



ROBOT GRIPPER RRMG-MRK

Additive manufactured gripper with HRC-function for customer-specific and complex workpiece geometries





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With the new RRMG-MRK robot gripper, which is produced in additive manufacturing based on a product platform, RÖHM is positioning itself in the rapidly growing segment of the Human-Robot collaboration (HRC).

Due to the demographic changes in developed countries, more and more robots will be working with people or support them in the near future. Here, the robots are no longer locked behind fences, but work together in shared work spaces. Another focus is on work relief for humans by having robots do physically strenuous, monotonous or ergonomically difficult work. In cooperation with **KUKA Systems**, RÖHM has developed the new RRMG-MRK gripper suitable for Human-Robot collaboration in order to make the tool of the robot, that is the gripper, meet these requirements.

HRC-DESIGN

The RRMG-MRK gripper is an advanced development of the proven RRMG synthetic gripper and was specifically designed for the **iiwa robot** and the **FlexFellow System** of **KUKA**. Due to its flange, which has been especially adjusted to the **iiwa robot**, and its sophisticated protective shields, the gripper is ideally suited for HRC-applications. Rounding of edges and corners as well as the robust and durable design ensure protection of the worker from injury in accordance with the latest ISO 10218 and ISO/TS15066 standards by additional flexibility.



External gripping

Internal gripping

ADDITIVE MANUFACTURING

Gripper and gripper fingers are produced by additive manufacturing and, according to the customer's requirements, adapted to any 3D workpiece geometry. In this way, a complete gripper is made in one operation which is optimally adapted to each workpiece - either with internal or external gripping. Thanks to the intelligent design of the gripper fingers, it is also possible to handle different workpieces and workpiece diameters with a single gripper.





BENEFITS AT A GLANCE

MAXIMUM FLEXIBILITY

OPTIMIZED DESIGN

Greatest safety by rounding of edges and corners, protective shields and flexibility
Solid durable design with extremely low net weight (300 g)

OUTSTANDING PERFORMANCE

⊙ Up to 120 N of gripping force, depending on the contour and surface of the workpiece
⊙ Maintenance-free for up to 10 million gripping cycles - with up to 100 gripping cycles per minute

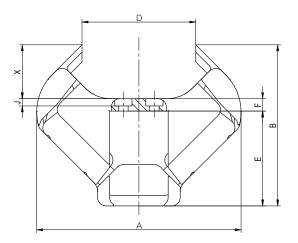
MAXIMUM PROCESS RELIABILITY

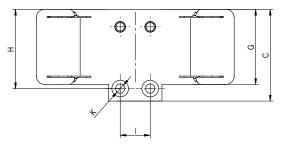
In order to guarantee maximum process reliability, both with external and internal gripping, the clamping position is comfortably reached by integrated sensors. In addition, the gripping position can be changed by 90° with the flange that was specifically developed for the **KUKA LBR iiwa** – depending on whether the workpiece is to be gripped horizontally or vertically.

Synthetic gripper RRMG-MRK	
	RRMG-MRK
Gripping force N *	120**
Stroke mm *	4.3
Gripping point X	31.2
A mm	118.6
B mm	93.4
Cmm	55
D mm	66
Emm	55
F mm	7.2
G mm	45
Hmm	47.5
lmm	18
J mm	4.2
K Ø mm	5.5

* at gripping point X

** max. clamping force must be controlled by air pressure





RÖHM GmbH

Heinrich-Röhm-Straße 50 89567 Sontheim/Brenz Germany Tel +49 7325 16 0 Fax +49 7325 16 510 info@roehm.biz www.roehm.biz

Exclusive distribution through: KUKA Systems GmbH

Blücherstraße 144 86165 Augsburg Germany Tel. + 49 821 797 0 Fax + 49 821 797 1991 ats@kuka.de www.kuka-systems.com



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