

风电永磁吸盘专业制造者

Professional Manufacturer Of Holding Magnet In Wind Power



WZ Magnetics: Providing one-stop magnetic mounting solutions for wind turbine towers and nacelles.

为准磁业：为风电塔筒、机舱提供新装、技改，一站式磁吸安装解决方案

上海为准磁业有限公司
WZ Magnetics Co. Ltd.
www.wzmagnetics.com



Catalog



Web Site

Product Showcase

产品应用实景图



Ladder and cable clamp fastened by holding magnets
磁吸固定爬梯和线缆夹板

Overview

概述

Holding magnets are versatile and efficient solutions for various industries, including wind power. Their strong holding power eliminates the need for traditional fastening methods like welding or drilling, simplifying installation and maintenance. By offering easy mounting and removal without damaging the surface, these magnets provide exceptional flexibility and efficiency.

永磁吸盘为多种行业，包括风力发电领域提供了通用高效解决方案。其强大的磁力取代了传统的焊接和钻孔固定方式，简化了安装和维护过程。易于安装拆卸且不损伤表面，提供了卓越的灵活性和效率。



Examples Of Applications

应用



★ We continue to develop our holding magnets by optimizing their construction as well as enhancing their force to keep up with market requirement. Please contact our engineers for more details.
随着市场发展，产品不断优化结构，提高吸力，产品具体性能请联系我司工程师

Company Introduction

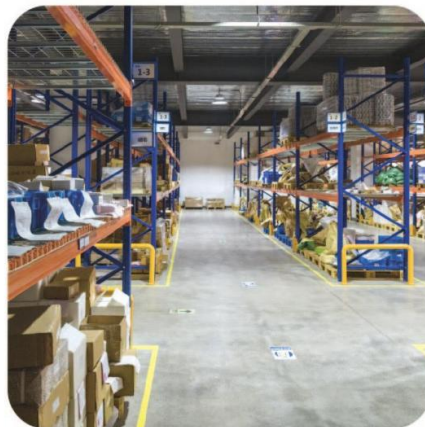
公司介绍

- **Trusted by Industry Giants:** Our commitment to quality and innovation has earned us the trust of leading wind turbine manufacturers such as Vestas, Siemens Gamesa, GE, Goldwind, DEC, Nordex, Enercon etc. These partnerships underscore our ability to deliver reliable and high-performance holding magnets that contribute to the success of their projects.
- **行业巨头信赖之选：**对质量和创新的承诺使我们赢得了Vestas、西门子歌美飒、GE、金风科技、东方电气、ENERCON，Nordex 等行业巨头的信任。这些合作体现了我们提供可靠、高性能磁力固定解决方案的能力，助力客户项目成功。
- **Customized Solutions for Optimal Performance:** We have the capability for magnetic circuit design, simulation, and finite element analysis. Additionally, we understand that every wind turbine project has unique requirements. Our team of engineers works closely with clients to develop tailored holding magnet solutions that address specific challenges
- **定制化解决方案，优化性能：**我们有磁路设计、模拟、有限元分析的能力。而且我们深知每个风电项目都有独特需求，因此提供定制化的磁力固定解决方案。我们的工程师团队与客户紧密合作，解决具体挑战，实现性能最大化。
- **ISO 9001 Certified Quality Assurance & LOC Of IATF 16949:** Our unwavering commitment to quality is reflected in our ISO 9001 certification. This rigorous standard ensures that every holding magnet we produce meets the highest industry benchmarks, delivering consistent performance and reliability. Besides, we have obtained the LOC (letter of compliance) of IATF 16949.
- **ISO 9001质量认证 & IATF 16949 体系认证：**我们始终坚持最高质量标准，并通过 ISO 9001 认证。严格的质量管理体系确保每一款磁力产品均符合行业最高标准，提供稳定可靠的性能。此外，我公司也已取得 IATF 16949 认证证书。



Factory Photos&Certificates

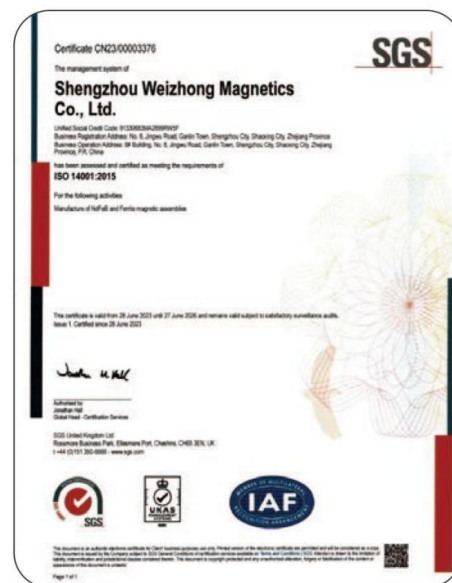
工厂照片及体系认证



ISO 9000:2015



ISO 45001:2018

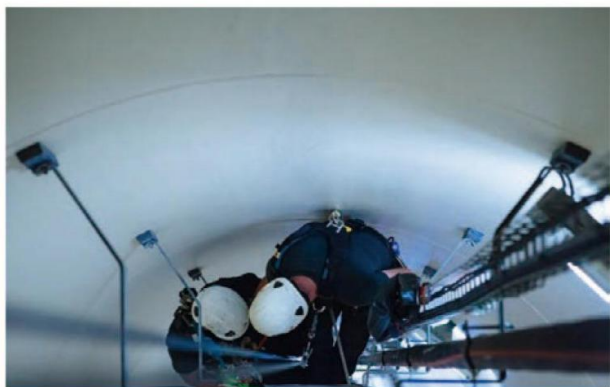


ISO 14001:2015

Holding magnets used in towers and nacelles

磁吸在塔筒、机舱中的应用

- Without welding or bolting, components/parts such as lifts, sensors, cameras, lighting, sockets, fire extinguishers, electric boxes, cables etc, can be easily fixed in position by holding magnets causing no physical damage on the tower body, because of which the fatigue resistance of the tower is not compromised. As a result, thinner wall thickness of the tower can be applied to save considerable cost.
- 通过磁吸在塔筒内安装免爬器，爬梯导向升降机，提高塔筒疲劳系数，减少钢板壁厚，重量；钢塔及混塔钢塔段所有内附件新装，如各类传感器，摄像头，照明，插座，灭火器，电源箱，各种强弱电线布置等；减少塔筒焊接，铆接点，降低运输损坏。



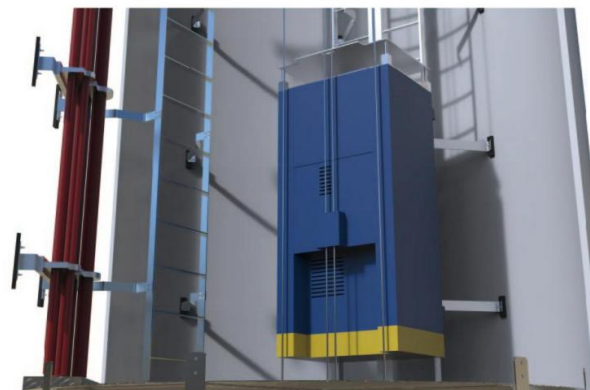
▲ Fastening ladder
爬梯固定



▲ Fastening light inside the wind tower
固定灯具

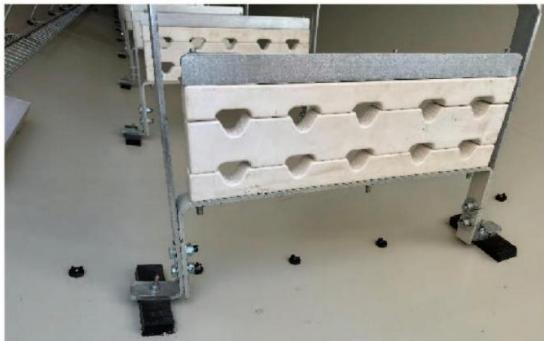


▲ socket fastened by magnets
磁吸插座

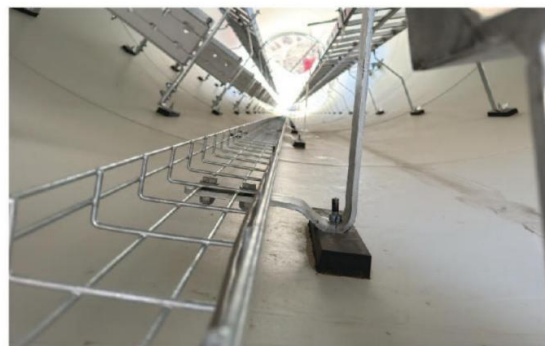


▲ Ladder-guided lift
爬梯导向升降机

▼ fastening cable clamp
线缆夹板固定



▼ fastening cable rack
塔筒内部线缆架固定



- Most wiring, installation work in nacelle, shaft and hub can be fulfilled more easily and efficiently without any damage to the steel structure by using holding magnets.
- 机舱，轮毂，主轴中的布线，施工，通过磁吸安装，不破坏钢结构。
- Offshore and other complex work can be done with more simplicity and much favorable cost by using holding magnets/assembly of holding magnets.
- 海上项目设计，施工难度较高的工作场景，通过磁吸组合降低安装难度和成本。

- Another benefit of using holding magnets is high flexibility --- it is easier than before to change, modify the position, layout of the components so that it makes the design work of the wind tower more efficient. Besides, all the components do not have to be mounted at the tower factory, which, after long transportation to the installation site, all the components may fall out. In stead, they can be mounted at the installation site. No external power supply is needed, no highly skilled technician is needed.
- 磁吸式安装简化塔筒设计，各内附件不干涉，后期调整方便; 通过磁吸，内附件可实现风机现场安装，无需外接用电，降低对技工的依赖，更易标准化作业。

Upgrading and maintenance of in-service wind turbines

服役风机的技改，运维



▲ repair broken nail fastener
磁吸补救射钉断裂点位



▲ reinforce platform
磁吸加固平台



▲ fixing new platform
磁吸固定新平台

- Permanent magnetic mounts are suitable for various upgrading and maintenance needs—such as magnetic repair for broken nail fasteners, magnetic reinforcement for unstable platforms, and magnetic installation of new platforms, cable trays, and power lines when upgrading old wind farms with larger towers. They require no external power for installation and eliminate hazardous operations like welding or drilling in confined spaces.
- 永磁吸盘适用各种工况技改，运维需求，如射钉断裂的磁吸补救，平台摇晃的磁吸加固，老风场“以大代小”新装塔筒，借助磁吸固定新的平台，桥架，线夹强电线；无需电源即可安装，避免在有限空间的焊接，钻孔等危险作业。
- Holding magnets can be used to fix lightweight components and they also can be used as anchor points to lift heavy weight component. As wind farms enter large-scale maintenance phases and safety regulations continue to evolve, magnetic technology offers a safer and more efficient alternative to conventional installation methods.
- 塔筒，机舱，海上平台，各轻型部件皆可直接安装。重型部件由磁吸组合做锚点，使得吊装，施工更简单；在风机不断新建后的大维护期，法律法规的修订变化，业主对安全运行工况的不断要求，磁吸技术较其他工艺更安全，更高效。

- Holding magnets do not damage the mounting surface or interfere with sensors or signal and power transmission. They reduce coordination complexity and workload for owners and OEM engineers, lower dependence on skilled labor, eliminate the need for not work. and improve maintenance standards—enabling standardized retrofit and maintenance operations across the global wind power industry.
- 磁吸产品不破坏被吸附面，不影响传感器，强弱电线传输¹；减少业主，主机厂工程师协调难度，工作量；降低对技术工人依赖，避免动火作业，提高运维水准，实现全球风电技改，运维标准化作业。

¹参考昆山为准磁业有限公司通过第三方鉴衡认证在实验风场的各项检测，见证报告。

Repair and technical reform solutions

技改方案

- ▼ repair nail failure
磁吸固定射钉脱落



Magnetic mounts can reinforce positions where shot nails have failed, providing a reliable fix for ladders and cables.

- 磁吸可以补救射钉断裂的点位，有效固定爬梯和线缆。

No drilling, no welding, strong holding force, and no damage to the inner wall of the tower.

- 无需打孔，无需焊接，吸力强，不破坏塔筒内壁。

Safe and reliable

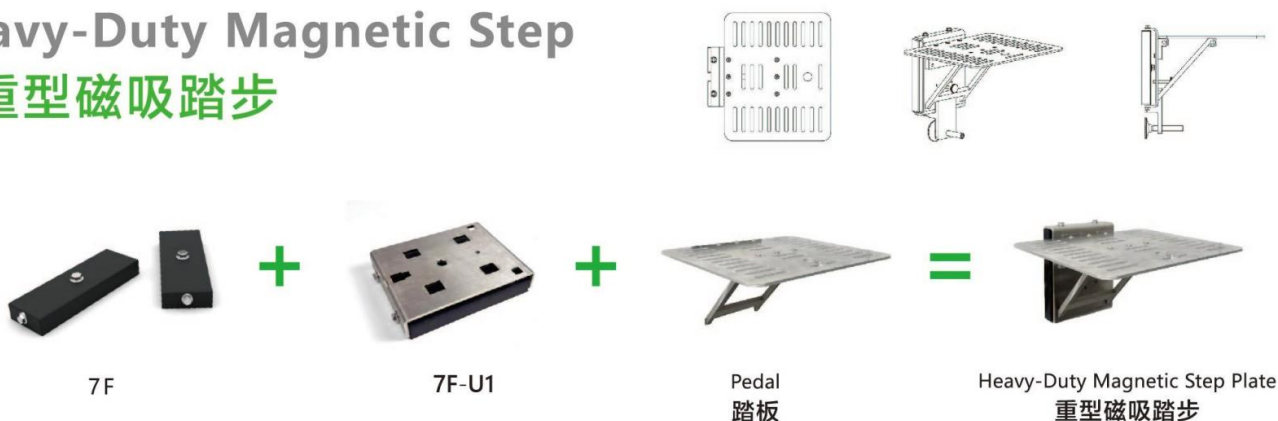
安全，可靠

- Originally designed by several internationally renowned manufacturers, holding magnet have been in service for over 25years in wind turbine towers and nacelles.
- The rare-earth permanent magnets used maintain their magnetic field strength for more than 30 years without degradation
- Each holding magnet is coated with durable rubber to ensure stable holding force and has passed third-party tests for pressure resistance, chemical resistance, corrosion resistance, aging, and high/low temperature cycling-all showing no change or remaining within qualified standards.
- 多家国际知名大厂原创设计，磁吸在风电塔筒，机舱中服役超过25年；
- 磁吸中稀土永磁体，磁场30年不衰减²；
- 磁吸包覆橡胶吸力稳定，通过耐压，耐液，耐腐蚀，耐老化，高低温循环等第三方测试，均无变化或处于合格范围³。

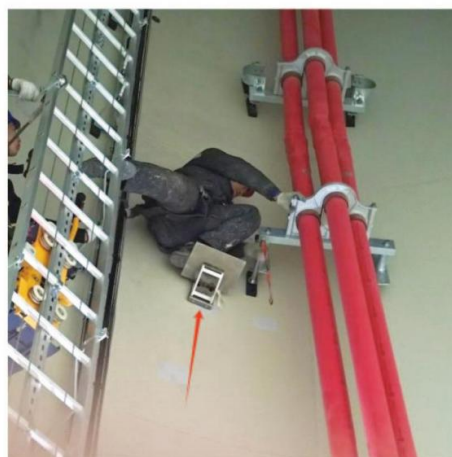
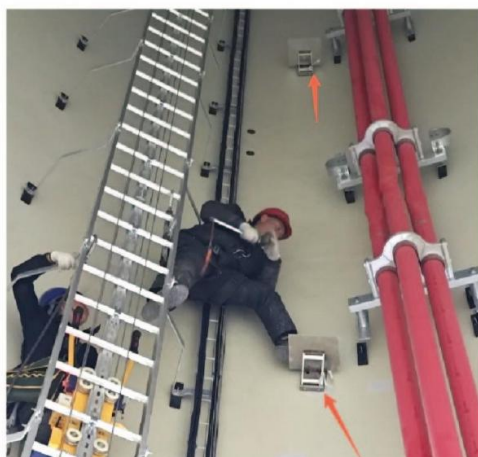
2. 引援自《稀土永磁材料》上册289页 胡伯平，饶晓雷，王亦忠 编著，中科三环研究院报告；冶金出版社出版 2017.1，“十三五”国家重点出版物出版规划项目，ISBN 978-7-5024-7035-5

3. 参考嵊州为准磁业有限公司通过第三方SGS的各项检测，见证报告。

Heavy-Duty Magnetic Step 重型磁吸踏步



▼ Using magnetic step in installation work inside wind tower 磁吸踏步辅助安装



Features:特点:

Suitable for medium- and high-altitude operations, reducing workers' labor intensity and risk.

- 适应中高空作业，降低工人作业强度和危险性

Can be used on flat or curved surfaces without damaging the wall structure or paint layer.

- 可在平面，弧面上使用，不破坏壁面结构和涂层

supports up to 180 kg, with a triangular structure that provides stable reinforcement.

- 承重180kg*，三角结构提供稳固支撑

* The 180 kg load rating refers to the heavy-duty magnetic step supporting a 180 kg weight on a steel plate (15 mm thick with a 0.3 mm coating) without any displacement.

承重180kg指在重型磁吸踏步，在15mm厚0.3mm涂层的钢板上，承载180kg砝码无位移。



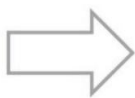
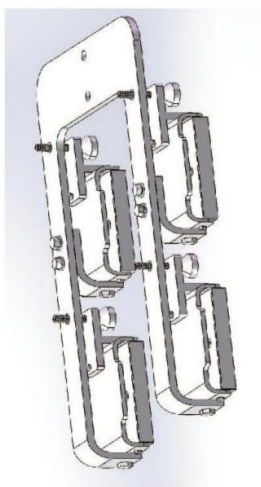
Use holding magnet to install/reinforce platforms 磁吸安装或加固塔筒平台



After the main unit is delivered platform bolt fractures may occur due to insufficient structural strength at the connection between the platform and the tower. The original connection may deform or fail.

By adopting the heavy-duty magnetic platform fixing solution, rapid reinforcement can be achieved without damaging the original structure, enhancing connection strength and structural stability, and significantly improving the safety factor.

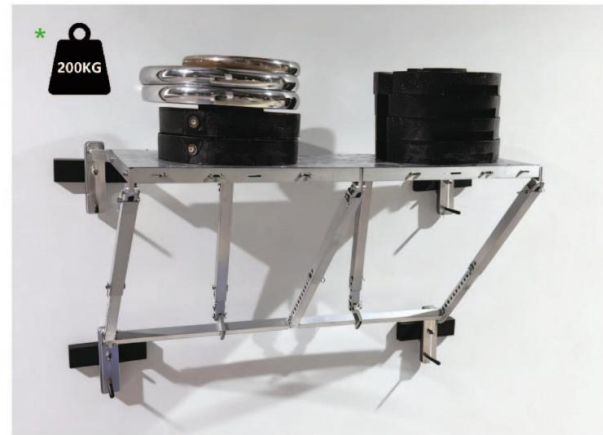
主机交付后可能会遇到平台螺栓断裂，平台同塔筒连接处结构强度不足，原链接发生变形和破坏。采用重型磁吸固定平台解决方案，可在不破坏原结构的前提下实现快速加固，提升连接强度和结构稳定性，显著提高安全系数。



▲ upgrade from small to large turbines
“以大代小”

▲ For tower upgrade projects (small-to-large replacement), magnetic installation of platform main beams enables quick positioning and installation, significantly improving efficiency.
在以大代小的塔筒升级项目中，利用磁吸安装平台主梁，可实现快速定位与安装，大幅提升施工效率。

Easy mounting/removal platform 磁吸式承重平台



The magnetic load-bearing platform is designed for segmented tower sections, as well as large steel structures such as oil and gas storage tanks and ships. It assists workers in performing high-altitude and mid-height operations, supports a 200 kg load*, ensures safe use, and offers easy assembly and disassembly.

磁吸式承重平台为分段式塔筒，及油气储罐、船舶等大型钢结构设计，帮助工人完成高空、半高空作业，承重200kg*，使用安全，拆装简单。

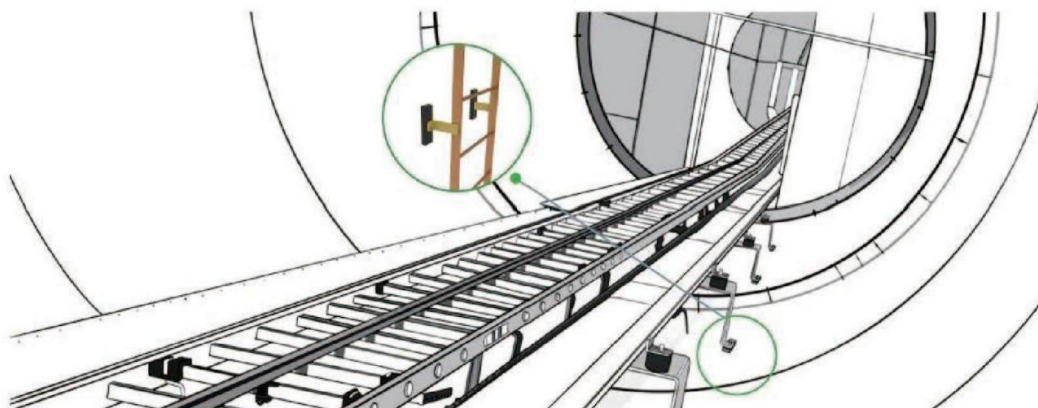


* The 200 kg load rating refers to supporting a 200 kg weight on a steel plate (15 mm thick with a 0.3 mm coating) without any displacement.

承重200kg指在15mm厚0.3mm涂层的钢板上，承载200kg砝码无位移。

Heavy-duty magnet

重型磁吸



塔筒爬梯固定 Wind tower ladder fixation

No magnetic loss more than 30 years

- 30年磁性不衰減

No drilling and welding, significant maintenance cost saving

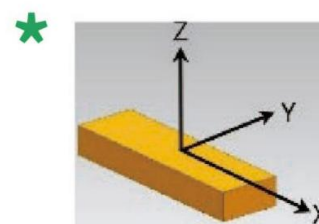
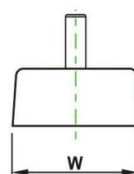
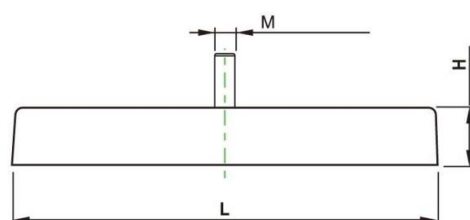
- 无需钻孔和焊接, 大大降低运维成本

Minimizing surface damage to towers

- 最大限度地减少塔筒表面损坏

Superior Shear Strength and Corrosion Resistance

- 超强的剪切力和耐腐蚀能力



Item No. 产品编号	L	W	H	M	Pull Force(Z) * 垂直拉拔力			Shear Force(X) * 剪切力			Weight 单重
	mm	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCHNL8M	203	61	27.5	M10x26	400	3920	881	240	2352	528	1660

Testing Conditions测试条件:

Pull Force拉力测试: Tested at room temperature using a 20mm thick steel plate (Q235 China) without coating. 在室温下使用20mm厚的无涂层钢板 (Q235) 进行测试。

Shear Force剪切力测试: Tested at room temperature using a 10mm thick steel plate without coating, speed: 200mm/min. 在室温下使用10mm厚的无涂层钢板进行测试, 测试速度200mm/min。

Force Measurement力值:

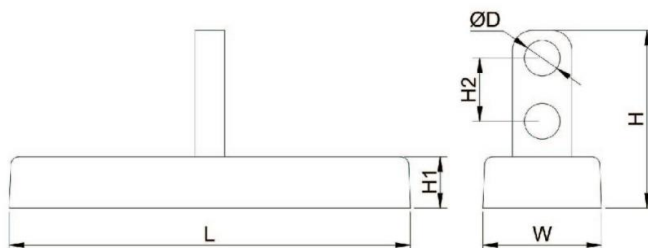
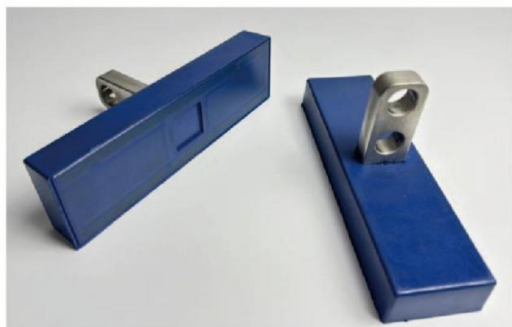
Recorded the max value at the moment when the magnetic assembly detaches from the steel plate.在磁性组件与钢板分离的瞬间记录的最大值。Represents the maximum strength; no safety margin is included.代表最大强度, 未包含安全余量。

Practical Application实际应用中应考虑的因素:

Consider additional factors like pull direction and the thickness of steel plate and coating.需要考虑力的方向、钢板的厚度、涂层的厚度等因素。When designing, please refer to our product technical data and it is recommended to allow for a safety margin of at least three times the maximum load. For actual use, refer to our product technical data and installation manual.设计时请参考我方产品技术资料, 建议设计至少三倍安全余量。实际使用时参考我方产品技术资料及安装手册。

Heavy-duty magnet

重型磁吸



爬梯导向升降机 ladder-guided lift

NO Welding/Drilling- No damage to the steel structure, safer installation

- 免焊接/免钻孔 —— 不破坏钢结构，安装更安全

Quick installation and removal-Saving construction time and improving efficiency

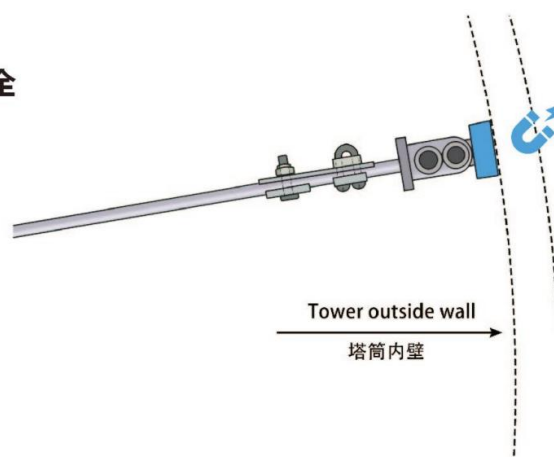
- 快速安装拆卸 —— 节省工期，提高效率

Stable and reliable-Strong magnetic force ensures guiding accuracy

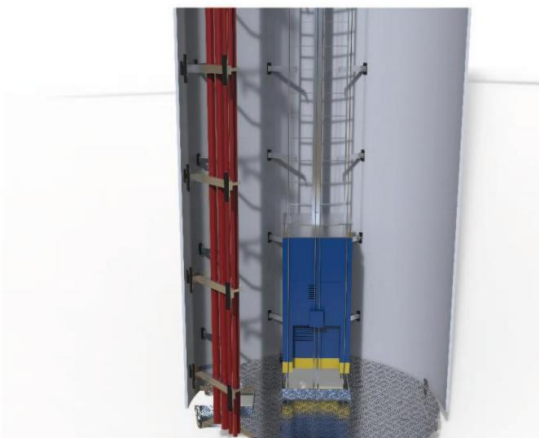
- 稳固可靠 —— 强劲磁力，保证导向精度

Reusable-Reduces costs and is more environmentally friendly

- 可重复使用 —— 降低成本，更环保



Item No. 产品编号	L长	W宽	H	H1	H2	D	Pull Force (Z) 垂直拉力			Shear force 剪切力	Weight 单重
	mm	mm	mm	mm	mm	mm	N	Kg	Lbs	Kg	g
RCHNL8T	203	60	91	22	32	18	2940	300	660	180	1768



Heavy-duty magnet

重型磁吸

信号接收器固定 signal receiver installation

Flexibly installed both inside and outside the wind tower

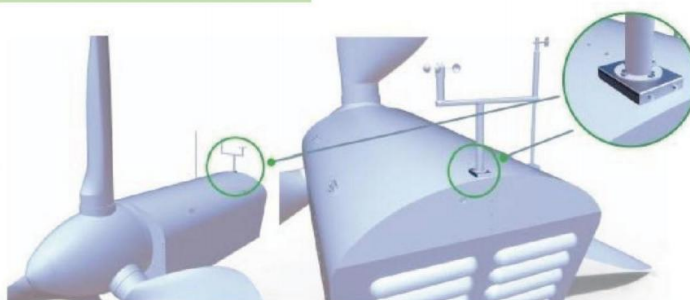
- 塔筒内外皆可灵活安装

Easy installation and removal without drilling or welding

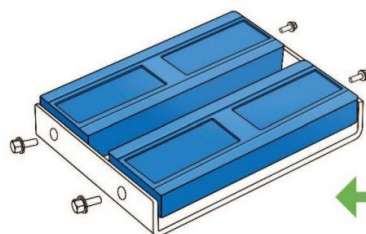
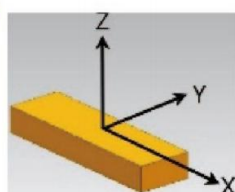
- 安装和拆卸便利无需钻孔和焊接

Saving installation time and labor cost tower

- 节省安装时间和人工成本

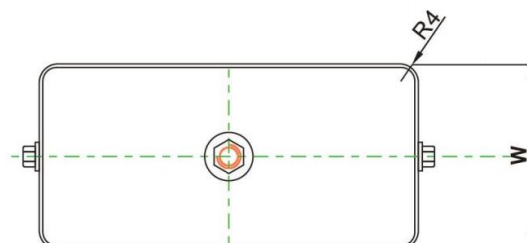
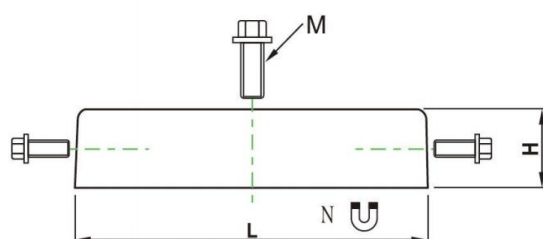


*



The threaded holes on the sides allow combining two or more magnets for even higher force.

侧边的螺纹孔可将2个或多个磁吸组合起来,以获得更大的力。



Item No. 产品编号	L	W	H	M	Pull Force(Z) * 垂直拉力			Shear Force(X) * 剪切力			Weight 单重
	mm	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCHNL3.5F	85	31	18	M6	70	686	154	42	412	92	230
RCHNL4F	95	34	17	M6x15	70	686	154	42	412	92	297
RCHNL5F-N	125	61	28	M8x20	200	1960	440	120	1176	264	958
RCHNL7F	175	60	21	M8x15	340	3332	748.9	204	2000	449	1410

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Force Measurement力值:

Recorded the max value at the moment when the magnetic assembly detaches from the steel plate.在磁性组件与钢板分离的瞬间记录的最大值。Represents the maximum strength; no safety margin is included.代表最大强度, 未包含安全余量。

Practical Application实际应用中应考虑的因素:

Consider additional factors like pull direction and the thickness of steel plate and coating.需要考虑力的方向、钢板的厚度、涂层的厚度等因素。When designing, please refer to our product technical data and it is recommended to allow for a safety margin of at least three times the maximum load. For actual use, refer to our product technical data and installation manual.设计时请参考我方产品技术资料, 建议设计至少三倍安全余量。实际使用时参考我方产品技术资料及安装手册。

Heavy-duty magnet

重型磁吸

海上风电应用 offshore wind applications

Offshore wind projects demand higher corrosion resistance and non-welded solutions to withstand harsh conditions and operational constraints

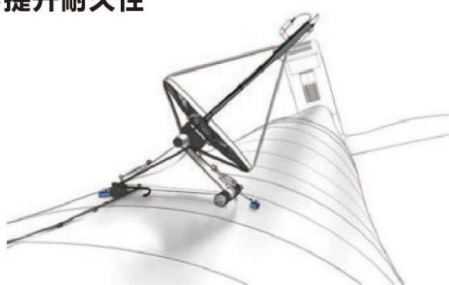
- 海上风电项目需要卓越的耐腐蚀性能和无焊接解决方案，以应对恶劣的环境和操作限制

EPDM rubber coating provides superior corrosion resistance, fully protecting the internal magnet and ensuring the product's overall durability. Stainless steel can be used for exposed parts, further boosting durability.

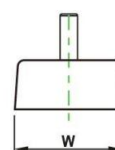
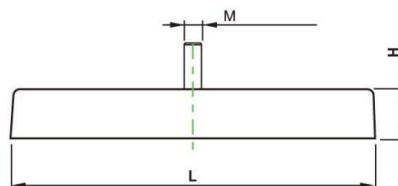
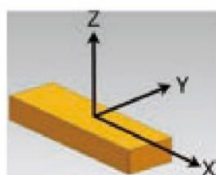
- EPDM橡胶涂层具有优异的耐腐蚀性，充分保护内部磁铁，确保产品的整体耐用性

Stainless steel can be used for exposed parts, further boosting durability.

- 暴露的部件可使用不锈钢，进一步提升耐久性



★



Item No. 产品编号	L	W	H	M	Pull Force(Z) * 垂直拉力			Shear Force(X) * 剪切力			Weight 单重
	mm	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCHNL4M	100.5	61	28	M10x26	100	980	220	60	588	132	754
RCHNL5M	125	61	28	M8/M10x26	200	1960	440	120	1176	264	965

Testing Conditions 测试条件:

Pull Force 拉力测试: Tested at room temperature using a 20mm thick steel plate (Q235 China) without coating. 在室温下使用20mm厚的无涂层钢板 (Q235) 进行测试。

Shear Force 剪力测试: Tested at room temperature using a 10mm thick steel plate without coating, speed: 200mm/min. 在室温下使用10mm厚的无涂层钢板进行测试，测试速度200mm/min。

Force Measurement 力值:

Recorded the max value at the moment when the magnetic assembly detaches from the steel plate. 在磁性组件与钢板分离的瞬间记录的最大值。Represents the maximum strength; no safety margin is included. 代表最大强度，未包含安全余量。

Practical Application 实际应用中应考虑的因素:

Consider additional factors like pull direction and the thickness of steel plate and coating. 需要考虑力的方向、钢板的厚度、涂层的厚度等因素。When designing, please refer to our product technical data and it is recommended to allow for a safety margin of at least three times the maximum load. For actual use, refer to our product technical data and installation manual. 设计时请参考我方产品技术资料，建议设计至少三倍安全余量。实际使用时参考我方产品技术资料及安装手册。

Heavy-duty magnet

重型磁吸

塔筒电缆桥架固定 tower cabletray installation

Replacing traditional shoot nails with magnetic fasteners

- 采用磁性吸盘取代传统的射钉

Flexible installation and removal

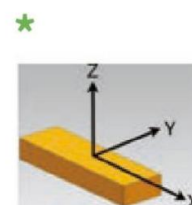
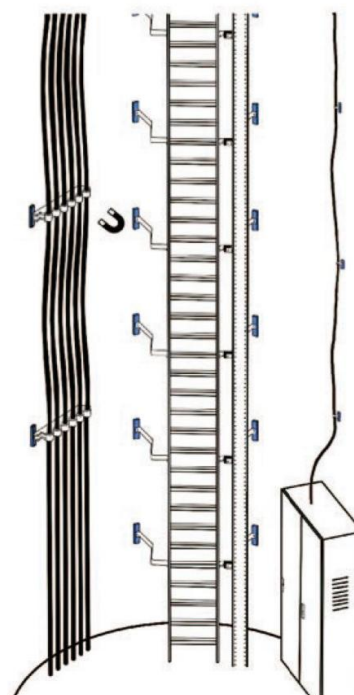
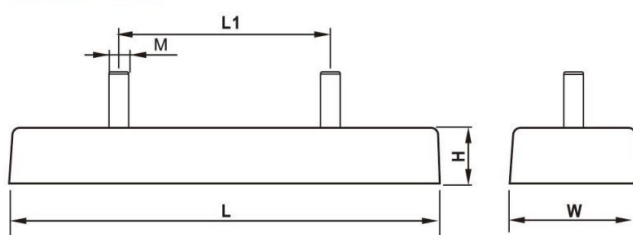
- 可灵活安装和拆卸

No drilling or welding required, reducing damage to the inner surface of the tower

- 无需钻孔焊接，减少对塔筒表面的损伤

Enhancing safety by reducing the need for additional labor and complex procedures

- 通过减少对额外劳动力、复杂的工序来提高安全性



Item No. 产品编号	L	W	H	L1	2xM	Pull Force(Z) * 垂直拉拔力			Shear Force(X) * 剪切力			Weight 单重
	mm	mm	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCHNL8M-2M	203	61	27.5	100	2xM10x31	400	3920	881	240	2352	528	1689



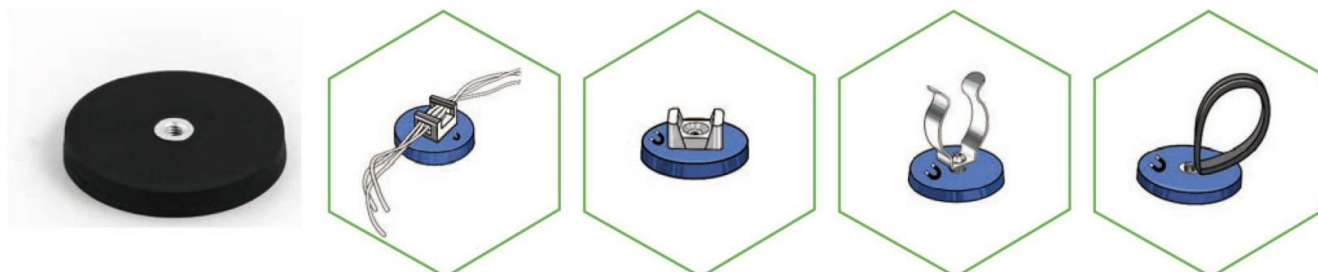
Failed shoot nail mounting system
射钉脱落实景图



Solution of holding magnets
磁性吸盘解决方案

light-duty magnet

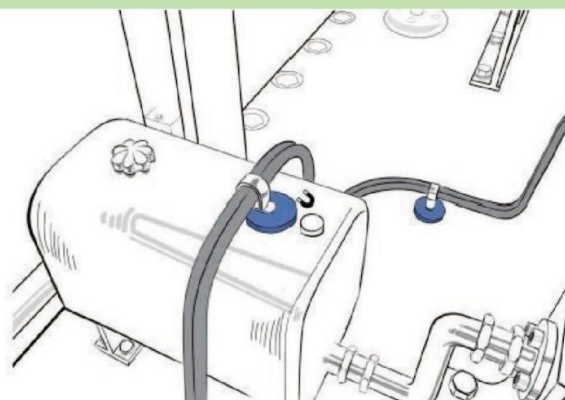
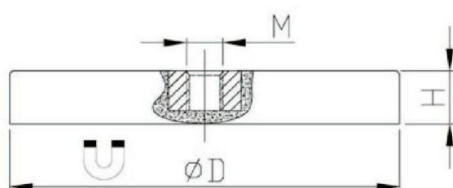
轻型磁吸



机舱/平台/塔筒壁布线 nacelle/platform/tower cable management

Customizable with wire clamps and clips according to customer requirements.

- 可根据用户需求适配线夹、线卡等配件



Item No. 产品编号	D	H	M	Pull Force 垂直拉力			Shear Force 剪切力			Weight 单重
	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCND20F	20	6	M4	3.2	31	7	1.6	16	3.5	7.5
RCND22F	22	6	M4	5.9	58	13	2.9	29	6.3	10
RCND29F	29	8.5	M5	11	108	24	5.5	54	12.1	28
RCND31F	31	6	M5	9	89	20	4.5	45	9.9	21
RCND36F	36	8.5	M6	21	206	46	10.5	103	23.1	49
RCND43F	43	6	M6	10	100	22	5.1	50	11.2	36
RCND45F	45	9.5	M6	31	303	68	15.5	152	34.1	80
RCND57F	57	7.6	M5	20.4	200	45	10.2	100	22.4	73.7
RCND66F	66	8.5	M6	25	250	56	12.7	125	28	107
RCND88F	88	8.5	M6	56	550	123	28	275	61.6	210

Testing Conditions测试条件:

Pull Force拉力测试: Tested at room temperature using a 20mm thick steel plate (Q235 China) without coating. 在室温下使用20mm厚的无涂层钢板 (Q235) 进行测试。

Shear Force剪切力测试: Tested at room temperature using a 10mm thick steel plate without coating, speed: 200mm/min. 在室温下使用10mm厚的无涂层钢板进行测试, 测试速度200mm/min。

Force Measurement力值:

Recorded the max value at the moment when the magnetic assembly detaches from the steel plate.在磁性组件与钢板分离的瞬间记录的最大值。Represents the maximum strength; no safety margin is included.代表最大强度, 未包含安全余量。

Practical Application实际应用中应考虑的因素:

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light-duty magnet

轻型磁吸

传感器固定 sensor installation

Easily installed on curved surfaces

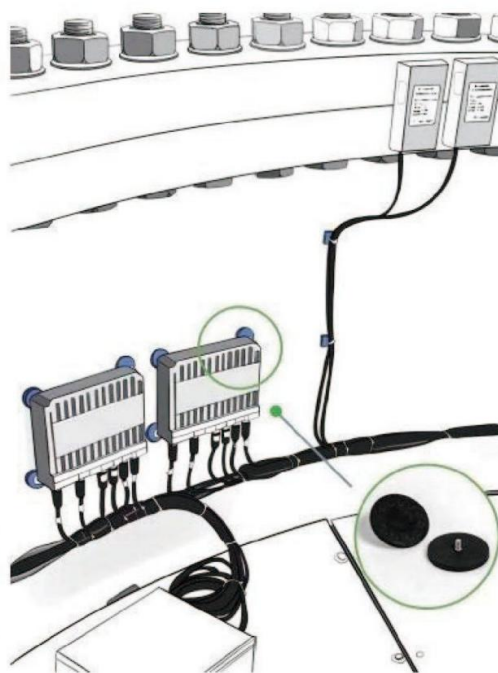
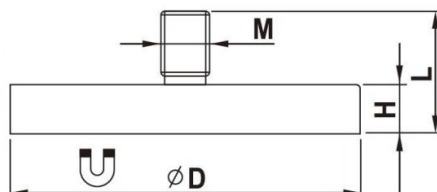
- 可在弧面上轻松安装我们的紧固件磁吸

No drilling or welding required

- 无需钻孔和焊接

Magnets with external threads can be directly installed to fit the customer's existing threaded holes

- 外螺纹吸盘适配客户已有的螺纹孔可直接安装



Item No. 产品编号	D	H	L	M	Pull Force 垂直拉力			Shear Force 剪切力			Weight 单重
	mm	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCND12M	12	7	15.5	M4	1.3	13	2.9	0.6	6.5	1.3	4.5
RCND18M	18	6	12	M4	3.7	37	8.3	1.8	18.5	4	7.1
RCND22M	22	6	12.5	M4	5.9	58	13	2.9	29	6.3	10
RCND31M	31	6	18	M5	9	89	20	4.5	45	9.9	21
RCND43M	43	6	21	M6	10	100	22	5.1	50	11.2	36
RCND50M	50	10.5	30.5	M6	46	450	101	13.2	130	29.2	117.3
RCND57M	57	7.6	22.6	M6	20.4	200	45	10.2	100	22.4	75.7
RCND64M	64	11.5	31.5	M8	91	900	202	45.5	450	101	208.2
RCND66M	66	8.5	23.5	M6	25	250	56	12.7	125	28	100
RCND88M	88	8.5	23.5	M8	56	550	123	28	275	61.6	210

Testing Conditions测试条件:

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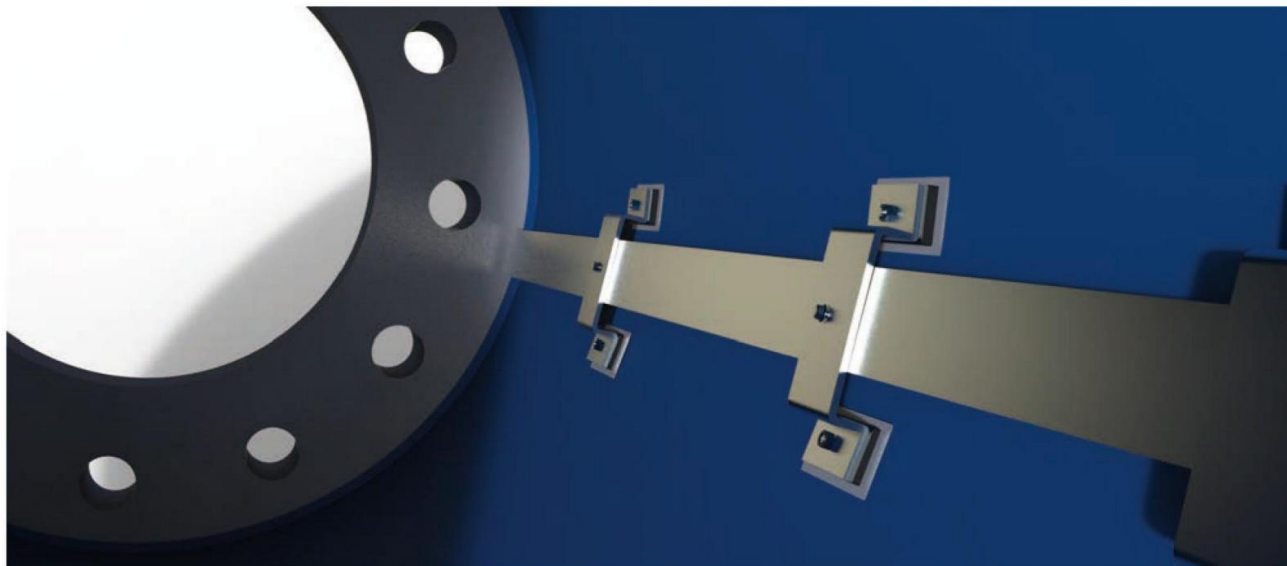
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light-duty magnet

轻型磁吸

风机主轴内线缆支架安装 cable bracket installation in main shaft

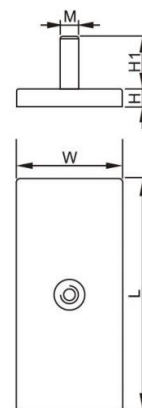


Saving installation time and labor costs

- 节省安装时间和人工成本

No drilling or welding required

- 无需钻孔和焊接



Item No. 产品编号	L	W	H	H1	M	Pull Force 垂直拉拔力			Shear Force 剪切力			Weight 单重
	mm	mm	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCNL110M-M8x15	110	45	8.5	15	M8	64	630	141	32	315	70	149

Testing Conditions测试条件:

Pull Force拉力测试: Tested at room temperature using a 20mm thick steel plate (Q235 China) without coating. 在室温下使用20mm厚的无涂层钢板 (Q235) 进行测试。

Shear Force剪切力测试: Tested at room temperature using a 10mm thick steel plate without coating, speed: 200mm/min. 在室温下使用10mm厚的无涂层钢板进行测试, 测试速度200mm/min。

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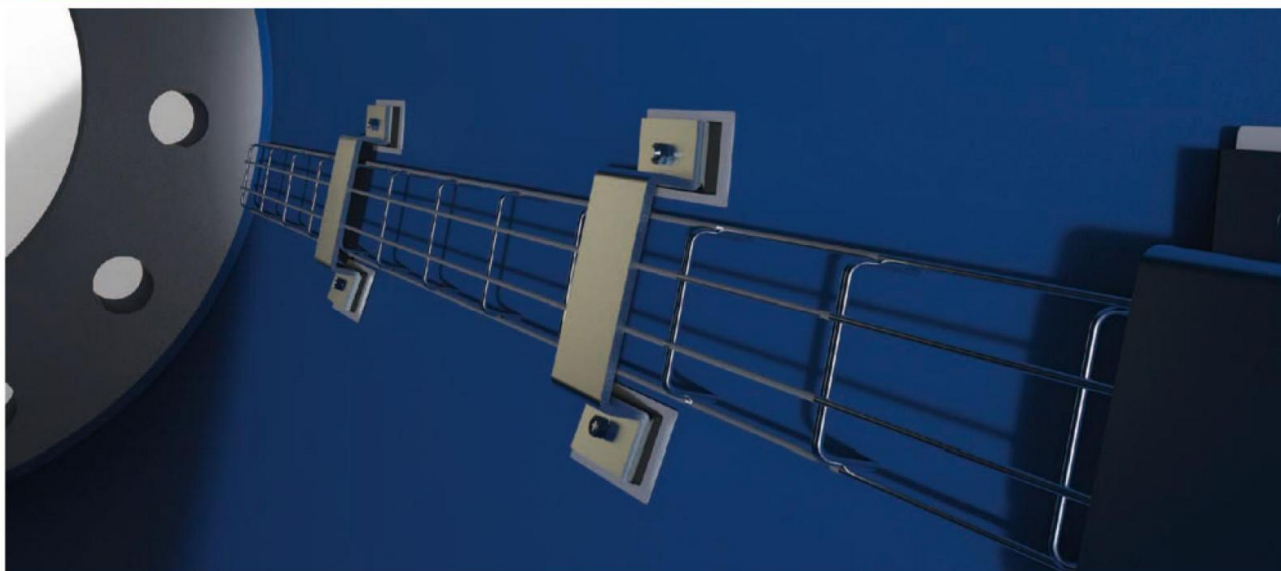
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light-duty magnet

轻型磁吸

风机主轴内线缆支架安装 cable bracket installation in main shaft

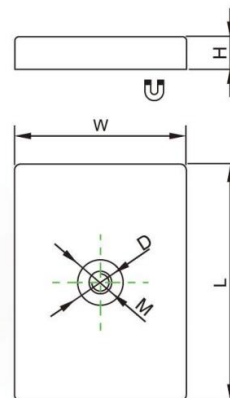


Flexibly mountable on flat and curved surfaces

● 可灵活安装于平面与弧形表面

No drilling or welding required

● 无需钻孔和焊接



Item No. 产品编号	L	W	H	D	M	Pull Force 垂直拉拔力			Shear Force 剪切力			Weight 单重
	mm	mm	mm	mm		kg	N	Lbs	kg	N	Lbs	g
RCNL110F-M8	110	45	8.5	12	M8	64	630	141	32	315	70	/

Testing Conditions测试条件:

Pull Force拉力测试: Tested at room temperature using a 20mm thick steel plate (Q235 China) without coating. 在室温下使用20mm厚的无涂层钢板 (Q235) 进行测试。

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Magnetic Fastening Application in Wind turbine hubs

轮毂中磁吸紧固应用

Magnetic anchors replace traditional bosses: smarter, greener, cost-effective hub fixation.
磁吸锚点替代凸台，让内附件在轮毂中固定更高效、经济、环保

Labor-saving—No boss grinding required, reducing processing time and cost

- 节省人工 —— 无需凸台打磨，降低加工时间与成本

Material-saving—Avoids boss casting and cutting loss, reducing steel material waste

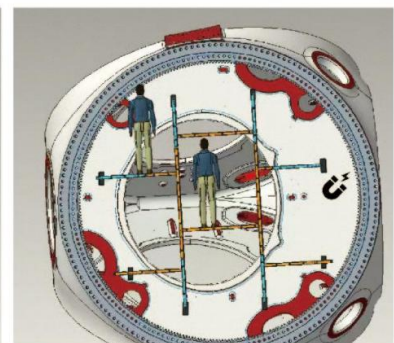
- 节约材料 —— 避免凸台铸造与切削损耗，减少钢材浪费

Efficient and flexible—Magnetic installation quickly, simplifying tool changeovers

- 高效灵活 —— 磁吸固定方式快速安装，简化工装更换

Economical and eco-friendly—Reduces overall manufacturing costs and enhances sustainability

- 经济环保 —— 降低整体制造成本，提升可持续性



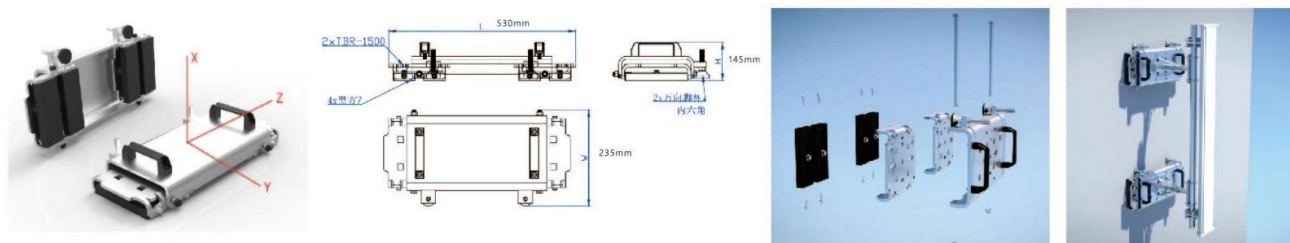
Magnetic Fastening Work Platform 磁吸紧固工作平台



Magnets for Cable and PVC Pipe Management 磁吸整理线缆和PVC管

Magnetic Anchor Point-1200

MAP支架-1200



(1) Why use MAP tools? 为何要用MAP工具?

Without welding, drilling, or hot work, the MAP permanent magnetic bracket can serve as a fixed anchor point on the curved tower surface suitable for emergency installations as well as temporary or permanent projects.

无需焊接、钻孔、动火作业即可用MAP永磁支架在有弧度的塔筒表面作为固定的锚点，用于应急安装，临时或永久工程；

(2) MAP Tool Description MAP工具说明

The MAP permanent magnetic bracket consists of an aluminum alloy frame connecting two sets of 7F-U1 permanent magnetic holder, providing a vertical pull force of 1200 kg and a holding force of 200 kg. It is suitable for equipment installation and construction operations in the onshore&offshore, petroleum, natural gas, and shipbuilding industries. The aluminum alloy frame can be machined with customized mounting holes and threads, making installation and removal simple and efficient.

MAP永磁支架产品，由铝合金支架连接2套7F-U1永磁吸盘，获得1200kg垂直拉拔力及200kg的保持力，适用于风电、石油、天然气，船舶行业设备安装、施工作业，铝合金支架可加工为适配的安装孔、螺纹，安装拆卸简单快捷。

Product Features产品特点:

Flexible and Lightweight, capable of adhering to various curved surfaces. The magnetic attachment serves as an anchor point. It offers multiple configuration options for securing large equipment, brackets, and sensors, and can also be used as a safety lifting anchor point.

灵活轻便，能在不同的弧面吸附，磁吸作为锚点，不动火、不打孔、不焊接、不损伤墙面地板。并有多种组合方式，用来固定各类大型设备支架传感器等，也可用作安全吊装锚点。

Item No. 产品编号	MAP Bracket MAP支架
X-Axis Pull-Off Force X轴拔拉力	1200kg (15 mm Low-Carbon Steel Plate, 0.4 mm Coating) 1200kg (15mm低碳钢板, 0.4的涂层)
Friction Coefficient 摩擦系数	0.6
Material 材质	Aluminum Alloy / Sheet Metal + Q235 Steel + Rubber + NdFeB 铝合金/钣金+Q235+橡胶+钕铁硼
Temperature Resistance 耐温	-40°C~80°C
Material: Rubber 橡胶材质	EPDM
Product Weight 产品质量	14kg
Product Packaging 产品包装	Aluminum Alloy Case, One Set per Case 铝合金箱，一箱一组
Minimum Inner and Outer Diameter of Tower/Tank 塔筒/罐体最小使用内外直径	2.6m

The external bracket can be pre-drilled with the required mounting holes. 外支架可预留需要的安装孔

When the attracted steel plate (without coating) is less than 6mm thick, the magnetic force is significantly reduced.

当被吸钢板(无涂层)厚度低于6mm，吸力明显下降。

以上数据为25℃下将磁性组件吸附在低碳钢(Q235)测试结果，钢板厚度为15mm，钢板涂层为0.4mm，拉力为磁组件同钢板分离时测力计最大值使用时应考虑具体工况，产品放置方向，表面厚度大小，留出足够安全余量，烦请同我们售前工程沟通，使用时注意被吸面干净、无尘及污渍。特别提醒:所有重型磁吸力量极大，为确保安全，使用前需经过为准培训、指导后方可使用。使用需遵照安装指导书及拆装视频，为准为一线使用工程师提供现场指导。

Magnetic Damper for Tower Tubes

塔筒磁吸阻尼器

In strong wind conditions wind turbine towers face significant risk of vortex-induced vibrations, which may threaten the structural safety of the tower. Therefore, effective measures must be taken to suppress vortex shedding before the nacelle is installed, ensuring the safety of the tower.

在大风天气下，风力塔筒面临显著的涡激震动风险，可能对塔筒结构安全造成威胁。因此，在机舱正式就位前，必须采取有效措施抑制涡流脱落，以保障塔筒安全。

For wind turbine towers, the damper provides the fastest and most convenient solution for suppressing vortex-induced vibrations. The damper is magnetically attached to the tower wall using a MAP3000 magnetic bracket, eliminating the need for welding on the tower body. By suspending counterweights inside the damper to generate a counter-acting swinging force, it effectively reduces vibrations. This not only simplifies the installation process but also prevents welding-related damage to the tower wall, ensuring safety during tower construction.

对于风力塔筒而言，阻尼器是实现涡激阻尼最快速、最简便的解决方案。该阻尼器通过磁性 MAP 3000 支架直接吸附于塔壁，无需在塔体上进行焊接，通过阻尼器内部悬挂配重产生反方向摆动力，减弱振动。既简化了安装流程，又避免了焊接对塔壁结构的损伤，为塔筒施工提供安全保障。



MAP-3000 magnetic clamp: 4 sets, each with a suction force of 1.6 tons

- MAP-3000 磁吸夹具:4 组，每组吸力 1.6 吨

Includes 16 "Black Square 7" magnetic units

- 含黑方 7 磁吸:16 个

Product dimensions: outer diameter: 1000 mm, height: 1700 mm

- 产品尺寸:外径:1000mm，高:1700mm

Features: compact size, light weight, easy to carry, can be disassembled and installed by one person.

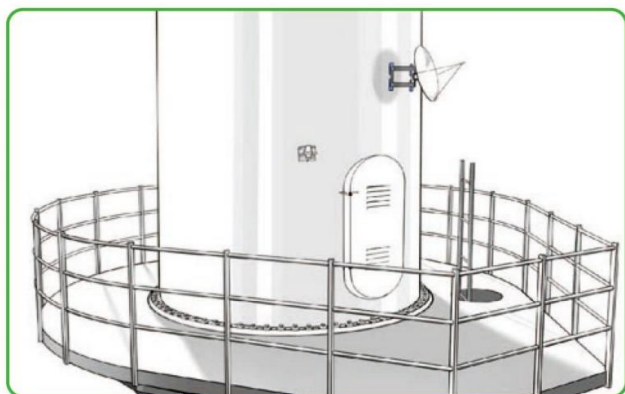
- 特点:体积小，重量轻，便于搬运，单人拆卸，单人安装

Product composition: 120° three-section curved surface assembled into a cylinder; Support frame: 1 set

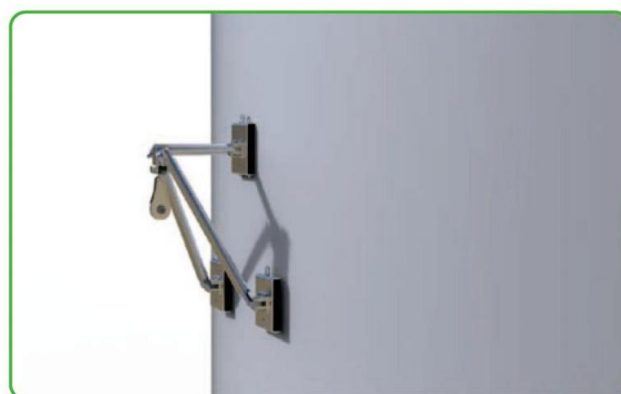
- 产品组成:120°三段弧面，拼接成圆筒;支撑架:1组

More Magnetic Installation Solutions

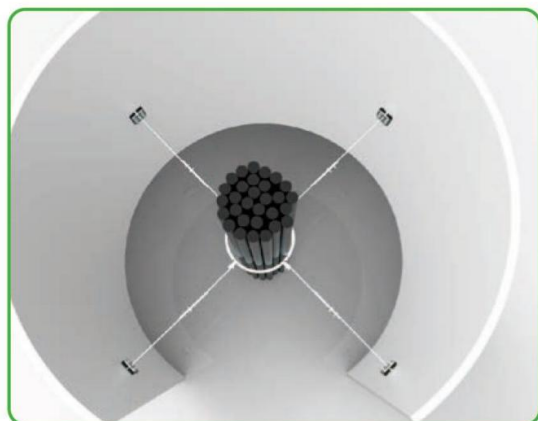
更多磁力安装方案



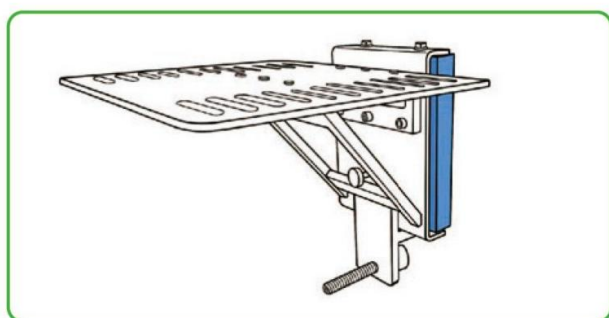
◀ Magnetic Fixing for Offshore Equipment
磁吸固定海上设备



Magnetic Lifting Structure ▶
磁吸吊装结构



◀ Magnetic Cable Fixing
磁吸固定线缆



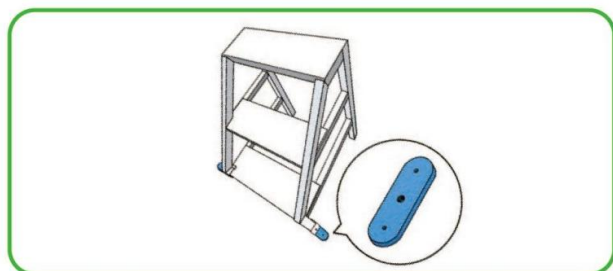
▲ Magnetic step 磁吸踏步

Reach out to us, and let our magnetic solution assist you in overcoming your challenges.

联系我们，让我们用磁性方案帮您一起解决难题。

Tool Quick Installation Solutions

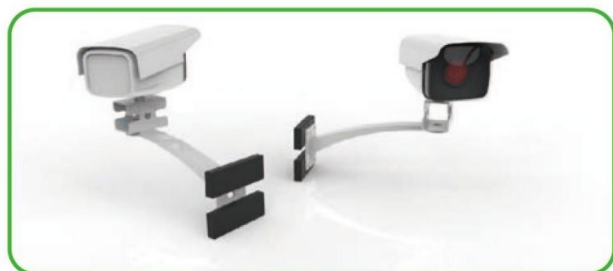
工具类快速安装方案



Movable step installation
移动踏步安装



First Aid box installation
急救箱安装



Camera installation
摄像头安装



Warning signs installation
警示牌安装



Searchlight fixation
探照灯安装



Fire extinguisher installation
灭火器安装



Small pipes fixation
管道固定安装



Warning light fixation
警示灯安装

Notes And Safety Tips

注意事项及安全提示



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PACEMAKER

Pacemakers could be damaged or switched into test mode and cause illness under the effect of strong magnetic force. Warn others who wears these devices to keep a safety distance from these magnets.

心脏起搏器

在强磁力的作用下, 心脏起搏器可能会损坏或切换到测试模式并导致疾病。警告佩戴这些设备的人与这些磁铁保持安全距离。

01



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BANK CARDS

Many electrical items such as bank cards, speakers, hearing aids can be damaged or demagnetized by the strong field of magnets. Safety distance should be maintained.

银行卡

许多电子产品如银行卡、扬声器、助听器等都可能因强磁场而损坏或消磁, 应保持安全距离。

02



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ELECTRONIC PRODUCTS

Keep magnets away from mobile phones, watches, computers and other electronic products!

电子产品

让磁铁远离手机、手表、电脑等电子产品!

03



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CONTUSIONS

Incorrect and unsafe operations could cause pinching of fingers because of strong attractive force. Do ware heavy protective gloves.

夹伤

由于强磁产品具有强大的吸力, 非正确非安全操作会引起手部夹伤。操作此类产品请佩戴保护手套。

04



For detailed information on product assembly, usage, testing, and related data, our team is ready to assist you. Please feel free to contact us.
若想进一步了解产品的拆装操作、使用注意事项、各项测试报告及数据, 请与我司联系。



上海为准磁业有限公司

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