



wabi

Foundry Division

Leaders in engineering technology
for over a century

Unequaled engineering expertise



For custom or OEM manufacturing requirements, Wabi's comprehensive Engineering & Design Department provides custom metallurgy and chemistry solutions. Microstructure evaluation of manufactured alloys is performed on site in an advanced laboratory. Our technical and alloy expertise results in the manufacture of superior products for improved equipment performance and lower operating costs.

Iron Casting Capabilities

	WABI ALLOYS						
	Heat-Resistant Grey Iron	Grey Iron Wheels	Engineering Grade Grey Iron	Heat-Resistant Compacted Graphite Iron	Engineering Grade Nodular Iron (Duct)	Heat-Resistant Nodular Iron (Duct)	Abrasion-Resistant Iron
Grades / Alloy	12 grades	2 grades	11 grades	1 grade	5 grades	2 grades	5 grades
Tensile Strength (PSI)	20,000 – 40,000	35,000	25,000 – 50,000 (max 'B' bar)	34,000	58,000 – 120,000	17,500 – 65,000	80,000 (max)
Yield Strength (PSI)	–	–	–	23,000	36,000 – 100,000	14,000 – 45,000	–
Elongation (%)	–	–	–	2	2 – 18	7 – 18	–
Properties (Hardness)	187 – 440; Good thermal shock resistance	Approx. 500 BHN on chilled tread	150 – 270	179 max	120 – 340	175 – 230	500 – 700
Typical Uses	Anode moulds, slag launders, water-cooled slag launders	Wabi wheels are the standard in the mining industry	General castings, bearing housings, bushings. Strength is main criteria for grade.	Anode moulds	General castings, gears, bushings & bearing housings. All machinable.	Furnace parts, higher-temperature applications to 1500°F	Ball mill liners, pump parts, augers, blow bars

Steel Casting Capabilities

	WABI ALLOYS				
	Carbon Steel	Low Alloy Steel	Abrasion-Resistant Steels	Corrosion-Resistant Stainless Steel	Heat-Resistant Stainless Steel
Grades / Alloy	4 grades	11 grades	11 grades	16 grades	6 grades
Tensile Strength (PSI)	60,000 – 80,000	80,000 – 150,000	250,000 (max), alloy dependent	58,000 – 120,000	65,000 – 80,000
Yield Strength (PSI)	30,000 – 40,000	50,000 – 135,000	210,000 (max), alloy dependent	36,000 – 100,000	35,000 – 40,000
Elongation (%)	25 – 22	7 – 22	2 (min)	2 – 18	8 – 125
Properties (Hardness)	160 – 200	170 – 375	300 – 600	120 – 340	175 – 230
Typical Uses	General engineering	General castings, bearing housings, bushings. Strength is main criteria for grade.	Chute liners, crusher parts	General castings, pump parts. All machinable.	Furnace parts, high-temperature applications

Pouring Casting Capabilities

IRON	All grades	14,500 lbs pour weight and 9,000 lbs net weight
STEEL	All grades	14,500 lbs pour weight and 9,000 lbs net weight



Custom Solutions

Wabi's Foundry Division provides a diversified product range that includes heat, corrosion and abrasion resistant iron and steel castings to produce parts and components for smelters, mills, chutes, pumps and crushers as well as all wear and impact parts. An experienced engineering staff and advanced, no-bake moulding technology enables Wabi to perform custom manufacturing for industrial and OEM requirements. All of our foundry engineering and manufacturing activities are registered to ISO 9001-2015.





Casting Capabilities

Wabi can provide castings ranging in weight from 50 to 9,000 lbs in over 100 alloys including chrome iron, Ni-hard, grey iron, steel, alloy steel and stainless steel.

These are just some of the many products that we can produce:

- Heat and wear resistant castings
- Pump parts: casings, impellers and more
- Liners / wear plates; chute liners
- Crusher parts
- Horizontal shaft impactor parts, blow bars, apron liners and liners
- Pan feeders
- Grizzlies
- Rabble arms and roaster shafts
- Slurry parts: elbows, spools
- Ingot/bullion moulds and handling equipment
- Mine car wheels
- Track pads
- Grapple arms

Finished weight steel alloy castings of up to 9,000 lbs can be supplied in:

- Carbon steel (4 grades)
- Low alloy steel (12 grades)
- Abrasion resistant steel (13 grades)
- Heat and corrosion resistant stainless steel
- Steel wheels (sizes 12"–20" diameter)

Finished weight iron alloy castings of up to 9,000 lbs can be supplied in:

- Heat resistant grey iron (13 grades)
- Engineering grade grey iron (13 grades)
- Engineering grade nodular iron (duct) (13 grades)
- Heat resistant nodular iron (duct) (2 grades)

Integrated Manufacturing Facilities

With each and every project, Wabi maintains complete control over the entire manufacturing process and quality of workmanship. This is possible because of our skilled staff and full-service production resources including:

- Pattern shop: 1 pattern maker, wood, plastic and urethane, 3-D modelling
- Sand moulding: fast loop moulding system upgrade, improved sand conditioning with thermal reclaim unit
- Foundry: 3 induction furnaces with a total capacity of 16,500 lbs pour weight
- Heat treatment: 3 furnaces with capacities from 1 to 10 tonnes
- Machine shop: CNC Capabilities

Experience that counts. People who care.

More than a century of industrial manufacturing experience at Wabi Iron and Steel has generated a wealth of knowledge that contributes greatly to the projects we tackle. This is important when you make products that need to perform without compromise under the harshest of conditions. Just as important are our people – people who are dedicated to building customer relationships based on trust and integrity.

At Wabi we work in close partnership with our clients to meet their productivity demands and to take care of all their after-sale service needs. Our proven track record of providing quality solutions and ongoing support speaks for itself.



We also specialise in general fabrication, machining and assembly.

Wabi's mining equipment facilities provide full capabilities for the production of a wide range of materials handling equipment for mining, but we serve a number of non-mining sectors as well, supplying several OEMs to the forestry and pulp and paper industries. Products provided for civil applications include tanks, bins, hoppers and water treatment systems. Our CWB certification enables us to re-build and re-certify a client's existing equipment to current operating standards. Please contact us for more information on any general fabrication and assembly requirement.

Visit our website for more details about the foundry products we can provide. Then contact us to discuss your specific requirements and find out how we can help you.

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Wabi Iron & Steel Corporation
email: sales@wabicorp.com
telephone: 705-647-4383
wabicorp.com

Johnny Daviau | General Sales Manager
email: jdaviau@wabicorp.com
telephone: 705-647-4383 ext. 10160
mobile: 705-647-2325