

## ***Fabrication***

Punch

Plasma

Laser

Waterjet

### ***Highlights***

**Individual modules for Punch, Plasma, Laser, Waterjet, True Shape Nesting, Flat Pattern Generation**

**Combination machines supported**

**Automatic and interactive tool fitting modes**

**Automatic and manual Reposition modes**

**Automatic pattern generation**

**Supports subroutine programming and user-applied machine control codes**

**Optimization by tool, levels, groups, pairing and next closest**

**Material/Feature Database to automate Laser toolpath generation**

**Interactive sorter arm to clear and stack parts after cutting**

**True Shape Nesting**

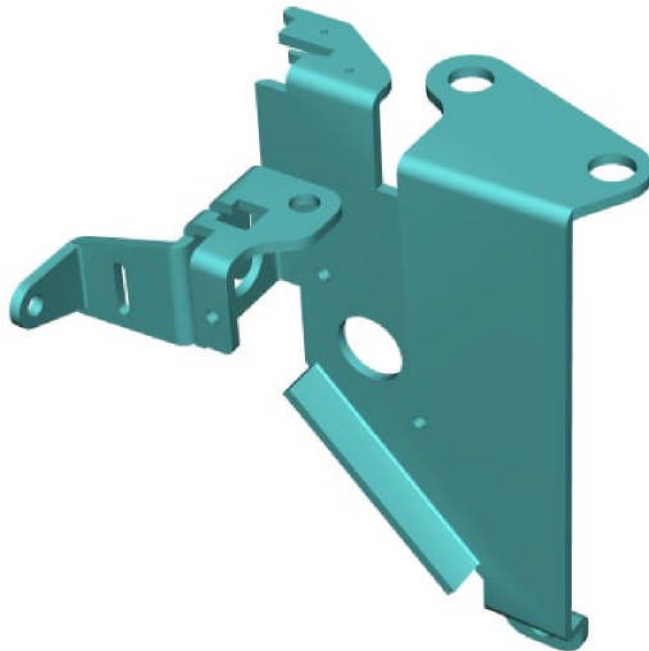
### **Unfold**

**Post support for virtually any Fabrication CNC machine**

ProCAM Fabrication software is the solution for successful sheet metal manufacturers worldwide. Each CAM module provides tools for fast and efficient toolpath creation for virtually any punch, plasma, laser, waterjet and combination machine.

CNC part programs can be generated easily using a full range of intuitive CAD/CAM tools. Integrated CAD, standard file translators and a wide variety of methods for toolpath generation help automate the programming process. Unfolding and true shape nesting complete the programming solution.

ProCAM Fabrication is available in a variety of configurations, so you can purchase exactly what you need now and add to your software suite as your business grows.

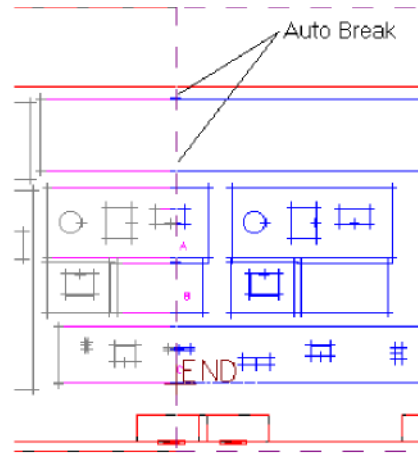


### ***Post Processor Support and Customizations***

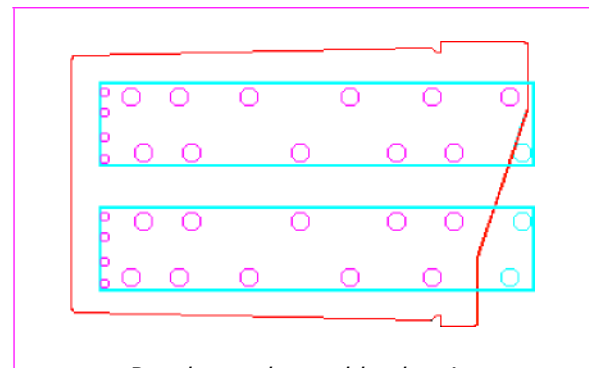
Post processor support is available for virtually any punch, plasma, laser, waterjet, and combination machine. The NC code that is generated can be customized for your facility's machines and production methods by an authorized TekSoft reseller.

# Plasma and Laser

- ProCAM Plasma and Laser also supports waterjet, flame and knife cutting.
- Feature recognition, coupled with knowledge based machining, automates the laser cutting process. Cutting conditions and recognition parameters can be customized by material.
  - Cutting conditions can be based on area, entity type and hole size
  - Controls for internal and external features
  - Individual controls for lead-in/out
    - Start lead-in/out at hole center option
  - Sets cutting conditions in the CNC program by subroutine number or long code
  - Automatic lift head option
  - Start cutting at micro joint
- Automatic and interactive repositioning:
  - Remove and add entities to reposition zones
  - Break grids, macro calls and macro grids that cross reposition zones
  - Automatically check clamp deadzones and unselect toolpaths that interfere with the clamp deadzone area
- Automatic pre-punch start holes for combination punch/plasma or punch/laser machines.
- Sorter arm function to interactively lift and place parts on a stack table. Cups are automatically activated based on part geometry. Individual cup status can be changed at part selection.
- Open area avoidance with definable sensor spoon size.
- Corner support: round, sharp, square, triangular and looped.
- Automatically attach an Open Chute attribute for laser toolfit.
- Automated tools for patterns including linear, grid, arc and circular toolpath generation.
- Macros, Macro Grids, and Attributes.
- Toolpath simulation: interactive variable speed; stop conditions; options for colors and display modes.



Reposition with automatic breaking of entities



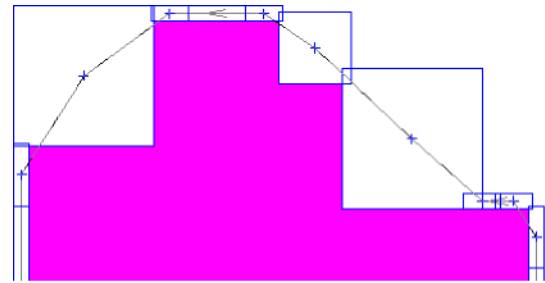
Part located on table showing sorter arm and activated cups



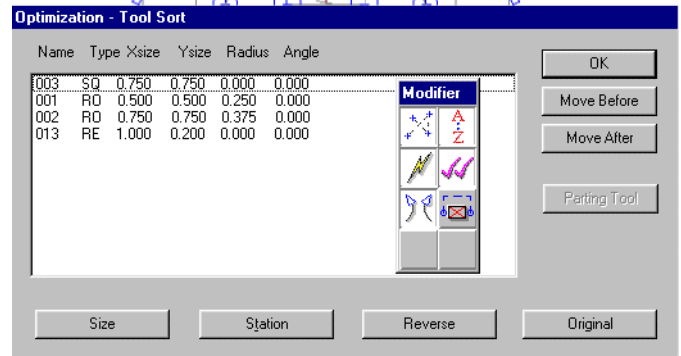
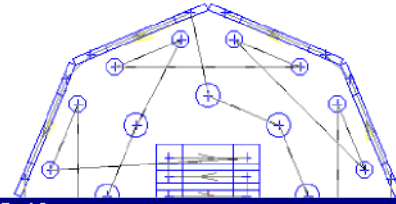
Areas cut by specified cutting conditions are automatically color-coded for easy interpretation

# Punch

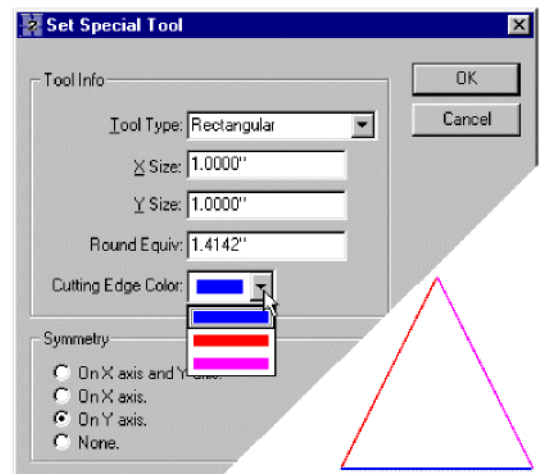
- Automatic tool fitting:
  - Selects best tools from the library and/or turret
  - Single hit inside corners
  - Part to part interference checking
  - Automatic corner radius tool selection
- Interactive selection with machine or system compensation, direction, and clearance.
- Supports nine standard tool shapes and an unlimited number of user-defined tools. These special tools can be used for punching single hits and for contouring part edges.
  - Automatic and interactive repositioning: Remove and add entities to reposition zones
  - Break toolpaths, grids, macro calls and macro grids that cross reposition zones
  - Automatically check clamp deadzones and unselect toolpaths that interfere with the clamp deadzone area
- Optimization :
  - Single window or grid mode
  - Sort by tool size, station sequence, auto-index angle, next closest or pairing
  - Optimize rapid moves around clamps
- Macros, Macro Grids and Attributes.
- Single and corner micro joints.
- Easily add linear, circular, arc and rapid toolpaths without creating wireframe geometry.
- Toolpath simulation: interactive variable speed; stop conditions; options for colors and display modes.
- Fully integrated tool library to maintain punch and die inventory by die clearance, if needed.
- Supports the special requirements of hydraulic ram machines.
- Direct reading of native Amada (AMP1E) CAM files. Post using the Amada or ProCAM post processors.
- Generates CNC code either in long form or as a combination of subroutines, with support of canned cycles for linear, grid, arc and bolthole patterns.



Single hit corners



Options for optimizing include sorting by tool size, station sequence, auto-index angle and next closest

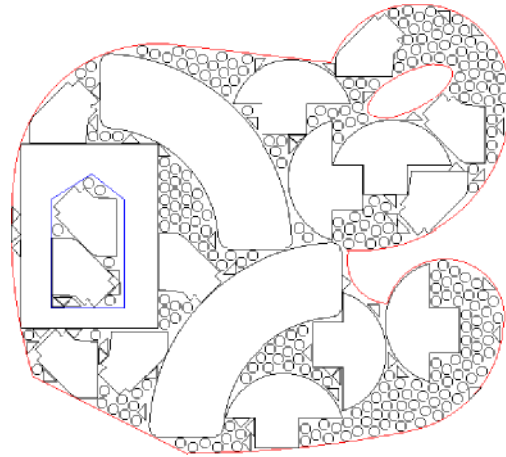


Define special tools with controls for cutting edge and symmetry

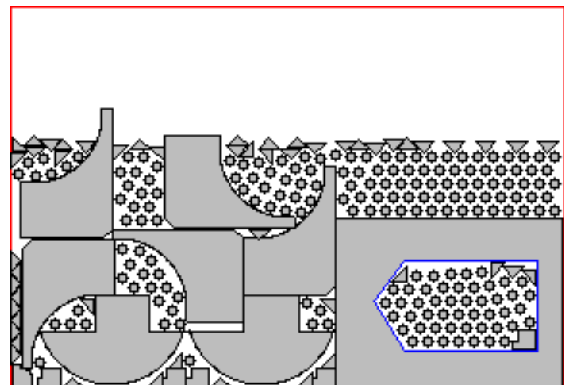
## ProNest

ProCAM ProNest is a library of fast, fully automatic, true-shape nesting algorithms. Simple, easy to use tools insure optimal material utilization, reducing design-to-manufacture turnaround time. Typical applications include sheet metal cutting (using flame, laser or plasma) and 2.5 axis milling.

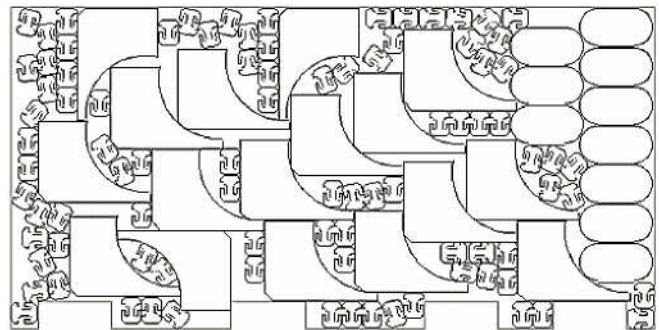
- True-shape nesting
- Multiple sheet nesting
- Automatic recognition of repeated layouts
- Supports rectangular or irregular sheets with or without holes
- Grain direction control for part and sheet
- Priority support for nesting critical parts
- Parts-in-parts nesting
- Rectangular nesting
- Choice of area or perimeter based sequencing of parts
- Nesting direction control for each sheet
- Filler parts for extra material utilization and filler parts on last sheet option
- Start corner location for each sheet
- Batch processing for running a series of nest jobs sequentially
- Drag and drop part and sheet selection
- Fast, efficient algorithms display results on screen as soon as they are finished
- Part and sheet definition in .DXF and/or TekSoft .PRT file format



*Irregular stock shape with parts-in-parts nesting*



*Parts-in-parts nesting with filler parts*



*Stock shape includes clamp deadzones*

### Minimum System Requirements

Windows 98SE, 2000 SP2 or NT 4.0 SP6  
CPU: 450 MHz Intel Pentium II~  
RAM: 128MB minimum  
Standard graphics card  
200MB free disk space  
2-button mouse (3-button recommended)  
CD-ROM drive (for installation)  
Parallel port

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