

WHO WE ARE - ABOUT THE FACTORY

Harness Rear Earth, Benefit the World.

Our Factory, located in Inner Mongolia, one of the largest rare earth production areas in China, was established on May 8, 2005, with a registered capital of 70.55 million RMB, covers 80 acres and has a production capacity of 200,000 tons. As a high-tech enterprise, it specializes in the research, development, and manufacturing of rare earth applications in industrial metal components – Grinding Balls, Grinding Cylpebs and Grinding Rods.

It is the first company in China to achieve the standardized application of rare earth and rare earth alloy materials in industrial metal components. It is the largest production base for rare earth alloy industrial metal components in the country. Multiple core technologies and products developed by the company have filled industry gaps.

In addition to our flagship facility in Inner Mongolia, we have also established production plants in Shandong and Anhui provinces. These strategically located facilities enable us to efficiently serve customers in Northern and Eastern China, offering significant logistical and cost advantages for shipping and distribution.



5

SUBSIDIARY

4

R&D INSTITUTION

300+

EMPLOYEES

200M

ANNUAL OUTPUT

50

CORE TECHNOLOGY

64

PATENTS

20K

TONS CAPACITY


3

INTERNATIONAL PATENTS

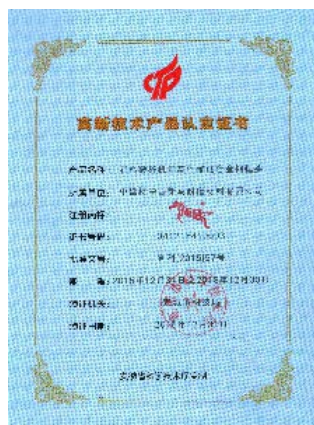
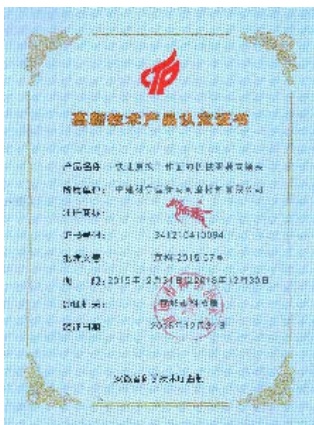
FACTORY VIEW



WHY CHOOSE US

 <p>Industry-Leading Technology</p>	 <p>Strong R&D and Innovation</p>	 <p>Comprehensive Product Range</p>
 <p>Largest Production Base</p>	 <p>Resource and Cost Advantage</p>	 <p>Reliable and Secure Partnership</p>

PATENTS & CERTIFICATIONS



View more at our website: www.grindium.com

CAST GRINDING BALL - High Chromium

- High Chromium Cast Grinding Balls
- Premium type of cast grinding media
- Superior wear resistance and durability, good corrosion resistance
- Diameter Range: 17mm - 150mm
- Customized available
- MOQ: 25 tons / 20ft container



We need **SIZE, MATERIAL, Chemical Composition**, or other requirements to provide an accurate quotation.

We provide a variety of materials such as high chromium, medium chromium, and low chromium, and they are numbered in the parameters below. You can directly select or send us your product requirements, and we will give an accurate quotation based on the product requirements.

Technical Parameters

Material Gr.	Diameter(inch)	Hardness(HRC)	Breakage rate	Impact value(J/cm ²)	Drop Times	Micro Structure
ZQCr25	1/2" - 5"	>62	<1%	>7	≥20,000	M+C
ZQCr20	1/2" - 5"	>62	<1%	>6	≥20,000	M+C
ZQCr15	1/2" - 5"	>62	<1%	>5	≥20,000	M+C
ZQCr12	1/2" - 5"	>60	<1%	>3.5	≥20,000	M+C
ZQCr8	1/2" - 5"	>58	<1%	>3	≥20,000	M+C

Chemical Composition

Material Gr.	Chemical Composition (%)								
	C	Si	Mn	Cr	Mo	Cu	Ni	P	S
ZQCr26	2.0-3.3	1.2max	0.3-1.5	>23.0-30.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr20	2.0-3.3	1.2max	0.3-1.5	>18.0-23.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr15	2.0-3.3	1.2max	0.3-1.5	>14.0-18.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr12	2.0-3.3	1.2max	0.3-1.5	>10.0-14.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr8	2.1-3.3	2.2max	0.3-1.5	7.0-10.0	0-1.0	0-0.8	-	≤0.10	≤0.06

Diameter Tolerance

Diameter(inch)	Φ<1.2"	1.2"<Φ<2.4"	2.4"<Φ<3.2"	3.2"<Φ<4"	Φ>4"
Tolerance(inch)	+0.04", -0.04"	+0.06", -0.04"	+0.08", -0.04"	+0.1", -0.04"	+0.12", -0.04"

CAST GRINDING BALL - Medium & Low Chromium

Medium Chrome Alloy Cast Grinding Balls offer a balance between hardness, toughness, and cost-effectiveness. Low chromium cast grinding balls are a type of grinding media with a relatively low chromium content, typically ranging from 1%-3%. These balls are widely used in cement plants, mining, power stations, and chemical industries for grinding applications in ball mills and vertical mills.

Diameter Range: 17mm - 150mm

Customized available

MOQ: 25 tons / 20ft container



Technical Parameters

Material Gr.	Diameter(inch)	Hardness(HRC)	Breakage rate	Impact value(J/cm ²)	Drop times	Micro structure
ZQCr5	0.5"-6.7"	>47	<1%	≥2	≥15,000	M+C
ZQCr2	0.5"-6.7"	>45	<1%	>1.5	≥15,000	P+C

Diameter Tolerance

Diameter(inch)	Φ<1.2"	1.2"<Φ<2.4"	2.4"<Φ<3.2"	3.2"<Φ<4"	Φ>4"
Tolerance(inch)	+0.04", -0.04"	+0.06", -0.04"	+0.08", -0.04"	+0.1", -0.04"	+0.12", -0.04"

Chemical Composition

Material Gr.	Chemical Composition (%)								
	C	Si	Mn	Cr	Mo	Cu		Ni	P
ZQCr5	2.1-3.3	1.5max	0.3-1.5	4.0-6.0	0-1.0	0-0.8	-	≤0.10	≤0.10
ZQCr2	2.1-3.6	1.5max	0.3-1.5	1.0-3.0	0-1.0	0-0.8	-	≤0.10	

Specification of Weight

Diameter	Weight Per Ball	Qty. per Ton	Diameter	Weight Per Ball	Qty. per Ton
Φ0.8"	0.034	31,056	Φ3.2"	2.05	487
Φ1"	0.063	15,873	Φ3.5"	2.9	345
Φ1.2"	0.11	9,091	Φ3.94"	4.0	250
Φ1.6"	0.26	3,891	Φ4.33"	5.3	188
Φ2.0"	0.51	2,000	Φ4.72"	6.8	147
Φ2.4"	0.86	1,153	Φ4.92"	7.75	129
Φ2.8"	1.37	729	Φ5.12"	8.74	74

FORGED (ROOLING) GRINDING BALLS

- Advanced Forging Technology and Processes
- High-Quality Material Selection
- Rigorous Quality Control Systems
- Customization and Product Diversity
- Diameter Range: 30 40 50 60 70 80 90 100 110 120 125 150mm
- MOQ: 25 tons / 20ft container



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Diameter Tolerance

Diameter	1.18"	1.57"	1.97"	2.36"	2.76"	3.15"	3.54"	3.94"	4.33"	4.72"	4.92"	5.91"
Diameter Tolerance (inch)	±0.08"			+0.12", -0.08"			+0.16", -0.12"			+0.2", -0.16"		
Roundness(%)	≤2			≤3			≤4			≤5		

Chemical Composition

Material	Breakage rate	Hardness (HRC)	Impact value (J/cm ²)	Drop Test (times)	Microstructure
45#	<1%	≥55	≥12	≥12000	M+C
60Mn	<1%	≥55	≥12	≥12000	M+C
65Mn	<1%	≥58	≥12	≥12000	M+C
70Mn	<1%	≥60	≥12	≥12000	M+C
40Cr	<1%	≥55	≥12	≥12000	M+C
70Cr2	<1%	≥58	≥12	≥12000	M+C
B-2	<1%	≥58	≥12	≥15000	M+C
B-3	<1%	≥60	≥12	≥15000	M+C

Chemical Composition

Material	C (%)	Si (%)	Mn (%)	Cr (%)	Cu (%)	Mo (%)	P (%)	S (%)	Ni (%)
45#	0.42-0.50	0.17-0.37	0.5-0.80	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
60Mn	0.57-0.65	0.17-0.37	0.70-1.0	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
65Mn	0.62-0.70	0.17-0.37	0.90-1.0	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
70Mn	0.67-0.75	0.17-0.37	0.90-1.20	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
40Cr	0.37-0.45	0.17-0.37	0.50-0.8	0.80-1.1	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
70Cr2	0.65-0.75	0.20-0.30	0.75-0.90	0.55-0.70	0-0.25	0-0.30	0-0.030	0-0.030	0-0.30
B-2	0.70-0.80	0.17-0.37	0.70-0.80	0.50-0.60	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
B-3	0.58-0.66	1.2-1.6	0.65-0.80	0.70-0.90	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30

CAST GRINDING CYLPEBS - High Chromium

- Diameter(mm): 8-60mm, customize diameter
- Hardness(HRC): >58
- Breakage rate: <1%
- Drop Test(times): ≥12000
- Customized available
- MOQ: 25 tons / 20ft container



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We provide a variety of materials such as high chromium, medium chromium, and low chromium, and they are numbered in the parameters below. You can directly select or send us your product requirements, and we will give an accurate quotation based on the product requirements.

Dimension & Tolerance

0.32"x 0.39"	0.39"x0.47"	0.47"x0.55"	0.55"x0.63"	0.63"x0.71"	0.71"x0.79"	0.79"x0.98"	Diameter: ±0.04"
0.98" x1.18"	1.18"x1.38"	1.38"x1.57"	1.57"x1.77"	1.77"x1.97"	1.97"x2.17"	2.17"x2.36"	Length: 0.08"

Technical Features

Material Gr.	Diameter (mm)	Hardness (HRC)	Breakage rate	Impact value(J/cm ²)	Drop Test (times)	Microstructure
ZQCr26	0.4"-2.36"	>58	<1%	>7	≥12000	M+C
ZQCr20	0.4"-2.36"	>58	<1%	>6	≥12000	M+C
ZQCr15	0.4"-2.36"	>58	<1%	>5	≥12000	M+C
ZQCr12	0.4"-2.36"	>58	<1%	>3.5	≥12000	M+C
ZQCr8	0.4"-2.36"	>58	<1%	>3	≥12000	M+C

Chemical Composition

Material Gr.	Chemical Composition (%)								
	C	Si	Mn	Cr	Mo	Cu	Ni	P	S
ZQCr26	2.0-3.3	1.2max	0.3-1.5	>23.0-30.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr20	2.0-3.3	1.2max	0.3-1.5	>18.0-23.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr15	2.0-3.3	1.2max	0.3-1.5	>14.0-18.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr12	2.0-3.3	1.2max	0.3-1.5	>10.0-14.0	0-3.0	0-1.2	0-1.5	≤0.10	≤0.06
ZQCr8	2.1-3.3	2.2max	0.3-1.5	7.0-10.0	0-1.0	0-0.8	—	≤0.10	≤0.06

CAST GRINDING CYLPEBS - Medium & Low Chromium

- Diameter(mm): 8-60mm
- Hardness(HRC): >58
- Breakage rate: <1%
- Drop Test(times): ≥12000
- Customized available
- MOQ: 25 tons / 20ft container



We need **SIZE, MATERIAL, Chemical Composition**, or other requirements to provide an accurate quotation.

We provide a variety of materials such as high chromium, medium chromium, and low chromium, and they are numbered in the parameters below. You can directly select or send us your product requirements, and we will give an accurate quotation based on the product requirements.

Dimension & Tolerance

0.32"x 0.39"	0.39"x0.47"	0.47"x0.55"	0.55"x0.63"	0.63"x0.71"	0.71"x0.79"	0.79"x0.98"	Diameter: ±0.04"
0.98" x1.18"	1.18"x1.38"	1.38"x1.57"	1.57"x1.77"	1.77"x1.97"	1.97"x2.17"	2.17"x2.36"	Length: 0.08"

Technical Features

Material Gr.	Diameter(mm)	Hardness(HRC)	Breakage rate	Impact value(J/cm²)	Drop Test (times)	Micro structure
ZQCr5	0.4"-2.36"	>47	<1%	>2	≥10000	M+C
ZQCr2	0.4"-2.36"	>45	<1%	>1.5	≥8000	P+C

Chemical Composition

Material Gr.	Chemical Composition (%)								
	C	Si	Mn	Cr	Mo	Cu	Ni	P	S
ZQCr5	2.1-3.3	1.5max	0.3-1.5	4.0-6.0	0-1.0	0-0.8	—	≤0.10	≤0.10
ZQCr2	2.1-3.6	1.5max	0.3-1.5	1.0-3.0	0-1.0	0-0.8	—	≤0.10	≤0.10

Hot Rolling Steel Cylpebs

- Diameter(mm): 20-60mm, customize diameter
- Breakage rate: <1%
- Customized available
- MOQ: 25 tons / 20ft container



Dimension & Tolerance

0.80"x1.18"	0.98"x1.38"	1.18"x1.57"	1.38"x1.77"	1.57"x1.97"	1.77"x2.17"	1.97"x2.36"	2.17"x2.56"	2.36"x2.76"	inch
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Technical Features

Material GR.	Breakage rate	Hardness(HRC)	Impact value(J/cm ²)	Drop Times	Micro structure
45#	<1%	≥45	≥12	≥8000	M+C
60Mn	<1%	≥55	≥12	≥12000	M+C
65Mn	<1%	≥58	≥12	≥12000	M+C
B-2	<1%	≥60	≥12	≥15000	M+C

Chemical Composition

Brand	C (%)	Si (%)	Mn (%)	Cr (%)	Cu (%)	Mo (%)	P (%)	S (%)	Ni(%)
45#	0.42-0.50	0.17-0.37	0.5-0.80	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
60Mn	0.57-0.65	0.17-0.37	0.70-1.0	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
65Mn	0.62-0.70	0.17-0.37	0.90-1.0	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
B-2	0.70-0.80	0.17-0.37	0.70-0.80	0.50-0.60	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30

STEEL GRINDING ROD



We need **SIZE, MATERIAL, Chemical Composition**, or other requirements to provide an accurate quotation. We provide a variety of materials and they are numbered in the parameters below. You can directly select or send us your product requirements, and we will give an accurate quotation based on the product requirements.

Dimension & Tolerance

Diameter(inch)	Length(inch)	Diameter tolerance(inch)	Length tolerance(mm)
2"-5.9"	6' 1/2 - 20'	-0.06" - 0.08"	-0.8" - 0

Technical Features

Impact value(J/cm2)	Hardness (HRC)	Breakage rate	Drop times(times)	Straightness
5-7	45-55	<1%	≥10	2/1000

Chemical Composition

Material Gr.	C (%)	Si (%)	Mn (%)	Cr (%)	Cu (%)	Mo (%)	P (%)	S (%)	Ni(%)
45#	0.42-0.50	0.17-0.37	0.5-0.80	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
60Mn	0.57-0.65	0.17-0.37	0.70-1.0	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
65Mn	0.62-0.70	0.17-0.37	0.90-1.0	0-0.25	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
40Cr	0.37-0.45	0.17-0.37	0.50-0.8	0.80-1.1	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30
42CrMo	0.38-0.45	0.17-0.37	0.50-0.80	0.90-1.2	0-0.03	0.15-0.25	0-0.035	0-0.035	0-0.30
B-2	0.70-0.80	0.17-0.37	0.70-0.80	0.50-0.60	0-0.25	0-0.30	0-0.035	0-0.035	0-0.30

MILL LINER



Material Name	Application	Life Span	Hardness	Impact Toughness
High durability High Chromium Cast Iron	Liners, end liners, and vertical liners for mills $\Phi \leq 16.4'$	≥ 7 Years	HRC ≥ 60	8-10J/cm ²
High-Cr Cast Iron I	Liners, end liners, and vertical liners for mills $\Phi \leq 16.4'$	≥ 6 Years	HRC ≥ 60	8-10J/cm ²
High-Cr Cast Iron II	Liner and end liner of mill $\Phi \leq 13.8'$	≥ 5 Years	HRC ≥ 58	8-10J/cm ²
High-Cr Cast Steel	Liner and end liner of mill $\Phi \leq 13.8'$	≥ 4 Years	HRC ≥ 55	8-10J/cm ²
Cr-Mo- Ni Alloy Steel	Shell liner, head liner, diaphragm, grid plate for mill $\Phi \leq 16.4'$	≥ 3 Years	HRC ≥ 52	8-10J/cm ²
Medium-carbon multi-component Alloy Steel	Shell liner, head liner, diaphragm, grid plate for mill $\Phi \leq 16.4'$	≥ 2 Years	HRC ≥ 50	8-10J/cm ²
Medium-Cr Alloy Steel	Shell liner, head liner, diaphragm, grid plate for mill $\Phi \leq 16.4'$	≥ 1.5 Years	HRC ≥ 48	8-10J/cm ²
Low Alloy Steel	Shell liner, head liner, grid plate for mine wet mill	≥ 1 Years	HRC ≥ 45	8-10J/cm ²
Low Carbon High Alloy Steel	Blind plate of drying chamber for large-sized raw mill	≥ 3 Years	HRC ≥ 46	8-10J/cm ²
High-Mn Steel(Mn13)	Shell liner,head liner, grid plate for mine wet mill	≥ 6 month	HRC ≥ 200	8-10J/cm ²
Alloyed High-Mn Steel	Impact plate, grid plate, jaw plate of all kinds of crushers	≥ 1 Years	HRC ≥ 220	8-10J/cm ²

According to the application conditions of wear-resistant parts and the user's requirements for service life, we provide material optimization to achieve low income and high returns.

CRUSHER HAMMER



Material Name	Application	Hardness	Impact Toughness
(Cr22Mo2NiCuWV) Super high-toughness high-Cr cast iron	Clinker crusher hammer, Blow bar	HRC≥60	7-10J/cm ²
Super high-toughness high-Cr cast iron and Co-based carbide alloy	Built-up hammer of crusher	HRC≥60 HRA≥88	7-10J/cm ²
(Mn13Cr3) Alloyed high-Mn steel	Large-scale crusher hammer	Hb≥220	≥120J/cm ²
(mn17cr3) Super High-Mn Steel	Large-scale crusher hammer	Hb≥240	≥120J/cm ²
Bimetal composite casting	Large-scale crusher hammer	head HRC= 60	handle ≥50J/cm ²