wet and Cryogenic grinding and can process small amount and large batch sample.
- Sample upto a maximum size of 10 mm can be pulverized to – 5 microns
- **Samples:** Coal, Coke, Limestone ,Manganese ore, Quartz, Glass, Granite, other minerals for conventional Physical & Chemical analysis purpose.



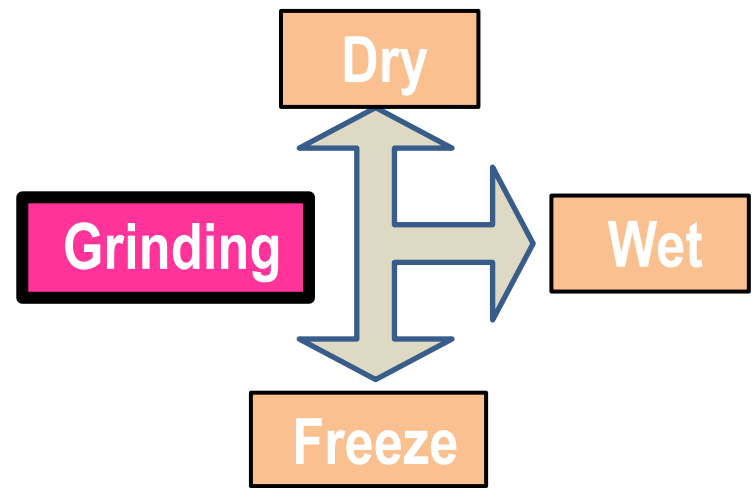
SIZE REDUCTION

MIXING

HOMOGENIZATION

CELL DISRUPTION

DNA / RNA / PROTEIN
EXTRACTION



Hard

Soft

Sample

Brittle

Fibrous

Elastic

Features

- **Wide range of grinding jars and accessories for extensive applications from 1.5 to 50 ml** - Stainless Steel, Zirconium oxide, Tungsten carbide, Agate, PTFE (Sizes- 1.5ml / 2ml / 5ml/ 10ml / 25ml / 35ml / 50ml)
- **Various grinding balls** with construction of material viz. Stainless Steel, Zirconium oxide, Tungsten carbide, Agate, PTFE (0.5, 1, 2, 3, 5, 7, 10, 12, 15, 20, 25, 30, 40 mm)
- **Cryo Kit for cooling the grinding jars or adapter with Liquid Nitrogen**
- **Adapters for Disruption of Biological Cells reaction vials** (5, 4, 10, 24 hole to match 1.5/2 ml reaction vials, 6 Holes for 5 ml reaction vials and 96 holes adapter with 1, 2 ml deep hole plates)
- **Various reaction vials with construction of material viz. Plastic, PC, PTFE & SS with grinding balls of SS, Zirconium oxide, Tungsten carbide to treat small volumes in Cryogenic milling**
- **Bead Dispenser suitable for 96- hole deep well plate with 3mm & 5mm sizes of choice**



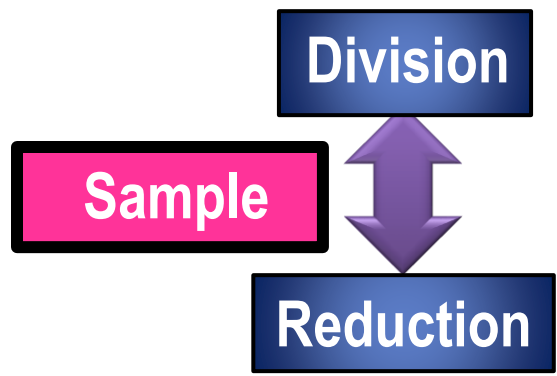
Rotary Sample Divider

RSD 1100



•Applications: Rotary sample divide each small sample has the same physical and chemical properties and can represent the attributes of the whole batch sample

Rotary Sample Divider



Sample Divider



Sample Feeder

Features

- Extremely high division of accuracy
- All the parameters are digitally set through built-in Touch Screen
 - Speed : 80-120 RPM & Time Settings : 01-100 Min.
- Feed Size : <10mm /Volume :
10/25/50/100/250/500ml
- Number of Divisions : 6 / 8 / 10
- Wide range of the sample bottle volume
- 9 SOPs can be stored (Create 9 SOP's and select the method from the SOP's.)

3D Mixer

LM -3D



- Applications:** Used for fast and efficient dry and wet mixing, blending and homogenization of various materials of different sizes and densities specifically in Ultra Fine size range.
- mixer is most efficient & innovative technology for uniform / homogeneous mixing. It is used for powder / liquid / suspensions- irrespective of their proportion, density and partial size. it can be mixed / blended to perfect uniformity.

Planetary Ball Mill

BM1100+



< 10 mm
to
< 0.1 μm

BM1400+



< 15 mm
to
< 0.1 μm

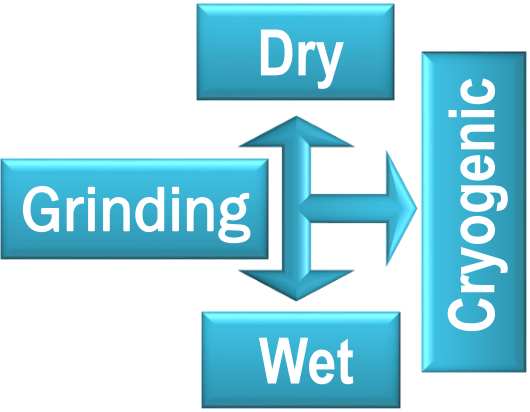
BM1200+



< 10 mm
to
< 0.1 μm

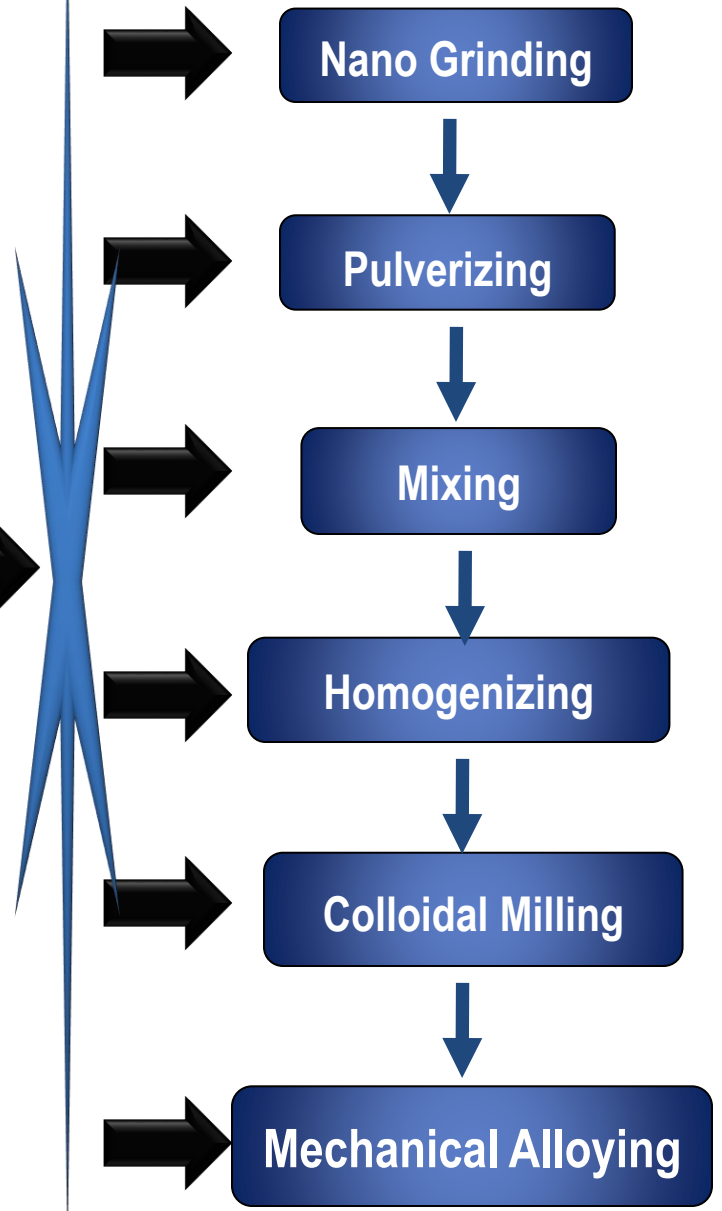
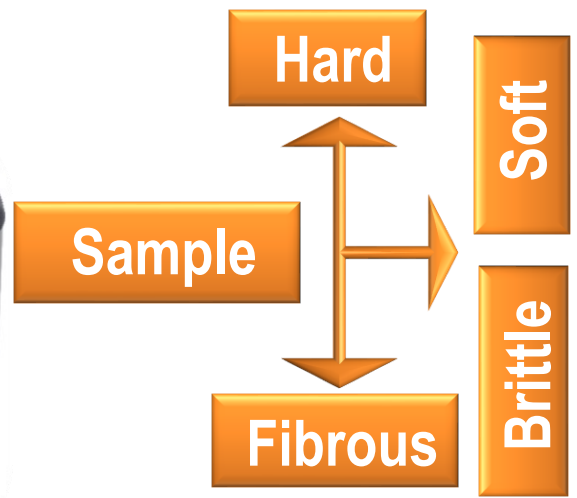
Applications: The planetary ball mill is widely used in many fields of geology, mine, metallurgy, electric industry, Construction, ceramics, chemicals, light industry, medicine, environmental protection etc.

• **Sample Type:** Soft, Hard, Tough, Fibrous



Applications

BM1400+



Built-In Industrial 7" LED Touch Screen



Grinding Time
0-999 min

Cycles
1-99

Interval
1-99 min

Speed (RPM)
100-650
30-400

Reverse Direction
ON/OFF

10 SOP'S

Quick Start

Sieving



Air Jet Sieve Shaker



Sieve Shaker

Milling



Jaw Crusher



Vibratory Cup mill



Micro Ball Mill



Planetary Ball Mill



Cutting Mill



Hammer Mill

Milling



Disc Mill



Ball Rod Mill



Centrifugal Mill



Knife Mill



Mortar Grinder



Cyclone Twister



Cryo Grinding Mill

Assisting



Graphite Digester



Sample Splitter



Rotary Sample Divider



Automatic Pellet Press



3D- Turbo Mixer

LABINDIA

A N A L Y T I C A L

WHERE COMMITMENT IS CULTURE

www.labindia-analytical.com

