

MEEHANITE GREY IRON BS1452 GRADE 250 TECHNICAL DATA

Ex-stock in lengths up to 3 metres, for immediate delivery. Good machinability at high speeds, (See table below). Homogeneous grain structure giving good clean surface finishes. Suitable for copper or chromium plating, and vitreous enamelling. Able to withstand hydraulic and pneumatic pressures. High damping capacity enabling absorption of heavy vibrational stresses. Cost and time saving of up to 30% on traditional steels.

Precise metallurgical processing has improved today's cast iron into a useful, cost effective material, ideal for many engineering applications. The availability from Righton warehouse of a range of sizes means that high production rate of quality components is possible, together with real benefits:-

- controlled properties, physical and metallurgical
- close dimensional tolerances for feed stock.
- no static casting type defects (blowholes, internal shrinkage, misshapes etc.)
- consistent machinability and improved tool life.
- supplied in the lengths most suitable for you.

Remember - continuously cast iron can save money and improve output.

Service Available

Blanks - Any diameter, any length, any quantity, cut 'in-house' on our automatic saws, with capacity up to 16" diameter.

Machined Components - Ask us for a competitive quote for your finished requirements.

Typical Physical Properties

Please note that properties vary considerably according to section and diameter, and are shown for guidance purposes only.

Properties	Unit of measure	Grey Grade 250
Hardness	HB	175/225
Tensile strength	Newtons/mm ²	250
Compression strength	Newtons/mm ²	950
Impact strength	Joules	4
Fatigue limit	Newtons/mm ²	+110

Typical Machining Speeds Based on turning operations,

Tool Geometry

Carbide tooling	
Side clearance	5°
Normal rake	0/12°
Cutting edge inclination	-4°
Tool approach angle	45°/90°
Nose radius	0.4/1.6mm

	Cutting speed mm/rev	Feed
Roughing	80-100	0.4-1.1 Carbide
Finishing	100-130	0.1-0.5 Tooling
Roughing	350	0.3-0.6 Ceramic*
Finishing	550	0.2-0.3 Tooling

* Tool geometry may vary (CNC Machines)

Dia (mm)	Removal per face
up to 50	1 mm
51-100	1.5 mm
101-150	2.5 mm
151 and over	up to 5mm

Applications

Listed below are some of the many applications of concast iron in the general engineering industry. It is also used within the mining, printing, tobacco and textile industries, and is widely used for traction components on military and earthmoving equipment.

Jig	Pump rotors and bodies	Flywheel
Shafts	Cylinder sleeves and barrels	Spacer rings
Cams	Clutch and gear parts	Spool valves
Flanges	Bushes and bearings	Pulley wheels
Rolls	Neck rings moulds and dies	Manifolds
Collars	Pistons, rams and plungers	Shock absorber caps
Glands	Valve guides and bodies	Cross slides
Shafts	Feed tubes and connectors	Balance weights

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Dia (mm)	Imp. equiv. inches	Wt. per metre (kg)	Dia. (mm)	Imp. equiv. inches	Wt. per metre (kg)
25	.984	3.60	170	6.692	156.49
30	1.181	5.19	180	7.086	186.67
35	1.377	7.06	190	7.480	207.94
40	1.574	9.22	200	7.874	230.42
45	1.771	11.67	210	8.267	254.06
50	1.969	14.40	220	8.661	278.81
55	2.165	17.40	230	9.055	304.73
60	2.362	20.74	240	9.448	331.83
65	2.559	24.34	250	9.842	360.08
70	2.756	28.23	260	10.236	389.40
75	2.953	32.40	270	10.629	419.96
80	3.150	36.87	280	11.023	451.67
85	3.346	41.63	290	11.417	484.44
90	3.543	46.67	300	11.811	518.46
95	3.740	51.99	310	12.204	553.55
100	3.937	57.60	320	12.598	589.85
105	4.133	63.52	330	12.992	614.70
110	4.331	69.70	340	13.385	652.55
115	4.527	76.15	350	13.779	694.20
120	4.724	83.00	360	14.173	731.55
130	5.118	97.50	370	14.566	773.20
140	5.511	112.92	380	14.960	819.70
150	5.905	129.64	390	15.354	864.40
160	6.299	147.46	400	15.748	910.40

All weights are approximate

Sections Available

Round Bar – up to 400mm

Square Bar – from 25mm x 25mm up to 200mm x 200mm

Rectangle Bar – from 35mm x 12mm up to 400mm x 200mm

Tubes/Bushes – from 25mm up to 400mm

Profiles – most shapes can be cut to customers orders - we would be please to discuss your requirements.

Other Grades...

MEEHANITE GREY IRON BS1452 GRADE 350

Details on request.

S.G. (NODULAR) IRON BS2789

Details on request.