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Press Release 10/2019

* **ROEMHELD shows at the Motek a new mobile electrical press-in device**
* **Modular modules for ergonomic workpiece handling and flexible assembly workstations**
* **STARK digitalises the zero-point clamping technology for automation and Industry 4.0**

*Laubach, 28. August 2019.* ROEMHELD presents the concept study of a new mobile electrical press-in device as a trade fair premiere at this year's Motek. The compact, light and easy to transport machine in portal design is made of aluminium profiles and is operated by a ROEMHELD linear actuator. It is primarily designed for use in workshops, in prototyping and in service.

Besides, the Group will be showing products for ergonomic workpiece handling of workpieces and components for flexible and mobile assembly workstations. They can be put together individually with combinable modules for flexible use and adapted to changing requirements at any time. An extension of the range of electrical clamping elements for fully automatic assembly can also be seen.

Furthermore, there is the STARK zero-point clamping system, which sees itself as a pioneer in the digitalisation of set-up processes and Industry 4.0 applications. The models of the successful STARK.connect product series with fully integrated sensor technology reliably and trouble-free determine the respective clamping condition. LEDs display this information and transmit it to a PLC via digital interfaces. With the zero-point clamping systems, components can be clamped throughout the entire production process and positioned with repetitive accuracy - from the machining centre to the assembly workstation and even in welding environments. ROEMHELD exhibits at Motek in Hall 4 at stand 4520.

**Mobile, electrical, flexibly adaptable: concept study of the new press-in device**

The new mobile and electrical press-in device is available as a table version or with a height-adjustable frame and offers joining forces of up to 6kN. Thanks to its functional and flexibly adaptable technology, it enables processes such as holding down, pressing and caulking components. It also supports assembly processes by fixing, positioning, blocking or tensioning springs. The press-in device equipped with a *modulog* control is operated one-handed by push-button or - in the case of increased safety requirements - using a split two-hand operation.

**Individual combination of components from the modular system**

This innovation complements the *modupress* range of press-in devices from ROEMHELD, which can be used to produce frictional connections between several components. The company offers a system of coordinated elements, which can be individually combined according to the requirements to build the desired press-in device. Models are available in portal and C-frame design, with hydraulic or electrical drives, strokes between 100 and 400 mm and press-in forces from 7 to 100 kN.

**Maximum back protection: workpiece handling and assembly workstations from the   
*modulog* product range**

The *modulog* product range also has a modular structure. With their components, changing demands on workpiece handling and the flexible design of assembly workstations are no problem. The various modules for lifting, rotating, tilting, fixing and moving workpieces are matched to each other and can be combined as required. Clamping elements individually adapted to the workpiece ensure that components can be clamped throughout the entire manufacturing process and positioned with repetitive accuracy. In no time at all, transport carts, height-adjustable working tables or workstations for manual to semi-automated assembly can be created from the modular system.

Workstations can be freely designed with these modules. They can be adapted to the individual requirements of employees and optimised in terms of ergonomics, safety, throughput times and productivity. Changes or extensions can be implemented quickly and easily at any time.

The flexible and compact design creates working environments with optimum workpiece accessibility and without interfering edges, allowing the operator to assemble in the best ergonomic position. At the same time, quality and speed of work increase.

Components weighing up to 600 kg can be moved mechanically or electrically into a comfortable assembly position at the push of a button or foot switch. On request, sensors provide information about the workpiece and the compliance with the correct clamping position. A rotating module with media supply is available for signal and energy supply so that workpieces are accessible from all sides and can be rotated continuously in both directions.

**New electrical clamping elements for fully automatic assembly**

For use in fully automated assembly processes, ROEMHELD will present a "new series" of electric swing clamps and work supports as well as a completely new electric hinge clamp from its range of digitized clamping technology. They are particularly suitable for clamping of workpieces when it is essential to keep the clamping area free of straps and clamping components for unrestricted workpiece loading and unloading. The clamping elements are ideal for use in non-hydraulic environments and in automated systems or when the clamping force is to be maintained after disconnection from the power supply.

**Digitalises the zero-point clamping technology for automation and Industry 4.0: STARK.connect**

The zero point clamping system STARK.connect is equipped with a fully integrated sensor technology. The sensor system differentiates between the clamping states "clamped without retractable nipple", "retractable nipple clamped" and "unclamped". All signals are forwarded to a PLC control via PNP outputs. The clamping status is indicated by LEDs on the back of the elements.

The quick-clamping system clamps pneumatically and is characterised by compact designs, very short clamping and unclamping times and high clamping forces. It achieves an insertion force of 3 kN at 5 bar, the maximum holding force is 10 kN.

STARK.connect is used wherever workpieces, fixtures, pallets and machine elements are to be connected safely, quickly, automatically and reproducibly with machine tools, robots and manipulators. Thanks to its sturdy design and protected electronics, the zero point clamping system is particularly suitable for welding environments.

**Compensation mechanism guarantees an optimum flat face contact**

Characteristic for STARK.connect is a floating holder with active retraction, which guarantees an optimum flat face contact of the workpiece. The unique design allows the retractable nipple to be retracted and extended at an angle. If there are changes to the workpiece, for example, due to a temperature change, the clamping mechanism can move sideways. The compensation mechanism of the STARK.connect can compensate position errors of up to 1.5 mm. No side loads act on the retractable nipple during compensation. The retractable nipple is retracted automatically and with high force. Within half a second the system is clamped mechanically with springs and pneumatically force amplified. It is self-locking due to the spring force.

**About ROEMHELD:**

Whether for aircraft, automobiles, machine tools or cases for smartphones: technologies and products of the ROEMHELD Group have been used to manufacture numerous industrial commodities and goods for end users for more than 60 years.

Efficient clamping technology solutions for workpieces, as well as for dies in forming technology and plastics processing, form the core of our ever-increasing portfolio. This is supplemented with components and systems for assembly and handling technology, drive technology and locking mechanisms for rotors on wind energy systems.

As well as a wide range of approximately 20,000 catalogue items, the ROEMHELD Group is also specialised in the development and realisation of customised solutions and is internationally respected as one of the market leaders for quality today.

Innovation through tradition: ROEMHELD was established in 1707 with a foundry in Friedrichshütte, which still belongs to the ROEMHELD Group today and counts as one of the oldest active industrial businesses in Germany.

The owner-managed group of companies employs approximately 560 workers in its three locations of Laubach, Hilchenbach and Rankweil/Austria, and is represented in over 50 countries by service and sales organisations. With customers from the mechanical engineering sector, as well as the automobile, aviation and agricultural industries, the ROEMHELD Group generates an annual turnover of more than 100 million Euro.

**Photos:**



Photo 1:

Concept study of the new mobile ROEMHELD press-in device as table model (Photo: ROEMHELD).

Ein Bild, das Mikroskop, drinnen, Wand, Himmel enthält.

Automatisch generierte Beschreibung

Photo 2:

The numerous elements of the *modulog* product range for lifting, rotating, tilting, fixing and moving workpieces are matched to each other and can be combined as required (Photo: ROEMHELD).

Ein Bild, das Tisch, drinnen enthält.

Automatisch generierte Beschreibung

Photo 3:

Electric swing clamps are particularly suitable for clamping of workpieces when it is essential to keep the clamping area free of straps and clamping components for unrestricted workpiece loading and unloading (Photo: ROEMHELD).

Ein Bild, das Elektronik enthält.

Automatisch generierte Beschreibung



Photos 4 (above: front) and 5 (below: back)

The zero point clamping system STARK.connect is equipped with a fully integrated sensor technology. The sensor system differentiates between the clamping states "clamped without retractable nipple", "retractable nipple clamped" and "unclamped", which are indicated by LEDs on the back (photo 5) (Photos: STARK).

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

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