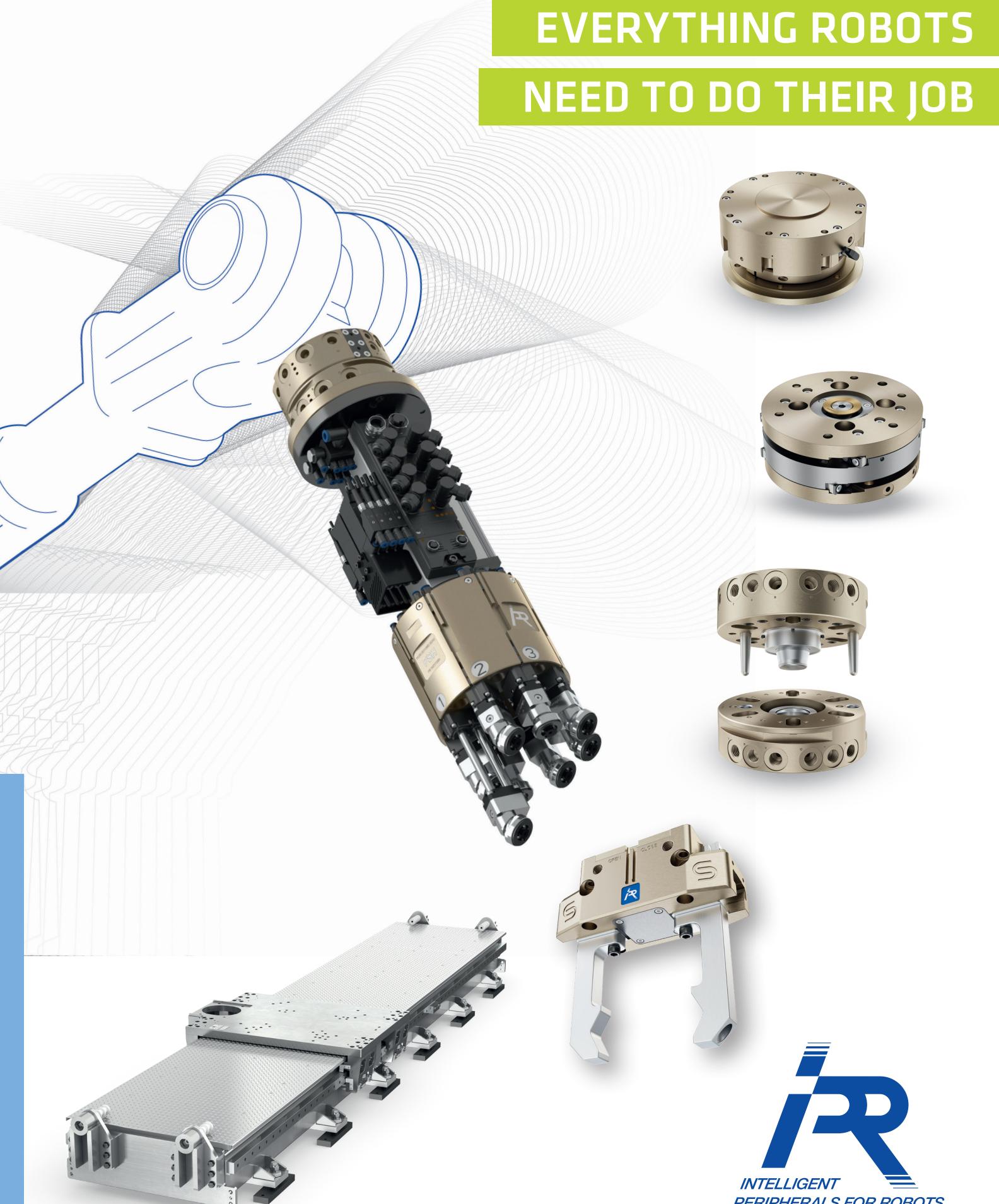


# PRODUCT OVERVIEW

EVERYTHING ROBOTS

NEED TO DO THEIR JOB



**IP**  
INTELLIGENT  
PERIPHERALS FOR ROBOTS

# IPR offers everything robots need to do their job

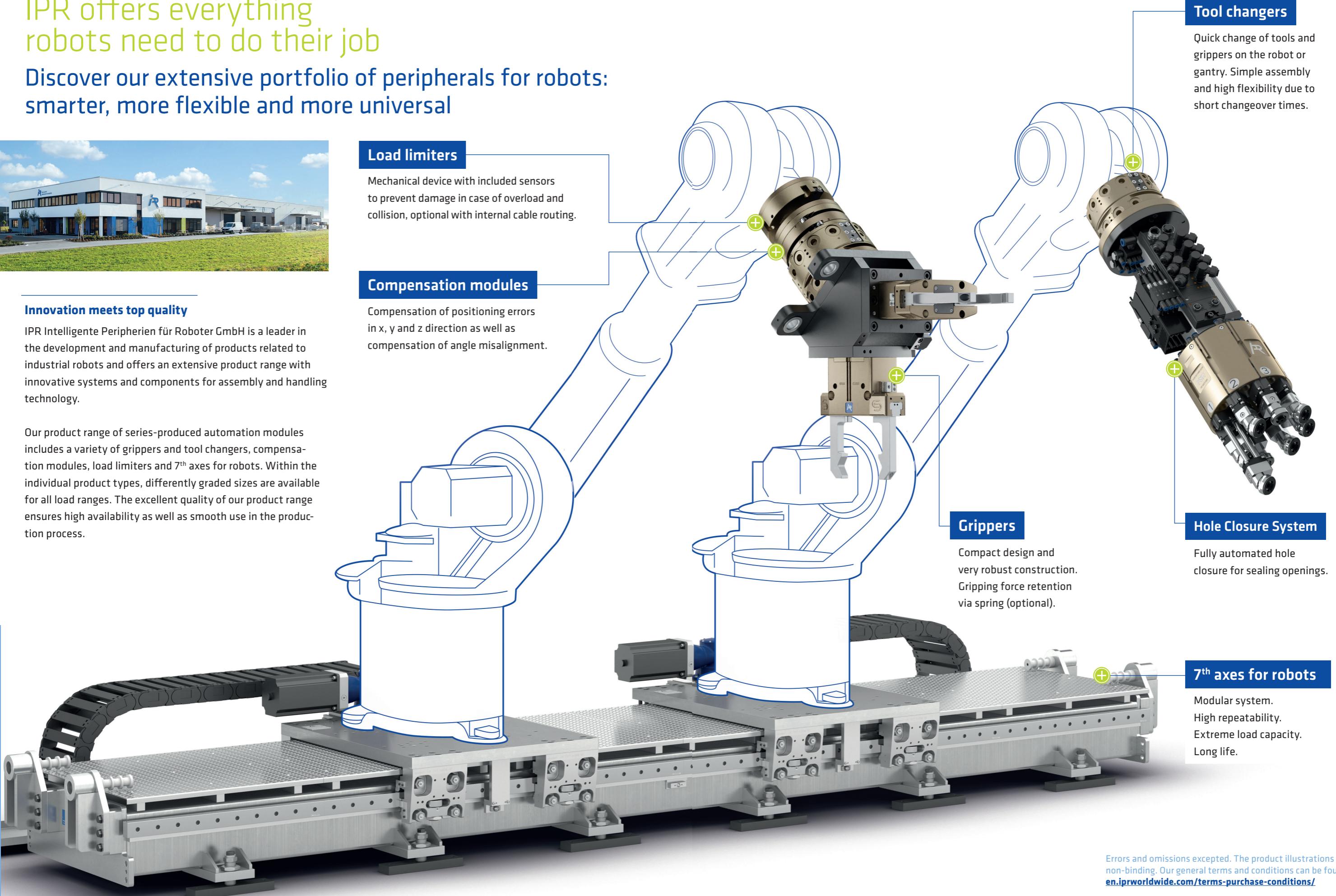
Discover our extensive portfolio of peripherals for robots:  
smarter, more flexible and more universal



## Innovation meets top quality

IPR Intelligente Peripherien für Roboter GmbH is a leader in the development and manufacturing of products related to industrial robots and offers an extensive product range with innovative systems and components for assembly and handling technology.

Our product range of series-produced automation modules includes a variety of grippers and tool changers, compensation modules, load limiters and 7<sup>th</sup> axes for robots. Within the individual product types, differently graded sizes are available for all load ranges. The excellent quality of our product range ensures high availability as well as smooth use in the production process.



Errors and omissions excepted. The product illustrations are non-binding. Our general terms and conditions can be found at [en.iprworldwide.com/terms-purchase-conditions/](http://en.iprworldwide.com/terms-purchase-conditions/)

# Grippers

For fast and precise gripping of workpieces of any shape, we offer various robot grippers. Whether parallel grippers with two or three jaws, angular grippers or the new hybrid gripper, we always have the right gripping solution for your application.

## Parallel grippers

CGS2 | IRP | MGS | RPW | RP

- Universal gripper for all load ranges
- Optional: gripping force retention
- Variants: dust cover (IP64) and high temperature

- + Payload from **0.1 to 95 kg**
- + Gripping force up to **30,000 N**
- + Total stroke from **1.5 to 114 mm**



## 3-jaw grippers

CGS3



- Perfectly suited for gripping round components
- High number of variants
- Optional: gripping force retention and dust cover (IP64)

- + Payload from **0.1 to 35 kg**
- + Gripping force up to **16,000 N**
- + Per-jaw stroke from **2.5 to 25 mm**

## Angular grippers

WGS



- Developed for rapid gripping of various components
- Durable, robust construction
- Optional: gripping force retention and stroke limitation

- + Payload from **0.1 to 8 kg**
- + Gripping torque up to **437 Nm**
- + Opening angle (total): **30°**

# Tool changers

Our tool changers enable safe and fast changing of tools on the robot or gantry for various applications. By automating the changing process in conjunction with modern sensor technology, you can minimize downtimes and increase your productivity.

## Modularity taken to the limit

TKP | TKM | TKE | TKT

- ToolChanger<sup>3</sup> – unique modular system
- 3 drive technologies on the robot side and compatible with uniform tool side
- Extensive accessories and up to 5 mounting surfaces for transmission modules

- + Handling weight from **0.1 to 800 kg**
- + **4 to 16** internal feed-throughs
- + Up to **15,000 Nm** bending moment



## The compact standard

TK



- Compact dimensions
- Integrated storage groove
- Standardized ISO flange

- + Payload from **0.1 to 800 kg**
- + **5 to 13** internal air ducts
- + Up to **15,000 Nm** bending moment

## The modular heavyweight

TK-SQ



- Double safety locking
- Modular design with countless configuration options
- Online configurator enables self-service configuration

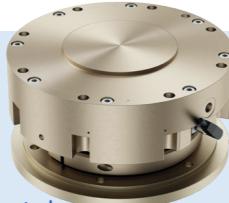
- + Payload from **0.1 to 1,250 kg**
- + Up to **10** transmission modules per tool changer
- + **Sensors** integrated as standard

# Load limiters

The load limiters protect your high-quality tools and workpieces from damage and excessive wear. Integrated sensors detect a deflection of the mounted tool which stops the movement of the robot or gantry.

## Load limiters

ULS

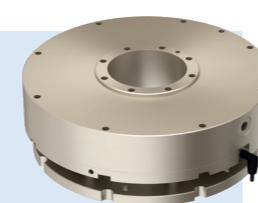


- Prevents damage when a collision is detected
- Stops the robot in case of mechanical overload
- Adds a level of security to complex applications

- + Payload from **0.1 to 120 kg**
- + Continuously adjustable overload threshold up to **17,910 N**
- + Variants: anti-rotation, spring reinforcement

## Load limiters with center hole

ULD



- Integrated cable through-feed
- Anti-rotation system integrated as standard
- Protects tool and robot

- + Payload from **0.1 to 120 kg**
- + Diameter of center hole up to **95 mm**
- + Simple manual reset after collision

# Compensation modules

With our compensation devices, you prevent jamming of workpieces and reduce wear on the robot and tool. This enables reliable compensation of tolerances in the X, Y and Z directions as well as in the direction of rotation and tilting.

## Compensation modules

FM | KA | RT | ZN



- Compensation in X/Y direction
- Reduced wear of robot and tool
- Prevents jamming and tilting of workpieces

- + Payload from **0.1 to 800 kg**
- + Compensation in X/Y direction up to **±25 mm**
- + Very smooth-running compensation in X/Y direction

# Industry-specific solutions

In addition to over 30 years' expertise in providing standardized products, components and services to the automation, assembly and handling industries, we also excel at providing customized solutions to those industries. Our customers come from a wide range of industries and rely on our special quality, decades of practical experience in development and production, and special know-how of work processes.

## Hole Closure System PSH-Infinity I PSH-Compact



To automate the closure of holes on your car body, we offer smart solutions: With our applicators, we seal holes using adhesive pads or plugs.

- + Pure setting time approx. 2 s
- + Different pad diameters
- + Repeat accuracy  $\pm 2$  mm (ISO 9283)

## Seam sealing



To use a variety of different nozzles while still saving costs, we have developed a suitable nozzle-changer.

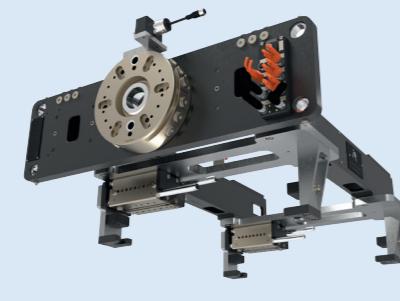
- + Special nozzle changer for NAD applicators
- + Accessories: storage with locking and presence control for locking status
- + Use of high-viscosity materials such as PVC

## Special gripper technology

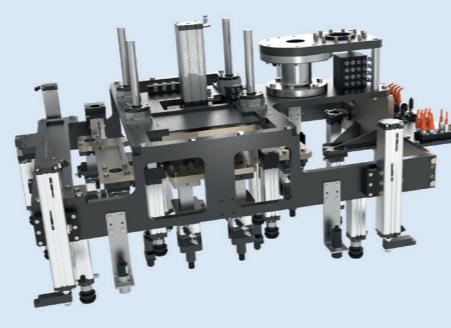
### Foundry I Forge I Automation

- Customized gripper systems
- Reliable and precise deployment
- Compatible with all robot manufacturers

- + Temperature resistant
- + Robust
- + Resistant to dirt



Core extraction gripper



Core gripper

## Cavity Preservation DMK I DLK I DWK I DDK



In the field of cavity preservation, we offer a diverse selection of innovative technologies to protect your car body.

- + Methods: spraying, fogging, and Air-Mix/Air-Less
- + Spray fogging with a droplet diameter of  $< 15$   $\mu\text{m}$
- + Seam and surface coating in one process

## Drop-on-demand (DoD)

### ACCURA



Thanks to the Drop-on-Demand process, you can coat your components without generating overspray.

- + Overspray-free application
- + Efficiency: 100%
- + Viscosity up to 30,000 mPa.s

# 7<sup>th</sup> axes for robots

The 7<sup>th</sup> axes of IPR reliably and efficiently expand the working ranges of industrial robots in all industries. Whether it's a small cobot, a medium-sized industrial robot or a large heavy-duty robot – we have the right 7<sup>th</sup> axis solution for every application.

## Aluminum and steel axis ①

- Aluminum and steel travel axis
- Modular design, adaptable to customer requirements
- Highest precision
- Fully walkable and expandable

- + Travel speed up to 3 m/s
- + Load capacity up to 150,000 N
- + Tilting moment up to 355,000 Nm

## Concrete axis ②

- The world's first composite concrete travel axis for robots
- Up to 6 dB quieter\*
- Particularly space-saving
- Up to 5x more torsion stiffness\*

- + Travel speed up to 3 m/s
- + Load capacity up to 50,000 N
- + Tilting moment up to 80,000 Nm

## Hybrid axis ③

- High load capacity meets significantly reduced vibrations
- Steel ladder frame structure pourable with concrete
- Significantly less vibrations\*

- + Travel speed up to 3 m/s
- + Load capacity up to 75,000 N
- + Tilting moment up to 155,000 Nm

\*compared to aluminum or steel 7<sup>th</sup> axis

1

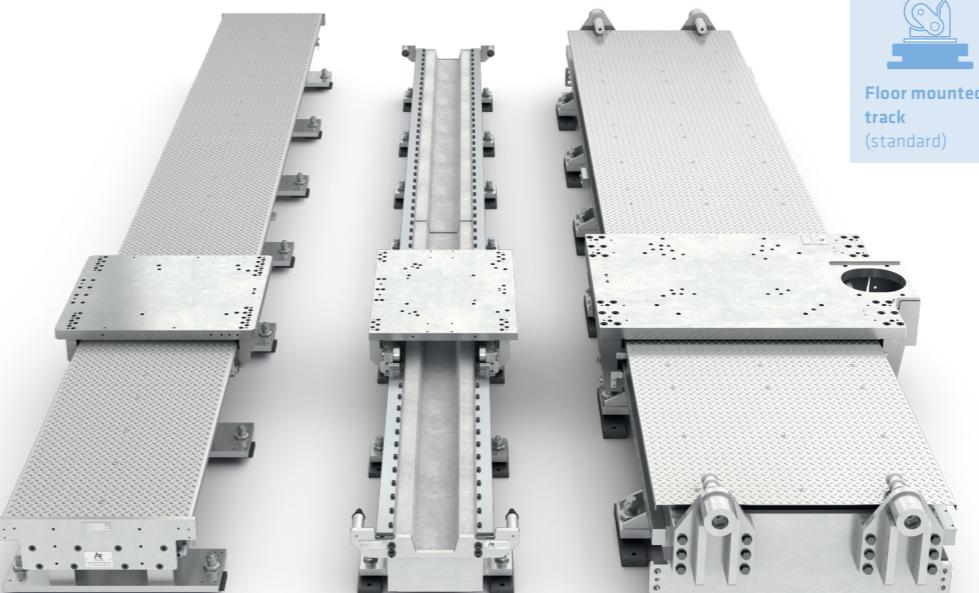
IP-180-RA

2

RC-1000

3

IP-300-BH



## Individual advice

We will be happy to advise you on all aspects of our components and technologies. Benefit from the many years of experience of IPR consultants.



## CONSULTING



## QUOTING & PROJECT PLANNING



## ENGINEERING AND DESIGN



## MANUFACTURING



## ON SITE SERVICE



## IPR Intelligente Peripherien für Roboter GmbH

Jakob-Dieffenbacher-Str. 4/2      T +49 7262 9239-100      info@iprworldwide.com  
75031 Eppingen | Germany      F +49 7262 9239-400      www.iprworldwide.com

## We are represented worldwide.



### USA

**IPR Robotics LLC.**  
50775 Wing Drive  
Shelby Township  
MI 48315, USA  
T +1248 556-7556  
F +1248 556-7560  
[sales@iprrobotics.com](mailto:sales@iprrobotics.com)

### Mexico

**Intellum, S.A. de C.V.**  
Av. Central 206, 1er piso  
Col. San Pedro de los Pinos  
Del. Alvaro Obregon, CP 01180  
T +52 55 5668 6063  
F +52 55 5668 6079  
[info@iprmexico.com](mailto:info@iprmexico.com)

### China

**IPR China**  
Shanghai Representative Office  
No.526 Fute 3rd Road East  
Part 325, 3rd Floor, Building No.1  
Free Trade Zone (Shanghai), 200131  
T +86 136 81610583  
F +86 21 58769941  
[Nan.Haitao@iprworldwide.com](mailto:Nan.Haitao@iprworldwide.com)



You can find more contacts on our website:  
[en.iprworldwide.com](http://en.iprworldwide.com)