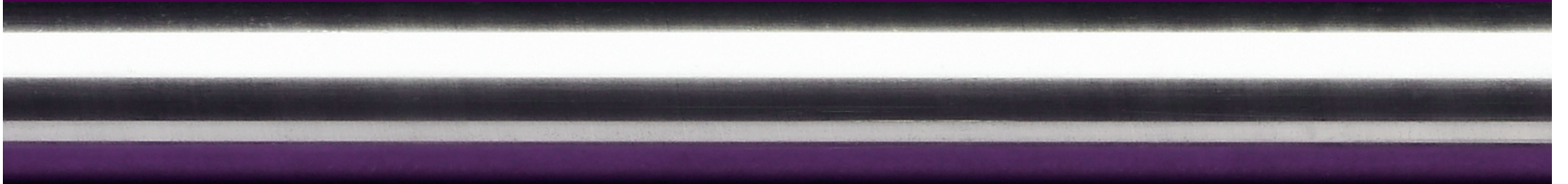




Corus Wire Rod

Freecutting steel products

Endless possibilities



Freecutting steels and enhanced machinability grades



Low carbon freecutting steels
Low carbon freecutting steels provide optimum machinability for complex and demanding products. Many of these components require excellent integrity to satisfy the demands of high-pressure hydraulic applications.

Premium low carbon freecutting steel grades are leaded, which results in an increased production rate. To date, no suitable alternative to lead has been found that can match its high performance levels in all aspects of the machining process.

Medium carbon machinable grades

Corus manufactures a wide range of steels for machining purposes combining machinability and strength where required.

Its premium leaded steels offer an enhanced machining performance, which has yet to be surpassed by non-leaded alternatives in all aspects of machinability.

Improved machinability engineering steel grades

Corus has a range of improved machinability (IM), engineering steel grades, that will provide improved machining performance in comparison with standard high sulphur variants. Calcium treatment and appropriate steel making and continuous casting control provide a product with improved machinability across a range of grades.

Corus can produce IM grades across a range of products and strength levels through prior arrangement.

Corus, the world leader in the production of enhanced free machining steels, has the ability to source steel from both BOS and EAF routes.

Offering a suite of steel specifications with enhanced machinability, the product range covers wire rod, straight and coiled black bar and bright drawn or turned bar.

Corus steels are used in a wide range of industries and applications with highly machinable alloy grades available as well as low and medium carbon grades.

Corus has a wide range of products and a variety of machinability improvement mechanisms:

S	Combines with Mn to form MnS inclusions, providing machinable steels with inherent characteristics on turning and cutting.
Pb	Added to resulphurised steels. Coats the MnS inclusions to provide the best all round machinability enhancement.
Te	Modifies MnS inclusions, further promoting their performance.
Bi	Second only to Pb in most machinability aspects.
Ca	Added to modify the MnS inclusions on medium carbon and alloy steels. Further enhances machinability performance.

Typical product grades

International specifications

Euro norm	BS970	USA	DIN	AFNOR	SIS
EN 10277		AISI	1651		
EN 10087		SAE			

Standard machining steels

11SMn30	230M07	1215	9SMn28	S250	1912
11SMnPb30	230M07Pb	12L14	9SMnPb28	S250Pb	1914
11SMn37	230M07		9SMn36	S300	
11SMnPb37	230M07Pb		9SMnPb36	S300Pb	

International specifications

Euro norm	USA	DIN	BS970	PD970
BS EN10087	ASTM A29 AISI	1651		
BS EN10277	SAE J403			

Standard machining steels

	11L17			
15SMn13			210M15	
			214A15 / 214M15	214M15
35S20		35S20	212A37 / 212M36	212M36
36SMnPb14				
38SMn28				
	11L37			
46S20			212A42	
44SMn28	1144			
44SMnPb28	11L44			



Lead alternative grades

In response to demand from its customers, Corus has developed a range of lead-free machining steels.

Whilst there is currently no non-lead steel that can match a leaded steel in all aspects of machining performance, Corus is able to supply non-lead freecutting steel alternatives, which demonstrate machinability better than standard non-lead freecutting steel. By agreement, enhanced machining steels with tellurium or bismuth additions and steels to individual customer specifications can also be provided.

Technical support

A team of experienced metallurgists provides customers with technical support and advice, helping you to select the most appropriate steels.

Corus is at the forefront of enhanced machining steels technology with in-house assessment of machining performance enabling the continuous improvement and optimisation of our own steel grades.

Quality assurance

Strict process controls and the rigorous application of our quality assurance standards provide the peace of mind that all products will fulfil your specifications.

Corus holds the following:

- ISO9001 (quality management systems)
- ISO14001 (environment management systems)
- BSEN9100 and ISO/TS16949 quality standards, covering the aerospace and automotive manufacturing sector requirements
- Nadcap certification to SAE Aerospace Standard AS7003 for materials testing and heat treating

Highly trained specialists conduct testing in state-of-the-art laboratories, which are also accredited to UKAS ISO17025.

Service

Corus is an international, customer-focused steel manufacturing company. As a subsidiary of Tata Steel, the group is now the sixth largest steel manufacturer in the world with a capacity to produce 28 million tonnes of crude steel per year and employing 83,000 people across four continents.

Online services

Our online facility offers a range of electronic services and documents that make dealing with Corus simpler, faster and more efficient. The services include:

- Rolling programme displays
- Order progress
- Account status monitoring
- Electronic documentation

We also offer an auto email service, delivering up-to-date order status information and documentation direct to your inbox.

Account management

Every customer is assigned to an account management team, which manages all aspects of the supply chain from initial product specification and technical stages of an order, to stock management and final delivery.

In many cases, account management teams work in tandem with local Corus sales offices, meaning that help and support is never far away – wherever you are in the world. Corus has offices and service centres in more than 40 countries worldwide.

Product range

Rod and bar – straights

Billets	50 – 76 mm sq
Straight bars	
Rounds*	25 – 05 mm dia
Hexagons	25 – 80 mm a/f
Squares	25 – 48 mm sq

*smaller sizes by agreement

Coiled rod and bar

Rounds	5.5 – 60 mm dia
Hexagons	15 – 52 mm a/f
Squares	15 – 50 mm sq

www.coruswirerod.com

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Corus

Corus Wire Rod
PO Box 1
Brigg Road
Scunthorpe
North Lincolnshire
DN16 1BP
United Kingdom
T +44 (0)1724 405455
F +44 (0)8790 023126
E wirerod@corusgroup.com

English version