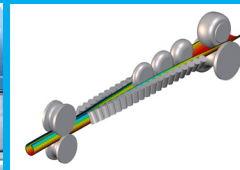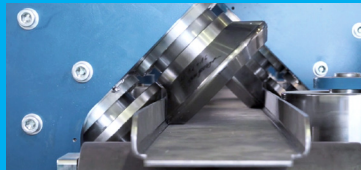# Rollforming the Future

data M
Sheet Metal Solutions

Company

The German company **data M Sheet Metal Solutions GmbH** has been offering innovative, high-quality and state-of-the-art products and services for the roll forming industry.

Our expertise unfolds in various commercial applications united in the COPRA® EcoSystem. As reputed R&D partner for machine builders, users and research institutions, data M has always been at the forefront in its field. For almost four decades, we have accumulated unique knowledge in the field of roll forming. Our software packages COPRA® RF and COPRA® FEA RF are worldwide leading solutions for design and simulation. Together with our optical measurement devices we offer a holistic solution for the roll forming industry.

Tailored to the requirements and needs of today's roll forming industry our product portfolio brings digitalization and industry 4.0 to the roll forming sector.

With our international partner network, we provide excellent support to customers all over the world.

A selection of industries data M works for:

Aviation

Automotive
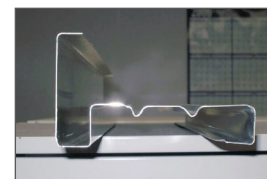

Oil and Gas

Construction

Furniture

Storage

Your Partner in the Roll Forming Industry

Services and Expert Trainings

data M offers a number of turnkey solutions, services, support and trainings for roll form machine, roll form profile and roll tool manufacturers:

l Tool design
l Forming simulation
l Programming of machine controllers
l Feasibility studies
l Measurement and verification of specifications and tolerances
l Process configuration and optimization
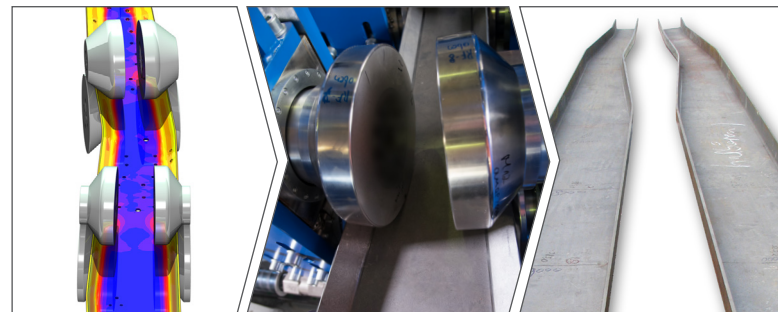l Basic & special trainings and expert workshops

Research and Development – Rollforming the Future®

As our slogan implies, research and development play a decisive role in our daily work. We are committed to set new impulses as an innovation driver in our field and are thus proud to be leader and partner in a number of renowned international R&D projects.

3D Roll Form Technology

Driven by the spirit of innovation, data M pioneers in the field of 3D roll forming. Designed and virtually developed with our COPRA® RF and COPRA® FEA RF software tools, our industrial "3D Roll Forming Machine for Truck Chassis" and our "3D Roll-Forming Center®" for prototype components and small series offer an innovative and cost-effective production for a huge variety of profile shapes.
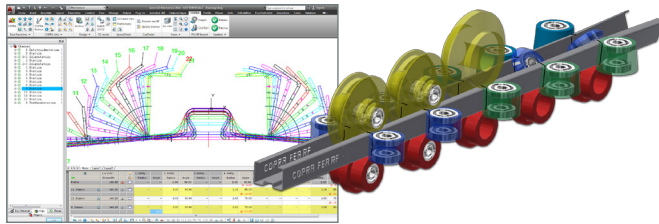
CAE Tools

A fast response to customer demands is a real key factor for success. Whoever adapts, retools and brings the product fastest to the market at less cost is going to win the race.

COPRA® RF and COPRA® FEA RF give you the right tools to integrate your high-quality roll design in the production cycle and to accelerate the manufacturing process – for effective roll tool engineering:
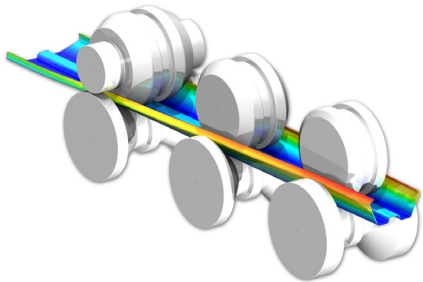
COPRA® RF – covers the complete engineering process
l Parametric Flower Design
l Utilities for fast roll design
l Specialized modules for product groups Open & Closed Profiles, Tubes & Pipes, Corrugated Sheets
l Roll & profile data base
l Material and cutting list
l Tool drawings and assembly plans

COPRA® FEA RF – the virtual roll forming line
l Finite Element Analysis of roll forming process
l Easy and quick optimization of roll form tooling
l Automated pre- and postprocessing
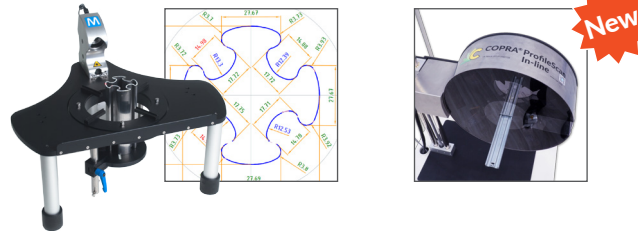l Customized for roll forming

Sensors

data M has introduced numerous innovations towards intelligent sensor technology and measuring devices in recent years, an important element for digitalization in roll forming.
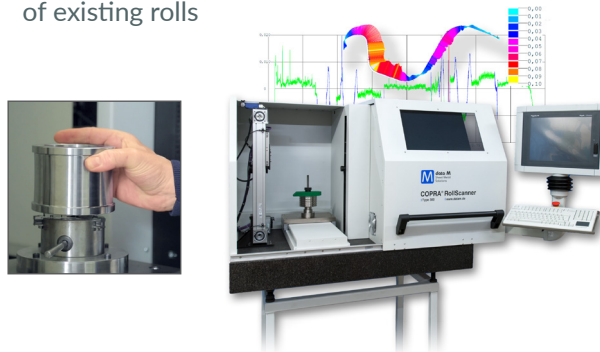
COPRA® ProfileScan Desktop
l High-precision laser inspection
l Quick scan process
l Complete integration into COPRA® RF and COPRA® FEA RF
l Simple tools to define jobs and tolerances
l Automatic scanning report
l Ideal for quality management

Now available also as COPRA® ProfileScan In-line

COPRA® RollScanner
l Consistent Quality Control of roll contours
l Contactless measuring with high precision camera
l Automatic contour tracing
l Intelligent Roll Management – digitization and cataloging
l Reverse Engineering – analysis and reworking of existing rolls

Industry 4.0

The move towards intelligent and data-based production has also arrived in roll forming. Big data methods offer enormous potential: They increase product quality and reduce downtimes by detecting wear of machine components or material fluctuations at an early stage.

COPRA® SmartBox
l Enables data mining in roll forming
l Collects information from Smart Sensors
l Records various parameters right at the machine such as forming forces or roll deflection
l Connected to central database via OPC UA communication protocol
l Real-time monitoring and data analysis
l Setup assistant for machine operator

COPRA® SmartFactory
l Predictive maintenance
l Predictive quality
l Operational status of the line
l Integration of multiple data sources via OPC UA
l Smart data management
l Connection to ERP, MES, SCADA Systems