COMPANY NEWS

Scale-up for Mixing of Solids

Scaling-up of mixers is a regular requirement when mixes which are developed and tested in the laboratory are needed in larger quantities or when production is to be started after completion of the development phase. A large range of criteria need to be taken into account. Here once again a customer – in this case a manufacturer of grinding wheels – has confirmed that he can transfer formulas developed in a 1-liter mixer to larger EIRICH mixers without any change in quality.

The need to transfer values from a laboratory system to a production system is a regular requirement in every industry. Often it is not very easy. When it comes to scaling-up, the volume of the process material increases to the third power but the wall surfaces of the unit only to the second power. In pushing mixers (e.g. ring-trough and planetary mixers) and mechanical mixers (e.g. plowshare mixers), therefore, additional tool sets are required; the power density in the process material changes. In the case of plow-share mixers there is the additional requirement for high-speed choppers to assist with the mixing process and disagglomerate very fine materials, the effect of which, according to the literature, is not scale-up compatible.

For developers in particular it is desirable for the process to be capable of being transferred to larger units straightforwardly as from a certain (laboratory) mixer size. In such a case it is an advantage if the laboratory mixer is a mixer with a mixing principle which permits upscaling. At first glance it seems surprising that EIRICH customers report that they are able to achieve the same mixing quality in both small and large mixers without any change in the mixing parameters. The reasons are simple. Due to the design of EIRICH mixers, only a single mixing tool is required for any mixer between 1 l and 3000 l, namely the rotor.

The rotating container transports the mix, while all the tool has to do is mixing. It requires virtually no contact with the bottom; friction and wear are minimized. The tools can therefore run faster as well if required. The parameters vary according to the specific application but, once defined, generally remain unchanged when it comes to upscaling. The system-immanent characteristics of EIRICH mixing technology therefore enable the process parameters to be easily transferred to production machines; production can usually be started without any further extensive adjustment work.

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SHORT COMMUNICATIONS

Prof. Aldo R. Boccaccini Receives American Ceramic Society Award

Prof. Aldo R. Boccaccini, Professor and Head of the Institute of Biomaterials at the University of Erlangen-Nuremberg (Germany) received the prestigious "Arthur L. Friedberg Ceramic Engineering Tutorial and Lecture Award 2016" by the American Ceramic Society (ACerS) and the National Institute of Ceramic Engineers (NICE). The award recognizes an individual who has made outstanding contributions to ceramic engineering. Those contributions will have a technological basis that relates to the processing or manufacturing of ceramic products. The award was presented at the ACerS Honors and Awards Banquet at MS&T 2016 conference joint with ACerS 118th Annual Meeting held on **October 23–28, 2016**, in **Salt Lake City** (USA). Prof. Boccaccini delivered the lecture and tutorial entitled: "Bioactive Glasses in Soft Tissue Repair. What Do We Know So Far?"

Prof. Boccaccini (left) with Professor Ricardo Castro (UC Davies, USA), NICE president (photo: courtesy of the American Ceramic Society)

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Claudio Marani New General Manager of Sacmi Group

Claudio Marani – the new General Manager of the Sacmi Group – started working with Sacmi in 1981. Since then he has held various positions abroad, first as project manager in North Africa (Sacmi's biggest turnkey contract in the eighties) then as area manager for the United States, Turkey and Eastern Europe.

In the early 2000s, he became the general manager of the Ceramics Division, a position he still holds today. A graduate in Chemical Engineering, Claudio Marani now takes the helm of the SACMI Group. Marani brings all the experience and know-how gained during his years as head of the Ceramics Division, which comprises four business units (tiles, sanitary ware, heavy clay, special pressings) and which, with over 60 % of the Sacmi Group's overall volumes, is the world's leading supplier of machines and plants for the ceramic industry.

Further information:
www.sacmi.it