



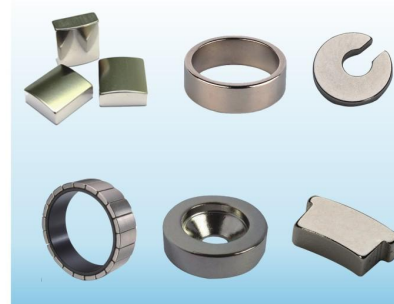
# 星创磁业有限公司

专注于磁铁设计和生产超过20年  
Focus on the magnet design and  
manufacturing over 20 years



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## Company introducing (公司介绍)

ABM Magnetics Co, LTD specialized in the manufacturing and providing engineering solution for Magnetic material and assembly. We insist on "People oriented, Resource optimizing, Value sharing, Agelong management" as our business philosophy. Most of our engineers worked in this field with more than ten year's experiences are available here to provide customer more economical, quick and professional services. Followings are what we can do for you:

1. Supplying all kind of permanent magnets and magnetic components.
2. Providing customer with the optimum solutions in magnetic field to help them saving cost.
3. Effective quality assurance (TS/16949: five core tools (APQP, PPAP, FMEA, MASA and SPC) to ensure good quality.
4. Providing complete stimulation and testing in order to ensure products' reliability.
5. Providing the economical&fast delivery service with our internal freight department.

Along with the market development trend, permanent magnet gets more and more popularity in wide applications owing to many of its advantages such as optimizing space, keeping work reliability and saving energy. We are looking forward to be your stable partner which being needed and trusted!

ABM磁业有限公司专注于磁性材料&组件的制造及方案解决。我们秉承“以人为本，资源优化，价值共享，永续经营”的经营理念。在这里，拥有十几年行业经验的工程精英可以提供您更经济，快速，专业的服务：

1. 供应各类永磁及磁性组件。
  2. 帮助客户提供磁性领域的优化方案
  3. 通过有效的品保核心工具（TS/16949: APQP, PPAP, FMEA, MASA&SPC）来确保品质
  4. 提供全套的模拟及测试以保证产品的可靠性
  5. 内部的物流部门将提供更经济，快捷的货运服务
- 随着市场发展的趋势。由于其特有的优势比如节省空间，工作稳定，节约能量，永磁的应用越来越广泛。我们期待成为您需要，信任的长期伙伴！

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## Sintered NdFeB Magnet 烧结钕铁硼磁铁



## Sintered NdFeB Magnetic & physical properties 烧结钕铁硼磁性能表

Grade 等级	Remanence		Coercivity				Max Energy Product		Temperature Coefficient		Max Working Temperature
	B <sub>r</sub> (剩磁)		H <sub>ci</sub> (矫顽力)		H <sub>cb</sub> (内禀矫顽力)		(BH) <sub>max</sub> (磁能积)		α(B <sub>r</sub> )	(H <sub>ci</sub> )	T <sub>w</sub> Max (最大工作温度)
	T	KGs	kA/m	kOe	kA/m	kOe	kJ/m <sup>3</sup>	MGOe	%/°C	%/°C	°C
N35	1.17-1.22	11.7-12.2	≥860	≥10.5	≥955	≥12	263-287	33-36	-0.12	-0.750	80
N38	1.22-1.25	12.2-12.5	≥860	≥11.2	≥955	≥12	287-310	36-39	-0.12	-0.750	80
N40	1.25-1.28	12.5-12.8	≥860	≥11.5	≥955	≥12	302-326	38-41	-0.12	-0.750	80
N42	1.28-1.32	12.8-13.2	≥860	≥11.5	≥955	≥12	318-342	40-43	-0.12	-0.750	80
N45	1.32-1.37	13.2-13.7	≥860	≥11.0	≥955	≥12	342-366	43-46	-0.12	-0.750	80
N48	1.37-1.42	13.7-14.2	≥836	≥11.0	≥955	≥12	366-390	46-49	-0.12	-0.750	80
N50	1.39-1.44	13.9-14.4	≥836	≥10.5	≥955	≥12	376-408	47-51	-0.12	-0.750	80
N52	1.42-1.47	14.2-14.7	≥836	≥10.5	≥876	≥11	390-421	49-53	-0.12	-0.750	80
N54	1.45-1.50	14.5-15.0	≥836	≥10.5	≥876	≥11	406-438	51-55	-0.12	-0.750	80
N35M	1.17-1.22	11.7-12.2	≥868	≥10.9	≥1114	≥14	263-287	33-36	-0.11	-0.675	100
N38M	1.22-1.25	12.2-12.5	≥899	≥11.3	≥1114	≥14	287-310	36-39	-0.11	-0.675	100
N40M	1.25-1.28	12.5-12.8	≥923	≥11.6	≥1114	≥14	302-326	38-41	-0.11	-0.675	100
N42M	1.28-1.32	12.8-13.2	≥955	≥12.0	≥1114	≥14	318-342	40-43	-0.11	-0.675	100
N45M	1.32-1.38	13.2-13.8	≥971	≥12.2	≥1114	≥14	342-366	43-46	-0.11	-0.675	100
N48M	1.36-1.42	13.6-14.2	≥995	≥12.5	≥1114	≥14	360-392	46-49	-0.11	-0.675	100
N50M	1.39-1.44	13.9-14.4	≥1035	≥13.0	≥1114	≥14	376-406	47-51	-0.11	-0.675	100
N52M	1.42-1.47	14.2-14.7	≥1056	≥13.3	≥1114	≥14	390-422	49-53	-0.11	-0.675	100
N35H	1.17-1.22	11.7-12.2	≥868	≥10.9	≥1353	≥17	263-287	33-36	-0.11	-0.605	120
N38H	1.22-1.25	12.2-12.5	≥899	≥11.3	≥1353	≥17	287-310	36-39	-0.11	-0.605	120
N40H	1.25-1.28	12.5-12.8	≥923	≥11.6	≥1353	≥17	302-326	38-41	-0.11	-0.605	120
N42H	1.28-1.32	12.8-13.2	≥955	≥12.0	≥1353	≥17	318-342	40-43	-0.11	-0.605	120
N45H	1.32-1.37	13.2-13.7	≥971	≥12.2	≥1353	≥17	344-366	43-46	-0.11	-0.605	120
N48H	1.36-1.42	13.6-14.2	≥1011	≥12.7	≥1353	≥17	366-392	46-49	-0.11	-0.605	120
N50H	1.39-1.44	13.9-14.4	≥1035	≥13.0	≥1353	≥17	374-406	47-51	-0.11	-0.605	120
N52H	1.42-1.47	14.2-14.7	≥1035	≥13.0	≥1353	≥17	390-422	49-53	-0.11	-0.605	120
N35SH	1.13-1.17	11.3-11.7	≥844	≥10.6	≥1592	≥20	247-272	31-34	-0.11	-0.535	150
N35SH	1.17-1.22	11.7-12.2	≥876	≥11.0	≥1592	≥20	263-287	33-36	-0.11	-0.535	150
N38SH	1.22-1.25	12.2-12.5	≥907	≥11.4	≥1592	≥20	287-310	36-39	-0.11	-0.535	150
N40SH	1.25-1.28	12.5-12.8	≥939	≥11.8	≥1592	≥20	302-326	38-41	-0.11	-0.535	150
N42SH	1.28-1.32	12.8-13.2	≥955	≥12.0	≥1592	≥20	318-342	40-43	-0.11	-0.535	150
N45SH	1.32-1.37	13.2-13.7	≥979	≥12.3	≥1592	≥20	342-366	43-46	-0.11	-0.535	150
N48SH	1.36-1.42	13.6-14.2	≥995	≥12.5	≥1592	≥20	366-390	46-49	-0.11	-0.535	150
N50SH	1.39-1.45	13.9-14.5	≥995	≥12.5	≥1592	≥20	374-406	46-49	-0.11	-0.535	150
N52SH	1.42-1.47	14.2-14.7	≥995	≥12.5	≥1592	≥20	390-422	49-53	-0.11	-0.535	150
N30UH	1.08-1.13	10.8-11.3	≥812	≥10.2	≥1990	≥25	223-247	28-31	-0.10	-0.465	180
N33UH	1.13-1.17	11.3-11.7	≥852	≥10.7	≥1990	≥25	247-271	31-34	-0.10	-0.465	180
N35UH	1.17-1.22	11.7-12.2	≥860	≥10.8	≥1990	≥25	263-287	33-36	-0.10	-0.465	180
N38UH	1.22-1.25	12.2-12.5	≥876	≥11.0	≥1990	≥25	287-310	36-39	-0.10	-0.465	180
N40UH	1.25-1.28	12.5-12.8	≥915	≥11.5	≥1990	≥25	302-326	38-41	-0.10	-0.465	180
N42UH	1.27-1.32	12.7-13.2	≥955	≥12.0	≥1990	≥25	318-342	40-43	-0.10	-0.465	180
N45UH	1.32-1.37	13.2-13.7	≥995	≥12.5	≥1990	≥25	342-366	43-46	-0.10	-0.465	180
N48UH	1.37-1.43	13.7-14.3	≥995	≥12.5	≥1990	≥25	366-390	46-49	-0.10	-0.465	180
N50UH	1.39-1.45	13.9-14.5	≥995	≥12.5	≥1990	≥25	374-406	47-51	-0.10	-0.465	180
N30EH	1.08-1.13	10.8-11.3	≥812	≥10.2	≥2388	≥30	223-247	28-31	-0.10	-0.420	200
N33EH	1.13-1.17	11.3-11.7	≥820	≥10.3	≥2388	≥30	248-272	31-34	-0.10	-0.420	200
N35EH	1.17-1.22	11.7-12.2	≥836	≥10.5	≥2388	≥30	263-287	33-36	-0.10	-0.420	200
N38EH	1.20-1.25	12.0-12.5	≥899	≥11.3	≥2388	≥30	287-310	36-39	-0.10	-0.420	200
N40EH	1.25-1.28	12.5-12.8	≥915	≥11.5	≥2388	≥30	302-326	38-41	-0.10	-0.420	200
N42EH	1.27-1.32	12.7-13.2	≥971	≥12.2	≥2388	≥30	318-342	40-43	-0.10	-0.420	200
N45EH	1.33-1.38	13.3-13.8	≥971	≥12.2	≥2388	≥30	342-366	43-46	-0.10	-0.420	200
N28AH	1.05-1.09	10.5-10.9	≥780	≥9.8	≥2706	≥34	207-230	26-29	-0.10	-0.393	220
N30AH	1.10-1.14	11.0-11.4	≥812	≥10.2	≥2706	≥34	223-247	28-31	-0.10	-0.393	220
N33AH	1.14-1.17	11.4-11.7	≥812	≥10.2	≥2706	≥34	247-271	31-34	-0.10	-0.393	220
N35AH	1.17-1.22	11.7-12.2	≥883	≥11.1	≥2706	≥34	263-287	33-36	-0.10	-0.393	220
N38AH	1.20-1.25	12.0-12.5	≥923	≥11.6	≥2706	≥34	287-310	36-39	-0.10	-0.393	220
N40AH	1.25-1.30	12.5-13.0	≥923	≥11.6	≥2706	≥34	302-326	38-41	-0.10	-0.393	220
N42AH	1.28-1.34	12.8-13.4	≥923	≥11.6	≥2706	≥34	318-342	40-43	-0.10	-0.393	220
N28VH	1.02-1.09	10.2-10.9	≥780	≥9.8	≥3104	≥39	207-230	26-29	-0.10	-0.393	250
N30VH	1.08-1.14	10.8-11.4	≥812	≥10.2	≥3104	≥39	223-247	28-31	-0.10	-0.393	250
N33VH	1.13-1.18	11.3-11.8	≥812	≥10.2	≥3104	≥39	247-271	31-34	-0.10	-0.393	250
N35VH	1.17-1.22	11.7-12.2	≥883	≥11.1	≥3104	≥39	263-287	33-36	-0.10	-0.393	250
N38VH	1.22-1.27	12.2-12.7	≥923	≥11.6	≥3104	≥39	287-310	36-39	-0.10	-0.393	250

01

### 1. Higher magnetic performance than Bonded magnet(比粘接磁铁有高很多的磁性性能)

Br:11000-15000 Gs, Hci :11000-30000 Oe, BHmax:35-50MGOe

剩磁: 11000-15000 Gs, 内禀矫顽力: 11000-39000 Oe, 磁能积: 35-55MGOe

### 2. Coating 电镀

Ni, Ni-Cu-Ni, Zn, Ag, Au, epoxy, parylene and other special coating 镀镍, 镍铜镍, 锌, 银, 金, 环氧树脂, 聚对二甲苯等

### 3. Higher corrosion resistant after coating 电镀后具有较高的抗腐蚀性

Salt spray testing: 24-72 Hours 盐雾试验: 24小时到72小时

### 4. Working temperature 工作温度

The maximum working temperature range : 80-230 degree C 工作温度: 80摄氏度到230摄氏度

### 5. Structure & dimension 结构与尺寸

Various sizes in Arc, Cylinder, Ring, Block and Irregular shape各种尺寸的瓦形, 圆片, 圆环, 方形及异型

### 6. Magnetizing pattern 充磁方式

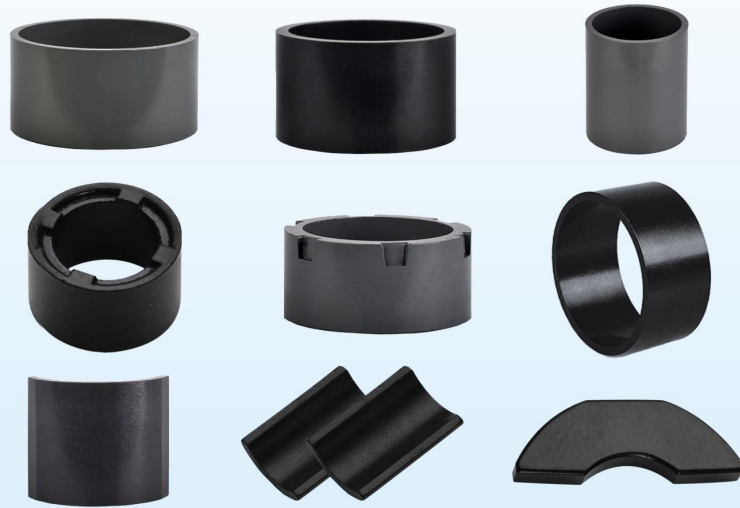
Multi-poles on face alone axial, axial and Diameter cross magnetization and other special magnetizing pattern轴向端面多极, 径向两极特殊的充磁方式

### 7. Magnetic component 磁性组件

High precision assembling and good consistency 高精度的装配及一致性 (With steel housing, shaft and other parts)

02

## Compression Bonded NdFeB magnets 模压粘接磁铁



03

1. Higher magnetic performance than injection bonded NdFeB

比注塑粘接钕铁硼有高很多的磁性能

2.Br:3500-8000 Gs, Hci :4000---16000 Oe,BHmax:3-12MGOe

剩磁: 3500-8000 Gs, 内禀矫顽力: 4000-16000 Oe, 磁能积: 3-12MGOe

3. Higher corrosion resistant than Injection bonded NdFeB Magnet, Salt spray testing :

≥ 72 Hours

电泳后, 比注塑粘接钕铁硼有更高的抗腐蚀能力, 盐雾试验可达72小时

4. Working temperature ( 工作温度 )

The maximum working temperature: 200 degree C ( 最大工作温度: 200摄氏度 )

5. More flexible magnetizing pattern than sintered NdFeB magnet

比烧结NdFeB有更灵活的充磁方式

Multi-poles on OD,ID & end face(along axial),radial and Diameter cross magnetization, helix and other special magnetizing pattern

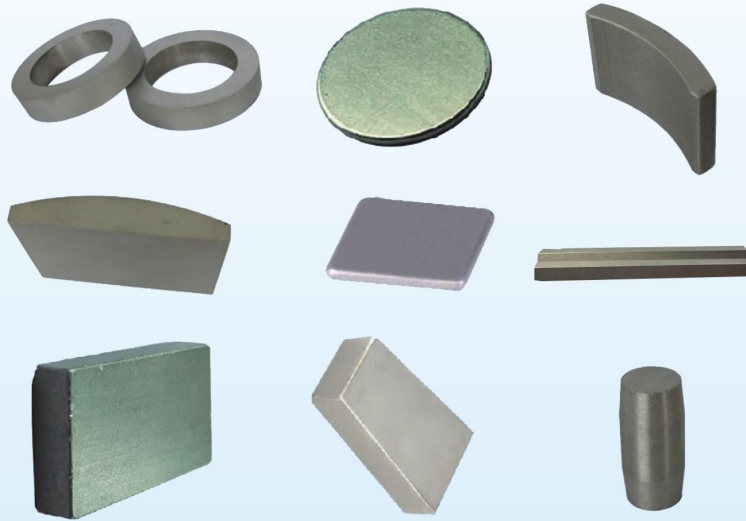
可多极充磁在圆环的外径, 内径, 辐射充磁, 端面多极充磁, 螺旋充磁等。

## Compression bonded NdFeB Magnetic & physical properties 模压粘接钕铁硼磁铁的磁性能及物理性能

产品等级 Products Grade	Unit	ABN-2	ABN-3	ABN-4	ABN-5	ABN-6	ABN-7	ABN-7H	ABN-8L	ABN-8	ABN-8H	ABN-9	ABN-9H	ABN-10	ABN-10H	ABN-12L	ABN-12	ABN-13L	ABN-13	
剩磁 Br Residual Induction	(mT) (kGs)	200-300 2.0-3.0	370-420 3.5-4.5	420-470 4.0-5.0	480-520 4.5-5.5	550-600 5.5-6.0	600-650 6.0-6.5	550-600 5.5-6.0	600-650 6.0-6.5	600-650 6.0-6.5	600-650 6.0-6.5	650-700 6.5-7.0	650-700 6.5-7.0	650-700 6.5-7.0	650-700 6.5-7.0	700-750 7.0-7.5	700-750 7.0-7.5	700-800 7.0-8.0	700-800 7.0-8.0	
矫顽力 Hcb Coercive Force	(kA/m) (kOe)	160-240 2.0-3.0	200-280 2.5-3.5	200-280 2.5-3.5	200-320 2.5-4.0	280-400 3.5-5.0	320-400 4.0-5.0	320-368 4.0-5.5	320-400 4.0-5.0	360-408 4.5-5.5	440-520 4.5-6.5	360-424 4.5-6.0	360-480 4.5-6.0	360-480 4.5-6.0	400-480 5.0-6.0	360-440 4.5-5.5	416-480 5.0-6.0	360-440 4.5-5.5	360-520 4.5-6.5	
内禀矫顽力 Hcj Intrinsic Coercive Force	(kA/m) (kOe)	400-560 5.0-7.0	520-600 6.5-7.5	520-600 6.5-7.5	520-640 6.5-8.0	550-680 7.0-8.5	640-720 8.0-9.0	955-1115 12-14.0	550-640 7.0-8.0	640-720 8.0-9.0	800-955 10.0-12.0	640-720 8.0-9.0	720-880 9.0-11.0	680-760 8.5-9.5	880-1040 11.0-13.0	520-600 6.5-7.5	680-800 8.5-10.0	520-600 6.5-7.5	640-800 8.0-10.0	
最大磁能积 (BH)max Max. Energy Product	(kJ/m <sup>3</sup> ) (MGOe)	12-20 1.5-3.0	20-28 2.5-3.5	28-36 3.5-4.5	36-44 4.5-5.5	44-55 5.5-6.5	55-60 6.5-7.5	52-60 6.5-7.5	60-68 7.5-8.5	60-68 7.5-8.5	60-68 7.5-8.5	65-72 8.0-9.0	65-72 8.0-9.0	72-80 9.0-10.0	72-80 9.0-10.0	75-84 9.5-10.5	75-84 9.5-10.5	84-92 10.5-11.5	84-92 10.5-11.5	
可逆磁导率 (μ <sub>rec</sub> ) Permeability	(μH/0)	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	
平均可逆温度系数 Temperature coefficient α	(%/°C)	-0.10	-0.10	-0.11	-0.11	-0.10	-0.12	-0.12	-0.12	-0.12	-0.13	-0.10	-0.10	-0.10	-0.13	-0.10	-0.10	-0.11	-0.10	
饱和磁化场 Hs Magnetizing Field to 95% Saturation	(kA/m) (kOe)	≥1600 ≥20	≥1600 ≥20	≥1600 ≥20	≥1600 ≥20	≥1600 ≥20	≥1800 ≥22	≥1600 ≥20	≥1600 ≥20	≥2000 ≥25	≥1600 ≥20	≥1600 ≥20	≥1600 ≥20	≥2000 ≥25	≥1600 ≥20	≥1600 ≥20	≥1600 ≥20	≥1600 ≥20	≥1600 ≥20	
居里温度 T <sub>c</sub> Curie Temperature	(°C)	350	350	350	350	350	350	295	295	305	330	330	330	330	305	360	360	325	360	
最大工作温度 T <sub>max</sub> Max. Operating Temperature	(°C)	150	150	160	160	160	180	160	160	180	150	180	150	180	150	180	160	160	150	160
密度 ρ Density	(g/cm <sup>3</sup> )	4.0-5.0	4.0-5.0	4.0-5.0	5.0-5.5	5.5-5.8	5.8-6.0	5.8-6.0	5.8-6.0	5.8-6.0	5.8-6.0	5.8-6.0	5.8-6.0	5.8-6.0	6.0-6.2	6.0-6.2	6.0-6.4	6.0-6.4	6.0-6.4	6.0-6.4

04

## Sintered SmCo Magnets 烧结钐钴磁铁



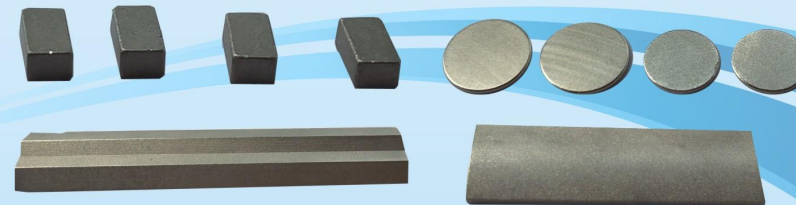
05

- There are two types of SmCo magnets with SmCo5 and Sm2Co17 in the current market.  
目前市场有两种型号的钐钴磁铁，一种是钐钴1:5，另外一种是钐钴2:17
- SmCo magnet has higher magnetic properties (higher Br, higher Hcj and higher (BH)max), lower temperature coefficient (-0.03%~0.05 %/° C.), higher working temperature (Max working temperature reaches 350°C.) and excellent corrosion resistance  
钐钴磁铁具有很高的磁性能（高剩磁、高矫顽力、高磁能积）、极低的温度系数（-0.03%~0.05 %/° C.）、极高的使用温度（高达350°C）极好的耐腐蚀性能。
- SmCo magnet is widely used in electric motors, couplings, high efficiency rotors, drive components, electron beam devices, generators, sensor system .....and so on.  
钐钴磁铁广泛应用在电动马达，联轴器，高速转子，驱动装置，电子束装置，传感器等

## Sintered SmCo(SmCo5 and Sm2Co17) Properties 烧结钐钴性能表

Br		Hcb		Hcj		(BH)max		TC	TW	(Br)剩磁温度系数	Hcj内禀矫顽力温度系数
剩磁		矫顽力		内禀矫顽力		最大磁能积		居里温度	最高工作温度	Temperature coefficient	Temperature coefficient
T	KGS	KA/m	Koe	KA/m	Koe	KJ/m³	Mgoe	°C	°C	%C	%C
0.81-0.85	8.1-8.5	620-660	7.8-8.3	1194-1830	15-23	110-127	14-16	750	250	-0.050	-0.30
0.85-0.90	8.5-9.0	660-700	8.3-8.8	1194-1830	15-23	127-143	16-18	750	250	-0.050	-0.30
0.90-0.94	9.0-9.4	676-725	8.5-9.1	1194-1830	15-23	150-167	19-21	750	250	-0.050	-0.30
0.92-0.96	9.2-9.6	710-748	8.9-9.4	1194-1830	15-23	160-175	20-22	750	250	-0.050	-0.30
0.96-1.00	9.6-10.0	730-770	9.2-9.7	1194-1830	15-23	175-190	22-24	750	250	-0.050	-0.30
0.92-0.96	9.2-9.6	710-756	8.9-9.5	≥1830	≥23	167-183	21-23	750	250	-0.045	-0.28
0.96-1.00	9.6-10.0	740-788	9.3-9.9	≥1830	≥23	183-199	23-25	750	250	-0.045	-0.28
0.95-1.02	9.5-10.2	692-764	8.7-9.6	≥1990	≥25	175-191	22-24	800	350	-0.025	-0.20
1.02-1.05	10.2-10.5	748-796	9.4-10.0	≥1990	≥25	191-207	24-26	800	350	-0.030	-0.20
1.03-1.08	10.3-10.8	756-812	9.5-10.2	≥1990	≥25	207-220	26-28	800	350	-0.035	-0.20
1.08-1.10	10.8-11.0	788-835	9.9-10.5	≥1990	≥25	220-240	28-30	800	350	-0.035	-0.20
1.10-1.13	11.0-11.3	812-860	10.2-10.8	≥1990	≥25	230-255	29-32	800	350	-0.035	-0.20
0.95-1.02	9.5-10.2	692-764	8.7-9.6	≥1433	≥18	175-191	22-24	800	300	-0.025	-0.20
1.02-1.05	10.2-10.5	748-796	9.4-10.0	≥1433	≥18	191-207	24-26	800	300	-0.030	-0.20
1.03-1.08	10.3-10.8	756-812	9.5-10.2	≥1433	≥18	207-220	26-28	800	300	-0.035	-0.20
1.08-1.10	10.8-11.0	788-835	9.9-10.5	≥1433	≥18	220-240	28-30	800	300	-0.035	-0.20
1.10-1.13	11.0-11.3	812-860	10.2-10.8	≥1433	≥18	230-255	29-32	800	300	-0.035	-0.20
1.02-1.05	10.2-10.5	676-780	8.5-9.8	955-1433	12-18	191-207	24-26	800	300	-0.035	-0.20
1.03-1.08	10.3-10.8	676-796	8.5-10.0	955-1433	12-18	207-220	26-28	800	300	-0.035	-0.20
1.08-1.10	10.8-11.0	676-835	8.5-10.5	955-1433	12-18	220-240	28-30	800	300	-0.035	-0.20
1.10-1.13	11.0-11.3	676-852	8.5-10.7	955-1433	12-18	230-255	29-32	800	300	-0.035	-0.20
1.03-1.08	10.3-10.8	541-764	6.8-9.6	636-955	8-12	207-220	26-28	800	250	-0.035	-0.20
1.08-1.15	10.8-11.5	541-796	6.8-10.0	636-955	8-12	220-240	28-30	800	250	-0.035	-0.20
1.10-1.15	11.0-11.5	541-812	6.8--10.2	636-955	8-12	230-255	29-32	800	250	-0.035	-0.20

06





## Injection Molding Magnets 注塑成型磁铁 Injection Magnetic Rotor For Pump 水泵塑磁转子



09

### Injection bonded NdFeB Magnetic & physical properties 注塑粘接钕铁硼的磁性能及物理性能

产品牌号		PA12系列						
Products Grade		ABN-A3	ABN-A4	ABN-A5	ABN-A6	ABN-A7	ABN-ABA	ABN-ABB
Br 剩磁	(mT)	360-410	410-460	460-510	510-570	540-570	590-630	610-650
Residual Induction	(KGs)	3.60-4.10	4.10-4.60	4.60-5.10	5.10-5.70	5.40-5.70	5.90-6.30	6.10-6.50
Hcb 矫顽力	(KA/m)	223-263	271-295	302-334	334-366	358-390	382-414	398-422
Coercive Force	(KOe)	2.8-3.3	3.4-3.7	3.8-4.2	4.2-4.6	4.5-4.9	4.8-5.2	5.0-5.3
Hcj 内禀矫顽力	(KA/m)	636-724	660-740	676-748	700-756	716-772	700-772	724-772
Intrinsic Coercive Force	(KOe)	8.00-9.10	8.30-9.30	8.50-9.40	8.80-9.50	9.00-9.7	8.80-9.7	9.10-9.7
(BH)max 最大磁能积	(KJ/m <sup>3</sup> )	22-27	30-35	38-43	46-51	52-57	58-62	65-69
Max.Energy Product	(MGOe)	2.80-3.40	3.80-4.40	4.80-5.40	5.80-6.40	6.50-7.10	7.30-7.80	8.20-8.70
磁感应温度系数 (%/°C)		-0.1 ~ -0.15	-0.1 ~ -0.15	-0.1 ~ -0.15	-0.1 ~ -0.15	-0.1 ~ -0.15	-0.1 ~ -0.15	-0.1 ~ -0.15
饱和磁化场	(KA/m)	≥1592	≥1592	≥1592	≥1592	≥1592	≥1592	≥1592
Hs	(KOe)	≥20	≥20	≥20	≥20	≥20	≥20	≥20
密度 ρ	(g/cm <sup>3</sup> )	3.4-4.4	3.9-4.9	4.5-5.0	4.5-5.5	5.0-5.5	5.3-5.5	5.3-5.5
Density								
T.max 最大工作温度	(°C)	125	125	125	125	125	125	125
Max.Operating Temperature								

## Injection Molding Magnets 注塑成型磁铁 Injection Magnetic Rotor For Motor 塑磁电机转子



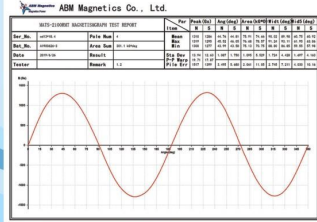
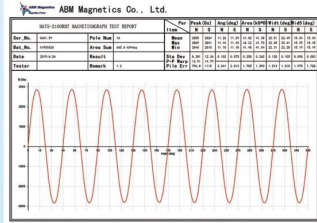
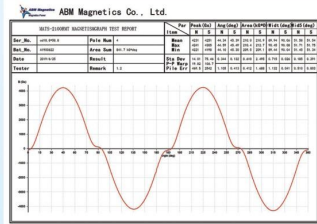
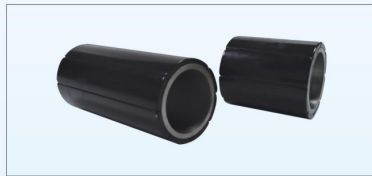
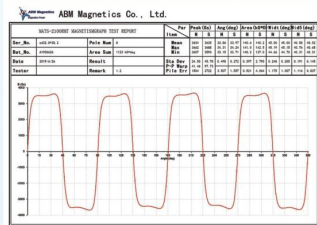
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### Injection bonded NdFeB Magnetic & physical properties 注塑粘接钕铁硼的磁性能及物理性能

产品牌号		PPS系列					
Products Grade		ABN-S308	ABN-S409	ABN-S509	ABN-S612	ABN-S609	ABN-S612
Br 剩磁	(mT)	360-410	410-460	460-510	450-500	505-550	485-530
Residual Induction	(KGs)	3.60-4.10	4.10-4.60	4.60-5.10	4.50-5.00	5.05-5.50	4.85-5.30
Hcb 矫顽力	(KA/m)	223-263	271-295	302-334	302-360	334-366	334-382
Coercive Force	(KOe)	2.80-3.30	3.40-3.70	3.80-4.20	3.80-4.40	4.20-4.60	4.20-4.80
Hcj 内禀矫顽力	(KA/m)	636-724	660-740	700-756	875-1034	700-756	875-1034
Intrinsic Coercive Force	(KOe)	8.00-9.10	8.30-9.30	8.80-9.50	11.00-13.00	8.80-9.50	11.00-13.00
(BH)max 最大磁能积	(KJ/m <sup>3</sup> )	22-27	30-35	38-43	37-43	44-50	43-48
Max.Energy Product	(MGOe)	2.80-3.40	3.80-4.40	4.80-5.40	4.60-5.40	5.50-6.30	5.40-6.00
磁感应温度系数 (%/°C)		-0.10 ~ -0.15	-0.10 ~ -0.15	-0.10 ~ -0.15	-0.10 ~ -0.15	-0.10 ~ -0.15	-0.10 ~ -0.15
饱和磁化场	(KA/m)	≥1592	≥1592	≥1592	≥1988	≥1592	≥1988
Hs	(KOe)	≥20	≥20	≥20	≥20	≥20	≥20
密度 ρ	(g/cm <sup>3</sup> )	3.9-4.4	3.9-4.9	4.8-5.0	4.8-5.0	4.9-5.2	4.9-5.2
Density							
T.max 最大工作温度	(°C)	180	180	180	180	180	180
Max.Operating Temperature							

# Magnetic Rotor Waveform Graph

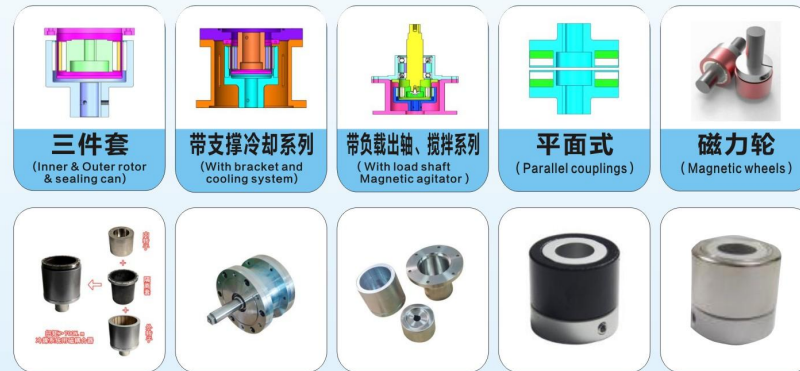
## 磁性转子波形图



可按客户需求定制波形图

# Magnetic transmitter & Synchronous Magnetic Coupling

## 磁性传动组件 & 同步磁性联轴器



磁力传动联轴器属非接触式联轴器：一般由内外 2 个磁体组成，中间由隔离罩将 2 个磁体分开，内磁体与被传动件相连，外磁体与动力件相连。

Magnetic coupling is a kind of non-contact structure, it is generally composed of inner rotor, outer rotor and sealing can. The inner magnetic rotor is connected with the load part, and the outer magnetic rotor is connected with the power part.

磁力传动联轴器除了具有弹性联轴器缓冲吸振的功能外，其最大的特点在于它打破传统联轴器的结构形式，采用全新的磁耦合原理，实现主动轴与从动轴之间不通过直接接触便能进行力与力矩的传递，并可将动密封化为静密封，实现零泄漏。

The advantage of Magnetic coupling is not only cushioning and vibration absorption, but also to change dynamic seal into static seal and then to realize zero leakage for its special structure that the drive shaft and load shaft can transmit force and moment without direct contact.

隔离套材质可选：不锈钢 304 #、不锈钢 316 #、PEEK、哈氏合金

Material of Spacer Sleeve: SUS304#, SUS316#, PEEK, Hastelloy

磁力传动联轴器的优点 --- 非接触的动力传递装置 Advantage of magnetic coupling Transmit force without contact		传统接触式传动的缺点 Disadvantages of traditional coupling	
1	静密封，实现零泄漏： Static seal and ZERO leakage	无法静态密封 CAN not static seal	
2	无噪音，减振（隔振）： No noise, Vibration absorption	有噪音 Noise	
3	同步传递，效率 100%： SYNC start, Efficiency 100%	启动不同步 Not SYNC start	
4	结构简单，易维护： Simple structure, easy to be maintenance	定期保养 Periodic maintenance	
5	软启动，可过载保护 Soft start, overload protection	磨损影响精度 Wear effect accuracy	
6	毫米级对中需求 Millimeter level alignment requirement		
7	启动角小 Small actuation angle		
8	最大扭矩可达 5000 N.m Max torque 5000 N.m		
9	制造成本低 Low cost		



## Magnetic Rotors 永磁转子



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Working in combination of plastic over-molding, gluing, clamping, potting and fiber-wrapping, our magnetic rotor has performed the following advantages.

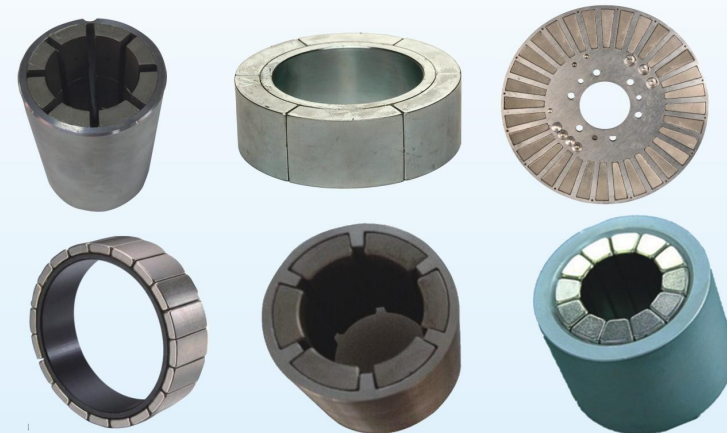
结合注塑包胶，胶粘，机械固定，灌胶及纤维包裹等工艺，我们的永磁转子实现了以下优点

1. Perfect balance 完美的动平衡
2. Low noise 低噪音
3. Low weight 重量轻
4. High rotational speed(RPM reached 100,000+) 高转速，每分钟转速可超过10万转
5. High temperature resistance 耐高温
6. Perfect mechanical property(No crack happen) 完美的机械性能，没有裂纹出现

Application in motor of UAV and vacuum cleaner, electric turbo charger, power tools, electric drive motors, air pressure motors, water or oil pump.....

广泛应用于无人机和吸尘器马达，涡轮机，电动工具，电动马达，空压马达，水/油泵等

## Magnetic Assemblies 永磁组件



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ABM excels at designing and manufacturing the magnetic assemblies.

我们的团队专业设计生产永磁组件。

Its components include NdFeB&SmCo magnets, shaft, sleeve, housing.

零部件包括钕铁硼磁铁，钐钴磁铁，钢轴，钢套

Using the high temperature and high adhesive force glue for assembling process.

使用高粘合力，耐高温胶水组装

Application in water or oil pump couplings (inner and outer magnet assemblies), electric drive motors, voice-coilmotor(音圈电机),

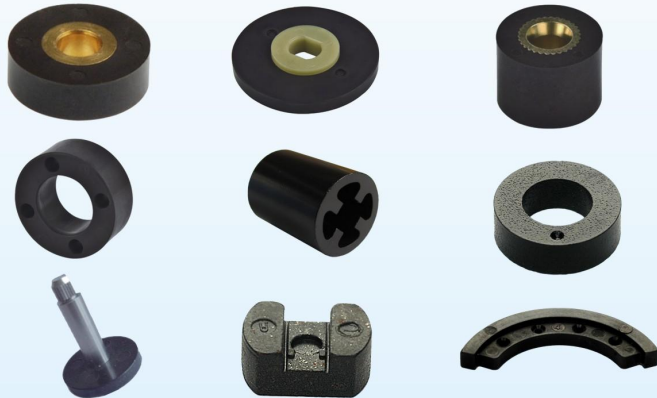
high speed rotor, latch assemblies, NMR, sensors and encoders

磁组件广泛应用在水泵，油泵联轴器（磁铁可装在里面和外面），电动马达，音圈电机，高速转子，开锁器，核磁共振，传感器和编码器。

Advantages 优点

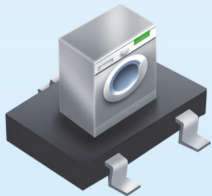
- 1: High performance 高性能
- 2: low weight 重量轻
- 3: Good mechanical property 良好的机械性能
- 4: Good blance 良好的动平衡

## Magnetic Sensor Components 感应器组件

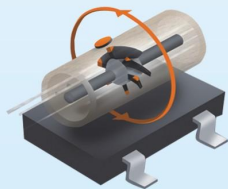


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### Magnetic sensor components application 磁性传感器部件的应用



Digital magnetic TMR switch sensor  
数字开关传感器



Digital TMR rotation/speed sensor  
转动/速度传感器



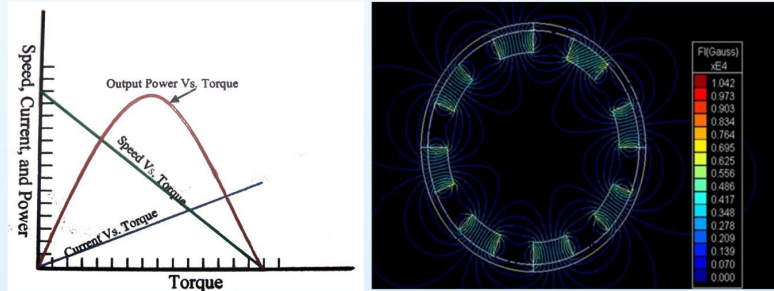
TMR angular sensor  
角度传感器



Contactless TMR field sensor  
遥控磁场传感器

## Magnetic Rotor Or Assembly Design 磁转子/组件设计

For a magnetic rotor or components, there have many different ways to achieve the same effect. we will carry out the more cost-effective way to optimize the magnetic circuit or geometry. By this way, usually cost savings of magnet or magnetic properties further improved by nearly 20%. 对于一个磁性转子/组件，可以通过很多种不同的方式达到同样的效果。我们会按照性价比的方式进行磁路/结构优化。通过这种方式，可有效降低磁铁成本或磁性能的进一步提高近20%



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We provide our customer with good solution for various type of rotors from following  
我们从下面几个方面提供不同类型马达转子的解决方案给我们的客户

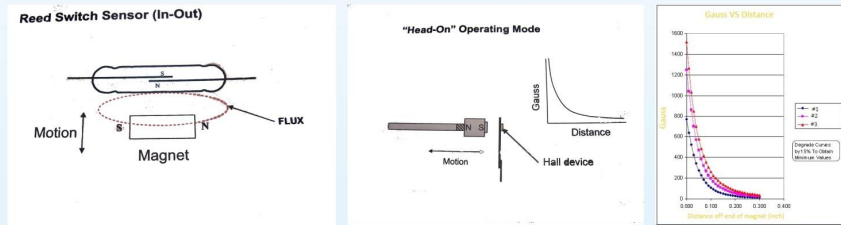
1. Magnetic performance grade----which solve the problem on power, reliability (working environment including temperature, corrosion resistant and so on)  
磁性能等级--主要解决功率和可靠性---(工作环境,例如温度,抗腐蚀性等)
2. Structure and size (Save magnet's weight and decrease noise by optimizing design)  
结构和尺寸(通过优化设计达到节约磁铁及减少噪音的效果)
3. Magnetizing pattern design 充磁方式设计



Different Magnetizing Pattern 不同的充磁模式

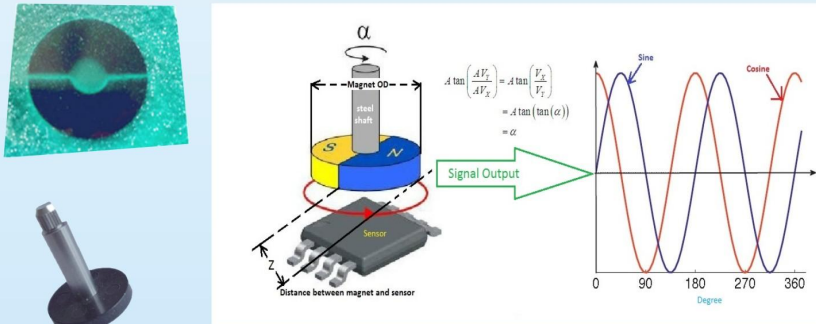
## Magnetic Sensor Components Design 磁性传感器部件的设计

ABM has first-hand unmatched magnetic sensor components design and manufacturing experience, our R&D team can help you select the most cost-effective magnetic material, grade and optimized geometry for your magnetic sensor components application. 星创磁业有着丰富的磁性传感器部件的设计和制造经验, 针对磁性传感器部件的实际应用, 我们的研发团队可以帮助客户选择经济实用的材料, 优化结构。



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## Design Case (Angle sensor) 设计案例(角度传感器)



Design tools 设计工具

Gauss meter 高斯计

Helmholtz Coil and Fluxmeter 赫姆霍兹线圈及磁通计

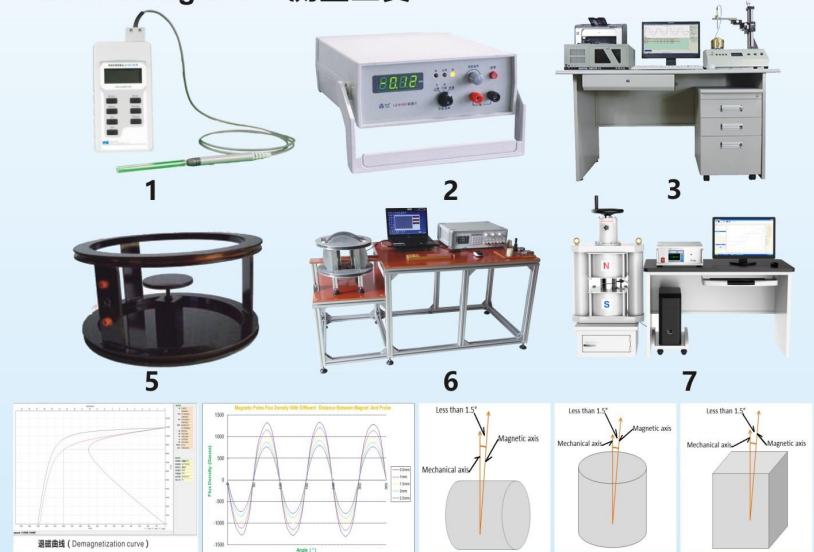
2D FEA Software 二维有限元分析软件

Gauss Program (Flux density calculation in space) 空间磁场计算程序

## Magnetic Measurement For Magnets 磁铁的磁性检测

The magnetic performance is one of primary parameter for a permanent magnet, so the professional and exact measure will be required during magnet design and manufacturing. 磁性能是磁铁最重要的参数之一, 因此, 在磁铁设计和生产的时候对其进行专业且准确的测量是必须的。

## Measuring tools 测量工具



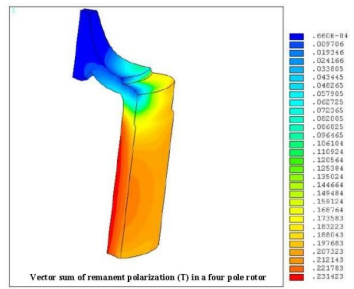
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1. Gaussmeter, magnetic strength measurement 高斯计 (测量磁铁的磁场强度)
2. Fluxmeter, it's for magnetic flux measurement 磁通计 (测量磁铁的磁通量)
3. Multi-magnetic poles scanner, magnetic strength and pole angle measurement 多极磁场扫描仪 (测量磁极的磁场强度和磁极的角度—针对多极磁铁)
4. Gaussmeter probes 高斯探头
5. Helmholtz coil 赫姆霍兹线圈
6. Magnetic declination tester 磁偏角测量仪(测量单个磁铁的磁偏角)
7. Hysteresis graph tester, magnetic material grade measurement (Br, Hcj, Hcb, BH) 磁滞回线测量仪(退磁曲线—测量磁性材料的性能等级)

## Solution In Magnetic Field 磁性领域的解决方案

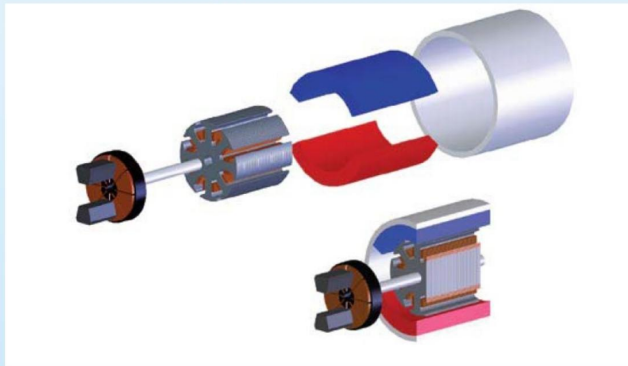
Magnetic circuit design( 2D FEA Software ; Gauss Program ( Flux density calculation in space )

磁路设计 ( 二维有限元分析软件, 空间磁场计算程序 )



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Construction Design (Pro-E, Auto CAD, Solidworks) 磁铁形状及尺寸设计



磁化方式 Magnetizing pattern design

Coating solution 镀层解决方案

Salt spraying testing 盐雾试验

PCT Testing 高压锅测试

Thermal shock testing 热冲击测试

Special adhesive force testing 特殊附着力测试

## Our Magnets Application Fields 我们的磁铁应用领域



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