
www.corus-specialprofiles.com

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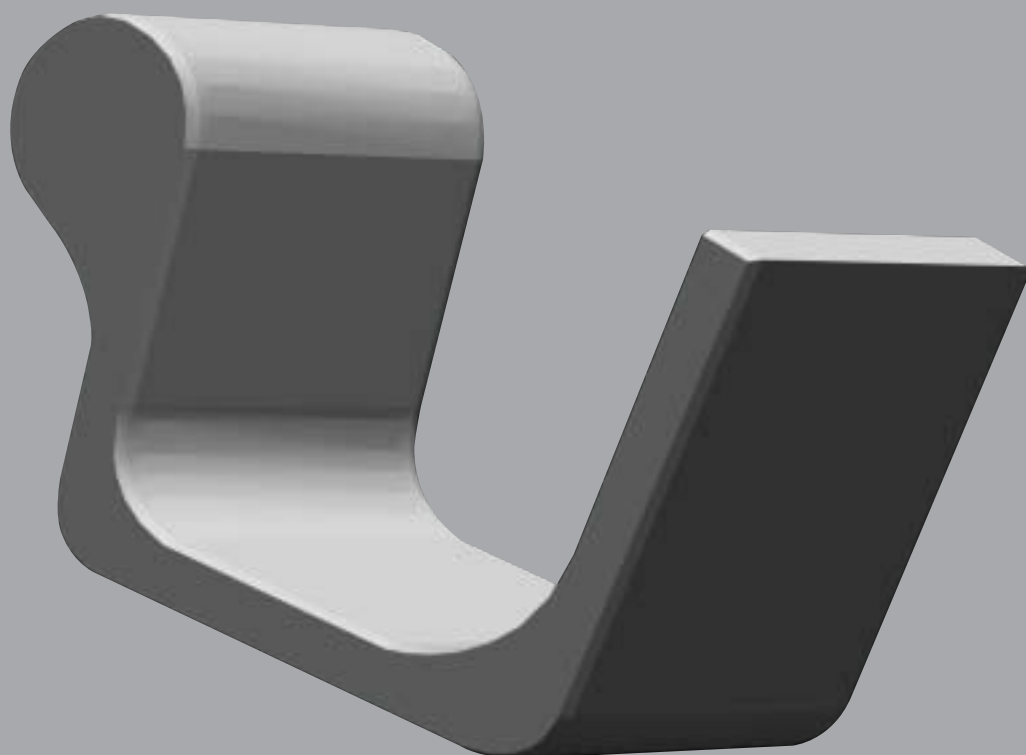
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Corus

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English language version

Automotive

Special profiles for the automotive industry



Engineered
to perform



Corus Special Profiles is a business within Corus plc, the company formed from the merger between British Steel and Hoogovens in October 1999. Corus Special Profiles' core business is the manufacture of specially shaped steel profiles for a wide range of industries worldwide. This includes a large number of profiles for various applications in the automotive industry.

The benefits of using special profiles are numerous and include:

- **Lightweighting**
asymmetrical profiles provide "lightweighting" of components, taking out surplus weight.
- **Dimensional accuracy**
hot rolled special profiles provide improved dimensional accuracy when compared with cast or forged profiles.

- **Saving time and cost**
elimination of welding, machining or cutting saves time and cost, and reduces further rework and handling.

Corus Special Profiles has the manufacturing expertise to produce products which are both strong, lightweight and dimensionally accurate for a wide range of automotive applications.



Powerful resources

Responsive and highly capable. Corus, a company with a proven track record in manufacturing high quality steel profiles for the automotive industry.



Special profiles are used in the manufacture of a variety of components such as rails for seat fixings.

We have manufacturing facilities at Skinningrove in the UK and Troisdorf in Germany (Mannstaedt-Werke) and a “live” range of over 2000 profile shapes. Four rolling mills offer our customers greater security, choice and flexibility. We have the capability to roll profiles from 0.2 kg/metre to 230 kg/metre. In addition, we can offer profiles cut to length and have an on-site shotblasting facility at Troisdorf that covers most profile sizes. We also have a cold drawing facility at our Troisdorf site. Please see our information on standard lengths and tolerances. For further information about our manufacturing and processing capabilities, please contact us.

As part of Corus, we have access to guaranteed quality steel supply, which underpins our own resources. Most profiles are supplied to individual customers’ steel grades. Other grades can be provided on request.

We have many years experience in supplying a diverse range of profiles used for component manufacture in the automotive industry. These include:

- Hinge profiles
- Axle profiles
- Turntables (finished and semi-finished)
- Wheel rim profiles
- Seat rail profiles
- Unique profiles for specific customer applications

Our product range includes both “open roll” profiles and unique designs reserved for individual customer use.



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**Powered by a
leading metals
supplier**



With you at the start of the journey

Driven by demand

Today's automotive manufacturers are constantly seeking more performance from their components. Working together from the initial design stages we can meet these demands now and in the future.

If you are interested in "ready made" components, a special profile may provide the answer.

At Special Profiles, we aim to build and develop a close relationship from the initial design stage through to delivery of the final product. Working together from the conceptual stage brings many benefits; as a customer you receive an optimum shape for your specific

application and we develop an improved understanding of your industry and specific needs and concerns.

In addition to our own Technical team, we have access to Corus' technology centres in the UK and the Netherlands. These centres are dedicated to research and development and we make the facility available to all our

customers to jointly improve our products. Corus also has an Automotive design and engineering centre in the UK. This group focuses on finding innovative technical product solutions for the automotive industry. Previous projects undertaken include a study to investigate alternative methods of manufacture to produce more lightweight hinges.

Corus Special Profiles' technical team work closely with component manufacturers to design, produce and deliver the most efficient solution.



Corus Special Profiles

The manufacturer of choice for leading automotive manufacturers.





As part of Corus, we have access to a worldwide network of sales offices and agencies. With a supporting presence in over 40 countries, you can be sure that there is always advice and product support available locally. Many of these offices have a dedicated Special Profiles sales resource who is trained and experienced in our product range.

Our experience includes years of supplying to some of the major names in the automotive and commercial vehicles industries.

With our manufacturing expertise, service capability and unrivalled product range we are proud to be the manufacturer of choice for special profiles.

Firmly in the driving seat

Impressive curves

Our range of hinges for cars and commercial vehicles is the largest available worldwide.

Hot rolled profiles are a preferred choice in many markets for manufacturing car door hinges. When compared with alternative methods of manufacture, a special profile meets the key requirements for lightweight compact designs but with maximum strength.

We tailor-make profile shape and chemistry to meet the requirements of individual hinge manufacturers. Profiles are available in a range of steels from mild steels to S275, S355 or HSLA grades with minimum 450, 500 or 575 MPa yield strength to provide the strength necessary to resist "door drop" or "sag".

In addition to hot rolling, we can also offer cold drawn hinges with dimensional tolerances of

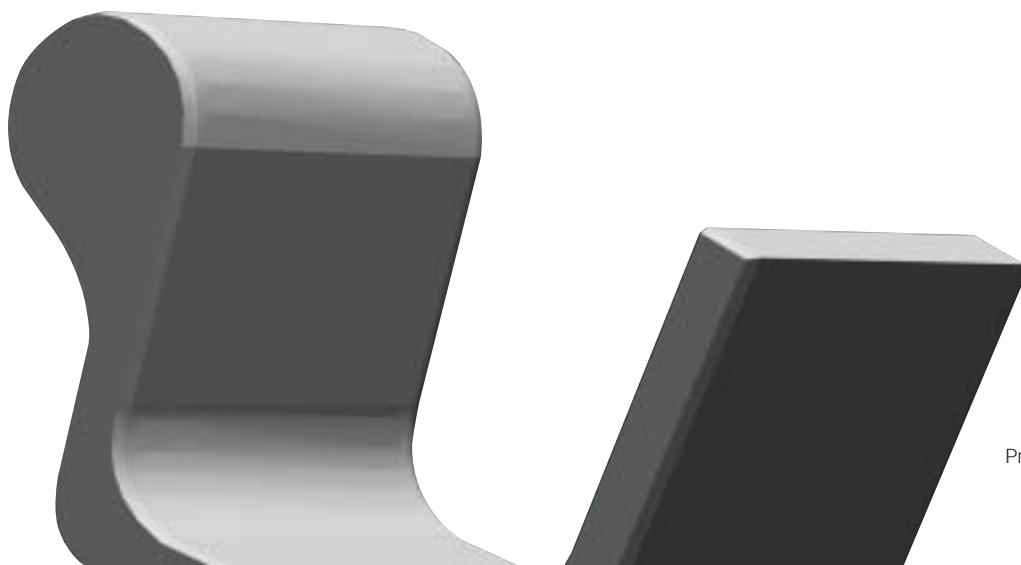
+/-0.25mm and high quality surface finish for very demanding applications. Please see our Cold Drawn profiles brochure for further information.

We can offer hinge profiles in long lengths from 4 up to a maximum of 12 metres. Our latest development is to also offer cut hinge pieces.

Please contact us for further details.

Corus Special Profiles supplies major automotive component manufacturers with a wide range of tailor-made hinges. Strength of material and dimensional integrity both being a critical factor in modern automotive design.

A selection of Corus Special Profiles hot rolled and cold drawn hinge profiles. These products are used in many modern vehicles.





Axles

We roll a full range of axle profiles, many of which are ideally suited to heavy applications.

Our product design ensures that the finished axle has improved wall thickness in the corners when compared with cold formed sections. This provides better stress distribution and torsion.

In addition, a hot rolled axle profile offers the advantage of being more lightweight when compared with an axle made from solid material or tubes.



Corus Special Profiles

manufacture high strength axles for a wide range of vehicles. Our turntable profiles are a vital component for commercial vehicles.

Turntables

We offer a full range of turntable profiles, including longbar and finished turntables. Turntable profiles offer the following benefits:

- Good mechanical properties and dimensional accuracy from the hot rolling process
- The asymmetrical wall thickness of the turntable profile ensures that torsion is improved and stress on the profile is minimised
- We produce profiles for single and double ball turntables. Use of a double ball turntable offers a more secure, longer life solution as stress is spread across the double ball races giving better power transmission.

If you are interested in turntables, please contact us and between ourselves and our customers we will ensure that we meet your requirements.



Wheel rims and other products

Corus Special Profiles

also manufactures a wide range of other automotive components including wheel rims and seat fixings. All manufactured to a high degree of quality.

Our range of wheel rim profiles are suitable for manufacturing wheels for both commercial vehicles and "earth moving" equipment. On commercial vehicle wheels, we offer rim base profiles for manufacturing rim sizes from 140mm (5.5") to 254mm (10") wide with accompanying side and lock ring combinations.

For wheels on "off highway" equipment, we offer a broad range, including 3 and 5 piece standard wheels. A full range of lock rings, bead seats, gutter bands, back bands, and side ring profiles are available.

In addition to those detailed, we also manufacture a wide range of other automotive components for diverse applications, including seat rails and profile frames. For further information on these profiles, please contact us.



