

software in thermal analysis. The line of instruments includes a whole host of technical innovations, including a new symmetrical TGA that delivers sensitivity and stability never seen on systems up to 1600 °C. Additionally a new 3D highprecision Cp sensor<sup>®</sup> has been developed specifically for Cp measurement giving precision of better than 2 %, a big jump from the 10–15 % typically offered up until now.



### Dinissen Launches Special Version of Dima 200

Dinissen Process Technology has developed a bag emptier for automatically emptying bags containing hazardous powders, particles or granulates while at the same time reducing the quantity of material released into the environment to an absolute minimum. New Dima 200 is a special version of the Dima 200 for companies which need to minimize the amount of material released while emptying bags to the absolute minimum.



The new ultra dust-free bag emptier makes it possible to automatically empty (large) bags containing materials which are very fine, hazardous, or extremely light or which pose a dust explosion hazard (in accordance with Atex guidelines). The classic Dima 200 is a popular fully automatic bag emptier equipped with a dust-free cabin with the option of feeding the bags into the machine manually or automatically via a conveyor belt. The emptying process starts after the doors have been closed. The bag is suspended by two hooks and is cut open by a revolving knife. The emptying process is assisted via vibration, and the empty bags are automatically discharged.



### ESK Presents Ceramic High Tech Solutions at ACHEMA 2009

On the occasion of ACHEMA 2009 ESK Ceramics GmbH & Co. KG of Kempten/Germany, will present EKasic<sup>®</sup> silicon carbide ceramic solutions to an audience of professionals from the pump, seal, chemical and process engineering industries. Along with a wide spectrum of components the manufacturer of high-performance ceramics will also present heat exchangers and microreactors made of its extremely wear-resistant EKasic<sup>®</sup> material.



This material is extremely abrasion, wear, heat and corrosion resistant. Silicon carbide (SiC) components increase reliability and prolong the lifetimes of process and chemical engineering apparatus. The wide range of EKasic<sup>®</sup> sintered silicon carbide materials can be individually tailored and fabricated to customers' design requirements.

The performance of ceramic components can be further improved by controlled modification of their surface structure. It is possible, for example, to modify the microstructure, incorporate secondary particles, use tribo-active layers or apply laser structuring. Another highlight at ESK's booth is the use of EKasic<sup>®</sup> silicon carbide for producing heat exchangers.

ESK will present various products from its portfolio, such as plate and block heat exchangers, heat-exchanger plates and microreactors. Ceramic plate heat exchangers are characterized by compact design, flexible fluid guidance and high heat-transfer rates. They are ideal for condensation and evaporation of aggressive chemicals, or cooling erosive fluids. Their key applications lie, for example, in the chemical, pharmaceutical, semiconductor or steel industry. Various designs of EKasic<sup>®</sup> plate heat exchangers are marketed in cooperation with Pfädlers Werke GmbH of Schwetzingen/Germany. Block heat exchangers are particularly suitable for high flow rates or particle-laden fluids. Because of their robust design, they can be used, for example, in pickling baths in the steel industry.

## NETZSCH

### Ensure Quality With the New Generation of STA and DSC by Netzsch

The DSC 404 F3 Pegasus<sup>®</sup> by Netzsch is a heat flow calorimeter (DSC), while the STA 449 F3 Jupiter<sup>®</sup> can even simultaneously record the mass change (Thermogravimetry, TG) and the DSC signal on one and the same sample. These instruments can easily address many quality assurance issues over an extremely broad temperature range (–150 °C to 2000 °C): the composition of ceramics (e.g. binder content) or copolymers, melting behavior, thermal stability, oxidation stability and glass transitions are only a handful of the many possible applications.

The optional automatic sample changer (ASC) for up to 20 samples, the automatic evacuation and re-filling function, and the evaluation macros all provide for maximum efficiency, while the proven top-loading, vacuum-tight construction make the STA 449 F3 Jupiter<sup>®</sup> and DSC 404 F3 Pegasus<sup>®</sup> user-friendly and robust. Also setting standards in these instruments are many aspects of performance, such as high sensor sensitivity, a large weighing range of 35 g (at a resolution of 1 µg) and excellent reproducibility.

The modular design and the many configuration alternatives for these two instruments produce