OMNIWIN
ADVANCED DESIGNING AND NESTING SOFTWARE

OmniWin is the ideal software for thermal cutting for oxyfuel, plasma and laser cutting with CNC machines. It is first class software equipped for fast and effective cutting which reduces workload through the effortless export and import of drawings and plans. It offers a wide range of functions and nesting capabilities for special applications. OmniWin is effective and economical for small production runs as well as in just-in-time manufacturing with changing quantities at custom cutting operations.

PRODUCTION PLANNING

Thermal cutting workshops have numerous tasks for work preparation before production on the machine can start. Part geometries must be designed or imported from customer drawings then nested to maximize material usage. Using the CNC nesting plan can ensure fast processing and high quality while utilizing the full technological capabilities of the machine like True Hole® or Contour Cut.

SIMPLIFICATION OF WORK PROCESSES

OmniWin combines the highest technical flexibility with fast, efficient processing while reducing costs by maximizing material usage. With integrated operations of CAD, and import nesting for vertical and beveled parts, the process dramatically simplifies the work flow.

OMNIWIN IS OFFERED IN FOUR VERSIONS:

- **STANDARD**
- **ENHANCED**
- **PROFESSIONAL**
- **ENTERPRISE**

ALL EDITIONS OF OMNIWIN INCLUDE:

- Fully integrated CAD system.
- 3D part rendering.
- Raster to vector image importing.
- Shortcut keys.
- Undo of all previous tasks.
- Familiar controls for zooming and panning.
- Text conversion for marking or cutting.
- Messer developed process database.
- Part, plate, plan, and customer database.
- Messer Hole Technology.
- Tool path simulation.
- Customized reports.
- Process optimization with collision avoidance.
- Dimensioning.
- NC import for re-posting or troubleshooting.
- Part scaling, mirroring, rotating, and bumping.
- Construct custom plates.
- One click data processing.
- Heat dissipation techniques.
- Advanced time calculations.
- Cost estimation.

PROGRAMMER INTERFACE

OmniWin provides a CAD system offering an integrated work environment for drawing parts, importing existing drawings, creating nesting plans, and generating the CNC output within the same application. The operator programmer interface allows a clear overview and is available in numerous languages allowing functionality for intuitive daily applications.

FAST PART DESIGN

Parts are created simply and quickly in the integrated CAD system using various positioning, drawing, modification, grouping, and labeling functions like other professional CAD programs use. Standard parts can be created in seconds using macros with variable parameters like converting markings into closed contours or line contours. The 3D function for vertical and beveled parts gives a realistic view of the part geometry.

INCREASED PROGRAMMER PRODUCTIVITY

Bulk part importing allows the user to import multiple drawings at one time, preview drawings, assign layers, select materials, thickness, quantities, and machine profiles. The workspace will sort the parts by material and thickness for a more efficient workflow. 3D parts viewed in the Graphical User Interface (GUI) gives the user a realistic view of the part while the new manipulator tool helps the user copy, rotate, scale, mirror, and move parts on a nest plan for efficiency. Generation of all production data is accomplished with a one button click.

INCREASED MACHINE PRODUCTIVITY

Messer Process Optimization minimizes the distance between rapid moves within inner contours of parts and from part-to-part. Two separate modes are available for minimizing lifter up and down time between pierces and starting points are moved to avoid tip-up collisions.

OMNIWIN
ADVANCED DESIGNING AND NESTING SOFTWARE
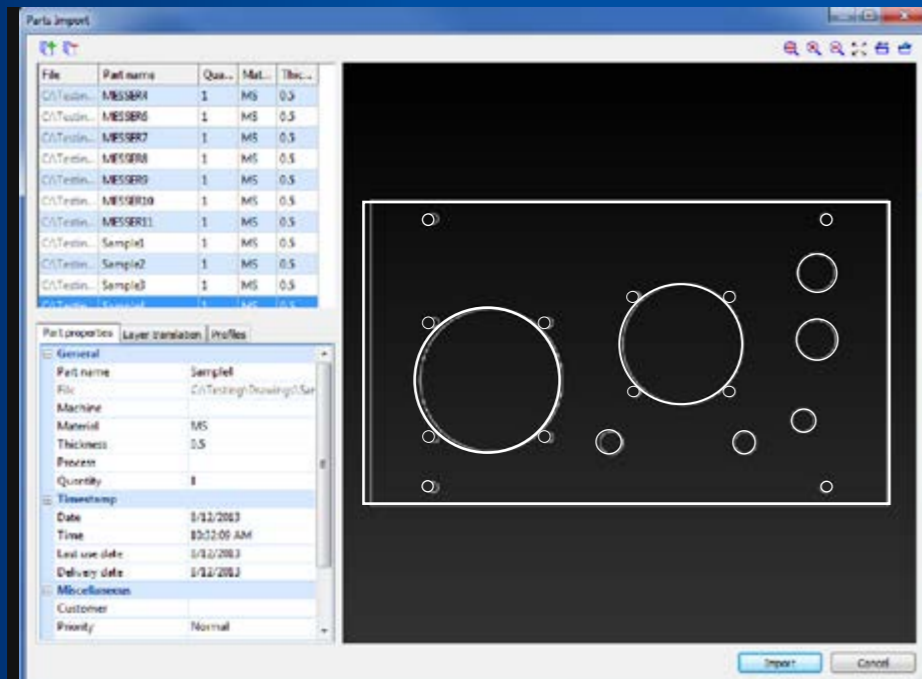
SIMPLE AND RELIABLE PART IMPORT

Part drawings in the form of DXF, DWG, DSTV (NC1), SolidWorks® (SLDPRT, SLDASM)*, Inventor® (ipt, iam)* files are easily imported into the system with the integrated import function. The parts can be converted to the desired process with automatic layer interpretation. Support for various automatic error corrections and the ability to read objects from the bill of material (BOM). Import bevel information from all file types.
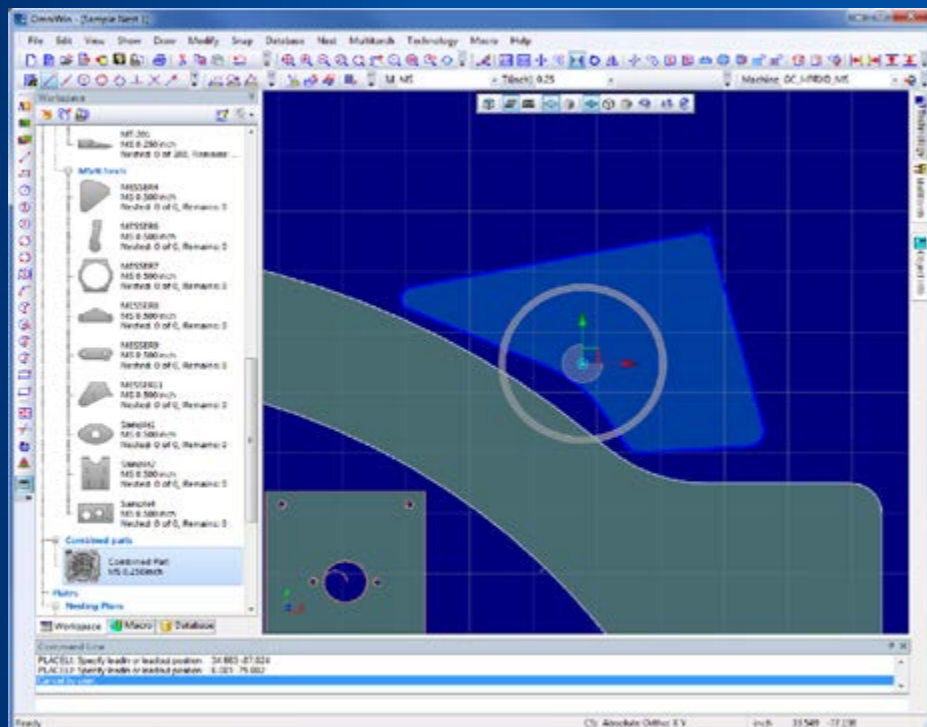

INTUITIVE NEST PLAN CREATION

Nest parts are created out of an ergonomically designed optical list with drag and drop and automatic collision control. The configurable technology database determines the parameters of part-part and part-plate distances, as well as the added lead-ins and lead-outs, shape and length. Manipulation of parts such as copy, rotate, and move with collision control is performed by one tool while sequence of parts and contours can be defined manually, automatically or rule based. The system also allows individual modifications to the technology of single nested parts which can be applied to other identical parts. Messer Hole Technology can also be applied for plasma cutting of circular inner contours to optimize the quality of cut depending upon the unit used.
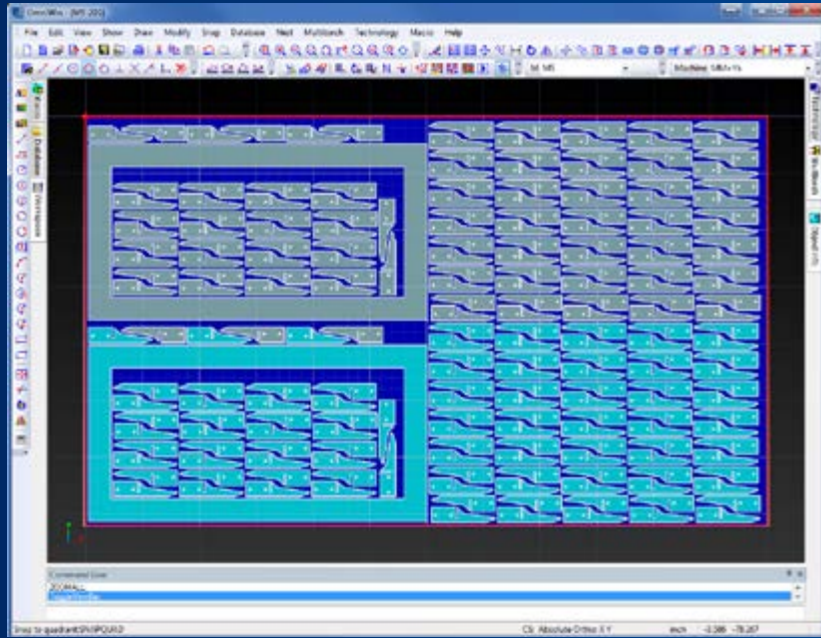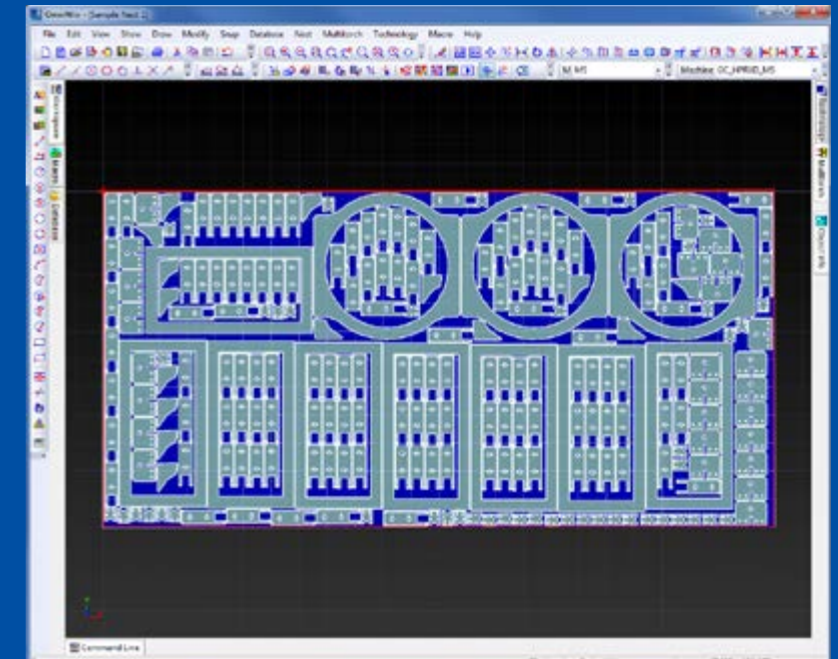
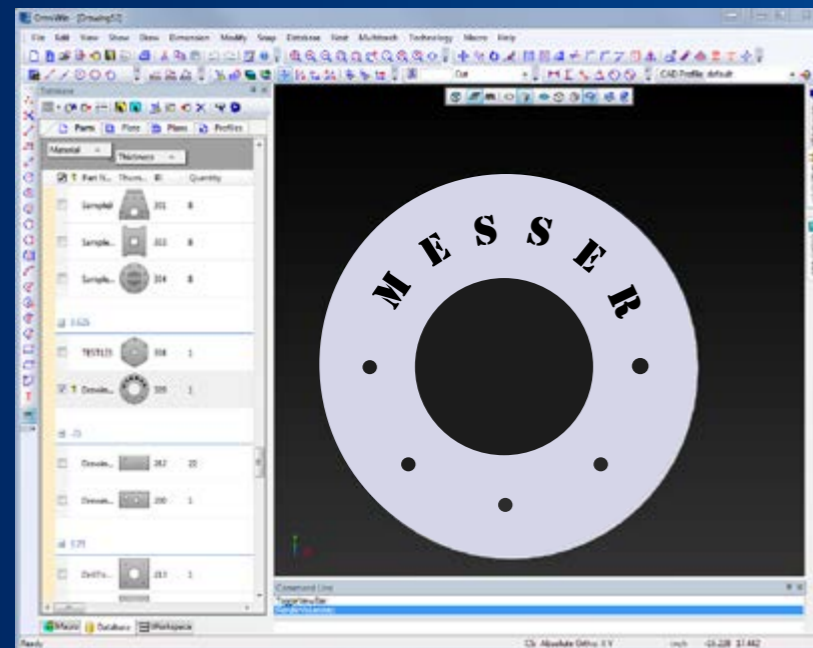**MULTI TORCH NESTING** (Enhanced, Professional, Enterprise)
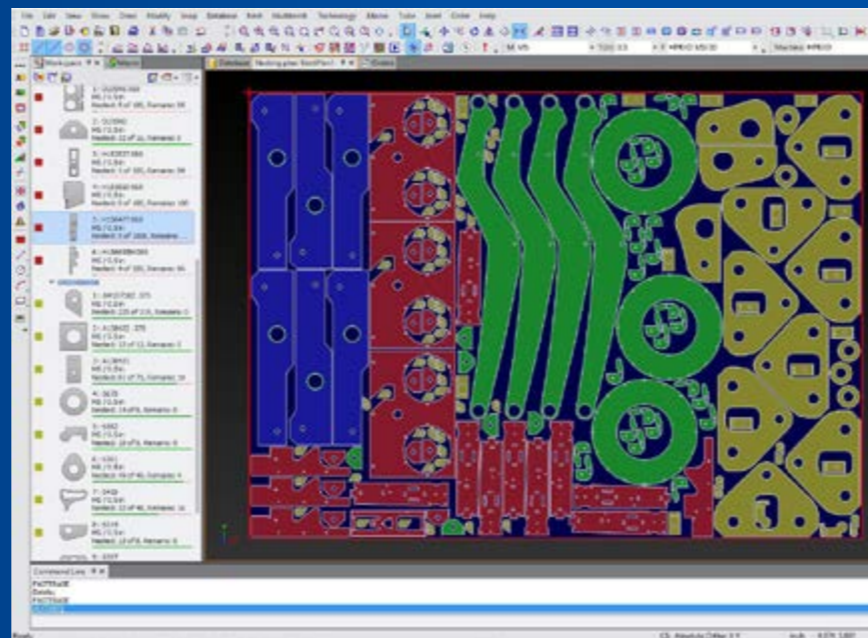
PART, PLATE, PLAN, AND CUSTOMER DATABASE

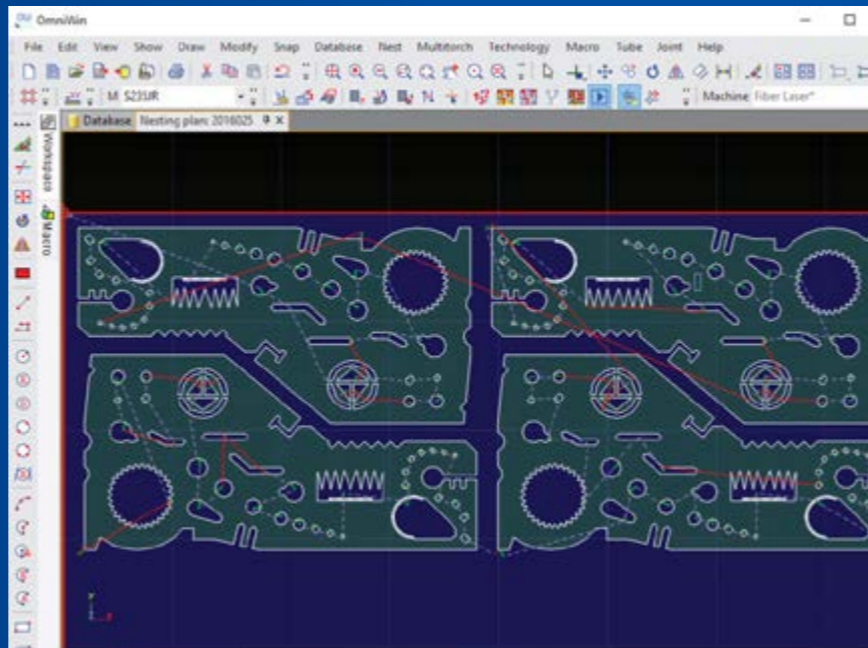(Standard, Enhanced, Professional, Enterprise)

WORK ORDER PROCESSING (Enterprise) Shown
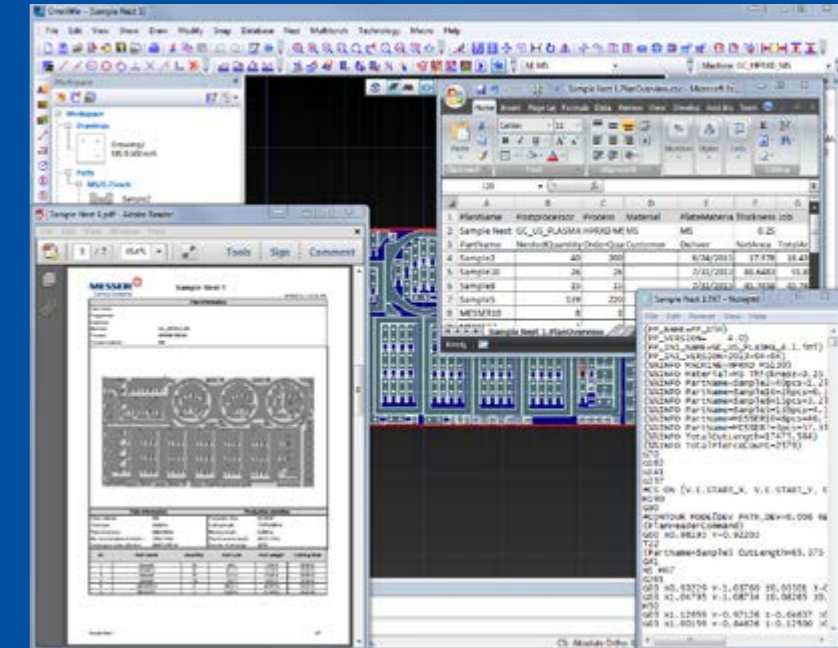

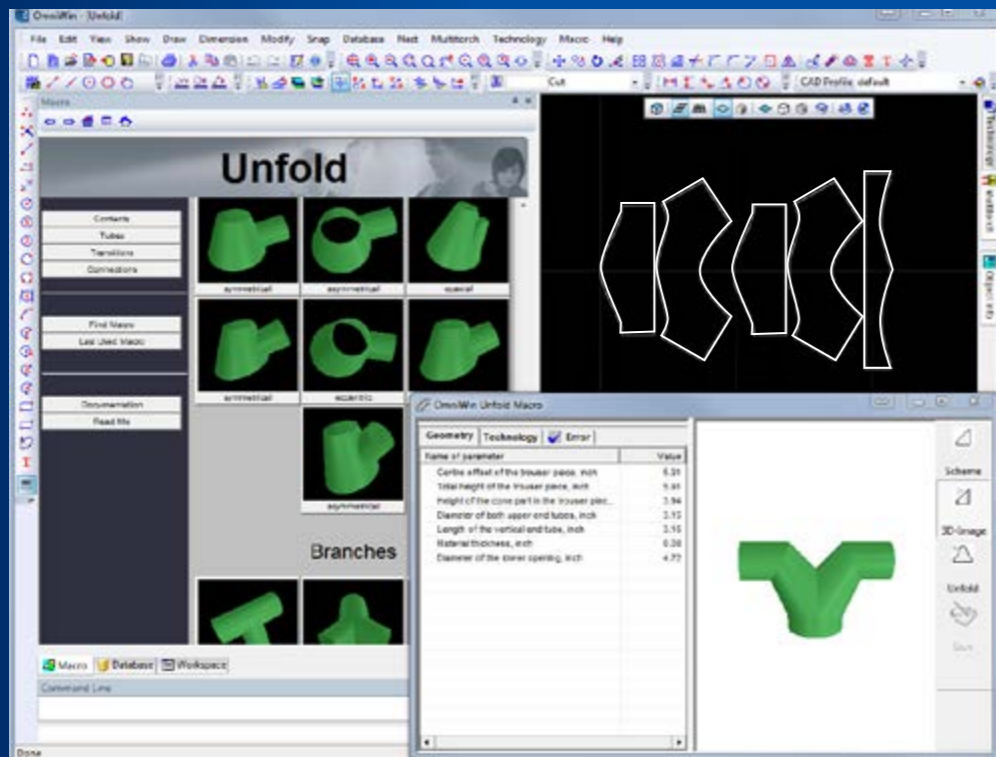**AUTO NESTING** (Enhanced, Professional, Enterprise)

TEXT CONVERSION

**MESSER PROCESS OPTIMIZATION, COLLISION AVOIDANCE, AND MESSER HOLE**

ONE CLICK PRODUCTION DATA AUTOMATION

UNFOLD - 3D INDUSTRIAL FITTINGS (Optional)

The unfold option offers a broad integrated palette of 3D geometries that are defined by parameters and can be unfolded for 2D cutting. Multiple technological functions are available to adjust the output for further manipulation for bending or rolling machines.

» Fully integrated unfolding and optimization of 3D shapes for 2D cutting

» Extensive library of common shapes for container and ducting industries.

» Sorting of geometric forms by category and subcategory.
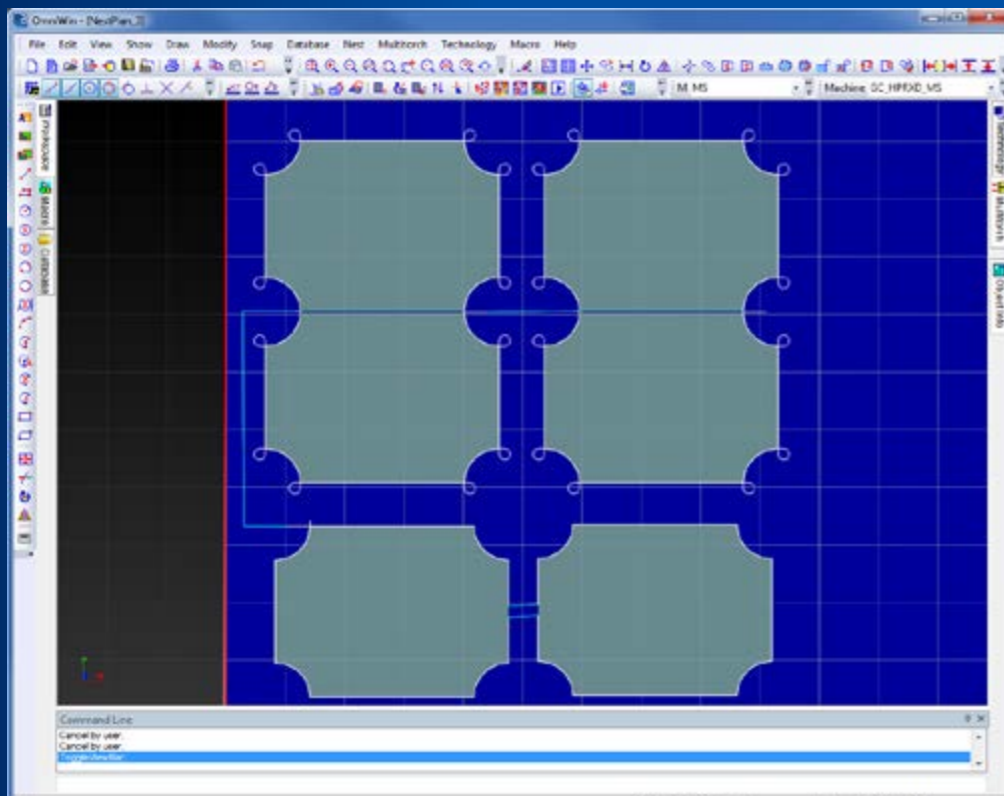
OPTIMIZED TECHNOLOGY (Professional, Enterprise)

Numerous technology functions include:

» Bridges with crossing and rounding.

» Chain cutting.

» Common line cutting.

» Pre-piercing with several options.

» Single and multiple tabs with variable widths.

» Skeleton cut-up.

» Disabling portion of a contour.

» Automatic loop creation.
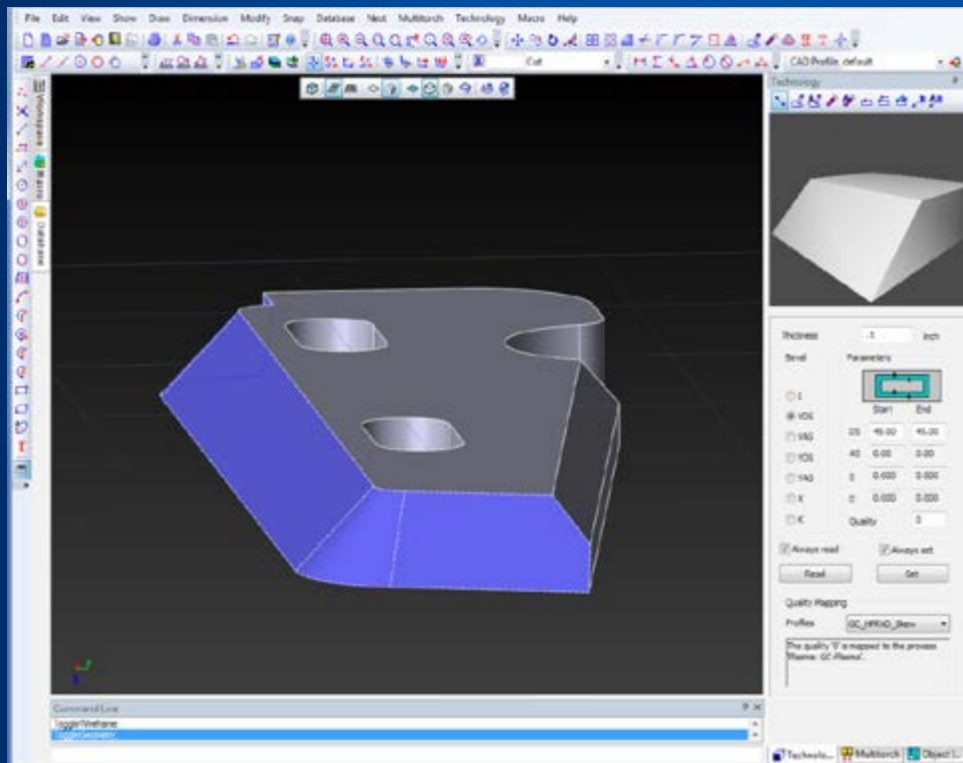
BEVEL PART CREATION (Optional)

The Bevel Part Creation option integrates nesting of bevel parts using the standard OmniBevel database with proven compensations for hundreds of different bevels of various material types and thickness. The bevel creation is the fastest route to production with the most flexibility on any beveling application. It is simple to copy and modify a single bevel part and apply the modification to all the identical parts within the nest for faster production.
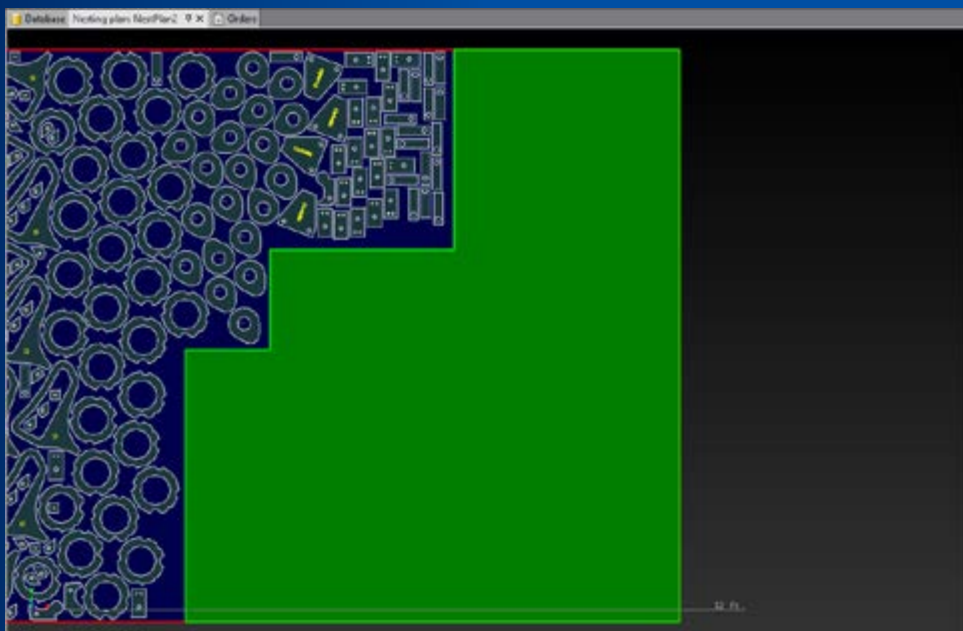
AUTO-REMNANT CREATION (Professional, Enterprise)

Plates which are not fully nested can be selected between diverse algorithms to define remnant plates. OmniWin saves the remnant plate geometry in the database to use it again as a template for nesting. Additionally, remnant plate cuts can be created and transferred to the CNC code in the machine when it is stored.

OmniWin Features

CAD	OmniWin Features	Standard	Enhanced	Professional	Enterprise
CAD	CAD part and plate creation.	X	X	X	X
CAD	3-D visual rendering.	X	X	X	X
CAD	Standard shapes library.	X	X	X	X
CAD	Text conversion for cut-outs or marking.	X	X	X	X
CAD	CAD import .dxf, .dwg, .iges,.dstv,*SolidWorks part (SLDPRT) and assembly (SLDAMP), **AutoCad Inventor import.	X	X	X	X
CAD	Read and translate administration data.	X	X	X	X
CAD	Import images .bmp, .jpg, .png, .tif file formats.	X	X	X	X
CAD	Import TRUNEST .dxf, as nesting with single part identification.	X	X	X	X
CAD	Reverse import CNC files to .dxf.	X	X	X	X
CAD	Excel import of parts and plates (orders with ERP edition only).	X	X	X	X
CAD	Automatic dimensioning of parts and plates.	X	X	X	X
CAD and NESTING	MS SQL database for parts, nestings, plates, profiles and machines.	X	X	X	X
CAD and NESTING	Fast Reports® creator.	X	X	X	X
CAD and NESTING	Professional designed workspace.	X	X	X	X
CAD and NESTING	Shortcut keys.	X	X	X	X
CAD and NESTING	Dimensioning.	X	X	X	X
CAD and NESTING	Snap modes.	X	X	X	X
CAD and NESTING	Manipulator tool for rotation, copy, move and mirror.	X	X	X	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.

	OmniWin Features	Standard	Enhanced	Professional	Enterprise
NESTING	Process database.	X	X	X	X
NESTING	Messer Hole Technology supports True Hole® or contour cut.	X	X	X	X
NESTING	Production time estimation.	X	X	X	X
NESTING	Costing.	X	X	X	X
NESTING	Customize automatic lead-in/out.	X	X	X	X
NESTING	Cut plan simulator.	X	X	X	X
NESTING	Interactive nesting (row, column, and pattern matrix) with single or multi-torch.	X	X	X	X
NESTING	Collision avoidance.	X	X	X	X
NESTING	Process optimization.	X	X	X	X
NESTING	Modify part, interior profile, or marking sequence.	X	X	X	X
NESTING	Automatic nesting.		X	X	X
NESTING	Stone mold cutting.			X	X
NESTING	Stitch, bridge, common cut, corner loops, chain cut, manual crop cut, and automatic corner rounding.			X	X
NESTING	Skeleton cutup.			X	X
NESTING	Pre-piercing and pre-drilling (option drill required).			X	X
NESTING	Remnant plate creation with auto crop cut.			X	X
NESTING	Work order processing with order database, and OmniLink interface.				X
OPTIONS	Bevel part creation. (Optional)	X	X	X	X
OPTIONS	Unfold 3-D industrial fittings. (Optional)	X	X	X	X
OPTIONS	Boiler-end (requires optional bevel) - dome cutting.	X	X	X	X
OPTIONS	Mill - 2.5-D milling support for pocket and through hole milling. (Optional)		X	X	X
OPTIONS	Drilling and support. (Optional)	X	X	X	