

OMNIWIN 2024 CAD/CAM SOFTWARE

CAD/CAM on professional level



OMNIWIN 2024

CAD/CAM ON PROFESSIONAL LEVEL

Simple, effective and fast constructing and nesting.

OmniWin is a simple, clear and fast designing 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.

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.

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®, Contour Cut, Q Hole or Silent Cut.

OmniWin 2024

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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.

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

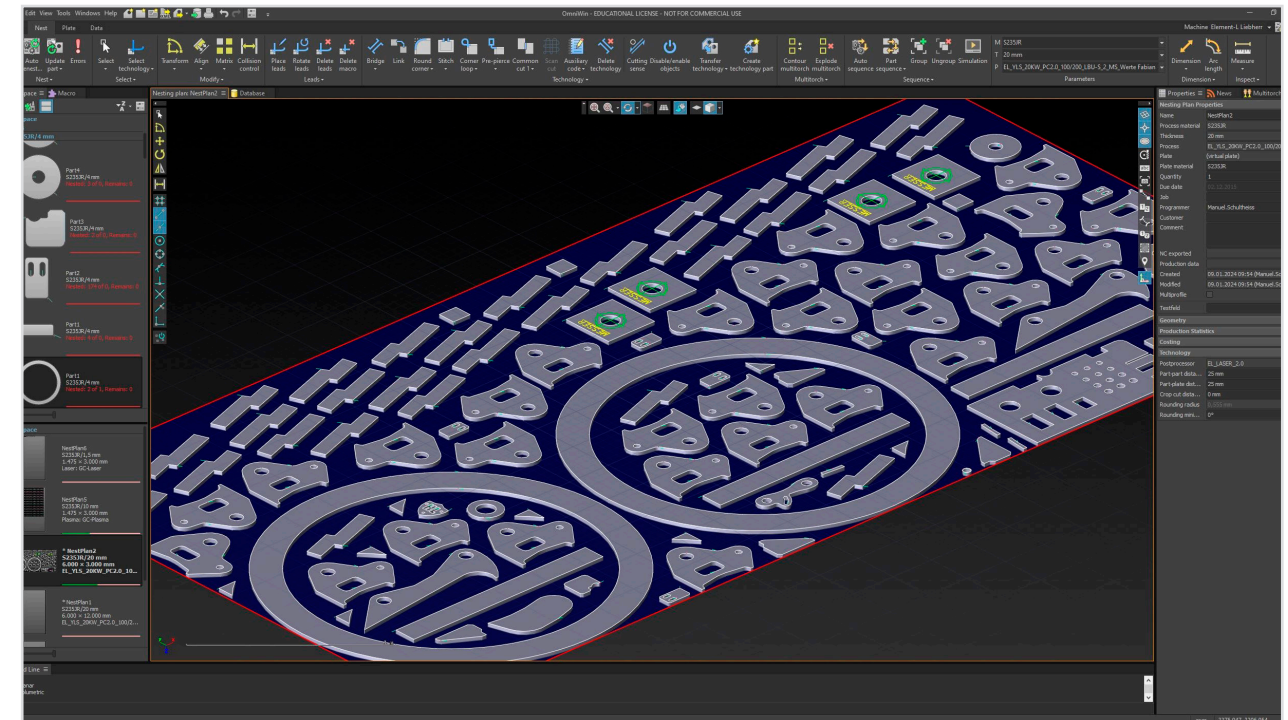
OMNIWIN 2024

READY FOR

INDUSTRY 4.0

WHAT'S NEW IN OMNIWIN 2024?

- + Extension and revision of the 3D import: STEP, Autodesk Inventor, Dassault Systèmes CATIA, Siemens SolidEdge, NX and Parasolid, Rhinoceros 3D
- + Dark mode for ergonomic working
- + Improved selection mode within nesting plans
- + Marking of remnant plates
- + Copying of nesting plans
- + DXF export of customised fields



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 2024 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

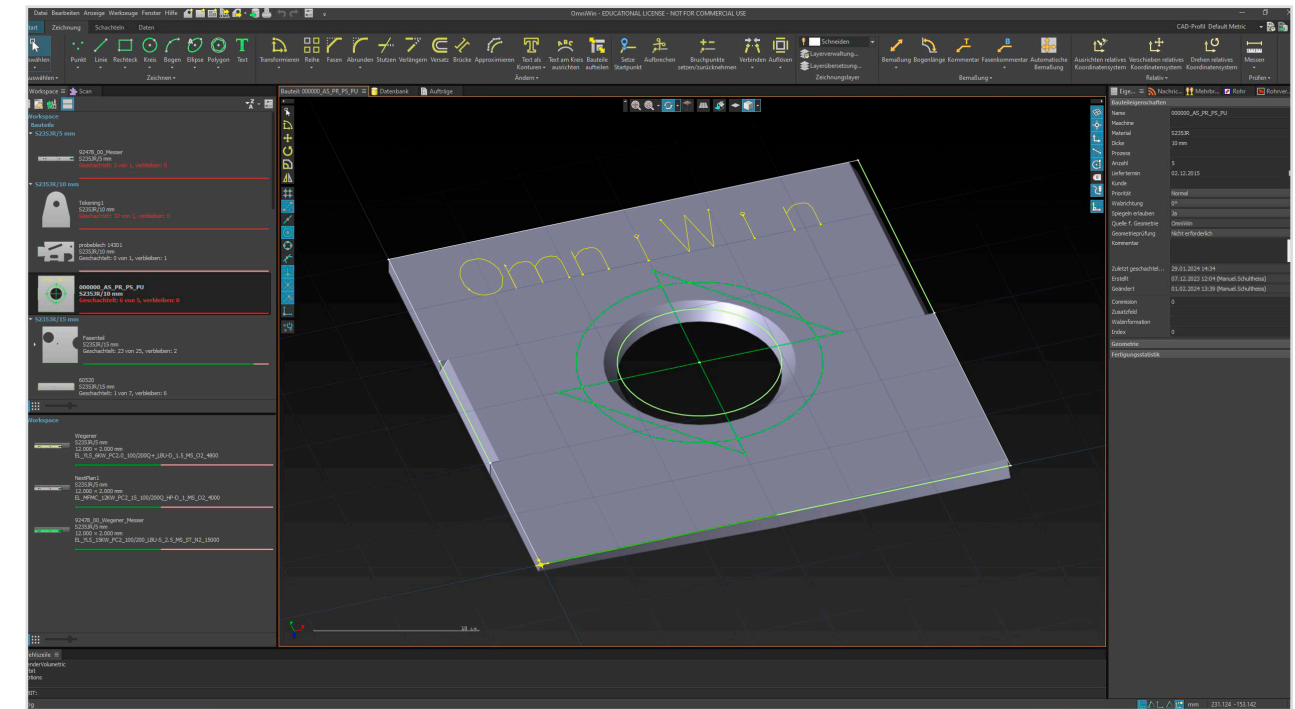
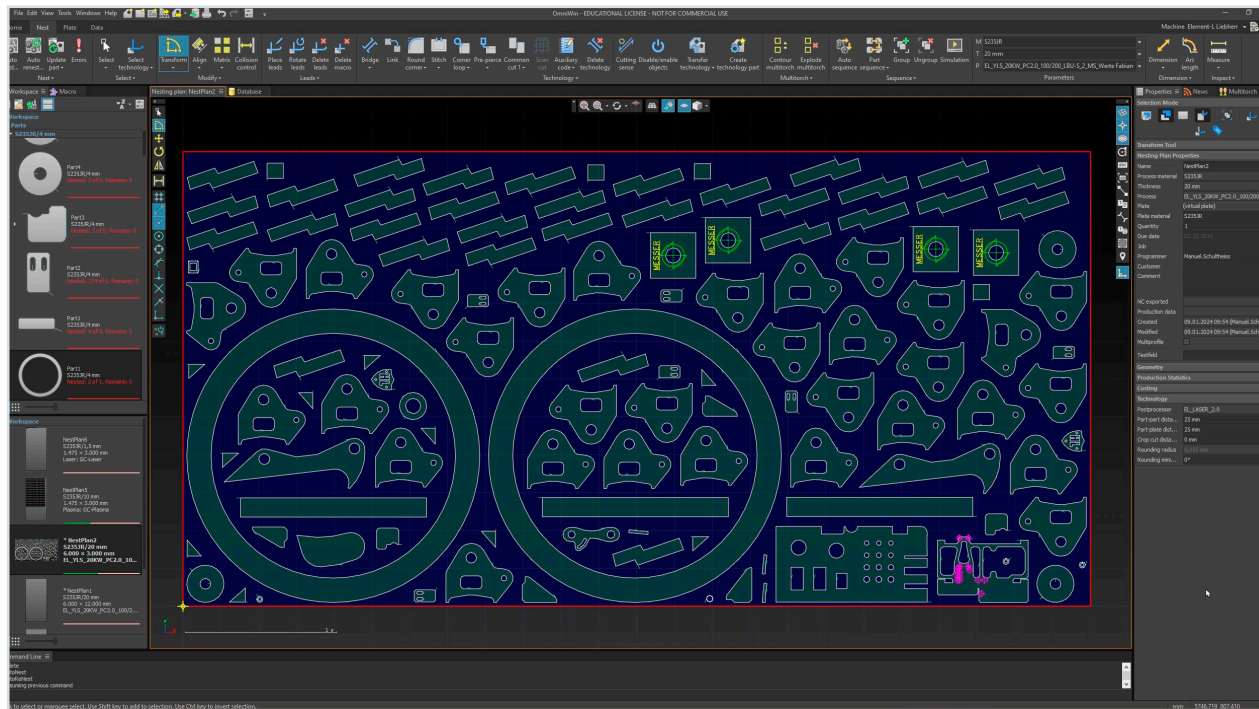


- + Draw parts, import existing drawings, create nesting plans and finally generate the NC output in one application
- + Available in numerous languages
- + Supports both the Metric (millimeter) and the Imperial system (inch)

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 3D parts and 2D part groups easily via the SolidWorks or Autodesk Inventor interface. Transfer the technologies of nested parts to identical parts. Messer Hole Technology can be applied to small internal contours during plasma cutting. This optimises the cutting quality.

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.

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.

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

INTEGRATED CAD SYSTEM

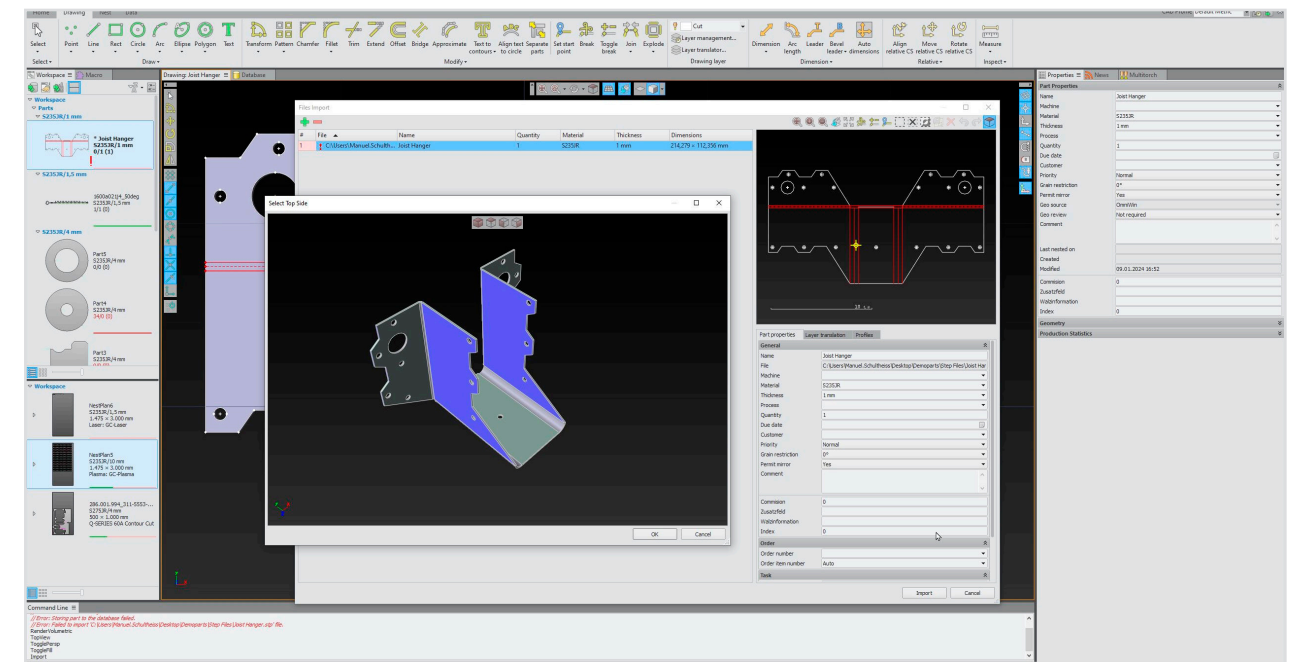
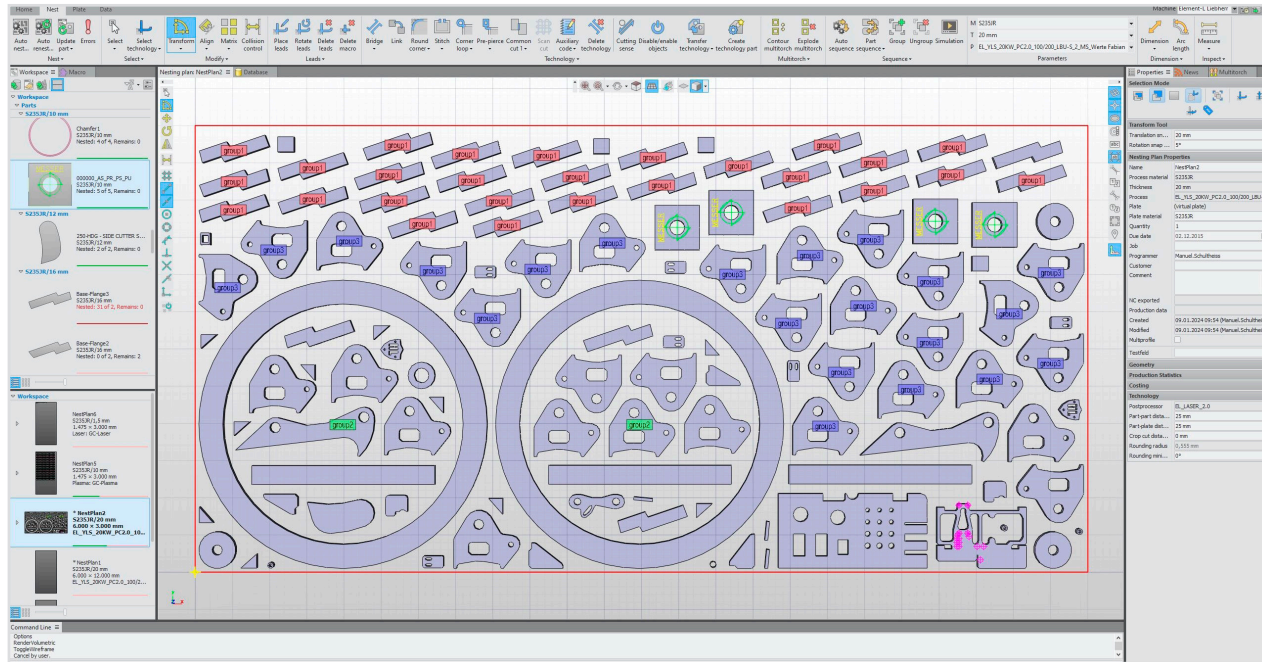


- + Error correction, nesting and generation of production data without intermediate steps in one user interface
- + Generation of NC outputs for similar machines (multi-profile support)
- + Protected zones on plates

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 lead-ins and lead-outs 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 lead-ins and lead-outs or change the cutting direction. Activate and deactivate contours or round corners automatically.

Production Data

Maintain an overview with the individually configurable preview of NC programs and the export of NC part programs. Define machine profile-based settings of storage locations for production data. Work with pre-configured reports for parts and nesting plans.

Configure automatic printing of shop floor papers. Customise the supplied reports with the integrated report editor or create your own new reports.

EDITIONEN

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 cut-in and cut-out technologies and laser-specific stitches.

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

AUTOMATIC NESTING & ORDER FUNCTION

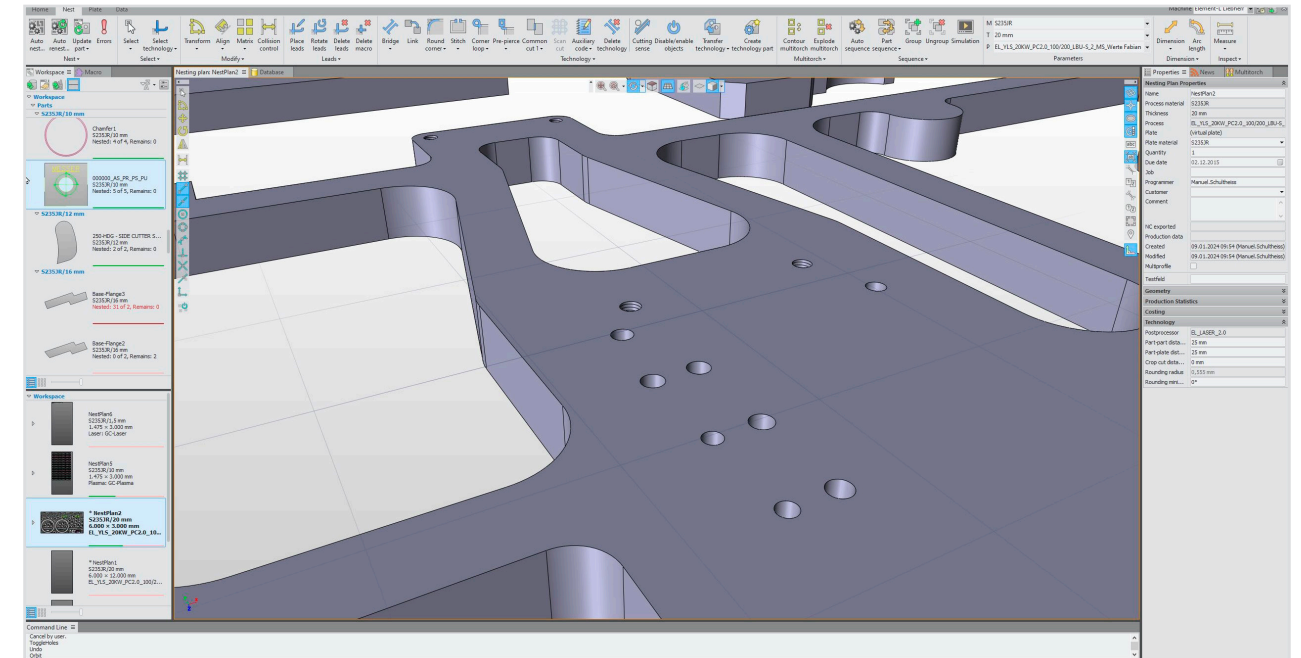
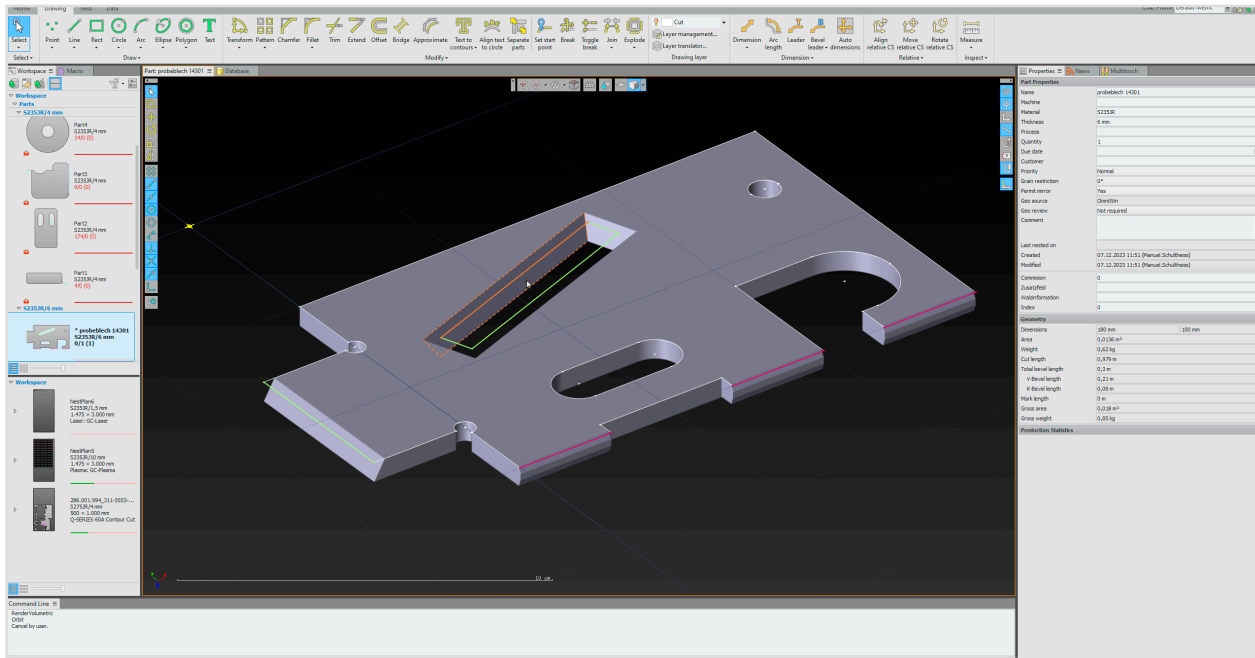


- + Import of 3D parts including unfolding and bend line visualisation
- + Including Autonest, the program for automatic nesting
- + Order entry and management with order tracking function

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.

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 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.

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

PRODUCT OPTION DRILL

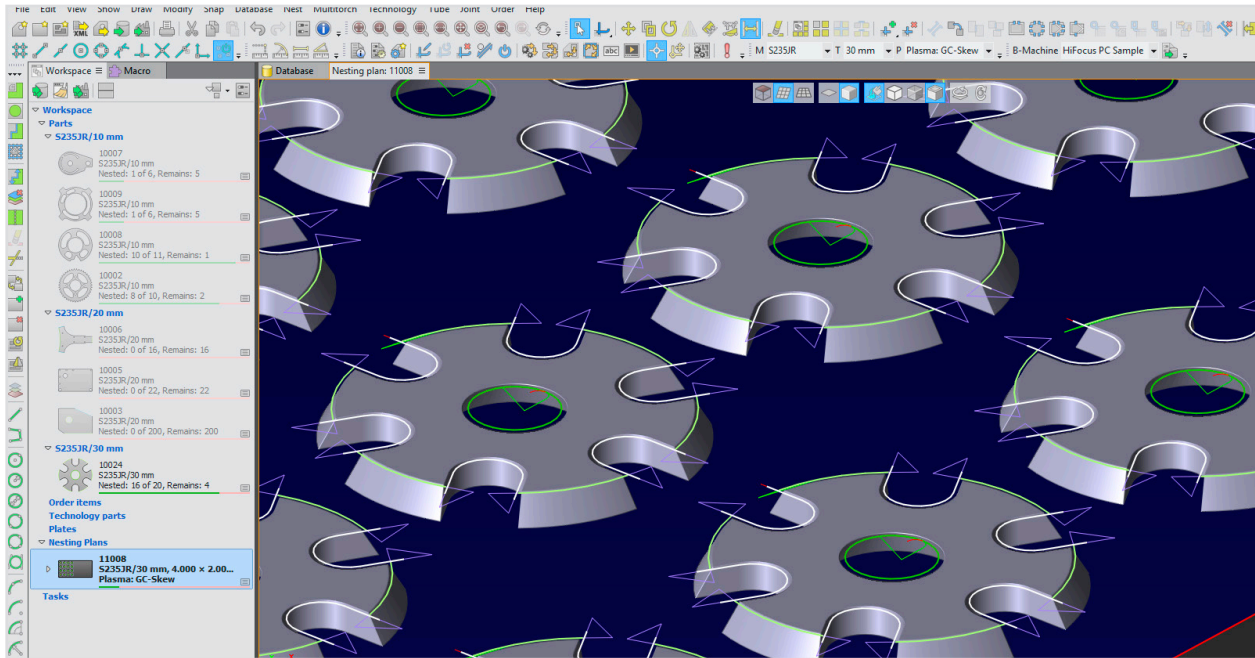


- + Integrated drill tool database
- + Draw drill points
- + Holes, countersink, tapping, deep hole drilling, bore hole cutting
- + Post-processor support for drilling operations

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 2024 SYSTEM REQUIREMENTS

Hardware requirements:

- + 8 GB RAM, 4 GB hard disk space, 2 GHz CPU with 2 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 64 bit as well as Windows 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 2024

	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	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
Nesting	Manipulator Tool for rotation, copy, move and mirror	X	X	X
	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.

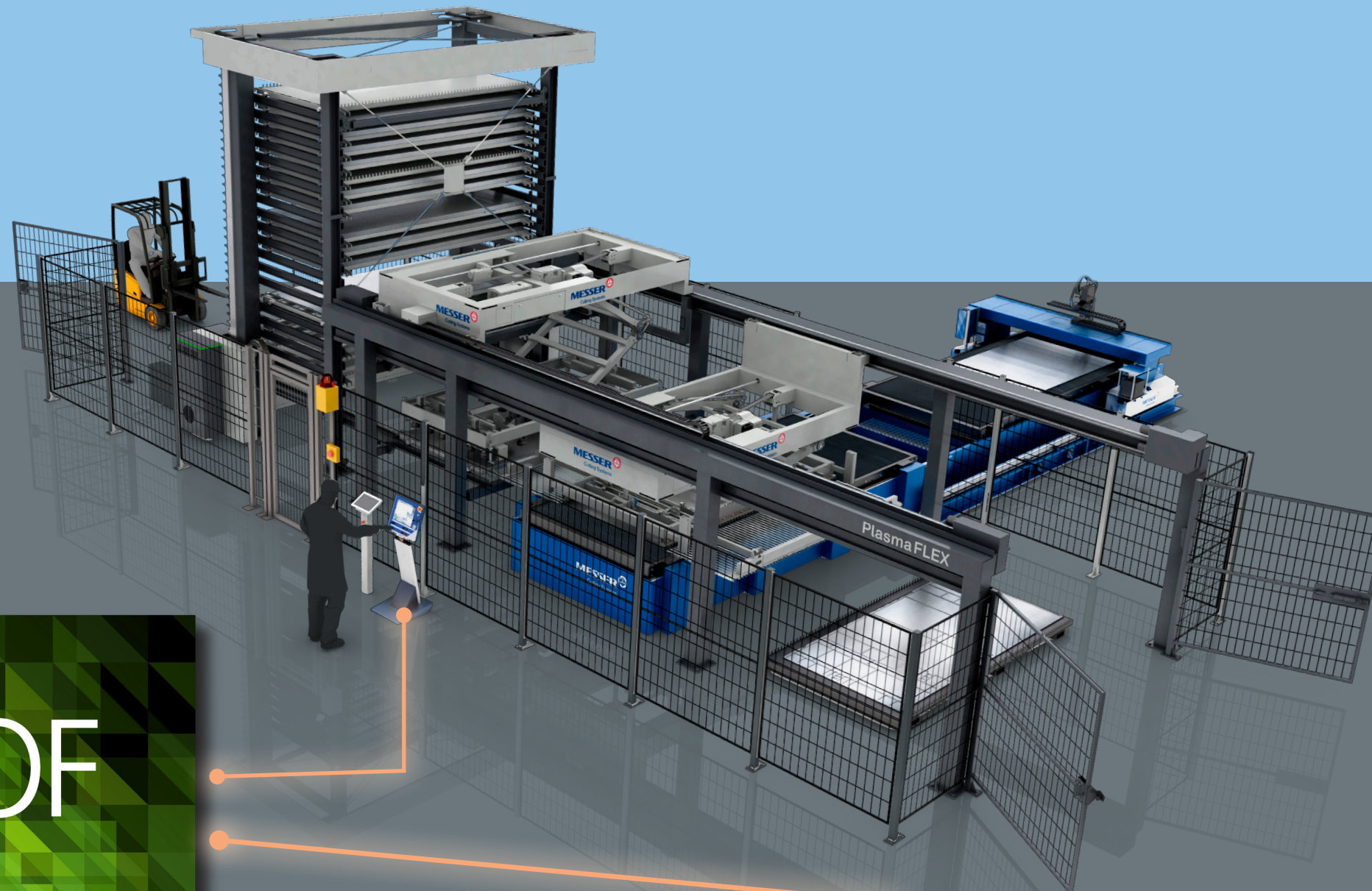
** Please use the QR code for the current list of supported import formats.



DIGITAL WORKFLOW

DIGITIZE YOUR PRODUCTION

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



COMPLETE INTEGRATION

Modular Portfolio

Our modular software portfolio integrates your cutting machines in the best possible way into your business and production processes supporting key functions throughout the entire workflow.

ERP CONNECT

SALES QUOTES

JOB MANAGEMENT

MATERIAL FLOW

PRODUCTION DATA CAPTURE

MACHINE INSIGHT



OMNIFAB

Software Suite for your digital transformation

The OmniFab software suite integrates Messer Cutting Systems' mechanical engineering technology into business processes in a holistic and process oriented manner.

It provides relevant information for work preparation, production planning and plant management by connecting all systems. OmniFab also integrates material handling systems like loading/unloading stations, towers, material transportation devices and more – even on mobile devices.



OMNIWIN

Ideal for work preparation

The powerful, easy to use designing and nesting software that saves time, material and costs.

OmniWin is the ideal tool for work preparation in oxyfuel, plasma and laser cutting.

It takes over all cutting tasks for order-based production with CNC-controlled cutting machines.



CREATING SOLUTIONS BEYOND MACHINES

WHAT WE STAND FOR



PRODUCT



AUTOMATION



DIGITAL



SERVICES



KNOW-HOW

The entry into digitalisation traditionally takes place via work preparation with OmniWin and OmniBevel for CAD/CAM, nesting and beveling. Our solution becomes holistic with the OmniFab Suite as digital support for operators, production managers, process analysts, service technicians and management. Messer machines and software from MesserSoft thus ensure the perfect entry into Industry 4.0.

There is perfect information management from the part design through the creation of nesting plans, the transfer of plans to the machine and finally the cutting of the parts. This guarantees efficient working with the highest quality standards both in engineering and plant construction as well as in production against orders in contract cutting factories.

Innovations at MesserSoft are always developed in close cooperation with our customers. This leads to truly relevant products and services. For the benefit of our customers. Today and in the future.

MesserSoft develops and distributes software for the integration of Messer engineering technology into business and technical processes for customers worldwide. MesserSoft is a company of Messer Cutting Systems and part of MEC Holding.

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THE MESSER
EXPERIENCE

