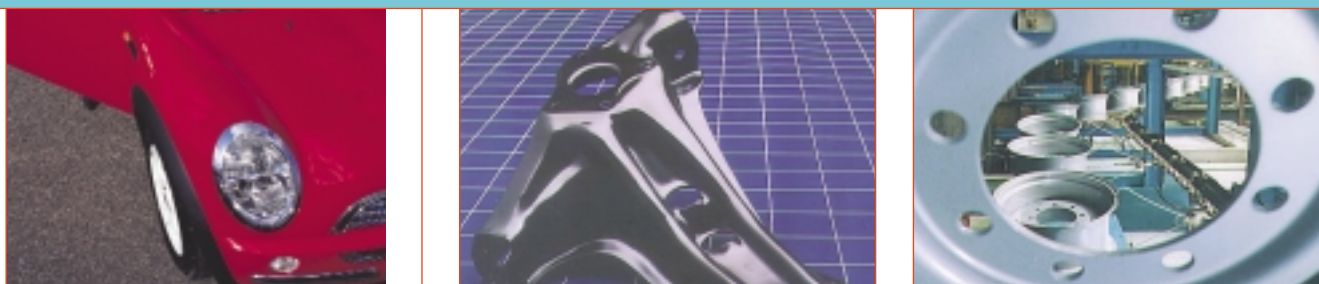


Making strip steels work harder in automotive components

Corus has developed an unrivalled range of strip steels and services designed to help automotive component manufacturers meet the tough commercial, technical and quality demands of this dynamic global industry.



Products

Today over half the material in the average modern car is steel, despite pressure to adopt alternatives. A continued stream of product developments has ensured that recyclable steel has remained in the fast lane of automotive design as the one material that enables manufacturers to meet their production and design needs.

Our specialist Strip Products Service Centres can supply a full range of advanced strip steels in a wide range of forming and drawing qualities and strength levels. These range from durable hot-dip zinc, zinc-iron alloy and aluminium-silicon alloy coated strip, plus electro-galvanised material for enhanced corrosion resistance, to high strength formable materials and carbon manganese steels for structural applications. As well as high and ultra high strength cold reduced grades, with yield strengths in excess of 500 N/mm², we can also supply high strength hot-dip galvanized steels. When the dynamic properties of these materials are taken into design calculations, it is possible to down-gauge and produce components that are far lighter, without compromising on safety, cost or performance.

Our specialist Hot Rolled Processing Centres also hold extensive stocks of hot rolled steels for applications such as wheels and underbody components. This includes high strength products, such as Tenform, which combine superior strength and cold formability with an excellent surface quality.

Sustained investment in precision rolling and finishing technology, combined with demanding production and control processes, enables Corus to manufacture steels to extremely tight dimensional tolerances. Our materials provide the consistent mechanical properties, and improved surface quality and flatness demanded by today's high-speed production processes, and expected by

the end-user. And, thanks to an unparalleled combination of strength and flexibility, they can easily be pressed or roll formed into complex shapes.

As part of Corus we benefit from reliable supplies direct from the mill. In addition, we can source products from other leading metal producers if required.

Services

We are geared up to provide the highly responsive, flexible level of service which component manufacturers need to succeed in today's fast-moving automotive industry. Our processing facilities enable us to supply material to exact size and shape; helping customers to optimise material usage and reduce costs, whilst improving productivity and quality.

For the cost-effective production of precision blanks, to a standard maximum length of 4000mm and a width tolerance of +/-0.127mm, we have a number of multi-strand blanking lines. Flatness to within 3mm per metre length is guaranteed, provided this requirement is stated at the time of enquiry and order. Furthermore, we have the capability to handle a wide range of secondary processing requirements for small, narrow blanks.

Our centres also offer decoiling facilities, and the industry's most advanced high-speed slitting lines, which are capable of processing coil up to 2000mm wide in a gauge range of 0.12mm to 8.0mm, to a width tolerance of +/-0.127mm.

In addition, our dedicated Automotive Service Centre offers a wide range of first and second stage processing facilities for the volume production of car body panels and underbody components. These include multi-strand and trapezoidal blanking lines and several press blanking lines, to meet demand for shaped body panels such as bonnets, boots and doors. Low volumes of complex blanks can be

produced economically on a laser cutting centre, whilst our specialist laser welding operation, Autolaser Technologies, can supply high strength tailor-welded blanks for applications such as door inners.

Our processing facilities are maintained to the highest standards to ensure that material quality, surface finish and flatness is assured from the mill, during processing, to delivery. Great care is also taken during handling, packaging and storage to ensure that products reach customers in prime condition.

These resources are supported by tailored EDI, IT and logistics systems that enable us to check order status or stock availability instantly, minimise order lead times and maintain rapid, reliable deliveries, on a J-I-T or scheduled basis as required.

Technical support

Corus provides comprehensive technical advice and support for all tiers of the automotive industry. Working closely with customers from the development phase of projects, we can advise on material specification, processing and forming. This results in optimally-designed components that fulfill stringent quality, cost and performance requirements.

To help customers take full advantage of the new technologies and steels that are available, we are supported by Corus Research, Development and Technology, which offers practical testing and evaluation facilities and expertise in key areas including finite element analysis, pressing, corrosion, welding, adhesives and mechanical fixings. In addition we can draw on the resources of Corus Automotive Engineering in Coventry which works closely with customers to make better use of existing steels, research new technologies and materials, and deliver engineering solutions for new vehicle or component projects.

From initial concept through to design, materials supply and final production we can provide a total integrated service to vehicle and component manufacturers.

Product guide

Cold reduced products:

EN 10130:1999 Cold-rolled low carbon steel flat products for cold forming.

Cold reduced high and ultra high strength steels. Branded grades with guaranteed minimum tensile properties, i.e. minimum yield stresses of 250 N/mm², 280 N/mm², 350 N/mm², 420N/mm², 500 N/mm² and higher.

Electro-galvanised products:

EN 10152:1994 Specification for electrolytically zinc coated cold rolled steel sheet products.

All of the above products are supplied to tolerances as set down in EN 10131:1991

Hot-dip galvanised products:

EN 10142:2000 Continuously hot-dip zinc coated low carbon steel strip and sheet for cold forming.

EN 10147:2000 Continuously hot-dip zinc coated structural steel strip and sheet.

Branded extra and ultra high strength hot-dip galvanized steels are also available.

EN 10154:1996 Continuously hot-dip aluminium-silicon (AS) coated steel sheet and strip

EN 10214:1995 Continuously hot-dip zinc-aluminium (ZA) coated steel strip and sheet.

All of the hot-dip products are supplied to tolerances as set down in EN 10143:1993

Hot rolled products to:

EN 10111: 1998 Hot rolled low carbon steel sheet and strip for cold forming.

EN 10025:1993 Hot rolled products of non-alloy structural steels, including S275JR, S275JO and S355JR.

Such materials can be supplied either as unpickled or pickled and oiled plates.

EN 10149-2:1996 Hot rolled flat products made of high yield strength steels for cold forming. These are HSLA steels: Corus's branded products Tenform and YMPRESS comply with this specification.

The tolerances which apply to these products are set down in EN 10151:1992.

Bespoke grades are also available.

Sontech sound deadening metal:

Sontech sound deadening metal can reduce noise by up to 30dB(A). Its composition of two metal skins bonded together by a visco-elastic polymer is proven to be highly effective at absorbing noise produced by impact and panel resonance.

- Available in a wide range of steels or combinations of materials e.g. hot-dip/electro galvanised, stainless steel/aluminium, pre-painted/zinc-alloy coated
- Available in a composite gauge range of 1mm - 4mm
- Standard sheet size 2500 x 1250mm. Other sizes available on request.

Processing capacity

	Gauge (mm)	Width (mm)	Length (mm)
Slitting	0.12 - 8.0	12 - 2000	N/A
Decoiling	0.30 - 13.0	50 - 2000	100 - 18,000
Multi-strand blanking	0.30 - 3.2	140 - 2000	200 - 4000
Trapezoidal blanking	0.6 - 2.5	300 - 2000	200 - 10,000
Press blanking	0.6 - 2.5	2020 max	160 - 4000
Laser cutting	0.40 - 20.0	2500 max	8000 max
Shearing	0.40 - 13.0	25 min	6500 max

For requirements outside of these dimensions please consult Corus.

www.corus-servicecentres.com

Contacts for further information

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For details about the other products and services which Corus has developed for the automotive industry please call 0800 008 400.