Bright & Black
Carbon & Alloy
Steel Bar

HIGH PEAK
STEELS

OVER 10,000 TONNES OF BRIGHT AND BLACK ENGINEERING STEEL STOCK AVAILABLE. HIGH PEAK STEELS DELIVER OVER 95% ON TIME, EVERY TIME AND IN FULL.

STEELS

HIGH PEAK STEELS

OVER 95% ON TIME
In Full Delivery

Our ability to turn a customer order into a delivery is second to none, with delivery performance significantly higher than the industry norm.

Service is central to our powerhouse operation - fast delivery leads to satisfied customers. At High Peak Steels we have been investing for over 30 years to refine and perfect our expertise. Our central despatch is the engine room of the business, so every customer order is drawn down from our extensive stock or accessed directly from our world leading mills.

Having access to 10,000 tonnes of stock at any point, we can process and deliver to customers swiftly. Expertise gained over many years, empowers our buying team with a wealth of knowledge, both regarding the right stock and when to buy, when to fix prices and when to remain flexible. This knowledge benefits both our own performance and stability and that of our customers; who come to rely upon our stock and prices.

"We couldn't operate to the degree of efficiency and competitiveness that we do without you."
Construction Machinery Manufacturer, Derbyshire

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Call now on **01457 866 911** or email **sales@highpeaksteels.com**

High Peak Steels' core focus is to deliver the most efficient service to our customers with investment and finishing equipment to support fast turnaround.

SERVICES





Bar Turning and Precision Grinding

Bar Turning:
The option to access our vast range of oversized black bar and turn the product to your exact size, saves machining time and provides customers the exact size of bar required.

Precision Grinding:
This techniques provides steel bar with a defined tight tolerance on diameter, it produces perfect roundness, straightness and a fine surface finish. This prepares the bar for customers' final machining.

Complimentary Processes to Turning and Grinding Include:
Reel Straightening and Press Straightening.

Sawing

Accuracy:
Recent investments in the latest machines that accommodate Carbide cutting technology with Tsune machine will cut materials to within 0.2mm with a finish that does not need facing up.

Speed:
Our new machine technology cuts up to eight times quicker than any standard band saw machine, improving efficiencies and reducing customer machining time.

Sizes:
Our Danobat machines will cut up to 520mm diameter and with the new carbide blades produce cut pieces three times faster than traditional saws. The largest size High Peak Steels cut is 800mm diameter.

Heat Treatment

Ensuring you can get to work right away with your steel, we offer Hardening and Tempering, Solution Annealing, Normalising and Stress Relieving for your materials order, to your exact required standard.

Testing

Before you begin machining, let High Peak Steels test your critical steels including Non Destructive Testing, Ultrasonic and Full Mechanical and Chemical testing to your precise requirements.

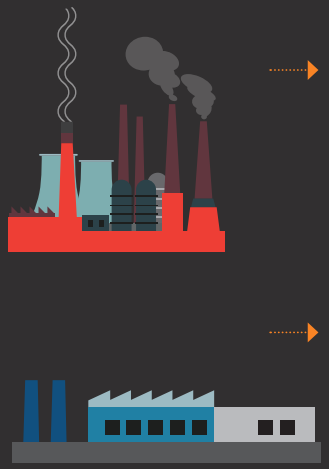
Delivery Fleet

Reliability is essential in today's market. High Peak Steels own fleet guarantees speed of response and reduced lead times. Our despatch team can plan deliveries to meet your deadline and even send out urgent orders on an unscheduled visit. All our vehicles are installed with trackers to keep you updated with your delivery. We pride ourselves on delivering both a quality product and a quality service to your door.

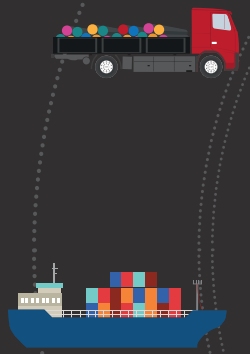
SUPPLY CHAIN

We have a vast stock range and provide a reliable and fast service; delivering what you want when you want it, with a unique blend of reliability, integrity, quality and courtesy.

1 Steel Mills
supply the steel →

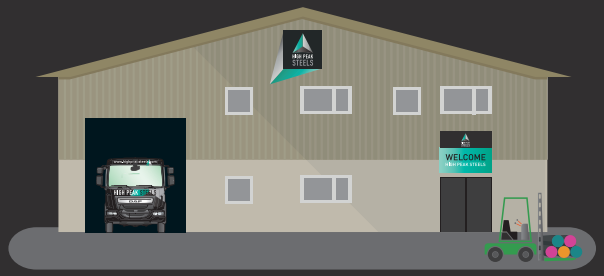


2 Transported to our central warehouse and processing centre



3 Process and load for distribution →

ENGINE ROOM



Out For Delivery →

"100% satisfaction."
General Engineer, Humberside

4 Delivery to end customer →

High Peak Steels works with a variety of sectors, supplying stock lengths and cut pieces direct to your factory for their final market.

- AUTOMOTIVE
- AGRICULTURE
- PRINTING
- RAIL
- AEROSPACE
- OIL & GAS
- RENEWABLES
- MATERIALS HANDLING
- LIFTING & EXCAVATION
- DEFENCE
- CONSTRUCTION
- MINING
- TRUCK & BUS

Steel is what we sell, service is what we deliver.

Call 01457 866 911

SECTORS

Whatever sector you work in, High Peak Steels understands the bespoke material requirements for each particular application, supplying stock lengths and cut pieces directly to your factory.

From suppling specialist hardened steels, to withstand the stresses and corrosion demands in critical environments such as subsea Oil and Gas, to Automotive with multi-component safety critical parts, as well as large scale diameter steel supply for the Construction sector, High Peak Steels can work with you.

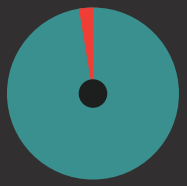
"We wouldn't dream of going anywhere else for our daily requirements."

General Engineer, Potteries

Call now on **01457 866 911** or email **sales@highpeaksteels.com**

Delivery - fast, quality, efficient, competitive
Performance - experienced, knowledgeable
Relationships - strong, trustworthy
Stock - extensive, available

OVER
95%
ON TIME



SPEED of response

We offer a faster, more competitive service

IN FULL
DELIVERY

- **A** Own Delivery Fleet
- **B** Growing Business
- **C** Enviable Reputation

Over **1000** engineering steel product lines in stock

PERFORMANCE

Running a lean operation means we supply, cut and deliver quicker than the industry average. Our ongoing investment in technology as well as equipment and our own delivery fleet ensures we know where an enquiry, order, or in-process delivery is at any time.

This gives our expert team full control and customers the confidence that High Peak Steels will deliver on time, every time.

"You do exactly what you say you are going to do and we can't ask anymore than that."
Breakdown Engineer, Midlands

EXPERTISE

Working with precision industries, the importance of fully understanding and meeting your requirements, as our customers, is of paramount importance to us. We have built up a wealth of knowledge, leaving nothing to chance, with every order following a step-by-step process. We are here for the long term, building a comprehensive understanding of the needs of your business, within your industry.

Individual →

We don't follow the industry norm; we aim for excellence of service, performance and customer care.

Efficient →

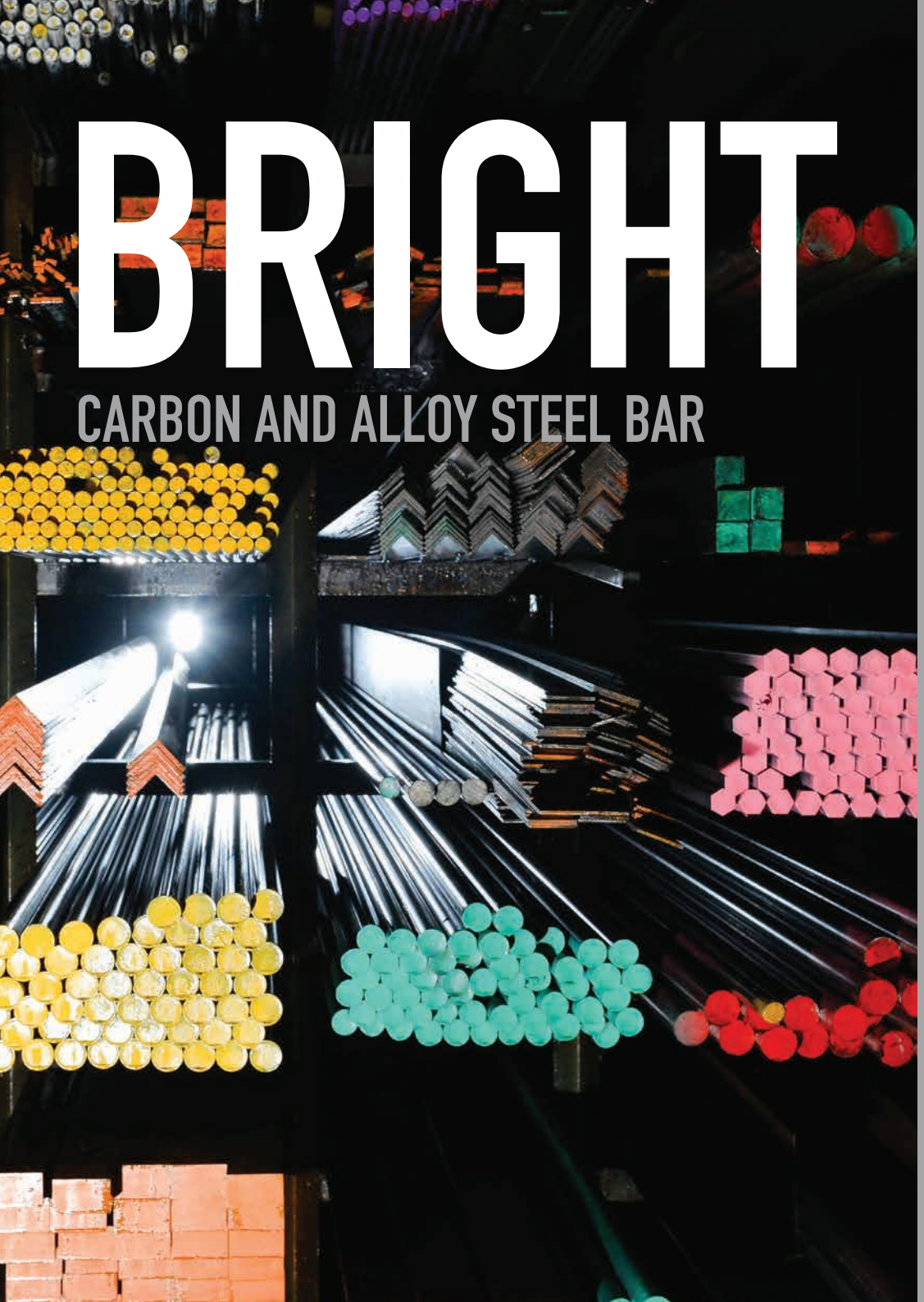
Our systems are designed around an intricate knowledge of the steel stock holding business. Built up over 30 years, we know stock, what needs to happen and we understand a deadline is just that; a line that cannot pass without delivery.

Flexible →

The unexpected can happen, so we can help with this too. You need an order earlier, want to alter quantities or vary your specification, we can adapt with you.

Product knowledge and innovative →

As industry experts our team of advisors are on hand to provide guidance on the best steel stock options for your applications.



BRIGHT

CARBON AND ALLOY STEEL BAR

HIGH PEAK STEELS

STOCK RANGE & GRADES

With an extensive stock range we have access to over 5,000 tonnes of bright engineering steel. We can process and deliver to customers swiftly.

We supply a complete range of bright carbon and alloy steel bars in round, flat, square and hexagon sections.

Page	UK Standard	Grade	Round	Flat	Square	Hexagon
	BS970-1955	BS970 PART 1 1983	●	▬	■	⬢
13	EN3B	070M20	●	–	■	⬢
13	EN32	080A15	●	–	■	⬢
14	EN1A	230M07	●	–	■	⬢
14	EN1APB	230M07PB	●			⬢
15	EN8	080M42	●	–	■	
15	EN8DM	212A42	●			⬢
16	EN9	070M55	●			
17	EN16	605M36T	●			⬢
18	EN19	709M40T	●			
19	EN24	817M40T	●			
20	EN36	655M13	●			
20	EN36C	832M13	●			

"Why would I go anywhere else when I get a fair price and first class service from you guys?"

Repetition Engineer, Lancashire

Call now on **01457 866 911** or email **sales@highpeaksteels.com**

BRIGHT 070M20

A general purpose mild steel for welded and riveted structures, forgings, machined parts and hot pressing. This steel will withstand a moderate amount of cold deformation and only offers low strength but good machinability.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	6mm dia	200mm dia	3/16" dia	8" dia
▬	13mm x 3mm	300mm x 25mm	1/4" x 1/8"	12" x 2"
■	20mm	100mm	3/16"	6"
⬢	7mm A/F	65mm A/F	.312" A/F	2.760" A/F

Associated Standards

Standard	Code
UK Standard	EN3A
European Grades	C15, C20, ST52-3, S235
Werkstoff	1.0402, 1.0401, 1.1151
SAE/AISI	1020

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.16	0.1	0.5					
Max	0.24	0.4	0.9	0.05	0.05	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB
Normalised (min)	215		430	21		126
Normalised (max)						
Drawn (min)	420		530	12		179
Drawn (max)						

Typical Applications

☑ Shafts ☑ Staybolts ☑ Brake ☑ Pedal Levers ☑ Gear Selectors ☑ Haulage Gear ☑ Clutch & Brake Housing ☑ Motor Car Wheel Hubs ☑ Various Motorcycle Leg Stampings ☑ Wagon Buffers ☑ Valve Gate & Body Forgings ☑ Commutator Screws ☑ Cage Suspensions

BRIGHT 080A15

A general purpose mild steel for welded and riveted structures, forgings, machined parts and hot pressing. This steel will withstand a moderate amount of cold deformation and only offers low strength but good machinability.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	6mm dia	200mm dia	3/16" dia	8" dia
▬	13mm x 3mm	300mm x 25mm	1/4" x 1/8"	12" x 2"
■	20mm	100mm	3/16"	6"
⬢	7mm A/F	65mm A/F	.312" A/F	2.760" A/F

Associated Standards

Standard	Code
UK Standard	EN3B & EN32
European Grades	C15, C20, ST52-3, S235
Werkstoff	1.0402, 1.0401, 1.1151
SAE/AISI	1018

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.13	0.1	07					
Max	0.18	0.4	0.9	0.05	0.05	0.3	0.4	0.15

Typical Applications

☑ Shafts ☑ Staybolts ☑ Brake ☑ Pedal Levers ☑ Gear Selectors ☑ Haulage Gear ☑ Clutch & Brake Housing ☑ Motor Car Wheel Hubs ☑ Various Motorcycle Leg Stampings ☑ Wagon Buffers ☑ Valve Gate & Body Forgings ☑ Commutator Screws ☑ Cage Suspensions

BRIGHT 230M07

A non alloyed free cutting steel which is suitable for applications where good machinability is the prime consideration. Typically used for the rapid production of parts which shall not be subject to high stresses in service.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	8mm dia	150mm dia	3/8" dia	6" dia
▬	25mm x 10mm	75mm x 25mm	1" x 3/8"	3" x 1"
■	25mm	75mm	1"	3"
⬢	13mm A/F	70mm A/F	.500" A/F	2.760" A/F

Associated Standards

Standard	Code
UK Standard	EN1A
European Grades	11SMn30
Werkstoff	1.0715
SAE/AISI	1113,1213

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min		0.15	0.9	0.25				
Max	0.15	0.4	1.3	0.35	0.07	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB
Normalised (min)	215		360	22		103
Normalised (max)						
Drawn (min)	380		400	7		
Drawn (max)						

Typical Applications

☑ Light Duty Studs ☑ Cycle Components ☑ Intricate Non-Critical Components

BRIGHT 230M07PB

A non alloyed free cutting steel with added PB (Lead) which is suitable for applications where good machinability is the prime consideration. Typically used for the rapid production of parts which shall not be subject to high stresses in service.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	8mm dia	80mm dia	3/8" dia	3"dia
▬				
■				
⬢	13mm A/F	70mm A/F	.500" A/F	2.760" A/F

Associated Standards

Standard	Code
UK Standard	EN1A LEADED
European Grades	11SMn30PB
Werkstoff	1.0718
SAE/AISI	12L14

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo	Pb
Min	0.07	0.15	0.9	0.25					
Max	0.15	0.4	1.3	0.35	0.07	0.3	0.4	0.15	0.25

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB
Normalised (min)	215		360	22		103
Normalised (max)						
Drawn (min)	380		400	7		
Drawn (max)						

Typical Applications

☑ Light Duty Studs ☑ Cycle Components ☑ Intricate Non-Critical Components

BRIGHT 080A42

A medium carbon steel to give moderate tensile strengths which is achieved by normalising or quenching and tempering on certain sizes but is mainly supplied from stock in the cold drawn condition. It machines like mild steel but weldabilty is reduced.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	8mm dia	200mm dia	1/4" dia	8" dia
—	8mm x 7mm Key Steel	50mm x 28mm Key Steel	5/16" x 1/4" Key Steel	2" x 1 1/2" Key Steel
■	4mm SQ Key Steel	50mm SQ Key Steel	3/16" SQ Key Steel	2" SQ Key Steel
⬣				

Associated Standards

Standard	Code
UK Standard	EN8
European Grades	C40
Werkstoff	1.0511
SAE/AISI	1040

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.4	0.1	0.7					
Max	0.45	0.4	0.9	0.05	0.05	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB
Drawn (min)	Material produced to chemical composition only					
Drawn (max)						

Typical Applications

☑ Automotive Parts ☑ Spindles ☑ Studs ☑ Gears ☑ Axles
☑ General Engineering Components

BRIGHT 212A42

Bright drawn medium carbon semi free cutting steel, suitable for repetition machining, good for induction hardening.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	8mm dia	80mm dia	3/8" dia	3" dia
—				
■				
⬣	13mm A/F	70mm A/F	.500" A/F	2.760" A/F

Associated Standards

Standard	Code
UK Standard	EN8DM
European Grades	36SMn14
Werkstoff	1.0764
SAE/AISI	1141

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo	Pb
Min	0.4		1.0	0.12					
Max	0.45	0.25	1.3	0.2	0.06	0.3	0.4	0.15	0.25

Typical Applications

☑ Spindles ☑ Nuts ☑ Bolts

BRIGHT 070M55

A medium carbon steel to give good tensile strengths. This material can be through hardened by quenching and tempering on certain sizes but is mainly supplied from stock in the as rolled, untreated or normalised condition. It posseses good wear resistance but is difficult to weld.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	25mm dia	50mm dia
—		
■		
⬣		

Associated Standards

Standard	Code
UK Standard	EN9
European Grades	C55, C60
Werkstoff	1.0535
SAE/AISI	1055

Chemical Composition

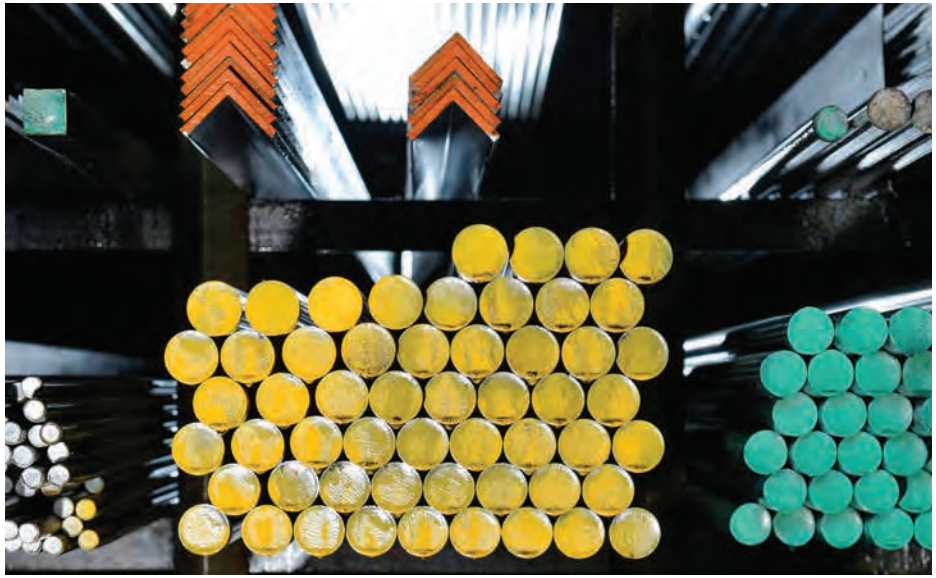
	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.5	0.1	0.5					
Max	0.6	0.4	0.9	0.05	0.05	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Normalised (min)	355		700	12		201	
Normalised (max)						255	
Drawn (min)	600		750	7			
Drawn (max)							
Quenched and Tempered to condition R (min)	415		700	14		201	
Quenched and Tempered to condition R (max)			850			255	

Typical Applications

☑ Automotive Parts ☑ Sprockets ☑ Cams ☑ Gears ☑ Cylinders



BRIGHT 605M36T

A commonly used general purpose steel used for a wide range of engineering parts. It is capable of being heat treated to produce a wide range of tensile strengths combined with good ductility and resistance to shock.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	10mm dia	75mm dia	1/2" dia	3"dia
—				
■				
⬢	13mm A/F	46mm A/F	.500" A/F	1.860" A/F

Associated Standards

Standard	Code
UK Standard	EN16
European Grades	38MnB5
Werkstoff	
SAE/AISI	4037

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.32	0.1	1.3					0.22
Max	0.4	0.4	1.7	0.04	0.035			0.3

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Quenched and Tempered to condition R (min)	495		700	15		201	28
Quenched and Tempered to condition R (max)			850			255	
Quenched and Tempered to condition S (min)	585		775	15		223	50
Quenched and Tempered to condition S (max)			925			277	
Quenched and Tempered to condition T (min)	680		850	13		248	50
Quenched and Tempered to condition T (max)			1000			302	
Drawn Quenched and Tempered to condition T (min)	700		850	9		248	50
Drawn Quenched and Tempered to condition T (max)			1000			302	

Typical Applications

☑ Automotive Parts ☑ Gears ☑ Induction Hardened Pins ☑ Axle Shafts
☑ Oil & Gas Parts

BRIGHT 709M40T

This is a similar grade to 708M40 but with a variation in the molybdenum content and is usually supplied heat treated to 'T' condition. This grade offers good ductility and shock resisting properties combined with resistance to wear.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	10mm dia	75mm dia	1/2" dia	3"dia
—				
■				
⬢				

Associated Standards

Standard	Code
UK Standard	EN19
European Grades	42CrMo4
Werkstoff	1.7225
SAE/AISI	4140

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.36	0.1	0.7			0.9		0.25
Max	0.44	0.35	1	0.04	0.035	1.2	0.4	0.35

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Quenched and Tempered to condition R (min)	495		700	15		201	28
Quenched and Tempered to condition R (max)			850			255	
Quenched and Tempered to condition S (min)	585		775	15		223	50
Quenched and Tempered to condition S (max)			925			277	
Quenched and Tempered to condition T (min)	680		850	13		248	50
Quenched and Tempered to condition T (max)			1000			302	
Quenched and Tempered to condition U (min)	755		925	12		296	42
Quenched and Tempered to condition U (max)			1075			331	
Drawn Quenched and Tempered to condition T (min)	700		850	9		248	50
Drawn Quenched and Tempered to condition T (max)			1000			302	

Typical Applications

☑ Automotive Parts ☑ Gears ☑ Induction Hardened Pins ☑ Axle Shafts
☑ Oil & Gas Parts

BRIGHT 817M40T

A commonly used general purpose steel used for a wide range of engineering parts. It is capable of being heat treated to produce a wide range of tensile strengths combined with good ductility and resistance to shock.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	10mm dia	75mm dia	1/2" dia	3"dia
—				
■				
⬣				

Associated Standards

Standard	Code
UK Standard	EN24
European Grades	34CrNiMo6
Werkstoff	1.6565, 1.6582
SAE/AISI	4340

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.36	0.1	0.45			1	1.3	0.2
Max	0.44	0.35	0.7	0.04	0.035	1.4	1.7	0.35

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Quenched and Tempered to condition T (min)	680		850	13		248	50
Quenched and Tempered to condition T (max)			1000			302	
Quenched and Tempered to condition U (min)	755		925	12		269	42
Quenched and Tempered to condition U (max)			1075			331	
Quenched and Tempered to condition V (min)	850		1000	12		293	42
Quenched and Tempered to condition V (max)			1150			352	
Drawn Quenched and Tempered to condition T (min)	700		850	9		248	50
Drawn Quenched and Tempered to condition T (max)			1000			302	

Typical Applications ☑ Automotive Parts ☑ Gears ☑ Induction Hardened Pins ☑ Axle Shafts ☑ Oil & Gas Parts

BRIGHT 655M13

A nickel chromium alloy case hardening steel that is used in heavy duty highly stressed applications. Chromium is present and increases the hardenabilty and the nickel content increase toughness and resistance.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	10mm dia	50mm dia	1/2" dia	2"dia
—				
■				
⬣				

Associated Standards

Standard	Code
UK Standard	EN36
European Grades	15NiCr13
Werkstoff	1.5752
SAE/AISI	3415

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.1	0.1	0.35			0.7	3	
Max	0.16	0.35	0.6	0.04	0.035	1	3.75	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Annealed (min)						255	
Annealed (max)							

Typical Applications ☑ Automotive Parts ☑ Steering Worms ☑ Transmission Components ☑ High Performance Gears ☑ Track Rod Pins ☑ Heavy Duty Engineering Components

BRIGHT 832M13

A nickel chromium alloy case hardening steel that is used in heavy duty highly stressed applications. The addition of molybdenum further increases this material's hardenability when compared with grade 655M13 and improves its core strength after heat treatment.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)	Min Size (Imperial)	Max Size (Imperial)
●	10mm dia	50mm dia	1/2" dia	2" dia
—				
■				
⬣				

Associated Standards

Standard	Code
UK Standard	EN36
European Grades	15NiCr13
Werkstoff	1.5752
SAE/AISI	3415

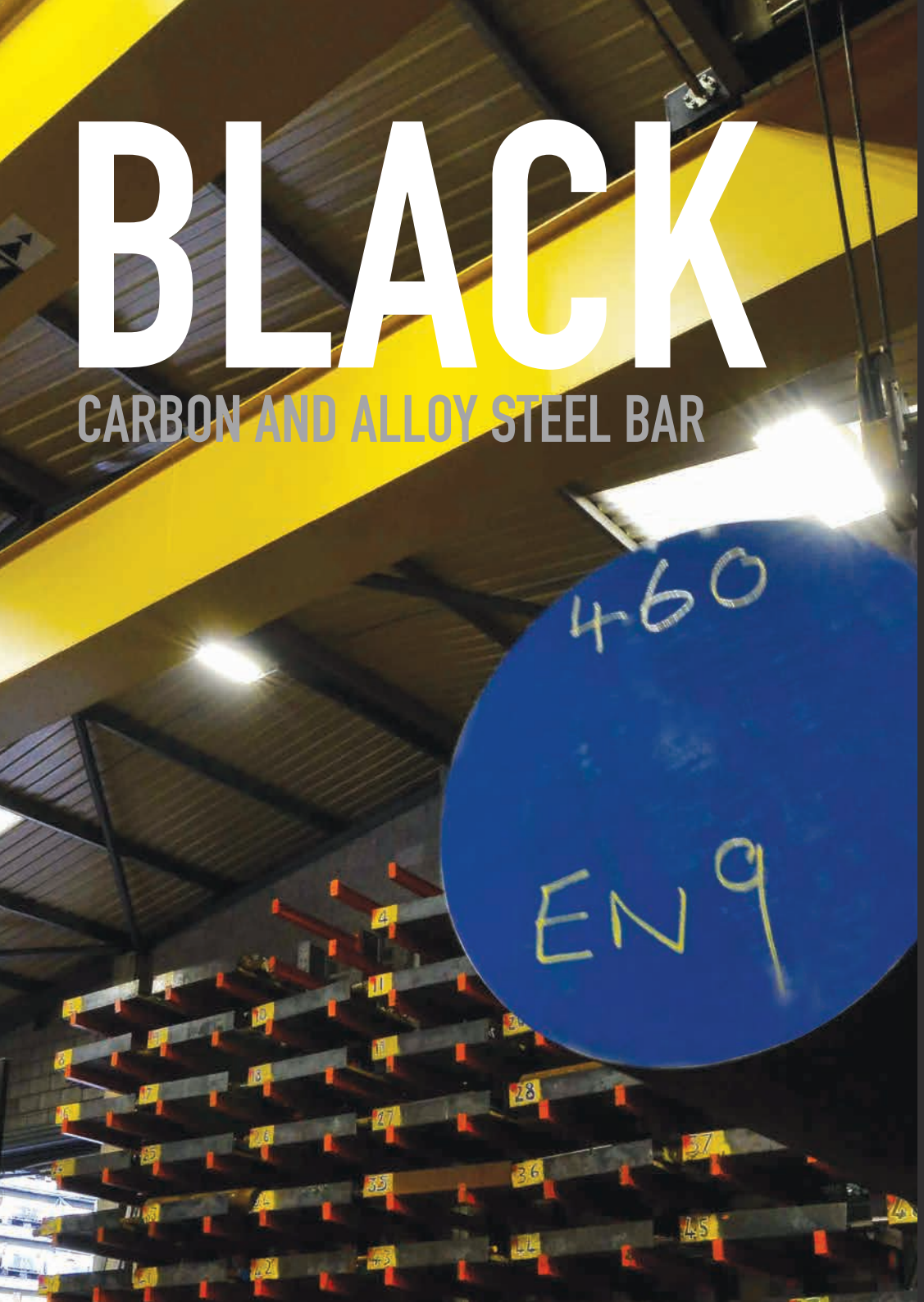
Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.1	0.1	0.35			0.7	3	
Max	0.16	0.35	0.6	0.04	0.035	1	3.75	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Annealed (min)							
Annealed (max)						255	

Typical Applications ☑ High Duty Gears For Aircraft ☑ Heavy Vehicle & Automobile Transmission Components ☑ Steering Worms ☑ Track Rod Pins ☑ Timing Wheels ☑ Breech Mechanisms ☑ Small Arm Parts



BLACK

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STOCK RANGE & GRADES

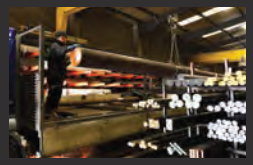
With an extensive stock range we have access to over 5,000 tonnes of black engineering steel. We can process and deliver to customers swiftly.

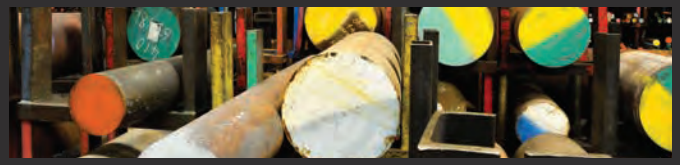
We supply a complete range of black carbon and alloy steel bar in rounds, flat and square sections.

Page	Uk Standard	Grade	Round	Flat	Square
	BS970-1955	BS970 PART 1 1983	●	—	■
25	EN3A	070M20	●	–	■
25	EN1A	230M07	●		
26	EN8	080M40	●		■
27	EN9	070M55	●	–	■
28	EN14A	150M19	●		
29	EN16	605M36T	●		
30	EN19	709M40T	●		
31	EN24	817M40T	●	–	■
32	EN26	826M40	●		
33	EN34	665M17	●		
33	EN36	655M13	●		
34	EN36C	832M13	●		
34	EN39B	835M15	●		
35	EN40B	722M24	●		
36	EN10025	S355	●		
37	SAE8620	SAE8620	●		
37	CAST IRON	250	●	–	■

"We shopped around at one stage but always end up back to you so that speaks volumes."

General Engineer, West Yorkshire





Call now on **01457 866 911** or email **sales@highpeaksteels.com**

BLACK 070M20

A general purpose mild steel for welded and riveted structures, forgings, machined parts and hot pressing. This steel will withstand a moderate amount of cold deformation and only offers low strength but good machinability.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	6mm dia	800mm dia
—	13mm x 3mm	200mm x 20mm
■	20mm	100mm
⬢		

Associated Standards

Standard	Code
UK Standard	EN3A
European Grades	C15, C20, ST52-3, S235
Werkstoff	1.0402, 1.0401, 1.1151
SAE/AISI	1020

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.16	0.1	0.5					
Max	0.24	0.4	0.9	0.05	0.05	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB
Normalised (min)	215		430	21		126
Normalised (max)						
Drawn (min)	420		530	12		179
Drawn (max)						

Typical Applications

☑ Shafts ☑ Staybolts ☑ Brake ☑ Pedal Levers ☑ Gear Selectors ☑ Haulage Gear ☑ Clutch & Brake Housing ☑ Motor Car Wheel Hubs ☑ Various Motorcycle Leg Stampings ☑ Cage Suspensions ☑ Valve Gate & Body Forgings ☑ Wagon Buffers ☑ Commutator Screws

BLACK 230M07

A non-alloyed free cutting steel which is suitable for applications where good machinability is the prime consideration. Typically used for the rapid production of parts which shall not be subject to high stresses in service.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	75mm dia	200mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN1A
European Grades	11SMn30
Werkstoff	1.0715
SAE/AISI	1113, 1213

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min		0.15	0.9	0.25				
Max	0.15	0.4	1.3	0.35	0.07	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB
Normalised (min)	215		360	22		103
Normalised (max)						
Drawn (min)	380		400	7		
Drawn (max)						

Typical Applications

☑ Light Duty Studs ☑ Cycle Components ☑ Intricate Non-Critical Components

BLACK 080M40

A medium carbon steel to give moderate tensile strengths. This material can be through hardened by quenching and tempering on certain sizes but is mainly supplied from stock in the as rolled, untreated or normalised condition. It machines like mild steel but weldability is reduced.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	25mm dia	800mm dia
—		
■	75mm	200mm Billet SQ
⬢		

Associated Standards

Standard	Code
UK Standard	EN8
European Grades	C40
Werkstoff	1.0511
SAE/AISI	1040

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.36	0.1	0.6					
Max	0.44	0.4	1	0.05	0.05	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Normalised (min)	280		550	16		152	16
Normalised (max)						207	
Drawn (min)	510		650	8			
Drawn (max)							
Quenched and Tempered to condition Q (min)	385		625	16		179	28
Quenched and Tempered to condition Q (max)						229	

Typical Applications

☑ Automotive Parts ☑ Sprockets ☑ Cams ☑ Gears ☑ Cylinders

BLACK 070M55

A medium carbon steel to give good tensile strengths. This material can be through hardened by quenching and tempering on certain sizes but is mainly supplied from stock in the as rolled, untreated or normalised condition. It posseses good wear resistance but is difficult to weld.

Products & Sizes

	Min Size (Metric)	Max Size (Mectric)
●	32mm dia	500mm dia
—	40mm x 4mm	100mm x 20mm
■	16mm	50mm
⬢		

Associated Standards

Standard	Code
UK Standard	EN9
European Grades	C55, C60
Werkstoff	1.0535
SAE/AISI	1050

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.5	0.1	0.5					
Max	0.6	0.4	0.9	0.05	0.05	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Normalised (min)	355		700	12		201	
Normalised (max)							
Drawn (min)	600		750	7		255	
Drawn (max)							
Quenched and Tempered to condition R (min)	415		700	14		201	
Quenched and Tempered to condition R (max)			850			255	

Typical Applications

☑ Automotive Parts ☑ Sprockets ☑ Cams ☑ Gears ☑ Cylinders

BLACK 150M19

A low carbon manganeses steel which is weldable and has good impact resistance. It is a medium tensile steel and is capable of thorough hardening by quenching and tempering but it is normally supplied in the as rolled, untreated or normalised condition. It machines like mild steel.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	25mm dia	800mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN14A
European Grades	ST52-3, S275, S355
Werkstoff	1.117
SAE/AISI	

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.15	0.1	1.3					
Max	0.23	0.4	1.7	0.05	0.05	0.3	0.4	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Normalised (min)	325		550	18		152	35
Normalised (max)							
Drawn (min)	600		750	7		207	
Drawn (max)							
Quenched and Tempered to condition Q (min)	340		550	18		152	
Quenched and Tempered to condition Q (max)			700			207	50

Typical Applications

☑ Lifting Gear ☑ Spindles ☑ Welded Structures ☑ Gears

BLACK 605M36T

A commonly used general purpose steel used for a wide range of engineering parts. It is capable of being heat treated to produce a wide range of tensile strengths combined with good ductility and resistance to shock.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	50mm dia	180mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN16
European Grades	38MnB5
Werkstoff	
SAE/AISI	4037

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.32	0.1	1.3					0.22
Max	0.4	0.4	1.7	0.04	0.035			0.3

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Quenched and Tempered to condition R (min)	495		700	15		201	28
Quenched and Tempered to condition R (max)			850			255	
Quenched and Tempered to condition S (min)	585		775	15		223	50
Quenched and Tempered to condition S (max)			925			277	
Quenched and Tempered to condition T (min)	680		850	13		248	50
Quenched and Tempered to condition T (max)			1000			302	

Typical Applications

☑ Automotive Parts ☑ Gears ☑ Bolts ☑ Shafts ☑ Conrods ☑ Crankshafts

BLACK 709M40T

This is a similar grade to 708M40 but with a variation in the molybdenum content and is usually supplied heat treated to 'T' condition. This grade offers good ductility and shock resisting properties combined with resistance to wear.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	25mm dia	600mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN19
European Grades	42CrMo4
Werkstoff	1.7225
SAE/AISI	4140

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.36	0.1	0.7			0.9		0.25
Max	0.44	0.35	1	0.04	0.035	1.2	0.4	0.35

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Quenched and Tempered to condition R (min)	495		700	15		201	28
Quenched and Tempered to condition R (max)			850			255	
Quenched and Tempered to condition S (min)	585		775	15		223	50
Quenched and Tempered to condition S (max)			925			277	
Quenched and Tempered to condition T (min)	680		850	13		248	50
Quenched and Tempered to condition T (max)			1000			302	
Quenched and Tempered to condition U (min)	755		925	12		269	42
Quenched and Tempered to condition U (max)			1075			331	

Typical Applications

☑ Automotive Parts ☑ Gears ☑ Induction Hardened Pins ☑ Axle Shafts ☑ Oil & Gas Parts

BLACK 817M40T

A commonly used general purpose steel used for a wide range of engineering parts. It is capable of being heat treated to produce a wide range of tensile strengths combined with good ductility and resistance to shock.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	40mm dia	500mm dia
—	20mm x 10mm	900mm x 300mm
■	25mm	150mm
⬢		

Associated Standards

Standard	Code
UK Standard	EN24
European Grades	34CrNiMo6
Werkstoff	1.6565, 1.6582
SAE/AISI	4340

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.36	0.1	0.45			1	1.3	0.2
Max	0.44	0.35	0.7	0.04	0.035	0.4	1.7	0.35

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Quenched and Tempered to condition T (min)	680		850	13		248	50
Quenched and Tempered to condition T (max)			1000			302	
Quenched and Tempered to condition U (min)	755		925	12		269	42
Quenched and Tempered to condition U (max)			1075			331	
Quenched and Tempered to condition V (min)	850		1000	12		293	42
Quenched and Tempered to condition V (max)			1150			352	

Typical Applications

☑ Automotive Parts ☑ Gears ☑ Induction Hardened Pins ☑ Axle Shafts ☑ Oil & Gas Parts

BLACK 826M40

826M40 in round bar hot rolled and heat treated to 'W' condition. It is a 2.5% nickel chromium molybdenum high tensile grade with a tensile range of 1075-1225 N/mm². It is suitable for applications which require higher tensile and yield strength than 817M40 or 826M31 specifications.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	50mm dia	250mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN26
European Grades	34CrNiMo6, 40CrNiMo6
Werkstoff	1.6745
SAE/AISI	

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.36	0.1	0.45			0.5	2.3	0.45
Max	0.44	0.35	0.7	0.04	0.035	0.8	2.8	0.65

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Quenched and Tempered to condition U (min)	755		925	12		269	42
Quenched and Tempered to condition U (max)			1075			331	
Quenched and Tempered to condition V (min)	850		1000	12		293	42
Quenched and Tempered to condition V (max)			1150			352	
Quenched and Tempered to condition W (min)	940		1075	11		311	35
Quenched and Tempered to condition W (max)			1225			375	
Quenched and Tempered to condition X (min)	1020		1150	10		363	28
Quenched and Tempered to condition X (max)			1300			352	
Quenched and Tempered to condition Y (min)	1095		1225	10		363	28
Quenched and Tempered to condition Y (max)			1375			352	
Quenched and Tempered to condition Z (min)	1235		1550	7		444	11
Quenched and Tempered to condition Z (max)							

Typical Applications

☑ Automotive Parts ☑ Heavy Duty Gears ☑ Aircraft & Aerospace Parts ☑ Crank & Differential Shafts ☑ Undercarriages ☑ High Strength Bolts

BLACK 665M17

This is a 2% nickel, molybdenum case hardening steel grade. 665M17 is suitable for applications requiring wear resistance and shock resistance. It offers good core strength and impact properties with little temper brittleness.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	50mm dia	200mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN34
European Grades	
Werkstoff	
SAE/AISI	4615

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.14	0.1	0.35				1.5	0.2
Max	0.2	0.4	0.75	0.04	0.035	0.3	2	0.3

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Normalised						207	
Quenched and Tempered			770mm max	12			

Typical Applications

☑ Automotive Parts ☑ Case Hardened Products ☑ Pinions ☑ Gears ☑ Track Rod Pins ☑ Heavy Duty Engineering Components ☑ Transmission Components

BLACK 655M13

A nickel chromium alloy case hardening steel that is used in heavy duty highly stressed applications. Chromium is present and increases the hardenabilty and the nickel content increase toughness and resistance.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	25mm dia	450mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN36A/B
European Grades	15NiCr13
Werkstoff	1.5752
SAE/AISI	3415

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.1	0.1	0.35			0.7	3	
Max	0.16	0.35	0.6	0.04	0.035	1	3.75	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Annealed (min)							
Annealed (max)						255	

Typical Applications

☑ Automotive Parts ☑ Steering Worms ☑ Transmission Components ☑ High Performance Gears ☑ Track Rod Pins ☑ Heavy Duty Engineering Components

BLACK 832M13

A nickel chromium alloy case hardening steel that is used in heavy duty highly stressed applications. The addition of molybdenum further increases this material's hardenability when compared with grade 655M13 and improves its core strength after heat treatment.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	25mm dia	450mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN36C
European Grades	15NiCr13
Werkstoff	1.5752
SAE/AISI	3415

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.1	0.1	0.35			0.7	3	
Max	0.16	0.35	0.6	0.04	0.035	1	3.75	0.15

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Annealed (min)							
Annealed (max)						255	

Typical Applications

☑ High Duty Gears For Aircraft ☑ Heavy Vehicle & Automobile Transmission Components ☑ Steering Worms ☑ Track Rod Pins ☑ Timing Wheels ☑ Breech Mechanisms ☑ Small Arm Parts

BLACK 835M15

A 4.5% nickel-chromium-molybdenum case hardening steel which may be carburised and hardened in large sections to produce a hard wear resistance case, and developing a core strength of the order of 1310N/mm ² with good resistance to shock.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	38mm dia	140mm
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN39B
European Grades	32CrMo12
Werkstoff	1.7361
SAE/AISI	

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.12	0.10	0.25			1.00	3.90	0.15
Max	0.18	0.35	0.50	0.040	0.035	1.40	4.30	0.30

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Annealed (min)							
Annealed (max)						277	
Q&T capability test on 19mm sample (min)			1310	8			
Q&T capability test on 19mm sample (max)							

Typical Applications

☑ High Duty Gears ☑ Heavy Duty Worms ☑ Heavy Roller Bearings ☑ Clutch Plates ☑ Breech Mechanisms ☑ Valve Rockers ☑ Small Arms Components ☑ Camshafts

BLACK 722M24

A nitriding steel with chromium and molybdenum which is normally supplied in the 'T' condition (850 – 1000 n/mm 2 tensile strength.) After nitriding the material develops a hard wear resisitant case upto 65 HRc rockwell.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	25mm dia	300mm (forged bar above 300mm dia)
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	EN40B
European Grades	32CrMo12
Werkstoff	1.7361
SAE/AISI	

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.2	0.1	0.45			2.8		0.4
Max	0.28	0.35	0.7	0.04	0.035	3.3	0.4	0.6

Mechanicals

	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Annealed (min)							
Annealed (max)						255	
Quenched and Tempered to condition T (min)	680		850	13		248	50
Quenched and Tempered to condition T (max)			1000			302	
Quenched and Tempered to condition U (min)	755		925	12		269	42
Quenched and Tempered to condition U (max)			1075			331	

Typical Applications

☑ Automotive Parts ☑ Aircraft & Aerospace Applications ☑ Gears ☑ Pins ☑ Spindles ☑ Crankshafts ☑ Plastic Moulds ☑ Drills ☑ Guides

BLACK SAE 8620

SAE 8620 is a low alloy case hardening steel. After carburizing/carbonitriding and hardening it produces a hard wear resistant case with tough core, with good resistance to shock. The 'as rolled and quenched' surface hardness usually ranges from 37-43HRc.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	30mm dia	300mm dia
—		
■		
⬢		

Associated Standards

Standard	Code
UK Standard	SAE 8620
European Grades	16MnCr5 / 20MnCr5
Werkstoff	
SAE/AISI	8620

Chemical Composition

	C	Si	Mn	S	P	Cr	Ni	Mo
Min	0.18	0.15	0.7			0.4	0.4	0.15
Max	0.23	0.35	0.9	0.03	0.04	0.6	0.7	0.25

Typical Applications

☑ Shafts ☑ Pins ☑ Pinions ☑ Gears ☑ Track Rod Pins ☑ Camshafts ☑ Clutch Plates ☑ Drive Wheels

CAST IRON

Cast iron specification BS1452 Grade 250 is supplied as continuous cast grey iron bar in rounds and flats. With its fine grain structure this grade can be machined to achieve a good polished surface finish suitable for copper or chromium plating.

Products & Sizes

	Min Size (Metric)	Max Size (Metric)
●	20mm dia	600mm dia
—	50mm x 10mm	500mm x 100mm
■	40mm	400mm
⬢		

Associated Standards

Standard	Code
UK Standard	BS1452
European Grades	
Werkstoff	
SAE/AISI	

Typical Applications

☑ Drive Gear ☑ Bearing Caps ☑ Cylinder Pistons ☑ Cylinder Blocks ☑ Couplings ☑ Manifolds ☑ Pulleys

BLACK S355

A low carbon manganese steel which is weldable, has a medium tensile and possesses good impact resistance in sub-zero temperatures. Normally supplied in a rolled, untreated or normailsed condition.

Products & Sizes

	Min Size	Max Size
●	30mm dia	330mm dia
—		
■		
⬣		

Associated Standards

Standard	Code
UK Standard	EN10025
European Grades	EN14A
Werkstoff	
SAE/AISI	

Chemical Composition

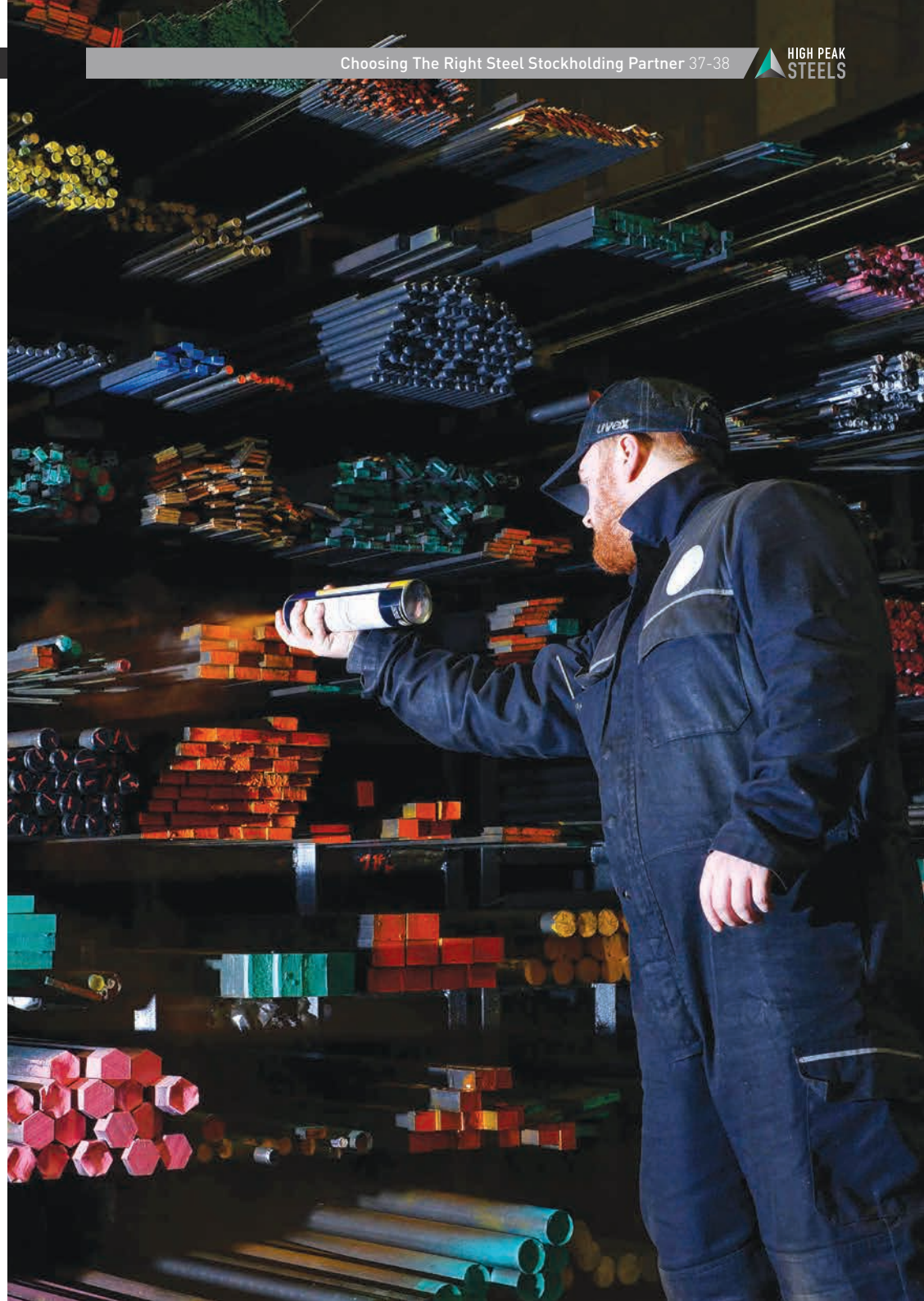
	C	Si	Mn	S	P	Cr	Ni	Mo
Min								
Max	0.22	0.55	1.6	0.03	0.03			

Mechanicals

	Size Range mm	Yield N/mm2	0.2% proof N/mm2	UTS (Rm) N/mm2	Elong (A) %	Red of Area (Z) %	Hardness HB	Impact Test (KV) J
Normalised (min)	S355J2+N 40mm dia	345		470	22		27	
Normalised (max)	S355J2+N 100mm dia			630				
Normalised (min)	S355J2+N 100mm dia	295		450	18		27	
Normalised (max)	S355J2+N 150mm dia			600				
Normalised (min)	S355J2G3 250mm dia	265		400	23		25	
Normalised (max)	S355J2G3 500mm dia							

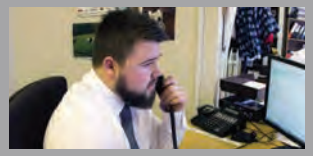
Typical Applications

☑ Automotive Parts ☑ Structures That Are Welded ☑ Construction ☑ Oil & Gas Parts ☑ Containers ☑ Bridges & Supporting Structures



CHOOSING THE RIGHT STEEL STOCKHOLDING PARTNER

At High Peak Steels, it's much more than a stock order; it's about the reassurance that we care about a tight deadline and will help you meet it. We know that good supplier/customer relationships are built over time. Our team is committed to this end; we are not here for the quick win but to understand your needs and help build a long term partnership.



Call now on **01457 866 911** or email **sales@highpeaksteels.com**

"Our commitment to customers over the years has given High Peak Steels an enviable reputation. I am often asked how we achieve the delivery timescales we do, I can only say this is a whole team effort that makes this possible. We never see the impossible deadline as impossible, we always try and find a way. With our own fleet this gives us flexibility for the customer."

Mark Thornley, Managing Director

We find ways to achieve the unexpected

"Our commitment to customers over the years has given High Peak Steels an enviable reputation. I am often asked how we achieve the delivery timescales we do, I can only say this is a whole team effort that makes this possible. We never see the impossible deadline as impossible, we always try and find a way. With our own fleet this gives us flexibility for the customer."

Mark Thornley, Managing Director

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HIGH PEAK STEELS