

# OMNIWIN 2025 CAD/CAM SOFTWARE

CAD/CAM on a professional level



# OMNIWIN 2025

## CAD/CAM ON A PROFESSIONAL LEVEL

### **SPEED UP AND SIMPLIFY PROCESSES**

The integrated operation of CAD, import and nesting for vertical and bevel parts drastically simplifies your work processes. Technology functions such as stitches, bridges, common cuts and matrix nesting shorten your process times.

### **CONNECTED WORKING**

Use the flexible license models at your individual workstation or in your network. Share and update parts, nesting plans, orders and plates via a database. OmniWin is available in numerous languages.



## Simple, effective and fast constructing and nesting.

OmniWin is a simple, clear and fast drawing and nesting software, which adapts intelligently to your machine and your cutting needs. It takes over all cutting tasks for order-based production with CNC thermal cutting machines.



### HIGHEST CUT QUALITY GUARANTEED

With OmniWin you nest your parts extremely material-saving. The NC nesting plan generated in OmniWin ensures fast, efficient processing with high cutting quality. You fully exploit the technological possibilities of your machine such as True Hole<sup>®</sup>, Contour Cut, O Hole or Silent Cut.

### IDEAL TOOL FOR PRODUCTION PLANNING

OmniWin is the ideal tool for production planning with thermal cutting for oxyfuel, plasma and laser cutting with CNC machines.

## The result:

**You achieve maximum technical flexibility with efficient work and reduce your costs through minimal material consumption. Save up to 30% time thanks to the clear operating concept and simple processes**



OMNIWIN 2025

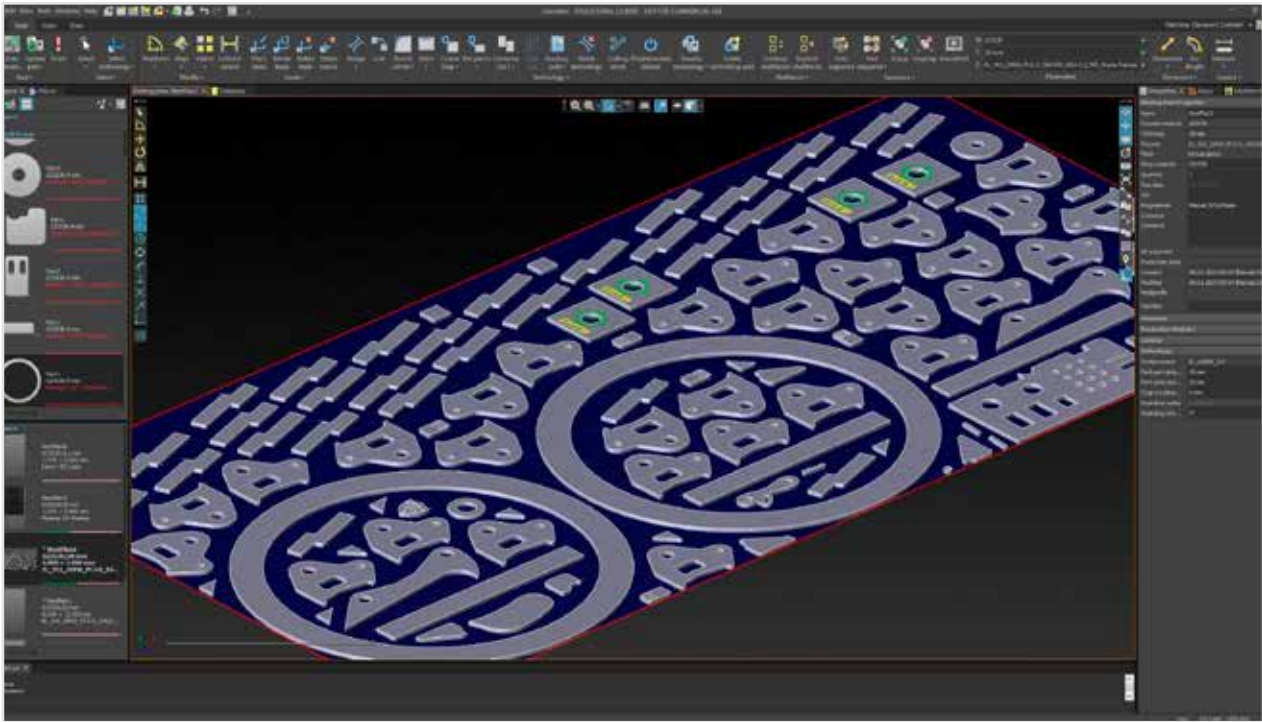
# READY FOR

INDUSTRY

# 4.0

WHAT'S NEW IN OMNIWIN 2025?

- + Part versioning
- + Easy copy/paste of leadins/leadouts
- + 64-Bit mode available
- + Standard processes for material/thickness combinations
- + New technologies for laser cutting
- + Improved bevel visualization
- + Vaporization for bevel plans
- + Reworked dialogs



## READY FOR INDUSTRY 4.0

### Digital - Next Level

In Industry 4.0, production is interlinked with the latest information and communication technology. Messer machines and software from a single source ensure maximum utilisation of your resources.

The OmniWin 2025 CAD/CAM system is technologically future-proof and ready for full integration into your Industry 4.0 applications. In interaction with OmniFab, you use OmniWin for the pre-calculation of quotations, live machine monitoring, assignment to cutting jobs and job monitoring as well as the exchange of data with your ERP system.

## USER INTERFACE

### Intuitive Design

The practical user interface with its extensive functionalities is intuitive to operate in daily use. Create parts or plates easily and quickly.

With comprehensive support for processes such as cutting, marking and drilling, geometries and text labels are correctly generated and converted. A 3D view for straight and bevel parts gives you a realistic view of the part geometry.

#### CAD/CAM SYSTEM WITH INTUITIVE OPERATION

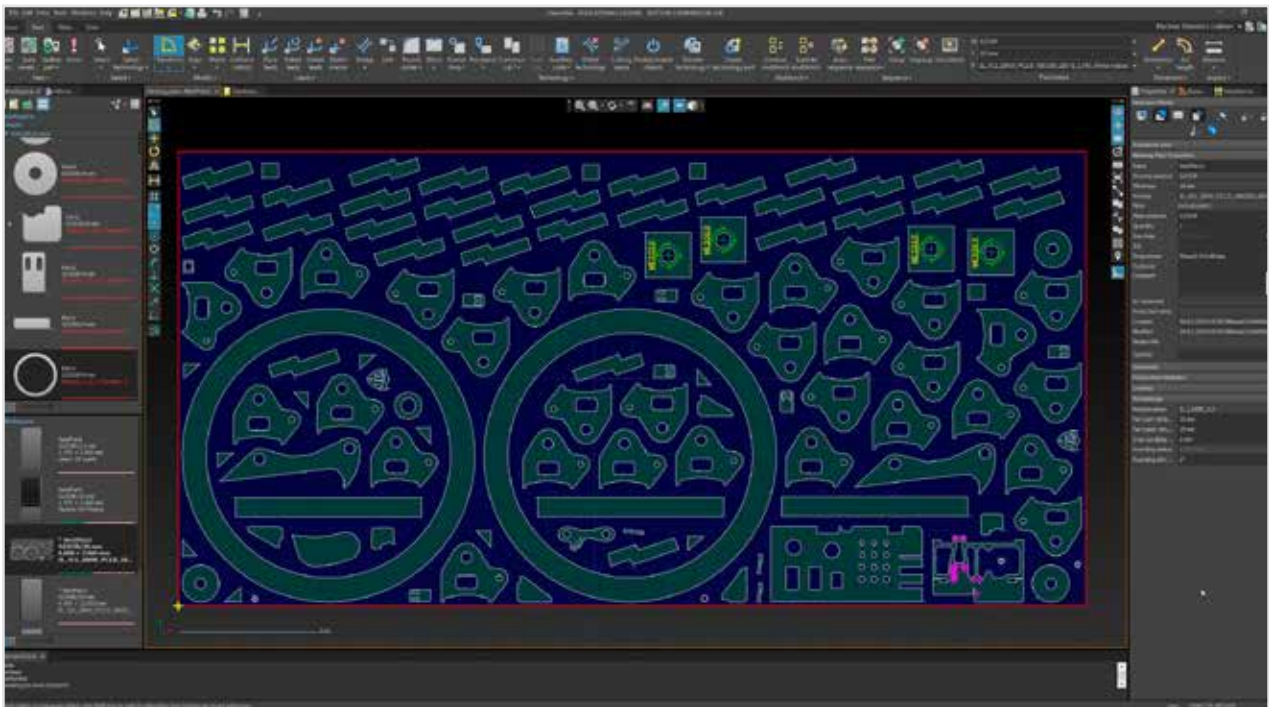


- + Draw parts, import existing drawings, create nesting plans and finally generate the NC output in one application
- + Available in numerous languages
- + Supports both the Metric (millimeter) and the Imperial system (inch)

#### EFFICIENTLY DESIGN PARTS OR PLATES



- + Dark/light mode for ergonomic working
- + Numerous positioning, drawing, modifying, grouping and labeling functions
- + Automatic dimensions to parts or plates
- + Ribbons make operation easier



## OMNIWIN STANDARD

### Simple Part Import

Import various 2D formats like dxf/dwg including automatic layer translation. Import 3D part groups, bended parts or bevel parts easily via the SolidWorks or Autodesk Inventor interface.

### Multi-Torch Nesting

Nesting for machines with multiple identical torch heads is part of OmniWin's functionality. This gives you highly optimised plans in the shortest possible time, with drastically reduced production times.

### Optimised Nesting

Select the machine profile, material, thickness and cutting process for your nesting plan. You can create the plate geometry from scratch with rectangular dimensions or take it from the database. You can nest parts from the clearly arranged work area by drag & drop with automatic spacing control.

The spacing, as well as the automatically created shape and length of the lead-ins and lead-outs, are based on the configurable technology database. Manipulation of the parts by copying, mirroring, rotating and moving with collision control is carried out with a single tool. Part and contour sequences are automatically optimised based on rules or defined manually.

#### PARTS IMPORT: SIMPLE AND RELIABLE



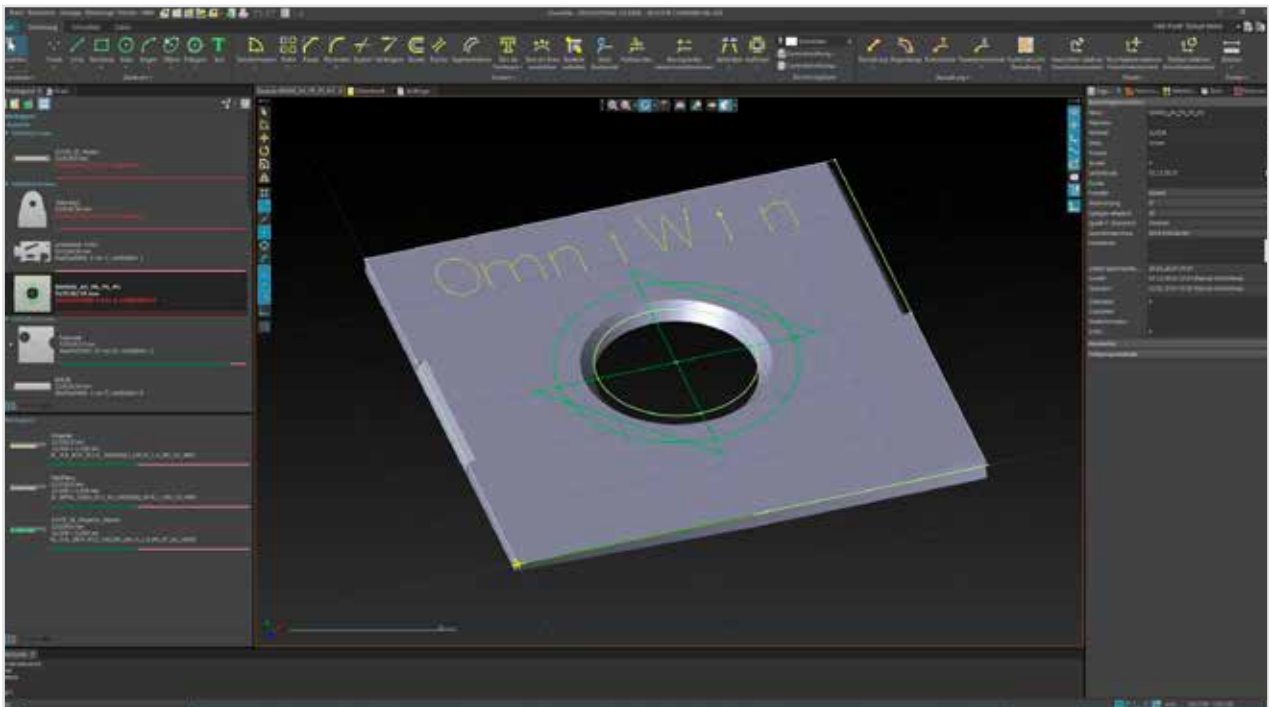
- + Import of DXF, DWG, DWF, DSTV or IGES, ESSI XML
- + Image import JPG, PNG,
- + Automatic error correction
- + Transfer of part meta data
- + Automatic layer translation
- + Compare and update part metadata

#### MULTIPLE TORCH NESTING



- + Supports machines with and without automatic carriage positioning
- + Changing of torch distances in the same plan
- + Dynamic connection and disconnection of torches
- + Automatic nesting for multiple torch heads





## OMNIWIN STANDARD

### Design Professionally

Define standard parts using numerous parameterisable macros and drawing functions for geometric shapes and labels. Use absolute and relative as well as orthogonal and polar coordinates. Convert text objects into closed contours and/or line contours or align them to circular arcs.

Extensive zoom, object snap, convert and grouping functions makes construction easy. Add dimensioning objects. Set bevel information and quality indicators on sub-contours as well as starting points per contour. Use the automatic dimensioning.

### Machine Support

The process databases for all Messer Cutting Systems machines are already included and ensure fast integration. OmniWin supports all common cutting processes such as oxyfuel, plasma and laser.

With OmniWin you can use a wide range of marking processes such as OmniScript, Rea-Inkjet, powder, laser and plasma marking. Cutting on multiple plates in a single plan is also supported.

#### INTEGRATED CAD SYSTEM

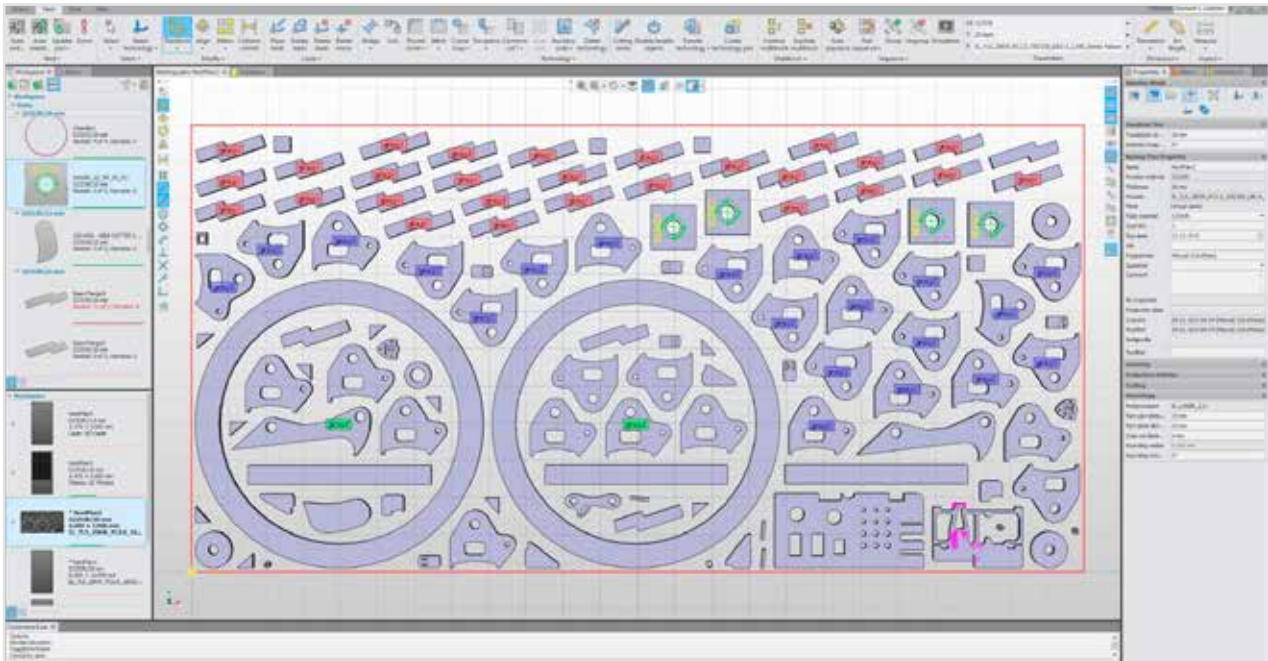


- + Error correction, nesting and generation of production data without intermediate steps in one user interface
- + Generation of NC outputs for similar machines (multi-profile support)
- + Protected zones on plates

#### EXTENSIVE CONFIGURATION OPTIONS



- + Pre-configured post-processors and machine profiles for standard machines
- + Preconfigured process databases
- + Profiles for individual configurations
- + Parallel installation with previous version and data migration from OmniWin Classic



## OMNIWIN STANDARD

### Interactive Nesting

Nest interactively while copying, moving and rotating parts or groups of parts with collision control in a nesting plan. Mirror parts, nest in a row pattern or matrix. Automatically generate leadins and leadouts matching the technology for the selected material and material thickness with precise speed control.

### Optimal Use of Space

OmniWin optimises part, inner contour and process sequence and reduces non-productive time by minimising rapid traverse moves. Up and down movements of the torch are also minimised with collision avoidance. Adjust shapes, parameters and positions of leadins and leadouts or change the cutting direction. Activate and deactivate contours or round corners automatically.

### Production Data

Configure which documents and printouts should be generated (NC Code, CSV, XML, DXF, DWG).

Configure and customize your own reports easily with the integrated report editor.

#### PROFESSIONAL TIME CALCULATION



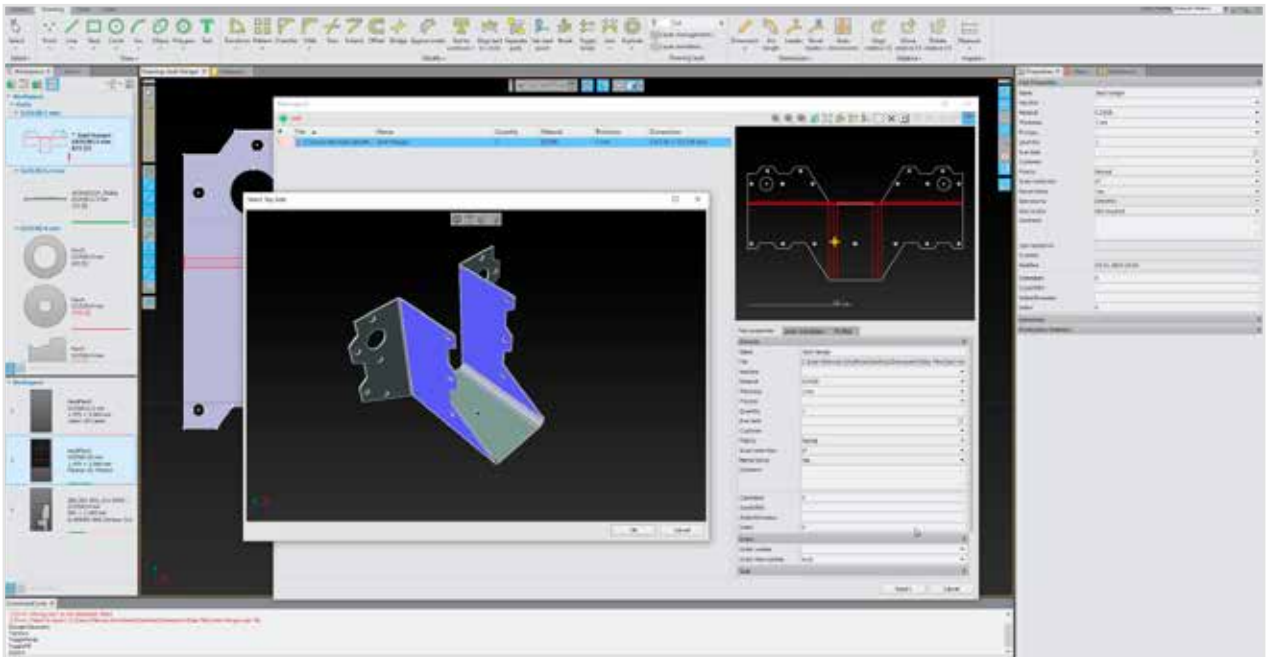
- + For straight cut parts
- + Based on geometry and the applicable process data such as cutting time, piercing time, machine specific times like rapid traverse and activation time
- + With material, personnel and process costs, depending on cutting time

#### PROFESSIONAL PRODUCTION DATABASE



- + Manage parts, drawings, customers, rectangular panels, combined parts and nesting plans
- + Easy retrieval of objects and sorting of result lists
- + Single-user or network license
- + Based on Microsoft SQL Server





## EDITIONS

### OmniWin Enhanced

In addition to the OmniWin Standard Edition, two other editions are available: OmniWin Enhanced and OmniWin Professional. Both extend the Standard Edition with different functionalities.

Autonest automatically nests parts with minimal time and maximises material utilisation under a wide range of conditions in your production.

OmniWin Enhanced gives you the ability to enter, manage and track orders.

Import your geometries directly from the files of the most popular 3D design tools such as SolidEdge, Autodesk Inventor and many others with the 3D import integrated in OmniWin Enhanced.

### OmniWin Professional

The OmniWin Professional edition convinces with numerous additional technology functions.

Single and multiple stitches as well as scrap cut selection are just as possible as pre-piercing or any remnant material geometries. Stone mold cutting is also included in the range of functions.

Achieve the best utilisation of Messer Cutting Systems laser machines with specialised leadin and leadout technologies and laser-specific stitches.

#### AUTOMATIC NESTING & ORDER FUNCTION

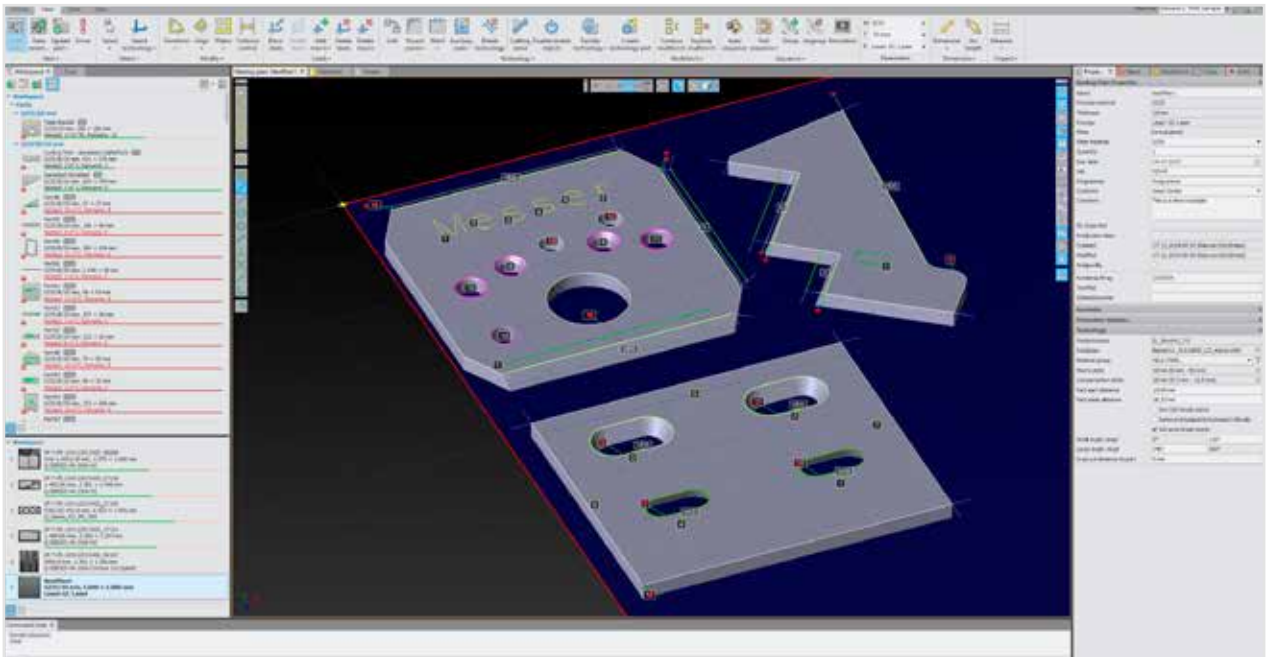


- + Import of 3D parts including unfolding and bend line visualisation
- + Including Autonest, the program for automatic nesting
- + Order entry and management with order tracking function

#### TECHNOLOGY FUNCTIONS IN OMNIWIN PROFESSIONAL



- + Bridges, also crossed
- + Rounded connections
- + Common cuts and corner grinding
- + Any remnant plate geometries
- + Not only rectangular plates



## OPTION PACKAGE

### Bevel

Our Option Bevel adds support for fully integrated nesting of beveled parts to your OmniWin Edition. You nest, create reports and production data, manage and store parts, plates and plans in the database.

The Bevel option uses the OmniWin nesting functions of the respective edition except for the technology and costing of the standard nesting plans for vertical parts.

The technology databases and post-processors used are almost identical to OmniBevel.

## OPTION PACKAGE

### Boiler End

Option Package Boiler End enables the processing of dished ends according to DIN28011 and DIN 28013. Specially developed for the Skew Rotator Infinity and designed for the requirements of tank and apparatus construction, you cut cylindrical pipe penetrations with or without additional VDS bevels.

You mark lines in the X/Y plane projected onto the domed base or use penetration projections of round cylinders to the ground

Available in addition to option package Bevel.

#### BEVEL PARTS AT THEIR BEST

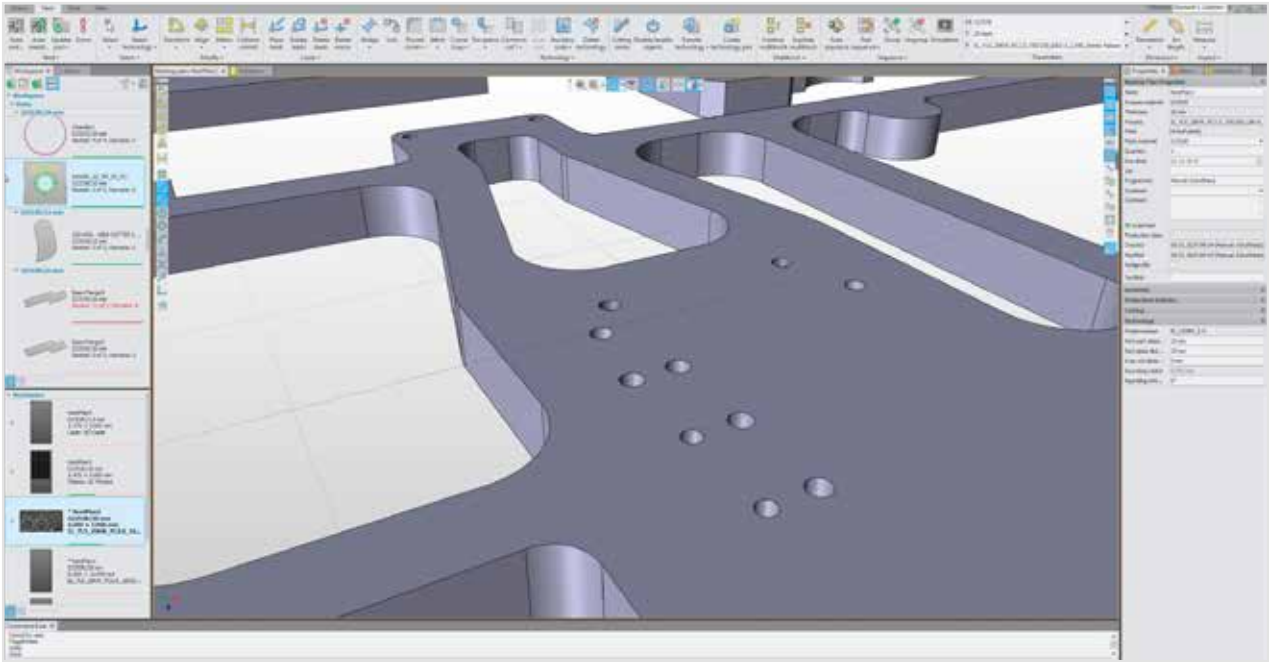


- + Fully integrated bevel cutting
- + Integrated time calculation ensures predictability of your bevel nesting plans
- + Based on the proven OmniBevel post-processors and process databases

#### MACHINING DISHED ENDS



- + IParametric creation of piercings through dished heads
- + Generation of NC code for MCS plasma bevelling machines with support of dished heads



## OPTION PACKAGE

### Drill

With the Drill option, you import and create all drilling operations supported by the machine. You can view and check drillings with the 3D visualisation. The integrated post-processors with drilling support the optimum NC programs

Import and create all drilling operations by the supported drilling operations. Define your tools in the integrated tool database.

You can display and check drill holes with the 3D visualisation. Numerous sequencing options and tools minimise the number of tool changes. The integrated post-processors with drilling support provide the required machine output.

## OPTION PACKAGE

### Unfold

The option package Unfold offers a wide integrated range of 3D geometries for tubes, transitions and joints with multiple technology functions for subsequent machining on a bending or rolling machine.

#### PRODUCT OPTION DRILL



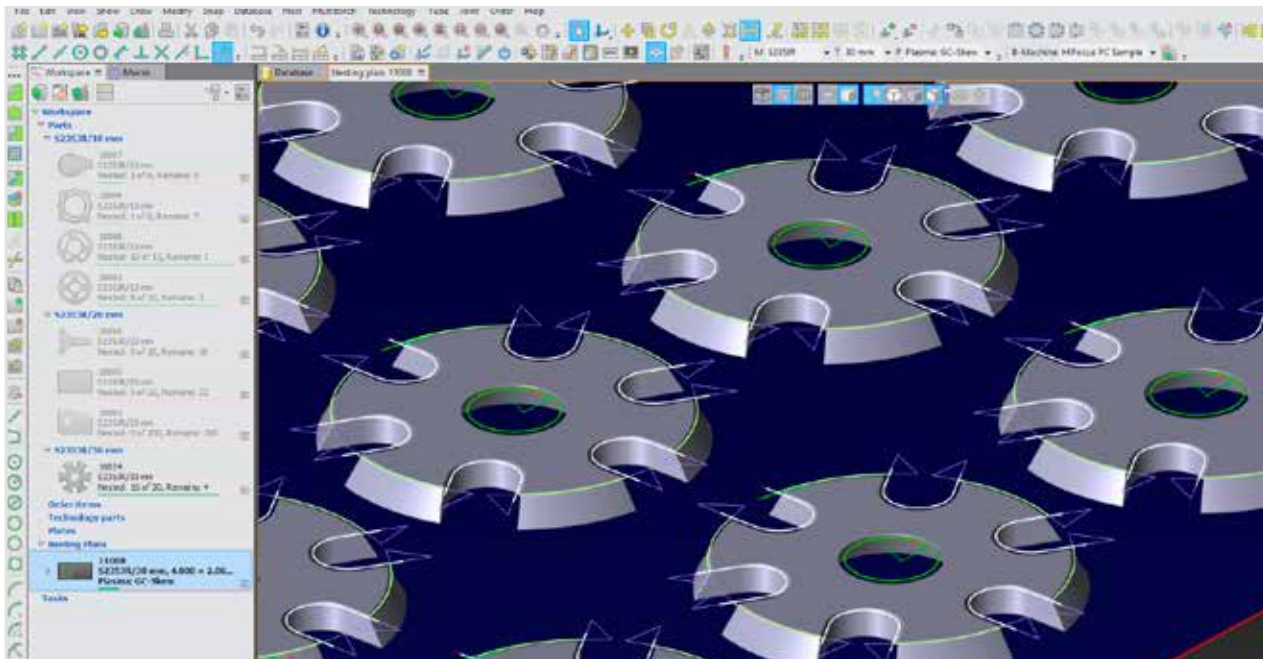
- + Integrated drill tool database
- + Draw drill points
- + Holes, countersink, tapping, deep hole drilling, bore hole cutting
- + Post-processor support for drilling operations

#### FOR BENDING AND ROLLING MACHINES



- + Unbending of three-dimensional bodies into flat, sheet-metal parts
- + Variety of geometric bodies typical for apparatus and vessel construction
- + Sorting of geometries according to criteria in categories and subcategories





# OMNIWIN 2025 SYSTEM REQUIREMENTS

## Hardware requirements:

- + 16 GB RAM, 20 GB hard disk space, 2 GHz CPU with 4 cores.
- + Screen resolution at least 1280 x 960 pixels, recommended 1680 x 1050 pixels or more
- + Graphics card supporting OpenGL 1.1 or higher without shared memory
- + USB port for local software protection dongle or network access to a license server

## Supported operating systems:

- + Windows 10/11 64 bit

## Software requirements:

- + Microsoft Edge
- + Microsoft .NET Framework 4.8
- + Microsoft Access Database Engine 2016
- + Microsoft Visual C++ 2015-2022 Redistributable (x86) (vc\_redist.x86.exe)
- + Microsoft SQL Server 2017 LocalDB or higher
- + Microsoft SQL Server 2012 Native Client

## OMNIWIN 2025

		Standard	Enhanced	Professional
CAD	Professional CAD Part and Plate Creation	X	X	X
	3-D Visual Rendering of parts and plates	X	X	X
	Standard Shapes Library	X	X	X
	Text conversion for Cut-outs or Marking tasks	X	X	X
	CAD Import - DXF, DWG, IGES, DSTV	X	X	X
	Import of SolidWorks* Part (SLDPRT) and Assembly (SLDAMP), Import of Autodesk Inventor* parts and assemblies	X	X	X
	Import of 3D drawing formats** (STEP, SolidEdge, and others)		X	X
	Read and Translate Administration Data	X	X	X
	Import of images in BMP, JPG, PNG or TIF file formats	X	X	X
	Import of nesting plans as DXF i.e. Auto Desk TRUNEST	X	X	X
	Reverse import of CNC files to DXF	X	X	X
	Automatic dimensioning of parts and plates	X	X	X
	CAD & nesting	MS SQL Database for Parts, Nestings, Plates, Profiles and Machines	X	X
Fast Reports® Creator for professional reports		X	X	X
Professional designed workspace		X	X	X
Short Cut Keys		X	X	X
Extensive dimensioning		X	X	X
Extensive Snap Modes		X	X	X
Manipulator Tool for rotation, copy, move and mirror		X	X	X
Nesting	Process Database	X	X	X
	Messer Hole Technology supports True Hole® or Contour Cut	X	X	X
	Production Time Estimation	X	X	X
	Costing	X	X	X
	Automatic Lead-in/out with Customization	X	X	X
	Cut Plan Simulator	X	X	X
	Interactive nesting (Row and Column, Pattern Matrix) with Single or Multi-Torch	X	X	X
	Collision Avoidance	X	X	X
	Process Optimization	X	X	X
	Modify Part, Interior Profile or Marking Sequence	X	X	X
	Technology Parts	X	X	X
	Manual Crop Cut	X	X	X
	Work Order Processing with Order Database		X	X
	Automatic Nesting		X	X
	Excel import of parts, order items and plates			X
	Stone Mold Cutting			X
	Stitches, Bridges, Common Cut, Corner Loops, Chain Cut, Automatic Corner Rounding			X
	Skeleton Cut Up			X
	Pre-Piercing and Pre-drilling (Option Drill required)			X
	Remnant Plate Creation with Auto Crop Cut			X

\* A SolidWorks license required with installation on the same PC

\* An Autocad Inventor or viewer required with installation on the same PC.

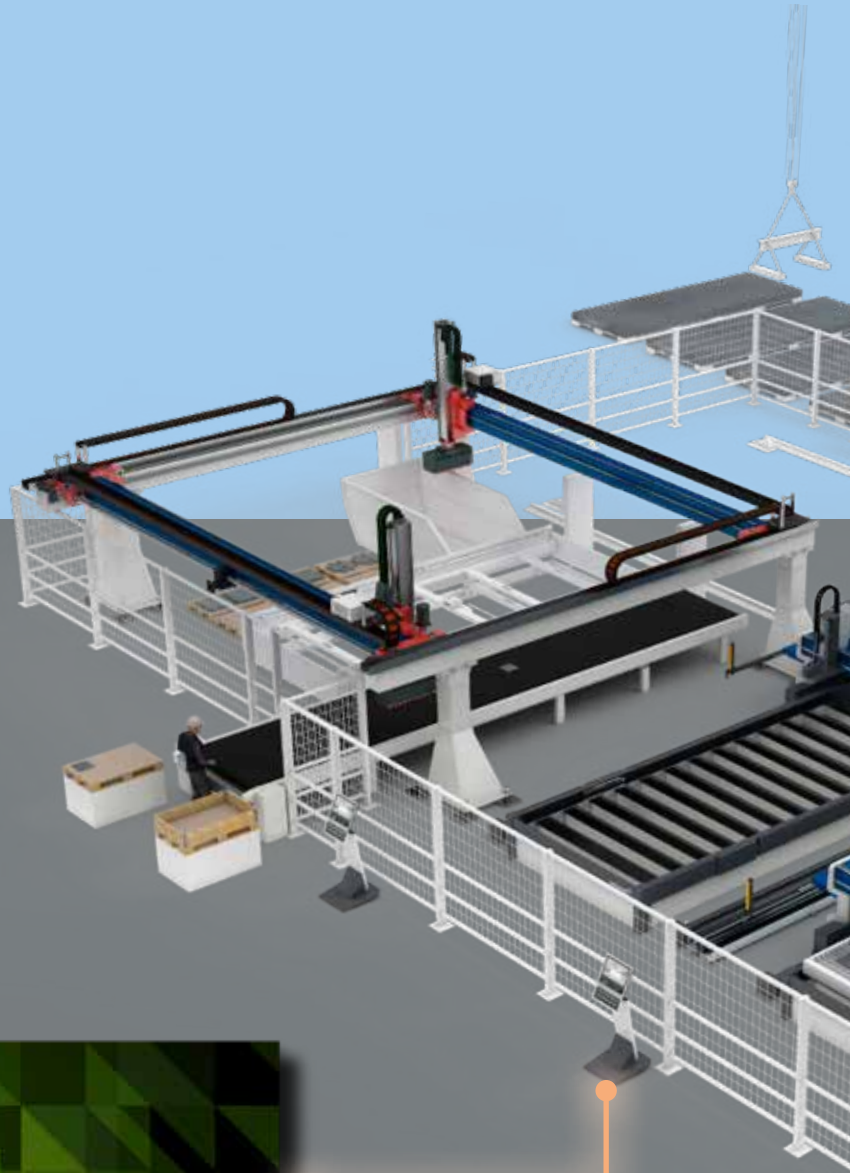
\*\* Please use the QR code for the current list of supported import formats.



## DIGITAL WORKFLOW

# DIGITIZE YOUR PRODUCTION

The digital solutions perfectly complement the holistic range of products, automation, services and know-how.



SALES QUOTES

JOB MANAGEMENT

ADVANCED PLANNING & SCHEDULING

MATERIAL FLOW

PRODUCTION DATA CAPTURE

ERP CONNECT

MACHINE INSIGHT



OMNIFAB

## Software Suite for your digital transformation

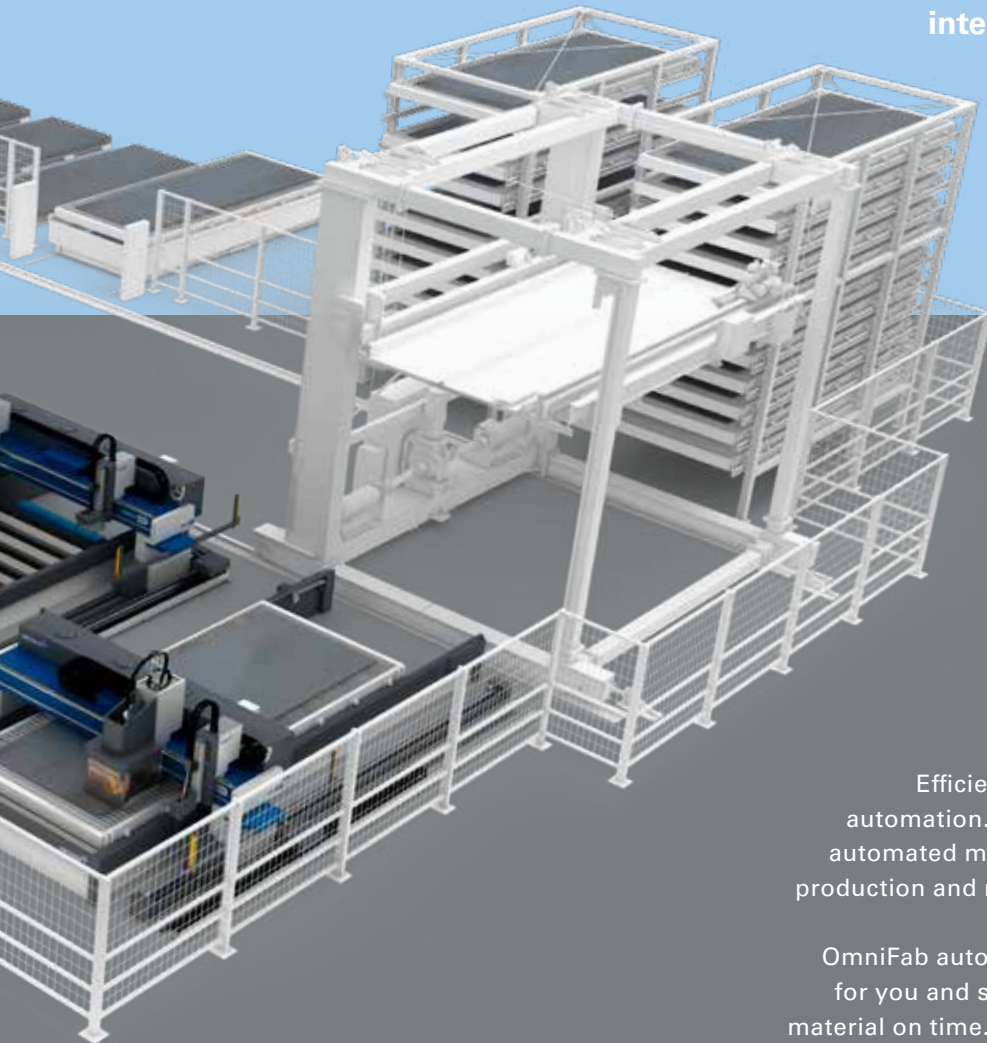
OmniFab is the modular software suite that accompanies companies in the cutting technology on their way to digital transformation. With the OmniFab Suite, you can optimize quotation creation and master production planning, control and monitoring. By using "refined" data, OmniFab provides contextual information that creates real added value.



COMPLETE INTEGRATION

## Modular Portfolio

Machine and software from a single source: discover our digital information and process technologies combined with intelligent automation solutions.



Efficiency and productivity are the focus of automation. Combine your machines with IT and automated material handling systems to speed up production and minimize errors. Make optimal use of your machines 24/7.

OmniFab automatically controls your material flow for you and supplies your machines with the right material on time. Integrate material handling systems such as loading and unloading stations, storage towers, sorting systems and transport units.



OMNIWIN

## Ideal for work preparation

The powerful, easy-to-use CAD and nesting software that saves time, materials and costs.

OmniWin is the ideal tool for work preparation when cutting with oxyfuel, plasma and laser. It takes on all the cutting tasks that arise, tailored to the order-related production with CNC-controlled cutting machines.



# CREATING SOLUTIONS BEYOND MACHINES

## WHAT WE STAND FOR

### PRODUCT

Messer Cutting Systems is a global supplier of cutting-edge technology for the metalworking industry. With almost 1.000 employees worldwide in over 50 countries, we maintain a constant dialogue with our customers to achieve sustainable user-oriented innovation.

### AUTOMATION

### DIGITAL

### SERVICES

### KNOW-HOW

Our portfolio embraces the themes PRODUCT, DIGITAL, SERVICES, AUTOMATION and KNOW-HOW. We will live up to our claim "Creating Solutions Beyond Machines" not just with the most modern cutting systems and solutions for oxyfuel technology.

Appropriate services and training, our own software applications as well as the integration of solutions from our technology partners, e. g. in the field of automation, complete the machine to give forward looking total solutions.

Our Know-how combined with our customer-oriented attitude and actions make us the world-wide partner of choice for innovative total solutions on all aspects of cutting systems for over 125 years.

## Messer Cutting Systems GmbH

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