

TIME SAVINGS
70%
... AND MORE!

The Revolutionary CNC Milling Technology – now integrated in Siemens **NX**



Finally, all the promises of a TRUE REVOLUTION in CNC machining are actually delivered – breakthrough Technology brought to Reality by iMachining!



Saves 70 % and More in CNC Machining Time



Drastically extends Cutting Tool Life



Avoids Guesswork: Optimum CNC Settings with the unique iMachining Technology Wizard



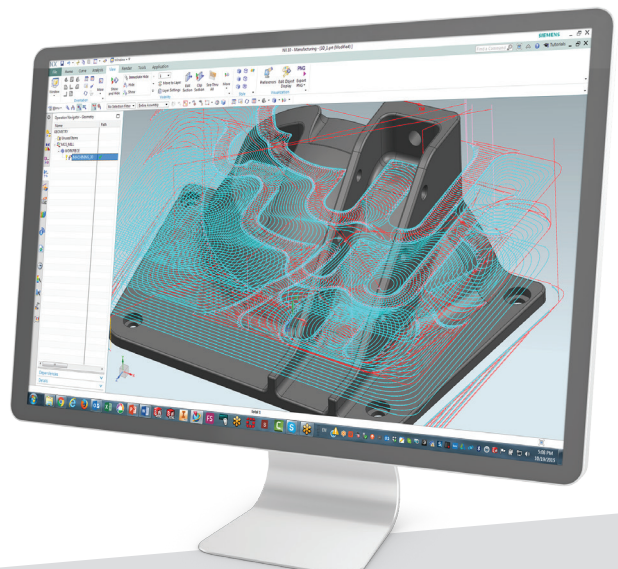
Immense Savings in Programming Time

Customers Reaction to iMachining: “Simply Amazing”



“My hope is that not too many people learn about iMachining because it is my biggest competitive edge!”

Greg Burns | Burns Machinery





Saves 70 % and more in CNC Machining Time

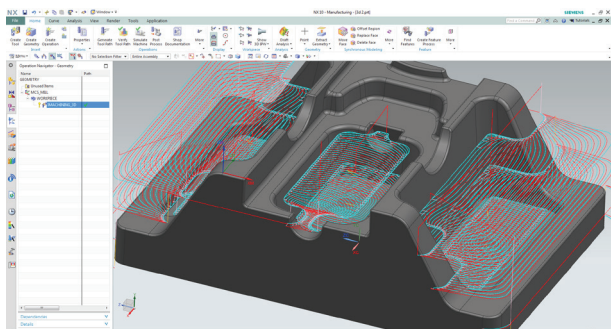
The unique iMachining toolpath, with fully optimized feeds & speeds, keeps the cutter at maximum efficiency and ensures a maximum material removal rate. Exact stock rest material machining and finish cuts eliminate air cutting and unnecessary tool retracts.

Drastically extends Tool Life

With iMachining, the average Tool life increases by 5 times or more. Machining at full depth-of-cut ensures that the entire tool is utilized rather than only the bottom part. Optimum cutting conditions reduce tool wear and increase process stability to avoid uncontrolled tool breakage especially when using small and fragile tools. iMachining eliminates the cost of premium and specialty tooling for hard materials.

Shortens Programming Time

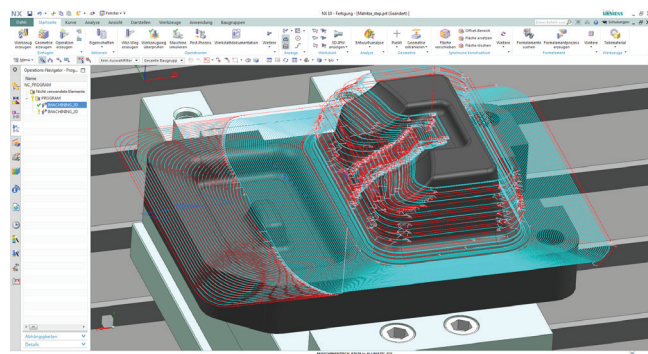
The Technology-Wizard provides optimal feeds & speeds, and step-over to ensure time-saving first-part success. The much shorter and simpler programming procedure of iMachining results in greatly increased CAM productivity.



iMachining Technology Wizard

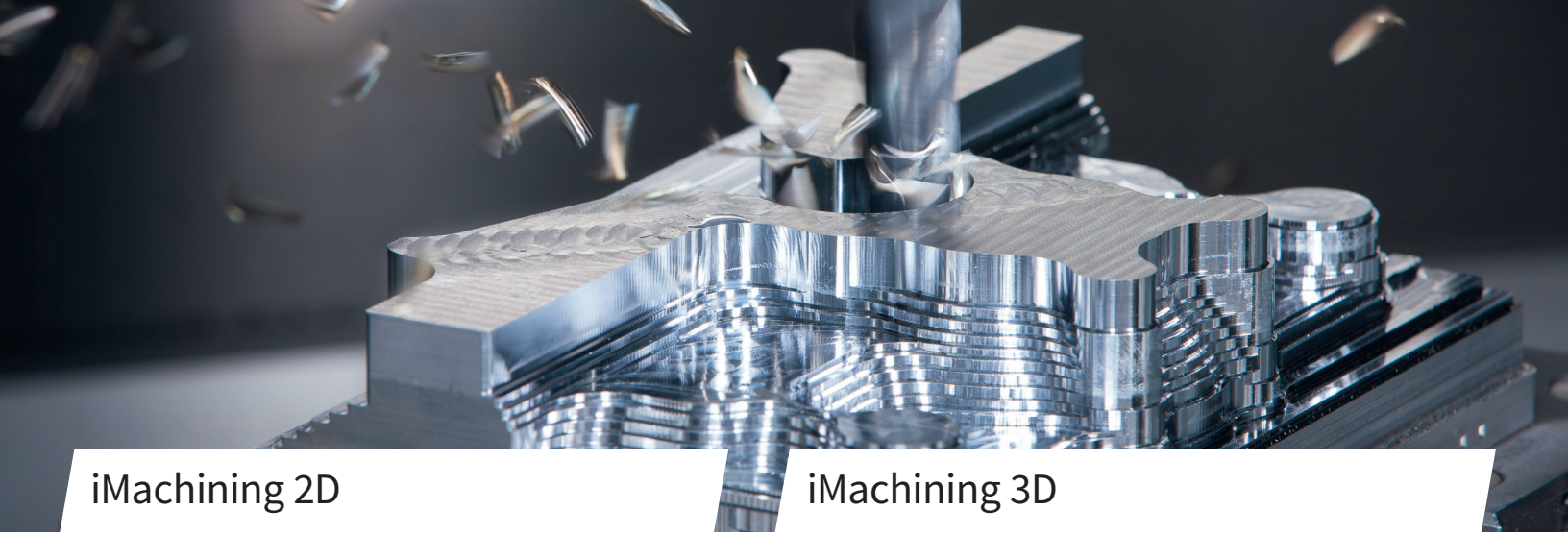
The exclusive, patented Technology Wizard takes out the guesswork by automatically providing all machining parameters. The industry's first and only TRUE Wizard uses an advanced, patented technology that automatically produces optimized feeds, speeds, depth and width of cuts – all specifically for your CNC machines, your materials and your tools. The Technology Wizard is the perfect tool for even the most seasoned machinist for getting it perfectly dialed in, the first time – or for the less experienced machinist, iMachining will turn them into an expert in no time.

The “iMachining Level” lets the user choose from 8 levels to automatically adjust for “real-world” fixture, tool holding and CNC machine conditions. The levels make it easy to overcome common challenges with spindle-rigidity, fixture-rigidity and excessive tool deflection.



Seamless Integration of iMachining in Siemens NX

The proven iMachining technology is now available as an integrated plugin for Siemens NX. CAM users can now insert iMachining 2D and 3D operations directly inside NX CAM, using all NX functionality.



iMachining 2D

Imagine putting the Knowledge and Experience of Hundreds of CAM and CNC Masters in the Palm of Your Hand – Experience iMachining’s Wizard & Toolpath!

- ▶ Select 2D geometries and quickly define iMachining operations on your part
- ▶ iMachining uses the full length of the tool, easily cutting even the toughest metals with the smallest diameter tools.
- ▶ The knowledge based, expert iMachining Technology-Wizard ensures optimal cutting conditions in any material – on any machine.

iMachining 3D

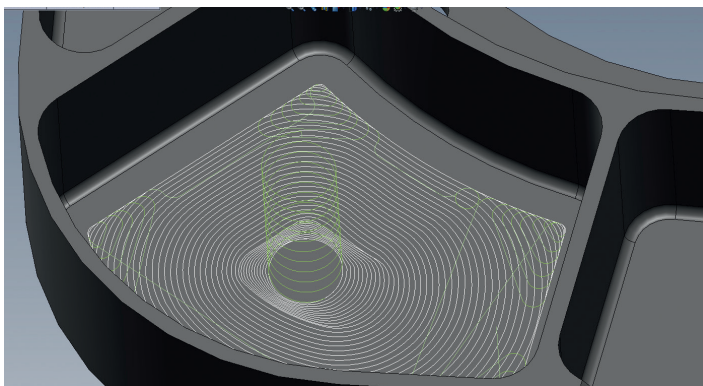
Automatic, high-speed milling tool path for optimized Roughing with “staircase reduction”, and Rest Roughing for general shaped and prismatic 3D parts.

- ▶ With its full-depth step-down, intelligent step-up and localized machining, iMachining 3D produces the shortest optimal cycle-times to rough and rest rough a complete 3D part, with True Scallop on all slopes, all in a single operation.
- ▶ iMachining 3D uses target and updated stock geometry from previous operations to automatically recognize areas it needs to machine, eliminating “air-cuts” and optimizing tool repositioning.

iMachining Wizard + iMachining Tool Path = the Ultimate Solution!

Morphing Spirals: Beyond Trochoidal Cutting

iMachining uses an advanced, patented morphing spiral that gradually conforms to the geometry of the feature being machined rather than an old-fashioned, simple spiral tool path (racetrack). This maximizes tool to stock contact or “tool in the cut” time.

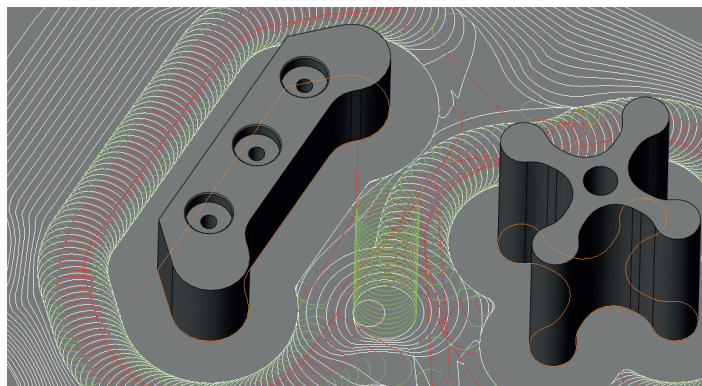


Eliminate Wasted Time & Motion

iMachining tool paths only cut the stock that needs to be removed, eliminating “air cuts”. From the initial approach to the last cut, dynamically updated stock tracking ensures every tool path actually cuts material.

Moating: Divide & Conquer

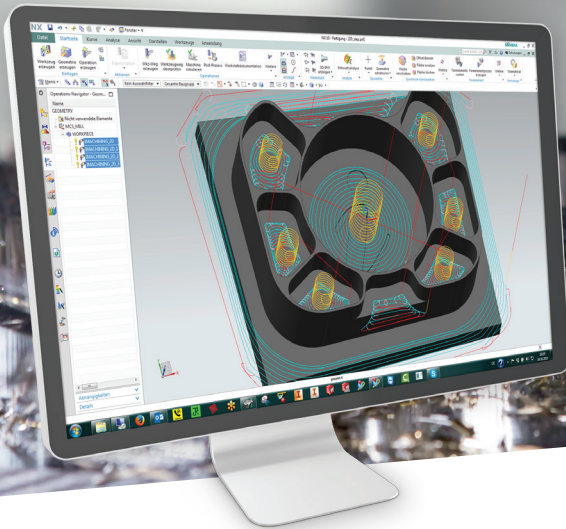
In order to most efficiently attack large areas of material removal as well as stand-alone islands, they are separated or subdivided into smaller sections using iMachining’s patented Moating technology. This maximizes the efficient morphed spiral cutting.



Smart Repositioning

iMachining moves the cutting tool from one cut to another at the cut depth, only retracting when absolutely necessary.

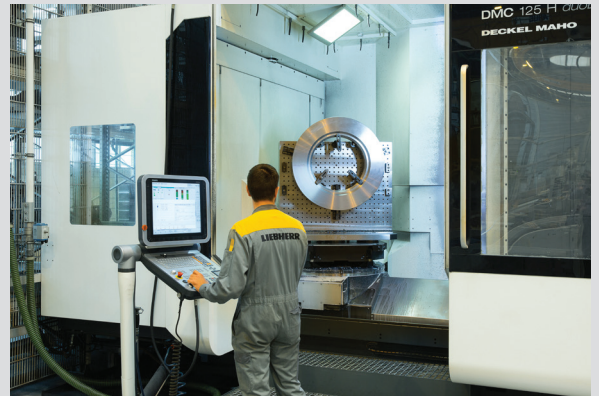
The Power of iMachining right inside NX – a great Synergy!



imachining[®]

The Revolutionary Milling Technology integrated in **NX**
patent by SolidCAM

- ▶ iMachining – with its unique patented “morphing spirals”, intelligent island separation and moating, achieves the shortest cycle times in any industry - in any material, on any machine.
- ▶ The cutting angle constantly adjusts between a minimum and a maximum value, while the feed is dynamically adjusted to ensure constant mechanical and thermal load on the tool - providing you with the longest tool life at the highest Material Removal Rate (MRR) possible.
- ▶ Since spirals have higher MRR than Trochoidal tool paths, iMachining utilizes various, patented strategies that enable it to use spirals much more often than Trochoidals.
- ▶ iMachining automatically reduces vibrations to prevent excessive tool wear and also decreases the likelihood of forming temporary thin walls that often lead to costly tool damage.
- ▶ Using advanced rest material knowledge, iMachining maintains the highest level of cutting tool engagement by avoiding “air-cuts” and repositioning moves.
- ▶ The iMachining Technology Wizard provides automatic, optimal feed and speed values for different materials and CNC machines to ensure “first-cut” success.



“We have freed up a lot of production capacity, have significantly increased our productivity, and reduced tool costs by more than half. The investment has more than paid for itself. For us, iMachining is definitely a quantum leap.”

M. Torghele, Liebherr, Nenzing, Austria

“We use iMachining with nearly all our products – from 2.5D-, 3D- up to indexial 5-Axis Machining. From today’s point of view, it is a no-go to work without it.”

A. Winkler, Zrinski AG, Germany

“Every day we don’t use iMachining we are losing money!”

Rotary Airlock, USA



Visit our website for more iMachining success stories, videos and customer quotes