

Even more choice for drive technicians

Manufacturer RINGSPANN is using this year's SPS IPC Drives in Nuremberg to showcase numerous innovations from its current portfolio for industrial drive technology at its trade fair booth in hall 3. The one-stop supplier is placing the focus on new freewheels, new shaft couplings and its compact electrical brakes. The mechanical remote control systems of RINGSPANN subsidiary RCS will also be present.

A completely new freewheels series is one of the highlights of RINGSPANN's trade fair appearance at this year's SPS IPC Drives. "The product catalogue may not yet be ready to print, but our product range is already ready, meaning that we can present our new FZ series to a large audience for the first time at our trade fair booth 274 in hall 3", says Thomas Heubach, the divisional manager of freewheels at RINGSPANN. The unique thing about these freewheels is that they boast properties that one would commonly expect of bearings. It would therefore not surprise Thomas Heubach at all if several trade fair visitors were to initially mistake the new FZ freewheels for ball bearings of a closed design. In purely visual terms, they do look deceptively similar to this ball bearings type, and yet functionally they fulfil very different tasks. Thomas Heubach explains: "They are bearing-supported internal freewheels that can be universally deployed as backstops, overrunning freewheels or indexing freewheels. In most sizes, we have designed them in the same dimensions as the series 62 standard ball bearing common in drive technology. They are installed into the housing provided by the customer, which enables the realisation of space-saving and compact designs."



To give engineers in drive technology as much freedom as possible, RINGSPANN offers the new freewheels in five basic versions with eight or nine sizes each for the transfer of nominal torques of up to 420 Nm (at the outer or inner ring). For applications in demanding conditions (dirt, wet etc.), two basic versions additionally feature 2RS seals.

„The new FZ freewheels are bearing-supported internal freewheels that can be universally deployed as backstops, overrunning freewheels or indexing freewheels.“

Thomas Heubach, Head of Division Freewheels at RINGSPANN GmbH





“This latest expansion of our range of non-shiftable shaft couplings is unique in RINGSPANN’s history.”

Franz Eisele, Head of Division Brakes and Couplings at RINGSPANN GmbH

Torques of up to 1,230,000 Nm

The FXM-series freewheels, designed for much higher torques – and significantly larger in size –, will also be presented by RINGSPANN at this year’s SPS. They are integrated freewheels with sprag lift-off for bolting to the face, which can be used as backstops and overrunning freewheels for tremendous nominal torques of up to 1,230,000 Nm. “Typical areas of application are the gearbox constructions of conveyor belts, bucket conveyors or grinding mills”, explains Thomas Heubach. The freewheels of the FXM series have bores with diameters of up to 560 mm.

Five new coupling series

A whole wealth of innovations will be on display by RINGSPANN at SPS in the field of shaft couplings. And that is because just a few weeks ago, this product area was significantly expanded with the addition of five new types and the supplementation of many existing series of non-shiftable shaft couplings. The current selection of flange, flexible and cone clamping couplings is supplemented by gear couplings, grid couplings, disc couplings, pin and bush couplings, and jaw couplings. “Our range thus now

encompasses eight series that cover almost all technically relevant types of rigid, torsionally stiff and elastic shaft couplings that are currently in demand in the industry”, says divisional manager Franz Eisele. In total, the current RINGSPANN range of shaft couplings now encompasses nominal torques ranging from 2.0 to 1,299,500 Nm. This means that purchasers and engineers from every conceivable industrial sector now have access to a comprehensive range of non-shiftable shaft couplings for applications in almost every area of drive technology. Franz Eisele stresses: “The beneficiaries of our coupling range will not only be plant manufacturers in conveyor technology, crane construction and gear manufacturing, but also other mechanical engineers and systems manufacturers – for example those in fluid and processing engineering, raw materials industry and steel production.” A complete overview of RINGSPANN’s new portfolio of shaft couplings can be found in the product catalogue 2018/2019, which is available at www.ringspann.com as a download version – and will also be available at the company’s SPS trade fair booth in hall 3.



Energy-efficient stopping and holding

Since RINGSPANN views itself as a one-stop supplier for premium components of industrial drive technology, the company will also be providing insight into its current range of electrical brake systems in Nuremberg. The focus will hereby be on the electronically controlled electrical disc brakes of the EV and EH series. They are a cost-efficient holding and emergency stop solution for all mechanical engineers and plant manufacturers who shy away from the installation and maintenance expenditure of hydraulic or pneumatic brake systems. "It will not only be engineers of drive and rotating units who stand to benefit from the high level of functionality and energy efficiency of these compact industrial brakes, but ultimately also the systems' users and operators", says Franz Eisele, also responsible for the brakes division at RINGSPANN. The brakes in the EV and EH series are suitable for the realisation of both active and passive brake concepts, since they can be supplied in a spring-operated / electromagnetic-released version and in an electromagnetically operated / spring-released version. Furthermore, they can be mounted parallel or vertical to the brake disc, and adapted to brake discs with thicknesses ranging from 8 to 30 mm. "This offers broad freedoms in construction; especially in cases when it is not possible to freely define the brake disc thickness or to define it in advance", explains divisional manager Eisele.

Typical areas of application for these RINGSPANN brakes are for example the turbine, ventilator and fan industries, machine tool construction, winch and winding technology, the wind power industry and general drive technology. They are designed for supply voltages of 230 to 415 VAC (50/60 Hz) and are available in 16 basic types with clamping forces of 1.8 to 24 kN. A remarkable technical feature of the EV / EH brakes is that they make do with minimal power consumption throughout the entire holding phase; for the small sizes this means a mere 10 watts.

The electrical brakes of RINGSPANN also convince thanks to features that are of particular interest to the plant operator. The braking torque, for example, can be easily and precisely adjusted via an adjusting nut, and worn friction blocks are replaced in no time – since the brake does not need to be dismantled to do so. Furthermore, the sensory monitoring of the brake function (open/closed) and the degree of wear of the brake pad improve both the handling and the safety level. "With regards to Industry 4.0 applications, we have also ensured that the monitoring functions can be easily integrated into superordinate control systems of machines and systems", says divisional manager Franz Eisele.



The electrical disc brakes of RINGSPANN. They achieve clamping forces of up to 24 kN and are suitable as holding or emergency stop systems for many industrial applications. The figure depicts a EV024FEM-type brake.

Forces transferred mechanically

To round off its trade fair appearance at this year's SPS, RINGSPANN will be showcasing various exhibits from its subsidiary RINGSPANN RCS, which is specialised in the manufacture of high-grade remote control systems. Here, it is push/pull cables particularly that – primarily for reasons of safety and energy efficiency – have long been subject

free, extremely flexible, protected against splash water and convince thanks to excellent sliding properties. They are – depending on the design – designed for very small bending radii and actuation cycles of 1.0 million and more.

“With our mechanical remote control systems, applied forces be transferred reliably, flexibly and free of perturbations.”

Christian Kny, General Manager of RINGSPANN RCS GmbH

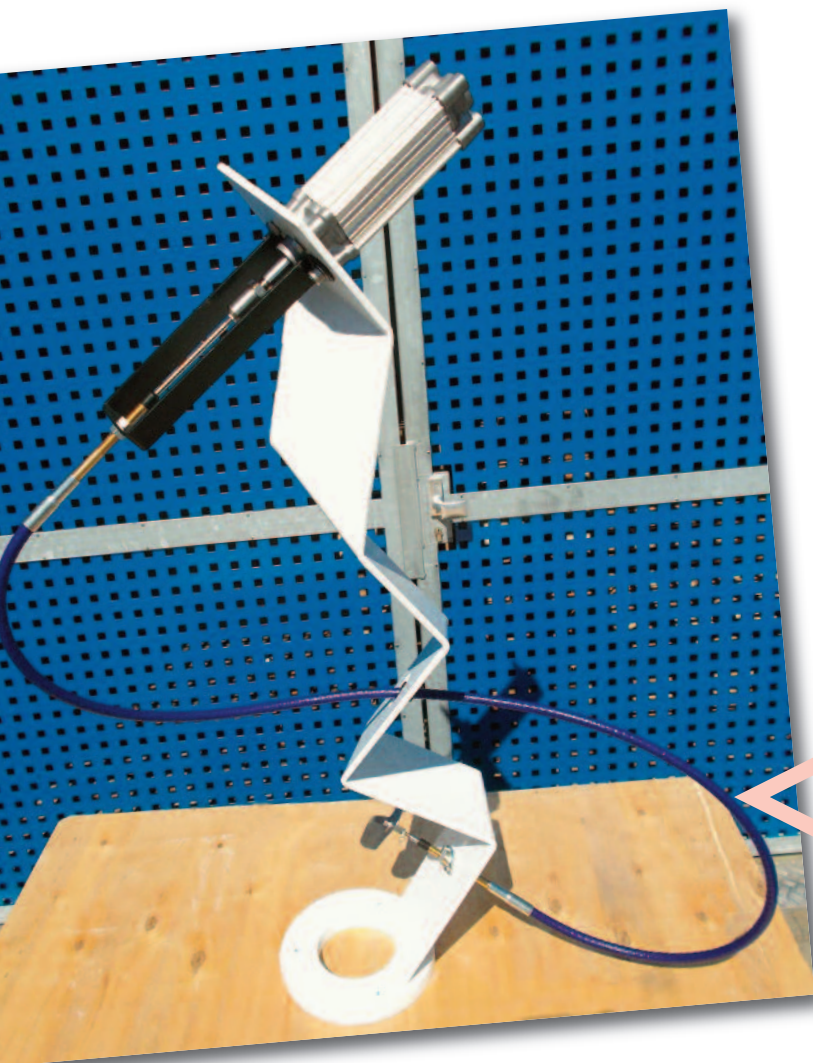


to growing demand in industrial drive technology. They serve the alternating power transmission and are suitable for all applications where forces need to act between spatially separated, fixed modules – also and particularly when it must be possible to separate the connection of input and output force through a flexible system. The excellently crafted cable systems are intrinsically safe, maintenance-

At the RINGSPANN trade fair booth 274 in hall 3, the use of such a push/pull cable as a stroke extension of a cylinder is depicted by means of a technical sculpture. “Such a cylinder can operate pneumatically, electrically or hydraulically; the force applied by it is transferred by our flexibly mounting cable system purely mechanically, free of disturbances and absolutely reliably”, explains RCS managing director Christian Kny.

Continuous expansion

With this year's appearance at the SPS in Nuremberg, RINGSPANN once more marks its development from a traditional supplier to an international full-range supplier for high-grade components in industrial drive technology. This modernisation process began approx. three years ago, and has since been pursued unwaveringly by the company's senior management. At SPS, the RINGSPANN management will also be providing information on upcoming product offensives and the next steps with regards to the establishment of further international subsidiaries. <<



Push/pull cables from RINGSPANN RCS used as a stroke extension for pneumatic, hydraulic or electrical cylinders.