

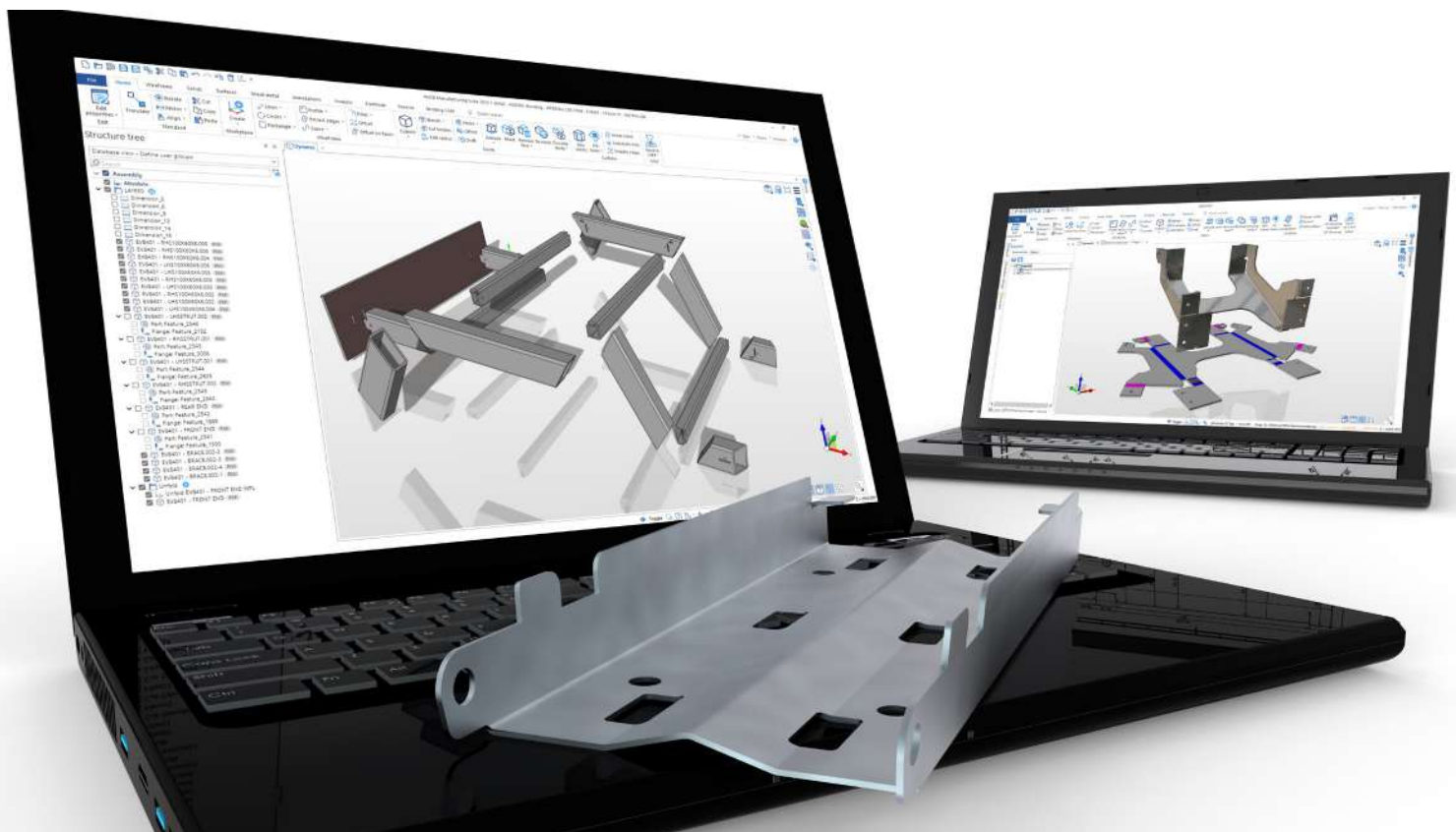
Sheet Metal Fabrication Suite

Empowering Precision, Efficiency, and Sustainability



Sheet Metal

A suite of best-in-class products offering an integrated workflow from design to quoting through production preparation, CAM and automation all the way to delivery and invoice.



Achieve Peak Efficiency with Cutting-Edge Technology

Harness the power of our state-of-the-art capabilities to drive significant improvements in your operations:

1

Enhanced Operating Efficiencies: Streamline your processes to achieve higher productivity and reduced lead times.

2

Waste Reduction: Utilise advanced tools to minimise material waste and maximise resource utilization.

3

Faster, Top-Quality Results: Accelerate your production cycle without compromising on quality, delivering exceptional results faster than ever before.

Contributing to sustainability in sheet metal manufacturing.

From Raw materials to end products

Bending

- Air bending
- Die bending
- Panel bending
- Coining



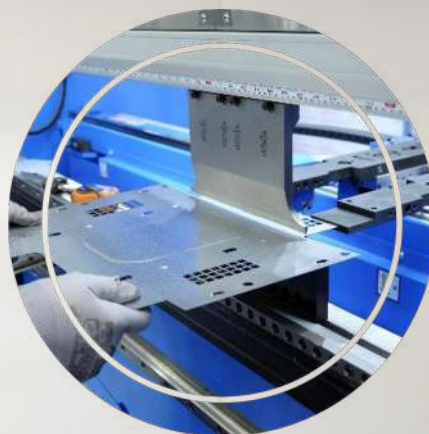
2D Cutting

- Laser
- Plasma
- Waterjet
- Punching



3D Cutting

- Tube cutting
- 5-Axis cutting
- Bevel cutting



Sheet Metal Fabrication Suite

Sheet metal fabrication involves the design and manufacturing of sheet metal components and assemblies. It is essential for industry verticals including automotive, aerospace, industrial equipment, electronics, medical, oil and gas, and consumer products. The key challenges faced by the sheet metal industry include:

- Responding to RFQs quickly and accurately
- Optimising raw material sheet utilisation to save on raw material cost and therefore overall product cost
- Design of sheet metal parts faster, taking into account manufacturing capabilities/constraints
- Optimising the manufacturing cycle time for sheet metal parts
- Ensuring first time right manufacture every time and minimising rejection and rework
- Ensuring smooth execution of manufacturing activities to meet the delivery date to the end customer
- Ensuring the quality of the finished product
- Optimising the overall product and project cost

1

Quoting for Sheet Metal Fabrication

2

CAD for Manufacturing & Design Reviews

3

CAM for CNC Bending

4

CAM for CNC Sheet and Tube Cutting

5

Production Management

These capabilities pave the way for a streamlined Workflow Process. This process smartly navigates through several critical intricacies from design validation, costing, and quoting, to planning and scheduling, materials planning, CAM, and reporting. It further extends to aspects like Nesting, Machining, Tracking, Shipping, and ultimately invoicing, each step meticulously devised to ensure a seamless, efficient, and effective process cycle. Consequently, you can anticipate improved operational effectiveness, reduced overhead costs, and ultimately, a surge in the overall quality of your projects.



Quoting for Sheet Metal Fabrication

Quoting made easier with a user-friendly tool designed for the efficient generation of quotes pertaining to sheet metal parts and other purchased components. This provides a detailed cost breakdown, offering users the flexibility to modify distinct cost sections, thereby facilitating robust negotiations. Furthermore, its adaptable reporting function empowers users to dispatch professional quotations via letters or emails, and compile comprehensive internal reports for evaluation and decision-making.



RADAN Radquote

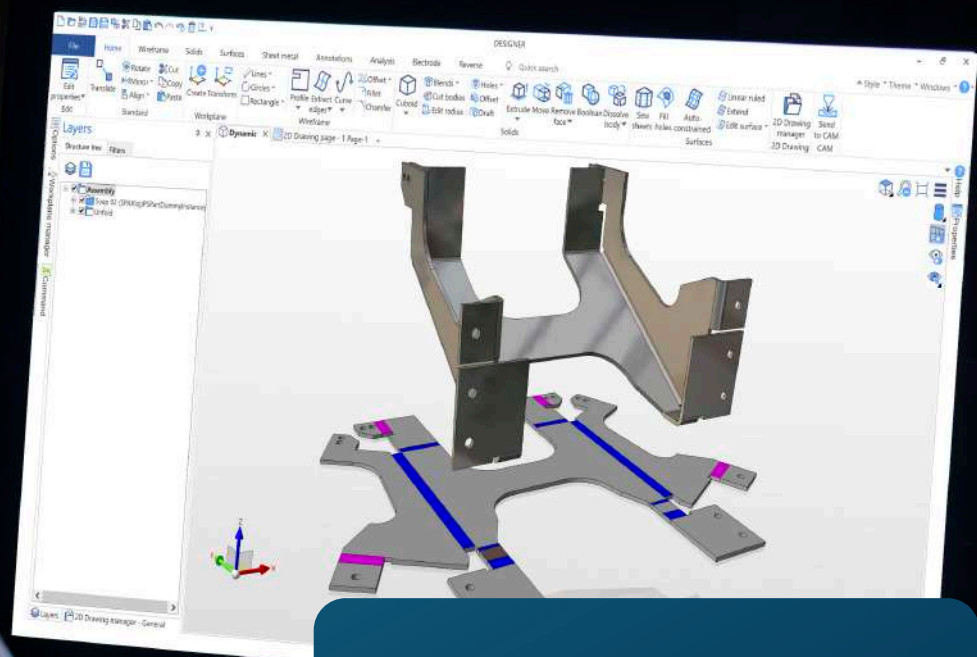
- Fast, automatic, precise and competitive
- Part level and assembly level operations
- Calculations using actual machine knowledge
- Quote and performance management

CAD for Manufacturing & Design Reviews

Empowers users with enhanced decision-making functionality to determine factors like identifying the most efficient top face or the optimal locations to split or join parts. The tool also enables the mapping of strategic areas to weld or bend larger components. Advanced functions, such as specifying optimal corner solutions, assist in honing the cutting procedure while diminishing the need for subsequent processes like welding, grinding, or polishing. Furthermore, the software ensures the detection of inconsistent material thicknesses and verifies the completeness and overlap-free nature of the unfolded blank.



DESIGNER



- Import major file formats – single parts and assemblies
- Verify manufacturability of designs
- Automatic part recognition and classification
- 'Manufacturing Pack' for consumption by systems
- Fast processing of assemblies for quoting and manufacture

CAM for CNC Bending

Provides a comprehensive offline programming system for press brakes while ensuring process stability through full 3D simulation of the bending procedure. This tool harnesses in-built tooling databases to identify the most efficient tooling configurations, thereby reducing setup time and manual handling. The software also checks the part design preemptively, pinpointing potential issues at an early stage. By employing automatic sequence calculation, it determines the best bending process, saving valuable machine and operator time. This digital proofing process eliminates the need for costly prototype parts. Furthermore, the user documentation included with the system minimizes handling errors preventing unnecessary rework operations.



RADAN Radbend

- Integrated with DESIGNER
- Automatic unfolding and verification
- Automatic process calculations
- Postprocessing
- Operator instructions

CAM for CNC Sheet and Tube Cutting

Our solutions encompass programming for profiling machines, punch and profile machine tool optimization, and intricate nesting capabilities. These tools not only support early-stage profiling machines but also accommodate future punch, laser, plasma, router, and combination gear investments - all from a unified system. Our system maximizes material utilization by generating manufacturable nests from sheets, off-cuts, and remnants, contributing to considerable cost savings. Furthermore, our sector-specific Laser CAD CAM software provides bespoke support for the tube cutting and manipulation industry, compatible with rotary and multi-axis machines.



RADAN



RADAN Radtube

- Efficient and safe tool paths
- Improve sustainability using class-leading nesting
- Comprehensive shop floor reports
- Built on a huge experience
- Preferred solution for significant OEM

Production Management

Effectively oversees the entire process from first estimate to final invoice. It includes an optimized quoting mechanism for sheet metal and tube assemblies, smart nesting practices linked to efficient inventory management, and seamless integration with ERP/MRP systems for real-time sourcing of part requirements. The system's output is continuously checked against quality management systems for adherence to standards. In a nutshell, our production management capabilities promise a holistic solution for estimating, inventory control, and unparalleled quality management.



RADAN



RADAN Radquote

- From estimate to invoice
- Quoting for sheet metal parts and assemblies
- Nesting connected to stock and inventory management
- Part requirements sourced from connected ERP / MRP systems
- Output to quality management systems



Products



DESIGNER

CAD for Manufacturing & Design Reviews

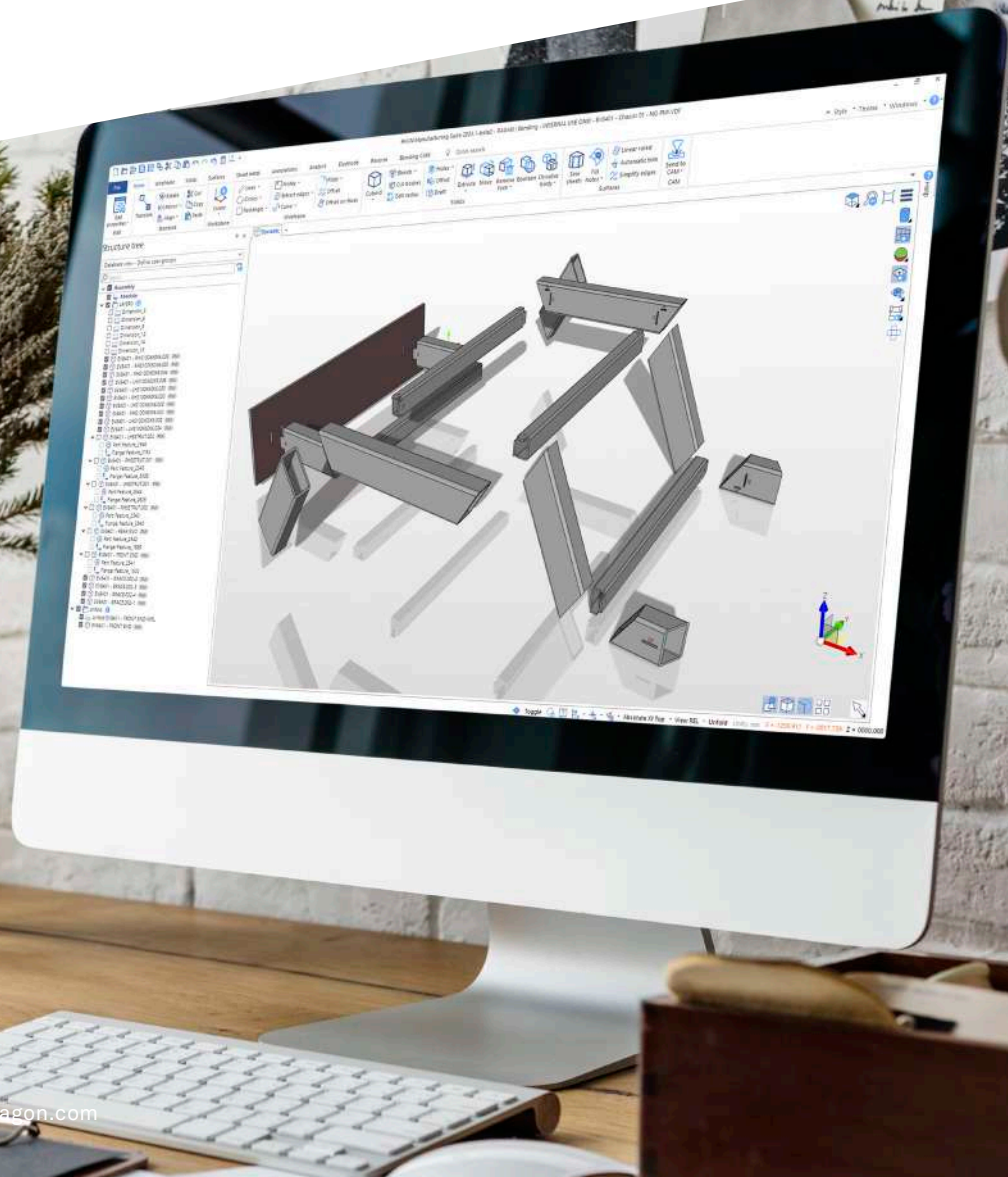
Bridging the gap between design and manufacturing

Streamline your production processes, enhance collaboration, ensure manufacturability and compliance, and embed quality into the design and preparation phase of manufacturing.

- Design Review
- Geometry and PMI Verification
- Automatic part unfolding
- Automatic part classification for sheet metal and tubes

Benefits

- CAD with PMI drives CAM and inspection
- Direct Modelling allows instant modification
- Hybrid geometry for scanned data, surfaces and solids





RADAN Radquote

World leading Quoting system for sheet metal fabrication

RADAN Radquote is a user-friendly tool designed for the efficient generation of quotes pertaining to sheet metal parts and other purchased components. This application provides a detailed cost breakdown, offering users the flexibility to modify distinct cost sections, thereby facilitating robust negotiations. Furthermore, its adaptable reporting function empowers users to dispatch professional quotations via letters or emails, and compile comprehensive internal reports for evaluation and decision-making.

- Automatic cost calculation
- High performance nesting
- Quote management

Benefits

- Import native 2D-3D CAD files
- Automatic cost calculation for sheet metal and tubes
- Quote report generation



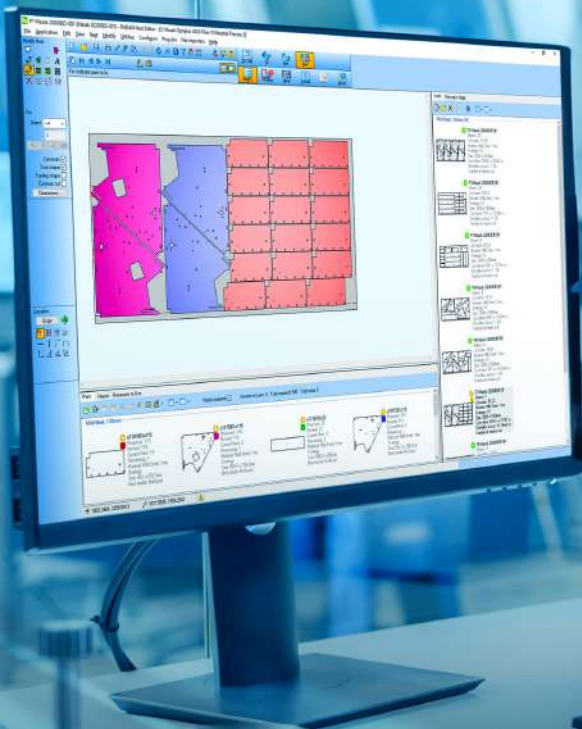
World leading sheet metal CAD/CAM system

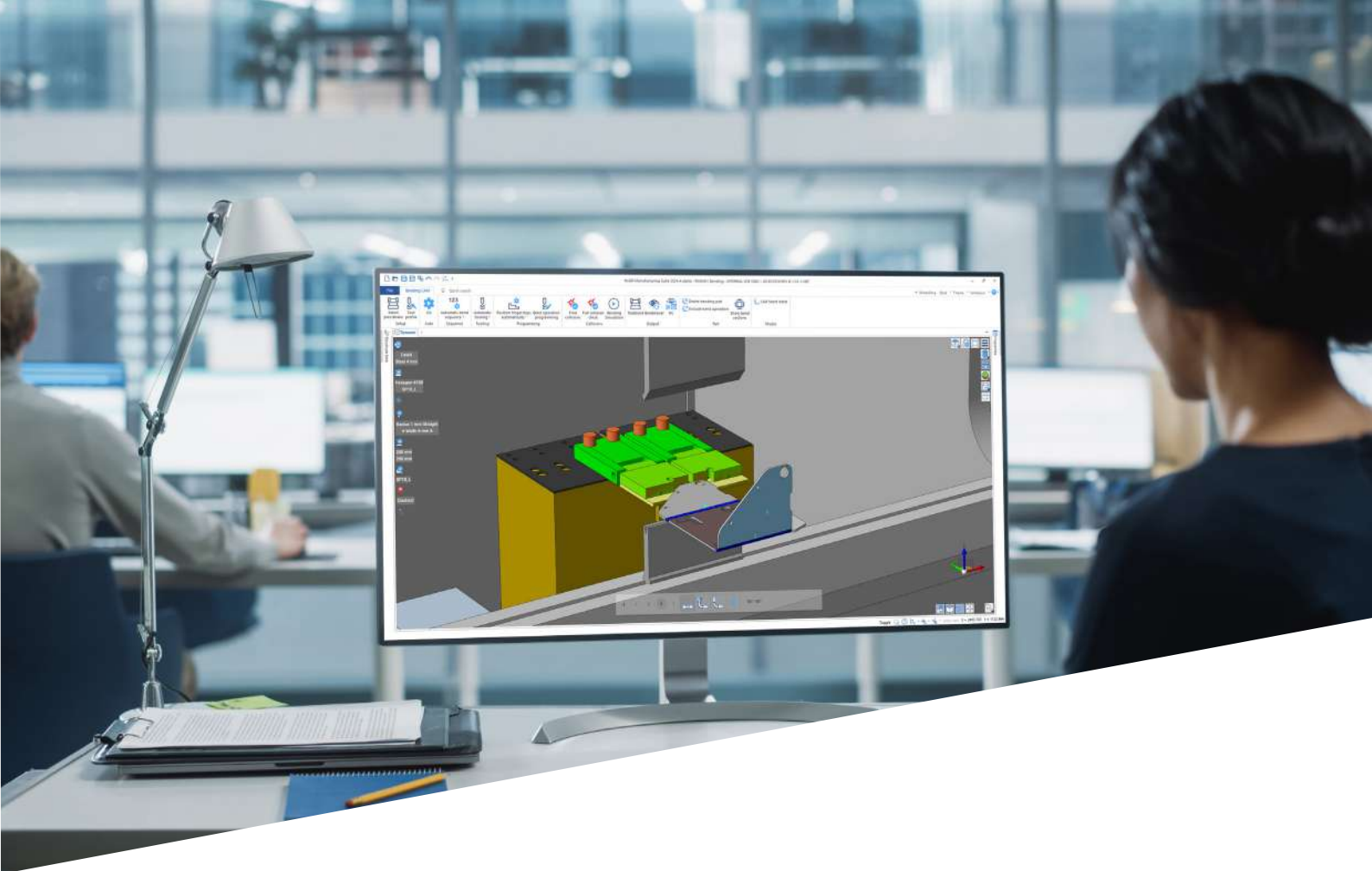
As a holistic software solution for sheet metal fabrication, RADAN encompasses both CAD and CAM capabilities for efficient sheet metal cutting. It provides comprehensive applications for punching, profiling, and bending, rendering it the complete solution for any sheet metal cutting requirements. Our system not only enhances the manufacturing process but also reduces wastage, optimizes resource usage, and increases overall productivity. It offers seamless integration with other systems and possesses a user-friendly interface, making it a robust and reliable tool for the sheet metal fabrication industry.

Benefits

- Import native 2D-3D CAD files
- Program all your machinery using one software
- Maximize material usage with industry leading nesting
- Links to ERP solutions

- Quoting
- Punching
- Profiling





RADAN Radbend

World leading CAD/CAM system for press brakes

Radbend from RADAN is a complete programming solution for press brakes, offering a full 3D simulation of the bending process to ensure process stability. It uses tooling databases to identify optimal tooling configurations, minimizing setup time and handling. Part designs are verified early on, highlighting potential issues. Automatic sequence calculation identifies the best bending process without utilizing machine or operator time, while digital process validation eliminates the need for costly prototype parts. Comprehensive user documentation reduces handling errors, preventing expensive rework operations.

- Automatic and precise unfolding of sheet metal parts
- Automatic calculation of sequence and tools
- Comprehensive machine tool support
- Shop floor reporting

Benefits

- Import native 2D-3D CAD files
- Program all your machinery using one software
- Intelligent tool selection
- Automatic sequence calculation
- Full collision control



RADAN Radtube

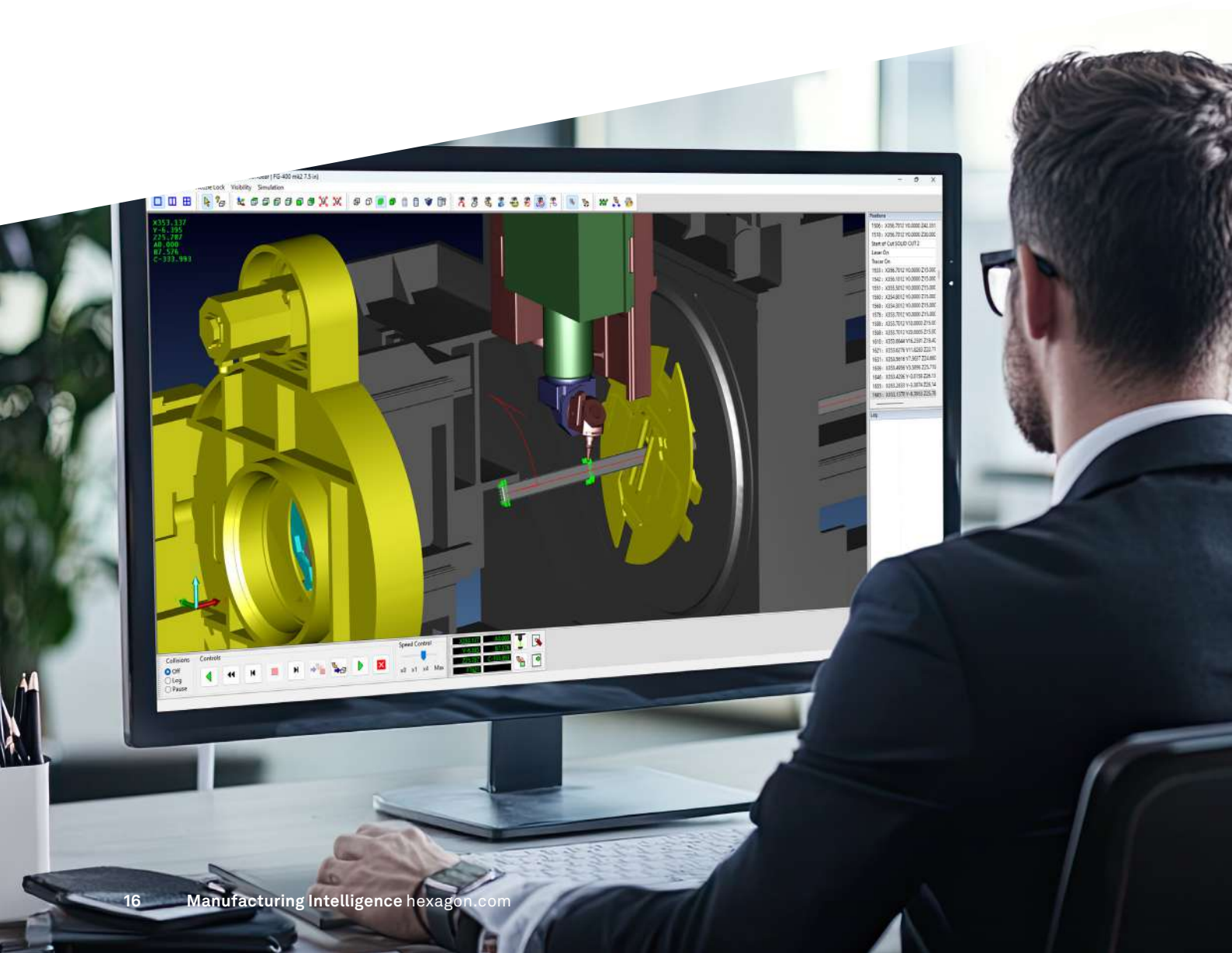
World leading CAD/CAM system for tubes

Radtube is an industry-leading Laser CAD/CAM software designed for rotary and multi-axis cutting machines. Developed specifically for the tube cutting and manipulation industry, it offers advanced features to enhance precision and efficiency in tube processing.

- Quoting
- High performance nesting
- Reporting

Benefits

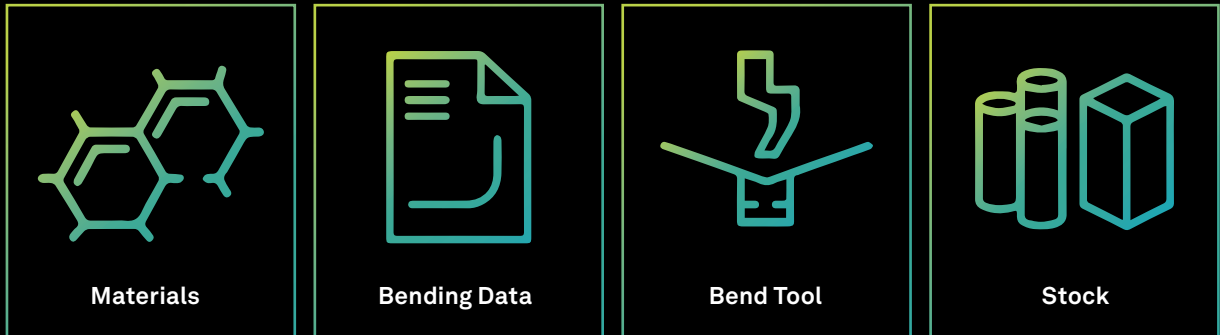
- Import native 2D-3D CAD files
- Program all your machinery using one software
- Maximize material usage with industry leading nesting
- Links to ERP solutions



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Our set of specially developed capabilities span across the metal fabrication domain - from the inception stage of estimating for sheet metal fabrication using advanced analytic tools, to employing dynamic Computer-Aided Design (CAD) for ensuring flawless design and manufacturing practices. We utilize Computer-Aided Manufacturing (CAM) technology to optimize CNC bending and CNC sheet and tube cutting processes for maximum accuracy and productivity. Lastly, an overarching production management approach guarantees seamless coordination and execution in every project phase. Overall, these capabilities act as a catalyst to streamline the entire workflow — right from design validation and planning to shipment and invoicing — ultimately furthering businesses towards operational excellence and quality improvement.



More from Production Software

Empowering an autonomous, sustainable future

- » From quote to delivery, an integrated workflow
- » For design, production and quality assurance
- » Highly efficient utilisation of materials and equipment
- » Best practices are captured and consistently applied
- » With significant automation driving towards autonomy



DESIGNER



RADAN Radquote



RADAN



RADAN Radbend



RADAN Radtube



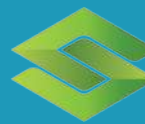
HxGN
Mould & Die



HxGN
Production Machining



HxGN
Wood, Stone & Composites



HxGN
Sheet Metal Fabrication



HxGN
Additive Manufacturing





Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Manufacturing Intelligence division provides solutions that use data from design and engineering, production and metrology to make manufacturing smarter. For more information, visit hexagon.com.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at hexagon.com and follow us [@HexagonAB](https://twitter.com/HexagonAB).