

Apex Speciality Steel (PTY) Ltd



Registration: 2018 / 059408 / 07

Vat Nr: 4200280859

Company Profile



www.apexsteels.co.za

About Us:

Apex Speciality Steels Pty Ltd is a leading supplier of specialized steel products. We specialize in the supply of Carbon Steel Roundbar, Alloy Steel Roundbar, Bright Bar, Square Bar, Hollow Bar, and Hex Bar. Our commitment is to provide our clients with superior quality materials sourced from the best local and international suppliers, ensuring competitive pricing and exceptional value.

Our Mission:

At Apex Speciality Steels, we are committed to providing high-quality steel solutions for various industrial applications. Our mission is to deliver exceptional service and products that exemplify the strength in steel, meeting the demanding standards of our clients.

Our Vision:

To be the undisputed leader in specialty steels, empowering our clients' success through unwavering quality and a commitment to innovation.

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Our Services:

Precision Cutting Services:

- Apex Speciality Steels provides precision cutting services tailored to your exact specifications. Our advanced facility is equipped with automated band-saws for accurate length cutting and a state-of-the-art high-speed rotary blade saw for efficient production cutting.

Material Analysis:

- We offer comprehensive material analysis to ensure the integrity and quality of our steel. Our testing services include ultrasonic, hardness, and spectrographic analysis, as well as heat treatment services to achieve specific material conditions (R, S, T, U, and V).

Global Sourcing Solutions:

- Apex Speciality Steels facilitates global sourcing and import solutions to meet any material requirement, ensuring a seamless supply chain for our clients.

Customized Steel Solutions:

- At Apex Speciality Steels, we pride ourselves on delivering customized steel solutions. Our commitment to exceptional service, a comprehensive product range, extensive stockholding, reliable on-time deliveries, competitive pricing, and a robust infrastructure makes us a preferred steel supplier in the region.

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Our Products

CARBON LONG STEEL					
EN3A	BMS		EN8	EN8B	EN9
070M20	070M20		080M40	080M40	
	BRIGHT MILD STEEL			EN8 BRIGHT	
					070M55

ALLOY LONG STEEL					
EN19	EN19T	EN24	EN24T	EN36B	
709M40	709M40		817M40	817M40	
	HEAT TREATED TO CONDITION T			HEAT TREATED TO CONDITION T	
					655M13

FREE CUTTING		HOLLOW BAR	SQUARE BAR	HEXAGON BAR	
EN1A	EN1A LEAD	ST52	EN8	EN8	
230M07	230M07	ST52	080M40	080M40	

All which range from 16-405 diameters

Chemical Composition

	EN1A/EN1A L	BMS	EN3A	EN8/EN8B	EN9
	230M07	070M20	070M20	080M40	070M55
CARBON	0.15 MAX	0.16-0.24	0.16-0.24	0.36-0.44	0.50-0.60
SILICON	0.05 MAX	0.10-0.40	0.10-0.40	0.10-0.40	0.10-0.40
MANGANESE	0.90-1.30	0.50-0.90	0.50-0.90	0.60-1.00	0.50-0.90
SULPHUR	0.25-0.35	0.05 MAX	0.05 MAX	0.05 MAX	0.05 MAX
PHOSPHORUS	0.090 MAX	0.05 MAX	0.05 MAX	0.05 MAX	0.05 MAX
LEAD	0.15-0.35	-	-	-	-
	EN19	EN19T	EN24	EN24T	EN36B
	709M40	709M40	817M40	817M40	655M13
CARBON	0.36-0.44	EN19 HEAT TREATED TO CONDITION T	0.36-0.44	EN24 HEAT TREATED TO CONDITION T	0.10-0.16
SILICON	0.10-0.40		0.10-0.40		0.10-0.40
MANGANESE	0.70-1.00		0.45-0.70		0.35-0.60
NICKLE	-		1.30-1.70		3.00-3.75
CHROMIUM	0.90-1.20		1.00-1.40		0.70-1.00
MOLYBDENUM	0.25-0.35		0.20-0.35		-
SULPHUR	0.040 MAX		0.040 MAX		0.05 MAX
PHOSPHORUS	0.035 MAX		0.035 MAX		0.04 MAX

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CARBON AND ALLOY STEELS

SPECIFICATIONS AND COLOUR CHART

Value added services • cut-to-size • heat treatment

BS 970 STEEL SPECIFICATIONS AND COLOUR CHART

BS 970 220M47 (EN 1A) BRIGHT FREE CUTTING STEEL	
BS 970 070M20 (EN 3A AND B) BRIGHT MILD STEEL	
BS 970 080M40 (EN 8) BRIGHT STEEL	
BS 970 070M20 (EN 3A) BLACK MILD	
BS 970 080M15 (EN 32C) BLACK STEEL	
BS 970 080M40 (EN 8) BLACK STEEL	
BS 970 070M55 (EN 9) BLACK STEEL	
BS 970 709M40 (EN 19) BLACK STEEL	
BS 970 817M40 (EN 24) BLACK STEEL	
9SMN Pd36K LEADED FREECUTTING STEEL	
BS 970 826M40 (EN 26) BLACK STEEL	
BS 970 655M13 (EN 36B) BLACK STEEL	
HOLLOW BAR GRADE ST 52	

For any specifications not listed, please contact our sales department

FORMULAE

THEORETICAL CALCULATIONS	
	$D \times D \times 0,00616 = \text{kg/metre}$
	$D \times t \times t \times 0,02466 = \text{kg/metre}$
	$D \times D \times 0,0068 = \text{kg/metre}$
	$D \times D \times 0,00787 = \text{kg/metre}$
	$D \times t \times 0,00786 = \text{kg/metre}$
	$D \times D \times 0,00651 = \text{kg/metre}$

9SMN PB36K/28K-12L14 LEADED FREECUTTING STEEL

FOREIGN RELATED SPECIFICATIONS					
STANDARD	DIN	SAE	AISI	JIS	
GERMAN MAT. NO	500492,2	-	-	-	

TYPICAL USES - High speed production of repetition work (e.g. manufacture of bushes, pins, bolts, nuts, studs and couplings) where the major requirements are rapid machining and maximum tool life. Cutting speeds on bright drawn freecutting steel bar are considerably above those of ordinary freecutting quality steel with a far superior surface finish.

070M20 MILD STEEL (EN3A)

FOREIGN RELATED SPECIFICATIONS					
STANDARD	DIN	SAE	AISI	JIS	
GERMAN MAT. NO	C22	1020	1020	-	

TYPICAL USES - Shafts, bolts, nuts, studs, couplings and machinery components where a low tensile strength material is required.

080M40 "40" CARBON AXLE STEEL (EN8)

FOREIGN RELATED SPECIFICATIONS					
STANDARD	DIN	SAE	AISI	JIS	
GERMAN MAT. NO	C45	1043	1043	-	

TYPICAL USES - Axles, bolts, nuts, studs, couplings, pins connecting rods, crankshafts and machine components requiring medium tensile strength.

070M55 BLACK "55" CARBON STEEL (EN9)

FOREIGN RELATED SPECIFICATIONS					
STANDARD	DIN	SAE	AISI	JIS	
GERMAN MAT. NO	CM55	1055	1055	-	

TYPICAL USES - Similar in all applicants to 080M40 (EN8), but by virtue of the higher carbon content has the extra strength which is sometimes required. Exhibits good wear-resistance. This material can be successfully flame hardened. (gear and sprocket teeth are often surface hardened in this manner).

SYMBOLS FOR HARDNESS

SYMBOL	TON F/5Q IN.	MPA N/mm²	HARDNESS (BRINELL)
P	35/45	540/695	83 - 96 HRB (152/207)
Q	40/50	618/772	88 - 99 HRB (179/229)
R	45/55	695/849	95B - 24 HRC (201/255)
S	50/60	772/926	18 - 27 HRC (223/277)
T	55/65	849/1004	23 - 30 HRC (248/302)
U	60/70	926/1080	27 - 34 HRC (269/331)
V	65/75	1004/1158	29 - 36 HRC (293/352)
W	70/80	1080/1235	31 - 39 HRC (311/375)
X	75/85	1158/1312	35 - 41 HRC (341/401)
Y	80/90	1235/1390	38 - 45 HRC (363/429)
Z	100 MIN	1544 MIN	47 - HRC MIN (444 MIN)

709M40, 1% CHROMIUM MOLYBDENUM STEEL (EN19)

FOREIGN RELATED SPECIFICATIONS					
STANDARD	DIN	SAE	AISI	JIS	
GERMAN MAT. NO	42CRM04	4140H	4140H	G4052	TYPE: SCM4H

TYPICAL USES - Crankshafts, axle shafts, connecting rods, gears, bolts, drop stampings and general engineering components requiring good shock resistance.

817M40, 1,5% NICKEL CHROMIUM MOLYBDENUM STEEL (EN24)

FOREIGN RELATED SPECIFICATIONS					
STANDARD	DIN	SAE	AISI	JIS	
GERMAN MAT. NO	34NICRM06	4340	4340	G4103 CLASS 8	TYPE: SNCM8

TYPICAL USES - Axle shafts, connecting rod bolts, differential shafts, mandrel bars, spindle gears, power transmission gears, slide, rails, etc.

655M13, 3,25% NICKEL CHROMIUM CASE HARDENING STEEL (EN36B)

FOREIGN RELATED SPECIFICATIONS					
STANDARD	DIN	SAE	AISI	JIS	
GERMAN MAT. NO	14NICR14	3316	E3316	G4052	TYPE: SNC224

TYPICAL USES - Gudgeon pin, camshafts, gears, pinions, auxiliary drive shafts, tapet rollers, push rod heads and general parts requiring wear-resistant surfaces together with tough core to withstand shock stresses.

Contact us:

- Address: 24 Compensation Road, Ballito, Kwazulu Natal, 4399, South Africa
 - Tel: 032 004 0072
 - Cel: 060 366 6548
- Website: www.apexsteels.co.za



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