

# Strong Magnets GmbH

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WHO AM I

WHAT CAN I DO FOR YOU

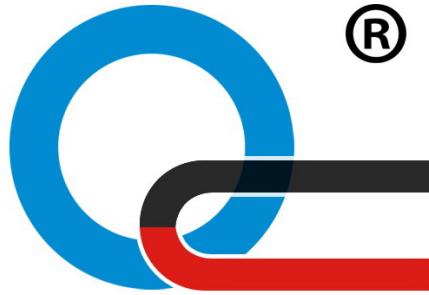
WHAT BENEFIT FOR YOU

# Who

AM I

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*A Magnet Engineer  
with deeper understanding on motors*



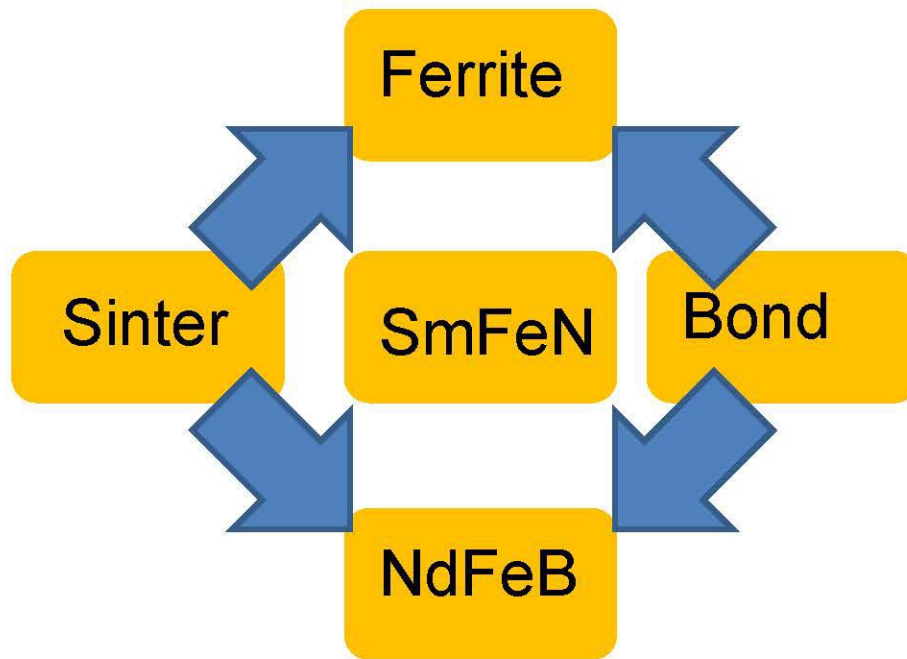
Shanghai Strong Magnets Industrial & Commercial Co.Ltd. China is a collection of professional design, production, sales as one of the permanent magnetic materials - rare earth NdFeB, ferrite, Alnico, SmCo5, Sm<sub>2</sub>Co<sub>17</sub> and cobalt magnetic devices and high-tech enterprises. The company is located in known as "Oriental Paris" known as Shanghai, China, convenient transportation, and developed information. Shanghai strong magnets has strong technical force, first-class production equipment, advanced manufacturing technology, perfect detection means and strict quality guarantee system; the company has passed ISO9001 quality system and SGS certification. Relying on Shanghai strong factory production manufacturing capacity, the company not only for domestic partners to provide quality services, and has been in France, Germany, India and other European and Southeast Asian countries set up branches and offices, the annual production and sales of more than 1500 tons of permanent magnetic materials. Products are widely used in a variety of energy efficient motor, wind power generation, electro-acoustic sound, medical equipment, mechanical equipment, communications, automotive and other related fields.

# WHAT CAN I DO FOR YOU

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*Providing integrated magnet solutions*

# Based on Processes



Sintered Ferrite(Segment, Blocks)



Injection Ferrite(Multipole ring, rotor gear)



Mixed-injection with compound of Ferrite & NdFeB&SmFeN



Molding bonded NdFeB(Segment, Ring)



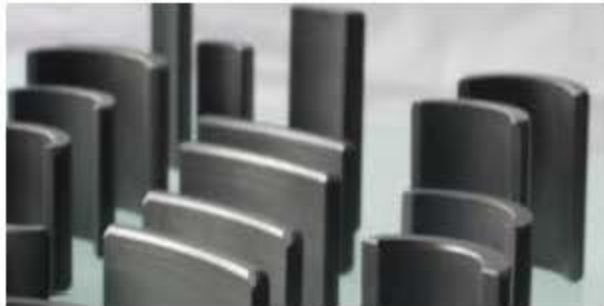
Sintered NdFeB(Segment, Block, Ring)

Based on Property

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50MGOe



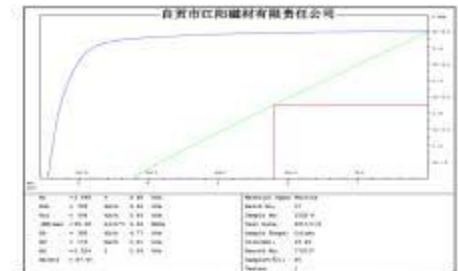
Ferrite

Br:448mT  
Hcb:339KA/m  
Hcj:434KA/m  
(BH)m:39.3KJ/m<sup>3</sup>  
High Hcj group

Br:454mT  
Hcb:292KA/m  
Hcj:348KA/m  
(BH)m:39.7KJ/m<sup>3</sup>  
High Br group



NdFeB



N35—52, Temp range covers to 250°C

# Based on Category

Automobile application



12grade high performance horizontal and angular regulator for vehicle seat



12grade ultra thin segments for seat motor



Whole series of Vehicle starter/start-stop motor magnets



Skewed segments developed for an Italian client



# Based on Category

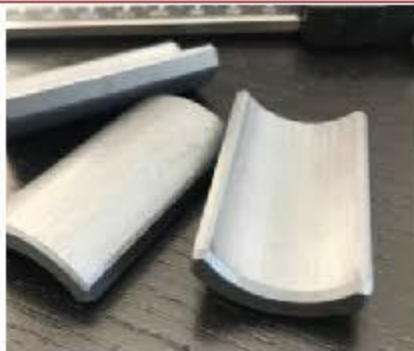
Automobile application



Super quiet fan motor magnet developed for a Japanese Client



Small blocks with mass power developed for claw rotor of Vehicle generator



Various types of window regulator



Various types of magnets with big arc height and super thickness

# Based on Category

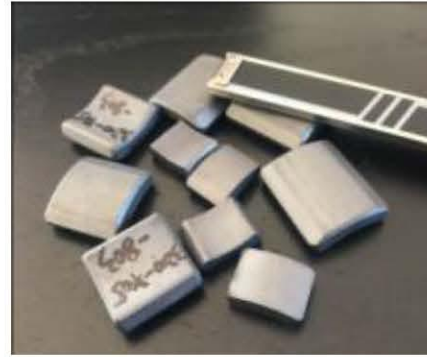
Household and Industrial Application



Magnet for BLDC blower of air-con



Magnet for BLDC compressor of air-con



Magnet for BLDC compressor of refrigerator



Magnets for BLDC fan motor of EV cars



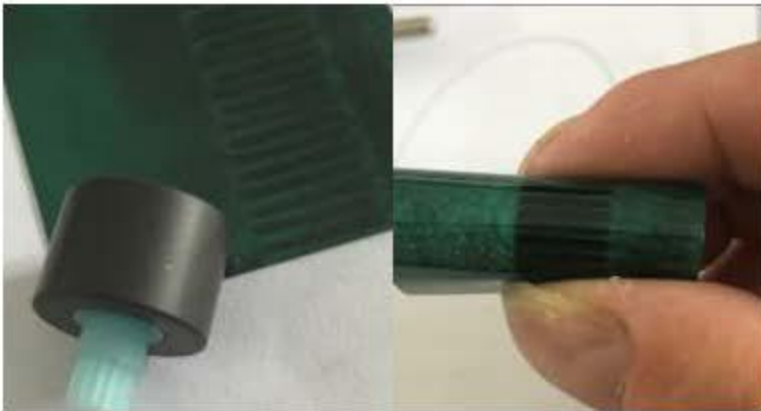
Other BLDC motor magnets



Inner loaded blocks developed for BLDC washer

## Based on Category

Automobile, Household and Industrial mixed Application



**Injection Ferrite Ring magnet developed for Refrigerator damper controller, with 24poles (PA6)**



The capability of injecting a new mixed compound material with Ferrite, NdFeB and SmFeN, which help us providing a BHmax from 1.0 to 14.0MGOe in various particular shapes for multiple applications.



**Injection multi-pole Ferrite Ring magnet developed for high temperature resistance (pps/pa)**

# New Technical Solutions

## Anisotropic Sintering for Injection magnet

A new Technology to make Anisotropic injection ferrite by sintering was developed together with Sichuan University. With this new Technology, both higher performance and better consideration on cost saving could be jointly realized. It is expected to reach a BHmax of **1.0-3MGOe**

Application: Household appliance, Automotive and Small motors.

Sinteringlization  
of injection magnet



Research on Wet press,  
Radial orientation, Sintered  
Multi-pole ring magnets

Sinteringlization  
of Mold pressing ring

# WHAT BENEFIT FOR YOU

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*To create and be a part of the value supply chain,  
To grow up together with clients,  
To achieve, more than just to sell.*

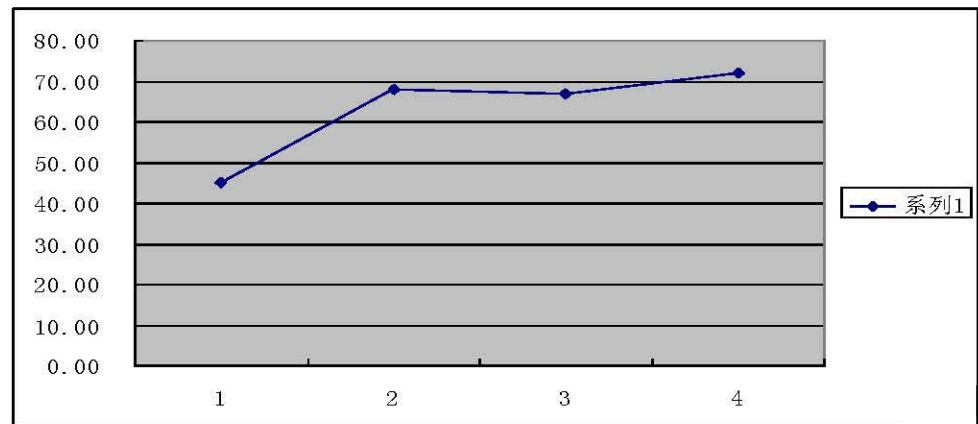
To challenge and solve problem together,  
to be valued with respect



**To massively reduce noise,**  
improve **magnetic field**  
**distribution** on IR, bring down  
**air resistance**, so as to satisfy  
the demands of top-rank  
automobile, Japanese customer  
developed such design.

*Competitors tried to develop but failed with a  
qualify ratio less than 50%, finally lost confidence  
and gave up.*

	Qty	Press Scrap	Sinter Scrap	Grind Scrap	Scrap rate/%	Qualify rate%
1	47809	26.37	13.89	14.55	54.82	45.18
2	73743	11.83	6.33	13.77	31.93	68.07
3	43778	8.51	5.21	19.28	32.99	67.01
4	68463	7.49	5.35	15.31	28.15	71.85



# Breakthrough on huge eccentric segment, built the foundation for triangle segments





















CETC 中国电子科技集团公司第四十八研究所

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