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Press release 1/2019

* **EMO 2019: STARK digitalises zero-point clamping technology for automation and Industry 4.0**
* **Trade fair innovation: Robot gripper with media supply and zero-point clamping system**

*Rankweil, 3 July 2019*. STARK Spannsysteme GmbH, part of the ROEMHELD Group, digitalises zero-point clamping technology for automation and Industry 4.0. STARK sees itself as a pioneer in the digitalisation of setup processes and Industry 4.0 applications and will focus on these topics at this year's EMO in Hanover. The focus will be on the two successful product series STARK.connect and STARK.airtec with fully integrated sensors. Fail-safe sensors reliably determine the respective clamping state. This information is displayed by LEDs and transmitted to a PLC via digital interfaces.

**First STARK robot gripper with dedicated media supply enables automated pallet changing**

In addition, the company will be presenting the first STARK robot gripper with a dedicated supply and zero-point clamping system at the trade fair, which enables automated pallet changing even on machines without their own media supply. The media required for the release and clamping processes, for example hydraulics, compressed air and electrics, is transferred via a multiple coupling integrated into the pallet gripper. This innovation is thus ideal for retrofitting.

**New product names**

As part of the standardisation of product names in the ROEMHELD Group, the company is now replacing the name “SPEEDY” in all product names with “STARK”.

**STARK.connect and STARK.airtec with integrated sensors**

Zero-point clamping systems such as STARK.connect and STARK.airtec are used wherever workpieces, devices, pallets and machine elements are to be connected with machine tools, robots and manipulators safely, quickly, automatically and a high degree of reproducibility. The fast clamping systems are versatile, extremely resistant and therefore suitable for environments with welding robots, for example for flexible and automated production in body-in-white construction.

Both zero-point clamping systems are pneumatically operated and are characterized by compact designs, very short clamping and release times and high clamping forces. Their sensors distinguish between the clamping states “clamped without retractable nipple”, “retractable nipple clamped” and “released”. The signals can be transmitted via PNP outputs to a programmable logic controller and indicate the clamping state by means of LEDs on the rear of the elements. The fast clamping systems are also pneumatically actuated.

**STARK.connect with compensation mechanism**

A characteristic of the STARK.connect is the floating fixture with active insertion, which guarantees perfect flatness of the workpiece. Its special design allows the retractable nipple to be extended and retracted at an angle. If the workpiece changes, for example as a result of temperature changes, the clamping mechanism can move sideways. The compensation mechanism of the STARK.connect can compensate position errors of up to 1.5 mm. No lateral forces act on the retractable nipples during compensation. The retractable nipple is drawn in automatically and with high force. Within half a second, the system is mechanically clamped with springs and pneumatically power-enhanced. Due to the spring force, the system is self-locking.

STARK.connect achieves a pull-in force of 3 kN at 5 bar. The maximum retention force is 10 kN. Thanks to its robust design and shielded electronics, the zero-point clamping system is particularly suitable for welding environments.

**STARK.airtec – the alternative without active insertion**

The STARK.airtec pneumatic zero-point clamping system, which also features an electrical query function, is the ideal solution for applications where active insertion is not required. The system offers retention forces of 20 kN and very short clamping and release times from as short as 0.2 s. The STARK.airtec is also extremely robust and does not require maintenance for at least two million clamping cycles.

**About STARK**

STARK Spannsysteme GmbH, based in Rankweil/Austria, is one of the market leaders in the field of zero-point clamping technology. Founded in 1977 with a focus on tool making, machine construction and prototyping, the company developed the world's first zero-point clamping system in 1988. Today, the product range includes numerous components and systems for rational production along with customer-specific solutions. STARK has been a member of the ROEMHELD Group since 2000 and currently employs about 50 people.

**About ROEMHELD:**

Technologies and products of the ROEMHELD Group have been used in the production of numerous industrial and end-consumer goods for more than 60 years, whether for airplanes, automobiles, machine tools or housings for smartphones.

Efficient clamping technology solutions for workpieces as well as for tools used in forming and plastics processing form the core of the constantly growing portfolio. It is supplemented by components and systems for assembly and handling technology, drive technology and locks for wind turbine rotors.

In addition to a wide range of around 20,000 catalogue items, the ROEMHELD Group specialises in the development and manufacture of customised solutions and is internationally regarded as one of the market and quality leaders.

Innovation through tradition: ROEMHELD has its origin in the Friedrichshütte foundry established in 1707, which today still belongs to the ROEMHELD Group and is one of the oldest active industrial companies in Germany.

The owner-managed corporate group employs around 560 people at its three locations in Laubach, Hilchenbach and Rankweil/Austria and is represented by service and sales companies in over 50 countries. The ROEMHELD Group generates annual sales of more than 100 million euros with customers, in particular from the machine construction, automotive, aviation and agricultural industries.

**Photos:**





Photos 1 (top, front) and 2 (bottom, back):

A characteristic of the pneumatic double-acting STARK.connect is the floating fixture with active retraction, which guarantees perfect flatness of the workpiece (Photo 1). The clamping state is indicated by LEDs (Photo 2) on the back of the element (Photos: STARK).  
  


Photo 3:

The new STARK robot gripper with a dedicated media supply and matching zero-point clamping system enables automated pallet changing even on machines without their own media supply.  
The hydraulic fluid, compressed air and electrics for the release and clamping processes are transferred via a multiple coupling integrated into the pallet gripper (Photo: STARK).

**You can also download the press release as a Word document and the image material in print quality here:**

[**https://www.auchkomm.com/aktuellepressetexte#PI\_308**](https://www.auchkomm.com/aktuellepressetexte#PI_308)**.**

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