

The Schunk Group presents the latest developments for fuel cell technology at the Hanover Fair 2008.

You will find us in Hall 13 (Collective Hydrogen + Fuel Cell Stand), Stand E50/1

After Schunk had successfully demonstrated the efficiency of the innovative FC-42/HLC stack concept in several different applications, the emphasis in the past year was put on the transfer of manufacturing technology from the laboratory to a production environment. With this, Schunk emerges as a reliable supplier of a new generation of flexible and very compact standard fuel cell stacks using the modular principle. The unique concept for heat extraction allows the use of ordinary tap water containing antifreeze agents as a cooling medium. Air-cooled stacks are also available as a special series.

Schunks standard stacks are able to match the power requirements of many applications by connecting electrically identical single units up to 1.4kW in steps of 360W. The ability to use the stack family in various applications, such as USV, small traction or portable applications, assists the effort to produce large quantities at an early stage. System integrators thus benefit from a commercially viable and innovative development from a competent and reliable partner.

Besides the technological and commercial advantages of the Schunk Stack, it is especially the reliable availability for manufacturers and OEMs which is important. The supply of fully assembled and tested stacks from a single source assures reproducibility and monitoring of quality for the system integrator.

Schunk is also the worldwide leader for graphite composite bipolar plates for PEM and direct methanol fuel cells. With our competent application engineers, we are always there for our customers in stack development, both in the fabrication of prototypes machined from blank plates and by molding, for large quantities in the hot press technology developed by us. Through direct access to our own material development and production departments, we are able to respond to special customer requirements. An additional strength of Schunk is the complete production process chain up to the ready-to-install bipolar plate. Schunk expertise in the areas of material development, tools and molding technology as well as manufacturing

**Schunk is setting standards.
Production of standard stack started.**



processes assures our customers advice and support from the development to the production stage.

Schunk Bahn- und Industrietechnik GmbH and Schunk Kohlenstofftechnik GmbH are companies of the Schunk Group. The Schunk Group is a globally active technology concern with products and services in the area of materials technology and system engineering. In 60 operative companies and at 27 locations worldwide, Schunk employs more than 7,500 men and women, including about 4,000 in Germany.

With its seven Business Units, Schunk Kohlenstofftechnik GmbH offers a broad selection of products in the carbon and graphite area, extending from carbon brushes for the entire range of electric motors, carbon products for tribological applications to graphite materials for mechanical and thermal applications in metal processing, the glass industry, furnace construction and in analysis as well as semiconductor technology to bipolar plates for PEM and direct methanol fuel cells.

In the Schunk Group, Schunk Bahn- und Industrietechnik GmbH stands for expertise, experience and innovation in all questions concerning power transmission equipment in the traction and industrial areas.

More information can be found under www.schunk-sbiw.com.

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