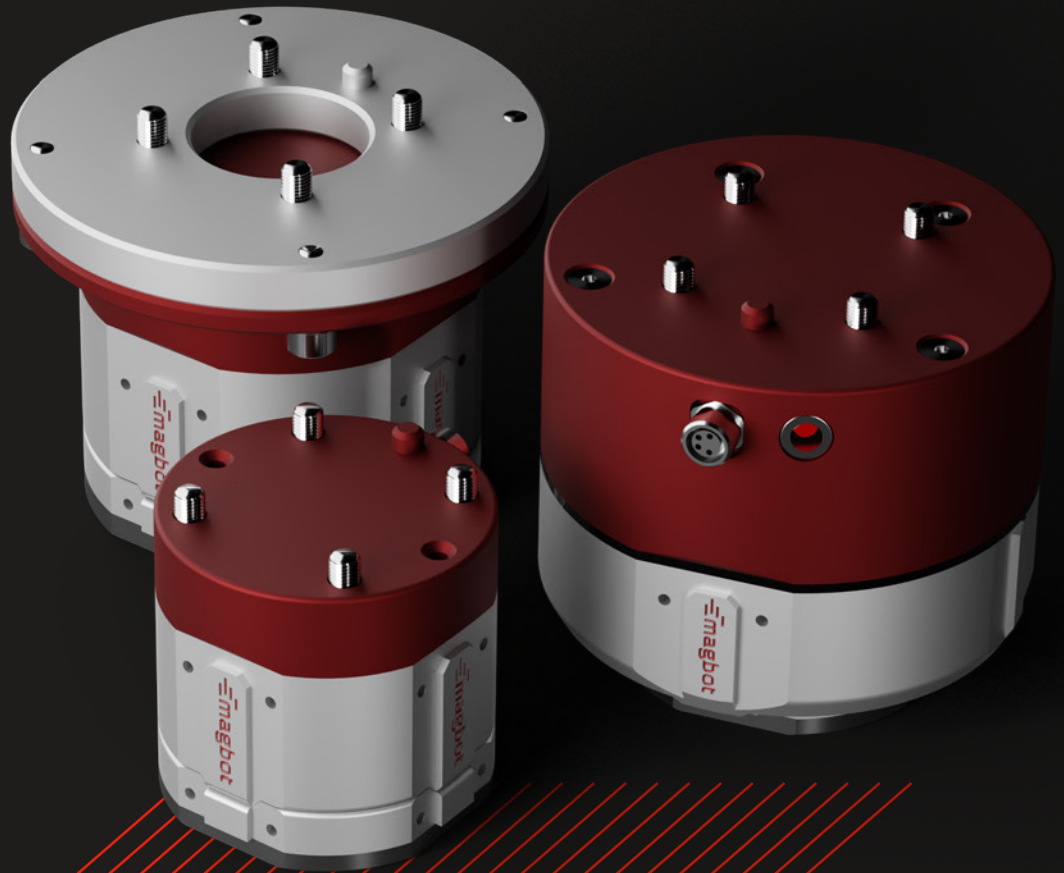


ROBOT
AUTOMATIC
TOOL
CHANGER



Accelerating the future of robotics for humans



Magbot, Leading Robot Industry as Core of 4th Industrial Revolution

The new standard of Robot Automatic Tool Changer

The World 1st completely wireless automatic tool changer, Magbot

Magbot, robot automatic tool changer, is the world's first fully wireless changing system.

A single robot requires various robot end-effectors (tools) to provide multi-processing and services; thus, an automated robotic tool changer is essential to change the tools automatically.

Magbot, an automated robotic tool changer, offers an ultra-simple changing system based on ultra-fast, ultra-powerful switching magnetic technology.

It is recognized with the top quality with strong durability (drop, bump, vibration) and high reliability (high & low temperature, high humidity, waterproof, dustproof).

Along with the world's first fully wireless robot tool changer of TCW1, the wired tool changer of TCV1 with a payload of 10Kg and TCV2 with a payload of 16Kg are ultra-simple operating system by using the power system (24V 2A) of the collaborative robot without the external power system.

The price competitive Magbot tool plate (Tool-side Tool Changer) for the expansion of various tools for automated and unmanned robot system ensures strong scalability.

Magbot provides innovative value to customers by expanding the application to the magnetic gripper for the pick and place process, in addition to the robot automatic tool changing function.

In addition to Automatic Tool Changer function, Magbot provides innovative value to customers by expanding it as the magnetic gripper for pick and place process.

WORLD 1ST FULLY WIRELESS ROBOT AUTOMATIC TOOL CHANGER



- Pneumatic/Mechanical Ball Locking Tech
- Complicated wired pneumatic structure
- High-cost tool changing system



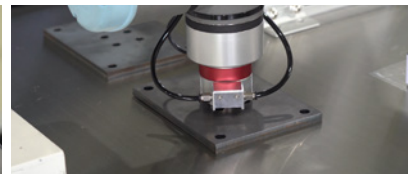
- Switching Magnetic Tech
- Fully wireless structure
- Competitive-cost tool changing system

POWERFUL TOOL SCALABILITY FOR ROBOT AUTOMATION AND UNMANNED



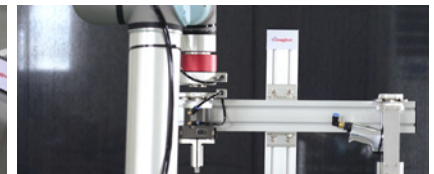
- Magbot provides an ultra-simple tool plate with strong price competitiveness as well as strong expandability for building robot automation systems

MAGNETIC GRIPPER, ADDED SUPER VALUE FOR OUR CUSTOMERS

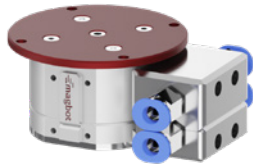


- Magbot TC can be also extended as a magnetic gripper for transferring ferromagnetic materials and products

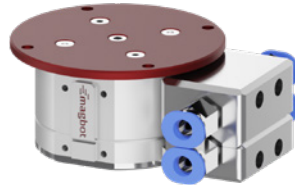
UNIQUE AND DIFFERENT SWITCHING MAGNETIC TECHNOLOGY



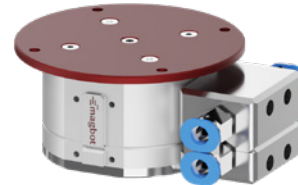
- Ferromagnetic Circuit Design and Control Technology as steelmag (steel+magnet)
- Ultra-powerful, Ultra-fast, Ultra-simple magnetic tool changing technology



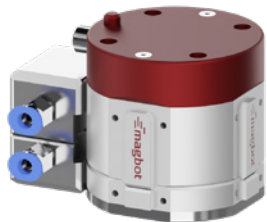
TCS1
payload 1kg



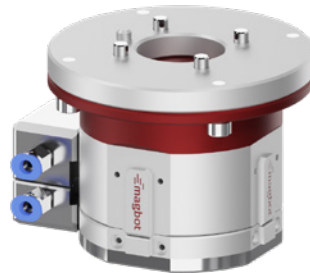
TCM1
payload 3kg



TCC1
payload 5kg



TCV1
payload 10kg

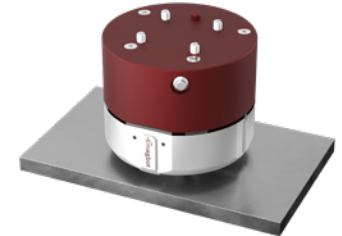


TCV2
payload 16kg



TCW1
Automatic tool changer
as the world's first fully wireless robot
payload 10kg

Wireless



Provides innovative value to customers through the expanded use of magnetic grippers in the ferromagnetic pick-and-place process



An ultra-simple tool plate (Toolside TC) provided Strong price competitiveness and scalability for building robot automation systems



SUPER POWERFUL



SUPER FAST



POWER SAVING

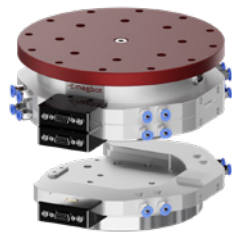


Unique super-strong switching magnetic technology

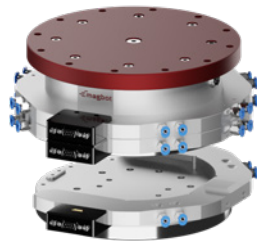
Magbot delivers innovative value to customers by expanding its application not only as the robot automatic tool changer, but also as the magnetic gripper of the pick-and-place tool.

Model		TCS1	TCM1	TCC1	TCV1	TCV2	TCW1
Payload (Weight capability)		1kg [10N·cm, 2.20lbs]	3kg [29N·cm, 6.61lbs]	5kg [49N·cm, 11.02lbs]	10kg [98N·cm, 22.05lbs]	16kg [157N·cm, 35.27lbs]	10kg [98N·cm, 22.05lbs]
Positioning Repeatability		±0.05mm					
Size (Dimension)	Master TC (Robot-side TC)	Ø40 x 26.5mm [1.57in x 1.04in]	Ø46 x 28.5mm [1.81in x 1.12in]	Ø53 X 31.5mm [2.09in x 1.24in]	Ø63 × 53mm [2.48 in × 2.087 in]	Ø80 × 62.5mm [3.15 in × 2.46 in]	Ø95 × 80.5mm [3.74 in × 3.17 in]
	Tool Plate (Tool-side TC)	Ø40 x 7.5mm [1.57in x 0.3in]	Ø46 x 8.5mm [1.81in x 0.33in]	Ø53 X 9.5mm [2.09in x 0.37in]	Ø61 × 13.2mm [2.40 in × 0.52 in]	Ø78 × 15.2mm [3.07 in × 0.60 in]	Ø61 × 13.2mm [2.40 in × 0.52 in]
	Tool Changer (When coupled)	Ø40 x 29mm [1.57in x 1.14in]	Ø46 x 31.5mm [1.81in x 1.24in]	Ø53 X 35.5mm [2.09in x 1.4in]	Ø63 x 59mm [2.48 in x 2.32 in]	Ø105 x 70.5mm [4.13 in x 2.78 in]	Ø95 x 86.5mm [3.74 in x 3.41 in]
Weight (Main product)	Master TC (Robot-side TC)	160.7g (0.35lbs)	170g [0.37lbs]	341g [0.75lbs]	524g [1.16 lbs]	1,146g [2.53 lbs]	1,026g [2.26 lbs]
	Tool Plate (Tool-side TC)	33.3g (0.07lbs)	40g [0.09lbs]	67g [0.15lbs]	136g [0.30 lbs]	304g [0.67 lbs]	136g [0.30 lbs]
	Tool Changer (When coupled)	194g (0.43lbs)	210g [0.46lbs]	408g [0.9lbs]	660g [1.46 lbs]	1450g [3.20 lbs]	1,162g [2.56lbs]
Technology		Switch Magnetic Tech					
Temperature and Humidity		-20 °C~80 °C [-4 °F~176 °F]					-20 °C~60 °C [-4 °F~140 °F]
		0~95%(no condensation)			0~85%(no condensation)		
IP Code (Ingress Protection)		IP57			IP56		
Electric Spec		24V / 2A					18.5V / 3.35A (18650 5S1P)
accessory	Pogo Pin Module	1A X 8EA (Electric Module)					
	Pneumatic Module	1Bar (M3 X 2EA)	3 Bar (M3 X 2EA)		6 Bar (M6 X 2EA)		
Battery Charging Time							Charging Bat for about 2Hours. On & Off for about 10,000times (Recharging when RED LED)
Operating Numbers (On/Off times) with fully charged							※ Still On & Off for 2,000times after Red LED on
Battery waiting time (unused/sleep mode)							240hr (10 days)
Weight Capability (Holding Force)		Under 1kg[2.2lbs]	Under 3kg[6.61lbs]	Under 4kg[8.82lbs]	Under 10kg[22.05lbs]	Under 16kg[35.27lbs]	Under 10kg[22.05lbs]
Thickness of loading materials		over 0.5T					
Loading materials		Ferromagnet					
Grip / Release Duration		0.1 Sec			0.2 Sec		
Electric Spec		24V, 1A		24V, 2A			

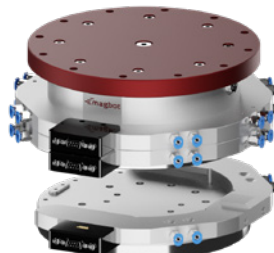
*Specification changes may occur due to continuous product upgrades.



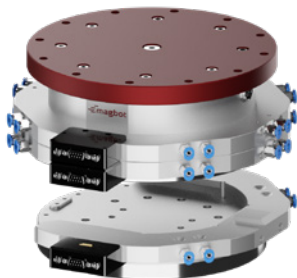
TCK30
payload 30kg



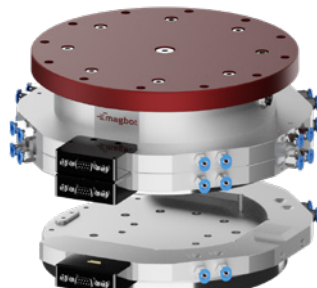
TCK50
payload 50kg



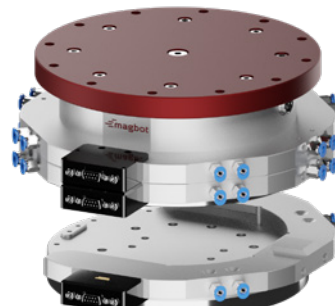
TCK100
payload 100kg



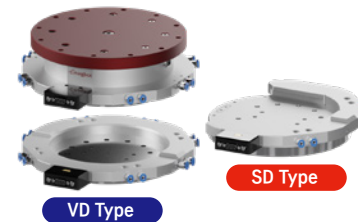
TCK150
payload 150kg



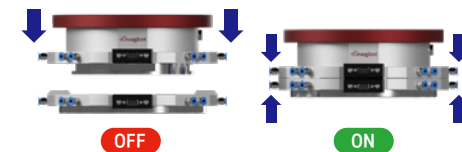
TCK210
payload 210kg



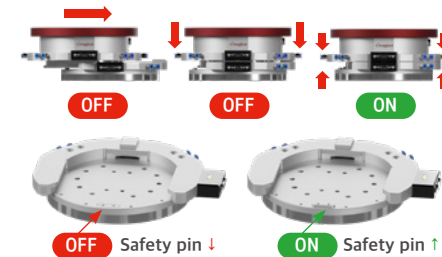
TCK250
payload 250kg



Built-in safety sensor
& fall prevention safety guide included



VD (Vertical Direction) Type, Easy teaching.



SD (Sliding Direction) Type, enhancing safety.



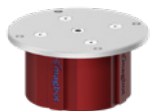
Unique super-strong
switching magnetic technology

Magbot delivers innovative value to customers by expanding its application not only as the robot automatic tool changer, but also as the magnetic gripper of the pick-and-place tool.

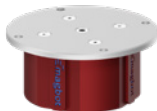
Model		TCK30	TCK50	TCK100	TCK150	TCK210	TCK250
Payload (Weight capability)		30kg [294N·cm,66.14lbs]	50kg [490N·cm,110.23lbs]	100kg [980N·cm,220.46lbs]	150kg [1,470N·cm,330.69lbs]	210kg [2,058N·cm,462.97lbs]	250kg [2,450N·cm,551.16lbs]
Positioning Repeatability		±0.05mm					
Size (Dimension)	Master TC (Robot-side TC)	Ø175 x 63.5mm [6.89in x 1.44in]	Ø185 x 64mm [7.28in x 2.52in]	Ø210 x 76.5mm [8.27in x 3.01in]	Ø260 x 93mm [10.24in x 3.66in]	Ø290 x 106mm [11.42in x 4.17in]	Ø315 x 115mm [12.4in x 4.53in]
	Tool Plate (Tool-side TC)	SD : Ø175 x 36.8mm [6.89in x 1.45in] VD : Ø175 x 23.8mm [6.89in x 0.94in]	SD : Ø185 x 38.8mm [7.28in x 1.53in] VD : Ø185 x 25.8mm [7.28in x 1.02in]	SD : Ø210 x 40.8mm [8.27in x 1.61in] VD : Ø210 x 27.8mm [8.27in x 1.1in]	SD : Ø260 x 40.8mm [10.24in x 1.61in] VD : Ø260 x 27.8mm [10.24in x 1.1in]	SD : Ø290 x 42.8mm [11.42in x 1.69in] VD : Ø290 x 29.8mm [11.42in x 1.9in]	SD : Ø315 x 44.8mm [12.4in x 1.77in] VD : Ø315 x 31.8mm [12.4in x 1.17in]
	Tool Changer (When coupled)	SD : Ø175 x 74.5mm [6.89in x 2.93in] VD : Ø175 x 95.5mm [6.89in x 3.76in]	SD : Ø185 x 74.5mm [7.28in x 2.93in] VD : Ø185 x 98.5mm [7.28 in x 3.88in]	SD : Ø210 x 88.5mm [8.27in x 3.48in] VD : Ø210 x 101.5mm [8.27in x 4in]	SD : Ø260 x 118mm [10.24in x 4.65in] VD : Ø260 x 105mm [10.24in x 4.13in]	SD : Ø290 x 131mm [11.42in x 5.16in] VD : Ø290 x 108mm [11.42in x 4.25in]	SD : Ø290 x 137mm [11.42in x 5.4in] VD : Ø290 x 110mm [11.42in x 4.33in]
Weight (Main product)	Master TC (Robot-side TC)	4.2kg [9.26lbs]	5.4kg [11.9lbs]	7.5kg [16.53lbs]	13.7kg [30.20lbs]	20.7kg [45.63lbs]	25.3kg [55.78lbs]
	Tool Plate (Tool-side TC)	SD : 1.6kg [3.53lbs] VD : 1.5kg [3.3lbs]	SD : 1.9kg [4.19lbs] VD : 1.7kg [3.75lbs]	SD : 2.9kg [6.39lbs] VD : 2.6kg [5.73lbs]	SD : 4.2kg [9.26lbs] VD : 3.8kg [8.38lbs]	SD : 5.7kg [12.57lbs] VD : 5.1kg [11.24lbs]	SD : 6.7kg [14.77lbs] VD : 6.1kg [13.45lbs]
	Tool Changer (When coupled)	SD : 5.8kg [12.79lbs] VD : 5.7kg [12.57lbs]	SD : 7.3kg [16.09lbs] VD : 7.1kg [15.65lbs]	SD : 10.4kg [22.93lbs] VD : 10.1kg [22.27lbs]	SD : 17.9kg [39.46lbs] VD : 17.5kg [38.58lbs]	SD : 26.4kg [58.20lbs] VD : 25.8kg [56.88lbs]	SD : 32kg [70.55lbs] VD : 31.4kg [69.22lbs]
Technology		Switch Magnetic Tech					
Temperature and Humidity		-20 °C~80 °C [-4 °F~176 °F] / 0~95% (no condensation)					
IP Code (Ingress Protection)		IP57					
accessory	Pogo Pin Module	2A X 9EA(Electric Module)					
	Pneumatic Module	7Bar(1/8 x SD Type : 2EA / VD Type : 3EA)					
Weight Capability (Holding Force)		Under 30kg[66.14lbs]	Under 50kg[110.23lbs]	Under 100kg[220.46lbs]	Under 150kg[330.69lbs]	Under 210kg[462.97lbs]	Under 250kg[551.16lbs]
Thickness of loading materials		over 0.5T					
Loading materials		Ferromagnet					
Grip / Release Duration		Grip: 200ms, Release: 200ms					
Electric Spec		24V 2A	24V 2A	36v 3A	36V 5A		

*Specification changes may occur due to continuous product upgrades.

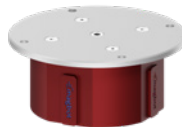
Robot magnetic gripper | MG(Magnetic Gripper) Series



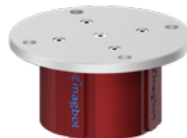
MG1
payload 1kg



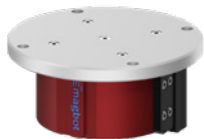
MG3
payload 3kg



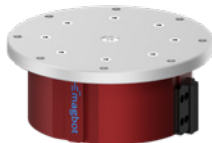
MG5
payload 5kg



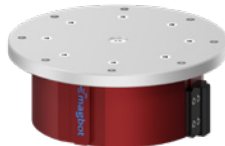
MG10
payload 10kg



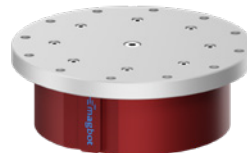
MG16
payload 16kg



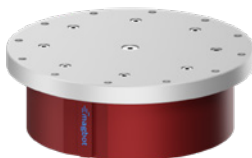
MG30
payload 30kg



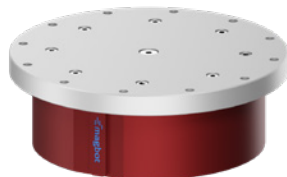
MG50
payload 50kg



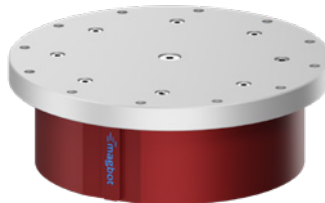
MG100
payload 100kg



MG150
payload 150kg



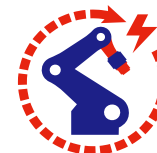
MG210
payload 210kg



MG250
payload 250kg



Ultra-power-saving operation with
no power consumption between transfers



Robot system power (DC 24V) operation
without external power supply



**SUPER
POWERFUL**



**SUPER
FAST**



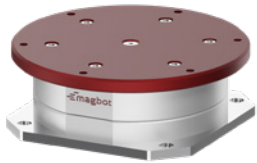
**POWER
SAVING**

Unique super-strong
switching magnetic technology

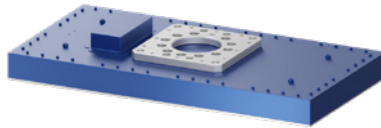
The magbot magnetic gripper is a product built on strong durability and high reliability.

Model	MG1	MG3	MG5	MG10	MG16	MG30	MG50	MG100	MG150	MG210	MG250
H.F	1kg [10N·cm, 2.20lbs]	3kg [29N·cm, 6.61lbs]	5kg [49N·cm, 33.07lbs]	10kg [98N·cm, 22.05lbs]	16kg [157N·cm, 35.27lbs]	30kg [294N·cm, 66.14lbs]	50kg [490N·cm, 110.23lbs]	100kg [980N·cm, 220.46lbs]	150kg [1470N·cm, 330.69lbs]	210kg [2058N·cm, 462.97lbs]	250kg [2450N·cm, 551.16lbs]
Size (Dimension)	Ø40 x 26.5mm [Ø1.57 x 1.04in]	Ø46 x 28.5mm [Ø1.81 x 1.12in]	Ø53 x 31.5mm [Ø2.09 x 1.24in]	Ø57 x 44mm [Ø2.24in x 1.73in]	Ø74 x 46.5mm [Ø2.91in x 1.83in]	Ø120 x 63.5mm [Ø4.72in x 2.5in]	Ø125 x 64mm [Ø4.92in x 2.52in]	Ø150 x 76.5mm [Ø5.91in x 3.01in]	Ø195 x 93mm [Ø7.68in x 3.66in]	Ø240 x 106mm [Ø9.45in x 4.17in]	Ø260 x 115mm [Ø10.24in x 4.53in]
Weight	153g [0.34lbs]	206g [0.45lbs]	351g [0.77lbs]	532g [1.17lbs]	1,204g [2.65lbs]	3,352g [7.390lbs]	4,040g [8.9lbs]	6,400g [14.1lbs]	13,000g [30.64lbs]	20.2kg [44.53lbs]	24.7kg [54.45lbs]
Technology	Switch Magnetic Tech										
IP Code (Ingress Protection)	IP57										
Grip / Release Duration	Grip: 200ms, Release: 200ms										
Electric Spec	24V 1A	24V 1A	24V 1.5A	24V 2A	24V 2A	24V 2A	24V 3A	36V 3A	36V 5A		
Temperature range (min / max)	-20 °C~80 °C [-4 °F~176 °F]										

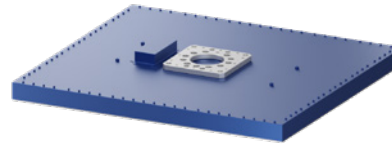
*Specification changes may occur due to continuous product upgrades.



TCT1
payload 5kg



MG3060(MGP)
payload 10/20/30/50kg



MG7179(MGP)
payload 20/30/80kg

MGP SERIES

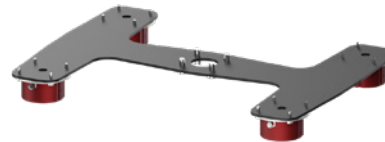
Provides a solution for maximizing the robot process when moving a large amount of small parts of various shapes (e.g., automobile bearings)



MGM3D



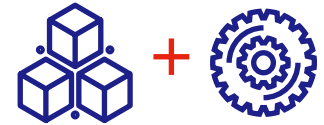
MGM5T



MGM10Q

MGM SERIES

Providing an optimization solution for moving process by selecting an optimization model for a wide steel plate moving process (e.g., automobile chassis)



We supply customer-oriented products optimally designed for customer products and processes



Providing distinctive customer-oriented solutions for the best performance



Unique super-strong switching magnetic technology

Magbot provides innovative solutions to customers by creating optimized models.

Spec		TCT1	MG3060	MG7179	MGM SERIES
Payload (Weight capability)		5kg [49.5N, 11.0lbs]	10kg / 20kg / 30kg / 50kg [Built to optional payloads]	20kg / 30kg / 80kg [Built to optional payloads]	MGM3 Series / MGM10 Series / MGM16 Series / MGM30 Series
Positioning Repeatability		±0.05mm			
Size (Dimension)	Master TC (Robot-side TC)	Ø98 X 28mm [Ø57 X 29 in]	600 X 300 X 110mm [Size customized according to optional payloads]	790 X 710 X 110mm [Size customized according to optional payloads]	  MGM3D / MGM10D / MGM16D / MGM30D MGM3T / MGM10T / MGM16T / MGM30T
	Tool Plate (Tool-side TC)	85 X 85 X 12.9mm [3.347 X 3.347 X 0.508in]			
	Tool Changer (When coupled)	Ø98 X 34mm [Ø3.858 X 1.339in]			
Weight (Main product)	Master TC (Robot-side TC)	660g [1.455lbs]	38kg [Estimated weight change according to production specifications]	120kg [Estimated weight change according to production specifications]	  MGM3Q / MGM10Q / MGM16Q / MGM30Q MGM3H / MGM10H / MGM16H / MGM30H
	Tool Plate (Tool-side TC)	300g [0.661lbs]			
	Tool Changer (When coupled)	960g [2.116lbs]			
Technology		Switch Magnetic Tech			
Temperature and Humidity		-20 °C~80 °C [-4 °F~176 °F]	Grade measurement according to customer specifications		Provide a differentiated solution that can maximize the robot's work performance by selecting a model suitable for the product and process status
		0~85%(no condensation)			
IP Code (Ingress Protection)		IP67			
Electric Spec		24V, 1A	24V 3A X 6EA	24V 3A X 20EA	

*Specification changes may occur due to continuous product upgrades.



www.magbot.kr

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UND Co.,Ltd.