PARASON

PARASON RESEARCH AND DEVELOPMENT LAB

Recognised of In House R&D Units

WELCOME TO

RESEARCH-LAB

Welcome to Parason R&D, where we are dedicated to advancing the Paper Industry through innovative and affordable solutions. Our R&D facility is equipped with World-Class technologies and comprehensive R&D resources.

At Parason, we take pride in our diverse range of facilities, including advanced Metallurgical Microscopes, Scanning Electron Microscope, Fiber Analysis facilities, XRF Bruker machines, and Metal Testing facilities. These resources enable us to conduct rigorous research, optimize processes, and develop high-performance products.

Our team of experts collaborates closely with industry partners and customers to understand their specific requirements and challenges. Through continuous experimentation and analysis, we strive to deliver tailor-made solutions that enhance efficiency, quality, and sustainability in the Paper Industry.

MD'S MESSAGE

Parason Machinery focuses on providing exceptional performance and quality in the paper industry through continuous research and development programs. R&D at Parason aim to address market demand for cost-effective paper machinery and spares.

In-house R&D facilities develop Refiner Discs, adhering to international standards, bridging the gap and delivering innovative products, ensuring quality and reliability.

Facilities include an Inverted Metallurgical Microscope, computerized microhardness tester, and Scanning Electron Microscope for comprehensive material analysis and design optimization. We use Spectrometer, Fiber Analyzer, and XRF Bruker for chemical composition, elemental analysis, Wear Testing, and Sand Testing for product durability, performance, and abrasive resistance.

I thank our valued customers and business partners for their trust and support. We invite you to explore our facilities at the R&D unit. We believe our products will exceed expectations and help forge a future of growth, sustainability, and prosperity in the paper industry.

Dr. Shekhar Desarda
Chairman & Managing Director

OUR COMPANY

Parason is started by Dr. C P Desarda, Doctorate in Metallurgy from BRNO University, Prague, the Czech Republic in 1970. Dr. Desarda innovated manufacturing of Refiner Plates in martensitic stainless steel for the first time in India to adapt to Pulp & Paper Industry. Desarda Group of Industries is a Pioneer in the manufacturing of Refiners and Refiner Plates/Fillings in India.

It is serving the Paper Industry since last more than two and a half decades. Started with a small Foundry in the year 1977, by Chairman Dr. Champalal Desarada, who has completed his Doctorate in Metallurgy from BRNO University, Czechoslovakia with specialization in High Chrome Steel Alloys.

Parason Group is one of the largest manufacturers & suppliers of pulp and paper machinery. Renowned scientist & metallurgist Dr. Desarda is Founder & Chairman of the Company. Parason started its first research unit for pulp and paper machinery in the Year 1977.

Parason is focused on Research & Development. Many types of research done by Parason have shown that the latest technology proposed by Parason not only enables Paper Mills to increase its Paper quality but also reduces the huge power consumption of machines which is the key point of profit for the Paper Industry. Parason-offered products are widely used by Kraft, Tissue, Writing, Printing, and Hard Board Paper Mills.

PARASON

Inspire • Innovate • Implement

Our Core Values

At Parason, we commit ourselves to the highest standards of excellence by embracing our core values of Inspire, Innovate, and Implement.

INSPIRE

We pledge to lead by example, fostering a culture of creativity and enthusiasm. We are dedicated to inspiring our team and our clients with visionary ideas and a passion for progress.
Our goal is to ignite a spark that drives continuous improvement and fuels the pursuit of excellence.

INNOVATE

We are committed to pushing the boundaries of engineering by embracing new technologies and methodologies. Our pledge is to remain at the forefront of innovation, tackling challenges with originality and a forward-thinking mindset. We strive to develop cutting-edge solutions that meet and exceed the expectations of our clients.

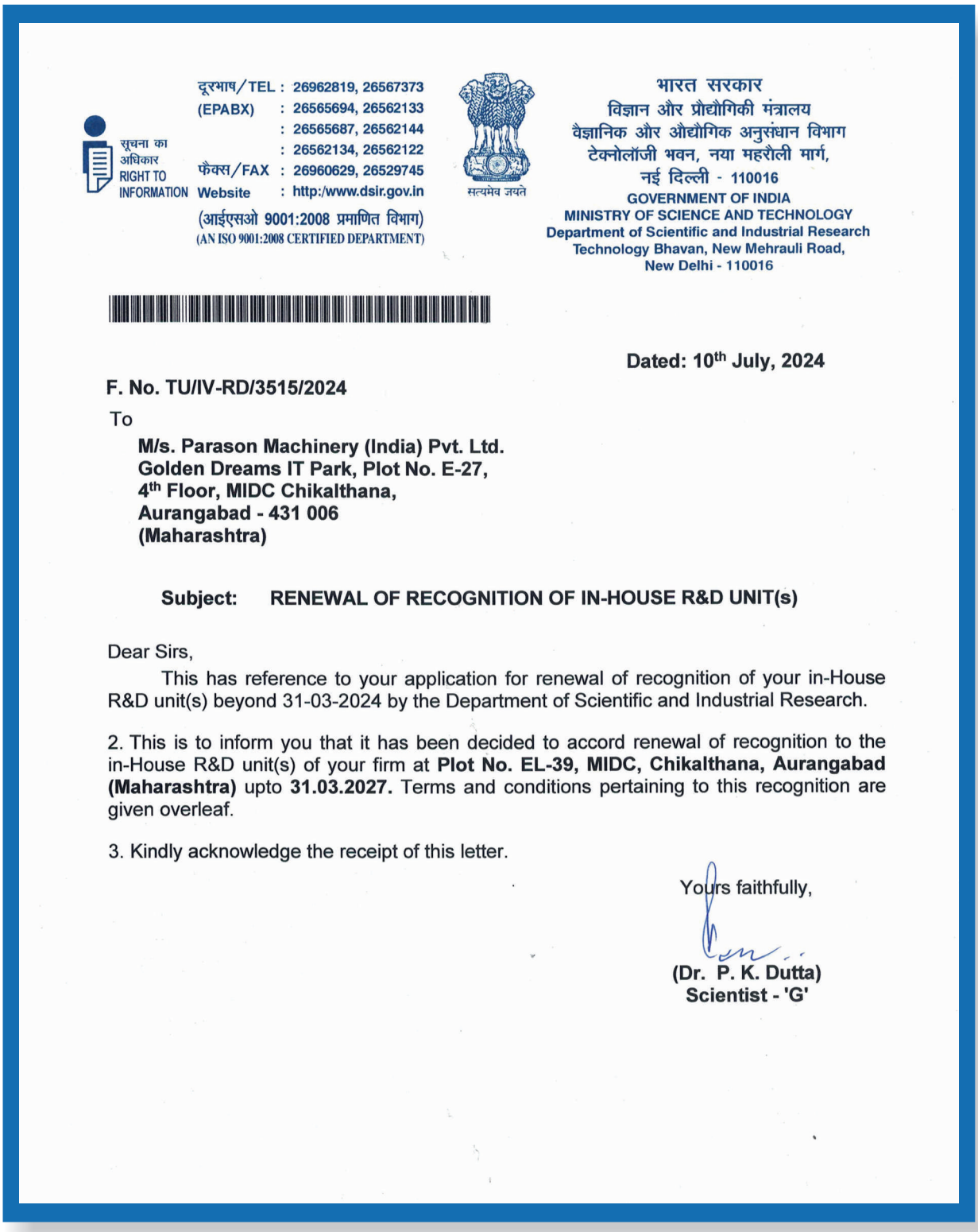
IMPLEMENT

We vow to translate our visionary ideas into tangible results. Our dedication to excellence ensures that we meticulously plan, execute, and deliver projects with precision and integrity. We take pride in our ability to turn innovative concepts into practical, high-quality solutions that stand the test of time.

Through our unwavering commitment to these core values, we promise to build a legacy of trust, excellence, and transformative impact in the engineering world. At Parason, we don't just dream about the future; we engineer it.

RECOGNISED AS IN-HOUSE R&D UNITS

Parason Machinery is certified as In-House R&D Unit by the Ministry Of Science And Technology, India for Product Development, Designs and process improvements in Paper Industry.



सूचना का अधिकार
RIGHT TO INFORMATION

दूरभाष/TEL : 26962819, 26567373
(EPABX) : 26565694, 26562133
: 26565687, 26562144
: 26562134, 26562122
फैक्स/FAX : 26960629, 26529745
Website : http:/www.dsir.gov.in
(आईएसओ 9001:2008 प्रमाणित विभाग)
(AN ISO 9001:2008 CERTIFIED DEPARTMENT)

सत्यमेव जयते

भारत सरकार
विज्ञान और प्रौद्योगिकी मंत्रालय
वैज्ञानिक और औद्योगिक अनुसंधान विभाग
टेक्नोलॉजी भवन, नया महरौली मार्ग,
नई दिल्ली - 110016
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
Department of Scientific and Industrial Research
Technology Bhavan, New Mehrauli Road,
New Delhi - 110016

Dated: 10th July, 2024

F. No. TU/IV-RD/3515/2024

To

M/s. Parason Machinery (India) Pvt. Ltd.
Golden Dreams IT Park, Plot No. E-27,
4th Floor, MIDC Chikalthana,
Aurangabad - 431 006
(Maharashtra)

Subject: RENEWAL OF RECOGNITION OF IN-HOUSE R&D UNIT(s)

Dear Sirs,

This has reference to your application for renewal of recognition of your in-House R&D unit(s) beyond 31-03-2024 by the Department of Scientific and Industrial Research.

2. This is to inform you that it has been decided to accord renewal of recognition to the in-House R&D unit(s) of your firm at **Plot No. EL-39, MIDC, Chikalthana, Aurangabad (Maharashtra)** upto **31.03.2027.** Terms and conditions pertaining to this recognition are given overleaf.

3. Kindly acknowledge the receipt of this letter.

Yours faithfully,

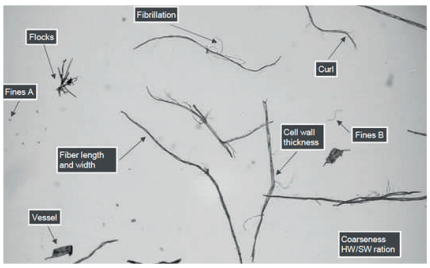
(Dr. P. K. Dutta)
Scientist - 'G'

DIVERSITY IN R&D

Parason R&D Units perform Research and Developments for Sustainability of various products manufacturing in Paper Industry.

FIBER ANALYZER

Working Principle:



The Fiber Image Analyzer is an advanced offline fiber analysis machine that can measure a wide range of fiber properties and particles. It is compact and easy to use. You can quickly measure a wide range of fiber properties and particles by inserting the sample, using the built-in touchscreen to select a testing sequence and start measuring. The total analysis takes only a few minutes

Technical Specifications:

Compact and easy to use, you can quickly measure a wide range of fiber properties and particles by inserting the sample, using the built-in touchscreen to select a testing sequence and start measuring. The total analysis takes only a few minutes

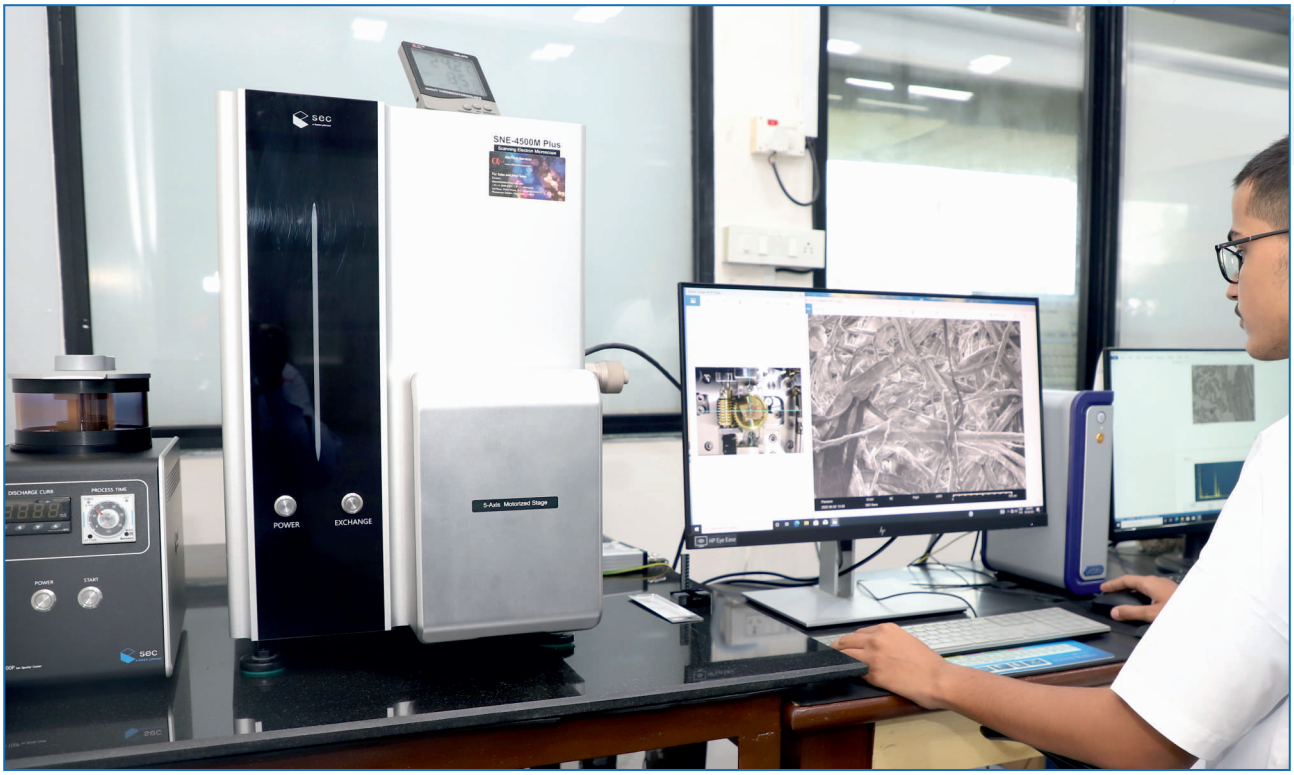
Features

- → Compact and easy to use
- → Delivers advanced offline fiber analysis

Advantages:

- → Analyse fibers to identify raw material's full potential
- → Measure various fiber properties
- → Usable for virgin, recycled and synthetic fibers

SCANNING ELECTRON MICROSCOPE



Working Principle:

Using an electron beam to scan the sample's surface produce signals from electron-sample interactions. The signals include secondary electrons, backscattered electrons, diffracted backscattered electrons, photons, and visible light, providing details of sample's topography, composition, crystal structure, orientation, and luminescence.

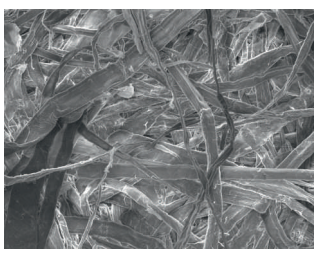
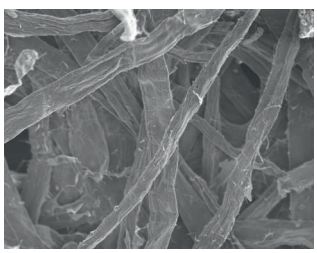
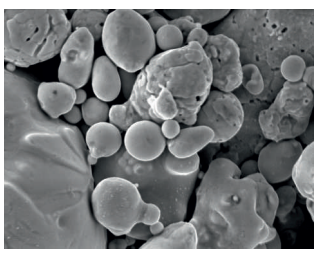
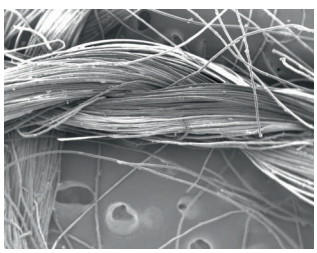
Features

- → Scans surface with focussed electron beam to create sample's image.
- → By secondary electron image, sample surface can be observed at 6nm.
- → Can image the microstructure and morphology of a sample

  Tracing a sample in a raster pattern Provides detailed surface information

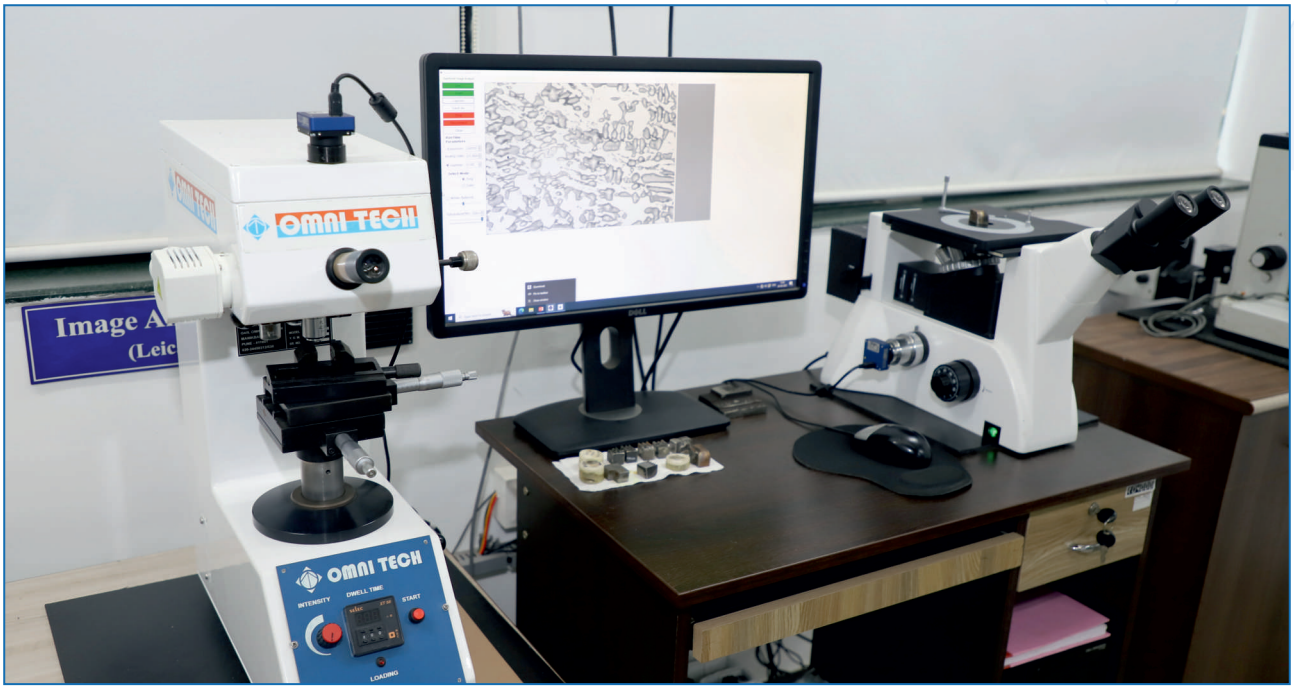
Technical Specifications:

- → Resolution: up to 4.0 nm at 30kV
- → Accelerating voltage: 0.1-30 kV.
- → Magnification: Up to 150,000X.
- → Max. Sample Size: 45mm ⌀, 50 mm hgt.

PAPER TESTING

MICROSCOPIC LAB



Working Principle:

The working principle of a microscope is that it uses visible light and lenses to magnify small features on the samples. The light is reflected or transmitted through the sample and then passes through the objective lens, which produces the first magnification. The image is then magnified further by the eyepiece lens, which allows the user to observe it by the eye or capture it digitally

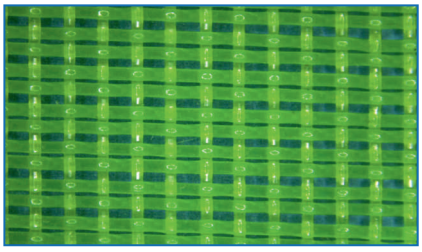
Technical Specifications:

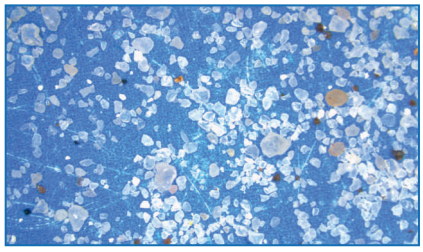
The microscope with image analysis software. It is used for measuring and analyzing the microstructure of materials.

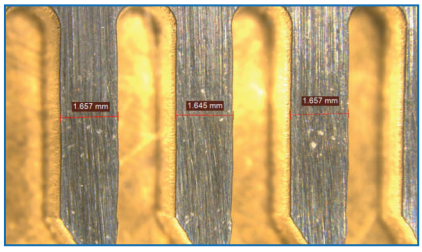
The MVH-IC is a micro hardness tester that can be used to measure the hardness of materials.

Advantages:

- → Microscopes effective ways to measure, control quality, inspect,
- → and solder in manufacturing and other areas of industry. Using microscopes
- → specifically designed for industry gives you a more thorough level
- → of control and precision that can enhance the final product







SAND TESTING

Foundry sand testing is a process used to determine the foundry sand has the correct properties for a certain casting process. The sand is used to make moulds and cores via a pattern. In a sand casting foundry there are broadly two reasons for rejection of the casting metal and sand each of which has a large number of internal variables.

The defects arising from the sand can be prevented by using sand testing equipment to measure the various properties of the sand.

Advantages:

- Sieve Shaker: It is use to find our AFS (Fineness No.) of sand
- Moisture content in the mixture (ranges from 2-7% depending on the casting method)
- HTS - Hot tensile strength – It is use to determine tensile strength of shell sand in hot condition.
- CTS - Cold tensile strength - It is use to determine tensile strength of shell sand in room temperature condition.
- Peel back tester - It is use to determine Pill off and Build up property of shell sand, Specification: Heater-1000 Watts, 230v A.C. supply with Thermostat, Heating plate, funnel, Two trays.
- Mould Hardness tester (B scale Or C scale) - It is use to determine Pill off and Build up property of shell sand, Measure hardness of core 0 to 100 Nos.
- Core gas determinator – It is use to determine gas evolution in the shell sand

SPECTRO LAB

Working Principle:

The Bruker Q4 TASMAN is an advanced CCD based optical emission spectrometer for metal analysis. It uses matrix-optimized, high-energy pre-sparking to homogenize the sample surface, reducing matrix effects and increasing accuracy

Technical Specifications:

- Weight: 75 Kg
- Dimensions: 55 x 70 x 82 cm
- Power supply: 100-240 V (50-60 Hz)
- Power: 600 W during analysis, 50 W standby
- Argon Quality: pure 99.999 or better

Features:

- Optimized digital spark source
- Optimized co-axial argon flow design
- Enhanced analytical precision
- Shorter time-to-results, Long-term stability
- Reduced argon consumption

Advantages:

- High-energy pre-sparking homogenizes the sample surface, reducing matrix effects and increasing accuracy.
- Shorter measurement cycles compared to any conventional system.
- Higher dynamic ranges with shorter measurement times.
- Faster time-to-result improves your efficiency and increases your profitability

WEAR TESTING MACHINE

Working Principle:

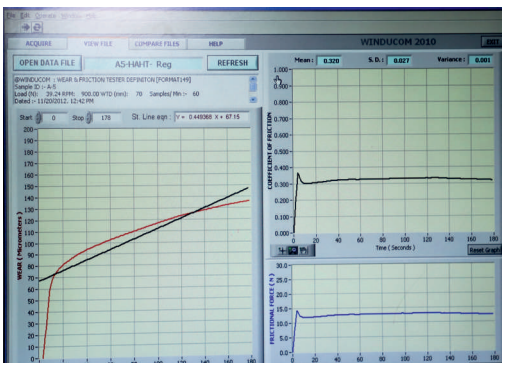
The Ducuum wear testing machine measures material wear resistance through controlled sliding against a rotating abrasive wheel under specific load and speed.

Technical Specifications:

Ducuum wear testing machine use for material wear properties at same refiner rpm (900) for 3 minute. To calculate the estimated average life of refiner disc, conical tackle.

Applications:

Analysis of wear and friction of materials and composites.
Foundry casting, product development and quality control.
Compare View module displays up to four test results in one graph for easy comparison.



XRF BRUKER-S1-TITAN

Working Principle:

The Bruker S1 TITAN is a handheld XRF analyzer that is used for elemental analysis of materials. It uses X-ray fluorescence (XRF) spectrometry to determine the elemental composition of a sample.

The working principle of XRF is based on the interaction between X-rays and matter. When a sample is irradiated with high-energy X-rays, the atoms in the sample absorb some of the energy and become excited. As the atoms relax, they emit characteristic X-rays that are unique to each element. The energy and intensity of these characteristic X-rays are used to determine the elemental composition of the sample

Technical Specifications:

- Here are some technical specifications of the S1 TITAN series:
- Weight: 1.5 kg (3.3 lbs) with battery
- Size: 25 cm x 28 cm x 9 cm (10 in x 11 in x 3.7 in)
- X-ray tube: Rh target; max voltage 50 kV
- Calibration range: S1 TITAN 31 elements
- Sample temperature: S1 TITAN: Default to 150°C with Ultralene - window. Up to 350°C with Kapton - window

Advantages:

- Alloys, bulk products, gold, and precious metals, manufacturing, and custom tailoring to suit your particular market needs
- Innovative SDD detector
- Speedier than ever

Advantages:

- Lightweight and rugged design
- Fast analysis speed & exceptional accuracy
- Innovative SDD detector
- Very easy to carry

PARASON

Engineered Trust

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