

# Innovations

Innovations from all  
technology areas.

THE KNOW-HOW FACTORY

**THE KNOW-HOW FACTORY**

# ZIMMER GROUP

## COMMITTED TO OUR CUSTOMERS

**WE HAVE SUCCEEDED FOR YEARS BY OFFERING OUR CUSTOMERS INNOVATIVE AND INDIVIDUALIZED SOLUTIONS. ZIMMER HAS GROWN CONTINUOUSLY AND TODAY WE REACHED A NEW MILESTONE: THE ESTABLISHMENT OF THE KNOW-HOW FACTORY. IS THERE A SECRET TO OUR SUCCESS?**

**Foundation.** Excellent products and services have always been the foundation of our company's growth. Zimmer is a source of advanced solutions and important technical innovations. This is why customers with high expectations for technology frequently find their way to us. When things get tricky, Zimmer Group is in its best form.

**Style.** We have an interdisciplinary approach to everything we do, resulting in refined process solutions in six areas of technology. This applies not just to development but also to production. Zimmer Group serves all industries and stands ready to resolve even the most unique and highly individualized problems. Worldwide.

**Motivation.** Customer orientation is perhaps the most important factor of our success. We are a service provider in the complete sense of the word. Even our decision to identify ourselves as Zimmer Group reflects this reality. With Zimmer Group, our customers now have a single, centralized contact for all of their needs. We approach each customer's situation with a high level of competence and a broad range of possible solutions.

SUITABLE FOR  
CLEAN ROOM  
**CLASS 2**  
Certified in accordance with  
DIN EN ISO 14644-1



### INFORMATION

The new protector version of the electric small-part grippers of the GEP2000 series is ideally suited for use under increased hygiene requirements and in clean rooms thanks to low particle emissions.

# PRODUCT ENHANCEMENT

## GEP2000 SERIES PROTECTOR VERSION

### FOR INCREASED HYGIENE REQUIREMENTS

The most successful electric small-part grippers, the GEP2000 series are getting a product upgrade with the new protector version. The clean room class 2 certified GEP2000 is ideally suited for use under increased hygiene requirements and in clean rooms thanks to low particle emissions. It comes with wipers on the top cover, the gripper has an enhanced protection class and is therefore sealed in accordance with IP54. Because it is lubricated with

food-grade H1 grease and equipped with sealed guides, it is an optimal fit for use in the food industry. In addition, it also has optimized corrosion protection and is very easy to clean due to the cover and screws made out of stainless steel. Compared to grippers without a protector, the new version has an enlarged stroke of 10 mm per gripper jaw, which can be increased to 20 mm with other installation sizes.



### GEP2000 SERIES

	▶ Technical data			
Order No.	GEP2006IL-43-B	GEP2006IO-45	GEP20010IL-43-B	GEP2010IO-45-B
Control	☉ IO-Link	I/O	☉ IO-Link	I/O
Positionable	Yes		Yes	
Integrated position sensing	Using process data	Analog 0 to 10 V	Using process data	Analog 0 to 10 V
Gripping force [N]	145	145	200	200
Stroke per gripper jaw [mm]	10	10	13	13
Weight [kg]	0.27	0.27	0.49	0.49
Order No.	GEP20013IL-43-B	GEP2013IO-45-B	GEP20016IL-43-B	GEP2016IO-45-B
Control	☉ IO-Link	I/O	☉ IO-Link	I/O
Positionable	Yes		Yes	
Integrated position sensing	Using process data	Analog 0 to 10 V	Using process data	Analog 0 to 10 V
Gripping force [N]	360	360	500	500
Stroke per gripper jaw [mm]	16	16	20	20
Weight [kg]	0.83	0.83	1.3	1.3

SUITABLE FOR  
CLEAN ROOM  
**CLASS 4**  
Certified in accordance with  
DIN EN ISO 14644-1



**INFORMATION**

The electric grippers of the GEH6000 series guarantee not only individual force adjustment, but also control of position and speed. Ideal for tasks with fragile glass in laboratory automation.

# HIGH-QUALITY COMPONENTS FOR SPECIAL APPLICATIONS

## FROM STANDARD TO THE INDIVIDUAL SOLUTION

The Zimmer Group is an important partner for individual solutions for numerous companies in the medical, pharmaceutical and packaging sectors. Driven by stringent demands for quality, durability and safety, many of our standard products from our various technology areas are able to master these challenges. No matter what product you are handling. We have the corresponding, high-quality components. These components can be manufactured from

various materials, e.g. PET, PEEK or stainless steel, for customization to special environmental conditions. Our electric 2-jaw parallel grippers from the GEP2000 and GEH6000 series, in particular, stand for process-reliable gripping in the areas of medicine and laboratory automation. Thanks to a mechanical self-locking mechanism, a secure hold of the workpiece is guaranteed even when faced with a power outage or emergency stop.



### Cleaning/sterilization

*Our hygienic design makes our products very easy to clean.*



### Resistant surfaces

*We guarantee resistance to aggressive cleaning agents (hydrogen peroxide/H2O2 and many others).*



### Clean room

*We comply with the limit values and ensure reduced particle emissions in accordance with GMP and ISO 14644.*



### Certified lubricants

*Our solutions comply with the requirements of FDA regulation 21 CFR 178.3570.*



### Various materials

*We use only approved materials included in the FDA material list.*





#### **INFORMATION**

Along with the GEP2000 series grippers with clean room class 2, the GPP5000AL with clean room class 4 meets the enhanced requirements in hygiene-critical and clean room areas.



# READY FOR THE CLEAN ROOM

## PRODUCTS WITH CLASSIFICATION

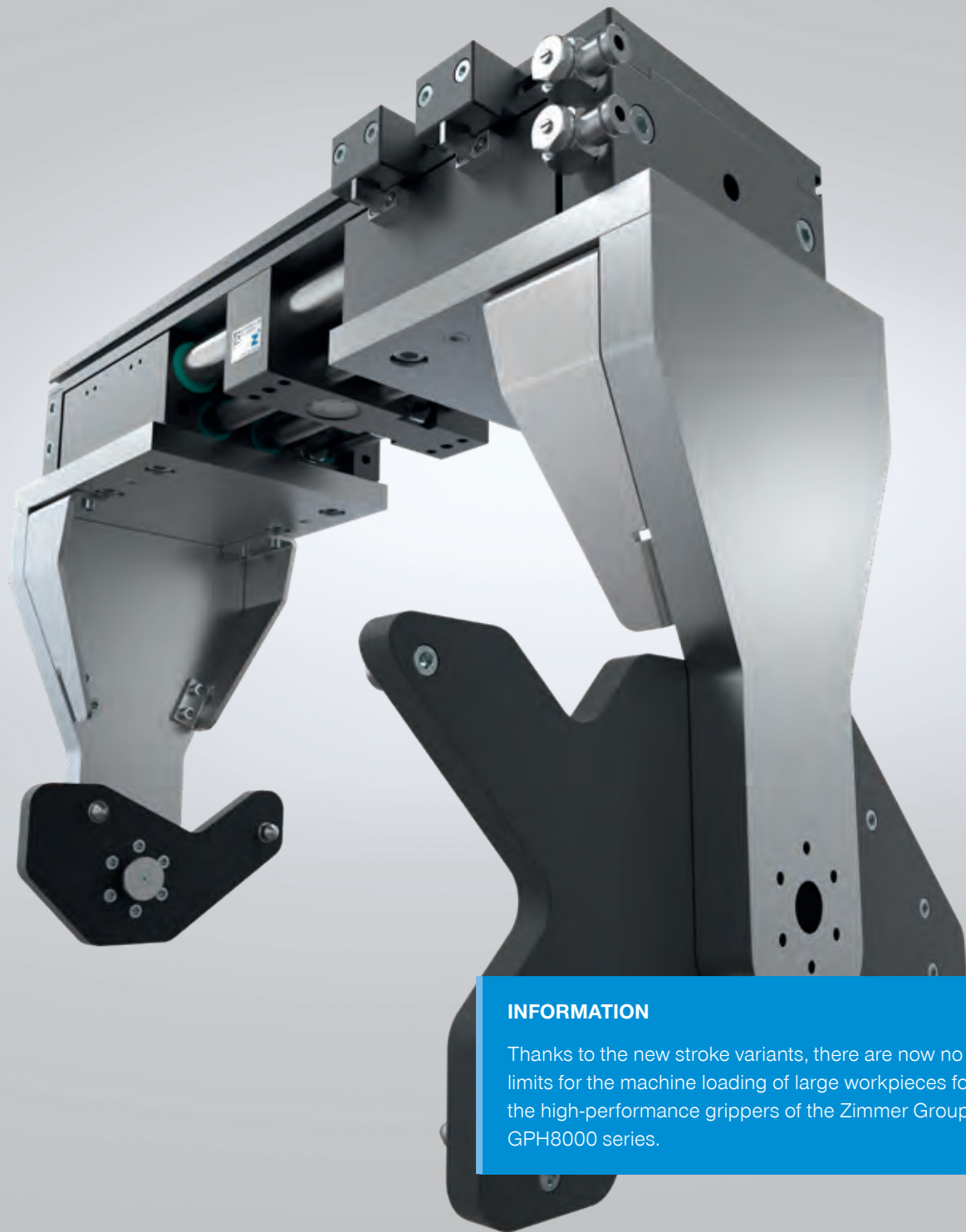
### TÜV-CERTIFIED

Clean rooms are divided into special clean room classes depending on the particle density and emissions. They are subject to strict, standardized requirements and are classified according to the degree of air purity. The maximum permitted particle concentration as well as particle size play a major role here. Clean rooms are divided into classes ISO 1 through 9, where purity class 1 represents the purest because it has the lowest possible particle concentration.

After undergoing successful certification processes, over 500 Zimmer Group grippers and clamping elements have been certified according to international standard DIN EN ISO 14644-1 for clean room classes between 2 and 6 thanks to their low particle emissions.



Series	► Technical data		
	Installation sizes	Variants	Clean room class
GEP2000	All	All	2
GEH6000	All	All	4
GED6000	All	All	4
MGP800	All	All	6
MGD800	All	All	6
MK	All	All	6
MKS	All	All	6
GPP5000	5003/5004/5006/5008/5010/5013/5016	-00	6
		-21	5
		-AL	4
GPD5000	5003/5004/5006/5008/5010/5013	-00	6
		-21	6
		-AL	4



#### **INFORMATION**

Thanks to the new stroke variants, there are now no limits for the machine loading of large workpieces for the high-performance grippers of the Zimmer Group GPH8000 series.

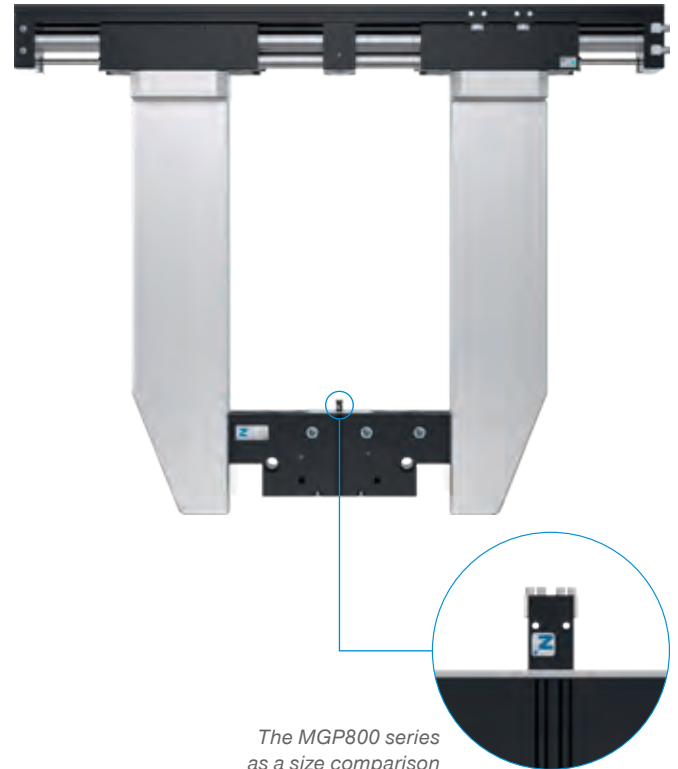
# SIZE ADDITION

## GPH8000 SERIES

### ENLARGED STROKE

The high-performance grippers of the GPH8000 series now come with a new stroke variant. With a stroke of 220 mm per gripper jaw and a gripping force of 3300 N, there are no limits to the machine loading of large workpieces. The grippers of the new variant can be equipped with gripper fingers with a total weight of 90 kg as well as a maximum length of 900 mm.

In the standard version, they are equipped with wipers on the round guide, corrosion protected and optimally sealed with IP54 protection. Despite the flat design, the Zimmer Group grippers are simply unbeatable when used in the harshest environmental conditions thanks to their durability and torque load.



*The MGP800 series  
as a size comparison*

### INSTALLATION SIZE GPH84220

Order No.	▶ Technical data		
	GPH84220N-00-A	GPH84220CL-00-A	GPH84220CL-30-A
Synchronized gripper finger	Yes	Yes	
Position retention by means of clamping elements		Yes	Yes
Stroke per gripper jaw [mm]	220	220	220
Gripping force during closing / opening [N]	3,300/3,300	3,300/3,300	3,300/3,300
Max. length of gripper fingers [mm]	900	900	900
Protection class in accordance with IEC 60529	IP54	IP54	IP54

SUITABLE FOR  
CLEAN ROOM  
**CLASS 6**  
Certified in accordance with  
DIN EN ISO 14644-1



#### **INFORMATION**

The efficient 2-jaw parallel grippers of the MGP800 series guarantee up to 10 million cycles without maintenance – for optimal, failure-free continuous operation.

# EXPANDED ACCESSORIES

## MGP800 SERIES

### SIMPLIFIED INSTALLATION

The MGP800 series with its efficient 2-jaw parallel grippers now has some expanded accessories. The new L-shaped jaws can now be used for an easier connection to your individualized, specific gripper fingers, which ensures fast

and easy side installation. The highest absorption of force and torque enables flexible use with the highest dynamics, while the weight and force optimization lowers the costs of your application since all components have a smaller scale.





**MATCH**

#### **INFORMATION**

Standardized ready-to-connect solutions enable a high degree of compatibility. One MATCH robot module for the entire spectrum of compatible end effectors.

# TWO STRONG PARTNERS – ONE UNIQUE PLATFORM

## MATCH

Equipped with an extensive range of functions and universal communication interfaces, MATCH is compatible with all common lightweight robots on the market – an ideal system for cobots and conventional 6-axis robots.

## APPLICATIONS AS VARIED AS THE SYSTEM

Whether mobile and collaborative robotics or fully automated applications: Just one flexible system gives the user access to a nearly unlimited range of uses from production and installation to warehouse logistics, shipping and even laboratory automation.

Typical tasks for the system include pick-and-place, order picking, packaging and palletizing, checking and testing. Various mechanical and vacuum grippers can be selected corresponding to the workpiece and handling task. If the requirements change, the system can be quickly and easily adapted.



*MATCH components can be  
recognized by this logo  
in the future.*



### **Standardization of the robot interface**

One robot module – the entire spectrum of compatible end effectors. Regardless of whether cobots, lightweight robots or conventional robots.



### **Easy installation – Plug & Work**

Simplified machine communication thanks to the required communication parameters.



### **Flexible**

Direct control and monitoring of robot functions using a software solution.



### **Complex robot applications**

Can perform various tasks on a workpiece via automated end effector replacement.

# ANY ROBOT, ANY GRIPPER, ANY END EFFECTOR

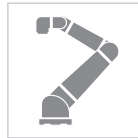
## COMPATIBILITY WITH ALL COMMON ROBOTS

The MATCH portfolio opens up countless application options in all industries. Regardless of the toolkit solution that you choose, we promise: It's a MATCH.

The seamless interaction between the robots and the grippers is guaranteed by the smart connection concept.

### Robot

Appropriate for all common lightweight robots – an ideal system for cobots and conventional 6-axis robots.



### Communication module for IO-Link module

SCM is not required for robot modules with a digital I/O. SCM is integrated in the RS485 quick-change module.



### Robot module (top)

Digital I/O, IO-Link, RS485



### MATCH gripper (bottom)

The portfolio is continually being expanded with compatible gripper components.



Vacuum generator / Gripper components (vacuum)



# QUICK-CHANGE FUNCTION

## MANUAL AND AUTOMATED

### FAST, CONVENIENT EXCHANGE

The compact quick-change module provides two quick and easy ways to swap a component. In addition to an automated exchange in a storage station, known as the gripper station, exchanging by hand is also possible within seconds. Thanks to the ergonomic click system – integrated on the end effector being changed – it is possible to carry out a manual change with just one hand. At the same time, this prevents the exchange module from falling.

### FULL PROCESS CONTROL FOR ANY APPLICATION

MATCH guarantees full support and process control – from commissioning to ongoing operation and process monitoring. Digital services such as HMI functions for setup and operation, collection of process data / condition monitoring, evaluation and visualization and cloud connection offer added value in all phases of the product life cycle.

### STANDARDIZED INTERFACES

The quick-change system features various interfaces. Alongside a compatible mechanical interface and a pneumatic connection, electrical connections are also available. This variety of technological options makes it possible to use many different robot types with a wide variety of end effectors.



*Learn more about our  
MATCH quick-change system*



### INFORMATION

Communication takes place entirely autonomously via the teach panel. guideZ for Robot stands for uncomplicated, fast and interactive programming.

# guideZ FOR ROBOT

## AUTONOMOUS COMMUNICATION

### INTERACTIVE PROGRAMMING

The Zimmer Group has developed a new innovation for existing platform-independent connections as well as for those of all leading robot manufacturers via a combination of SCM and the ComfortApp. Communicating with your products via the robot module using an external HMI on a laptop is no longer necessary because, thanks to guideZ for Robot, communication can now be done autonomously via the teach panel.

Your grippers no longer have to be set up via a network interface using a laptop. This can now be done directly from the panel via the robot's own interface. This increases not only efficiency, but also enables programming and parameterization without extensive programming knowledge.

Thanks to the upgrade to existing Zimmer Group programs, the hardware, electric grippers and the ComfortApp remain unchanged. Your robot applications can be put into operation easily using the included programming tools from the Zimmer Group. The ComfortApp ensures uncomplicated and fast commissioning and enables easy gripper control, operation and parameterization.





#### **INFORMATION**

A wide variety of tools can be used with the open system of the FWR series. Tempered steel ensures an exceptionally long service life.

# AUTOMATIC TOOL CHANGER

## FWR SERIES

### MAXIMUM FLEXIBILITY

The new FWR series of automatic tool changers operates entirely without external control. In interaction with the storage station, this reliable quick-change system is actuated mechanically during retraction. As a result, no additional power supply is required for the change operation. The tool changer itself is only displayed via the robot movement and locked via the slide located in the loose part. Along with the air and vacuum transmission, a large application area results

from the two mountable energy elements. A manual tool change can be done with just one hand because all connections are on one side. If required, an additional safety function enables a change to be performed only via the storage station by loosening two screws. The possible applications range from an occasional manual change to use in fully automated robot cells.



### FWR SERIES

	► Technical data			
Order no. (stationary part)	FWR40F-00-A	FWR50F-00-A	FWR63F-00-A	FWR80F-00-A
Order no. (loose part)	FWR40L-00-A	FWR50L-00-A	FWR63L-00-A	FWR80L-00-A
Connecting flange in accordance with EN ISO 9409-1	TK40	TK50	TK63	TK80
Pneumatic energy transfer [number]	4	4	4	4
Max. handling weight [kg]	13	16	20	29
Max. tool weight [kg]	5	7	10	12



#### **INFORMATION**

The new axis compensation module of the ZR1000 series can be combined with the XYR series. The same installation sizes as well as similar forces and torques unite to provide an ideal axis compensation in the X, Y and Z direction.

# NEW AXIS COMPENSATION MODULE

## ZR1000 SERIES

### COMPENSATION IN Z DIRECTION

The new ZR1000 series enables axis compensation in the Z direction. This axis compensation is used, for example, in joining processes. The joining forces can be adjusted to the application depending on the set pressure. With a stroke of 8 mm to 20 mm, the new ZR1000 series is also suitable for

handling tasks such as machine equipping or pick & place. The steel-on-steel construction of the integrated needle guide enables the handling of high forces and torques, a long service life as well as the highest level of precision.



### ZR1000 SERIES

	▶ Technical data			
Order No.	ZR1040-A	ZR1050-A	ZR1063-A	ZR1080-A
Connecting flange in accordance with EN ISO 9409-1	TK40	TK50	TK63	TK80
Stroke in Z-axis [mm]	8	8	10	10
Holding force at 6 bar [N]	250	500	1,000	1,500
Weight [kg]	0,5	0,7	1,1	1,8
Order No.	ZR1100-A	ZR1125-A	ZR1160-A	ZR1200-A
Connecting flange in accordance with EN ISO 9409-1	TK100	TK125	TK160	TK200
Stroke in Z-axis [mm]	15	15	20	20
Holding force at 6 bar [N]	3,000	4,500	6,500	11,500
Weight [kg]	3,1	5,1	8,8	13,8



#### **INFORMATION**

The CRR product series is employed directly on the robot flange and prevents collisions and/or damage to your tool or workpiece due to compensation movement.



# NEW COLLISION PROTECTION

## CRR SERIES

### PROTECTION AGAINST COLLISIONS FROM ANY DIRECTION

In case of a collision, the new CRR product series provides practical collision protection and can prevent damage to your tool or workpiece by permitting a compensation movement in multiple directions. This deflection triggers a signal that can be used in the control system to initiate the emergency stop. The advantage the new CRR series has over the current CSR series is an automatic return feature. Here, a spring-supported pneumatic piston returns in order to continue with the process after a collision.

### HIGH-PERFORMANCE AND VERSATILE IN USE

The technical specifications are an additional highlight. Compared to the benchmark, the CRR series offers a larger compensation stroke or compensation angle with similar installation space, providing added safety for your application. The maximum forces and torques that can be withstood are, on average, around 30% higher than the benchmark,

Then, the connecting flange for the tool is brought back to the starting position – no matter from which orientation and position. This makes it possible to get a system back up and running from a safe distance, without getting close to moving parts. This is also an advantage when entering the system is not desired, not safe or is possible only with difficulty. In any case, you can continue working in almost no time!

making even smaller components suitable for high handling weights. Despite its rugged and high-performance design, the CRR series is also suited to sensitive applications. By setting the applied air pressure, you can directly affect the forces and torques at which the collision protection is triggered.



#### INFORMATION

Using IO-Link Wireless, external cabling is a thing of the past. The movability of your handling tasks is unrestricted and mechanical obstacles as well as interference contours are avoided.

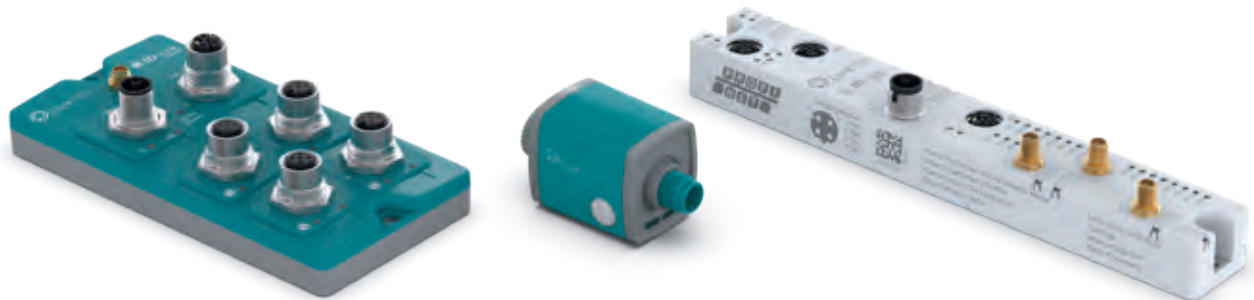
# WIRELESS COMMUNICATION

## IO-LINK WIRELESS

### INDEPENDENT, SCALABLE, RELIABLE

The standardized, Wireless IO-Link communication model ensures interference-free and reliable communication, entirely without external cabling. Thanks to this concept of standardized communication, all Zimmer Group IO-Link gripper components can be used. Because of the modular design and different variants, this technology can be used with various robots and systems, completely independent of

the structure or base. The voltage supply is provided either via an independent energy source or directly by the robot as well as the machine and can also be buffered if needed. In this configuration, information passes wirelessly from the gripper to the robot control system – effortlessly, interference-free and reliably.





#### **INFORMATION**

Due to the superior technology of the spiral groove, very high energy absorption can be achieved in the smallest of spaces while providing precise, low-vibration damping at the same time.

# SUPERIOR TECHNOLOGY IN PERFECTION

## POWERSTOP INDUSTRIAL SHOCK ABSORBER

### SPIRAL GROOVE TECHNOLOGY

The unique spiral groove technology is a defining feature of PowerStop industrial shock absorbers. In contrast with conventional industrial shock absorbers with throttle bores, the constantly tapering spiral groove causes precise, low-vibration damping absorption. The PowerStop industrial shock absorber achieves maximum energy absorption with the smallest installation space through optimal utilization.

### NEW ADJUSTABLE ENERGY SERIES – THE ADJUSTABLE ABSORBERS

The new Adjustable Energy series makes it possible to achieve infinitely adjustable – and thus ideal - energy absorption settings in the damping process. In addition to the normal stroke version, it is also available in a long-stroke version whose adjustability further increases the benefit of extremely smooth damping.

### PRODUCT FINDER

There are several ways to find the right industrial shock absorber for your own application. One fast and easy option is to use the online Product Finder from the Zimmer Group. This convenient tool allows users to make well-founded selection decisions quickly and combines calculation, selection guide and configurator functions in one tool. Using this software, users can not only perform all of the required calculations, they can also make an informed selection from the product range based on this data and supplement the selected dampers with additional accessories.



*Give our Product Finder from  
our shock absorber area a try*



#### **INFORMATION**

The new electro-pneumatic unit provides pneumatic driving force at the most remote locations and can actuate several products independently of each other.

# ELECTRO-PNEUMATIC UNIT

## PRODUCT LAUNCH

### INDEPENDENT

Our components are used in some of the most remote places and tackle the most diverse requirements. Sometimes in systems and equipment without a pneumatic supply, as is often the case in medical technology and driverless transport systems.

Our clamping and braking elements in particular provide high clamping forces with a low volume consumption and clamp just like our grippers or zero-point clamping systems as an NC variant when there is a pressure drop. The system bleeds as fast as lightning when the power fails thanks to our proven, integrated quick exhaust valve. Therefore, our electropneumatic unit enables the use of cost-efficient elements in systems without large pneumatic units.

### LIGHT & COMPACT

At the same time, this light and compact unit can be positioned close to consumers, thus enabling very fast opening and closing times. Thanks to the simple control and 24V technology, our product is predestined for mobile units with a battery supply, such as driverless transport systems. In addition, various process sequences can also be implemented thanks to the controllable valves.

### INTEGRATED SENSING AND EXPANSION

The unit is specially optimized to our components with low air consumption and enables optimized and energy-saving use thanks to a dynamic pressure setting. A pneumatic pressure of between 4 and 6 bar can be selected, which is then reliably regulated and maintained thanks to integrated sensing. If you upgrade to pressure storage, this can help to reduce the process time even further.

### DESIGN INCLUDED

When integrating the electro-pneumatic unit with our components, we would be happy to design the switching times. In addition, we can also calculate the braking distance for braking elements while taking your application data into account.





#### **INFORMATION**

The new DKHS1000 hydraulic clamping element series was designed for the highly rigid and precise fixing of rotation axes with high angle accuracy during torque absorption.



# ADDITIONAL SIZES

## DKHS1000 SERIES

### HIGH DYNAMICS AND LONG SERVICE LIFE – ADVANTAGES WHEN USED IN COMBINATION WITH TORQUE DRIVES

The DKHS1000 series can take advantage of the fast closing time of under 30 milliseconds, particularly when used in combination with high-dynamic torque drives. This ensures nearly 10 times faster closing times compared to pneumatic solutions.

### INNOVATIVE AND PROVEN OPERATING PRINCIPLES APPLIED IN A BENEFICIAL MANNER

Holding torques of up to 8000 Nm can be achieved when combined with the large piston surface area via the pre-loading of the housing material. Based on customer deployments, a B10d value of over 5 million cycles can be achieved under application conditions.

### ACCURACY AND HOLDING TORQUE FOR VARIOUS REQUIREMENTS

Holding torques are specified depending on the rigidity for an arcsecond when used in machining processes and for five arcseconds for the design of safety requirements.



Order No.	► Technical data	
	DKHS1240-00-A	DKHS1300-00-A
Holding torque 5" [Nm]	2,200	3,100
Holding torque 1" [Nm]	1,600	2,500
Shaft Ø [mm]	240	300
Min./max. operating pressure [bar]	100/110	100/110
Closing time [s]	0,03	0,03
Opening time [s]	0,05	0,05



#### **INFORMATION**

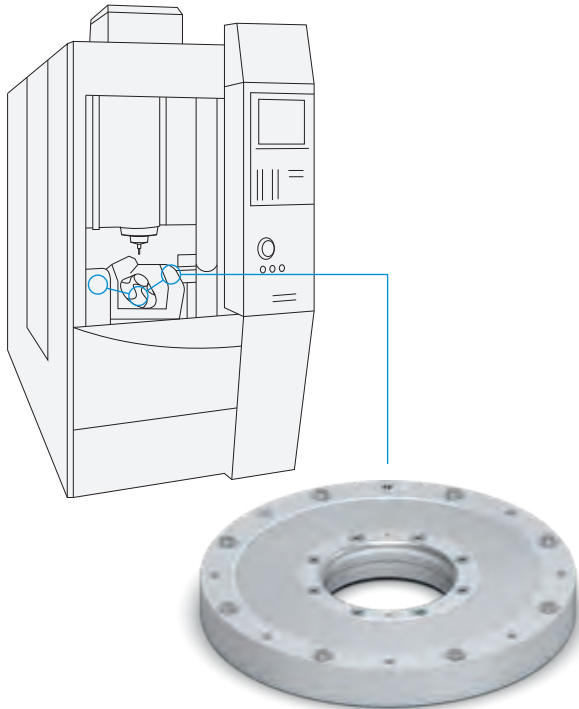
With the introduction of the pneumatic rotary clamps of the DKPS1000 series with digital sensing, the Zimmer Group rounds off its extensive product range of rotary clamps.

# PNEUMATIC ROTATIONAL CLAMPING ELEMENT

## DKPS1000 SERIES

### PNEUMATIC OR HYDRAULIC – THE CHOICE IS UP TO YOU!

Increased performance requirements in tooling machines and an increased degree of safety necessitate powerful and innovative solutions. Following the successful market launch and series end of our DKHS1000 series hydraulic rotary clamp, the DKPS1000 series with pneumatic control and digital sensing is here just in time for AMB.



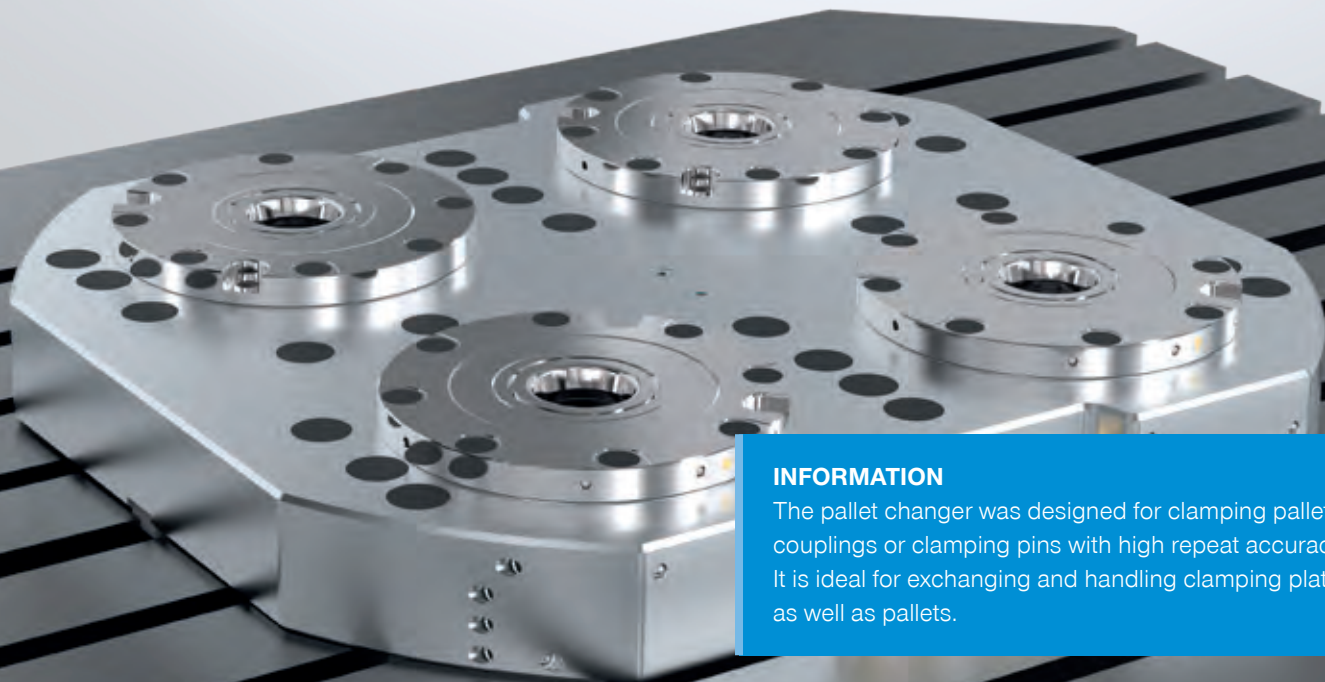
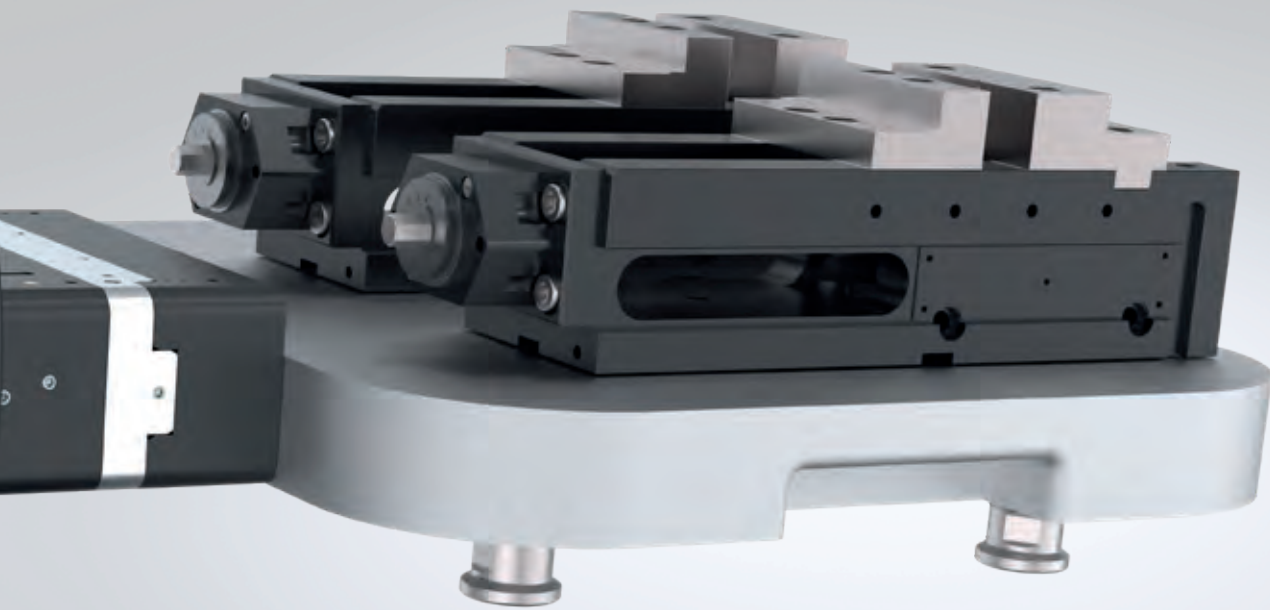
### SIMPLE STATUS SENSING

An efficient and fast process sequence is a requirement for all of our components, and the DKPS1000 is no exception to this. The DKPS1000 can make use of its full potential thanks to the optional digital sensing. Additional safeties for switching times are no longer required.

### HIGH HOLDING FORCES – WITHOUT ADDITIONAL AIR AND WITHOUT COMPROMISING CYCLE STABILITY

The new DKPS1000 series not only surpasses the non-pneumatized holding force of rotary clamps available on the market, it also features an increased service life compared to the benchmark. Both of these achievements equally ensure enhanced safety when it comes to safeguarding rotation and swivel axes. This also increases system availability.

- ▶ Torque absorption from shafts
- ▶ Safety clamping of the torque motor
- ▶ C-axis clamping
- ▶ Clamping and securing of swivel bridges
- ▶ Clamping of the spindle swiveling axes
- ▶ Clamping of the swiveling axis for portals



#### **INFORMATION**

The pallet changer was designed for clamping pallet couplings or clamping pins with high repeat accuracy. It is ideal for exchanging and handling clamping plates as well as pallets.

# PALLET CHANGER

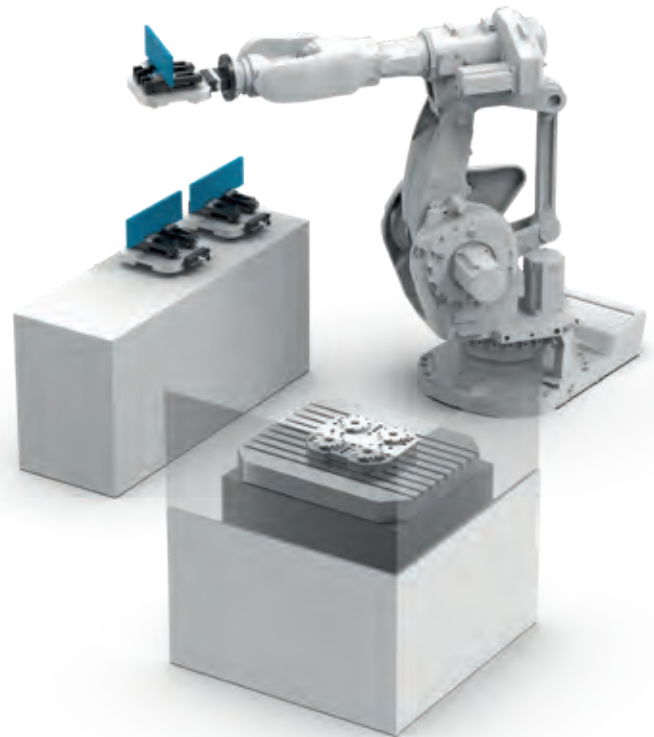
## PRODUCT LAUNCH

### SAFELY CLAMPED IN ALL AREAS OF USE

With the pallet changer, the Zimmer Group is expanding the zero-point clamping system product range. Along with changing pallets in tooling machines, it also offers numerous other applications, for example, the handling of components in portals or on robots with high repeat accuracy.

Because of the slim design and low set-up of the clamping plate and clamping pallets, you get both close-proximity pallet loading on the machine table as well as maximum use of the machine space.

High clamping forces create an extraordinarily rigid system, whose excellent holding force enables the highest torque as well as a highly precise connection between the robot and the clamping plate. This makes the handling of heavier pallets, in particular, easier and safer.



# ZERO-POINT CLAMPING SYSTEM

## SERIES OVERVIEW

### SPN ADVANCED SERIES – THE SUPERIOR

Unique in its form and composition, the zero-point clamping system of the Advanced series from the Zimmer Group offers a wide range of functions. This includes functions such as the PLUS connection, a pneumatic piston position sensor, a positioning check as well as the blow-out function of the pin opening and the contact surface cleaning.



### SPN STANDARD SERIES – THE ECONOMICAL

The Standard zero-point clamping system from the Zimmer Group concentrates on the essential with two integrated rotation locks. This means that basic functions such as unlocking and the PLUS connection, above all, are paramount. Form-fit locking is also achieved for this zero-point clamping system via clamping segments.

#### PRODUCT ADVANTAGES

- ▶ Locking by means of clamping segments
- ▶ PLUS connection
- ▶ Rustproof – tempered stainless steel
- ▶ Two integrated rotation locks
- ▶ Integrated positioning check
- ▶ Pneumatic piston position sensing
- ▶ Integrated blow-out function
- ▶ Two connection options
- ▶ Optional automatic seal

#### PRODUCT ADVANTAGES

- ▶ Concentration on the basic functions
- ▶ Locking by means of clamping segments
- ▶ PLUS connection
- ▶ Rustproof – tempered stainless steel
- ▶ Two integrated rotation locks
- ▶ Optional automatic seal

# ZERO-POINT CLAMPING SYSTEM

## SHORT SET-UP TIMES, GREATER PRODUCTIVITY

### MAXIMUM REPEAT ACCURACY AND PRECISION

The zero-point clamping system features a repeat accuracy of 0.005 mm thanks to its sophisticated design. The system provides a high-precision, torsion-resistant base due to its high clamping forces and the consistent use of tempered stainless steel. This helps to stabilize parts that tend to vibrate.

### INCREASED PROCESS RELIABILITY

The zero-point clamping system reduces errors during milling, rotating, wire or die eroding, drilling, laser cutting and measuring. The maintenance-free design also contributes to superior process reliability.

### INCREASED PRODUCTIVITY

Thanks to process automation, this zero-point clamping system combines productivity with the highest precision. In addition to a minimum cleaning and maintenance effort, the machine setup times of the system are also reduced by up to 90%. Several sequential workpiece clamping processes are linked in various machining cells and can be equipped with identical clamping system geometries, this allows you to exploit synergy effects that have been left unused until now. The component carrier with the zero-point clamping system ensures the highest precision and cost effectiveness while accompanying the finished part on its way through the machining process.

Scan here for our new  
SPN catalog as a download





**INFORMATION**

The water-cooled HF125-002 motor spindle series is used for processing workpieces made of wood, plastic, light metals or composites. Thanks to IO-Link communication, you also have the option of using condition monitoring and predictive maintenance.



# EXPANDED PRODUCT PORTFOLIO

## ZIMMER GROUP MOTOR SPINDLES

### WINNER IN ALL (PERFORMANCE) CLASSES

The motor spindle is one of the essential components of a tooling machine, milling center or robot-based end-of-arm solution. The mechanically integrated motor solutions are extremely compact, highly productive and achieve maximum stiffness, which is required for the highest speeds and precise rotation. The Zimmer Group offers you the perfect product range for this.

Whether you are looking for a motor spindle for use in milling machines or machining centers, you will find economical standard motor spindles, air-cooled spindles in the low and medium performance ranges, fluid-cooled high-performance spindles and, of course, the matching accessories from inverters to cooling units, C-axes and connection sets in our various spindle kits.

### PRODUCT ADVANTAGES

- ▶ Air and water-cooled high-frequency spindles in various power ranges
- ▶ Support for topics such as power dimensioning, energy supply, cooling and integration into the control system or service
- ▶ Repair and on-site service by knowledgeable personnel
- ▶ Spindle IO-Link communication module enables condition monitoring and predictive maintenance
- ▶ Extremely high reliability, high power density and broad compatibility



Scan here for our new  
motor spindle catalog as a download



#### **INFORMATION**

Reliable interface between robot and motor spindle – the new pneumatic robot changing unit of the WWS series is specially adapted to the motor spindle and can be retrofitted later if required.

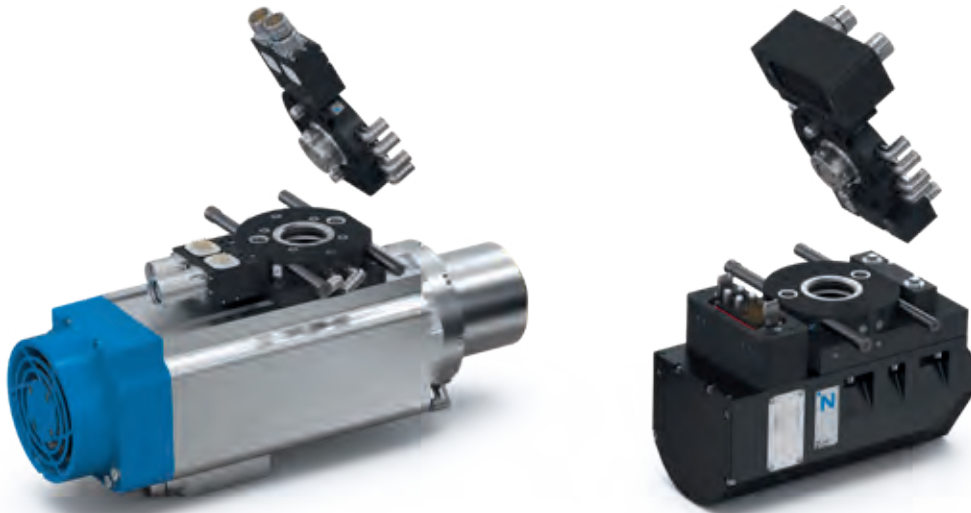
# NEW TOOL CHANGER

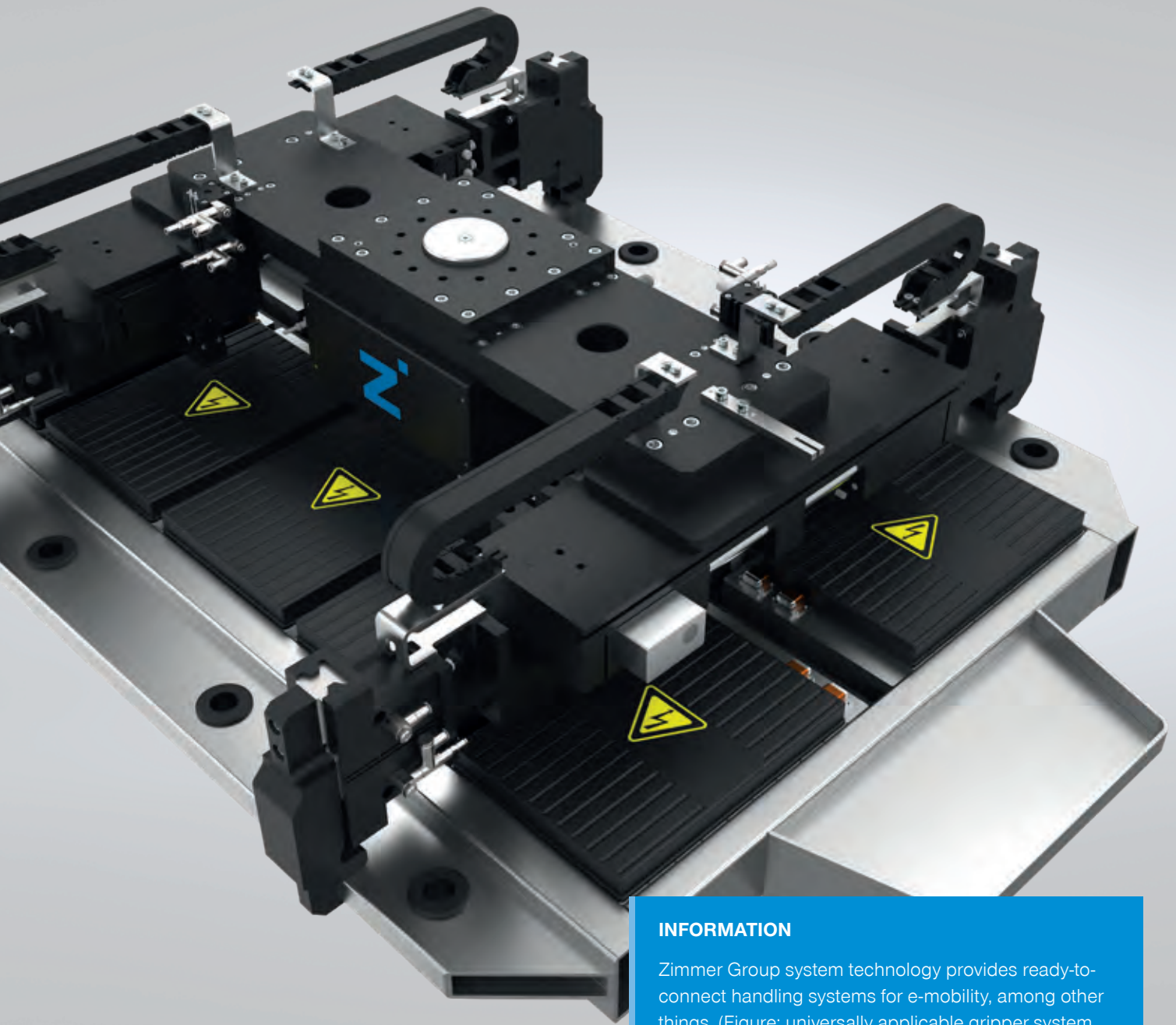
## WWS SERIES

### OPTIMAL COORDINATION

With the WWS series, the Zimmer Group offers the right changing unit for robots and optimally expands the modular construction system of motor spindles. The changing unit for robots includes a suitable storage station and is specially designed for the motor spindle. It can also be installed later if needed, which would enable an automatic spindle change. Specially designed robot changing units are available for

motor spindles that are designed for use with robots. The robot changing units provide a reliable interface between the robot and motor spindle. The loose part is attached to the motor spindle, while the stationary part is mounted at the end of the robot arm. A storage station is supplied to set the motor spindle aside when it is not being used.





#### INFORMATION

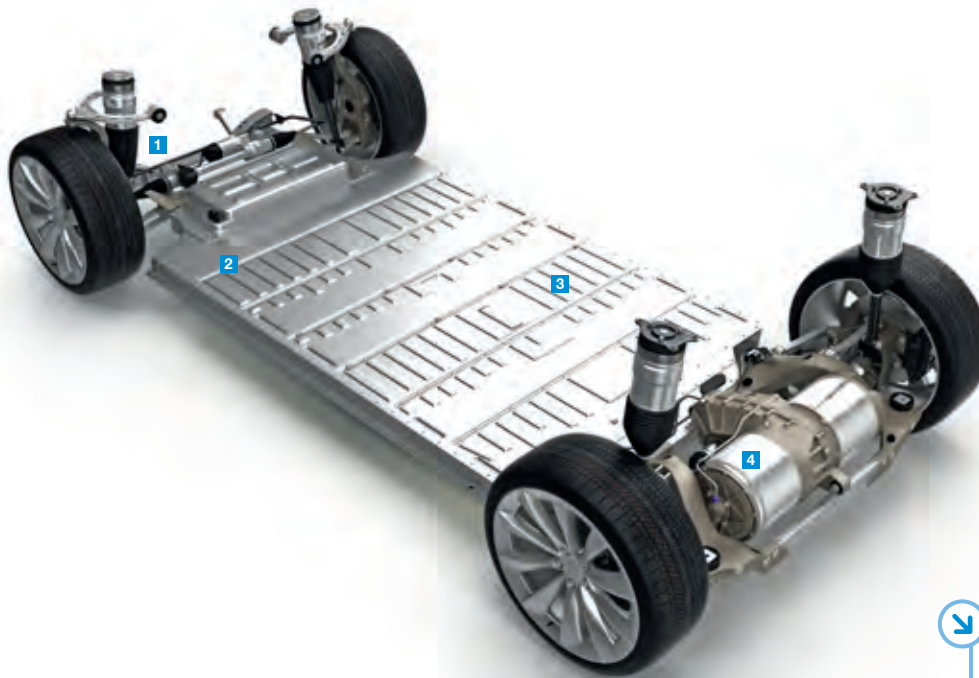
Zimmer Group system technology provides ready-to-connect handling systems for e-mobility, among other things. (Figure: universally applicable gripper system for battery packs with a handling weight up to 600 kg).

# EOAT SOLUTIONS FOR ELECTROMOBILITY

## YOUR PARTNER IN ALL AREAS OF E-MOBILITY

The production of electric vehicles imposes new requirements on production technology. Producing battery cells and packages economically is an important factor in ensuring that this market can grow successfully. For this purpose, a high degree of automation – as it already exists today in engine production – is absolutely critical. The competition for the

best production technology has been underway for quite some time. Zimmer Group is a development and system partner to many major-name premium manufacturers in battery production, module assembly and electric motor production.



- 1 Steering gear assembly
- 2 Battery module assembly
- 3 Battery pack assembly
- 4 Rotor assembly / stator assembly



*Further insights into our system  
technology can be found here*



#### **INFORMATION**

The Zimmer Group accompanies you from the concept phase to realization, while always striving to meet the high quality standards required for tire, wheel and rim handling.

# SYSTEM TECHNOLOGY

## TIRE, WHEEL, RIM HANDLING

### HANDLING SYSTEMS FROM THE EXPERTS

Tire manufacturing is a complex process with multiple steps. In times when the levels of automation are steadily increasing and thus should not be underestimated, the Zimmer Group is in a position to offer suitable handling applications for individual processes and production steps thanks to its

extensive portfolio. With experience in more than 35 projects, preliminary studies and 5000 development hours in the areas of tires, wheels and rims, the Zimmer Group has the required expertise in solving complex, manual tasks and putting them on the path towards automation.



*Here you can go to the  
System showroom*



#### **INFORMATION**

Although a virtual booth cannot fully replace a trade show for us, it can still play a crucial role in our dialog with customers and people who are interested in our products.



# PRODUCT WORLD AND INNOVATIONS AROUND THE CLOCK

## OUR VIRTUAL TRADE SHOW BOOTH

Visiting our virtual trade show booth can benefit you in many ways. Unlike at a visit to a trade show, there are no costs for you. There are no entrance fees, travel costs, hotel costs, etc. You can conveniently visit our virtual booth from your home

or office at any time, 24/7. Meet our employees in the digital world and ask questions easily and directly either online or with the contact form.

## TRADE SHOW TOURS

A visit to our virtual showroom is worthwhile any time. The following features are sure to impress you, even in virtual form:

- ▶ **Rotating booth.** Animated camera movements lead to our six technology areas and to our own business division.
- ▶ **Clickable hot spots and compact information.** All presented exhibits can be experienced digitally. Each features a content window with the particular product advantages for our products. Another click takes you to greater detail with additional images and data sheets. Need even more information? Our video presentation can help.
- ▶ **Exhibits impressively prepared in digital form.** There are rotatable 3D models of our products available that can be viewed from all sides.
- ▶ **Content available in many languages.** All information for our virtual booth can be accessed in Zimmer Group's communication languages of German, English, French, Italian, Polish, Slovak, Spanish, Chinese and Korean.



*Scan here to go to our  
virtual trade show booth*

# NOTES

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The contents and data correspond to the status as of printing, Edition 05/2023.

This brochure was created with great care and all information has been checked for accuracy. However, we assume no liability for incorrect or incomplete information.

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## ZIMMER GROUP – THE KNOW-HOW FACTORY

OUR KNOW-HOW FACTORY WORKS WITH ALL INDUSTRIES AND DELIVERS EVERYTHING FROM A SINGLE SOURCE. OUR PRODUCT RANGE IS FAR REACHING, BOTH IN ITS DEPTH AND ITS BREADTH.

DO YOU HAVE A DEVELOPMENT PROBLEM? WE'LL SOLVE IT! SET US A CHALLENGE IN RESEARCH AND DEVELOPMENT. COUNTLESS INNOVATIONS ORIGINATE FROM OUR COMPANY. WE ARE ENTHUSIASTIC ABOUT NEW PRODUCTS AND PRIDE OURSELVES ON OUR CORPORATE PIONEERING SPIRIT.

### CONTACT – WORLDWIDE

With our current 13 global subsidiaries and partners in over 125 countries, we offer the excellent service of a technology leader. We look forward to hearing from you!



[www.zimmer-group.com/en-us/contact](http://www.zimmer-group.com/en-us/contact)

### HERE FOR YOU 24/7/365 – OUR VIRTUAL TRADE SHOW BOOTH

With impressive features such as an animated camera flight, clickable information hotspots and 3D models that can be rotated, we guarantee that you will be thrilled—virtually.



[www.zimmer-group.com/en-us/expo](http://www.zimmer-group.com/en-us/expo)

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