

OMNIWIN 2023 CAD/CAM SOFTWARE

Professional Designing and Nesting



OMNIWIN 2023

DESIGN AND NESTING FOR NUMEROUS TASKS

SPEED UP AND SIMPLIFY PROCESSES

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

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.



NETWORKED WORKING

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

HIGHEST CUT QUALITY GUARANTEED

With OmniWin you nest your parts in an extremely material-saving manner. 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.

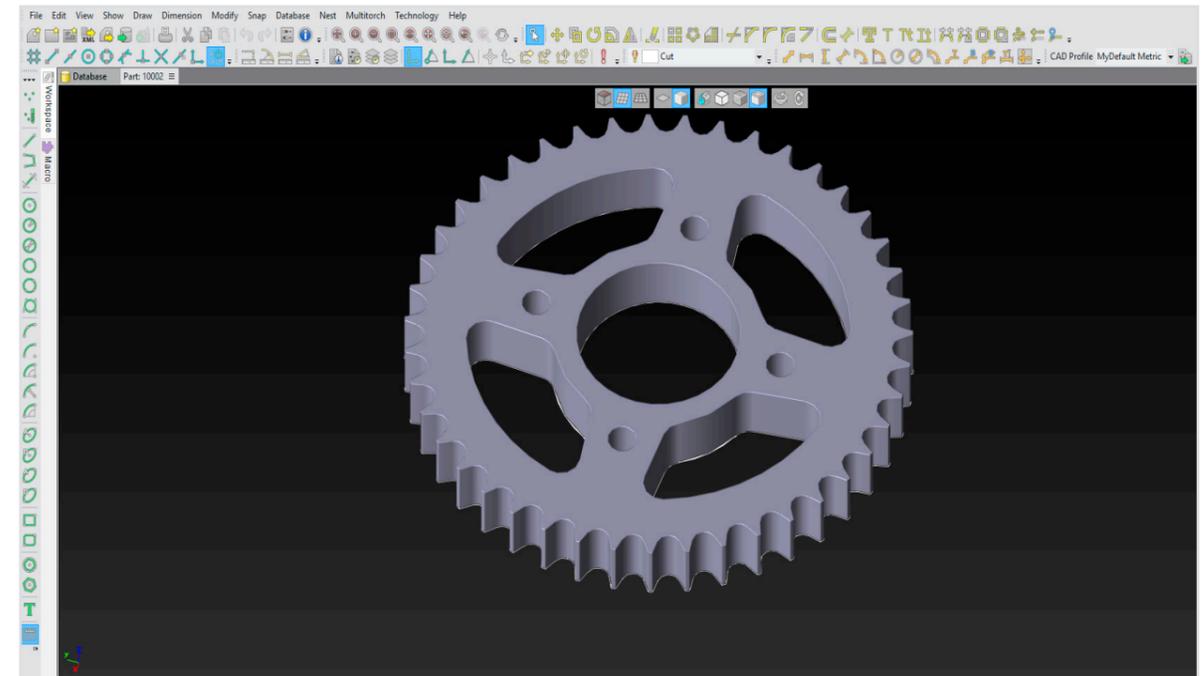
Simple, effective and fast constructing and nesting

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.

INDUSTRY 4.0

OMNIWIN 2023

READY FOR INDUSTRY 4.0



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 2023 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.

The process databases for all Messer machines are already supplied and ensure fast integration and minimum downtimes.

USER INTERFACE

Intuitive Design

The practical user interface with its extensive functionalities is intuitive to operate in daily use. Create components or plates easily and quickly. Standard parts can be created in seconds using macros with variable parameters.

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

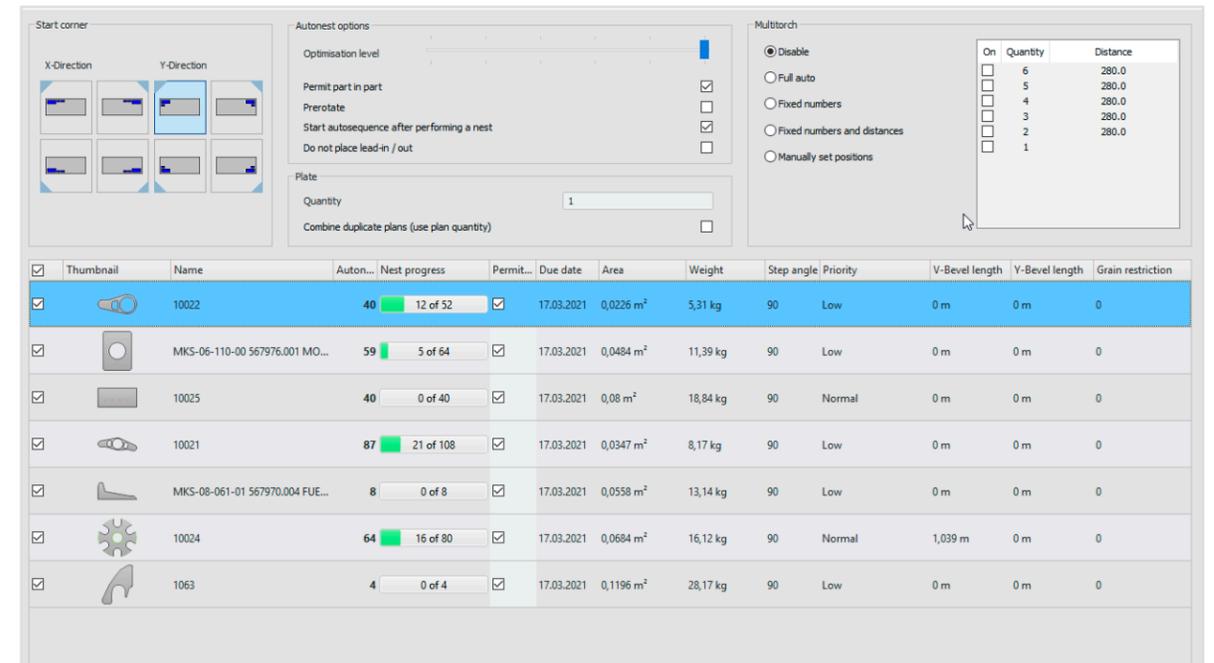
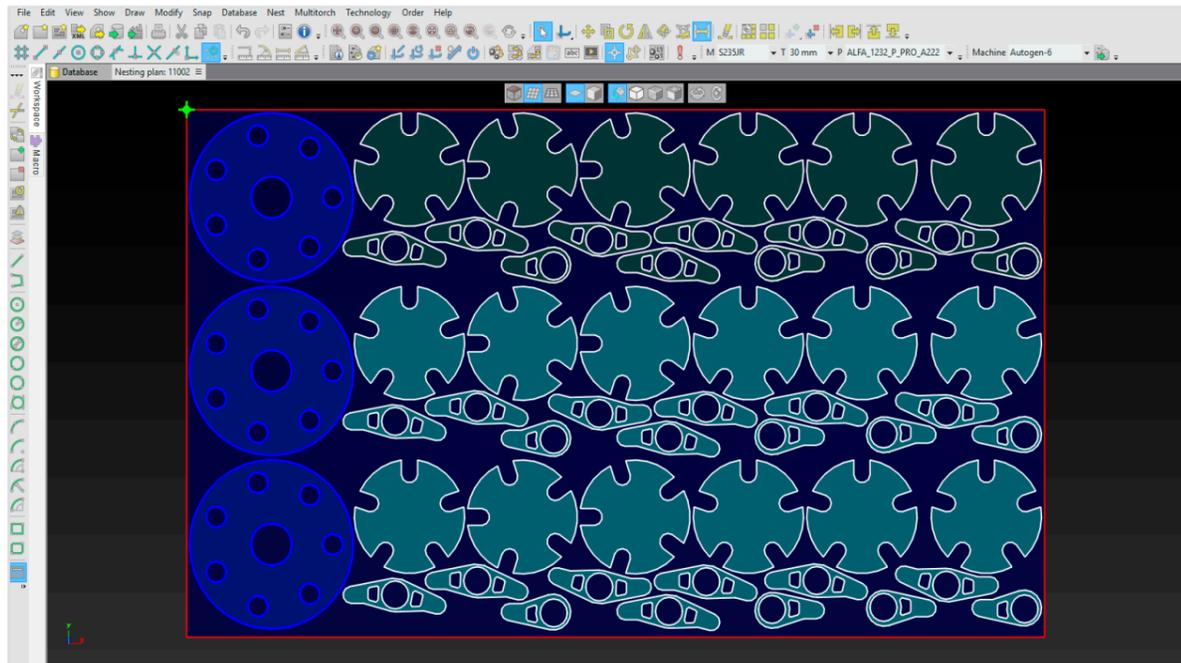


- + Draw parts, import existing drawings, create nesting plans and finally generate the NC output in one application
- + User interface available in numerous languages
- + Supports both the Metric (millimeter) and the Imperial system (inch)

EFFICIENTLY DESIGN COMPONENTS OR PLATES



- + 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 components 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 components by copying, mirroring, rotating and moving with collision control is carried out with a single tool. Component and contour sequences are automatically optimised based on rules or defined manually.

OMNIWIN STANDARD

Design Professionally

Define standard components 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. This minimises your downtimes. 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. Multiple plate supports on one machine are also supported.

PARTS IMPORT:
SIMPLE AND RELIABLE



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

MULTIPLE TORCH NESTING
WITH IDENTICAL CUTTING
HEADS



- + 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



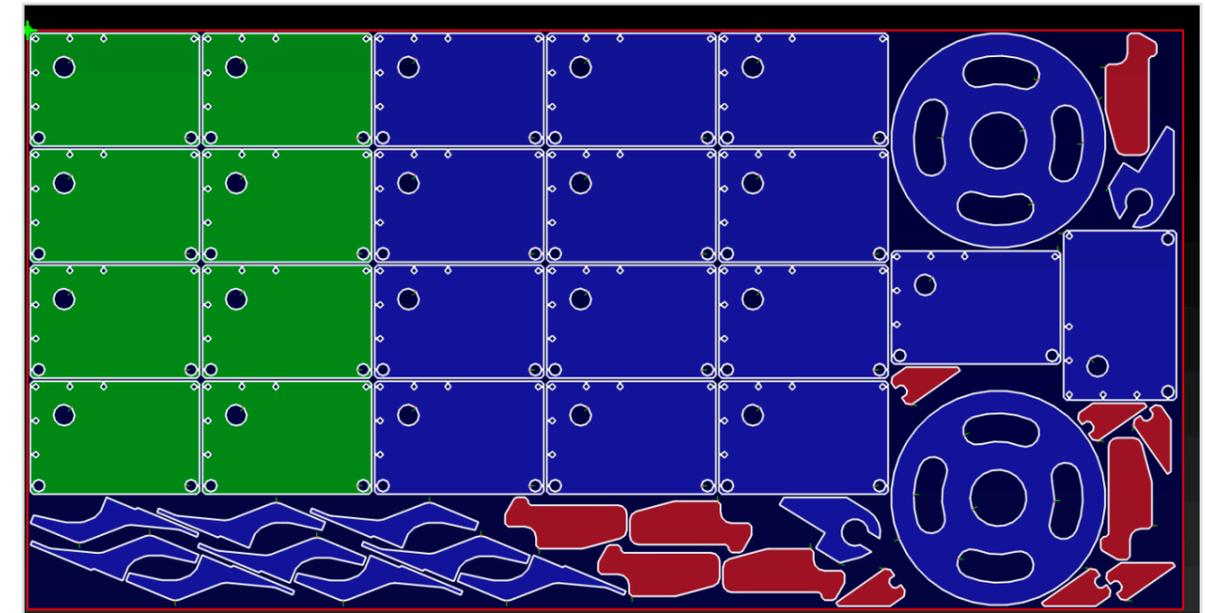
- + Error correction, nesting and generation of production data without intermediate steps in one user interface
- + Generation of NC outputs for similar machines (multi-profile support)
- + Protected zones on plates

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

Thumbnail	Name	Material / thickness	Status with progress	Status	Length	Width	Due date
	10952-1	S235JR / 20 mm	3 of 100	Overdue	2.866 mm	856 mm	22.04.2020
	1061	S235JR / 20 mm	6 of 48	Partly nested	2.425 mm	2.100 mm	17.06.2020
	1058	S235JR / 20 mm	Not nested	Not nested	1.688 mm	1.688 mm	08.06.2020
	1051	S235JR / 20 mm	10 of 48	Overdue	1.168,138 mm	1.168,135 mm	24.04.2020
	1003	S235JR / 20 mm	16 of 48	Overdue	960,002 mm	720,001 mm	24.04.2020
	1050	S235JR / 20 mm	9 of 48	Overdue	845 mm	669,103 mm	24.04.2020
	1028	S235JR / 20 mm	3 of 48	Overdue	800 mm	450 mm	24.04.2020
	2610102	S235JR / 20 mm	Not nested	Not nested	800 mm	800 mm	
	1042	S235JR / 20 mm	Completed	Completed	790,001 mm	335,57 mm	04.03.2020
	10001	S235JR / 20 mm	Not nested	Not nested	760 mm	760 mm	14.10.2020
	20181101-01	S235JR / 20 mm	1 of 10	Partly nested	716.433 mm	347.418 mm	



OMNIWIN STANDARD

Interactive Nesting

Nest interactively while copying, moving and rotating components or groups of components with collision control in a nesting plan. Mirror components, 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.

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.

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 components 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

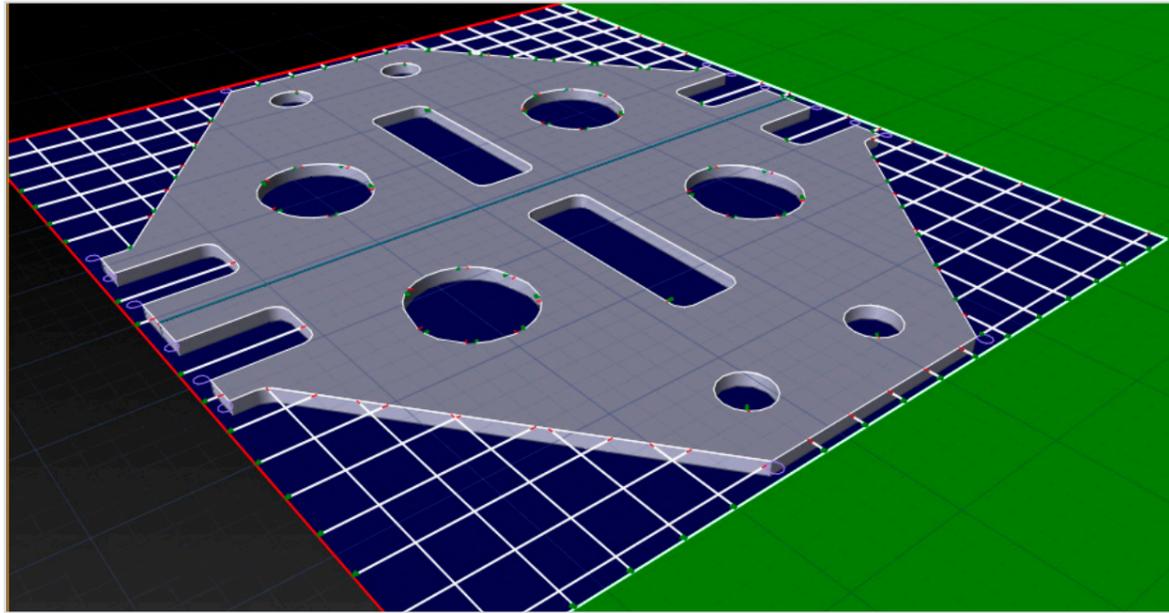


- + Including Autonest, the program for automatic nesting
- + Order entry and management with order tracking function

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 integrated time calculation for bevel plans supports the planning of your production processes.

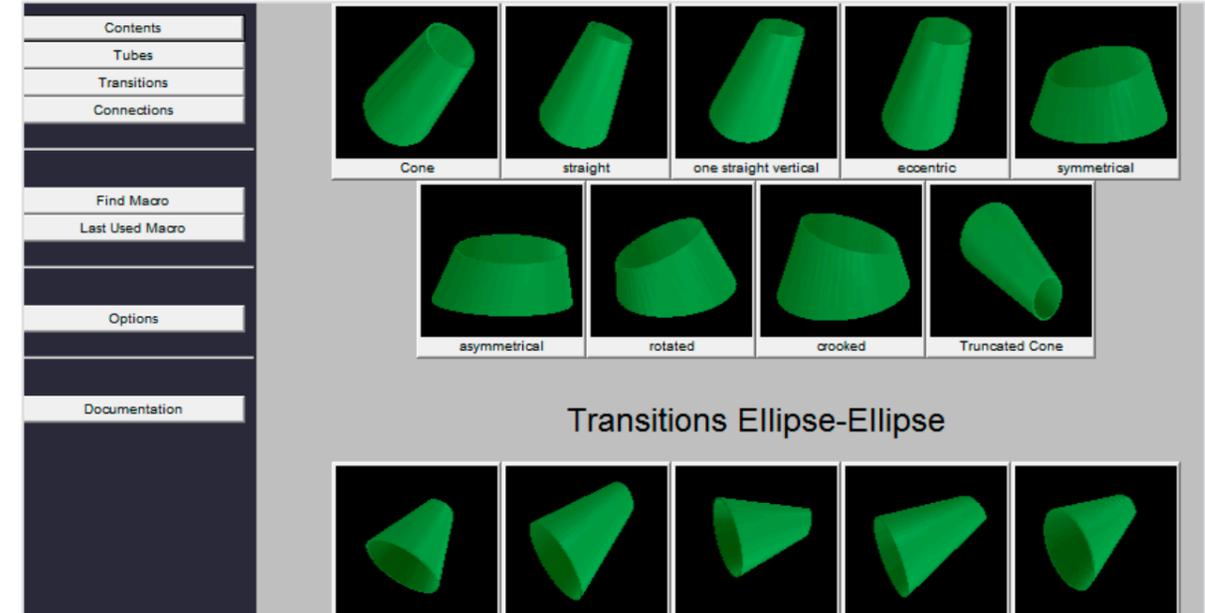
The technology databases and post-processors used are almost identical to OmniBevel.

OPTION PACKAGE

STEP

Option STEP lets you import 3D STEP files in a few simple steps. Surface components, multi-body geometries and assemblies are supported.

STEP is a manufacturer-independent and standardized file exchange format. It is currently one of the most common formats for the transfer of CAD data worldwide and offers a high degree of flexibility.



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.

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.

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 COMPONENTS 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

IMPORT OF STEP FILES



- + Import of flat geometries
- + Flat parts
- + Multi-body geometries
- + Assemblies
- + Weld seam preparation

FOR BENDING AND ROLLING MACHINES

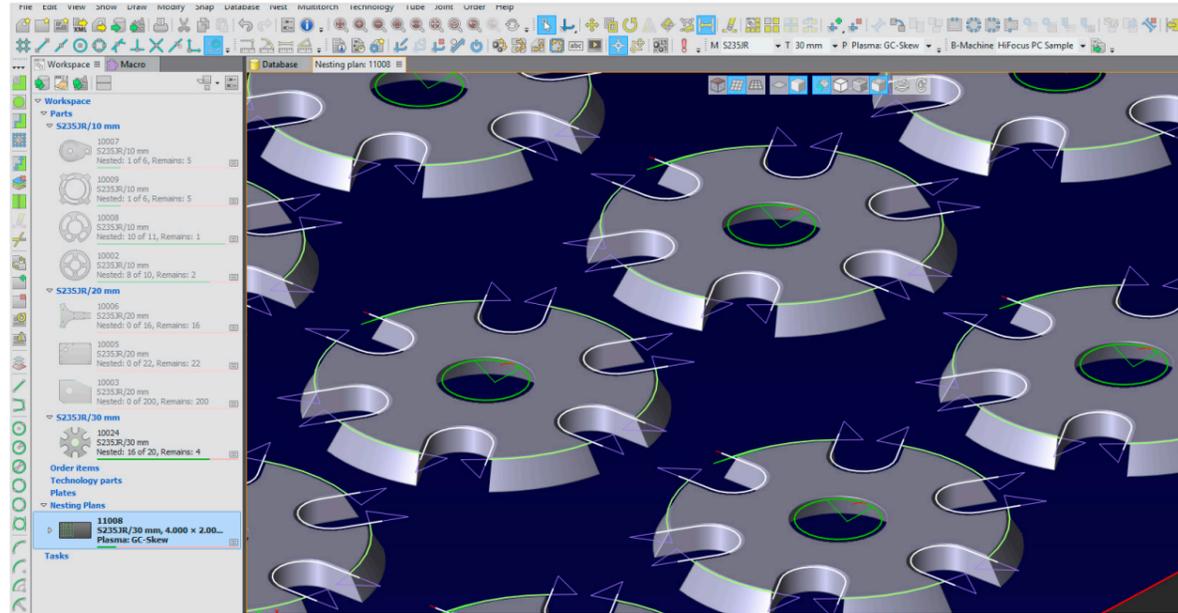


- + Unbending of three-dimensional bodies into flat, sheet-metal parts
- + Variety of geometric bodies typical for apparatus and vessel construction
- + Sorting of geometries according to criteria in categories and subcategories

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



OMNIWIN 2023 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 32 bit* or 64 bit as well as Windows 11 64 bit.
- *On 32 bit systems, only the installation mode "Network client" is supported

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 2023		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, SolidWorks* Part (SLDPRT) and Assembly (SLDAMP), Autodesk Inventor*	X	X	X
	Read and Translate Administration Data	X	X	X
	Import of images in BMP, JPG, PNG, 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
	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	

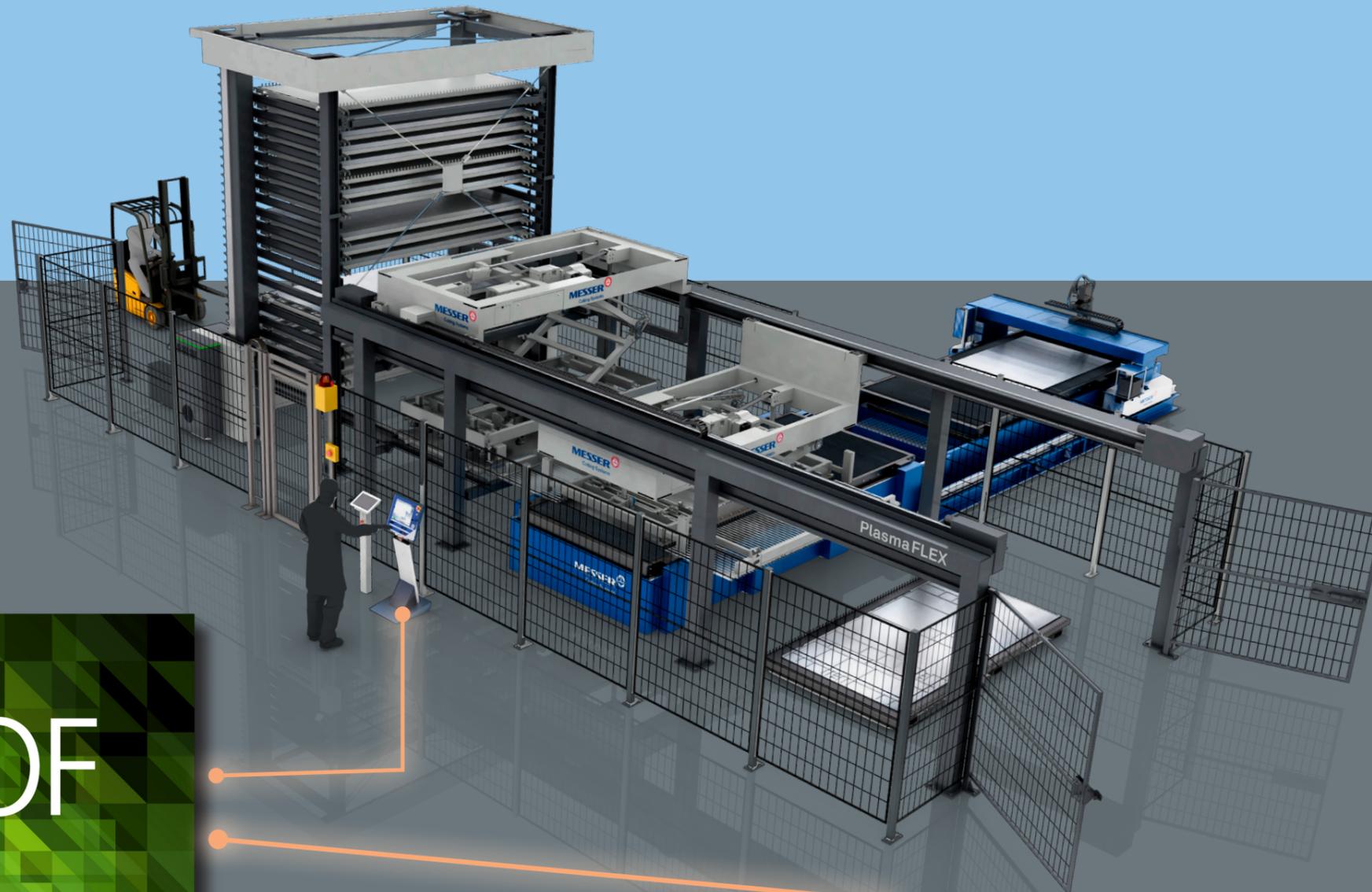
* A SolidWorks license is required with installation on the same PC.

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

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

Messer Cutting Systems is a global supplier of cutting-edge technology for the metalworking industry. With over 900 employees worldwide in over 50 countries, we maintain a constant dialogue with our customers to achieve sustainable user-oriented innovation.

AUTOMATION

DIGITAL

SERVICES

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.

KNOW-HOW

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 125 years.

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THE MESSER
EXPERIENCE