Metalix Presents cncKad – the Complete CAD/CAM Solution for Sheet Metal Manufacturing

Metalix offers a full range of CAD/CAM capabilities for CNC punch, laser, plasma, flame and combination machines, including support for sorting and stacking devices attached to your machine.

Advanced technology combines design, automatic and manual processing, automatic nesting, efficient NC generation, graphic simulation, and machine communication (DNC).

**cncKad** is the only system that integrates CAD/CAM capabilities in the same module; geometry, dimensions, and technology (punching/cutting) are completely associative – when the geometry is modified, the dimensions and technology update automatically!

**cncKad** supports a wide range of machines and has a powerful solution for porting parts from one technology or machine type to another, such as from punch to laser.

**cncKad** is affordable and user-friendly, and comes complete with comprehensive documentation and support, for installation through to production.

**Automatic Nesting**

Metalix offers optimal material utilization with **AutoNest** – cncKad’s automatic nesting module.

**AutoNest** is a powerful True Shape nesting tool offering versatile methods for automatic and manual nesting to achieve the best possible nesting solutions.

**AutoNest includes:**

- Fully Automated Nesting – you select the parts and **AutoNest** does the rest.
- Live Import – full live preview of the geometry import results.
- Hole Filling – interior holes in parts are identified and filled with compatible parts, creating efficient solutions.
- Multiple Material Nests – parts from different materials are sorted automatically and nested on appropriate sheets.
- Multiple Sheet Solutions – nesting solutions can be generated on different sheet sizes, selected automatically for efficiency and the minimal number of SubNests.
- True Shape or Rectangular Nesting – select the best strategy for faster solutions.
- Manual Nesting – user-interactive, collision-less positioning, dragging, rotating, and mirroring of parts, all at the click of a mouse.
- Grouping – automatic and manual grouping of parts simplify nesting solutions.
- Nesting Reports – include solution details, such as overall efficiency, individual sheet usage, part arrangement on the sheets, and barcodes that can be read at the machine scanner.

**Advanced Automation Solutions**

cncKad’s automation modules (API or parametric programming) let you create time-saving applications:

- Integrate cncKad with ERP/MRP systems.
- Develop automated scripts for standard actions, such as batch Import and processing of parts.
- Leverage product information directly from part files.

The automation modules come with complete documentation and code examples.

**3D CAD Interface**

The **CAD Link** module enables one-click real-time transfer of parts from 3D CAD packages to cncKad.

Parts can be transferred from SolidWorks®, Solid Edge®, Autodesk® Inventor®, PTC Creo®, and Vertex® G4, using an on-line associative link, bypassing the need for intermediate files such as DXFs.

**Advanced Punch Technologies**

cncKad features these advanced technologies, which are fully automatic, yet are easy to control manually:

- Automatic Punching with Notch Treatment
- Predefined Shapes
- Part Handling
- Wire- and MicroJoint Positioning
- Clamp Assistance
- Easy to use Common Cuts
- Single Clamp Movement
- Full support for Wheel tools
- Tool Path Optimization
- Efficient Strategies for Tool Usage

**Advanced Cut Technologies**

cncKad enables the full use of your machine capabilities:

- Automatic Cutting with Corner Treatment
- Rapid Tool-Path Crash Avoidance
- Tool-Path Optimization with Auto Entry Point
- Material-based Cutting Schedules
- Vaporization and Marking Before Cutting Options
- Bridge and Chain Cutting
- True-Type Font Cutting and Engraving
- Cameron Line Cutting
- Hole Slicing
- Cutting Direction (CW/CCW)
- Head-Down Cutting
Entire Design-to-Production Cycle – cncKad is an integrated system covering the complete cycle required for Sheet Metal manufacturing

DRAFTING

cncKad has a very powerful, easy to use 2D drafting module. In addition to a full set of drafting tools, cncKad supports special sheet metal drafting aids and Geometry Validation to automatically detect and correct unclosed contours.

PUNCH TECHNOLOGY

The Punching module supports:

- AutoPunch
- Special Tools
- Auto-indexing
- Automatic Repeatability
- Common Cuts

TUBE CUTTING

cncKad supports laser/plasma/flame machines equipped with a CNC Rotary Axis for tube processing, using a simple graphic interface.

Set layout and design for cutting tube assemblies quickly and accurately, then view the cuts and simulate them in 3D.

GRAPHIC SIMULATION OF CNC PROGRAMS

cncKad supports graphic simulation of any CNC program, including legacy programs previously written on the machine.

The simulation enables easy testing of CNC programs, while graphically viewing the results on the processed sheet.

NC TO DRAFT: Legacy NC files can be converted into drawings.

IMPORT

cncKad has an efficient import feature for DXF, DWG, IGES, CADL, and other standard file formats. Includes support for mketch-based files and Layering.

CUTTING TECHNOLOGY

The Cutting module supports:

- Auto-Cut
- Contour Check and Correction
- Beam Width Definition and Auto-Compensation
- Art Parts
- Corner Loop and Corner Slow Down
- Z Axis Control
- Open Contour Cutting

POST-PROCESSING: NC FILES GENERATION

Advanced post-processors generate efficient programs, including Sub-routines (macros), Optimized Tool Path and Material Turret Rotation, with support for machine operations such as oiling, vacuum, and retract.

DNC

Easy communication with your machine allows uploading and downloading of NC files, with support for batch loading and for extracting NC files from the machine controller.

DATA REPORTS

Detailed production reports for individual parts, Nesting Solutions and Costing Estimation, using fully customizable templates with barcodes.

For more information:

www.metalix.net
info@metalix.net

MACROS

cncKad – Advanced CAD/CAM solution for the Sheet Metal manufacturer

CAD/CAM that speaks your language

Language Support

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<th>Arabic</th>
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Support for additional languages can be easily added.

MACHINES SUPPORTED

AMADA, AMF, ALAN, ARNICA, AS, ASD, BALJU, BAW FEMCOR, BAYKAL, BELOTTI, BERNHOFF, BERMASCHEK, BIESENFELD, BOSCHERT, BYSTRONIC, CINCINNATI, CORTINA, CR, DAEWOO, DANDO, DATONG, DEHUA, DIESEL, DOOSAN, DONGS, DONGE FATED, DRAHMAZAR, EAGLE, EDEL, EUROMAC, FARLEY LASER-LAB, FINNHOWER, FLOW, FLYKNO, GASPARINI, GOLDSTAR, HACO, HANKWANG, HANS, HINDUSTAN HYDRAULICS, HUI, INUHAMA, JIEMAI, JIN FANG YUAN, JIN QIU, KITAGAWA, KOMATSU, LASERWORK, LFP, UNIMAS, LUI, MAZAK, MESSER DREHSTERN, MITSUBISHI, MU, MORE, MUTEC, NAMIS, NIE, NISITA, NISSAN, NISSINBO, NTC, OMAX, ORBITAL ROBOTICS, PENTA, PIERRE-ALL, PILLARNOY, SALVAGNINI, SAMSUNG, SATO, SCHNEIDER, SHIBUYA, SIMO, SMTL, PRIMA, SINK, SOUTA, SPI, STRIPPIT, STRIPPIT HD, SUNRISE, TALIPTY, TECHNOLOGY ITALIANA, TK, TRUMP, TOBIAS, TRUMPF, UTILITY PRIMA, UTILITY, WHITNEY, XUZHOU, YANGU, YANGLI, YAWEI, ZINSER.

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Machine Support

ccnKad supports a wide range of machines:

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