wabi

Foundry Division

Custom casting solutions

Leaders in engineering technology for over a century

Iron Casting Capabilities

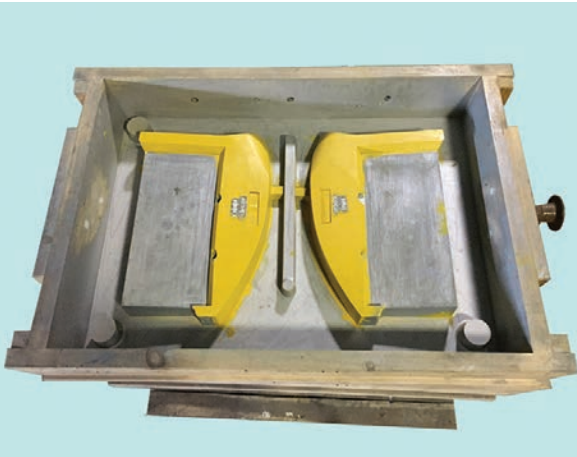
Wabi Alloys	Heat Resistant Grey Iron	Grey Iron Wheels	Engineering-Grade Grey Iron	Heat-Resistant Compacted Graphite Iron	Engineering Grade Nodular Iron (Duct)	Heat Resistant Nodular Iron (Duct)	Abrasion Resistant Iron
Grades / Alloy	12 grades	2 grades	11 grades	1 grade	5 grades	2 grades	5 grades
Tensile 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	14 000 lbs pour weight 8 500 lbs approx. finished weight
STEEL:	All grades	7 000 lbs pour weight 4 250 lbs approx. finished weight (min. charge 1 000lbs)



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 9001:2008.

Casting capabilities

Wabi can provide castings ranging in weight from 50 to 8000 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 5 000 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 8 000 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: 6 pattern makers, wood, plastic and urethane, 3-D modelling
- Sand moulding: moulding line upgrade (imf), improved sand conditioning with thermal reclaim unit
- Foundry: 4 induction furnaces with a total capacity of 18 000 lbs (8180 kg)
- Heat treatment: 7 furnaces with capacities from 1 to 10 tonnes
- Machine shop: experienced machinists, vertical boring mill 10' (3m) diameter, CNC 18" (46cm) diameter, Giana lathe 5' (1,5m) diameter, horizontal mill can machine 3'-5' square (1,68m), Ogawa radial arm drill 6' (1,83m) arm.

Leaders in engineering technology for over a century

Unequalled 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.

Experience that counts. People who care.

More than a century of industrial manufacturing experience at Wabi Iron & 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.

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.

CWB CERTIFIED

ISO 9001 REGISTERED

Professional Engineers Ontario

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We also specialise in general fabrication, machining and assembly

Wabi's mechanical 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.