CUTTING
WELDING

SINCE 1898

ZINSER

ZINSER Nest

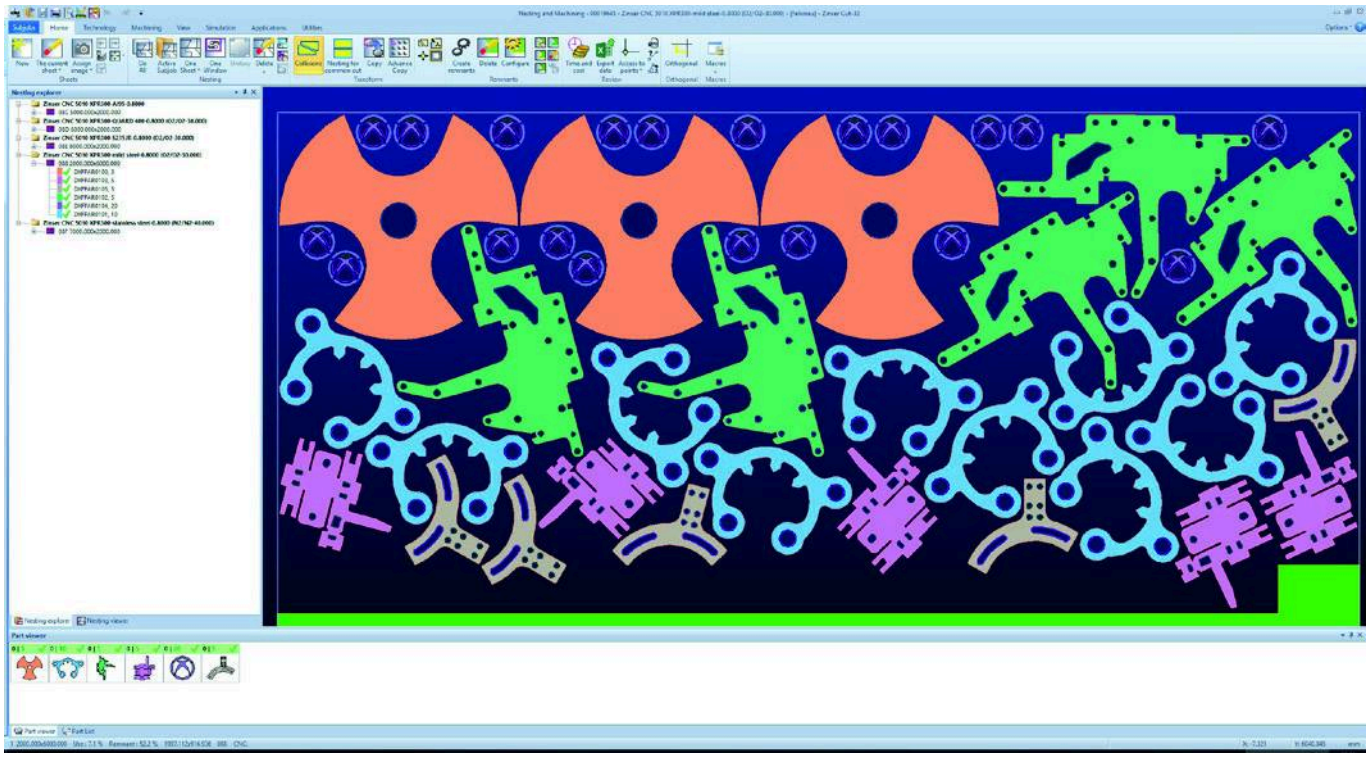
One single CAD/CAM software for the entire cutting workflow - from the drawing to workpiece and remnant management to NC code



Your advantages with ZINSER Nest

- Intuitive and easy to use
- User-friendly surface
- Efficient workflow
- Versatile in its applications

ZINSER Nest



All options included

The most important ZINSER Nest functions at a glance:

- 2D CAD system for the construction of workpieces
- Create nestings (automatically or manually)
- Integrated technology databases (lead-ins)
- Define cutting sequences (automatically or manually)
- Generate CNC programs
- Calculate times and costs

Reports

ZINSER Nest offers a wide range of reports which detail the data of each work step.

Integration of CAD and machining processes

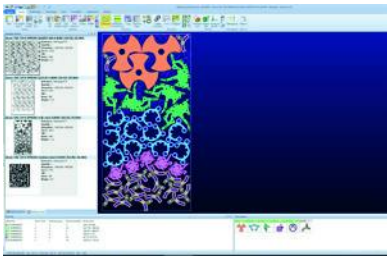
CAD system

Drawing module
Parametric parts
Import: DXF, DWG, DSTV files
Parts import through automatic processes

Drawing module

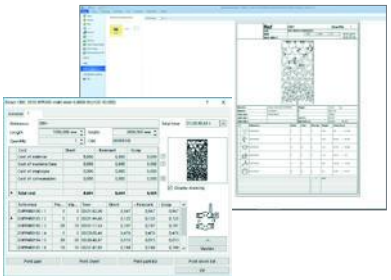
Fully-featured 2D CAD system for drawing, designing and editing components

Nesting, editing, cutting sequence



Reports

Display of costs and cutting times (per piece or per nesting plan)



NC code generation



Transfer to the machine



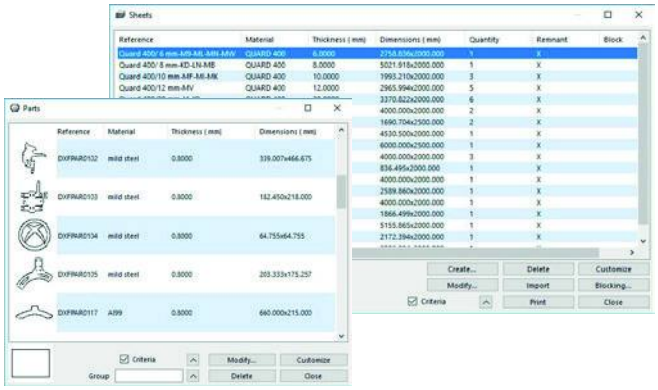
Your advantages using the ZINSER Nest modules

- A single software program for all cutting machines (oxy-fuel, plasma, laser)
- Reduced preparation and programming times
- Material savings: maximum nesting efficiency and total control of residual sheets
- Increased productivity due to reduced downtimes (machine optimization)
- Increased quality of the cut workpieces
- Minimal deviation between calculated and actual processing times
- Cost reduction for machine wear parts thanks to the exact calculation of the number of required piercings per nesting plan

Database

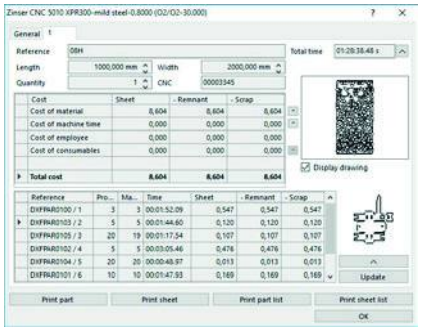
Metal plate warehouse and part management

All parts and plates are stored in the SQL database in such a way that the user can easily find them (filtered by material, thickness, date, customer, dimensions, etc.). All remnant plates generated by the system are also registered so that they can be reused for subsequent work.



Calculation of times and costs

ZINSER Nest offers total control of times and costs per part as well as per plate. Based on this data, the user can create his/her own quotations, check the workload of the various machines and obtain reliable information for the selection of the work center.



2D construction

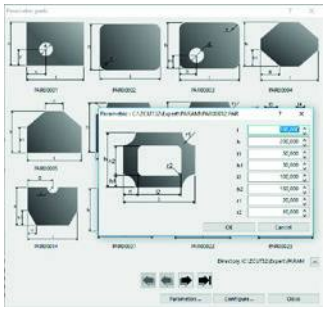
ZINSER Nest has a very efficient and simple CAD module, especially for the design of sheet metal parts in 2D. It offers additional tools e.g. for automatic marking of workpieces, checking open contours and overlaps, automatic component dimensioning and text vectorization as well as powerful options for modifications or new constructions.

Intelligent import / export

- Connection to all major CAD systems on the market via DXF, DWG, DSTV file formats
- Filtering according to layers, line types and colors with automatic technology assignment
- Export of individual or multiple files in DXF format

Parametric parts / Standard macros

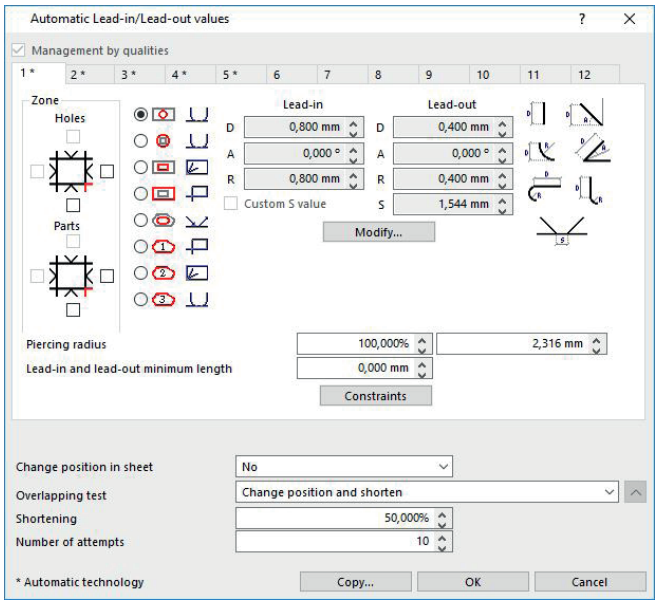
ZINSER Nest offers an extensive library of parametric geometries for the construction of recurring, similar contours. After entering the parameters, the geometry is created immediately.



Technology

Automatic lead-ins and lead-outs

Optimized databases for automatic lead-ins/outs with oxy-fuel, plasma and laser.



Advanced common cut

Use of programming tools such as common cuts to optimize material consumption and cutting times. Micro-joints, continuous cuts and advanced cutting sequences for inner contours are taken into account.

Torch height control

ZINSER Nest calculates the best way to move the lowered torch across the plate without accidentally crossing already cut parts or holes, in order to reduce process times as well as the risk of collision.

Nesting on remnant sheets

ZINSER Nest automatically optimizes remnant sheets in the warehouse and prioritizes them for nesting.

Error detection

ZINSER Nest notifies the user of possible design errors due to open and overlapping contours. A collision check prevents possible overlaps between the parts or with the edge of the sheet.

Manual or automatic cutting

After positioning the parts on the sheet, the processing sequence is defined automatically, semi-automatically or manually. A simulation on the screen ensures total control by the user. The cutting sequence can be modified at any time and at any point.

Copy machining operations

ZINSER Nest allows users to define special machining operations on one part and later copying them to all identical parts of the nesting plan.

Tables depending on material and thickness

ZINSER Nest allows the storage of cutting parameters in tables as a function of material and thickness. These parameters are automatically taken into account during cutting to achieve the best possible results.

Oxy-fuel / plasma technology

Technological properties

Technological characteristics can be set manually or automatically depending on the material and thickness. Technology tables, such as with ZINSER Hole, can thus be applied automatically to optimize the cut quality.

Micro-joints

If required, ZINSER Nest can set micro-joints to connect the parts to the metal sheet.

Bridges

Bridges between the different contours can be used to reduce and optimize the number of piercings and thereby the processing time.

Multi-torch

Automatic and semi-automatic multi-torch nesting for machines with manual or automatic tool carrier positioning.

Bevels

Simple programming of all bevel types (V/NV/Y/NY/X/K) for automatically rotating cutting heads and 3-torch units for oxy-fuel cutting.

Continuous cut

ZINSER Nest offers automatic traverse path optimization via continuous cuts between different parts to reduce the number of piercings, machining time and wear part costs.

Geometry marking

ZINSER Nest supports every marking technology used for text or to sign contours: powder, needle markers, punch, inkjet, plasma or embossing wheel technology.

Programming of machines with more than one technology

- Management of magazines for drilling, threading, center punching, countersinking and punching
- Nesting in zones to facilitate the disposal of parts and scrap skeletons
- Optimized processing in the X direction to optimize the use of tools such as punches, drills, etc.
- Different part spacings in X and Y to optimize material consumption for long lead-in distances
- Pre-piercing at cut start to reduce piercing time

Laser technology

- Depending on the material/thickness, up to 12 different cutting qualities can be defined, for each of which the laser power, feed rate, lens, gas, piercing mode etc. can be specified. The laser technology tables can be managed individually for different machine types
- Reduced number of piercings
- Fast piercing
- Flying cut
- Micro-joints and bridges
- Automatic/manual grinding to cut corners with a sharp angle
- Automatic plate skeleton cutting
- Head management: ZINSER Nest supports working with a lowered head. It automatically detects possible collisions and prevents them by bypassing the obstacle or by lifting the head

Nesting

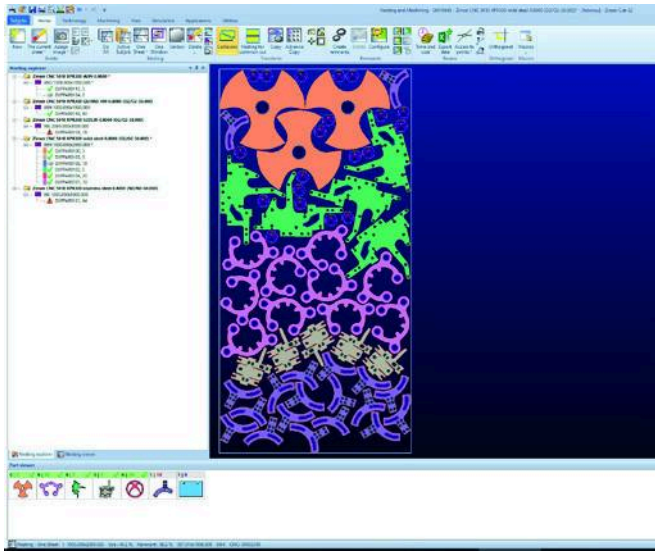
Highly flexible manual or automatic nesting

The outstanding combination of automatic and semi-automatic nesting is completed by powerful manual nesting options such as copying, rotating, mirroring, etc.

Automatic nesting with maximum efficien

ZINSER Nest‘s automatic nesting optimizes the arrangement of parts on the plate/remnant plate.

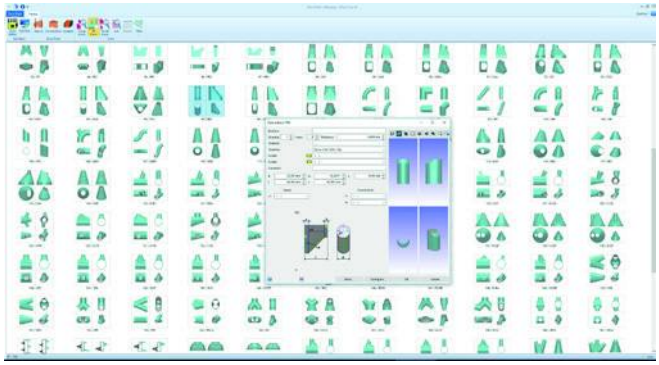
- Task explorer with multilayer viewer
- Part locking and rotation limits
- Copying parts and part groups from one plate to another
- Automatic search for the optimal plate
- Ability to set the priority of indiviual parts
- Filler part management
- Multiple, identical or dissimilar plate nesting
- Nesting for common cut
- Nesting with multi-torch



Optional modules

ZINSER Nest HLK library for equipment and container construction

This module can be used for calculating heating, ventilation and air conditioning constructions. It has a large library of over 180 geometries. The user just selects the shape to be cut and enters its dimensions to automatically receive the shape ready for machining. A real 3D view of each geometry shows the final part according to entered values.



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