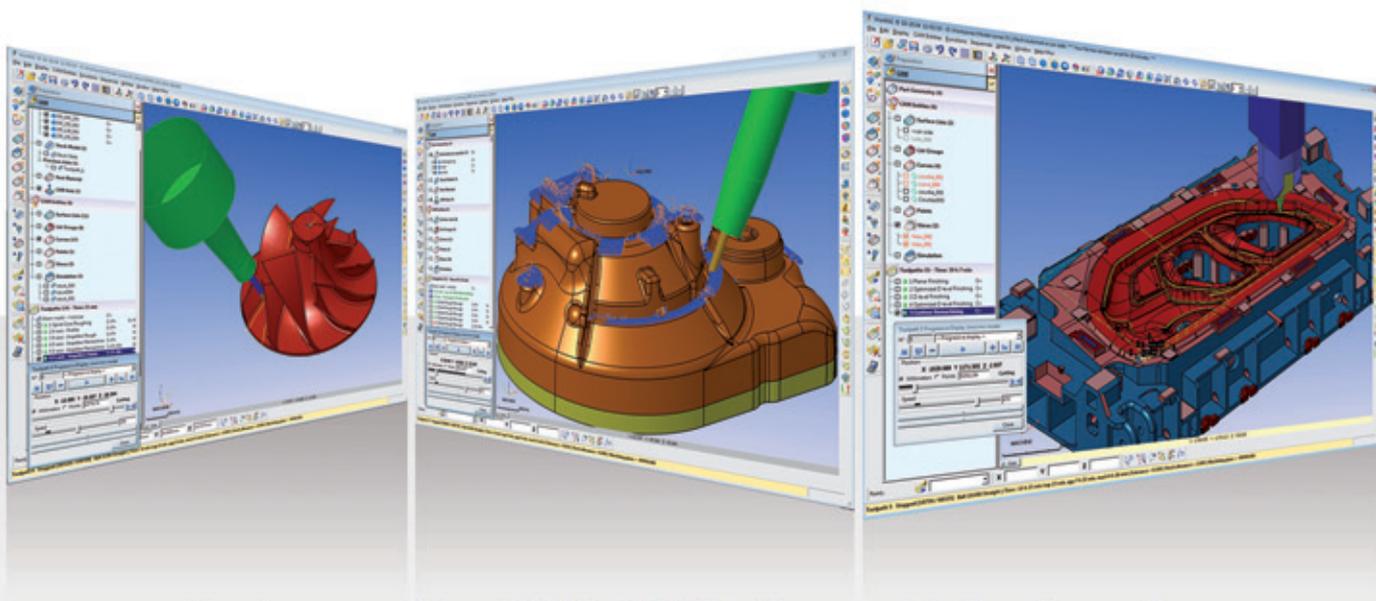
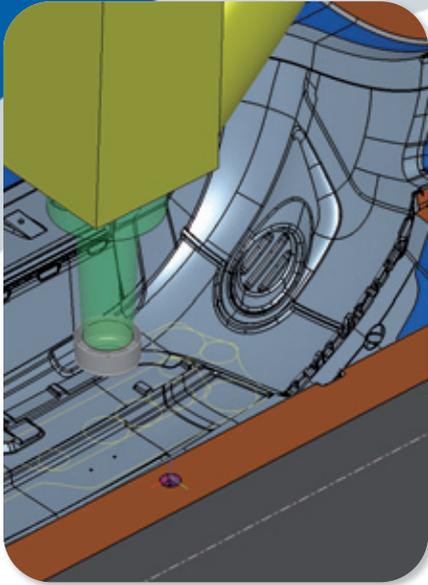


WorkNC[®]



Automatic CAM/CAD from 2 to 5 axis
Machining has never been easier !

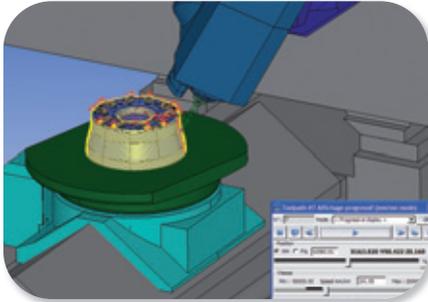
WorkNC Automatic 2 to 5 axis CAM



WorkNC is the closest system to "One button CAM" and includes numerous automatic features.

It takes the guess work out of cutter path generation because it is automatic - users just enter a few basic parameters and WorkNC takes care of the rest .

WorkNC's efficient 2 to 5 axis strategies, combined with optimized, easy to run toolpaths, bring dramatic productivity gains. With its wide range of tools and features, WorkNC can quickly make your tooling cost prices more competitive.



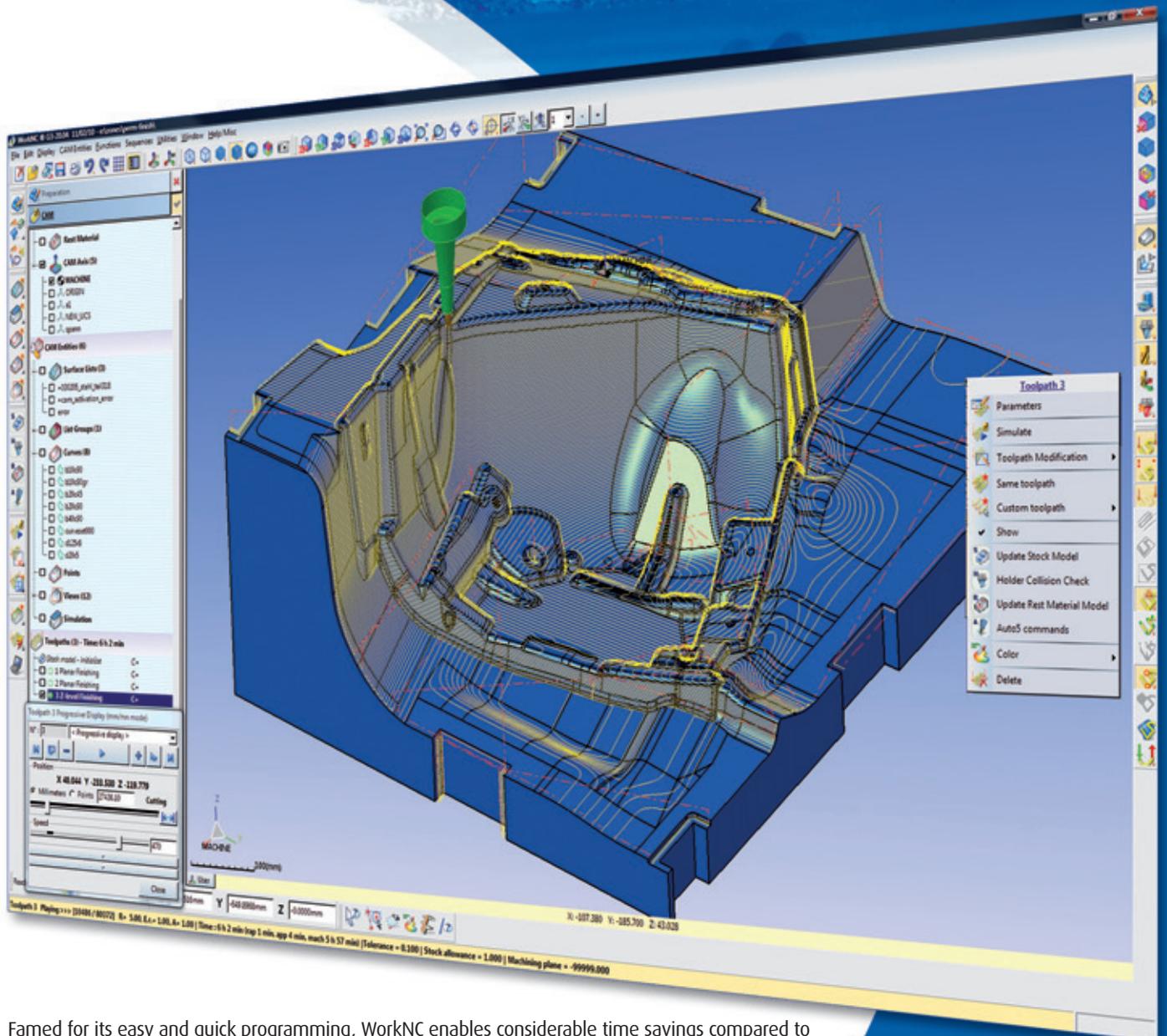
- > Exceptional reliability and performance due to dynamic stock management and WorkNC's ability to machine and re-machine in 3+2 axis mode,
- > Reduced machining times as a result of continually improved and innovative toolpaths (reducing air cutting time). WorkNC's re-machining toolpaths enable automatic rest material machining with increasingly smaller tools,
- > Improved quality of the part's finishing. Machining strategies and toolpaths, from the simplest to the most complex, can be redefined in a few clicks of the mouse,
- > Exceptional toolpath reliability (traditional and HSM) acclaimed by WorkNC users.
- > Sescoi's experience and familiarity with the most modern machine tools ensure WorkNC's toolpaths and surface finishes are continuously optimized,
- > Reduced preparation times due to the use of predefined machining sequences and batch mode toolpath calculations.
- > Multi-Core calculation - 64 bits.

Reliability / Ease-of-use / Automation

WorkNC applies advanced and proven technologies to ensure the reliability of complex toolpath calculations as well as the highest quality of surface finishing. The reliability of toolpaths generated, appreciated by thousands of users around the world for many years, makes unattended or even lights out machining possible.

The powerful automatic functions of WorkNC eliminate tedious, error prone operations associated with fully interactive CAD/CAM systems and the machinist can learn WorkNC in just a few days.





Famed for its easy and quick programming, WorkNC enables considerable time savings compared to many other CAM systems. The graphic user interface features a single, optimized graphics environment and improved ergonomics allowing toolpaths to be programmed even faster than before.

3 and 3+2 Axis Roughing, Finishing and Re-Mach

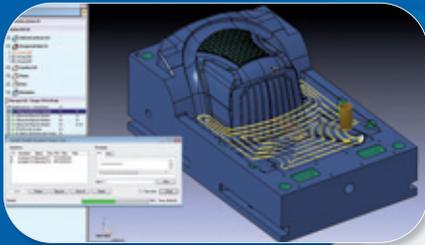
Efficient Roughing Strategies

Roughing and Re-roughing toolpaths are one of the cornerstones of WorkNC. They allow toolpath generation with reduced air cutting time, localized retracts and corner smoothing adapted for HSM. WorkNC automatically determines the areas where material has to be removed using its dynamic stock model management.

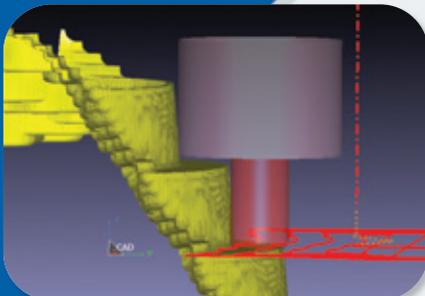
Dynamic stock model management makes machining even more reliable by taking into account the cutting tool and the tool holder to dynamically update the roughing toolpath and remove collisions for any tool length.

The efficiency of re-roughing strategies is constantly improved and WorkNC has the ability to machine undercut areas using 3+2 axis strategies. The 3D stock model is systematically updated allowing successive re-roughing toolpaths to be run with progressively smaller tools.

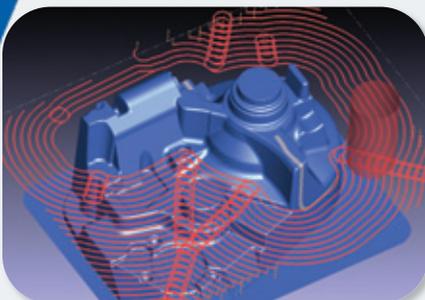
WorkNC includes a wide range of roughing toolpaths ensuring smooth motions and cutting conditions which are automatically optimized by customizable knowledge-based rules. This all comes together to ensure that WorkNC delivers high performance machining as well as long tool and machine service life.



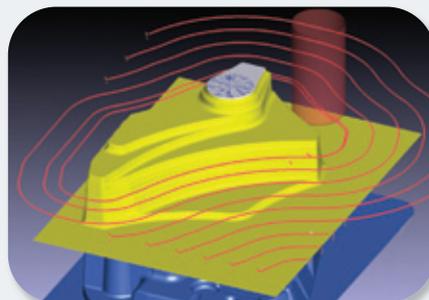
Global Roughing



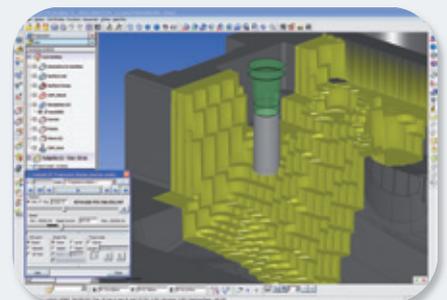
Dynamic stock model management



Adaptive trochoidal roughing: Roughing strategy for machining hard materials or for machining with large Z steps. A trochoidal movement is automatically activated when excessive tool loading is detected in order to significantly extend tool service life.



Spiral core Roughing



Plunge Roughing

Specialized roughing and re-roughing strategies to suit numerous requirements:

- > Global roughing and re-roughing (multi-purpose roughing),
- > High volume roughing (plunge roughing - hard materials),
- > Flat surface roughing and re-roughing,
- > Adaptive trochoidal roughing (for hard materials and high volume removal),
- > Spiral core roughing (for machining islands and from the exterior towards the center of a part),



Finishing and Re-machining toolpaths

A wide range of finishing strategies is available providing the best solution to all semi-finishing, finishing and re-machining job requirements. Easy to implement, WorkNC automatically generates finishing toolpaths according to initial parameters.

Customizable knowledge-based rules acquisition enables automatic parameter insertion and optimizes cutting conditions for each strategy.

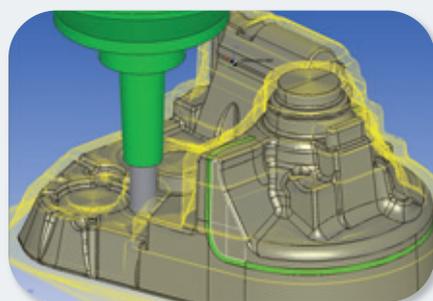
WorkNC includes a number of useful parameters (tangency extension, precision between points, tolerance, ...) which allow users to fine tune the quality of finishing toolpaths according to their needs.

Rest material re-machining strategies are both powerful and efficient. They automatically detect areas where rest material remains and therefore limit unnecessary tool movements resulting in reduced machining times.

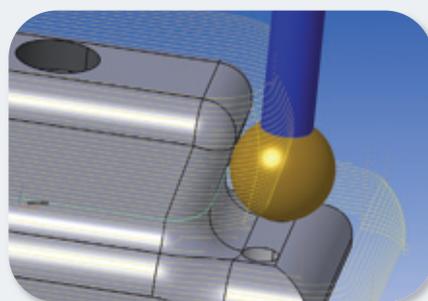
All finishing toolpaths are optimized to ensure the highest level of performance when using high speed machining techniques (corner smoothing, helicoidal approaches, Z level changes and island machining, ...).

A range of finishing strategies adapted to all requirements:

- > Finishing / optimization / Z-level re-machining,
- > Finishing / optimization / planar re-machining,
- > Variable step finishing,
- > Between 2 curves and 3D drive curve finishing,
- > Contour re-machining,
- > Pencil trace and parallel pencil trace,
- > Specific finishing toolpaths: High to low and Low to high,
- > 2D drive curve, Spiral/radial, Edge, Along curve, Keyways, Thin wall.
- > Drilling, tapping and point drilling.



Finishing



Undercut Re-machining

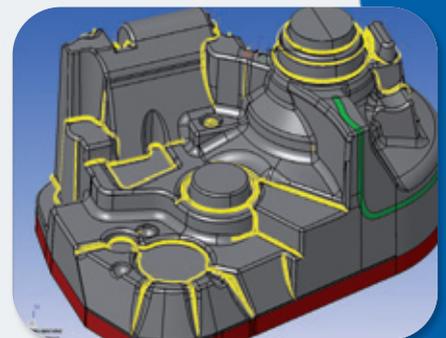
Automatic collision Check :

WorkNC uses a powerful algorithm which boosts collision control processing capacity.

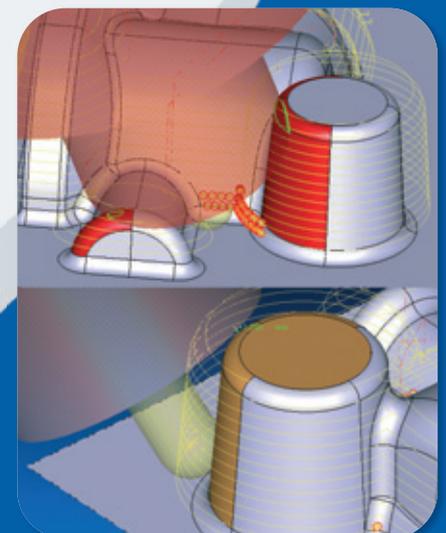
Collision display is optimized with real time visualization of collisions and proximities. Proximity visualization is an extremely practical addition enabling users to fine tune verifications before machining the job.



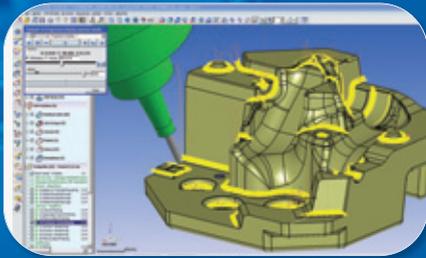
Z-level Finishing :
This toolpath is especially adapted for machining parts with steep walls which are automatically detected. Improved quality is ensured for high speed machining due to a fluid motion and radial lead-ins and stepovers.



Rest material



Automatic 5 Axis Machining



Automatic 5-axis machining and trade toolpaths

The WorkNC 5-axis module is above all easy to use and is well suited to the needs of mold, tool and die makers as well as those of a number of other industries including aerospace automobile and medical.

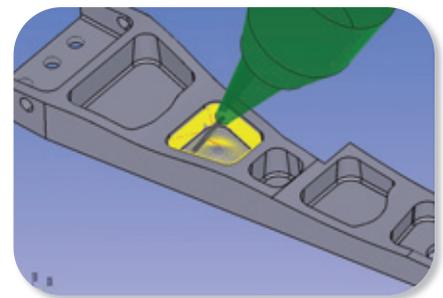
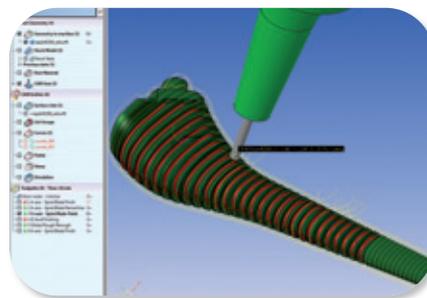
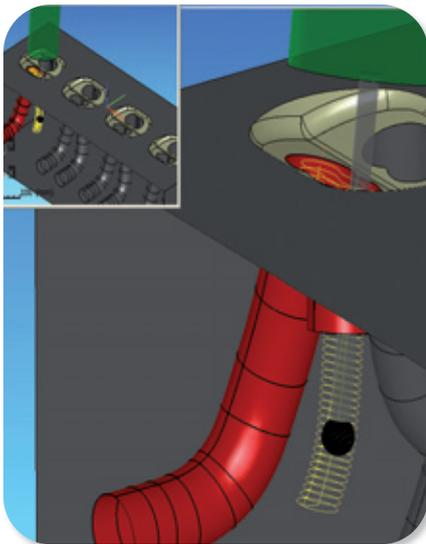
Parts with both deep cavities and relatively flat shallow areas can be machined using the automatic 5-axis machining functions of 'AUTO 5'. This module automatically converts 3-axis toolpaths into 5-axis toolpaths improving both surface finish quality and tool service life through the use of shorter tools.

These intelligent toolpaths are automatically and dynamically controlled to avoid collision and to manage machine rotation limits.

Simultaneous 5-axis strategies:

The wide variety of simultaneous 5-axis machining strategies are easy to implement and provide a high performance solution for all common requirements including trimming, pocketing and planar machining, as well as specific needs such as laser cutting, blades, tubes and impellers

- > Rolling,
- > Planar finishing,
- > Pocketing,
- > Blade machining,
- > Laser cutting,
- > Tube machining,
- > Impeller machining,
- > 3D curve machining,
- > Groove machining,
- > Drilling...



WorkNC 5 axis : 5-axis machining made easy!

- > Unrivalled ease of use.
- > WorkNC 5-axis toolpaths are every bit as reliable as WorkNC's 3-axis toolpaths.
- > Automatic collision management by systematic resetting of machine limits.
- > Fluid toolpaths avoiding abrupt movements and ensuring smooth trajectories.

A small training requirement for big productivity gains!

WorkNC's renowned ease-of-use, appreciated by thousands of users around the world, can be found in the 5-axis solution. Only a few hours training is required before generating 5-axis toolpaths.

With WorkNC 5-Axis machining, ease of use and reliability go hand in hand with improved productivity !



2 Axis Machining

2-Axis Machining

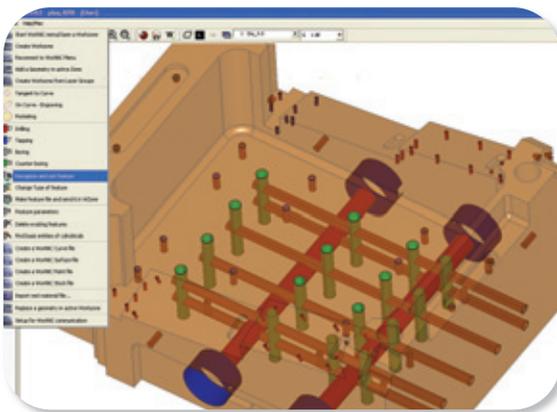
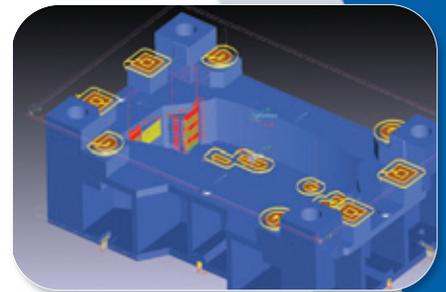
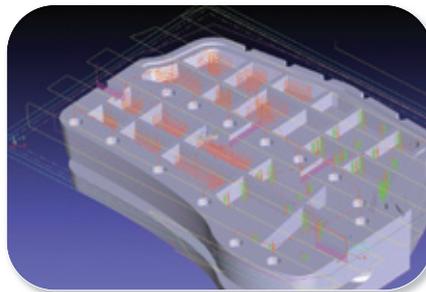
WorkNC's 2-axis and 2½-axis strategies are specifically designed for fast machining of support plates and assembly parts.

Machining preparation can be carried out on 2D or 3D models created with WorkNC-CAD or imported from another system using one of the translators.

3D models can be machined automatically. Numerous WorkNC 2D curve machining functions are available for machining directly from independent 2D entities or curves extracted from 3D models. WorkNC curve machining strategies bring significant productivity gains as they are highly tolerant and can be successfully used on damaged and intersecting 2D geometries.

2D machining strategies:

- > Tangent to curve,
- > Curve re-machining,
- > On curve (engraving),
- > Pocketing,
- > Rib machining,
- > Facing,
- > Drilling, tapping and point drilling.



Automatic drilling

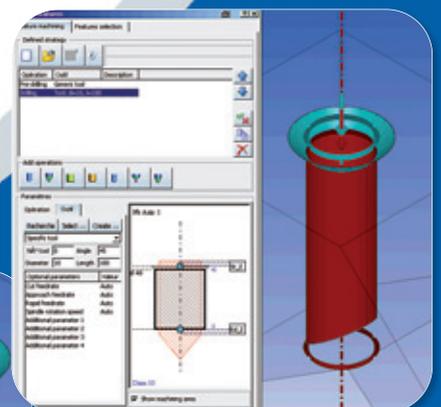
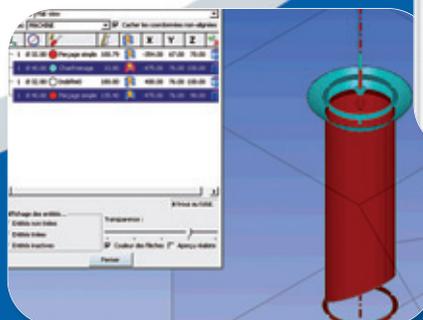
Automatic plate or 3D part drilling is based on automatic feature recognition performed by WorkNC-CAD. The features are then automatically processed using customized, pre-determined drilling sequences. This technology is particularly effective for machining plates fast, in optimal conditions, with improved reliability.

- > Automatic recognition of cylindrical forms,
- > Automatic features creation according to detected axes or angled planes,
- > Pre-defined drilling sequence selection,
- > Automatically generated drilling operations,
- > Deep hole and intersecting hole drilling management.

Interactive drilling

The automatic hole machining features recognition module, along with the automatic drilling function, are complemented by a high performance, intuitive manual drilling mode.

Users can directly use the topology of detected cylinders to interactively create composed drilling cycles.



Sescoi® has the solution

Since 1987, manufacturers around the world have put their trust in the high quality, reliability and ease of use of SESCOI's software solutions. WorkNC, one of the world's most widely used CAM/CAD system, WorkPLAN Enterprise a new generation custom manufacturing ERP solution, the MyWorkPLAN job management system and WorkXPlore 3D, an award-winning, high-speed 3D viewer, are just some of the solutions developed by SESCOI.

We constantly invest in quality, customer service, research and development to provide customers with cutting edge software technology.

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