

DRIVE 1|17

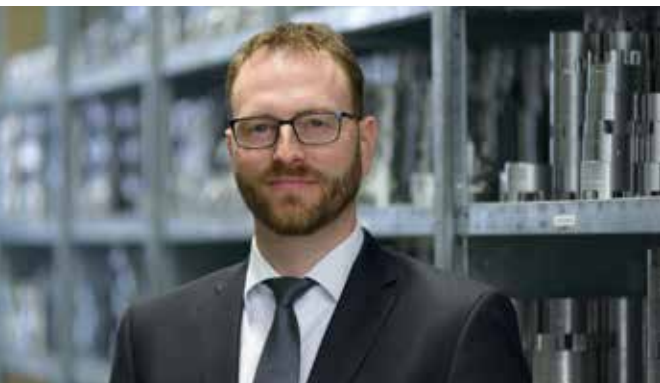
**R+W**<sup>®</sup>  
A POPPE + POTTHOFF COMPANY



# DRIVE

THE JOURNAL FOR COUPLING TECHNOLOGY

**HOT TOPIC:**  
Hannover Messe



Jörg Stang, Sales Manager

## Great Show, Great Couplings, Great Fun

Dear readers,

There's always plenty happening at the world's largest industrial trade fair in Hanover. That's why putting on an appealing showcase there is really important. This year we rigorously applied our black and white "color scheme" and expanded on the subject of virtuality. That went down really well and many customers endorse our "I like it!" slogan.

Unfortunately we were not able to exhibit our record-breaking coupling at the show. Take a look at the STF coupling, which is set to begin protecting the motors of a wind turbine testing facility in the summer. In the next issue we will be reporting on this coupling in action.

In other R+W news, we have upgraded our app. Frank Krommüller introduces its new set of functionalities in this issue. We believe that they will enable us to make even better use of this smart technology. Incidentally, the app is now available from the Apple and Android stores.

We hope that you will also say "I like it!" about this issue of DRIVE. We wish you an enjoyable reading.

A handwritten signature in black ink, appearing to read 'Jörg Stang'.

Jörg Stang

Contents & Editorial **2-3**

**Products & Innovations**  
Smart R+W Showcase at  
the Hannover Messe

**R+W News**  
Tracking Down Trends  
in Black and White

**R+W News**  
The Giant

**R+W News**  
R+W App 2.0: Integrated Showroom  
and Service Functions

**R+W News**  
Always at Your Disposal -  
Your R+W Contacts

# Smart R+W Showcase at the Hannover Messe

Lower Saxony is transformed once a year into the capital of the industrial world. In 2017 the Hannover Messe once again attracted visitors from all over the globe and provided R+W with a major platform to showcase what it does best.

The world's most important industrial trade fair is booming. In 2017 smart robots, adaptive machines and interlinked energy systems boosted visitor numbers. Around 225,000 visitors attended the show, of which more than 75,000 came from abroad – that's a record. Plenty of people dropped by the R+W booth, Head of Sales Jörg Stang reports: "This year the Hannover Messe was a complete success once again. Our modern design and the virtual reality app enabled us to attract the visitors in droves to our booth." Germany West Sales Executive Rene Szabo backed this statement up: "This year's booth concept was hugely successful and went down superbly with visitors and customers."

## Presentations using VR glasses

Headlined "Integrated Industry – Creating Value", this year's show focused particularly on the benefits of Industry 4.0. R+W factored that in to the design and build of its booth – the new version of the app with its wide range of virtual functionalities took center stage (more about this topic on pages 12 and 13). "The addition of a virtual reality capability to the app incorporating Cardboards in R+W's corporate design went down really well", is how Stang expressed his immense satisfaction. "Our field sales executives presented our products primarily in virtual reality."



Customers and members of staff wearing VR glasses attracted extra attention and drew even more visitors to the booth – a positive side effect.

But R+W did not dispense entirely with physical exhibits this year, even though the showcase had been deliberately downsized to accommodate the VR section. Nevertheless both highlights attracted a great deal of attention. "A definite magnet for visitors was our disc pack coupling with integrated coolant lubrication duct", Executive VP Frank Kronmüller reports. This LP-range coupling is of particular interest to manufacturers of machine tools with long spindle designs. These specially designed double-flex shaft couplings can conduct coolant over long distances down to the work piece via an integrated internal pipe with adapter interfaces on both ends. Weight-reduced



drive shaft tubing made of CFRP or aluminum facilitate high rotary speeds.

Another magnet was the radially mounted ST-range safety coupling, which R+W has developed specially for extruders. This extremely robust coupling features a compact design and was created especially to cope with high torque. In the event of torque overload this range of couplings reliably disconnects the input and output in just a few milliseconds and therefore protects the extruder from any damage. Complicated repairs and expensive downtimes are thus substantially reduced.

#### **Great conversations with customers and within the team**

But of course the focus was not just on the products. "Our priority at R+W is personal contact with customers",

Kronmüller and Stang both emphasize. "Trade shows give us another opportunity to enhance the way we maintain contacts with our customers." And of course they also provide the opportunity of communicating with colleagues. That's because an event of this kind is a great experience and a welcome change for the entire sales team, which usually travels a great deal and seldom gets the opportunity of a get-together at this level of intensity. "A trade fair showcase of this kind very much bonds the team involved in the trade fair together and generates a reinforced spirit of community." Our new Sales Executive Alexander Schmidt is particularly delighted by the excellent morale and the fantastic team at R+W. "It was a great way for me as a new member of staff to get started!"

Talking of going down well – the chic Smart, which R+W used for promotional purposes at the show, was then raffled off. "Our runabout was a real eyecatcher in the Hannover Messe's outdoor areas and was a great starting point for the extra promotional activities we undertook away from the booth", said Marketing Manager Sina Cerny. This runabout is now a real eyecatcher for its new owner. >>

## Views on Hannover Messe 2017:

Thilo Brodtmann, VDMA CEO on the subject of Hannover Messe 2017: "The Hannover Messe is the mechanical engineering showcase par excellence. Industry 4.0 is no longer a testing ground, but represents the tangible implementation of digitalization to the benefit of users. And the show is also evidence of the positive sentiment in our industry – we have the technical solutions to meet humanity's greatest challenges and in international competition terms are up there with the leaders. We can therefore unreservedly say that Hannover Messe 2017 was superb."

Frank Kronmüller, Executive VP at R+W Antriebselemente GmbH: "We regard the world's most important

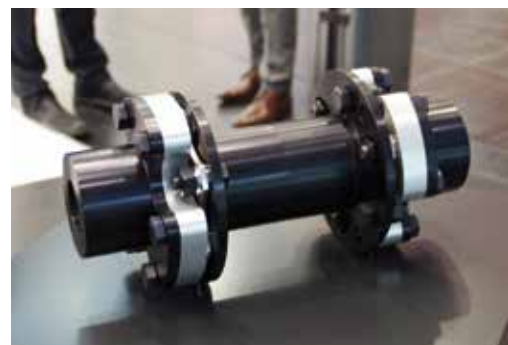
industrial trade fair as having two functions. On the one hand we naturally want to showcase our skills and our product range and appeal to potential new customers. That is the central plank of any trade fair. The other side of the coin is represented by the trends and innovations that are presented here and that provide us with reliable indicators of how markets are evolving and which new applications we need to gear up for. The Hannover Messe enables us to see those technologies in action that we believe could be enhanced even more by using our components. It is always a major highlight and a very inspirational event."



Models featuring longitudinal sections demonstrate vividly what is special about R+W couplings.



The particular feature on this LP coupling is the bore in the middle. Where long spindles are involved, cooling lubricant can be conducted through this internal tube directly into the work piece.



If customers request it, R+W can also configure these torsionally rigid, robust disc pack couplings to fit API 610 or API 671 drives.





R+W also displayed a few miniature models to go with the “large” Smart parked in front of the exhibition building. Both went down really well with customers - “I like it”, in the truest sense of the phrase.



That attracted attention – staff were able to present the entire range of coupling with the aid of VR. At the same time the presentation using VR glasses aroused the curiosity of plenty of visitors.



Shake it! The dry air in the exhibition hall makes people thirsty and that’s why R+W usually operates a cocktail bar at the Hannover Messe serving refreshing drinks to guests, with or without alcohol as they wish. Cheers!

# Tracking Down Trends in Black and White

R+W pursues two objectives at the Hannover Messe – it is on the lookout for and at the same time providing inspiration and showcasing new trends.

“We regard the world’s most important industrial trade fair as having two functions. On the one hand we naturally want to showcase our skills and our product range and appeal to potential new customers. That is the central plank of any trade fair. The other side of the coin is represented by the trends and innovations that are presented here and that provide us with reliable indicators of how markets are evolving and which new applications we need to gear up for”, is how Executive VP Frank Kronmüller explains R+W’s motivation for exhibiting at the Hannover Messe. “The Hannover Messe enables us to see those technologies in action that we believe could be enhanced even more by our components. It is always a major highlight and a very inspirational event.”

One example that features in many aspects of the Hannover Messe is the energy industry. Here the market has been radically transformed away from large power plants towards networks of users and producers. Consumers act as providers and vice versa. This trend towards “integrated energy” is one of the key topics addressed at this leading trade fair. This includes electricity generation via biogas plants, micro gas turbines, wind turbines or hydropower. They all require appropriate coupling solutions.

## Examples from the energy industry

So-called pitch control systems, for example, measure, monitor and control the pitch of the rotor blades on wind turbines to enable them to achieve a constant level of performance in changing wind conditions. To ensure exact positioning, backlash- and maintenance-free metal bellows couplings are used, which combine reliable torque transmission with precision positioning and a very high degree of repeat accuracy. R+W has developed a special design based on the BK2 range for a large offshore wind farm. In order to be able to brave the adverse environmental conditions out at sea, the couplings feature welded hub/bellows



ST-range industrial safety couplings are available with a disengagement torque value of up to 250,000 Nm (standard) and well over 1,000,000 Nm (special designs).



Disc pack couplings are both robust and torsionally rigid and can be configured to fit API 610 or API 671 drives, for example.



BZ-range flexible gear couplings are low-maintenance and feature a high degree of power density. They come in versions of up to a max. of 2,080,000 Nm, depending on requirements.





R+W's torsionally rigid metal bellows couplings are available as models ranging from 0.05 Nm to 100,000 Nm and featuring different hub connections.

connections and steel clamping hubs in a special finish. Micro gas turbines are another example of machines that are frequently used in decentralized power generation, where they are often exposed to a high level of stresses and strains. In one project an R+W miniature metal bellows coupling was required to operate reliably at a constant torque of 10 Newton meters and a speed of 70,000 revolutions per minute non-stop throughout the year. R+W developed a special solution, based on the MK2/100, which provides the required safety margins with the aid of special metal bellows, and reduces the return forces generated during the process to such an extent that bearing damage does not occur in the first place. This special design can therefore withstand almost four times the overload and thus provides the operator with sufficient safety margins as well as peace of mind.

### Automation precision

Another major topic area at every Hannover Messe is automation. Industrial production incorporating a high degree of automation requires precision movement systems – for instance loading gantries or industrial robots. Highly dynamic jointed-arm robots help to deliver short cycle times in many production facilities. They reach extremely high speeds at full repeat accuracy. These robots require drive components, which are designed to meet high standards of speed, accuracy or acceleration on site.

R+W has developed a range of solutions for industrial robots and similar applications including EK-range elastomer couplings. Their elastomer inserts deliver a high degree of compensation and rigidity at the same time. They therefore have a damping effect on vibrations and shocks and they can also compensate for shaft misalignments. A wide range of requirements have an impact on the design of elastomer couplings. Load, start-up and temperature factors have an impact on the elastomer inserts and their durability. These elements come in a range of different shore hardnesses, meaning a suitable compromise between damping properties, torsional rigidity and misalignment compensation can always be found for almost all applications. >>

### Couplings and Industry 4.0

Even in the Industry 4.0 era couplings can perform key tasks, increase productivity and provide the required level of safety. "Couplings continue to be a key element of modern automated manufacturing pursuing effective digital strategies. That applies not only to torque transmission, but also to their safeguard function", Frank Kronmüller stresses. An important argument in favor is, for example, the speed at which mechanical safety couplings disengage drive trains, because electronics and sensors represent substantial delay, making the drive train more vulnerable to accidental overload.

"A control unit-managed shutdown takes at least 15 to 17 milliseconds, while couplings on the other hand react in 3 to 5 milliseconds. In this instance mechanical components are clearly superior. The required sensors also harbor potential sources of error and must also be regularly checked to ensure that false-alarm shutdowns do not occur." Where safety couplings are involved, only one per axis is required, and they are easy to adjust and can be installed anywhere. "Those are two major plus points in favor of couplings", says Kronmüller in summary. ■



Backlash-free precision safety couplings safeguard against damage and reduce downtimes. Torque limiters can feature different modes of operation, depending on needs and requirements.



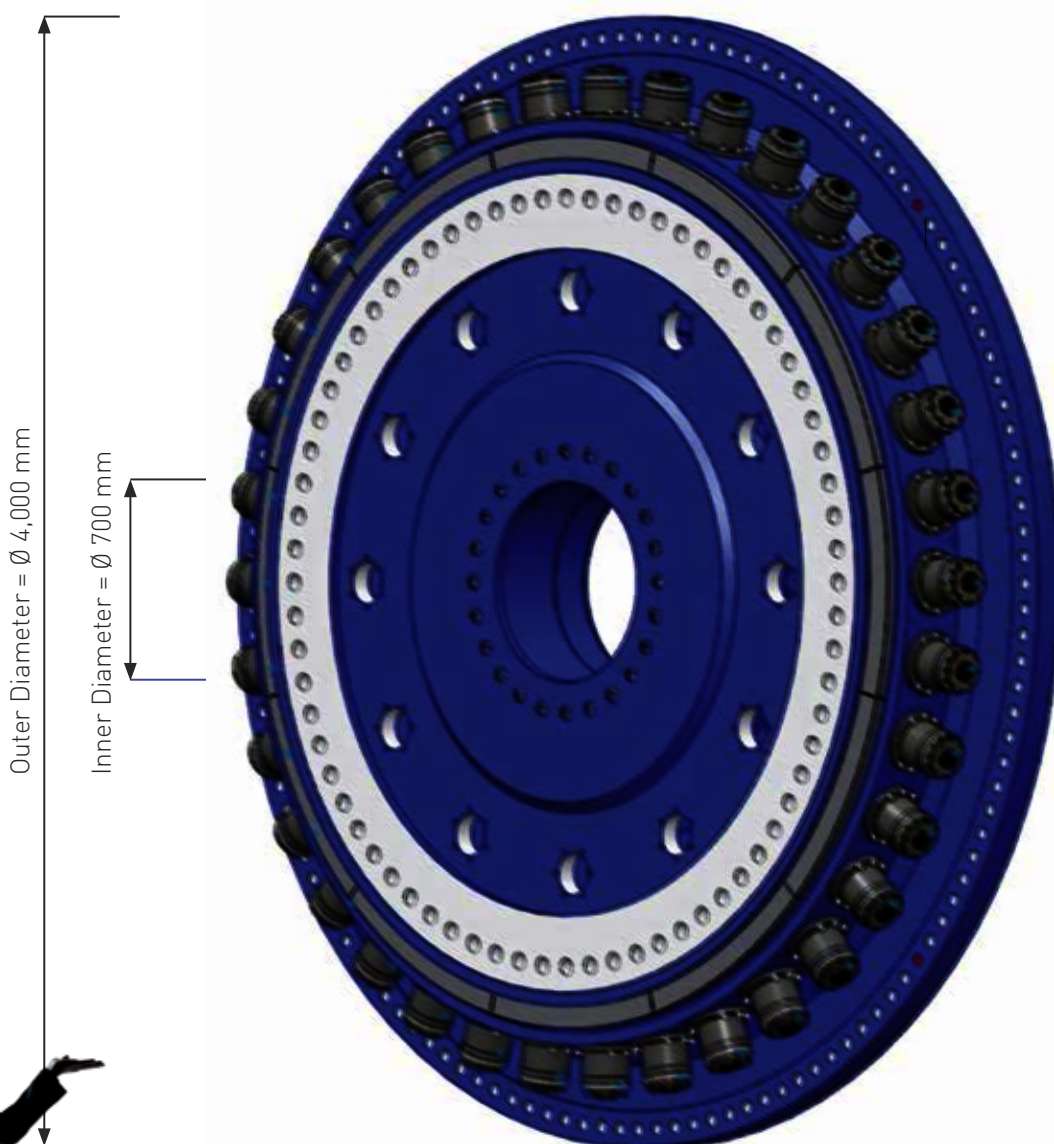
EK-range vibration-damping elastomer couplings are available in different elastomer shore hardnesses, and up to a maximum of 25,000 Nm depending on size and finish.

# The Giant

This coupling will enable you to win any game of Top Trumps. It will be 4 meters in diameter long and protect two 6 MW motors at a wind turbine testing facility. This STF 20000 will definitely make it into the Guinness Book of Records.

R+W in Klingenberg had to improvise to build this giant coupling – the factory building was not designed to cope with this size of component. But in line with the “there’s no such thing as no can do” motto, the planners came up with an idea and shifted completion without further ado to a marquee structure.

When the application with this special coupling is commissioned in June, R+W engineers will follow the commissioning process with excitement and interest. We shall be reporting in detail in the second 2017 issue about this giant among R+W couplings. ■



Length = 470 mm

Torque range = 15,000 -20,000 kNm

Speed range = 0 -20 rpm

Mass = 21,500 kg

Re-engagement = manual

## R+W App 2.0: Integrated Showroom and Service Functions

R+W broke completely new ground when it unveiled the R+W App at the Hannover Messe in 2015. The app has now been upgraded content-wise. Executive VP Frank Kronmüller explains in an interview with Drive what's new and what it can be used for.

**DRIVE:** Mr. Kronmüller, what new app features did R+W present at the Hannover Messe?

**Frank Kronmüller:** We unveiled two new sections at this year's Hannover Messe – on the one hand the Service section and on the other the virtual reality (VR) section. This means we now offer customers a total of four fascinating sections providing additional information about our product portfolio, including augmented reality (AR) and Showroom.

**DRIVE:** How can an app provide Service support?

**Frank Kronmüller:** As far as our non-self-explanatory products are concerned, Service is a key aspect of our offering. Our sales back office staff are constantly asked questions about how our products are installed. Given their complexity, the relevant facts in each case can't be explained properly on the phone. To start with, we have selected the settings of the two most in-demand products – standard and modular ball-detent safety couplings – for the new Service section in the app. Customers can view a video guide in the app and are thus able to comprehend the advice provided by our sales staff even better.



**DRIVE:** At the trade show R+W invited visitors to its booth to rediscover and re-experience its couplings with the aid of VR. To what extent does the app take this approach?

**Frank Kronmüller:** That's right, our Hannover Messe highlight was the opportunity afforded by Virtual Reality to see our products in a completely new light and therefore understand them better. Equipped with Cardboard and smartphones, visitors were able to wander around the booth and learn how our couplings work. That went down really well! Incidentally we see enormous potential for the future here. That's because VR will hopefully enable customers in the long term to improve the way they independently perform maintenance on our couplings installed in their machinery.

**DRIVE:** That sounds interesting – how did that come about?

**Frank Kronmüller:** When we launched the app two years ago, it went down really well with our customers. We were the first company in our segment of the components industry to use AR to break new ground.

Free turning  
in the space

zoom



In the showroom users can look at blow-up drawings, zoom and turn them.

**DRIVE:** And what feedback did you get from customers?

**Frank Kronmüller:** On balance we noticed that customers do not make use of the app's AR offering as a matter of course or on their own initiative. It is more of a useful tool for sales staff when they are talking to customers. Our experience has shown that customers are keen on utilizing the additional information, but only if shown how to do so in sales consultations.

**DRIVE:** The next thing that was integrated into the app was the Showroom. Was the feedback positive?

**Frank Kronmüller:** Yes, we took the next logical step by providing an online version of the Showroom. Nowadays enabling customers to view all products on their smartphones is simply part and parcel of good customer relationships. Content was also added to the Showroom.

**DRIVE:** Following on from that, what are R+W's expectations of the new app content?

**Frank Kronmüller:** That means we are focusing even more on our customers' needs. User-friendly and understandable. We are convinced that customers will appreciate that.

**DRIVE:** Mr. Kronmüller, many thanks for talking to us.



Fusing the real and the virtual world: the new R+W App.

Applications

Characteristics

In action



Inform yourself quickly and easily about applications and characteristics of our couplings.



You can download the new R+W-App in the AppStore.



You can download the new R+W-App in the Google-Store.



## Always at Your Disposal – Your R+W Contacts

Two new members of R+W staff began work at the start of this year. We would like to introduce them to you.

**Alexander Schmidt** joined our Baden-Württemberg South sales office as a field sales executive in March of this year. That means that he handles new customer acquisition in addition to providing technical advice and generally managing existing customer relationships. This passionate mountain biker and skier offers plenty of previous career experience – nine years in drive-train engineering, and for five of these nine years he worked in field sales specializing in ‘precision gearing’ and ‘special gearing’. What Alexander Schmidt likes most about R+W is the informal working atmosphere, in which individuals are given a high level of personal responsibility involving short decision-making processes. What has also impressed him about R+W is that “Made in Germany” power of innovation, the company’s well-thought-out product portfolio and high quality standards. When on vacation our new field sales executive likes to relax with a spot of offshore fishing in Norway and he is a fan of good food.

R+W has appointed a new marketing manager, **Sina Cerny**, who joined at the beginning of April. She is right in her element at R+W, given her more than ten years of professional marketing experience, most recently as ‘International Marketing Manager’ for a manufacturer of suspended ceiling systems. She provides support to her German and international field sales colleagues at smaller events and one-day trade shows. Sina Cerny also organizes and provides support for R+W’s showcases at larger events and trade fairs like Hannover Messe, EMO and other platforms. Our new marketing manager describes her other areas of responsibility as follows: “Be it strategic activities like liaising with dealers on issues relating to promotional partnerships, mentoring product launch campaigns or operational tasks like print and online media, media management including media relations and advertising or social media – I am the right person to talk to about these topics.” This fan of all things culinary has a rucksack tour on the Seychelles at the top of her travel wishlist. In her leisure time she likes exercising, e.g. Zumba and aerobics, and like cycling on her Dutch roadster. ■



ALEXANDER SCHMIDT

---

**CONTACT**

Phone: +49 171 203 5389  
Schmidt@rw-kupplungen.de

SINA CERNY

---

**CONTACT**

Phone: +49 9372 9864-43  
Cerny@rw-kupplungen.de

Stay informed and sign up  
for our email info service:

[www.rw-couplings.com/news/newsletter-subscription.html](http://www.rw-couplings.com/news/newsletter-subscription.html)

Or follow us on Facebook:

 R+W Antriebselemente GmbH

**Editor:**

R+W Antriebselemente GmbH  
Frank Kronmüller / Jörg Stang / Sina Cerny  
kronmueller@rw-kupplungen.de  
stang@rw-kupplungen.de  
Cerny@rw-kupplungen.de

**Publisher and editorial office:**

R+W Antriebselemente GmbH  
Alexander-Wiegand-Straße 8  
63911 Klingenberg, Germany  
www.rw-kupplungen.de