

100 mm Forged Grinding Balls for Mineral Processing

Product datasheet - grinding media and wear parts

Forged steel balls have high volume hardness, dense structure, and maintain their shape without breaking. They are ideal for grinding operations in industries like metal mining and thermal power plants, especially in semi-autogenous and ball mills

I. Product Overview Our forged steel balls are manufactured using high-quality alloy steel sourced from leading steel mills. Through fully automated production processes, we ensure precise dimensions, perfect roundness, high hardness, and superior mechanical properties. These steel balls are designed to be wear-resistant, deformation-free, and crack-resistant, making them ideal for demanding industrial applications.



Diameter tolerance and roundness

Diameter	30	40	50	60	70	80	90	100	110	120	125	150
Diameter roundness (mm)	+/-2	+/-2	+/-2	+/-2	+3, -2	+3, -2	+3, -2	+4, -3	+4, -3	+4, -3	+4, -3	+5, -4
Roundness(%)	<=2	<=2	<=2	<=2	<=3	<=3	<=3	<=4	<=4	<=4	<=4	<=5

Technical specification

Material Gr.	Breakage rate	Hardness(HRC)	Impact value(J/cm2)	Drop Test	Micro structure
45#	<1%	>=45	>=12	>=8000	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 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
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

Typical applications

Metal mining (gold, copper, iron, molybdenum, and alumina ores); Steel slag processing plants; Quartz sand plants; Raw material inspection; Heating in a medium-frequency furnace.

Ordering notes

Minimum order, lead time and packing are confirmed against the size mix or drawing in your enquiry. Each shipment carries a test report with chemistry, hardness, impact value and breakage rate for the heat. Payment terms: T/T with 30% deposit, or irrevocable L/C at sight. Shipping: FOB Qingdao, CIF or DAP.

Ordering and technical support

Send the mill type, media size or liner drawing, quantity and destination port. We reply with a quotation, packing plan and lead time within 12 hours.

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Product page:

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