

Helping manufacturers across the globe achieve sustainable leaner manufacturing processes

# Mild & Carbon Steel

Coil, Foil, Sheet & Wire

Low Carbon Steel
High Carbon Steel

Fast
Turnaround
Processing



WIDE STOCK RANGE

Low Width
Thickness Ratio
3:1 unique to the
industry (normal
minimum is 8:1)

Over 75 years Experience



Company Information

Quality & Approvals

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Products

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Processing

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Stock Range



# **About Us**

The Knight Group is a family owned business that has built a reputation for providing the highest quality products and solutions to global manufacturers since 1940. We are now one of the largest Precision Strip Stockholding and Processing facilities in Europe.

Comprised of Knight Strip Metals Ltd (KSM), with production facilities in the UK and Precision Metals EU (PM) in Belgium, the Knight Group is a multi-metal stockist and processor, providing coil, strip and wire across 6 continents.

Our reputation for quality, innovation and reliability, has led to us being the favoured supplier across a wide range of sectors and our continued growth. Whilst we have an impressive existing operation, our commitment to investing in further processing capabilities, expanding our product ranges and developing the expertise of our team, ensures the continued expansion of the Knight Group.

We offer a comprehensive range of precision strip and wire, stocking one of the biggest ranges in Europe, including: Stainless Steel, Nickel Alloys, Titanium Alloys, Aluminium Alloys, Copper Alloys, Mild Steel and Clad and Plated Metals. We have established exclusive agreements with a number of mills to offer specialist and bespoke materials.

### **Our Key Benefits**

#### **Our People**

At the heart of any business is people. At the Knight Group we have developed a dedicated team of people with a valued wealth of knowledge and experience within the metals industry. No matter what your metal needs are, our team will provide you with individual customer support and the best customer experience in the industry.

#### **Products**

We offer a comprehensive range of precision strip and wire, stocking one of the biggest ranges in Europe. We maintain a stock 2500 individual items of the most popular materials, adapting to suit our customers production needs. With established exclusive agreements with a number of mills to offer specialist and bespoke material, we can source most materials including those outside of our standard range.

#### Quality

Being able to supply high quality materials, reliably and ethically sourced is key to our business and one of the reasons we are a favoured supplier of manufacturers across the globe. Our materials are fully traceable and Certificates of Conformity can be supplied on request or downloaded from our website.

#### **Extensive Processing Capabilities**

We provide bespoke processing services to help reduce our customers costs and manufacturing times. We can supply you with material cut and finished to your specifications and production ready delivered.

#### **Competitive Pricing**

We know two of the key factors in purchasing decisions are quality and cost. We have established partnerships with key mills across the globe, and as one of the largest suppliers in Europe, we can negotiate the best price for material, meaning you don't have to compromise quality for cost.

AVAILABLE AS
FOIL, COIL, SHEET AND WIRE
STAINLESS STEEL ALLOYS
TITANIUM ALLOYS
NICKEL ALLOYS
ALUMINIUM ALLOYS
CLAD ALUMINIUM
COPPER ALLOYS
MILD STEEL
CLAD AND PLATED METALS

#### Global Sourcing and Distribution

Thanks to our global exports network of freight providers, you can choose from air, land or sea freight so you can have your material where you want, when you want. We deliver to over 61 countries around the globe and each year that number grows. We have preferred carriers who can offer short lead times on most products and custom packing solutions to ensure your materials arrive safely and on time, wherever in the world you need them.



# "Expertise and Experience Combined"

Our ongoing successful partnerships can be attributed to the specialist knowledge and expertise and the ability to understand customers' materials problems and apply our resources to find the appropriate solution. We continually invest in our sales and purchasing teams, building upon their experience with ongoing training and product knowledge support.

Our focus on developing partnerships with both our customer and supplier base have led to reducing costs and maximising efficiency in both directions, without compromising on quality or lead times. Through working closely together, and using innovation, experience and expertise, allows us to tailor make solutions for your individual needs.

With a diverse global customer base, the Knight Group supply materials to manufacturers across multiple sectors including: Aerospace, Automotive, Construction, Cryogenic, Defence, Energy, Oil and Gas, Telecommunications, Photo and Laser Etching, Medical and Pharmaceutical, Chemical and Precision Engineering.

## Our Key Sectors



**Automotive** 



Chemical and Photo Etch



Renewable Energy





Petrochemical, Oil and Gas



Marine



Precision Stamping & Springs



Medical

### **Our History**

#### **ESTABLISHED**

E.A. Knight & Sons, started as family metals business in North London, supplying manufactures across the UK.

1940

#### **EXPANSION** Adapting to the

1958

of an expanding customer base, the business is relocated to a larger, combined office, warehouse and processing facility in Potters Bar, Hertfordshire

#### **RELOCATION**

With new processing technologies and materials available, we expand our range of precision strip metal stock, and move to a purpose built combined warehouse processing and offices facility in

#### **EXPANSION**

1975

Precision Metals EU further support and

#### **REDEVELOPMENT**

The Potters Bar site is redeveloped to accommodate additional machinery and stock.

#### **ACQUISITION**

1999

Knight Group acquired slitting machine manufacturer and metals processing company. Charles Harbage. The increase in capability makes the Knight Group one of the largest independent precision strip processors in Europe

#### **EXPANSION**

Our Processing and warehouse facility is relocated to Saltley, accommodating additional stock lines and machinery and our growing team.

2000

# Today

#### **EXPANSION**

Today we supply over 61 countries. As one of the largest independent Precision Strip and Wire Stock holding and Processing suppliers in Europe, we continue to invest in the skills and expertise of our team, extending out stock range and our facilities.

#### Potters Bar. growing metal needs

was opened to provide stock holding facilities to

1985

our growing European customer base.



# Approvals



Customers purchasing decisions are not driven solely by price, but factor in quality, reliability and increasingly, ethical and environmental concerns. With growing pressures for transparency of practices, the Knight Group are proud to hold multiple approvals and accreditations, granted by national and international authorities, sector manufacturers and agencies. We continue to expand our range of approvals and accreditations in line with the needs of customers.

Our memberships of a number of key institutions, including the British Stainless Steel Association (BSSA), offer further assurance of our commitment to promoting manufacturing, whilst working to the highest standards of quality and integrity. All of our approvals are available to view and download from our website www.knight-group.co.uk

#### We hold a number of Approvals Including:

#### **British Standard Approvals**

- BS EN ISO 9001, 9120 No. FM 02114
- BS EN ISO 9001 No. FM 611455

#### **Customer Approvals**

- · Rolls-Royce: Approval No. 01679
- Rolls-Royce Deutchland No. 118990 / 02
- Airbus UK: Approval No.20099 and 228990
- BAE Systems Regional Aircraft: Approval No. RALOA/00254/2
- BAE Systems: Approval No. BAE/AG/20384/MAA Airbus UK: Approval No.20099 and 228990
- Westland Helicopters: Approval No. SQA / V00246
- · Safran DK6000
- Hawker Beachcraft Approval HBIFSAS/PART2/0595
- UTC Aerospace Systems/ HS Marston Aerospace Limited Approval Certificate AS 132
- · Spirit Aero Approval Certificate No: SPIRIT1298
- Meggitt Certificate: MQAG/2012/MCSD/MCSC/D/115

#### **Specialist Accreditations**

- EcoVadis Silver Award
- Forestry Commission: Wood Packaging Certificate Number FC1051

For the most up to date list of our approvals and accreditations, please see our website for details.

# Quality





Our key objective is to provide our customers complete assurance and satisfaction in the quality of our products and services. We are the favoured supplier of manufacturers across the globe, owing to the reliable quality of the products and services our customers receive and their continued confidence that our competitive cost does not compromise quality.

Our companies work to a Quality Management System, as defined in ISO 9001/9120, and approved by the BSI. We work in partnership with the BSI, who carry out regular audits to ensure compliance with these standards and that we are operating with efficiency and accountability at all times.

Working within the framework of ISO 9001 and ISO 9120, our quality system meets or exceeds the criteria. We review our processes regularly to ensure an efficient and robust process is in place at all times, with necessary support and resources available. All of the Knight Group employees receive regular training to maintain familiarity and adherence to our Quality Management System. The commitment from our employees ensures the supply and processing of all material, meets the standards set. As a result, we are consistently able to comply with customers' demands, delivering quality products and processing.

To facilitate fast turnaround times, we offer in-house tensile, hardness and chemical analysis testing. We can also supply fully traceable records for our materials by request and Certificates of Conformity are issued as standard when materials are supplied. For further assurance of our integrity and longevity, we are long standing members of a number of institutions including the British Stainless Steel Association (BSSA), Institute of Spring Technology (IST), Midlands Aerospace Association (MAA) and the Photo Chemical Machining Institute (PCMI).

The Knight Group at all times complies with statutory and regulatory requirements. Additionally, we conduct our business in strict compliance with all applicable domestic and international legal standards. We strive to ensure business ethics are practiced with particular emphasis on free competition and rejection of any form of corruption.





# Mild & Carbon Steel

Plain Carbon Steel Strip is used in a very wide range of applications because it is particularly adaptable to low cost techniques of metal forming such as presswork. These materials combine ease of fabrication with adequate strength and excellent finishing characteristics to provide good surface finish on the final article.

The Knight Group range of Carbon Steels can be broadly split into two categories: Low Carbon Mild Steels and High Carbon Spring Steels

Spring steels are available in the annealed condition for hardening after forming, or in the hardened and tempered condition.



The hardness or temper of cold rolled mild steel strip is determined by its analysis, the amount of cold rolling or by a final annealing process. These are selected to achieve the optimum mechanical properties for the forming operation whether it be deep drawing, forming or flat blanking. "Skin passed" is a very light rolling reduction after the annealing process to prevent the formation of deformation bands called stretcher strains, which can ruin surface appearance of the formed article.

Mild steels cannot be hardened except by cold working because their carbon content is too low for significant heat treatment reaction to take place, however they can be case hardened to give a harder surface.

Bright rolled Carbon Steels are often used in the annealed condition for forming of components, which are then batch heat treated to increase their hardness and spring characteristics. To maintain a good surface condition heat treatment should be carried out in a controlled atmosphere furnace at the appropriate temperature for the grade (see table) and oil quenched to achieve maximum hardness.

Tempering must then be carried out to reduce the strength/hardness of the material but considerably improve its toughness and ductility. Temperatures in the range of 300 - 450°C should be used to achieve the required final hardness. Alternatively, austempering is frequently carried out by quenching into a molten salt bath @ 350 - 450°C.

Hardened & tempered spring steel has been heat treated in strip form at the Mill, prior to being supplied to the customer. Many applications do not require severe bending and forming and it is often beneficial to use hardened & tempered strip in these cases. The main benefits are:, no risk of distortion, uniformity of surface finish, and constant mechanical properties.

These factors often mean reduced processing costs and a higher quality product.

#### **Stress Relieving**

After severe deformation hardened & tempered spring steel requires a low temperature (250 - 300°C) stress relieving operation to "set" the components into shape. This will impart a coloured oxide finish ranging from Bronze to Blue which slightly improves corrosion resistance.

#### **AVAILABLE GRADES**

Cold Rolled Low Carbon (Mild)

DC01

DC03

DC04

DC05

DC06

Cold Rolled
High Carbon Spring

Steel

C55S

**C60S** 

C67S

7070

C75S

C85S

C90S

C100S

C125S

48Si7

56Si7

51CrV4

80CrV2

75Ni8

125Cr2

102Cr6



# **Features**



MILD & CARBON STEEL STOCK RANGE												
TYPE	COIL STOCK	( RANGE	WIRE STOCK RANGE									
TIPE	Thickness (mm)	Width (mm)	Round	Shaped								
LOW CARBON STEEL												
Annealed	0.01 - 3.0	3 - 1220	0.1 – 10.00									
All Other Tempers	0.01 - 2.0	3 - 1000	mm dia	Upto 45 mm2 area								
	HIG	H CARBON	STEEL									
Annealed	0.05 - 3.0	3 - 650										
Cold Worked	0.05 - 1.6	3 - 450	0.1 – 10.00	Upto 45 mm2 area								
Hardened & Tempered	0.1 - 3.0	3- 450	mm dia									
	Other specifications can be made available upon request. Please contact us with your requirements.											



	SURFACE APPEARANCE	S AND FINISHES							
Symbol	Characteristics	Applications	Surface finish						
MA	Bright, metallic clean surface, pitting, small defects and scratches are permitted.	All thicknesses and treatment conditions.	FRR, RM, RL 2)						
MB	Bright, metallic clean surface; pitting, grooves and scratches are permitted as long as the uniform smooth appearance is not substantially impaired when viewed with the naked eye.	Thicknesses =< 2.0mm in all conditions except A (annealed)	RM, RL 2)						
MC	Bright, metallic clean surface; pitting, grooves and scratches are permitted as long as the uniform appearance of the mirror surface is not impaired.	Thicknesses =<1.0mm in all conditions except A (annealed).	SRN 2)						
1	RR = rough, RM = matt, RL = smooth, RN = mirror 2) These code letters need not be given in the designation.								









# Cold Rolled Low Carbon (Mild) Steel

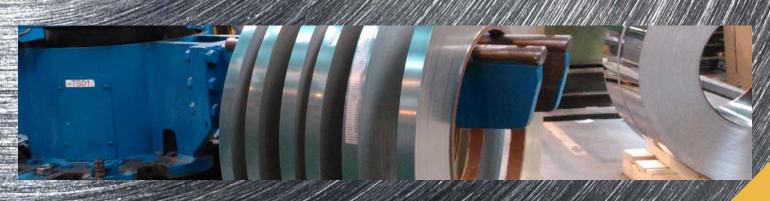
	COLD ROLLED LOW CARBON (MILD) FEATURES											
DESION NAME	DESIGNATION FORMER BRITISH STANDARD GRADE		Temper	Key Features	Applications							
1.0873	DCO6	-	Skin passed	Extra deep drawing quality, non-ageing	Very Deep Drawn Components, Automotive & Electrical Parts							
1.0312	DCO5	CS1		Extra deep drawing quality, non-ageing	Springs, clips, pressings and fasteners							
1.0338	DCO4	CS2	Annealed & Skin Passed	Deep drawing quality, non-ageing	Deep Drawn and Stretch Formed							
1.0347	DCO3	CS3		Drawing quality, non-ageing	Shallow Drawn and Stretch Formed							
1.033	DCO1	CS4		Forming and Bending	Press Formed and Bent Components							
1.033	DCO1	CS4	Temper Rolled C290/ C340/ C390/ C440	Forming and Bending	Press Formed and Bent Components							
			Hard Rolled C490/ C590/ C690	Blanking	Flat Components, Shims, Washers							

	COLD ROLLED LOW CARBON (MILD) STEEL CHARACTERISTICS													
DESI	GNATION	FORMER BRITISH	TYPICAL CH COMPOSI					MECHANICAL PROPERTIES						
NAME	NUMBER	STANDARD GRADE	C P S		s	Mn	Ti	Period Guaranteed	Delivery Condition	Symbol	Re N/mm2	Rm N/mm2	Elongation % min A80	Hardness HV
									Annealed	А	-	270-390	28	105 max
									Skin passed	LC	280 max	270-410	28	115 max
									Work hardened	C290	200-380	290-430	18	95-125
									C340	250 min	340-490	-	105-155	- 2
DC01	1.033	CS4	0.12	0.045	0.045	0.6	-	3 months	C390	310 min	390-540	-	117-172	-
									C440	360 min	440-590	-	135-185	-
			İ						C490	420 min	490-640	-	155-200	-
			İ						C590	520 min	590-740	-	185-225	-
									C690	630 min	690 min	-	215 min	-
								- 6 months	Annealed	Α	-	270-370	34	100 max
V									Skin passed	LC	240 max	270-370	34	110 max
		CS3, CS2							Work hardened	C290	210-355	290-390	22	95-117
DC03	1.0347		0.10	0.035	0.035	0.45			C340	240 min	340-440	-	105-130	-
DC03	1.0347	033, 032	0.10	0.033	0.033	0.45	_	o monus	C390	330 min	390-490	-	117-155	-
8									C440	380 min	440-540	-	135-172	-
									C490	440 min	490-590	-	155-185	-
									C590	540 min	590 min	-	185 min	-
									Annealed	Α	-	270-350	38	95 max
									Skin passed	LC	210 max	270-350	38	105 max
										C290	220-325	290-350	24	95-117
DC04	1.0338	_	0.08	0.030	0 030	0.4	_	6 months		C340	240 min	340-440	-	105-130
2001	1.0000		0.00	0.000	0.000	0.1			Work hardened	C390	350 min	390-490	-	117-155
8									Work Hardoned	C440	400 min	440-540	-	135-172
1										C490	460 min	490-590	-	155-185
										C590	560 min	590 min	-	185-215
DC05	1.0312	-	0.06	0.025	0.025	0.35	-	6 months	Skin passed	LC	180 max	270-330	40	100 max
DC06	1.0873	-	0.02	0.020	0.020	0.25	0.30	6 months	Skin passed	LC	80 max	270-350	38	-

# Cold Rolled High Carbon Spring Steel

		COLD ROLLED HIGH CARBON SPRING STEEL FEATURES											
NESTS.	DESIG	NATION	Temper	Key Features	Applications								
(2) (2) (7)	NAME	NUMBER	remper	Ney Features	Applications								
THE REAL PROPERTY.	C55S C60S C67S C75S C85S C90S C100S	1.1204 1.1211 1.1231 1.1248 1.1269 1.1217 1.1274	Annealed & Skin Passed	Press forming and blanking, hardenable	Springs and Hight Strength Parts. E.g. Circlips & Automotive Clutch Plates Wear Resistant Parts, Knives, Saw Blades								
<b>利用工業を付付 多一人・ドイン・イン・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・</b>	C125S 48Si7 56Si7 51CrV4 80CrV2 75Ni8 125Cr2 102Cr6	1.1224 1.5021 1.5026 1.8159 1.2235 1.5634 1.2002 1.2067	Hardened & Tempered	Flat or very simply formed shapes High fatigue and wear resistance	Flat Springs, Circlips, Automotive Clutch Plates High Performance Springs, Machine Knife Blades, Doctor Blades								

	DESIG	GNATION			TYPICA	Hardness for Delivery Condition (reference values)							
	IAME	NUMBER	С	Si	Mn	P max	S max	Cr	Mo max	V max	Ni	Annealed (+A) or annealed and skin passed (+LC) Rockwell 'B' scale	Quenched and Tempered (+QT) Rockwell 'C' scale
100	C55S	1.1204	0.52-0.60	0.15-0.35	0.60-0.90	0.025	0.025	0.40 max	0.1	-	0.40 max	90 max	34 - 50.5
200	C60S	1.1211	0.57-0.65	0.15-0.35	0.60-0.90	0.025	0.025	0.40 max	0.1	-	0.40 max	91 max	35 - 51.5
	C67S	1.1231	0.65-0.73	0.15-0.35	0.60-0.90	0.025	0.025	0.40 max	0.1	-	0.40 max	92 max	38.5 - 54
	C75S	1.1248	0.70-0.80	0.15-0.35	0.60-0.90	0.025	0.025	0.40 max	0.1	-	0.40 max	93 max	38.5 - 54
iii.	C85S	1.1269	0.80-0.90	0.15-0.35	0.40-0.70	0.025	0.025	0.40 max	0.1	-	0.40 max	94 max	38.5 - 55
100	C90S	1.1217	0.85-0.95	0.15-0.35	0.40-0.70	0.025	0.025	0.40 max	0.1	-	0.40 max	94 max	38.5 - 55
elii na	C100S	1.1274	0.95-1.05	0.15-0.35	0.30-0.60	0.025	0.025	0.40 max	0.1	-	0.40 max	95 max	38.5 - 57
	C125S	1.1224	1.20-1.30	0.15-0.35	0.30-0.60	0.025	0.025	0.40 max	0.1	-	0.40 max	97 max	38.5 - 57
699 296	48Si7	1.5021	0.45-0.52	1.60-2.00	0.50-0.80	0.025	0.025	0.40 max	0.1	-	0.40 max	95 max	38.5 - 50.5
e de Notes	56Si7	1.5026	0.52-0.60	1.60-2.00	0.60-0.90	0.025	0.025	0.40 max	0.1	-	0.40 max	96 max	38.5 - 50.5
5	1CrV4	1.8159	0.47-0.55	0.40 max	0.70-1.10	0.025	0.025	0.90-1.20	0.1	0.10-0.25	0.40 max	94 max	38.5 - 52.5
2	0CrV2	1.2235	0.75-0.85	0.15-0.35	0.30-0.50	0.025	0.025	0.40-0.60	0.1	0.15-0.25	0.40 max	95 max	38.5 - 52.5
1	75Ni8	1.5634	0.72-0.78	0.15-0.35	0.30-0.50	0.025	0.025	< 0.15	0.1	-	1.80-2.10	93 max	38.5 - 52.5
àth	25Cr2	1.2002	1.20-1.30	0.15-0.35	0.25-0.40	0.025	0.025	0.40-0.60	0.1	-	0.40 max	97 max	42 - 57
50 50 50 50 50 50 50 50 50 50 50 50 50 5	02Cr6	1.2067	0.95-1.10	0.15-0.35	0.20-0.40	0.025	0.025	1.35-1.60	0.1	-	0.40 max	97 max	42 - 57





# **Processing**

#### YOUR MATERIAL YOUR WAY

The Knight Group are industry leaders in the supply and processing of strip, coil and wire, consistently exceeding expectations of quality, service and performance. With a number of accreditations, including BS EN ISO 9001 and BS EN AS 9120, we are the supplier of choice for global manufacturers where quality, reliability and lean manufacturing at the heart of their priorities. Most manufacturers are facing increasing demands for goods to be delivered with tighter time frames and even tighter margins. By selecting the processing to meet your specific needs, your material can be prepared and delivered to the exact size, length and finish you need, saving valuable production time and costs. Our processing is offered at a comprehensive price and with a flexibility to select only the services you need and want, giving you maximum versatility and minimum cost.

We have invested heavily in our bespoke machinery and training our established team of operators, so that we can offer a truly comprehensive range of processing to complement our extensive range of stocked material



Reduced Machine Downtime

Longer Production Runs

Reduced Storage and Scrap

Safer Material Handling

Reduced Production Time and Costs

**TRAVERSE WINDING LINES** 

5 EDGE FINISHING LINES

8 CUT TO LENGTH LINES

27 RECOILING LINES

**26** SLITTING LINES



Low Width Thickness Ratio 3:1 unique to the industry (normal minimum is 8:1)

Ability to offer Ultrafine Width Tolerances down to +/- 0.025mm (0.001")

Thicknesses 0.013mm to 6.5mm (0.0005" to 0.26")

Widths 0.64mm to 1100mm (0.025" to 43")

# **Packaging**



#### **BESPOKE PACKAGING**

If you need bespoke material sizes and processing, then you probably want bespoke packaging as well. Thanks to our in house packaging design team, we can offer bespoke packaging solutions to protect your materials in transit. Whatever processing and finishing options you have chosen, your products will packaged to arrive safely and ready to use

You can choose to have strip material as pancake coils, traverse wound coil, flat blanks and sheets. Wire can be supplied as cut lengths, coils, formers or spools to suit your needs.









# CHOOSE FROM OUR TRUSTED PARTNERS OR YOUR PREFERRED CARRIER

We firmly believe that all of our customers should be able to have your material, your way. Thanks to our global network of freight providers, you can choose from air, land or sea freight so you can have your material where you want, when you want.

There is also the option to arrange your own collection from our site in Birmingham, which can be organised through our sales team.



# **Standard Stock**

# WE ARE DRIVEN TO CONTINUE BUILDING A BETTER BUSINESS, BY WORKING CLOSELY WITH OUR CUSTOMERS TO GROW THEIRS.

Our materials and processing are carefully chosen to meet the exacting needs of manufacturers around the globe. We work alongside our suppliers to ensure we are at the forefront of material innovation, ensuring the availability of the highest quality material with the most competitive pricing. With over 2500 items in stock and sourcing of an extensive range or alloy grades, you can have your material, your way.

8 Cut To Length Lines
5 Edge Finishing Lines
27 Recoiling Lines
26 Slitting Lines
5 Traverse Winding Lines

	Standard Stock Range												
WE S	STOCK IN	EXCESS	OF 2500	ITEMS, A	VAILABL	E AS CUT LENGTH	IS/ STRA	IGHTENE	o, coils,	FORMER	RS OR SPOOLS		
Mate	erial		Stainless Steel										
Tem	nper			ANNE	ALED			HARD F	ROLLED		HARD ROLLED		
	pean orm			EN 1008	8-2:2005			EN 101	51:2002		EN 10139:1998		
	kness ances		ı	EN ISO 944	5-1:2010(P	) (Thickness X* not w	vithin prec	ision range	)		EN10140:2006 (precision) C		
NO	European Spec.	1.45 BS S		1.4- 1.4-		1.4307 1.4301		310 1300		301 1300	DC01 C590		
DESCRIPTION	AISI	32	21	316/	316L	304L/304	3	01	3	04	-		
ESCI	AMS	55	10	55	07	5511/5513	55	519	59	)13	-		
□	ASTM	A-2	240	A-240,	A-266	A-240, A-266	Α-	666	Α-	666	-		
TUICKNE	SS (179.77)					WIDTH	H (mm)						
THICKNE	ESS (mm)	610	980	305	610	610	305	610	305	610	610		
0.0	025						<b>/</b> *		<b>√</b>	1			
0.0	05	<b>/</b> *		<b>√</b>	✓	✓	✓	✓	✓	✓	✓		
0.0	076	✓	✓		✓	✓	✓		✓	✓	✓		
0.0	08	<b>/</b> *	<b>/</b> *	✓							✓		
0.	.1	✓	<b>√</b>		✓	<b>/</b> *		✓	✓	✓	✓		
0.1	127	✓	✓		✓	✓			✓	✓	✓		
0.	15	✓	✓		✓	√		✓	✓	✓	✓		
0.	18		✓								✓		
0.	.2	✓			✓	✓		✓	✓	✓	✓		
0.:	25	✓	<b>√</b>		✓	✓			✓	✓	✓		
0.	.3	✓			✓	✓		✓	✓	✓	✓		
0.3	38	✓						✓			✓		
0.	39				✓	√	✓	✓	✓	✓			
0.4	45	✓				√							
0.	.5	✓			✓	✓	✓	✓	✓	✓	✓		
0.	.6							✓	✓	✓			
0.	.7						✓		✓	✓			
0.	.8						✓		✓	✓			
0.	.9								✓	✓			
-	1						✓	✓	✓	✓	✓		
1.	.2						✓		✓				
1.	.5						✓	✓	✓				

# **Product Range**



	RANGE CAN BE SUF	PPLIED AS CUT LENG	GTHS/ STRA	IGHTENED,	COILS, FO	RMERS OF	R SPOOLS				
	OTHER GRADES AND	SPECIFICATIONS AVAILAB	BLE, PLEASE C	ONTACT OUR S	SALES TEAM	WITH YOUR R	EQUEST				
	TYPE	CDADEC AVAILABLE	COIL S	COIL STANDARD RANGE  COIL STANDARD RANGE  ROUND AND PROF WIRE STANDARD RA							
	ITPE	GRADES AVAILABLE	Tempers Available	Thickness (mm)	Width (mm)	Tempers Available	Specifications and Forms				
		201, 301, 304L, 304, 305,	Annealed	0.01 - 2.5	3 - 1250		Round Wire 0.1 to 10.00mm dia*				
_	AUSTENITIC	320, 321, 347, 316, 316L, 316Ti, 904L	All Other Tempers	0.01 - 2.0	3 - 1250		Profile Wire Upto 45mm2 area For cold worked condition, please contact us with your				
벁		410S, 430, 430L, 430Ti	Annealed	0.05 - 2.0	3 - 650	Annealed	requirements.				
STAINLESS STEEL	FERRITIC	(439), 441, 444	All Other Tempers	0.05 - 1.6	3 - 450	Light Drawn Hard Drawn	Coils from 1kg to 1000kgs Formers from 500kgs to 1000kgs				
Ë	MARTENSITIC	410, 420, 431	Annealed	0.127 - 2.50	3 - 450	Specified	Spools - Wide Range Available				
AIN		47/4DLL 47/7DLL	Annealed	0.02 - 1.5	3 - 620	Tensile	Cut Lengths/ Straightened from 10mm to 4m *				
S	PRECIPITATION HARDENING	17/4PH, 17/7PH	Condition 'C'	0.025 - 1.0	3 - 620		*Duplex Round Wire 0.8 – 8.00mm dia*				
	HEAT RESISTING STEELS	309, 310	All Tempers Available	0.025 - 3.0	3 - 1000		Cut Lengths/ Straightened from 10mm to 10m				
MU	ALPHA	Grade 1, Grade 2, Grade 3, Grade 4				Annealed (soft) 1/8 Hard	Round Wire 0.1 to 10.00mm dia Profile Wire Upto 45mm2 area				
TITANIUM	ALPHA/BETA	Grade 5 (Ti 6Al-4V) Grade 9 (Ti 3Al 2.5V)	All Tempers Available	0.025 - 3.00	3 - 1000	1/4 Hard 1/2 Hard Hard	Coils from 1kg to 1000kgs Formers from 500kgs to 1000kgs Spools - Wide Range Available				
	ВЕТА	21S				Spring Hard	Cut Lengths from 10mm to 10m				
	COMMERCIALLY PURE NICKELS	200, 201				Annealed Spring Hard					
۲S	NICKEL-COPPER ALLOYS	400	All Tempers Available				Round Wire 0.1 to 10.00 mm dia				
NICKEL ALLOYS	NICKEL-CHROMIUM & NICKEL-CHROMIUM-IRON ALLOYS	alloy K500, alloy X, C22, alloy C2000, alloy 600, alloy 601, alloy 625, alloy C 276, alloy 718, alloy X750		0.025 - 2.5	2 - 1000		Upto 45 mm2 area  Coils from 0.5 kg to 1000kgs Formers from 500kgs to 1000kgs Spools - Wide Range Available Cut Lengths/ Straightened				
Ĭ	IRON-NICKEL-CHROMIUM ALLOYS	alloy 800, alloy 825					from 10mm to 10mm				
	CONTROLLED EXPANSION ALLOYS	29/18			3 - 610						
	PURE ALUMINIUM	1000 SERIES				Annealed	Round Wire 0.1 to 10.0 mm dia				
	ALUMINIUM COPPER ALLOY	2000 SERIES		0.01 - 3.0	3 - 1000	(soft)	Upto 45mm2 area				
<b>∑</b>	ALUMINIUM MANGANESE ALLOY	3000 SERIES			Sheet up to	1/8 Hard 1/4 Hard	Coils from 1kg to 1000kgs Formers from 500kgs to 1000kgs				
UMINIUM	ALUMINIUM MAGNESIUM ALLOY	5000 SERIES	All Tempers Available	0.01 - 1.5	2000mm	1/2 Hard Hard	Spools - Wide Range Available				
ALUI	ALUMINIUM MAGNESIUM + SILICON ALLOY	6000 SERIES	Available	0.01 - 3.0		Spring Hard	Cut Lengths/ Straightened from 10 mm to 10m				
	ALUMINIUM ZINC ALLOY	7000 SERIES			Please cor	ntact us with yo	ur requirements				
	CLAD ALUMINIUM	n/a			Please cor	tact us with yo	ur requirements				
ಪ	COMMERCIALLY PURE HIGH CONDUCTIVITY COPPER	C101, C102, C103, C106				Annealed	Round Wire 0.1 to 10.00 mm dia				
AS:	BRASS	CZ106, CZ107, CZ108				(soft)	Upto 45 mm2 area				
, BF ONZ	PHOSPHOR BRASS	PB102, PB103	All Tempers Available	0.01 - 3.0	3 - 1220	1/8 Hard 1/4 Hard	Coils from 1kg to 1000kgs Formers from 500kgs to 1000kgs				
COPPER, BRASS & BRONZE	NICKEL SILVERS CUPRONICKEL & HIGH COPPER CONTENT ALLOYS	NS103, NS104, NS106, NS107, C72500	Available			1/2 Hard Hard Spring Hard	Spools - Wide Range Available Cut Lengths/ Straightened from 10mm to 4m				
ပ	COPPER BERYLLIUM ALLOYS	CB101									
SON	LOW CARBON STEEL	DC01, DC03, DC04, DC05, DC06	Annealed All Other	0.01 - 3.0 0.01 - 2.0	3 - 1220 3 - 1000	Annealed (soft)	Round Wire 0.1 to 10.00 mm dia Upto 45 mm2 area				
ARE EL			Tempers	0.05 - 3.0	3 - 650	1/8 Hard	Coils from 1kg to 1000kgs				
MILD & CARBON STEEL	HIGH CARBON STEEL	C55S, C60S, C67S, C75S, C85S, C90S, C100S, C125S, 48Si7,	Annealed All Other Tempers	0.05 - 3.0		1/4 Hard 1/2 Hard Hard	Formers from 500kgs to 1000kgs Spools - Wide Range Available				
MIL		56Si7, 51CrV4, 80CrV2, 75Ni8, 125Cr2, 102Cr6	Hardened & Tempered	0.127 - 3.0	3 - 610	Spring Hard	Cut Lengths/ Straightened from 10mm to 10m				

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