hyperMILL®
Expert

Stand-alone **|** *hyper*CAD® **|** Autodesk® Inventor® **|** SolidWorks®

*hyper*MILL® Expert

This package is suited for complex 2D and 3D tasks, as well as high-speed and hard metal machining. It offers both standard strategies and special machining strategies, as well as several optimisation functions that enable the user to define customised machining tasks.

2D milling strategies

Face milling, playback milling, contour milling, pocket milling/ contour pocket, inclined contour machining, inclined pocket machining, circular pocket, rectangular pocket, rest machining, drilling and 5axis drilling, helical drilling, thread milling, gun drilling, optimised deep hole drilling taking the stock into account, and 2D chamfer cutting on a 3D model.

Thanks to feature recognition and processing, pockets and holes can also be programmed with particular efficiency.
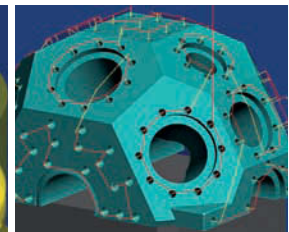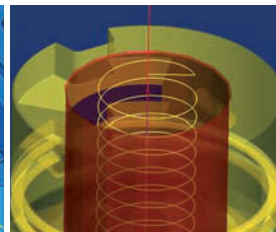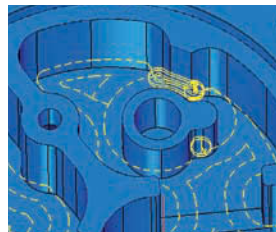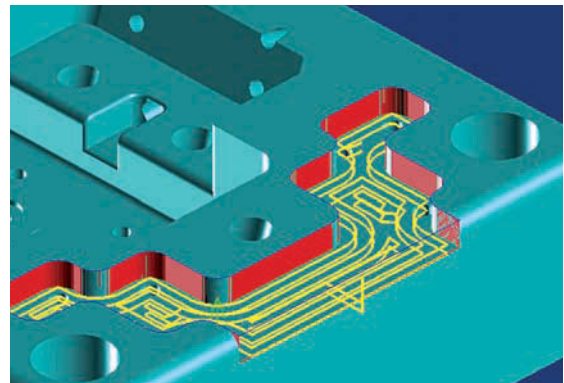
3D machining

Arbitrary stock roughing, multiple-job stock tracking for roughing, profile roughing and finishing, free path milling, ISO machining, Z-level finishing, XY-optimised machining, pencil milling, automatic rest machining, slope-dependent machining, multiple allowances, 3D cutter compensation. The Expert version includes exclusively the 3D cycles for complete finishing, rework machining, equidistant finishing and 3+2 Advanced (tilted maching).

To meet the high requirements of high-speed machining, this version includes special functions for smooth infeeding and plunging, rounding of toolpaths and corner radii, as well as full cut avoidance. The optional *hyper*MAXX® strategy with dynamic feedrate adjustment also enables high-performance milling with the maximum possible feedrate.
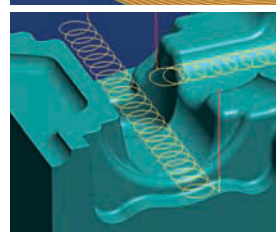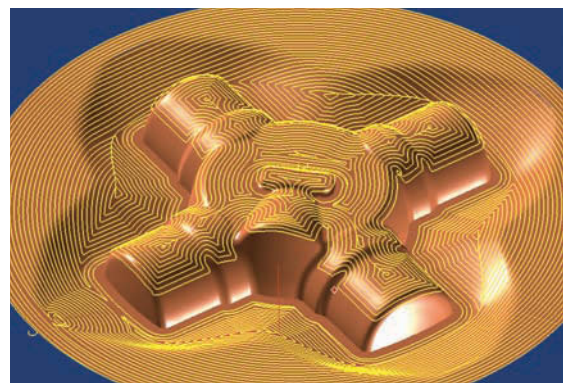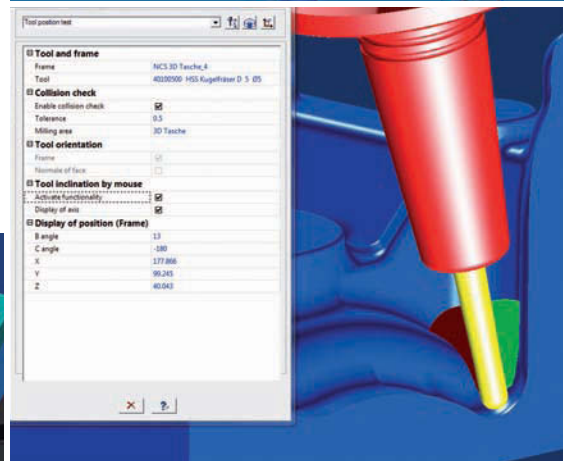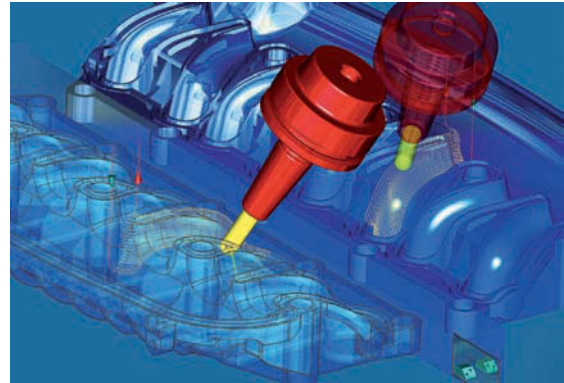
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Administrative functions

_hyper_MILL® Expert offers various administrative functions that enable transparent, easy workflows:

Supports metric and inch measurements, component analysis, feature technology with pocket recognition, macro technology, multi-axis indexing (requires an indexing 4axis or 5axis post processor), transformations (reproduction/mirroring of toolpaths), job lists, compound jobs, associative job copying, parametric job definition, automatic polyhedron generation, collision check for tool holder and toolpath, use of conical tools, visualisation of individual toolpaths, support for tools with multiple reference points, free tool geometries (simulation and removal), free NC text, automatic software update, automatic backup copy, NC events and report designer.

Options

There are also various optional functions available for _hyper_MILL® Expert. These include the customised process feature, the mould pocket for machining polystyrene, _hyper_MAXX®, the NCSIMUL interface, the VERICUT interface, the network licence, frame calculation for geared machines with incremental positioning (Hirth coupling), support for origin tables and the _hyper_MILL® API programming interface.

Simulation

The *hyper*VIEW® simulation software is a powerful control tool that delivers a precise overview of the generated milling paths. *hyper*VIEW® provides fast and dynamic simulations of all your tool movements before the final NC program is generated.

*hyper*MILL®'s machine and material removal simulation makes efficient workspace monitoring possible. A check is made using the stored machine model to see whether the 2D machining job can be completed within the planned machine's workspace or whether limit switches will be traversed.
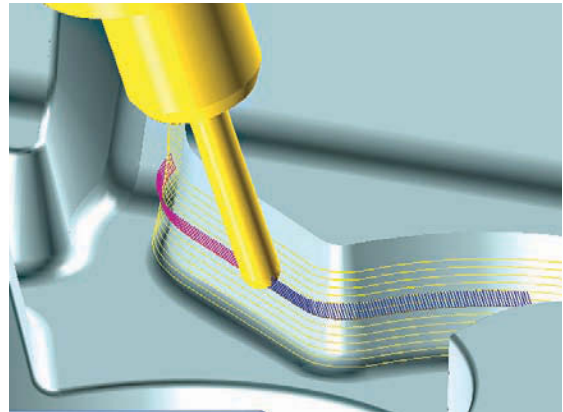
The OPEN MIND tool database

Tools along with the tool number, geometry, holder and head can all be stored in a tool database. By systematically maintaining and expanding the tool database, users can build up a pool of data that will facilitate the fast and efficient use of tools in *hyper*MILL®.
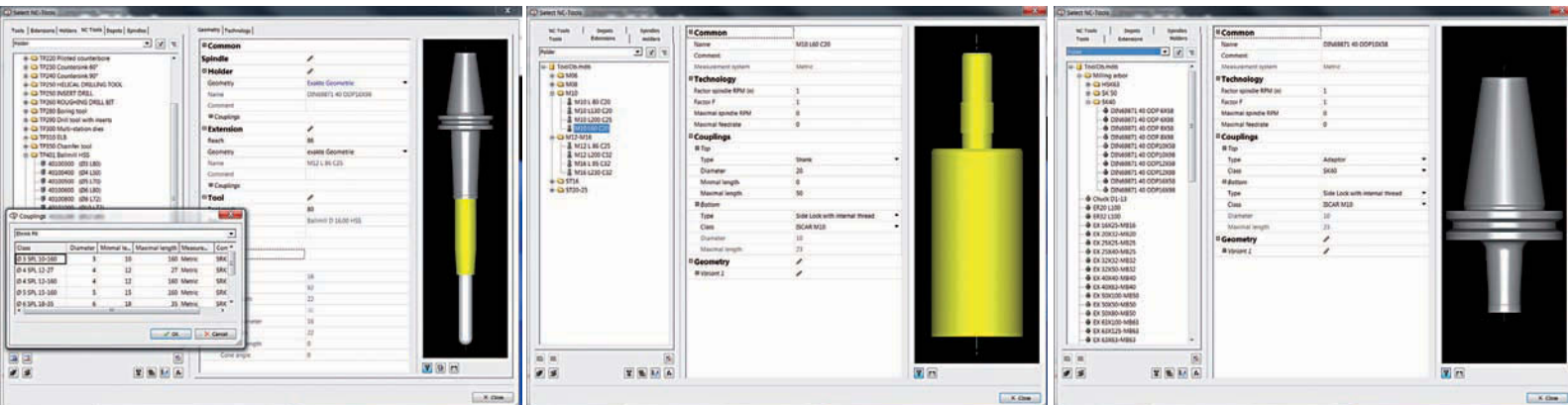
OPEN MIND post processors

*hyper*MILL® is able to calculate toolpaths independently of machine and controller. The post processor generates NC programs based on this neutral data.

*hyper*MILL® Expert is delivered with a 3axis post processor from the OPEN MIND standard library for milling. Post processors for 3+2 axis machining, 5axis indexed machining and 5axis simultaneous milling, and for combining milling and mill turning, are also available as optional features.