



Special profiles.

High-precision constructional elements.

SCHOCK
M E T A L L



Customized profiles in Schock precision.

Schock Metall specializes in cold-rolled profiles made to specific customer specifications. We manufacture them using a broad range of different technologies, from special profiles and pre-configured assemblies to complete system solutions.

High-precision Schock roll forming technology works with extremely tight tolerances. Schock also facilitates a high degree of material utilization and practically unlimited design possibilities. A customized and usage-optimized solution thus exists for every customer.

The benefits for you:

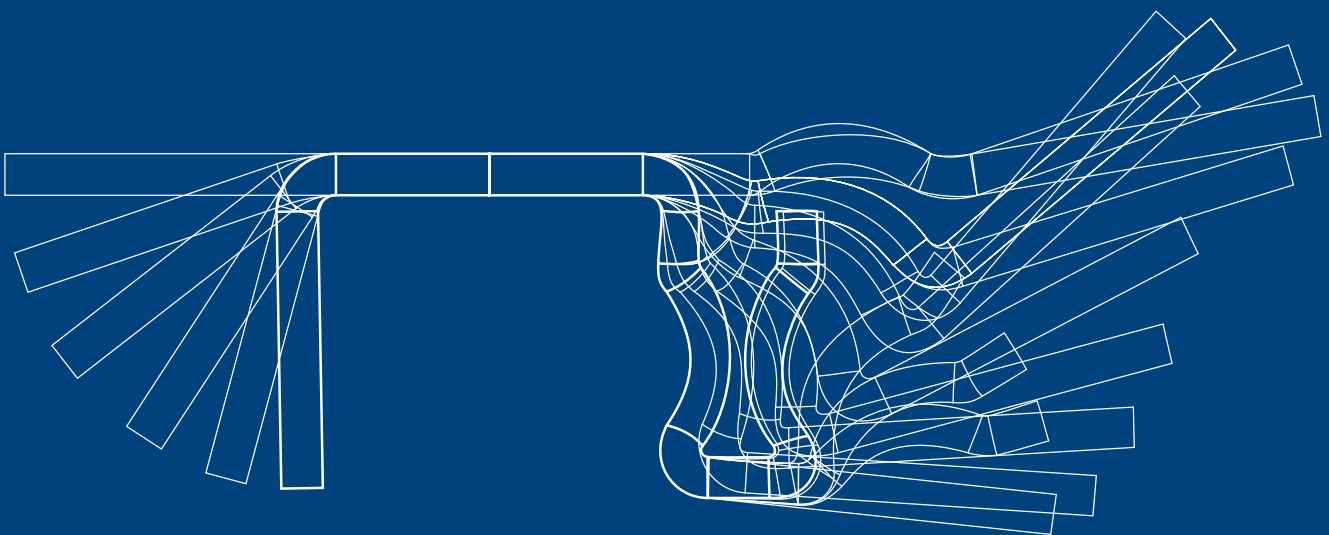
- Customized profiles in Schock precision
- Unlimited design possibilities
- High material utilization
- Engineering
- Product design and simulation



Roll forming is a material-efficient and cost-effective solution for all materials that can be cold rolled.

Engineering & product design.

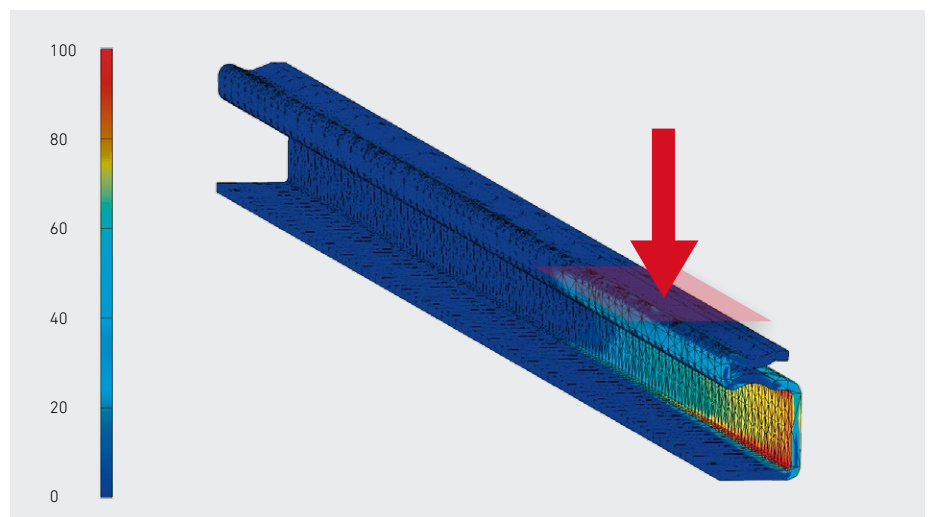
We accompany our customers in their challenging tasks.
As a development partner, we jointly create unique solutions
based on roll-formed precision profiles.



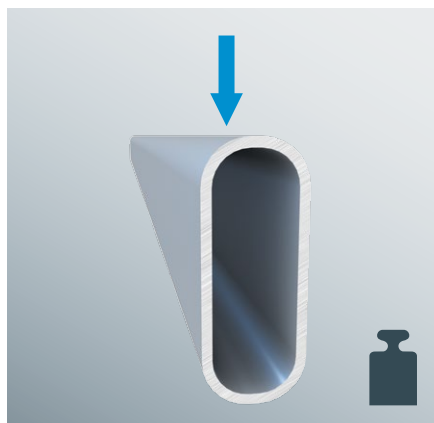
Profile flower: from coil to the finished profile.

Schock customers benefit from the entire value chain, from feasibility studies and simulation of the profile design to prototyping and series production.

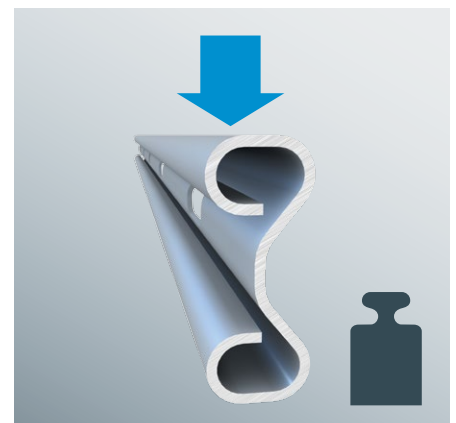
Specific simulation software supports the engineering process to optimize proprietary roll forming tools as well as roll-formed special profiles. We also use other skills such as the development of plastic and zinc die casting parts, as well as assembly lines manufactured in-house for the production of complete, ready-to-install assemblies.



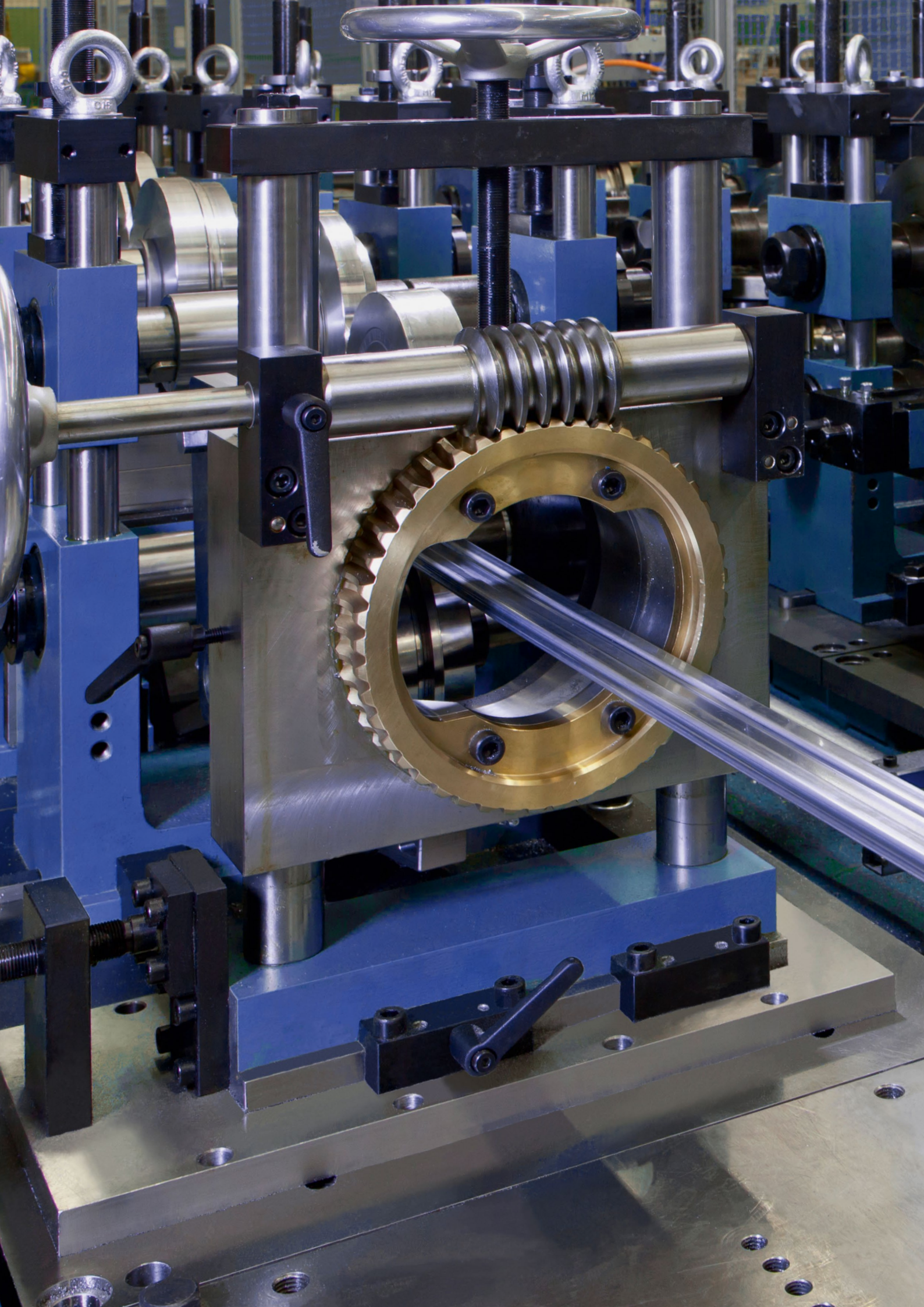
The product design with the finite element method ensures the essential product characteristics in terms of material efficiency, stability and durability.



Existing market solution.



Roll formed special profile made by Schock Metall.



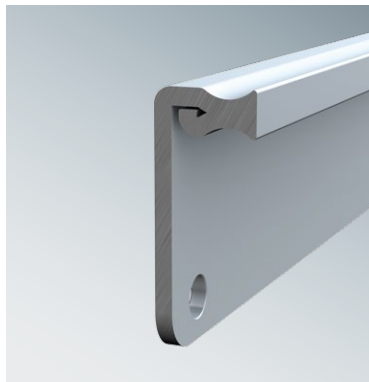
Precision.

Schock's roll forming technology works with extremely tight tolerances, thereby guaranteeing excellent product characteristics.

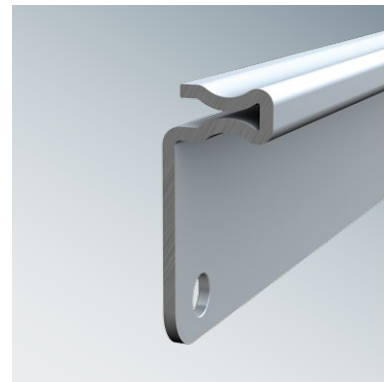
Schock special profiles achieve the highest levels of precision in terms of functional dimensions, straightness, flatness, and the separating cut. With creative tool making solutions we manufacture virtually burr-free using materials with a tensile strength of up to 1.000 MPa. Our design of an optimized roll forming process is derived from simulation and our expert knowledge.

Some significant advantages of the Schock roll forming technology:

- Tight tolerances
- Straightness and flatness
- Exact separating cut with dimensionally stable profile end
- High-precision functional measures
- Creative tool making solutions
- ...



Profiling with modification of the sheet metal thickness.



Profiling without modification of the sheet metal thickness.



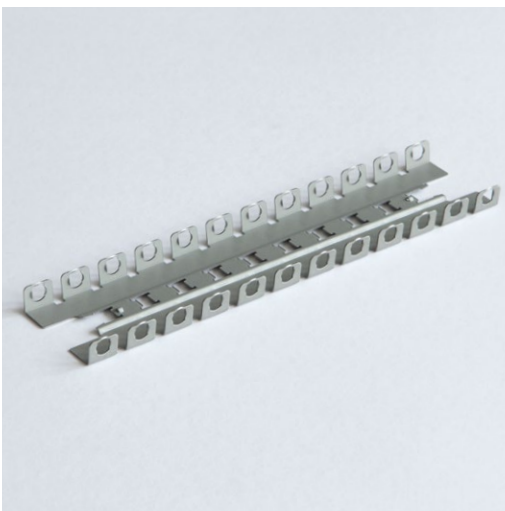
Dynamics.

We manufacture on a large number of the most modern roll forming lines. They work with a variety of technologies and integrated processes.

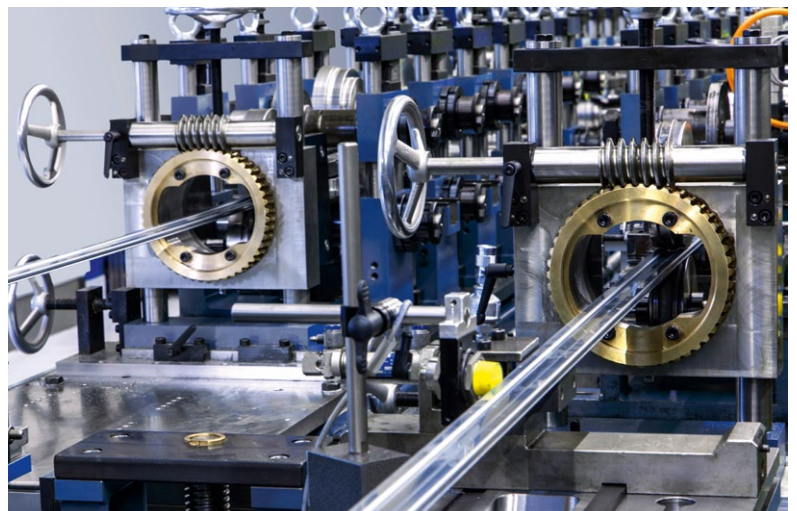
All production lines are designed and implemented in their overall conception by Schock Metall. In-house developed high-performance stamping devices with extremely short cycle times ensure the cost efficient production of single process constructional elements. Parallel profiling and start/stop operation with extremely steep acceleration curves form the basis for dynamic manufacturing processes.

Schock roll forming technology comprises the following processes:

- Pre-, intermediate and post-stamping
- Punching
- Thread forming
- Clinching
- Orbital riveting
- Welding
- Joining plastic parts
- ...



Single process precision parts with tolerances < 0,02 mm.



Parallel profiling with start/stop operation.



Assembly.

Schock customers get much more than just a profile but customized individual functional elements that support the entire value chain.

The dynamic processes of Schock's roll forming technology also include the integrated assembly. For example, plastic parts are fed "inline" during the roll forming process. The cycle times are the same as in punching and cutting. Automated mounting systems for flexible final assembly and production of variants, as well as customized packaging logistics complete the portfolio. The result is a customized solution with added value for each application.



Schock shopfitting profile with adapted bearing pin.



In-house developed Schock assembly line for production of linear slides.



Materials and finishes.

Specific materials are used for each individual profile section when making Schock special profiles.

We work closely with you in the joint planning process to define the optimum material according to qualitative and economic aspects. Schock powder coating provides a high-performance and visually appealing surface with long-term corrosion protection including individual colour scheme. Also further surface finishes, as well as processing of pre-painted or film coated base material belong to our range of services.

Material options:

- Hot-dip galvanized steel
- Cold-rolled and hot-rolled steel
- High-strength steels
- Stainless steels
- Aluminium and non-ferrous metals
- ...

Surface options:

- Schock powder coating
- Cataphoretic painting
- Electrogalvanized
- Foil-coated
- Degreased
- ...



Special profile for the automotive industry
made of pre-painted coil steel.

Assemblies.

From profile and assembly to integrated system solutions.

The areas covered by our engineering expertise include the development of plastic and die-casted parts. We are also able to offer additional benefits with our many years of experience in stamping, bending, and welding process technology. Moreover, we combine these individual processes and create complete, ready-to-install assemblies for you.



The electrically adjustable foot rest is based on a Schöck linear slide with roll-formed precision profiles. Integrated interfaces for connection to the seat structure and the drive unit simplify installation and reduce the variety of parts. With its compact design, it nevertheless withstands extreme loads, thanks to its intelligent combination of materials and shaping.





Schock Metallwerk GmbH

Siemensstr. 1-3 • D-73660 Urbach

Tel. +49 7181 808 - 0

Fax +49 7181 808 - 299

info@schock-metall.de

www.schock-metall.de