Welcome to
JiaDa Magnet

www.jadamagnet.com

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Company Profile

Company Profile

Jiada was founded in 1998, has been committed to the high quality Ndfeb magnet research and development, production and sales; it is one of the high-tech enterprises in Guangdong Province, with an annual output of 5000 tons of sintered Ndfeb capacity.

Thanks to the complete guarantee system, product quality is reliable. Adhering to the quality policy of "taking customer demand as the starting point, customer satisfaction as the goal, continuous quality improvement as the driving force, and the best reputation as the challenge", Jiada employees rely on advanced management concepts and perfect management system, and have successively passed ISO9001 quality system, IS014001:2015 environmental management system, ISO/TS16949:2016 Quality management system.

Company Profile

Our products are used in many high-tech fields such as electrical engineering, instrumentation, automobile industry, petrochemical industry, nuclear magnetic resonance, magnetic therapy and health care, aviation, aerospace, electroacoustic and so on.

The company has 15 national patents, products are exported to Europe, America, Japan, South Korea, Southeast Asia and other countries and Hong Kong, Taiwan and other regions.

Development History

- 1. Established Dongguan Jiada Permanent Magnet Materials Factory in 1998
- 2. Establish Jiada Magnet Limited in 2010.(Hong Kong)
- 3. Established the NdFeB Sintering Workshop in October 2015
- 4. Establish Jiangxi Jiayuan Magnetic Materials Industrial Park
- 5. Establish Jiada Magnet (Suzhou) Co., Ltd. in 2022.
- 6. Establish Jiada Magnet Vietnam Co., Ltd. in 2024.

Certification

IATF16949：2016

ISO 9001：2015

ISO 45001

ISO 45001

ISO14001：2015

ROHS证书

IECQ合格证书

知识产权管理体系
认证证书

Pictures of Company

Jia Yuan Industrial Park

Jiangxi Jiayuan Magnetoelectric Technology Co., Ltd. was established in 2017, located in China Rare Gold Valley Tungsten and rare Earth Industrial Park. Registered in August 29, 2017, the total investment of 800 million yuan, annual output of about 5000 tons of high-performance magnetic materials, an area of 170.96 mu.

109,000 square meters of new production workshops, complex buildings, dormitories and ancillary facilities; Purchase shear machine, rust polishing machine, melting furnace, atomizing powder furnace, air mill and other production equipment, with a total number of 280 sets.

Subsidiary Companies

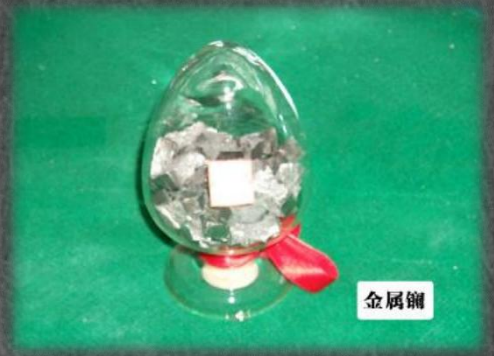
- Jiangxi Jiayuan Magnetoelectric Technology Co. LTD
- Dongguan Jiaxiangda Nonferrous Metal Trading Co. LTD
- Dongguan Rongtong Electroplating Co. LTD
- Jiada Magnet Limited (Hong Kong)
- Jiada Magnet (Suzhou) Co., LTD
- Jiada Magnet VN Co., LTD

NdFeB Magnet

NdFeB Composition

Neodymium (Nd) is the main rare earth element, with parts of dysprosium (Dy), praseodymium (Pr), and other rare earth metals added for different properties.

PrNe



La

DyFe

Tb

BFe

Y

Gd

Er

The Grade of NeFeb

Grade is a points according to the coercive force (Hcj), it also the ability of resistance to external forces or use temperature.

The Grade of NeFeb

烧结钕铁硼磁性能表
Sintered NdFeB Magnetic Properties

牌号 Grade	剩磁 Remanence		矫顽力 Coercive Force		内禀矫顽力 Intrinsic Coercive Force		最大磁能积 Maximum Energy Product		最高工作温度 Working Temp
	B_r范围		H_{cj}最小值		H_{cb}最小值		$(BH)_{max}$范围		最高工作温度
	T	kGs	kA/m	kOe	kA/m	kOe	kJ/m^3	MGOe	℃
N30	1.08～1.15	10.8～11.5	955	12	796	10	223～255	28～32	80
N33	1.13～1.18	11.3～11.8	955	12	836	10.5	247～270	31～34	80
N35	1.17～1.22	11.7～12.2	955	12	868	10.9	263～287	33～36	80
N38	1.22～1.27	12.2～12.7	955	12	899	11.3	287～310	36～39	80
N40	1.25～1.30	12.5～13.0	955	12	923	11.6	302～326	38～41	80
N42	1.28～1.34	12.8～13.4	955	12	923	11.6	318～342	40～43	80
N45	1.33～1.38	13.3～13.8	955	12	876	11	342～366	43～46	80
N48	1.37～1.43	13.7～14.3	955	12	892	11.2	366～390	46～49	80
N50	1.39～1.45	13.9～14.5	876	11	836	10.5	374～406	47～51	80
N52	1.42～1.47	14.2～14.7	876	11	836	10.5	390～422	49～53	80
30M	1.08～1.15	10.8～11.5	1114	14	796	10	223～254	28～32	100
33M	1.13～1.18	11.3～11.8	1114	14	836	10.5	247～270	31～34	100
35M	1.17～1.22	11.7～12.2	1114	14	868	10.9	263～287	33～36	100
38M	1.22～1.27	12.2～12.7	1114	14	899	11.3	287～310	36～39	100

Production Process

The sintering process and production equipment ——Front end of the line -Sintering

Vacuum Rapid Solidification Furnace

Smelting

Put the mixture materials (such as neodymium iron alloy, iron, gadolinium alloys, etc.) in it, then the liquid metal flow to the steel roll in the high temperature, which condensate into a sheet and to be smacked in a rotating drum.

Automatic Multi - Hydrogen Crushing Furnace

rough shattered

Process:
Furnace charging-----
vacuum---
heating---hydrogenation---
Formation of diluted hydrogen——continue heating----dehydrogenation

Air-Flow Mill

Airflow Mill

The process requires nitrogen in the medium. The particles collide with each other through the nitrogen of supersonic airflow, always into the sieve, because the effect of centrifugal force. Large and some small particles would pick out.The uniform powder will be used.

Forming Press

Pressure type magnetic field orientation shattered

Pur the powder into the mold under high pressure molding with nitrogen protection.
First,It's easy to forming through the magnetization direction of the magnetic, then demagnetization,just convenient for subsequent working procedure

Isostatic Pressing Machine

Hydraulic molding

Put the magnets with three or four layers of soft mode in a static pressure equipment such as hydraulic oil, all-round high-pressure compression.

Vacuum Sintering Furnace

Hydraulic molding

Put the magnet into the sintering furnace in the temperature at 1200 degrees.It takes about 15 hours to do it. It can be taken out after 2-3hours cooling.

The sintering process and production equipment ——Post processing workshop

The raw material

Cutting

Grinding

Linesr

Hole punching

Glue

Special-shaped processing

Center Management Workshop

Selective operation

Angle Grinding

Magnetizing operation

Packing operation

Production Equipment Statistics

序号	设备名称	设备编号	数量（台）	使用部门	备注
1	全自动内圆切片机	JD-C-Q-001～462	462	切片	
2	超声波清洗机	20171121	1		
3	平面磨床（异型磨床）	JD-C-P-001～003	3	超声波（小孔）	
4	磨边机	JD-C-O-001～014	14		
5	单工位通过式磨床	JD-C-O-015～017	3		
6	ZXJ台式铣钻床	JD-C-O-018～022	5		
7	全自动打孔机	JD-C-Z-001～039	39		
8	超声波打孔机	JD-C-C-001～032	32		
9	仪表车床（打孔机）	JD-C-Y-001～152	152	打孔（大孔）	
10	自动多工位套孔机	JD-C-Y-153～164	12		
11	电火花数控线切割机	JD-C-X-001～077	77	线切割	
12	多线切割机	JD-C-X-078～091	14	多线切割	
13	无心磨床	JD-C-W-001～009	9	磨加工	
14	方滚圆磨床	JD-C-F-001～004	4		
15	立式双面磨床	JD-C-J-001～002	2		
16	卧式双面磨床	JD-C-S-001～011	11		
17	自动倒角机	JD-C-D-001～006	6		
18	黑片选片机	JD-C-G-001～014	14	工序检验	
19	磁性材料充磁设备	JD-C-I-001～012	12	检分	
20	自动磁通全检装置	60001502183080082	1		
21	喷码机	163043	2		
22	真空包装机	JD-C-H-001～003	3		
23	智能自动测量分选机	JD-C-O-023～026	4		
24	真空速凝炉	JD-MP-RJ-001	1	毛坯	
25	真空破碎炉	JD-MP-PJ-001～002	2		
26	气流磨	JD-MP-PJ-003	1		
27	真空烧结炉	JD-MP-SJ-001～006	6		
28	筛粉机	JD-MP-FJ-001	1		
29	等静压	JD-MP-DJ-001～002	2		
30	自动磁场成型压机	JD-MP-YJ-001～009	9		

Surface Treatment

Appearance——surface treating

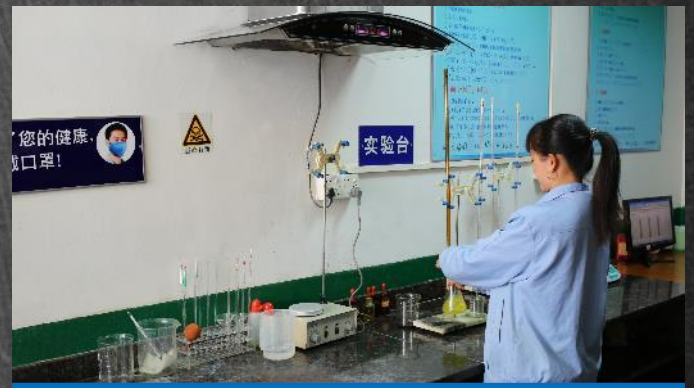
Galvanized (ZN) automatic production line

Metallized nickel Automatic production line

Polishing grinding production line

Copper plating (Cu) automatic production line

Electroless nickel (Ni) automatic production line



Laboratory

Coating Photos

galvanization

nickeling

epoxy-plating

glod plating

black nickel plating

rose-gold plating

Duration of each coating to withstand salt spray

- zinc plating-blue white： > 24h
- zinc plating-black： < 24h
- zinc plating-coloring： > 48h
- ZnCuNi： > 144h
- NiCuNi： > 48h
- CuNi： > 72h
- chemicla nickel-plating： > 72h
- epoxy： > 72h

The above data are obtained by practice without demagnetization

Quality Check

Inspection standard

At present, the international standard of Ndfeb permanent magnet material is formulated by the world standardization organization IEC (International Electrotechnical Commission), namely: IEC404-8-1 (1986) and its supplement 2 (1992) magnetic materials Part 8: Special Material Specification Section 1 Standard Specification for hard Magnetic Materials, the standard for Ndfeb permanent magnetic materials is only a part of the Standard Specification for Hard Magnetic Materials.

The standard in China is made up according to different permanent magnet materials. In 1992, the standard of "sintered Ndfeb permanent magnet material" was formulated, and it was comprehensively revised in 2000, and the current implementation is GB/T 13560-2000. Bonded NdFeb permanent magnet material standard is formulated in 2002, standard number is GB/T18880-2002.

Inspection standard

The difference between the international standard of Ndfeb permanent magnet materials and the related standard of China is mainly manifested in two aspects.

Differences in grade and magnetic properties

In the IEC international standard of Ndfeb permanent magnet materials in the small class classification code for R7, it is divided into sintered Ndfeb permanent magnet materials and bonded Ndfeb permanent magnet materials. Among them, the grade of sintered Ndfeb permanent magnet material is 15; There are 12 grades of bonded NdFeb permanent magnet materials, which are divided into 9 injection molding grades and 3 compression molding grades according to the manufacturing method.

Inspection Standard

In our country GB/T 13560-2000 "sintered Ndfeb permanent magnet material" 23 grades were determined in the standard. GB/T 18880-2002 "Bonded Ndfeb permanent magnet materials" standard to determine the grade of 10, of which there are 7 molding grade, injection molding grade is only 3.

Standard difference of sintered Ndfeb permanent magnet materials

In GB/T 13560-2000 "sintered Ndfeb permanent magnet material", our country will be divided into low coercivity N, medium coercivity M, high coercivity H, extra high coercivity SH, ultra-high coercivity UH, ultra-high coercivity EH six products, 23 brands based on the reported coercivity size.

Our country sintered the standard of NdFeb permanent magnet material to determine 12 brands of low magnet (N) class, more than the IEC international standard 60404-8-1 (2001), and our country is generally higher than the IEC standard, especially the brand numbers of high performance products.

检验流程

Particle test

Density test

Demagnetization curve test

Roughcast size inspection

ROHS test

Cutting station size inspection

Black wafer test

Slab and veneer test

Typesetting and inspecting appearance

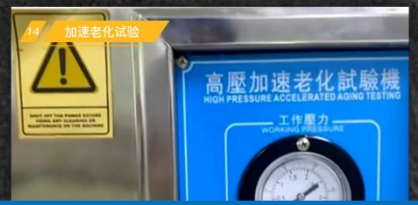
Test the size of mesoporous

Salt spray test

Drop test

检验流程

Constant temperature and humidity test



Accelerated aging test

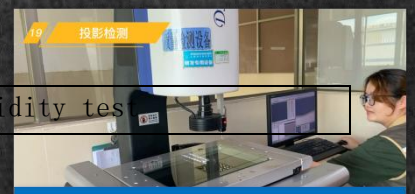
Thermal shock test

Magnetic flus test

Gaussian test

Strain relief test

constant temperature and humidity tes



Projective test

Apperance test

Artificial sweat test

Paint adhesion test

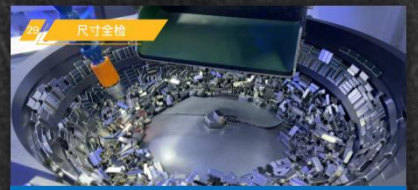
Strength test

ICP, carbon sulfur, hydrogen and oxygen analysis

检验流程

adhesive power test

heat resistance test



inspect all sizes

plating thickness test

magnetic pole direction test

A total of 31 inspection and testing procedures.

Quality inspection

Carbon sulfur analyzer

Analysis of carbon and sulfur content in rare earth.

atomic emission spectrometer

Analysis of the content of each component of the neodymium iron boron magnet.

Oxygen nitrogen hydrogen analyzer

Analysis of the content of oxygen and nitrogen in the neodymium iron boron magnet.

Prog Temp & Humi Test Machine

Products with high and low temperature and temperature test.

Salt Spray Tester

Corrosion resistance test of plating layer.

Pressure Accelerated Aging Testing

Test coating binding force.

Projector

Specification, size, external gauge precision inspection.

Gaussmeter

Measurement of magnetic field and magnetic beam circumference, unit: Gs (Gauss)

Drop Test Chamber

Testing the adhesion of the coating and the substrate.

Film Thickness Gauge

Test coating thickness.

EDXRF

Test ROHS and halogen.

Fluxmeter

Measurement of magnetic field flux density, unit: Wb (Weber).

Robot typesetting machine

The outer gauge, size, aperture and internal crack of the product are all checked.

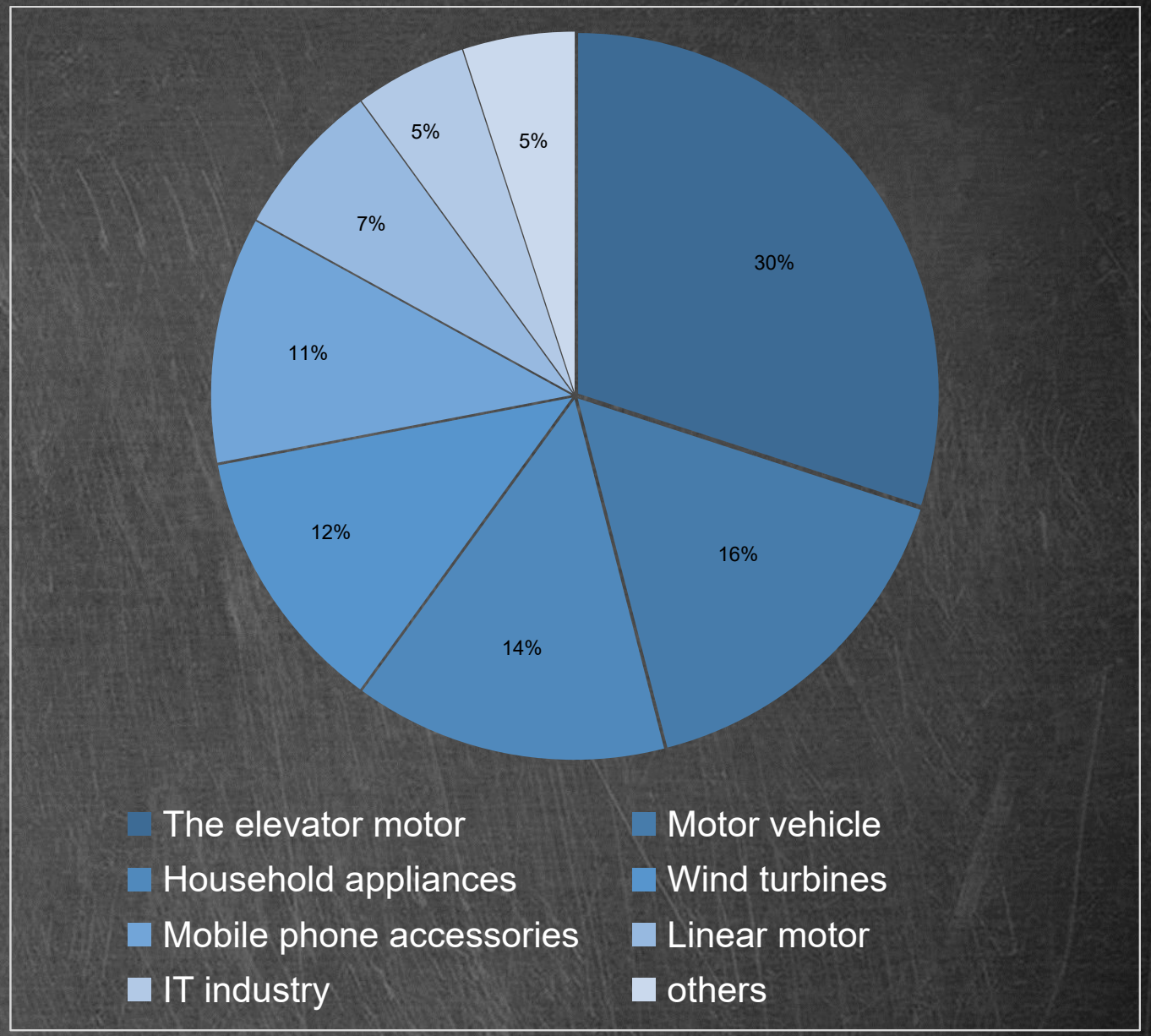
Product Application

Product Introduction

1. The material composition is composed of metal neodymium, pure iron, iron boride, chemical symbol Nd2Fe14B, according to a certain proportion and then add some metal elements through a multi-channel metallurgical process.
2. NdFeb is subdivided into sintered Ndfeb and bonded NdFeb, commonly known as "permanent magnet king" or "magnetic king" is sintered NdFeb, because the magnetic property of sintered NdFeb is far better than bonded NdFeb.
3. The preparation process, batching - melting - powder - pressing - sintering (sintered NdFeb have) - processing - magnetized finished products, processing process includes: grinding, slicing, wire cutting, drilling, sleeve hole, electroplating and so on.
4. Ndfeb surface treatment, common for galvanized (including color zinc, blue and white zinc, etc.), nickel plating, nickel plating copper nickel, paint, not common coating epoxy resin, electrophoresis, phosphating, gold plating, silver plating, chromium plating and so on.

Ndfeb application

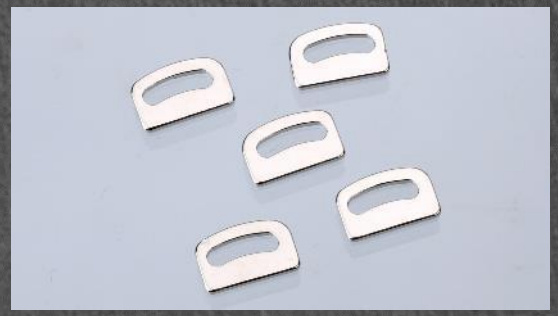
① the field of electro acoustic speaker, receiver, microphone, alarm, stage audio, car audio.
② Electronic appliances: permanent magnetic actuator of vacuum circuit breaker, magnetic keep relay, a watt hour meter, water meter, meter sound, dry reed pipe, a sensor.
③ Motor fields: CDDVD, ROM - VCM, generator, motor, servo motor, micro motor, motor, vibration motor, etc..
④ mechanical equipment: magnetic separation, magnetic separation machine, Magnetic crane, magnetic machinery, etc.
⑤ health care: nuclear magnetic resonance instrument, medical equipment, health care products, such as magnetic fuel economizer.



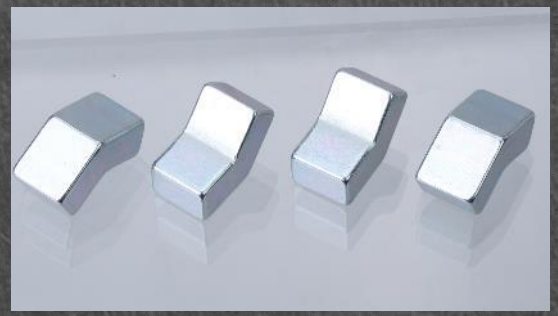
Product




















Advantages

01 The stability of the rare earth raw material supply, because the company in jiangxi province opened his rare earth ra. Tw materials for production.

02 The international sales department by American expatriates, South Korea and Japan represent speech can also be used.

03 Years of working experience as a supplier of many big companies including SONY, samsung, LG, skyworth, phillips and other.

Contact Way

Dongguan Magnetic Materials Industrial Park:	Dongguan Jiada Magnetoelectric Products Co., LTD
Ganzhou Magnetic Materials Industrial Park:	Jiangxi Jiayuan Magnetoelectric Technology Co. LTD
Jiada electroplating factory:	Dongguan Rongtong Electroplating Co. LTD
Su Zhou office:	Jiada Magnet (suzhou) Co.,LTD
Hong Kong office:	Jiada Magnet Limited
Vietnam office:	Jiada Magnet VN Co.,LTD
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