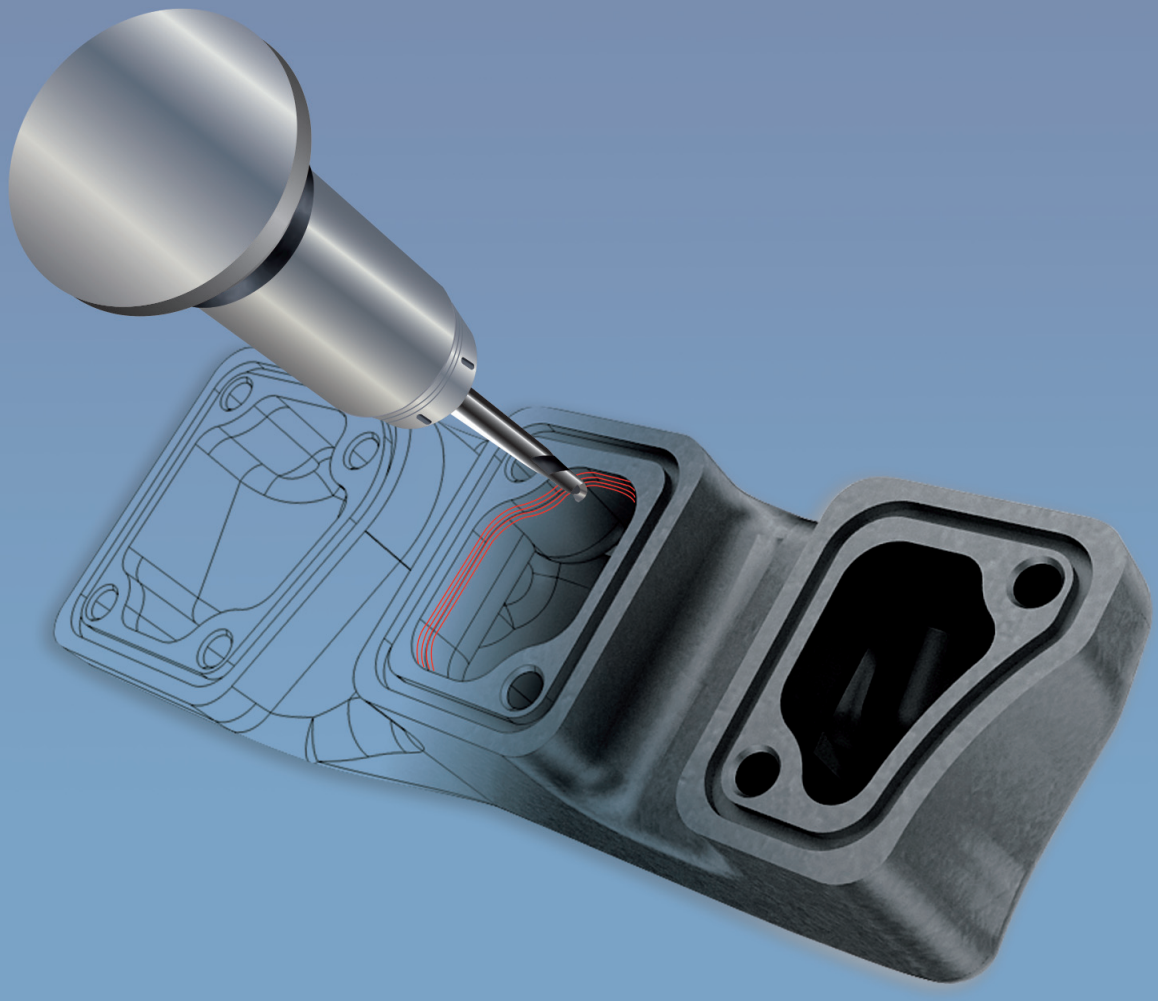


CAM EXPERIENCE

Simple, reliable, cost-effective.

sum3D®

CIM system
Computer Integrated Manufacturing

The Italian team of development, sales and support of **SUM3D** works from 20 years with customers, manufacturers and OEM partners, to satisfy all the production needs.

SUM3D was one of the first 3D CAM, born to work any format of three-dimensional mathematics.

The great experience and expertise gained in these years makes us one of the market leader in all manufacturing industries.

Why to choose SUM3D?

The completeness of its features and its ease of use determined its diffusion in hundreds of companies, in Italy and abroad.
It was created with the contribution of experts who steadily feed with their suggestions the growth and development of the product.

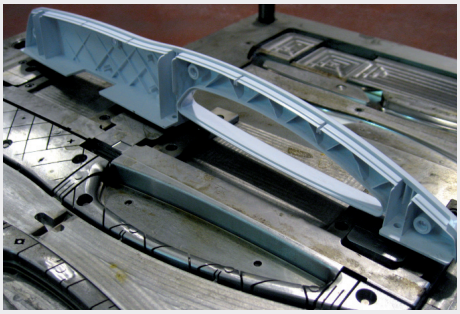
The great ease of learning allows to use it just after a few hours training. The only ability required is to know how to operate on a CNC machine tool: the user is "guided" in choosing the machining options, from the tool's definition to the tool-path generation.

Large companies often use **SUM3D** installed on the machine on all CNC in the shop floor. With the Maximum clarity about versions and options there are no "unpleasant surprises".
It is all inclusive: the post-processors for many machines aren't an additional cost.

SUM3D satisfies all that are asking all the capabilities needed to manage the production, with the advantage of a brief training of the operators working on CNC and CAD/CAM. Many customers choose to buy **SUM3D** as the first program combined with a numeric control machine, because they recognize this system as the solution for the best results in the shortest time.

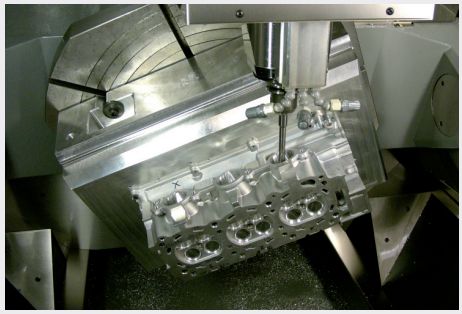
INDUSTRIES

SUM3D is a CAM software which can be used in various fields of application like:



Moulds
plastic moulding, die casting, sheet, forging and thermoforming.

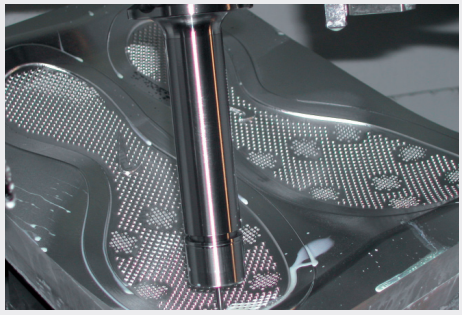
Modelling
moulds, particulars for helmets, shipbuilding industry, foundries, musical instruments and medical.



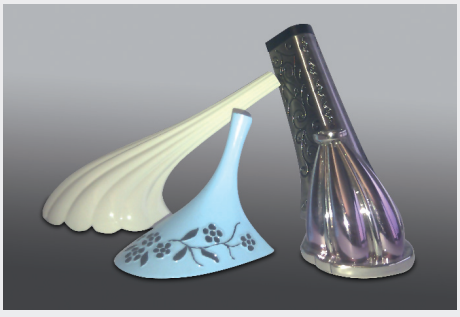
Mechanics
structural parts for aerospace industry, automotive, sport, telecommunication and machines.

Petrochemical and energy
valves' parts, flanges, impellers, heat exchangers and electric power stations.

Medical
orthopaedic prosthesis' parts, orthopaedics, dental, special instruments.

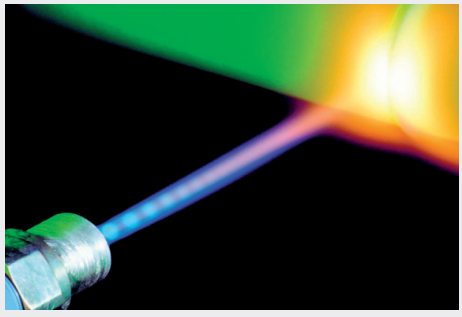


Footwear
moulds or particulars for shoes, soles, heels and for diving.

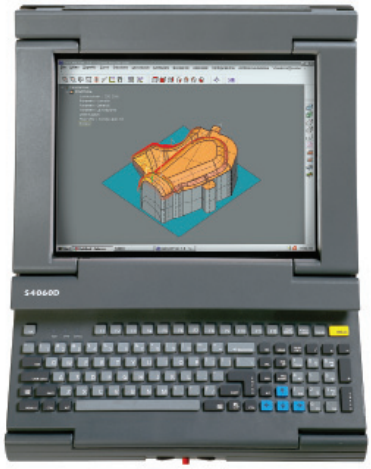


Fashion
moulds or parts for jewellery, buttons, buckles, fashion accessories.

Wood and Marble
furniture, shutters, design objects, statues, homeware.



Automation and robots
laser cut, removal, welding and material adding.



CAM on the machine

We have taken a particular care to design a system working on Windows based CNC. In this case the part of tool-path creation is managed right from the machine operator, straight from the CNC. Thanks to its ease of learning and of use, many customers choose this solution.
In this way CNC operators are autonomous in managing the tool-paths: they get the "clean and ready to mill" mathematics and relieve the technical department from the tool-paths' creation, improving the process efficiency of design and production.

Integration and import of digital models from other CAD\CAM systems

The experience we gained allowed us to introduce a wide range of interfaces to read 2D or 3D geometries from various CAD\CAM systems. Many formats are included in SUM3D base configuration like: **Iges, Dxf, 3dm, Parasolid, Vda, Stl and Bmp (pictures).**
The importers for **Catia® V4 and V5, NX®, Pro/E®, Inventor®, SolidWorks®, Step and Digitalizations** are available as optionals.
All the interfaces can recognize and group the holes by their diameter, to speed up all the operations for their machining (drilling, tapping, boring, etc.). The close and bidirectional integration with Rhinoceros allows the automatic update of the changes made on profiles and surfaces avoiding to re-import the model.
Furthermore there's the availability of a component, to be installed in **SolidWorks®**, which can export the CAD model inclusive of all the features that will be managed from SUM3D.

Archives

SUM3D manages different kind of archives in which the used data can be input on a daily base.
Once these archives are defined, the input of repetitive data will be automatic, reducing eventual data entry mistakes and creating a database of the customer's experience.

Tools

SUM3D manages any tool's shape: flat, spherical, toric, ¾ of sphere, disc, shaped, drill, tap, flattening, grooving and boring. The tool can be cylindrical or conical. The tool's input interface, besides all the dimensional and technological parameters, allows to define the tool's life, preparing the post-processor for a tool change (twin tool) or a pause to verify the tool's wear. Furthermore it's possible to associate a series of tools to a single machine, to create its own tools' archive.
The cut data are automatically managed for each material.

Components

The possibility to draw the tool's components (toolholder, spindle, extension, etc.) permits to graphically verify the tool-paths and to calculate them with the maximum security, given from the collision's check which takes them into consideration.
In case of collisions SUM3D can apply various kind of behaviours to avoid the collision.

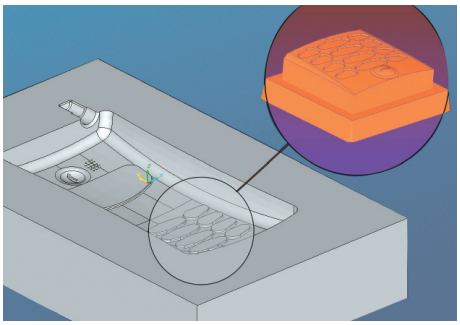
Machines

In SUM3D it is possible to configure a custom machine's archive, including both milling machines and wire EDM ones. The machine can be defined with all kind of post-processor without any additional cost. In this archive it is possible to customize header, footer, tool's change, wear's verification, fixed cycles of drilling, G2/G3 use, composition of the machine's axis and various customizations.

Materials

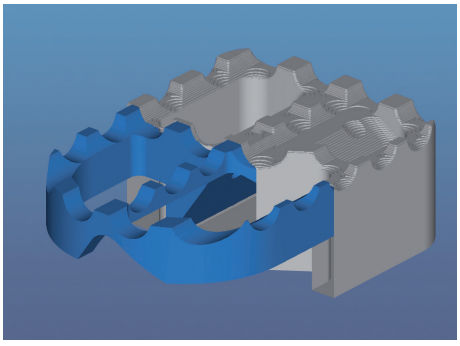
This archive allows to input all the materials the customer works with. The input materials can have different technological data for each tool.
When creating a new project, SUM3D lets the operator choose and modify the material with the automatic upload of the proper parameters.

Geometries' manipulation



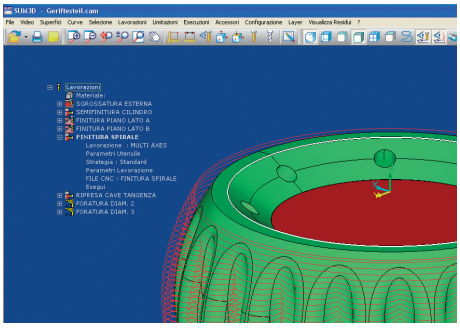
After the import of a model or a curve, it is possible to modify their position and orientation by using specific controls, for example to create the origin point for the machinings.
Some specific features allow to create or modify the model when it's necessary to set changes to like parting surface or holes' closing and where is necessary to avoid the machining of gaps, zones, fixtures and restraint profiles. In case some parts of the model need to be extracted to machine electrodes, the command "**export part of surfaces**" will crop the selected zone and create a new CAM file.
When importing 2D curves, the system can machine them directly or automatically transform them in a 3D object and then machine them. The sectoring and management system of the pictures allows to generate a model to machine from a picture or a logo.

Stock and dynamic stock management



The machining of semifinished products (casting stocks, pre-machined, etc.) is made easy by means of the **raw** part **management** features.
SUM3D allows to machine by object considering the starting stock. The stock can be import together with the model to machine or created with SUM3D. SUM3D can manage more stocks for the same object.
After each machining, the stock can be dynamically updated and used for the following machining which will be updated again.
The **layer management** allows to configure the surfaces, which can be displayed having transparency or not, and to define the stock properties. The layer management can be very useful also to identify and to differentiate the model parts, allowing their visibility only when they are in use.

User interface



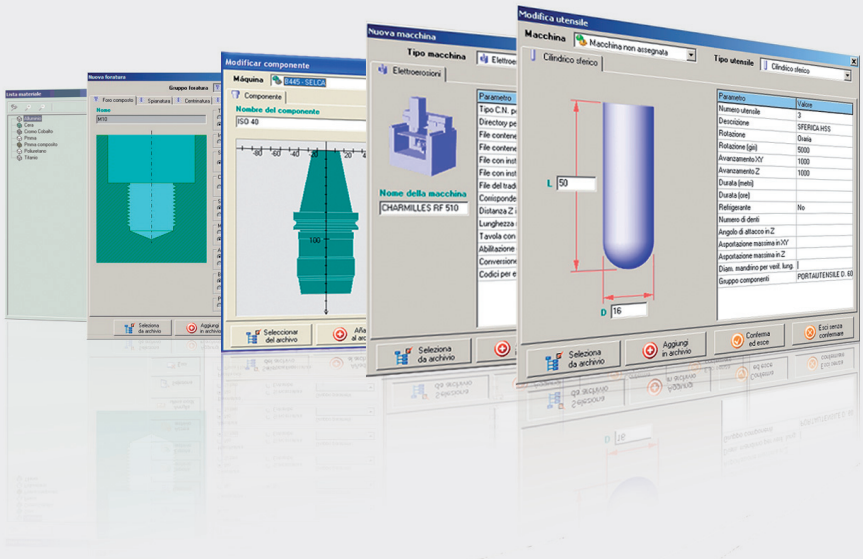
The **user interface** has been studied to make the operator able to work also without specific knowledge in using information systems. The parameters structure, based on the **machining tree**, can define rapidly and intuitively all the machining cycles. SUM3D ensures the tool-paths reliability by using calculation strategies which take always into consideration the full anti-collision check and the tool's maximum material removal check.
Furthermore there are dedicated features to analyze the calculated tool-paths, the kinematics simulation and the material removal. The strategies defined upon your production needs will be archived and ready to be used when necessary. SUM3D allows the simultaneous machining of more models in **multi-session**, and utilization of the new **multi-core** processors, optimizing the time for the machining preset and calculation.

Drilling

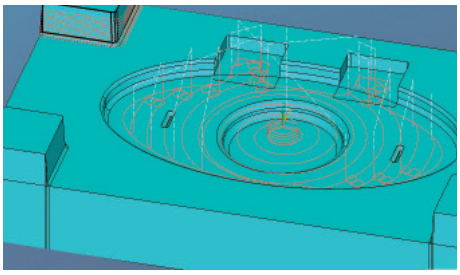
This archive allows to automate the generation of cycles to drill the holes.
The archive is split in two parts:
a) "Drilling commands" to manage the creation of geometric standards for composed holes, drillings, tappings, etc.
By means of the archived information the system applies the machining cycles related to a geometry with specific characteristics.
b) "Drilling rules" to manage the technologic part based on a range of heights, diameters and presets.

Machinings

SUM3D can archive one, a series, or all the machinings performed and tested to make an object. In this way a set of configurations will be ready to use, to machine new objects by setting all the working cycles at once.

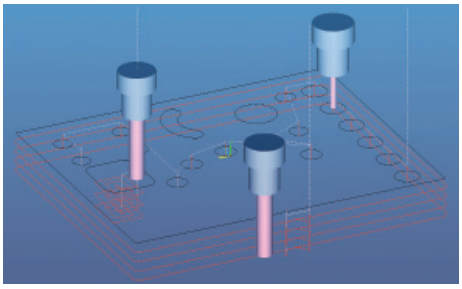


Machining strategies



The machining algorithms are very flexible to fit the needs of any machine tool. SUM3D can generate tool-paths from 2 to 5 axis in continuous or indexed, with a wide range of calculation strategies.

In case of high-speed milling (HSC) some solutions allows the effective and rapid machining starting from the roughing to the finishing with last generation machines.



2,5 and 3 axis machinings on 2D geometries

Also if dedicated to three-dimensional machining, SUM3D can offer various two-dimensional machining strategies. these machinings can be applied to simple imported profiles/curves.

Flattening

Pocketing, island pocketing

Rest milling in pocketing with information about the tool previously used.

Contouring, with compensation of the tool's radius managed by the software or by the CNC with G41/G42 functions.

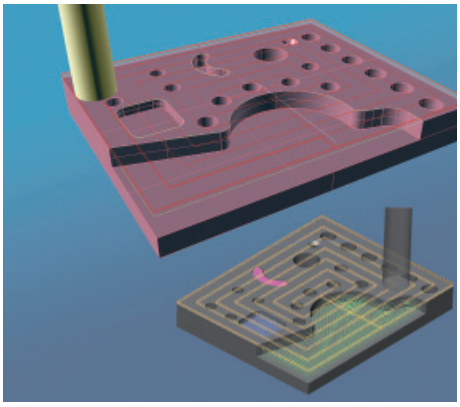
Helical contouring of 3D profiles with constant or variable step.

Oscillating tool-path for grinding tools.

Engraving or relief from TrueType texts, disposed along lines, arches or specular.

Drilling (tapping, centering, boring, milling/reaming)

- use of ISO cycles or cycles of the single machine tools.
- recognition of groups of diameters, colours and/or features.



2,5 and 3 axis machinings on 3D models

Pocketing with stock and dynamic stock management, with rest milling to keep a constant machining allowance, rest milling relative to a previously used tool and optimization of material removal. For hard materials it is possible to avoid that the tool machines the solid. In this case it will be generated trochoid movements and approaches/retractions in tangency.

Constant Z or zone contouring, with various kind of engagements and automatic rest milling to maintain a constant scallop.

Zig/Zag and one-way machining with rest milling strategies to obtain a constant scallop with the possibility to manage clearances between steps which could be radial, extended in tangency, internal to the surfaces.

Spiral with strategies to obtain a constant scallop, and offset extension with or without islands.

Bitangency for the rest milling or the breakout of small radiuses or corners.

3D Pocketing 3D concentric machining with constant increment.

Automatic Machining of planes

Machining between two curves longitudinal, transversal or spiral, with or without constant scallop.

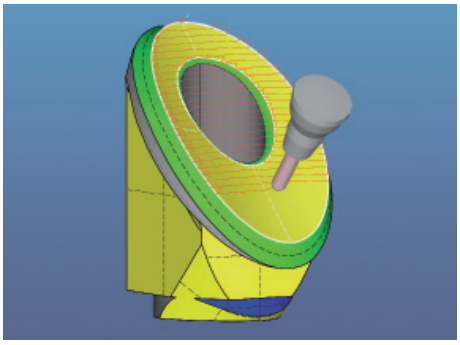
3 axis isoparametric for rest milling of jonts or particular surfaces.

Material rest milling on the basis of a tool geometry or the previously used tool.

Drilling applicable to a group of diameters, a range of diameters or holes' colours with ISO output or with CNC fixed cycles.

Curve machining with or without three-dimensional model control.

Undercut machining performed with pocketing or contouring, by using disc or ¾ of sphere tools.

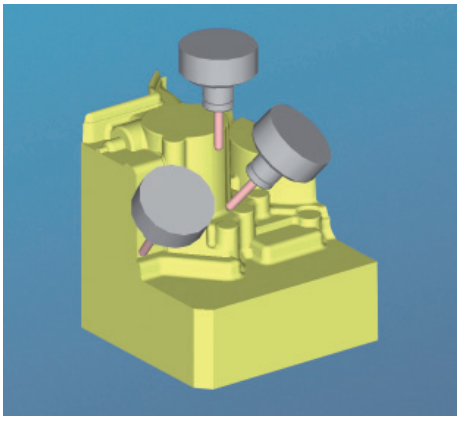


3+2 axis machinings on curves or 3D models

All SUM3D machinings can be calculated by orienting the spindle's axis (positioning of the 4th and/or 5th axis) ensuring the collision check with the tool and its components, creating in the post-processed file the functions of 4th and 5th axis roto-translation.

The dynamic stock can be automatically updated to ensure the right remaining materials rest milling. The machinings of drilling, tapping, etc. can be processed in ISO or with CNC proper cycles.

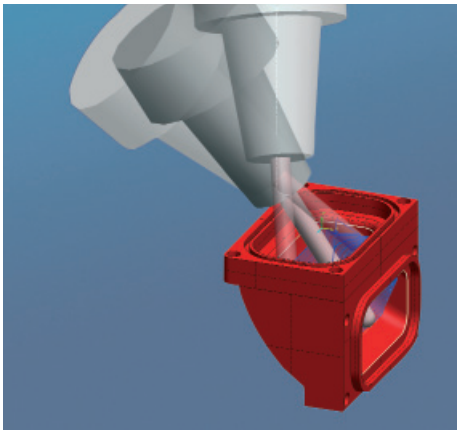
5 axis machinings on profiles or 3D models



Curve machining with the possibility to orient the tool in continuous, keeping it perpendicular or parallel to surfaces of reference, to the surfaces vectors or parallel to drawn vectors.
Isoparametric (U/V) machining with the possibility to manage a tool advance angle and curves to identify the release tool-path of the working area.
Model machining with selection of a **reference surface which defines the continuous inclination of the tool axis.**

Model machining where **a profile binds the tool center** in 5 axis movements, to machine deep undercut pockets or large punches with tools like discs or 3/4 of sphere and reduced shank.
Conversion of 3 axis tool-paths made with spherical tools, in **5 axis continuous programs** with 5 axis collision check.

Advanced 5 axis machinings



The AMM, Advanced Multiaxis Machining, module empowers SUM3D performances, providing new and multiple working strategies from 3 to 5 axis. Those strategies allow effective problem-solving in programming multifunctional 5 axis machines or robot. The aim of this technology is to reduce the machining time of roughing, semifinishing, rest milling and finishing phases and to obtain the final item avoiding to re-positioning or re-finishing it with the help of other technologies (for example with electrodes).
In case of moulds machining these features allow to use short and very small tools and to work areas in deep pockets or undercuts. To machine special items with undercuts, there are several features which can work complex items like impellers, blades, ducts, etc.
To ease the 5 axis machinings configuration it has been studied a proper graphic interface which makes very simple and intuitive the input of multiple parameters which control each strategy. With the dynamic graphic help, which varies the picture according to the selected parameter, the user can easily find the best strategy to machine any item.

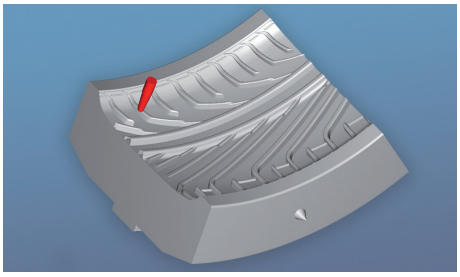
Main parts of the module

- Strategies to apply to surfaces, meshes or curves.
- Various strategies to define the 3, 4 or 5 axis tool-path calculation, concentric, parallel or spiral.
- Advanced systems to orient the tool axis with the possibility to manage the point of contact and to limit the work area.
- Four levels of collision check of all the tool movements, either when in contact with the item than in re-positioning. These controls are performed on working surfaces and on all the surfaces added from the user (e.g. fixtures).
- Full management of the links: all the movements to be performed in case of tool-path interruptions (gaps or parts to avoid), between the steps increments and of engagement/release.
- Advanced management of initial and final engagement and releases and between the steps.
- Management of the safe area data from origin points, planes, cylinders or spheres.
- Management of the stock which determines the crop of the eventual part of void tool-path.
- Management of various strategies of roughing, optimized for specific needs (turbines or impellers).

Collision check

During the machining all the surfaces (item, holder or fixture) are in risk of collision. The AMM module gives many options to avoid these risks calculating according to various strategies, a tool-path without collisions.

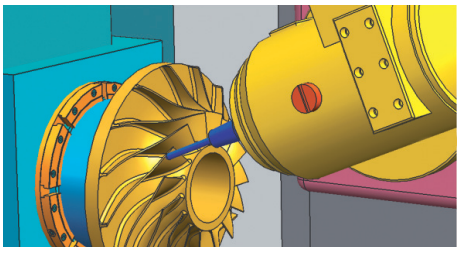
Advantages and application fields



Moulds

In this field the AMM benefits are:

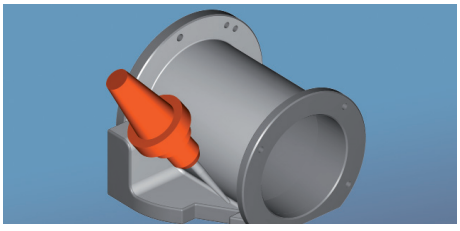
- work with the tool's side always parallel to the surfaces, in order to obtain a better finishing in shorter times, considering that in this case the increments could be higher.
- use short tools and a 3 axis machining for all the parts without tool or shaft collision. Only for collision areas the tool Vwill be rotated by the user.
- Machining or rest milling the areas with deep cavities avoiding to finish them with electrodes.
- Machining undercut areas avoiding the repositioning of the item.



Industry

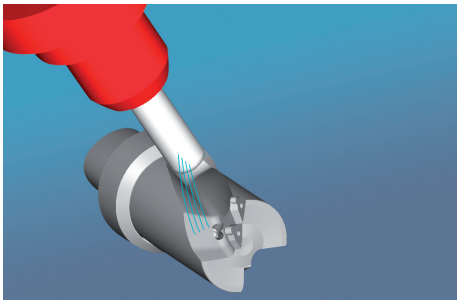
To reduce machining time are often used multifunctional machines in order to produce the finished item with the minimum number of repositioning and the best quality. AMM fully manages the milling process with this specific features:

- roughing, rest milling and concentric finishing of any kind of cavities with 4/5 axis
- rest milling or finishing of corners or small radius areas, using the side of the tool
- specific machining for cams, ducts, blades, impellers, pipes, worm screws, extruders or tools.



Specific machining for petrochemical, water and gas industry

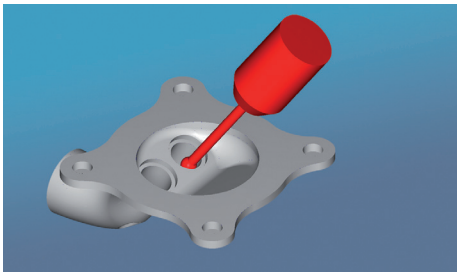
Companies producing forgings or valves, pipes, flanges will take advantages from the use of AMM and SUM3D, thanks to their specific machining optimized to obtain roughing and radial finishing managing the rotating table. In this way the working time is dramatically reduced while the quality of the finished product is considerably improved, with consequent shorten time of polishing.



Cutting tools machining

When machining metal cutting tools, it is necessary to mill the flutes in 4/5 axis simultaneous mode. To get reduced machining time is crucial because this kind of products are very expensive. This short-time machining can only be achieved with a very smooth tool-path, given just by Direct-to-Bezier and/or Nurbs-Surface Toolpath Calculation. The AMM module allows to obtain:

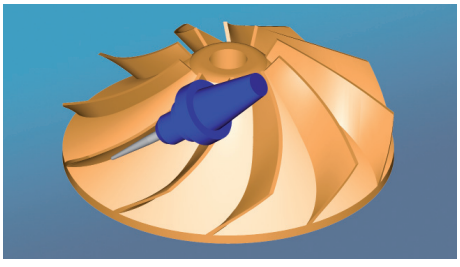
- Roughing and finishing machining with 4/5 axis or continuous positioning.
- Vertical surfaces finishing with tool side (also in case of conical tools).
- All propeller's machining repeated to get the whole processing of the tool.
- ISO 5 axis drilling or, if possible, CNC's fixed cycles management.



Exhaust Manifold Machining

One of the most complex task in building motor prototypes, is to mill the exhaust ducts of the cylinders. With the help of the multiple strategies of machining available, AMM provides a consistent reduction of processing time.

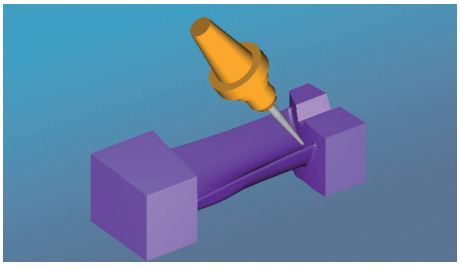
It's possible to perform a perpendicular to curve machining and manage the movements of approaching, releasing and incrementing, always with a user-defined curve. Besides, AMM Multi-Step collision check provides all the options needed to combine multiple collision check together with the ability to handle undercut tools like ¾ of sphere.



Impeller and turbine machining

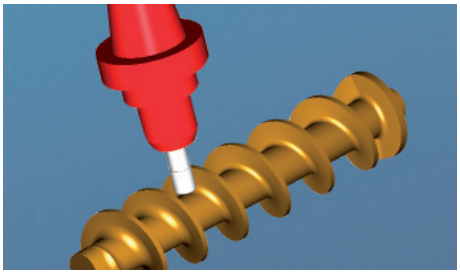
Machining of impellers and turbines is one of the most complex kind of milling. Best results in machining of impeller ribs, are achieved using conical tools with deep cut steps based on the stock definition of upper and lower surface.

Another important feature of AMM is the ability to dynamically adjust the feed rate speed and the maximum step over.



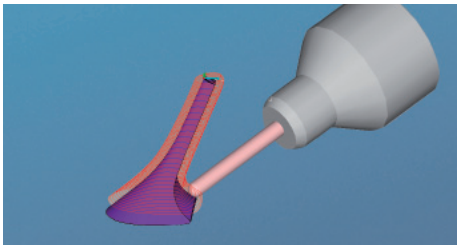
Machining of Turbine Blades

Turbine blades have always been a test to prove the efficiency of a 5 axis CAM system. AMM is able to calculate roughing, rest milling, semi-finishing and finishing toolpaths with the ability to automatically handle cutting planes and the relative tool's angle. This allows a great reduction of the programming time as toolpath changes are realized in an very short time. Multisurface finishing, with the use of bull nose end mills and thanks to AMM's ability to detect collisions between the tool and the piece, improve machining time. In this case can be used a spiral toolpath too.



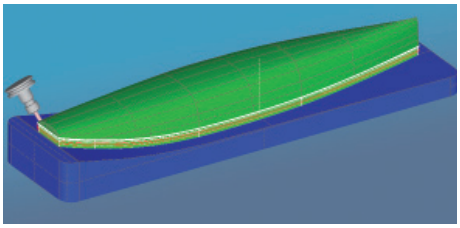
Eccentric machining and mill turning

AMM offers multiple functions for Eccentric Shafts machining. Camshafts and connecting rod can be milled with simultaneous 4 axis and collision check. Other applications are complex particulars like worm screws for plastic and rubber injection moulding. It's possible to plan multi-step toolpaths for roughing and finishing avoiding unnecessary tool moves also in case of very complex surfaces.



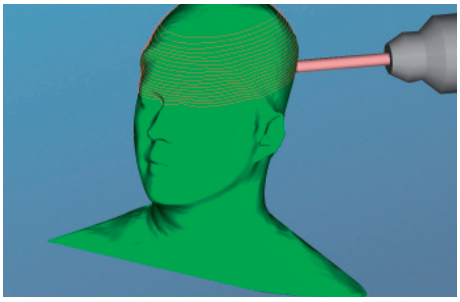
Particulars for shoemaking industry

AMM allows undercut parts machining without re-positioning of the piece. For instance it's possible to generate a 5 axis spiral toolpath to work the whole heel. Furthermore, in case of machining of matrix with undercut areas, deep cavities or corners, the tool's dynamic angle can be managed depending on collisions. In this way a 3 axis toolpath is done where there aren't collisions and a 5 axis one where the tool starts to collide.



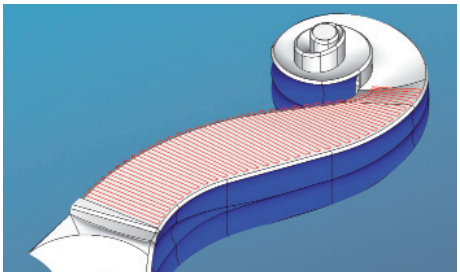
Shipbuilding industry machining

AMM's flexibility allows to program both removal and deposit machining, very common in shipbuilding field. Especially in case of machining of keels, the multiple strategies that AMM and SUM3D can offer meet the production requirements.



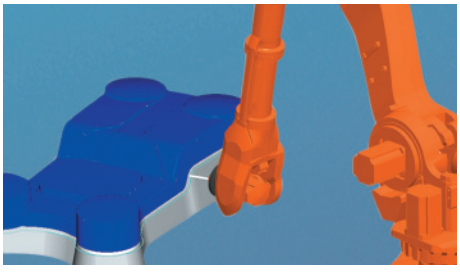
Machining of marble particulars

Many machining techniques for marble have been included in AMM to work with 5 axis and/or with turning functions' CNC. The specific features studied for this field are: roughing or finishing using disc mills, machining with shaped tools, polishing and managing the technological part on the basis of the specific tools used in this industry. Furthermore there are optional modules available for the machining management starting from laser or mechanical digitization of parts to be realised duplicating a sample (logos, plaques, capitals and statues). The mesh surfaces coming from the scan can be machined with 5 axis AMM also with disc tools.



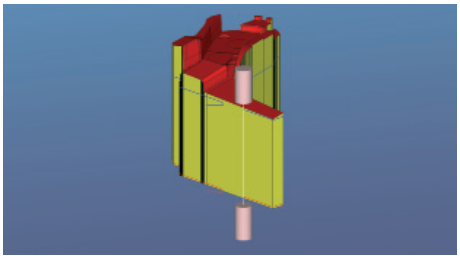
Wood machining

AMM's functionalities, together with SUM3D's ones, allow to realise toolpaths to fit the purposes of the furniture industry and of the companies producing custom parts. It is possible to create repetitive schemes to be applied to the different models to machine standard parts for industrial production.
For all those companies producing custom parts, the simple and flexible AMM module allows to perform toolpaths to machine any complex shape.



Cut, laser cut or waterjet machining

AMM can machine curves projected on surfaces in order to produce cuts of parts like metal sheets, plastic or aluminium or marble. Multiple possibilities of orienting the laser head, even by means of a series of vectors drawn by the user, enable to accurately manage all positions of the axis in each area. This strategy, together with optional solutions for the cell management, allows to program also robot with milling, laser or welding units.



2 and 4 axis wire EDM machining

2 axis cut, from 2D profiles with wire radius and GAP compensation calculated by the software or by the CNC with G41/G42 functions input. Management of the swarf and of various kind of approaches/retractions.
4 axis cut, computing the two Z cut straight from the 3D model, with third and fourth axis (UV) management with or without reconstruction of G2/G3 arches on the fillets.

Utilities

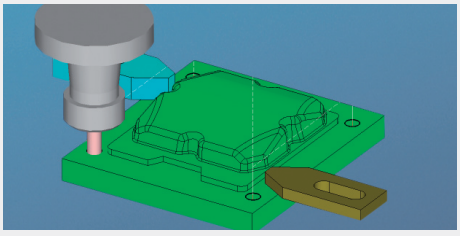
With SUM3D it is possible to define a precision for the machining calculation (roughing, finishing, super-finishing, etc.), optimizing the computing time, according to the importance of the machining.

The command to calculate the maximum tool length, the one set in the tool's definition, highlights the areas where the machining is in collision with the item or the shaft and it discards these areas which will be automatically machined later with different length tool.

When a component is set together with the tool (e.g. the shaft), the machining will be consequently calculated to avoid collisions: increasing the trajectories, disabling the collision steps or rotating the fourth and fifth axis.

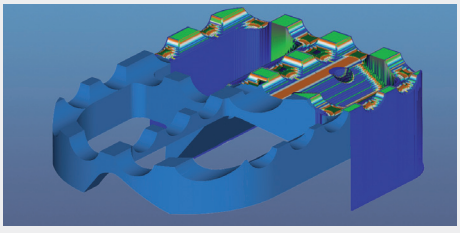
Simulations and tool-path controls

SUM3D offers several systems for the machining simulation.
These systems allow to verify with the maximum safety all that happens during the milling.



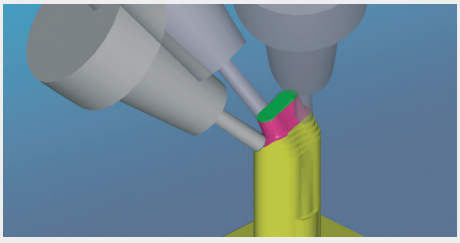
Display of milled item

This command allows the graphic display of the quality of the milling after one or more machinings. It is also possible to verify eventual collisions and the same command can create the dynamic stock. The command can be configured to perform 3 or 5 axis checks, in order to be as fast as possible according to the kind of milling.



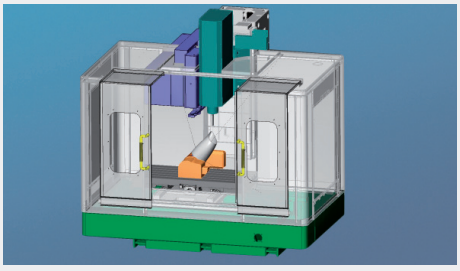
Display of remaining material

This command allows the graphic display of the zones of remaining material, in different colours according to the quantity of remaining material. These zones will be rest milled used to create a new stock to be machined.



Simulation with removal

The three-dimensional simulator of SUM3D can display one or more computed machining cycles. It shows from 2,5 to 5 axis continuous machinings, with collision check both on the stock and on the finished model. In this case the graphic quality will be very realistic and it will be possible to evaluate and avoid eventual tool-path problems, by displaying in advance any possible error.

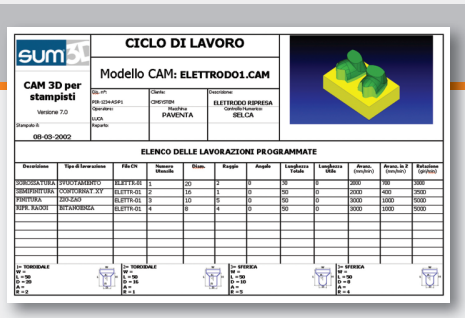


Kinematics simulation

The kinematics simulation module gives a real description of the whole machine tool, showing all axis movements, rotary and linear ones. The aim is to avoid any problem on the machine and to prepare an effective program without any non complying part. In fact besides the collisions, the simulator verifies: axis' end stroke, collisions with fixtures and other parts, maximum tool material removal, working times and sudden movements of the rotary axis. The drawings of many machines are already included, but it is also possible to create and add new ones.

Report

This feature is for the automatic creation of machining sheets to report all the technological information of each machining, together with the item's drawing. In this way it is possible to satisfy all the planning requests.



CICLO DI LAVORO

Modello CAM: ELETTRODO1.CAM

CAM 3D per stampisti

Versione 7.0

08-05-2002

Cliente: CHEVITPEN

Descrizione: ELETTRODO RIPRESA

Macchina: PAVENTA

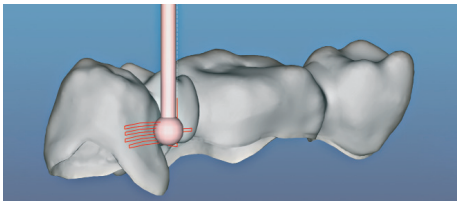
Controllo numerico: SELCA

ELENCO DELLE LAVORAZIONI PROGRAMMATE

Descrizione	Tipo di lavorazione	File CN	Numero Utensile	Diam.	Raggio	Angolo	Lunghezza Totale	Lunghezza Utile	Avanz. (mm/min)	Avanz. in Z (mm/min)	Rotazione (giri/min)
SGROSSATURA	SFUOTAMENTO	ELETTR-01	1	20	2	0	50	0	2000	700	3000
SEMIFINITURA	CONTORNIRAT XY	ELETTR-01	2	16	1	0	50	0	2000	400	3500
FINITURA	ZIG-ZAG	ELETTR-01	3	10	5	0	50	0	3000	1000	5000
RIPR. RAGGI	RITAGLIOBIGA	ELETTR-01	4	8	4	0	50	0	3000	1000	5000

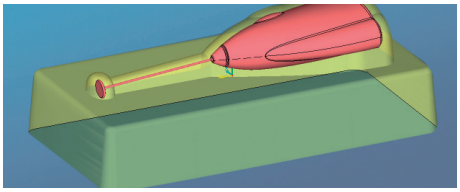
Special applications

SUM3D can be used in different fields of coverage, where the needs could be various.
Our "on field" experience made us able to evaluate different kind of machinings and/or technologies, offering the right tools to take advantage of them.



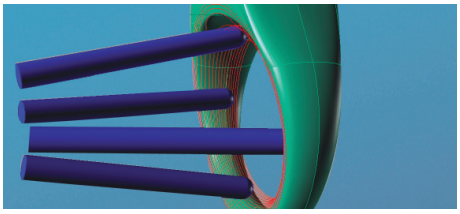
Dental

SUM3D Dental is a special version of the CAM for the dental sector. It allows high level milling with extreme ease of use by means of 3, 4 or 5 axis machines in continuous.



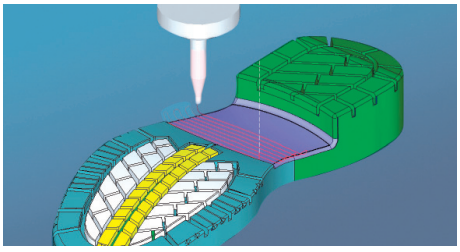
Blister

A particular use of SUM3D is the one for the **Blister moulds**. Starting from the 3D model of the object to be blistered, SUM3D provides a group of commands to create the blister, based on the instructions defined for this kind of products.



Juwellery (settings, griffes)

SUM3D offers 3, 4 and 5 axis machinings that to create objects for this market. There are also some specific commands for the automatic generation of curves for the parts to set the gems, and to get a complete machining together with the 5 axis drill.

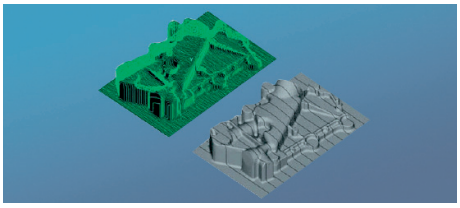


Footwear

Dedicated commando have been included for the footwear market for an easy creation of models to mill. The various sizes can be automatically created with the footwear scaling control or starting from a digitized CAD model, or a mix of the two. The series is processed with standard scale factor, by areas, restraint profile areas or user defined. Furthermore the Rhinoceros application SHOT provides a series of CAD instruments for the geometries manipulation.

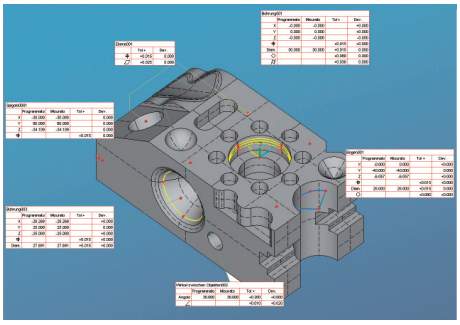
Picture vectorization and management (Zimage)

SUM3D includes the possibility to manage pictures from scanner, describing the shapes, converting them into curves for machining uses or for the definition of working surfaces. Pictures can be managed by the ZIMAGE module. Starting from a colour or greyscale bitmap it is possible to obtain relief surfaces by setting a specific height to each colour area.



Point cloud management (Digit)

This optional module transforms digitized models into surfaces, by means of mechanical or laser probe. It is widely used in the footwear market where starting from the digitalization of the referral model it allows to create the sizes and the differentiated scaling (heel, sole, toe). The same techniques can be applied on helmets, fashion accessories, logo reproduction of and parts of vehicles.



Dimensional check

This SUM3D option allows to import files from CNC equipped with probe or from a machine with dimensional check. Such files with the XYZ coordinates of the points measured on an object, will be compared with the mathematics in SUM3D. The measured points and the gaps will be graphically displayed or listed on a printable report.

3 axis tool-paths conversion (CNC file) in different formats

SUM3D imports 2D and 3D models but it can also import any format of CNC file (fixed cycles excluded). This feature offers the user the possibility to convert those files in a format which can be read from his own machines tools.

SUM3D locks up in the safe the customer experience

FREE TRIAL

To evaluate all the capabilities of SUM3D

BASIC FEATURES

Minimum system requirement
- Intel or AMD Processor
- 2 Gb of system memory (RAM)
- Nvidia graphic card

Data exchange format

VDA, STL, IGES, DXF, 3DM, Parasolid, CATIA V4 and V5, Pro|ENGINEER, NX, Solidworks, Inventor, Step

Operating Systems

- Windows 2000® SP6
- XP® Pro. SP3 32/64 Bit
- Vista® 32/64 Bit
- 7® 32/64 Bit

SUPPORT

The technical support is a high priority for the CAM user. After a training day, when the operator starts to use the software, it's important to know that there's always somebody available to help to create the first jobs.
Afterwards it will be fundamental to compare the individual experiences to find the best machining strategies, or to discover the new features of the updates.
A qualified technical team ensures the support, side by side with the customer, available for any production need. The assistance is given by telephone, internet, e-mail and meetings to have a constant dialogue, and to guarantee the necessary satisfaction to the customer.

ALL INCLUSIVE

SUM3D is supplied with all the post-processor the customer needs and includes the most common standard interfaces.

COST EFFECTIVE

SUM3D ensures high performances with a reasonable investment among all the phases: purchase, learning and management.

DEVELOPED IN ITALY

The possibility to customize the software, together with the cooperation and experience of its users, determine its constant an continuous improvement.

TRAINING

It is really very easy to learn to use SUM3D. The commando structure has been engineered to be used from people without particular technical skills. The interface is clear and simple, studied to find the right tools as needed. Usually the training session lasts one day; in some cases half a day is enough for a customer to be operative.

What should you know before to start a SUM3D course? You need to be able to use a machines tool!

The SUM3D learning programme is organized to give the maximum flexibility so that the customer can train its staff very quickly.

How much does it worth the experience a company builds up during the years? It is difficult to evaluate, for sure it's a huge resource: maybe the company itself. How much was invested in training new personnel because there wasn't enough time to learn from previous employees? Where are stored all the tricks the company discovered after many trials in years of activity? SUM3D is able to work on the basis of the experience matured from the company over the time.

CONTINUOUS UPDATE

The design method, the creation of any object and the use of new or diverse machining strategies, are activities which change with the years and force the constant evolution of the companies. This is the reason why the design and production softwares must be constantly updated, to allow the users to stay up-to-date and to be using the best solutions. SUM3D evolves around the customer needs: it's a constantly upgraded software. The free updates are continuous in order to let the operators use a system full of new features.

FLEXIBILITY OF USE

Used both in the technical department with the CAD systems, and in the workshop used from the CNC operator, with the possibility of multiple installations at a reasonable investment.
Supplied as autonomous workstation in the technical department, able to interface the most common CAD/CAM systems.
Installed on Windows based CNC.
Supplied as autonomous workstation on the machine.

CIM system
Computer Integrated Manufacturing

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