

News Release

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BASF at ACHEMA 2018

- **High-pressure and surface technology plus 3D printing in Hall 8**
- **Career opportunity information for engineers**

BASF's Engineering & Maintenance will again be in Frankfurt for the ACHEMA, the World Forum and leading show for the process industries, held this year from June 11 to 15. At **Stand C37 in Hall 8** it will present selected products, services, and innovations in high-pressure and surface technologies as well as additive manufacturing. The stand will also provide information on engineering careers at one of the world's leading chemical companies.

High-pressure technology

One exhibit will be a cross-section of a T-emergency valve used as a safety device for LDPE (low-density polyethylene) plants – a special design with a nominal width of 89 mm suitable for pressures of up to 3600 bar. Despite its weight of around two tons, the valve has an extremely rapid opening time of less than 200 milliseconds. BASF develops and supplies safety equipment for the entire LDPE process at one of the world's leading PE producers, making a significant contribution to the safety of its production facilities. In addition to tubular reactors and heavy equipment, the product portfolio for LDPE plants includes control valves that ensure maximum process operability.

In addition to an extensive range of high-pressure valves, BASF also develops the related regulation and control systems. These systems are adapted to individual

valves' processes and functions, one example being the latest kick-valve control system (RPR+). A high-speed data logger gives operators a comprehensive range of analysis options throughout the entire process.

BASF has a long tradition of high-pressure technology. It has been developing and producing components and systems for high-pressure applications for more than a century. In 1931, Carl Bosch received the Nobel Prize in Chemistry for developing a high-pressure system to synthesize ammonia. Today, BASF runs more than 40 of its own high-pressure plants at more than 325 bar worldwide. It is the only manufacturer in the world to operate the high-pressure components in its own production plants. In addition to high-pressure equipment, fittings, and pipes, the company's extensive portfolio includes measurement and control components for chemical processes at pressures of up to 3600 bar.

Surface technology

Complex components or functional coatings: the Technical Center for Polymer and Surface Technology will also be presenting its portfolio at this year'sACHEMA. Polytetrafluoroethylene-based (PTFE) coatings with thicknesses of < 15 µm are especially suited for threaded bolts. Their anti-adhesive properties prevent contact corrosion and galling at temperatures of up to 350 °C.

Anti-adhesive coatings also help components meet new regulations. Coatings on the spindles of high-pressure valves reduce friction in threaded areas and especially in spindle/packing systems. This enables greater surface pressure on the packing with considerably lower leakage rates. In many cases it would not otherwise be possible to meet the Technical Instructions on Air Quality Control ("TA Luft" regulations). This also lowers the necessary operational forces, which means that levers need not be lengthened for manual systems or dimensions increased for automated systems. Anti-adhesive coatings also prevent graphite packing from caking on spindles when infrequently used.

3D printing / Additive manufacturing

The stand will also feature additive manufactured components produced for use in research and development settings as well as at BASF production plants. New types of innovative solutions are appearing in additive manufacturing with metallic alloys. The resulting components benefit from the new design possibilities of 3D printing while also meeting process engineering requirements. The BASF stand will show

the first components or demonstrators as well as their functional integration possibilities in the field of high-pressure technology. The technical conference held in conjunction with the ACHEMA will feature a talk by Florian Bechtold and Felix Volkmann, both BASF SE, on 3D printing. It will explore connections between high-pressure equipment and additive manufacturing.

Career perspectives for engineers

BASF's recruitment team will be at the ACHEMA to inform newly qualified and professional engineers about career opportunities at the company. "There is a wide spectrum of interesting work for potential new recruits, including process development, process optimization, planning new chemical plants, automation and digitalization concepts for production facilities," says Andrea Seibert from Talent Resourcing at BASF.

The BASF Competence Center for Engineering & Maintenance is a superb example of excellent starting conditions for engineers. It has around 1,000 experts working in the fields of process, electrical, automation, mechanical, as well as civil and industrial engineering.

Information on engineering careers at BASF is also available online at: www.basf.com/career.

More information on high-pressure and surface technology at BASF can be found [here](#).

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The more than 115,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of €64.5 billion in 2017. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.