Introducing MICROTRAC – A new leader in particle characterization
VERDER SCIENTIFIC

In 1959 André Verder established a business in the pumps industry and laid the foundation of the VERDER Group. Through the acquisition of RETSCH in 1989, VERDER expanded its business to laboratory equipment. Thanks to continuous growth and geographical expansion over the past decades, the VERDER Group and its subsidiaries are active today in more than 100 countries all over the world. With 2200 employees and a total turnover of 500 Mio. $, the group remains a family business fully owned by Andries Verder, son of the founder. It has developed two strategic business divisions: VERDER LIQUIDS which focuses on pumps and VERDER SCIENTIFIC which comprises the laboratory equipment segment.

The manufacturing companies under the Scientific Division roof provide sample preparation and analytical equipment and set worldwide standards for research and quality control of solid matter.

The addition of Microtrac and MicrotracBEL ideally complements VERDER SCIENTIFIC's current offering for particle characterization. Together with RETSCH Technology a new business unit will be formed.
Science for Solids

The VERDER SCIENTIFIC product offerings cover the following fields:

- **Materialography**
  ATM is a world leading manufacturer of machines and consumables for materialography (metallography).

- **Hardness Testing**
  QNESS focuses on innovative high-end products for hardness testing including customer-specific solutions.

- **Heat Treatment**
  CARBOLITE GERO is a leading manufacturer of high temperature furnaces and ovens from 30°C to 3000°C with a focus on vacuum and special atmosphere technology.

- **Elemental Analysis**
  ELTRA is specialized in the development of elemental analyzers for rapid and accurate CHNOS analysis and thermogravimetric analysis of solid matter.

- **Milling & Sieving**
  RETSCH is the leading solution provider for neutral-to-analysis sample preparation and characterization of solids.

- **Particle Characterization**
  Under the name Microtrac MRB, Microtrac, MicrotracBEL and RETSCH Technology develop state-of-the-art optical systems based on image analysis, laser diffraction/dynamic light scattering and adsorption to characterize the shape, size, surface and porosity of particles.

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Facts about VERDER SCIENTIFIC

- 6 business segments
- 9 manufacturing sites
- 22 sales offices
- 250 Mio. $ revenue
- 1000 employees
Microtrac, MicrotracBEL and RETSCH Technology

**Microtrac** is a pioneer and leading manufacturer of light scattering instruments for particle analysis. While Microtrac existed first as a business segment within a larger organization, the company Microtrac Inc. was ultimately founded in 1999 and has since been growing steadily. The instruments are used both for industrial applications and material research. Microtrac Headquarters are based in the USA where Microtrac develops and manufactures all products in Montgomeryville and York, Pennsylvania.

**MicrotracBEL** is a leading manufacturer of instruments for surface area and porosity analysis applying adsorption technologies. The company BEL Japan was founded in 1988 by Kazuyuki Nakai and others and later incorporated as MicrotracBEL in 2014 after lining up with Microtrac US. The instruments are used in research-intensive fields for particle and pore characterization as well as catalysis research. MicrotracBEL Headquarters are located in Osaka, Japan.
Together we form RETSCH Technology is a leading provider of image analysis equipment and has been successfully developing optical particle analyzers for more than 20 years. Their innovative CAMSIZER series is based on the unique dual camera technology which has revolutionized dynamic image analysis. The analyzers are employed in various industries for production and quality control as well as in R&D. RETSCH Technology is located at the VERDER SCIENTIFIC Headquarters in Haan/Duesseldorf, Germany.

RETSCH Technology in Haan, Germany
Three Technologies – Three Centers of Excellence

**Microtrac MRB - Going forward as one solution provider**

Microtrac’s and MicrotracBEL’s offering in Laser Diffraction, Dynamic Light Scattering and Surface & Porosity Analysis perfectly complements RETSCH Technology’s product portfolio of Dynamic and Static Image Analyzers. Accordingly, VERDER SCIENTIFIC’s new business segment offers an unrivalled range of technologies for particle characterization and becomes a one-stop, preferred solution provider for customers.

The current headquarters of RETSCH Technology, Microtrac and MicrotracBEL in Germany, Japan and the US will be expanded as centers of excellence for our core technologies. These will be the hubs for dynamic product development with the aim to satisfy our customers’ demands even better than today and solidify our reputation as technology leaders.

The members of the new particle characterization business segment will greatly benefit from each other’s sales networks with market access to the largest global economies through subsidiaries. Our combined VERDER SCIENTIFIC sales forces will be able to provide excellent support to our customers, from particle characterization to other techniques for solids as offered by the VERDER SCIENTIFIC brands.

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**Dynamic Light Scattering using the heterodyne detection principle for highly accurate measurements**

**Porosity measurement based on the unique ASFM TM methods for ultimate reproducibility and precision**

**Dynamic Image Analysis of particle size and particle shape based on the unique dual camera system**
Focus on long-term growth and leadership
Caring about the people who work for and with VERDER are not just words - we believe that people make the difference. We offer flat hierarchies and open communication from colleague to colleague and provide easy access to information for all our staff.

The VERDER approach is focused on long-term growth and geographical expansion for all our companies. Continuous investments in staff, equipment and facilities are the basis of dynamic innovation, high efficiency and sound financial standing.

Learning from each other in circles of competence and interdisciplinary cooperation across our companies accelerates our journey to excellence.

STRONGER TOGETHER!
Microtrac

Particle Characterization

- Unrivalled offering in particle characterization
- Technology leader, committed to innovation
- Extensive global network