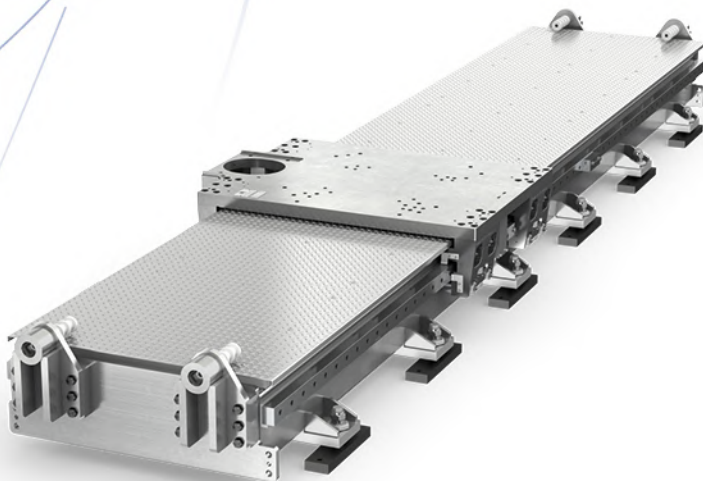
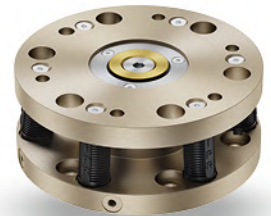
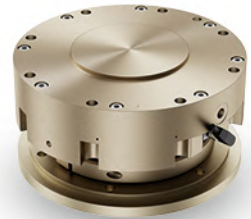
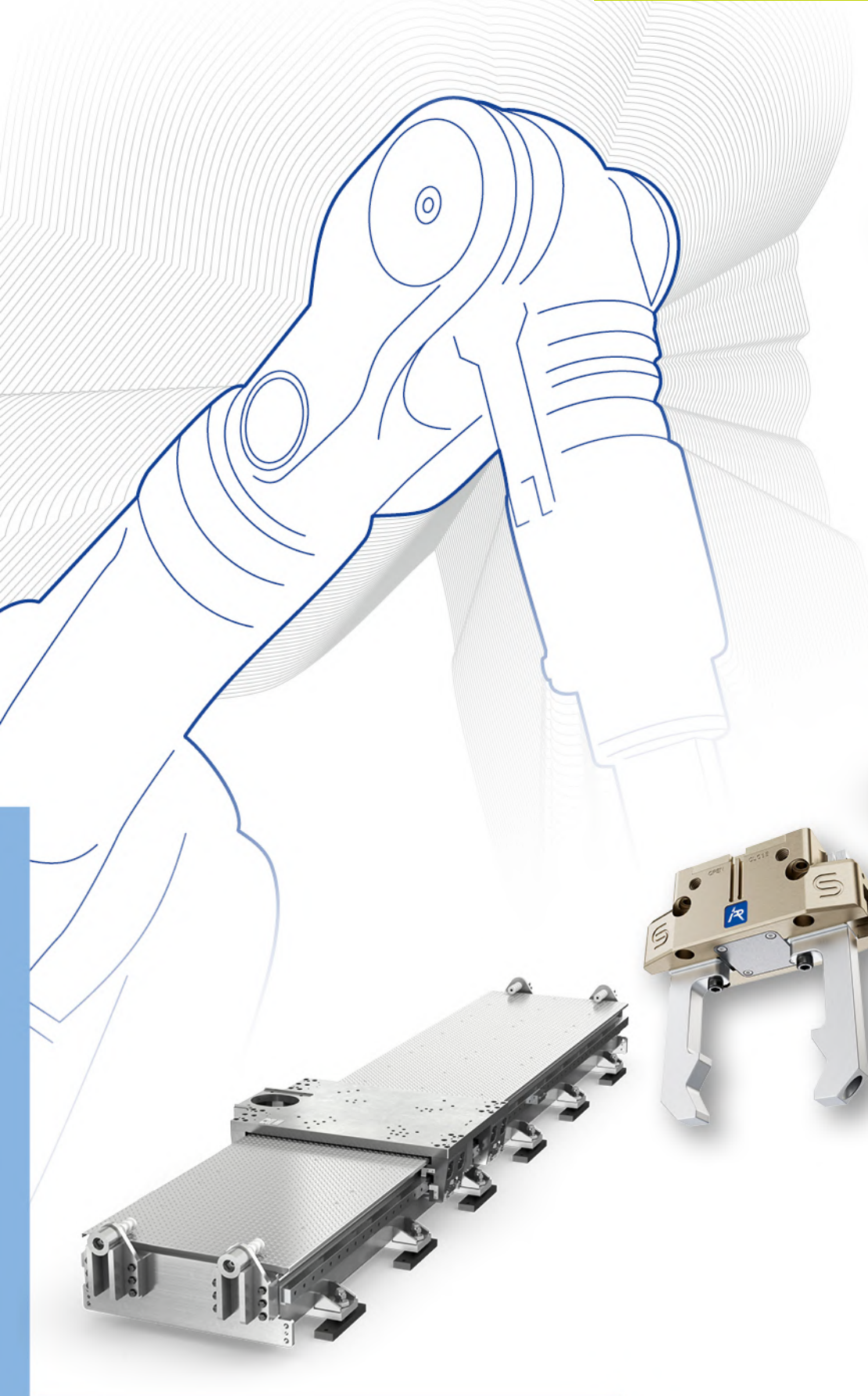


PRODUCT OVERVIEW

EVERYTHING ROBOTS

NEED TO DO THEIR JOB



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, force-torque sensors, load limiters and 7th 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.

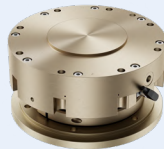
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Grippers



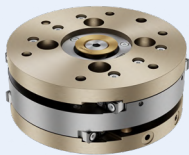
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Load limiters



2

Compensation modules



5

Force-torque sensors



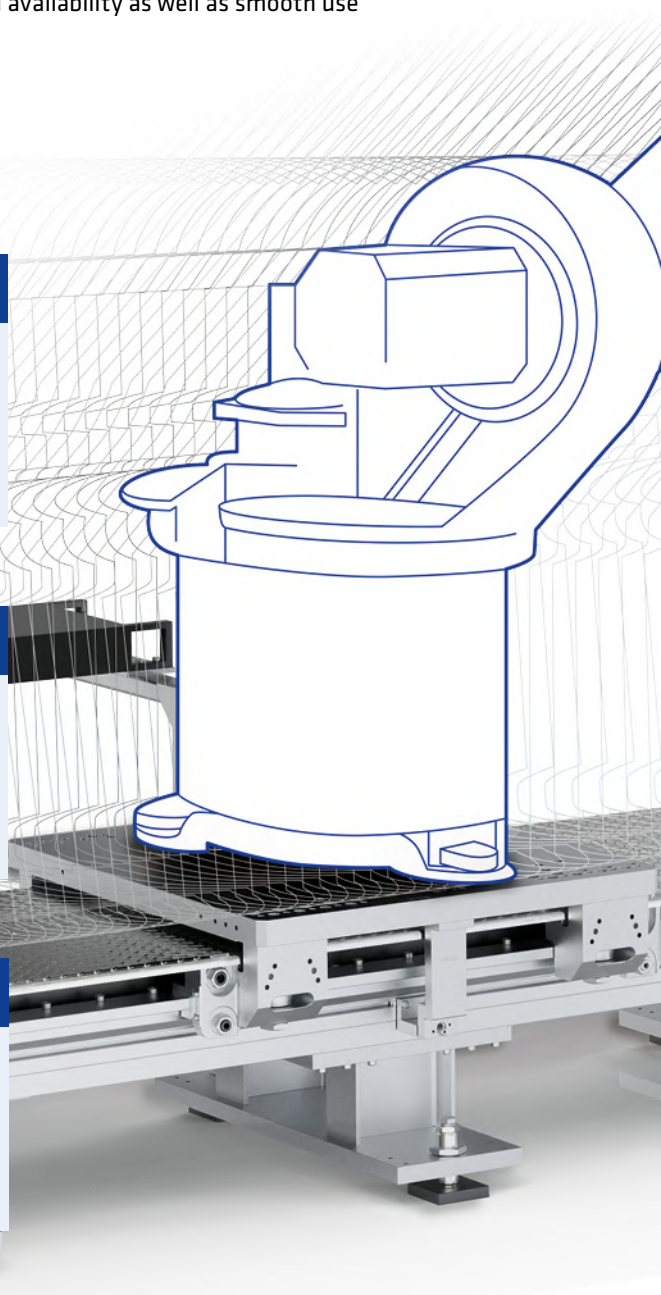
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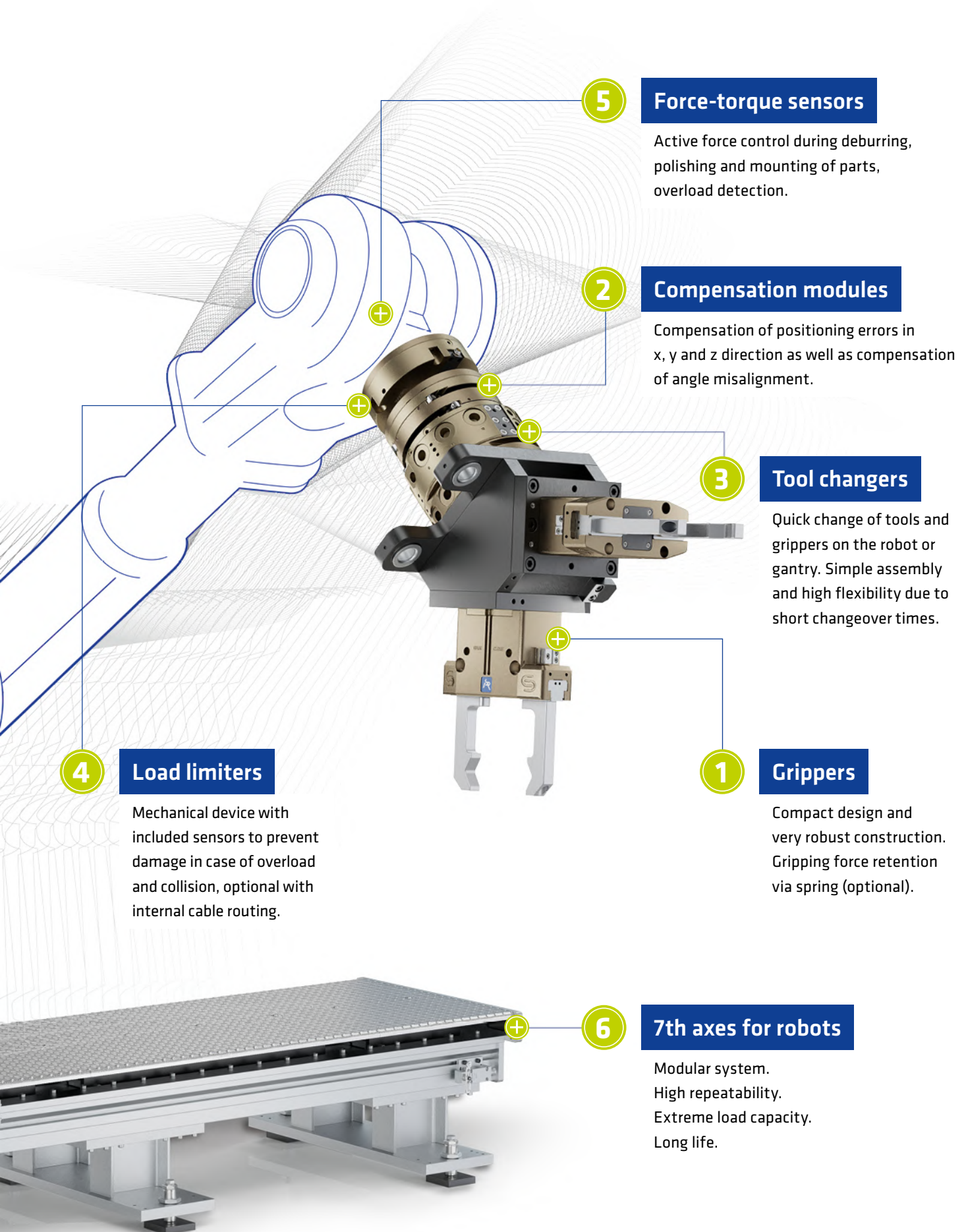
Tool changers



6

7th axes for robots





5 Force-torque sensors

Active force control during deburring, polishing and mounting of parts, overload detection.

2 Compensation modules

Compensation of positioning errors in x, y and z direction as well as compensation of angle misalignment.

3 Tool changers

Quick change of tools and grippers on the robot or gantry. Simple assembly and high flexibility due to short changeover times.

1 Grippers

Compact design and very robust construction. Gripping force retention via spring (optional).

4 Load limiters

Mechanical device with included sensors to prevent damage in case of overload and collision, optional with internal cable routing.

6 7th axes for robots

Modular system.
High repeatability.
Extreme load capacity.
Long life.

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

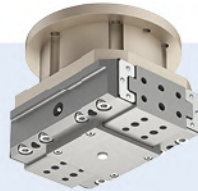
CGS2



- Universal gripper with a high number of variants
- Optional: gripping force retention
- Variants: dust cover (IP64) and high temperature

+ Payload up to **95 kg**
 + Gripping force up to **30,000 N**
 + Total stroke from **4 to 90 mm**

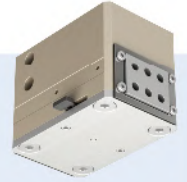
IRP



- Robust steel-on-steel guide
- ISO flange for mounting
- Optional: gripping force retention

+ Payload up to **95 kg**
 + Gripping force up to **17,200 N**
 + Total stroke from **20 to 64 mm**

RP Sliding guide



- Robust sliding guide
- High power density
- Compact dimensions

+ Payload up to **6 kg**
 + Gripping force up to **1,600 N**
 + Total stroke from **4 to 31 mm**

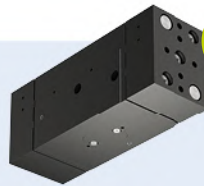
RP Roller guide



- Very smooth-running
- Enables precise gripping
- High repeatability

+ Payload up to **8 kg**
 + Gripping force up to **850 N**
 + Total stroke from **13 to 51 mm**

RPW



- Sealed rod guide
- Large stroke with compact dimensions
- Robust and durable

+ Payload up to **15 kg**
 + Gripping force up to **1,550 N**
 + Total stroke from **19 to 114 mm**

RPW Hybrid

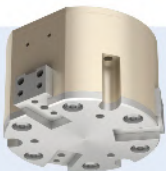


- Electromechanical parallel gripper
- Full gripping force meets highest precision
- Various sizes, stroke variants and interfaces available

+ Integrated control unit
 + **5** electrical interfaces
 + Positioning accuracy up to **0.01 mm**

3-jaw grippers

RPC

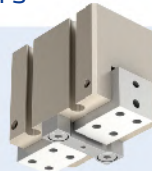


- Works perfectly for centric gripping
- Robust sliding guide
- High load capacity

+ Payload up to **70 kg**
 + Gripping force up to **15,000 N**
 + Total stroke from **20 to 40 mm**

Angular grippers

RA



- High efficiency due to direct power transmission
- Compact dimensions
- Low total weight

+ Payload up to **1 kg**
 + Gripping torque up to **2.5 Nm**
 + Opening angle (total): **30°**

WG



- Precise gripping due to needle bearing
- High efficiency
- Works for large workpiece variance

+ Payload up to **4 kg**
 + Gripping torque up to **16 Nm**
 + Opening angle (total): **180°**

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.

TK The compact standard



- Compact dimensions
- Integrated storage groove
- Standardized ISO flange

- + Payload from **8 to 800 kg**
- + **5 to 13** internal air ducts
- + Up to **15,000 Nm** bending moment

TK-SQ The modular heavyweight



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

- + Payload from **200 to 1,250 kg**
- + Up to **10** transmission modules per tool changer
- + **Sensors** integrated as standard

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.

FM Compliance wrist



- Compensation of joining tolerances
- Reduced wear of robot and tool
- Self-actuated reset to centered position

- + Payload up to **150 kg**
- + Compensation in X/Y direction up to **±2,5 mm**
- + Rotation angle compensation up to **1°**
- + Variants: lockable, overload protected, anti-rotation protected

KA Compensation in X/Y direction



- Compensation of position tolerances in X and Y direction
- Prevents jamming and tilting of workpieces
- Locking to centered position via pneumatic piston

- + Payload up to **800 kg**
- + Compensation in X/Y direction up to **±25 mm**
- + Variants: (de-)centrically lockable

ZN Compensation in Z direction



- Compensation of position and orientation tolerances in Z direction
- Height compensation
- Collision and error detection in Z direction

- + Payload up to **300 kg**
- + Compensation in Z direction up to **12 mm**
- + Variants: with screwed piston rod – double-acting

RT Rotation compensation



- Compensation of angle tolerances
- Allows rotation of the tool around the Z axis
- Locking to centered position via pneumatic piston

- + Payload up to **300 kg**
- + Rotation angle compensation up to **±5°**
- + Variants: Combination with KA, (de-)centrically lockable

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.

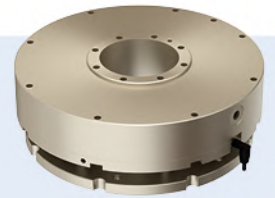
ULS Load limiter



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

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

ULD Load limiter with center hole



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

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

Force-torque sensors

With force-torque sensors, specific load data can be measured almost in real time. In conjunction with powerful evaluation and control electronics, this enables active position adjustments, error analyses and process measurements directly in the process.

F6D



- 6-axis force-torque sensor with internal or external measuring amplifier
- Active force control during deburring, polishing and assembly
- Precise measurement of forces and moments in all directions

- + Standardized ISO flange
- + Payload from **6 to 300 kg**
- + Various electrical interfaces: Profinet, EtherCat, CANopen etc.

Robot transfer units (7th axes)

IPR RTUs 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 7th axis solution for every application.

Standard 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
- Double profile made of steel, filled 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 travel axis

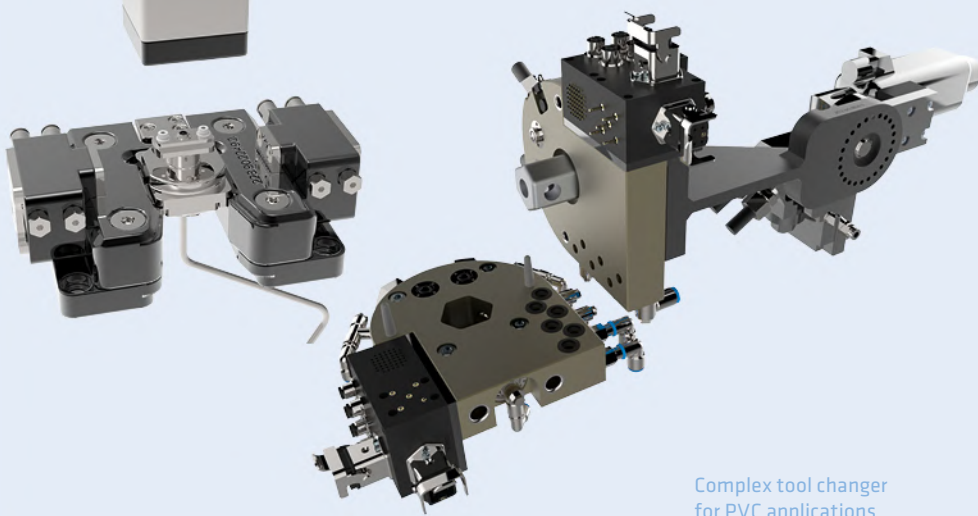
Standard is not enough for us

Our standard components can easily be adapted to customer-specific requirements. Various attachments and accessories are available for this purpose. For more complex applications, where the modification of standard components no longer offers a sensible solution, we design special solutions that are precisely tailored to your applications. Our many years of experience help us to find a technically as well as economically optimal solution for you – quickly and effectively.

Special components



Special nozzle changer
for NAD applications



Complex tool changer
for PVC applications

1

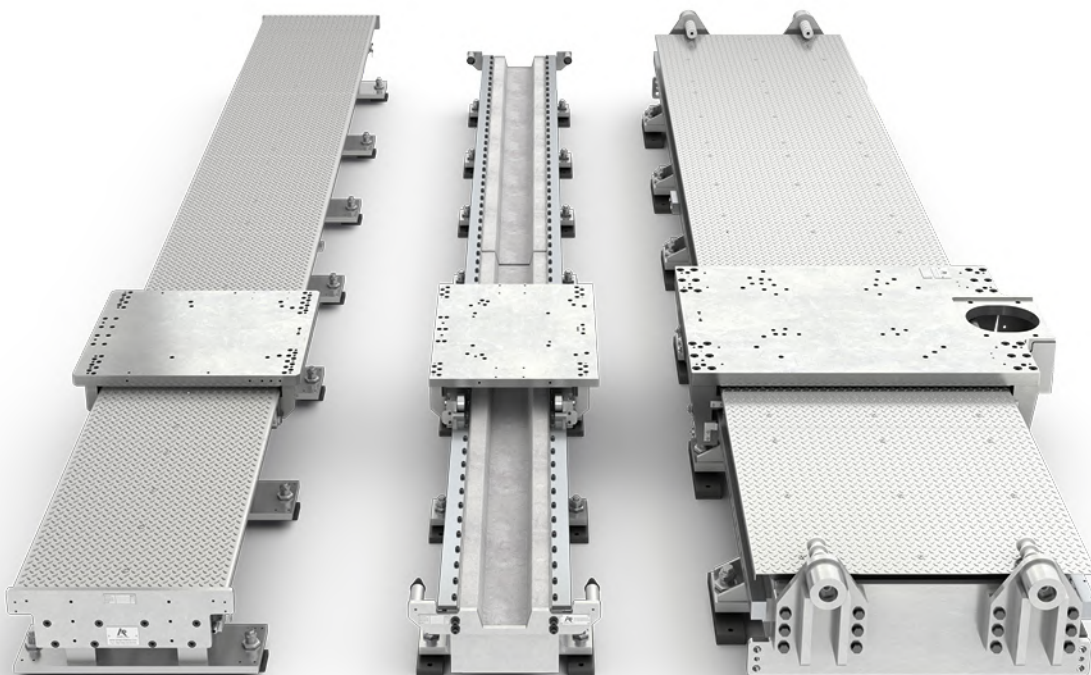
IP-180-RA

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**

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