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Burckhardt Compression signs an agreement with GRZ for the joint development of new hydrogen compression technology

Burckhardt Compression is cooperating with GRZ Technologies, a spin-off of Laboratory of Materials for Renewable Energy from EPFL Lausanne, Switzerland, to develop a new hydrogen compression technology. It will be deployed in hydrogen fuel stations, hydrogen energy storage systems and other applications and will make use of thermal active metal hydrides. Hydrogen is a promising energy carrier that offers carbon-neutral energy for industry and mobility.

The Static Hydrogen Compressor from Burckhardt Compression operates without moving parts but with thermal active metal hydrides. The Static Hydrogen Compressor is based on the GRZ's HYCO laboratory scale metal hydrides compression solution that is already in use for small amounts of hydrogen. Burckhardt Compression will scale up the solution for the new, strongly developing market of hydrogen re-fueling stations and hydrogen energy storage systems. These compressors operate with metal hydrides and will be designed for high-pressure solutions of 200, 350 and 700 bar.

Compressor technology for demanding solutions

The noise and vibration-free compressor is hermetically sealed from the environment and therefore operates without any gas leakage and can be used in sensitive areas. As the compressor is also completely oil-free, it can be used for hydrogen energy storage purposes too. Furthermore, thanks to its minimal moving parts design, this new compressor technology will be low maintenance.

"The increasing demand for gases like hydrogen as a carbon-neutral energy source creates promising market opportunities for Burckhardt Compression. We are therefore monitoring and exploring these developments very closely and initiating research activities in the relevant areas of application at such an early stage," says Marcel Pawlicek, CEO Burckhardt Compression.

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About Burckhardt Compression

Burckhardt Compression is the worldwide market leader for reciprocating compressor systems and the only manufacturer and service provider that covers a full range of reciprocating compressor

technologies and services. Its customized compressor systems are used in the upstream oil & gas, gas transport and storage, refinery, chemical, petrochemical and industrial gas sectors. Burckhardt Compression's leading technology, broad portfolio of compressor components and the full range of services help customers around the world to find the optimized solution for their reciprocating compressor systems. Since 1844 its highly skilled workforce has crafted superior solutions and set the benchmark in the gas compression industry.

SIX Swiss Exchange: BCHN

For further information please visit www.burckhardtcompression.com

About GRZ Technologies

GRZ Technologies, a spin off from the Laboratory of Materials for Renewable Energy from EPFL Lausanne, Switzerland was founded in 2017 with the objective of commercializing a novel hydrogen compression and storage technology. The patented technology is based on porous materials that have the capacity to absorb hydrogen under favorable conditions. This characteristic can be used for the efficient storage and compression of intermittent renewable energy in the form of hydrogen.

For further information please visit www.grz-technologies.com
