

# Magnetic Wheels for Wall-Climbing Robots



# **Description:**

These <u>magnetic wheels</u>, primarily made of powerful neodymium magnets, offer superior adhesion to ferrous surfaces. This allows robots to effortlessly traverse vertical walls, making them ideal for applications like:

- Wall-climbing robots
- Ship inspections
- Wind turbine maintenance
- Exterior building cleaning

### Magnetic Wheel Features:

- Strong Magnetic Adhesion: Neodymium magnets provide exceptional grip on ferrous surfaces.
- Versatile Size Options: Choose from a range of diameters (40mm 180mm) to suit your specific robot needs.
- High Weight Capacity: Supports robots up to 337kg (when used in sets of four).
- Customizable Traction: Enhance grip and stability with optional non-slip rubber rings.
- Wide Operating Temperature: Performs reliably in diverse environments (-40°C to 80°C).

— 1 —



# **Parameters:**



# Parameter defined in mm & kgs

Model	D	S	W	VERTICAL	В	Н	PRODUCT
	(mm)	(mm)	(mm)	HANGING	(mm)	(mm)	WEIGHT
				LOAD			(kgs)
				(kgs)			
MW40	40	6~12	20	5~9	Upon Request	Upon Request	0.6
MW50	50	8~15	25~50	8~14	Upon Request	Upon Request	0.7
MW60	60	10~15	30~50	10~15	Upon Request	Upon Request	0. 8
MW65	65	10~15	40~50	15~23	Upon Request	Upon Request	1
MW80	80	10~15	50	20~25	Upon Request	Upon Request	1.2
MW90	90	12~15	50	25~30	Upon Request	Upon Request	1.4
MW100	100	12~15	50	30~35	Upon Request	Upon Request	2
MW110	110	15~20	50	35~40	Upon Request	Upon Request	2.8
MW120	120	18~23	50	45~50	Upon Request	Upon Request	3.3
MW125	125	18~28	50	50~55	Upon Request	Upon Request	4
MW130	130	20~30	55	55~60	Upon Request	Upon Request	4.85
MW150	150	25~30	65	70~75	Upon Request	Upon Request	7.2
MW160	160	25~30	65	75~90	Upon Request	Upon Request	8.5
MW180	180	26~35	70	95~150	Upon Request	Upon Request	9.5

### Parameter defined in in & lbs

Model	D	S	W	VERTICAL	В	н	PRODUCT
	(in)	(in)	(in)	HANGING	(in)	(in)	WEIGHT
				LOAD			(lbs)
				(lbs)			
MW40	1.57	0.24~0.47	0.79	11~20	Upon Request	Upon Request	1.3
MW50	1.97	0.31~0.59	0.98~1.97	18~31	Upon Request	Upon Request	1.5
MW60	2.36	0.39~0.59	1.18~1.97	22~33	Upon Request	Upon Request	1.8

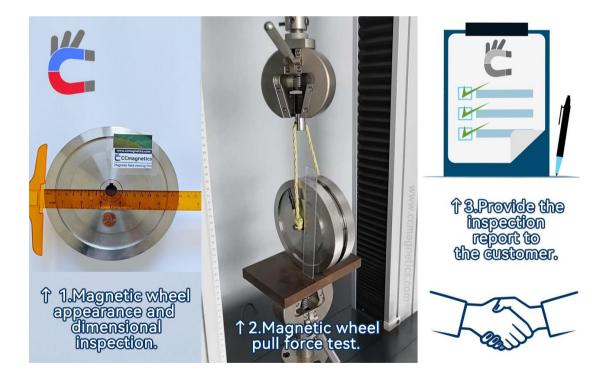


MW65	2.56	0.39~0.59	1.57~1.97	33~51	Upon Request	Upon Request	2.2
MW80	3.15	0.39~0.59	1.97	44~55	Upon Request	Upon Request	2.6
MW90	3.54	0.47~0.59	1.97	55~66	Upon Request	Upon Request	3.1
MW100	3.94	0.47~0.59	1.97	66~77	Upon Request	Upon Request	4.4
MW110	4.33	0.59~0.79	1.97	77~88	Upon Request	Upon Request	6.2
MW120	4.72	0.71~0.91	1.97	99~110	Upon Request	Upon Request	7.3
MW125	4.92	0.71~1.10	1.97	110~121	Upon Request	Upon Request	8.8
MW130	5.12	0.79~1.18	2.17	121~132	Upon Request	Upon Request	10.7
MW150	5.91	0.98~1.18	2.56	154~165	Upon Request	Upon Request	15.9
MW160	6.3	0.98~1.18	2.56	165~198	Upon Request	Upon Request	18.7
MW180	7.09	1.02~1.38	2.76	209~331	Upon Request	Upon Request	20.9

Note:

- The values of S, H, and B are optional customization items.
- S is the recommended size based on our experience, but you can also specify your own dimensions.
- T represents the dimension including the rubber tire. The rubber tire is replaceable, and we provide lifetime rubber tire supply services for every customer.

### Provide customers with free tensile test reports.



### Additional Customization Options: Custom Rubber Tires





# **Custom Magnetic Wheel Rubber Tiers Features:**

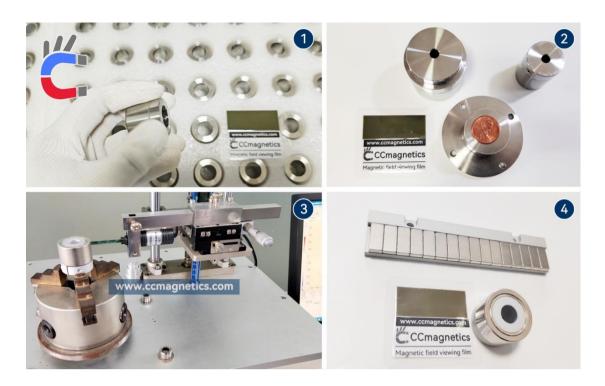
- Anti-slip: Provides enhanced grip.
- Detachable and Replaceable: Easy to maintain and upgrade.
- Scratch Protection: Prevents damage to wheels or iron surfaces.
- Durability: Extends the lifespan of the wheels.
- Rubber tires are consumable items. CCmagnetics team provide **lifetime rubber tire supply** for every customer, charging only the **production cost** of the tires without any additional fees.

# About Us:

Established in 2010 and headquartered in Beijing, China, CCmagnetics is a duly registered commercial entity operating under the auspices of the Chinese industrial and commercial authorities.

CCmagnetics supplies contactless magnetic drives products to 39 countries and regions worldwide. This is made possible by: exquisite workmanship, meticulous and professional service, and extremely high overall cost performance. Our products have won widespread praise from global customers.





### **Image Captions:**

1. Stainless steel 316I (UNS31603) PT series magnetic gear pairs awaiting packaging and shipment to germany.

2. Custom-made stainless steel 304 (UNS30400) co-axial magnetic couplings for our valued customer.

3. All magnetic drive/transmission products undergo rigorous magnetic field testing before shipment.

4. Custom-made rack pinion gears designed for laboratory liquid shaking applications.

#### **Representative Patents**

Since its inception, our company has been dedicated to the field of magnetic transmission and magnetic rings. Our representative patents include:





Patent Name 1: Comprehensive management system for magnetic ring production line. Patent Name 2: Fixture tooling for rubber mold.

Patent Name 3: Axial magnetization equipment.

Patent Name 4: Magnetic detection equipment for sealing ring.

Patent Name 5: Torque adjustable magnetic coupling.

Patent Name 6: Magnetic suction coupling with clutch function.

# **Ordering Information:**

### Payment:

We accept payment via proforma invoice and 100% T/T. Credit card payments are accepted, but a 2.9% surcharge will apply.

### Packaging and Logistics:

We accept delivery through the customer's preferred shipping company. Our packaging materials, including tinplate, kraft paper, and foam, fully comply with EU environmental regulations.

### **Delivery Time:**

Shipment will be arranged within 30 days after receipt of payment. Delivery time may be shorter if our factory schedule permits. Transportation time is estimated to be 7-10 days.

### After-sales Service:

• Our products undergo rigorous quality inspection and testing before leaving the

- 6 -



factory.

- Based on the demagnetization curve of neodymium iron boron, our products have a lifespan of 60-100 years under normal conditions.
- Our products are made of metal and magnets that meet international standards, and the adhesives are made of the well-known brand 3M, and additional material safety reports can be provided.
- If any quality issues are found within one year, please provide photos as proof. We will compensate with a new product in your next order. The defective product does not need to be returned.

# **Contact us:**

