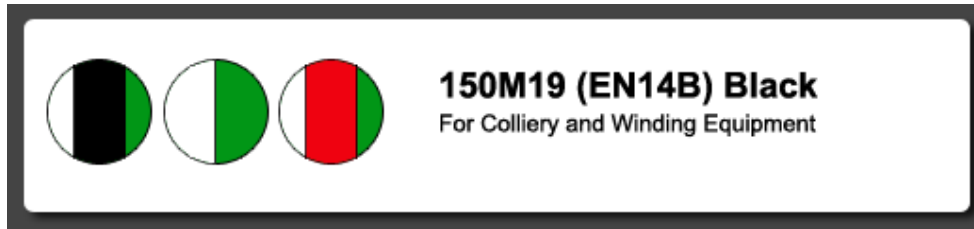


MACSTEEL - SPECIAL STEELS CATALOGUE

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South Africa

Tel: (011) 897-5000
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Web: www.macsteel.co.za



Typical Uses

Primarily produced for its weldability but also used extensively for mine lifting and winding equipment and motor shafts.

BS970 of 1955 EN14B	
BS2772 Pt of 1989 W.Stoff (German) 1.1169	
Carbon	0.15 – 0.23
Silicon	0.10 – 0.40
Manganese	1.30 – 1.70
Sulphur	0.040 max
Phosphorus	0.040 max

Properties minima unless stated

Heat Treatment	Tensile Strength Rm MPa	Yield Stress Re MPa	Rp 0.2 MPa	A min on 5.65 √ So	Impact		Hardness HB	Limiting Ruling Section mm
					Izod Ft.lb	KCV J		
N	550	325	N/a	18	30	35	152/207	150
	510	295	N/a	17	-	-	146/197	250
P	550/700	340	325	18	40	50	152/207	150
Q	625/775	430	415	16	40	50	179/229	63
R	700/850	510	495	16	30	35	201/255	29

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Size Range					
As Forged		Normalised		Heat Treated	
Diameter in mm	Theoretical Mass Kg/m	Diameter in mm	Theoretical Mass Kg/m	Diameter in mm	Theoretical Mass Kg/m
75	34.678	175	188.803	75	34.678
85	44.542	180	199.746	85	44.542
103	65.404	200	246.600	103	65.404
115	81.532	220	298.386	115	81.532
130	104.189	235	340.462	130	104.189
175	188.803	265	432.937	175	188.803
180	199.746	280	483.336		
200	246.600	285	500.752		
220	298.386	290	518.477		
235	340.462	310	592.457		
250	385.313	350	755.213		
265	432.937			Square Millimeters	Theoretical Mass Kg/m
280	483.336				
285	500.752				
290	518.477				
310	592.457				
350	755.213			150	176.850
				200	314.400
				230	415.794
				250	491.250
				275	594.413

N.B.

1. Actual mass will vary from theoretical mass due to manufacturing tolerances.
2. A 6 % allowance should always be made for removal of surface defects during machining.
3. Any stock sizes can be heat treated on request.
4. Any heat treatment carried out on sizes exceeding limiting ruling section will be done with the proviso that quenched and tempered material will be to a hardness only and mechanicals on request for information only.
5. Normalised hardness given for guidance only.

Although every care has been taken in the compilation of this brochure, which is for information only, no responsibility can be accepted for inaccuracies.

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