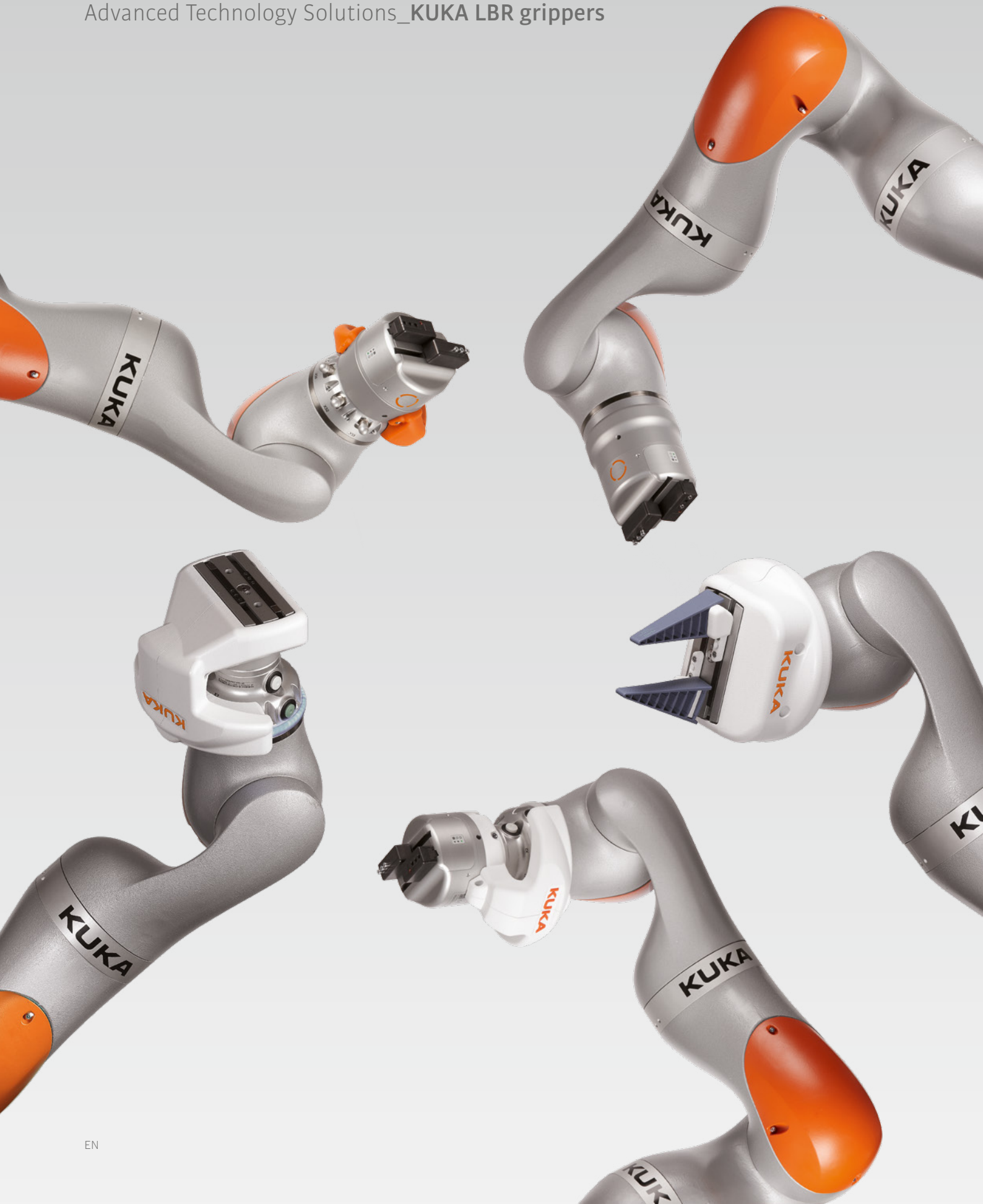
KUKA

Advanced Technology Solutions_**KUKA LBR grippers**



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The production systems of tomorrow will be adaptable, flexible, energy-saving, resource-preserving, fast and efficient.

In order to remain competitive in the long run, companies must face up to challenges such as the increase in product variety coupled with ever-decreasing quantities. As a result, these companies need flexible and versatile solutions for industrial assembly area.

As your expert partner, KUKA Systems provides solutions for executing both simple and complex processes considering the specific requirements of human-robot collaboration.

KUKA LBR gripper sensitive

The ideal gripper for the KUKA LBR iiwa for gripping tasks requiring a sensitive touch and flexibility.

For MF electric

For MF touch electric

For MF inside electric

Functions

- HRC-compliant, rounded contours
- Fully integrated controller and built-in energy supply
- Freely selectable operating modes:
  Position, speed, gripping force
- Sensitive gripping
- Gripping force dependent on finger length,
  jaw speed and current
- Compact design, low weight
- Self-locking worm gear
- Mechanical and electrical, HRC-capable interface to the KUKA LBR iiwa included
- Easy start-up using KUKA sunrise.GripperToolbox
- Connection cable to controller

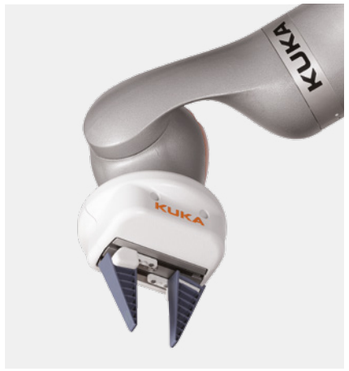
- Optional:
  – Safety jaws for mechanical gripping force limitation
  – Flexible, adaptive gripper fingers

Technical data

Media flange	Electric, touch electric, inside electric
Product weight	Electric: approx. 1,500 g Touch electric: approx. 1,700 g Inside electric: approx. 1,400 g
Flange distance (KUKA LBR iiwa flange mounting surface – gripper finger mounting surface with/without safety jaws)	Electric: 89.9 mm / 72.4 mm Touch electric: 106.2 mm / 88.7 mm Inside electric: 89.7 mm / 72.2 mm
Work stroke per jaw	40 mm
Jaw speed	Max. 60 mm/s
Gripping force	From 100 N to 800 N (20 mm finger length) From 70 N to 600 N (70 mm finger length) With HRC safety jaws: < 140 N
Ambient temperature	0 °C – 40 °C
Service life	5 million cycles, maintenance-free

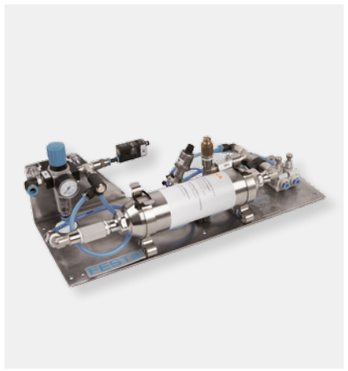
KUKA pneumatic long-stroke gripper

The ideal gripper for the KUKA LBR iiwa for specific assembly and handling tasks.



For MF IO pneumatic

For MF touch pneumatic



Complete, ready-to-connect controller

Functions

- HRC-compliant, rounded contours
- Integrated energy supply
- Force limitation to harmless values through safe pressure reduction
- Flexible gripping possible via pneumatic pressure regulator and throttle valve
- Detection of three jaw positions by means of preassembled proximity switches included in scope of supply
- Mechanical, pneumatic and electrical, HRC-capable interface to the KUKA LBR iiwa included
- Gripper force maintained by pneumatic spring
- All required pneumatic components preinstalled on a mounting plate, suitable for KUKA flexFELLOW with pneumatic drawer
- Easy start-up using KUKA sunrise.GripperToolbox

- Optional:
  – Flexible, adaptive gripper fingers

Technical data

Media flange	IO pneumatic, touch pneumatic
Product weight	IO pneumatic: approx. 820 g Touch pneumatic: approx. 1,000 g
Flange distance (KUKA LBR iiwa flange mounting surface – gripper finger mounting surface)	IO pneumatic: 41.8 mm Touch pneumatic: 69.8 mm
Gripping force	Max. 140 N
Work stroke per jaw	40 mm
Closing / opening time for total stroke	Adjustable via throttle valve, min. 163 ms
Gripper function	Internal / external
Gripping force safeguard	Pneumatic spring on mounting plate

Industrie 4.0

Prepared for transformation of the worlds of production

Smart Production, Internet of Things or Industrie 4.0. Even if the names and terms used vary from one country to another, they all share the same goal: the creation of elementary competitive advantages – at both company level and in global competition.

Work on the factory of the future is thus in full swing worldwide. This involves intelligent, networked industrial production and logistics processes on the basis of cyber-physical production systems (CPPS). Or, to put it simply: factories that, by means of advanced networking, respond intelligently to changing tasks and continuously reconfigure themselves. The factory of tomorrow should be able to organize and continuously optimize its production processes, thereby counteracting the consequences of another development: demographic change. New solutions are called for because of falling birth rates and increasingly aged populations in modern industrial societies. Without the “smart factory”, it will be simply impossible to achieve a productivity increase on this scale at the same time as effectively husbanding our existing natural resources.

In order to make new working environments both highly productive and ergonomically beneficial for the labor force, KUKA is developing central key technologies: collaborative robots, mobile assistance systems, autonomously controlled vehicles and intelligently networked automation solutions that support humans in the work setting, easing the workload in a variety of ways.

In collaboration with experts from diverse sectors, KUKA is now already implementing highly flexible, digitized manufacturing processes that will open up new opportunities in a competitive environment and lastingly change the way we work and produce.

For further information please contact us at ats@kuka.com

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