

DRIVE

THE JOURNAL FOR COUPLING TECHNOLOGY

HOT TOPIC:
New range of
disc pack couplings





Jörg Stang, Head of Sales

Working flat out for you

Dear readers,

in uncertain times such as these, a constant series of new imponderables can cause even the most carefully planned projects to falter. Nonetheless, we at R+W are taking the positives from the last few months and are delighted to state that we can rely on our corporate structures 100 per cent, even in exceptional global circumstances! Above all, your faith in the work we do has to date enabled us to continue working flat out for you.

We have therefore also used this year to take more key steps down the product development route, and the resultant process reliability and maximum precision will provide you with the necessary business edge. The range of services we offer you is now more digital as well, and is delivered direct to your office (at home): featuring a new online seminar format and appointment booking tool that enables you to get in touch with your personal contact person simply and directly.

Last but not least, in this issue we should like to introduce the new Executive Board team, which has been promoted from within our own ranks. With a pool of long-term experience at its disposal, R+W continues to stride into the future with confidence and is even stepping up the pace on your behalf.

I wish you an enjoyable read.

A handwritten signature in black ink, appearing to read 'Jörg Stang', written in a cursive style.

Jörg Stang

Content & Editorial

2-3

Products & Innovation

New disc pack couplings portfolio:
more broad-ranging than ever before

4-7

Products & Innovation

Smart sensor technology for the future: the Intelligent Coupling
Hard shell, precision centre: SCL servo coupling

8-9

The Green World of R+W

Kicking off the series: R+W goes green
Great for the environment

10-11

Company

New Executive Board: trio targeting success
New trainees: welcome aboard

12-13

News

Advanced digital training: online seminar series
Book consultation appointments online

14-15



New disc pack couplings portfolio:
“More broad-ranging than ever before”

R+W has completely re-engineered its portfolio of torsionally stiff disc pack couplings. In addition to extra options and special solutions, the coupling expert is also presenting new standard designs with product enhancements. Users now benefit from a portfolio of disc pack couplings that is more broad-ranging than ever before.

Whether in steel mills, printing presses, or pump packages: torsionally stiff, maintenance-free, and reliable disc pack couplings from R+W are perfectly suited to use under extreme conditions. A special ATEX version was even developed for use in potentially explosive environments. Made from high strength steel, disc pack couplings feature a high power density and tolerate temperatures from -30 to +280 degrees Celsius.

Even before the redesign, the R+W disc pack coupling portfolio offered an appealingly broad spectrum of models and versions in a range of sizes and options. Now that the LP series has been re-engineered, it offers users the benefits of easier handling from design to installation, in new standard lengths and custom-fit products. Jörg Stang, Head of Sales at R+W, says: "We have never served the disc pack couplings market on this scale before. For example, torque transmission was increased to as much as 50,000 Nm on many models. And on request we can deliver some models that can handle even higher torques of up to 100,000 Nm."

Specific Features

All R+W disc pack couplings are fitted with six-bolt disc packs made from highly elastic spring steel. Each individual disc pack compensates for angular and axial misalignment, while dual flex versions with two disc packs add the ability to compensate for lateral misalignment. Once the standardized physical principles of coupling design are factored in, R+W disc pack couplings transmit torque through the disc pack with absolutely zero backlash and without micro-movements in the bolted connection.

"One feature of R+W disc pack couplings is the enhanced method we employ for bolting disc packs to hubs, which enables both easy installation and perfect transmission of torque", Jörg Duggen, Head of Engineering at R+W, explains.

What's New?

Two key innovations have enhanced the portfolio. First is an installation-friendly model, featuring a clamping hub, available in single flex and dual flex versions, with torque capacities ranging from 350 to 50,000 Nm (LP5). Alignment bushings and high grade bolts are used to connect the precision machined steel coupling hubs to the spring steel disc packs, with the dual flex version also incorporating a short connection spacer between the two disc packs. The single flex version exhibits an extremely high level of torsional stiffness, while compensating for axial and angular misalignment, and is typically used in jack shaft configurations, or with self-aligning bearings. The dual flex version is used in more traditional connections between supported shafts to compensate for lateral misalignment while transmitting torque with zero backlash. The clamping hubs are designed for keyless transmission, and keyways are optional. >>



The new disc pack coupling with clamping hub is available in both a single-flex and dual-flex version.

The second new design is a dual flex model, featuring a fully split clamping hub for radial installation and removal without the need to disturb the adjacent machine components (LPH). This model is designed for torque capacities ranging from 350 to 50,000 Nm. As an additional option, both the new LP5 and LPH can be made with extended spacers at customer-specified lengths.



The new dual-flex disc pack coupling with split clamping hub (half-shell) facilitates radial installation or removal.



The disc pack coupling with keyway mounting in both single-flex and dual-flex versions.

Enhanced and More Application Oriented

In addition to the new models, the already proven existing designs were enhanced with more versions and options. Both the simple keyway mounted version and the conical clamping ring version were configured as catalog standard options for both single flex and dual flex versions. A connecting plate was incorporated into the dual flex versions, making the spacer versions (LP2 and LP3) much more compact. The individual coupling sizes and torque capacities have also been more finely tuned, making them more application oriented. Also new is the option for an "XL" hub for keyway mounting of larger motor shafts within a given coupling size.

"We have never served the disc pack coupling market on this scale before."

Jörg Stang, Head of Sales

Customers can now easily find a coupling that more perfectly matches their torque requirements without having to increase to the next larger size. This offers plenty of advantages, not the least of which is avoiding unnecessary costs.



On request, the overall length of the LP2 is variable.

Even Better for High Speed

The previously existing designs are worth a closer look as well. Disc pack couplings with symmetrical conical clamping rings, which generate very high shaft clamping pressure, are particularly well suited to reversing applications as well as applications involving high rotational speeds. As a part of the portfolio relaunch, these models have now also been designed for torque transmission of up to 50,000 Nm, and are available in three versions: single flex, dual flex, and spacer type, the latter of which is also available in customer specified overall lengths.

Options, Custom Solutions, Integrated Sensors

Numerous custom solutions have also been added to the new, broad-ranging R+W disc pack coupling portfolio. Most interestingly, the compact, wireless "Intelligent Coupling", integral sensor system provides the ability to measure torque, speed, vibration and axial load from directly within the drive line, and can be incorporated into many LP coupling designs. This smart hardware and software solution can be operated easily and conveniently using the R+W App.

Stang adds: "The enhanced disc pack couplings portfolio now enables us to respond to many of the enquiries we get, everything else is treated as a custom solution. Our team of experienced engineers and technicians attempts to make the impossible possible, in order to end up being able to provide tailor-made, effective, safe and reliable, state-of-the-art couplings solutions." With its new LP couplings portfolio R+W is focusing even more on customers. ■



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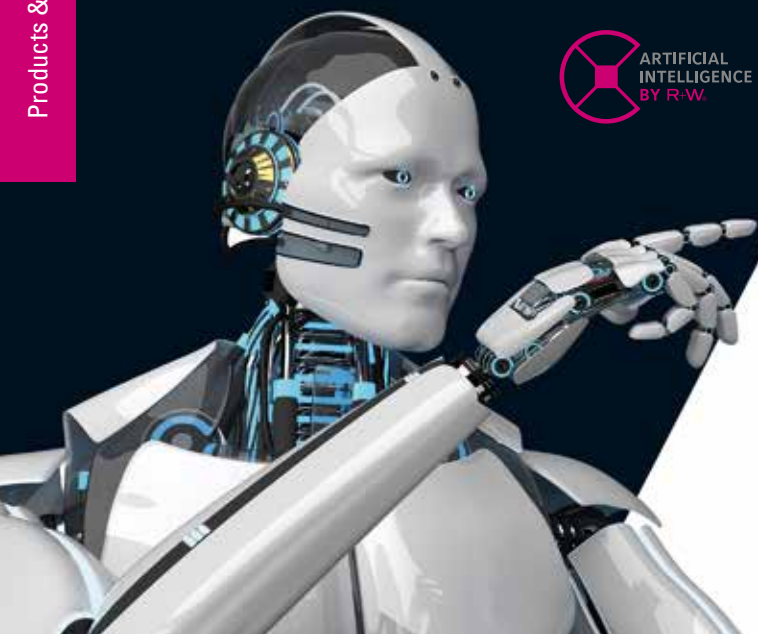


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Link to
new video:



Smart sensor technology for the future: the Intelligent Coupling

Process information can be accessed any time, any place

High precision, user friendly, and efficiency increasing: integrating highly advanced sensor technology now enables key process data to be retrieved from directly within the drive line in ways never possible before. The Intelligent Coupling does not require external wiring to achieve this, but instead sends information about torque, speed, acceleration and axial loading in near real time to almost any electronic device. The on-board rechargeable battery system facilitates use even in confined spaces without the need for an external power source. This state of the art sensor technology is therefore suitable for use in a broad range of applications, and is even available to be retrofitted into couplings which have already been installed.

Flexible and Easy to Retrofit

Downward compatibility and the ability to retrofit into existing systems were key criteria during the development of the Intelligent Coupling. The sensor technology can be integrated into existing applications, minimizing the time and cost associated with upgrading equipment. The access to performance data that this coupling system provides can help to maximize uptime, reduce production costs, and enhance product quality.

Forward Looking and Application Oriented

Condition monitoring and predictive maintenance are essential to preventing costly outages and production down time efficiently. With the Intelligent Coupling, operating conditions and overload events can be logged accurately and even predicted. This sensor technology is compatible with most current industrial communication standards, while the user friendly R+W app facilitates simple and intuitive operation - allowing users to retrieve performance data in real time just by viewing their smartphone or tablet.

Developing for the Future

While the current system is powered by internal rechargeable battery, R+W is already working on going to the next level. Plans include an inductive power supply with integrated coils as well as a standalone power supply, and so called Energy Harvesting, which involves miniaturized devices to convert mechanical energy into electrical energy. There is still plenty of potential for the future with this smart sensor technology! ■

Hard shell, precision center

Harsh conditions, high misalignment, high temperatures, and vacuum have no impact on the reliable SCL servo coupling. The modularity of this coupling series allows it to be customized for a wide range of applications.

Servo disc couplings can be an interesting alternative to classic welded bellows couplings when under adverse conditions. They are well suited to highly dynamic applications with corrosive chemicals and high temperatures, and with minimal performance trade-offs. The SCL disc coupling offers precision, flexibility and rapid availability for applications up to 100 Nm.



Flexibility and Precision

Bolted, not welded: the SCL servo coupling can be assembled quickly and easily. The modular design enables it to be used in a wide range of scenarios. It is available in either single flex or dual flex configurations in four different sizes, and with various surface finishes on request. This means it adapts to customer needs and not the other way around.

Resistance to Heat and Corrosion


In its standard finish, the SCL features aluminum hubs and stainless steel spring discs, capable of operating at temperatures of up to 120 degrees Celsius. These materials ensure light weight, low inertia and a high level of corrosion resistance.


Particularly Good at Misalignment Compensation

Another benefit of the servo disc coupling is that it can compensate for relatively high levels of shaft misalignment - as much as twice that of the corresponding bellows coupling. This robust coupling design ensures optimum rotary transmission with high torsional stiffness, while the material and configuration of the discs provide an excellent combination of tensile strength and bending elasticity.

Flexibility Brings Economy

The SCL servo disc coupling is well suited for use in any environment where precision performance is needed and shaft misalignment is more difficult to control. This makes it an all-rounder, and alongside the high precision bellows coupling, a perfect complement to the R+W coupling product portfolio. ■

Servo Coupling 	
Temperatures up to 120° C, in aluminium finish	+
High misalignment tolerance	+
Use in vacuum applications	+
Use in environments containing aggressive media	+

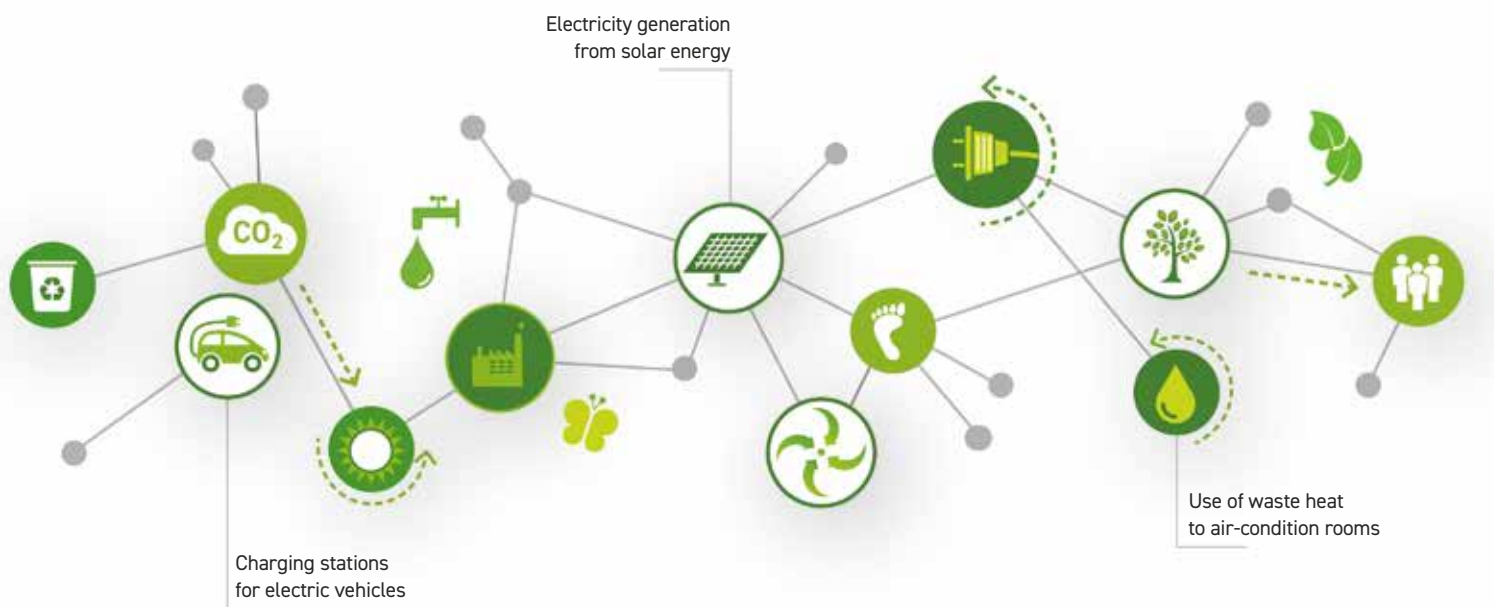
Welded Bellows Coupling 	
Temperatures up to 200° C, in welded stainless-steel finish	+
For highly dynamic applications	+
High level of torsional stiffness	+
Compensation for smaller amounts of all three types of shaft misalignment	+



First of the new "R+W goes green" series

Great for the environment

Construction of the new R+W production headquarters in Würth am Main prompted a rethink of the issue of environmental sustainability within the company. The forward looking energy and resource management system now in place at R+W has not only proven to be successful in terms of cost efficiency, but has also been recognized by the state of Bavaria as part of its "Umweltpakt Bayern" initiative. In the new "R+W goes green" series we will be reporting in more detail in the upcoming issues of DRIVE on specific actions being taken.



When the decision to build the new company headquarters was made, it was clear to all those involved that this opportunity must not be wasted. Sustainability was a closely followed priority from the start. The company's involvement with "Umweltpakt Bayern" - an initiative from Bavarian governmental and business officials aimed at promoting voluntary environmental and climate protection in the region's companies, was one clear example. R+W has already taken a series of measures internally, and is continuing to plan further steps.

Surplus Energy from the Roof

One key project was the installation of a photovoltaic system on the roof of the building, delivering a peak output of 170 kilowatts. R+W itself consumes two thirds of the solar power, while the surplus is fed into the public energy grid. This not only helps R+W achieve self-sufficiency and cost savings, but also makes a valuable contribution toward the conversion to renewable energy sources as an alternative to fossil fuels.



42 per cent self-sufficiency is achieved with the aid of a photovoltaic installation on the roof of the building.



Less Gas - Better Climate

Use of fossil fuels for heating purposes is also being cut. Waste heat from compressed air generation is lowering the company's gas consumption by more than 80 per cent. In winter all of the rooms in the building are warmed by underfloor heating systems. The reverse applies in summer, with cold water circulating through the rooms so effectively that the air conditioner is never needed. HEPA filters also contribute to a healthy indoor climate, with a high performance air purification system continuously cleaning the ambient air - thus helping to ensure workplace safety in these Corona-afflicted times.

"The new photovoltaic installation on the roof enables us to generate so much electricity, that it covers all of our own daily needs."

Holger Vogt, Managing Director

Social Responsibility for the Environment and the Region

Other measures like the installation of four charging stations for employees' e-bikes and electric cars, a high efficiency LED lighting concept, and a water conserving drip irrigation system for the green spaces surrounding the building also exemplify R+W's environmental stewardship.

Preparations are currently being made to have the company certified in accordance with the ISO 14001 environmental management standard, which encourages companies to continuously improve their environmental performance. R+W is also demonstrating social responsibility by investing in training young people (see page 13).

District chief executive Marco Scherf was impressed: "R+W has used every opportunity provided by the company's new building." At the ceremonial presentation of the certificate of participation, he described R+W as a positive example of how companies in the region assume responsibility for the environment and climate. R+W regards participating in the "Umweltpakt Bayern" initiative as just the start of a series of other measures aimed at achieving optimum energy and resource efficiency. ■



Presentation of the "Umweltpakt Bayern" certificate of participation to R+W's managing directors: (f.l.t.r.) MDs Maximilian Crößmann and Holger Vogt, district chief executive Jens Marco Scherf and managing director Frank Kronmüller.

Trio targeting success

Long-serving authorised officers appointed as managing directors

Stability and clear-cut strategies are called for, particularly in times of transformation. That is why long-serving authorised officers Maximilian Crößmann, Frank Kronmüller and Holger Vogt were appointed during the summer to R+W's Executive Board. The new managing director architecture pools the specialist skills and substantial know-how of each individual to form a top management team with vision that is committed to focusing on the future: all three want to promote digital structures, in which traditional values continue to be actively applied.

Maximilian Crößmann is responsible for the Finance, IT and Human Resources divisions. The focus of this international MBA-qualified 35-year-old is on clear-cut structures and understandable processes as the basis for a strategy of controlled expansion. In his view one of the biggest value-adding factors in this regard are



"I would like to establish R+W as a modern, attractive employer in the Lower Main region of Bavaria."

Maximilian Crößmann

the employees, who represent the company with their know-how and commitment. He wants to make R+W an attractive employer, especially for talented young people and is opting for a blend of challenging international projects and an informal working atmosphere to help achieve this aim.

"My aim is to entrench digitalisation and technical progress not just in our products, but in all our processes."

Frank Kronmüller



Frank Kronmüller has headed up the Sales and Marketing divisions for 22 years. He played a key role in setting up the company's overseas subsidiaries in China and the USA and has been CEO of R+W's Italian subsidiary since 2008. His goal is to increasingly digitalise Sales and Marketing processes to match them to the changed communication behaviour of a new generation of customers and buyers. Nevertheless, he still regards personal customer contact as indispensable.

Holger Vogt, who joined R+W in 2017, is in charge of the Production, Logistics and Purchasing divisions and was responsible for the green new headquarters building in Würth, where he successfully merged three business units. The graduate engineer is focusing on establishing a LEAN culture, integrating the Slovakia busi-



"We must keep on getting better, faster and more efficient – without losing the DNA of a medium-sized craft enterprise."

Holger Vogt

ness unit and developing a data-based process architecture, to be able to meet customer requirements even better, faster and more efficiently in future. ■



A warm welcome to R+W: Rita Hunger, Antonia Birk and Carlos Huth with Human Resources manager Anna May (from right to left).

New trainees: welcome aboard

There is no shortage of new blood at R+W in 2020: on 1 September three new junior colleagues commenced their training in Würth am Main. Human Resources manager Anna May welcomed two future industrial management assistants and a prospective technical product designer.

R+W attaches great importance to nurturing talented youngsters by providing them with sound, qualified training. The company offers young professionals a variety of tasks and good personal development opportunities, complemented by attractive extras, like subsidised gym membership or an allowance to purchase a laptop for private use.

On the first training day Human Resources manager Anna May presented the three "newbies" with their training material and welcomed them to the company: "We are delighted to welcome the first trainees to our new corporate headquarters and wish them an exciting and successful time at R+W!" ■



Advanced digital training

Concise, informative and accessible from anywhere: the new R+W online seminar series, "Are you ready to become an expert?" provides a broad spectrum of coupling-related topics. Our experts share their extensive knowledge live and free of charge, with content ranging from basic to highly specialized. These online seminars run between 15 and 45 minutes.

Coupling design

The right coupling - how to make a suitable selection

Rene Szabo, duration: 30 minutes

Find out more about all the criteria needed to select the ideal coupling for your application.

Servo coupling

Precision in flexible form

Bernhard Bremauer, duration: 15 minutes

Discover divergence in action: which exact-fit servo coupling is the right choice for your application?

Disc pack coupling

Strong. Stronger. Disc pack couplings.

Benjamin Rogg, duration: 45 minutes

All you need to know about the disc pack coupling: get to know the special properties and benefits of this heavy-duty type of coupling.

Safety coupling

Safety first

Christopher Monka, duration: 45 minutes

R+W ensures your machine safety: discover the options available to protect drive lines from overload.

IPCs/sensor technology

Good thinking ahead - The Intelligent Coupling

Markus Kemmet, duration: 45 minutes

Real time performance data from directly within the drive line: innovations featuring the latest in sensor technology - The Intelligent Coupling.

**Register directly for your preferred
dates and times:**
<http://newsroom.rw-kupplungen.de/becomeanexpert>



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Publisher and Editorial Office:
R+W Antriebselemente GmbH
Hattsteinstrasse 4
63939 Wörth am Main, Germany
www.rw-couplings.com

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