infolab
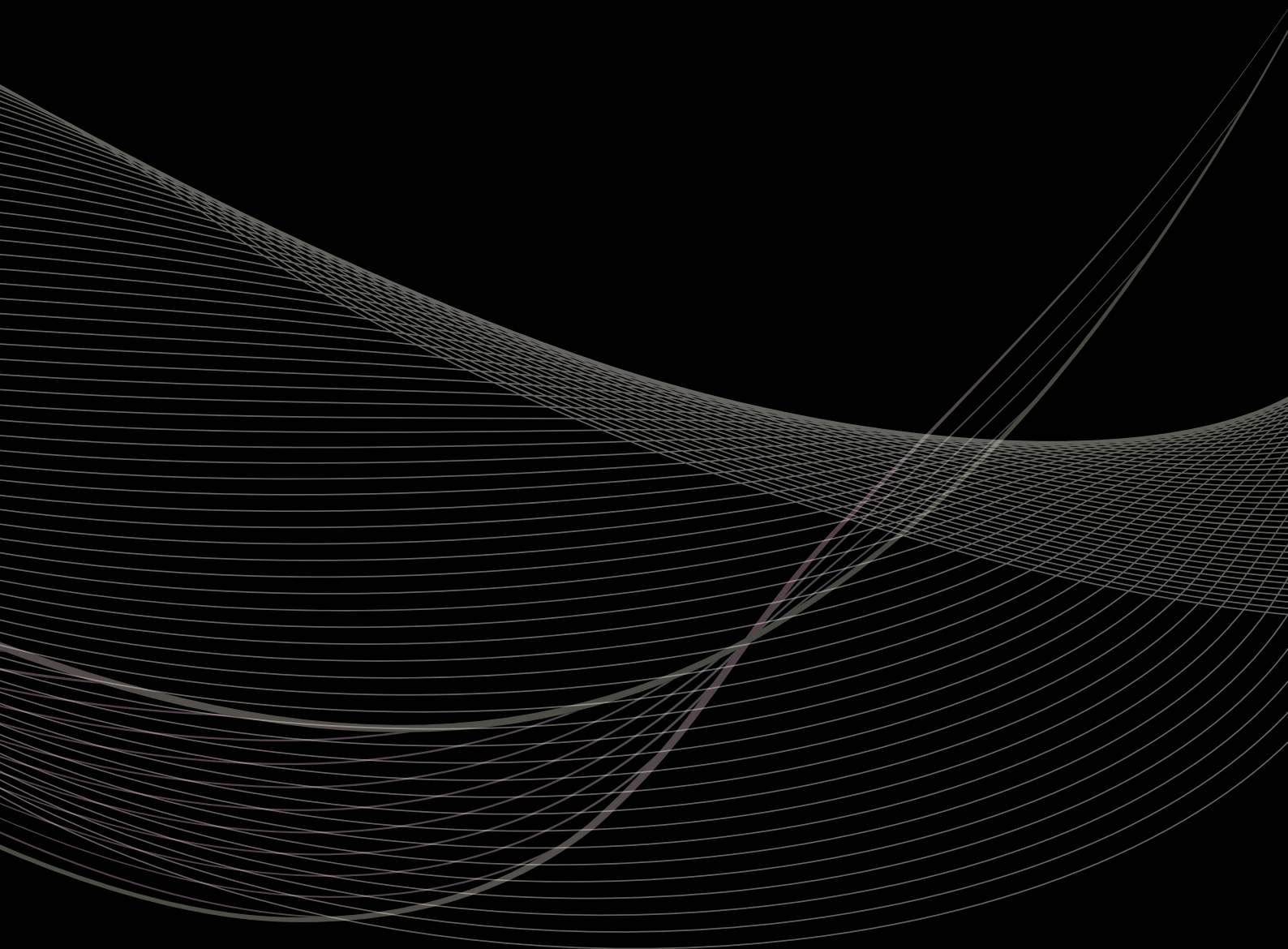
camlab

camlab

the CAD/CAM software for sheet metal working with laser, punching, plasma, Oxy-cutting and waterjet

CAMlab is a CAD/CAM software for every cutting technology, such as: laser, punching, plasma, Oxy cutting, and water-jet. CAMlab has special modules for the solution of specific problems such as: the development of parametric shapes for air treatment, the ability to obtain a vector graphic starting from an artistic paint or drawing, inlay managing, cutting from a coil, single parts loading and unloading, interaction with FMS and handling robots as well as many others custom oriented solutions.

CAMlab keeps its main feature of providing a single operating environment with all its functions always available.

Nevertheless, the system can be set up in modular way so as to allow users to fit it with the tools they require for their production.

camlab

better plan
in less time

the global solution for cutting and punching technology

Recently updated to full compatibility with Windows 7 and it has been entirely programmed with object-oriented technologies and developed with C++ and C# language.

CAMlab can be easily customized and thanks to its scalability the user can get immediate benefits thus improving efficiency and productivity. All the technology and nesting operations can be performed automatically or interactively. The user can intervene at any moment to modify some of the decisions taken by the system, without affecting any other decision. It is never necessary to fully redefine the current machining. The CAMlab constant evolution guarantees its users the best performance. CAMlab scalability offers the opportunity to grow the product gradually according to the increasing requirements of your job.

Each module includes special functions and allows to perform operations in one system, which were previously carried out in multiple steps.

All staff involved in the setting up of the machine tool will find CAMLAb a dependable, efficient and safe partner resulting in shorter set-up time and improvement of results.

Reduce costs by designing quickly
CAMlab allows to reduce design and development time drastically and therefore the cost of each job.

Reduce costs by avoiding errors
Using CAMlab sophisticated tools can avoid very costly mistakes.

Reduce costs with fast training
A new employee will spend little time to learn how to use CAMlab profitably thanks to its user interface and its working environment.

Reduce costs by planning correctly
CAMlab allows to automatically position the pieces on sheets of various size, material or shapes.

Improve production with a software that can make the difference
Infolab is an Italian Society which has been producing software for more than 20 years.

Leader in software, solutions and services for manufacturing companies, with a particular attention to those that work sheet metals. With a wide and qualified offer, Infolab can intervene in all critical areas where software makes the difference.

camlab cad and database

A powerful graphic system allows exchanging files with the mainstream 2D and 3D CAD system. A reverse-post processing section allows to import cutting programs whose drawings are no longer available. The system also allows to perform 2D geometries of any complexity by means of an integrated CAD. On the new drawings it is possible to add quotes and to apply marking codes. All pieces can be saved in a single database, shared on a local network with all the CAMlab workstations. The database allows to perform researches based on thickness, kind of material, customer and job order to collect parts to be prepared for future machining. The database links permanently each part with its DXF drawing, thus avoiding nesting with pieces replaced by newer revisions.


camlab automatic and interactive nesting

The interactive functions allow the operator to place the selected pieces by means of interactive rotations and translations and to keep the minimum distance between adjoining pieces and between the piece and the edge of the sheet metal, including trims. The operator can complete a placement, which was started by an automatic nesting, through the interactive nesting and vice versa.

It is possible to determine the employment sequence of the metal sheets by a mouse click and to decide the nesting production rules (for example by maximizing the production of the same cutting programs) by manually changing all the necessary parameters before confirming the employment of the metal sheets. In case further changes should be carried out after final confirmation, the operator can decide to free the chosen sheet and its placement, thus making the sheet previously chosen still available in stock and updating the quantities of pieces to be produced in real time.
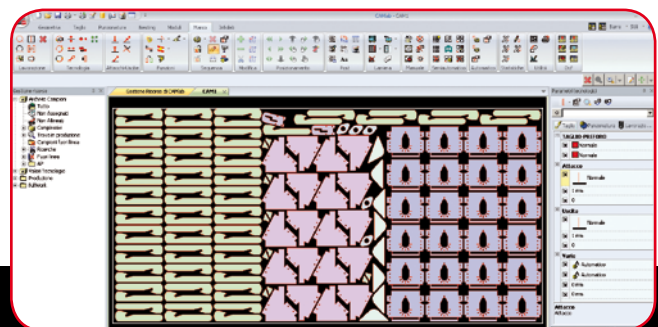
camlab punching and cutting technology

An important feature of CAMlab is its ability to embed information into the geometric description of the piece to be produced. This feature can be carried out automatically starting from a set of rules that can be customized by the user in order to adapt them to his own requirements with as much interactivity as possible. The user can always decide the best procedure to be used. Besides any process information can be modified at any time, both partially and thoroughly, with no need to start over. Some automatic functions that allow to reduce fast displacements and to highlight any collision of the tool head are available. All steps are managed in real time and with the utmost guarantee of completeness.
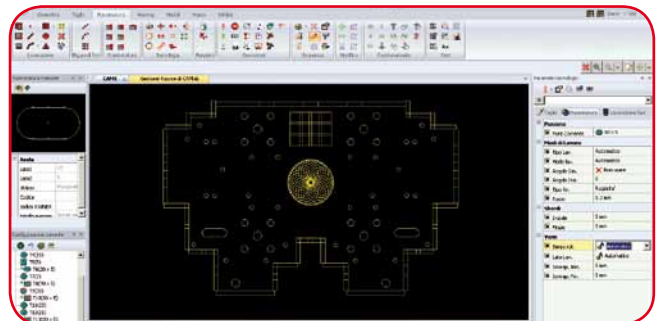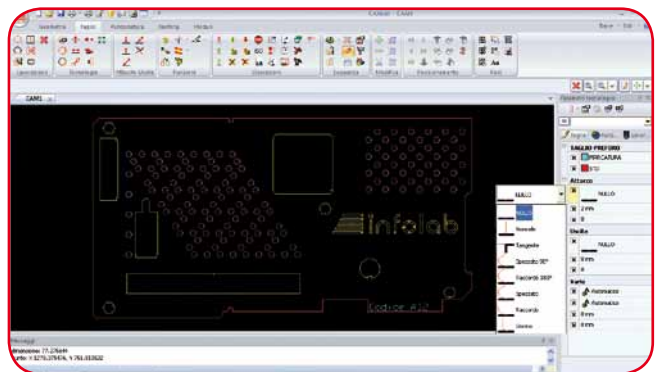
camlab reports and user interface

The user can modify every print report through a powerful designer module that allows access to all the system variables in order to change all the print reports being processed and to create new reports. The operator interface can be customized and permits to adapt the software to the operator's own working style.
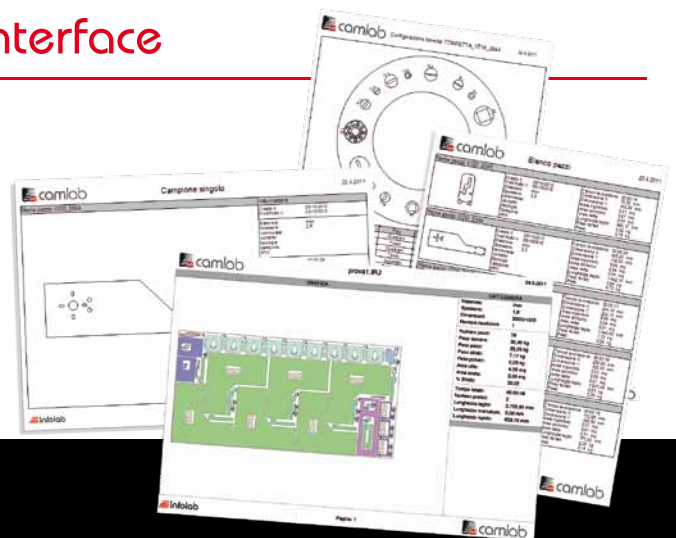
camlab production management

With the production modules, once the geometry of the part has been defined, it is possible, through the bill of material provided directly by CAMlab, to specify the kind of material, its thickness and its working cycle. It is possible to print the bill of material together with the drawing of a specific part, to safely manage the revisions of the parts and keep track of all the changes made to them.

The CAM section deals with the machine tool programming; it is linked to the database and specifically to the tables concerning both the availability of raw materials and their size and the batches being produced, in order to choose the pieces to be produced and their quantities .

Special attention has been paid to the management of data and in particular to the possibility of making more operators simultaneously deal with making nesting for the machine tools. Thanks to a reservation function acting on the production batch being processed, only one operator at a time can work on the same group of pieces (for example for a particular material or thickness) until the completed nestings are confirmed and made available for production.
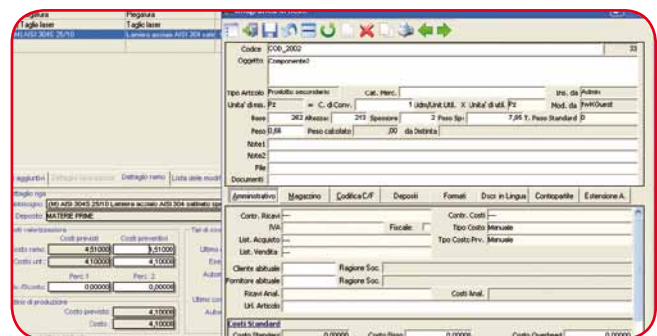
camlab simulation and final balance

It is possible to simulate the machining so that the user can monitor how it will be carried out. Camlab can compute how long it takes to perform the complete nesting, taking into consideration acceleration, speed changes, fast paths, special tools, hatches and interlocking in use.
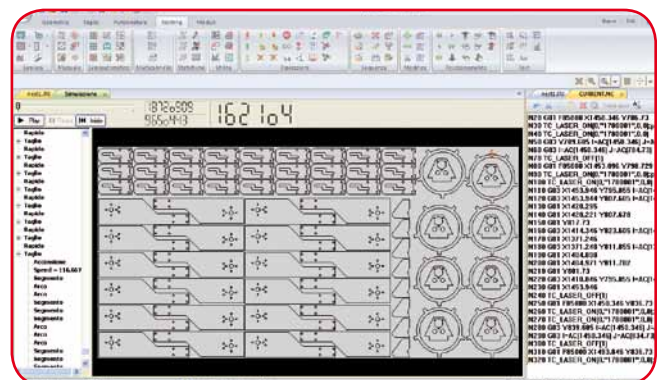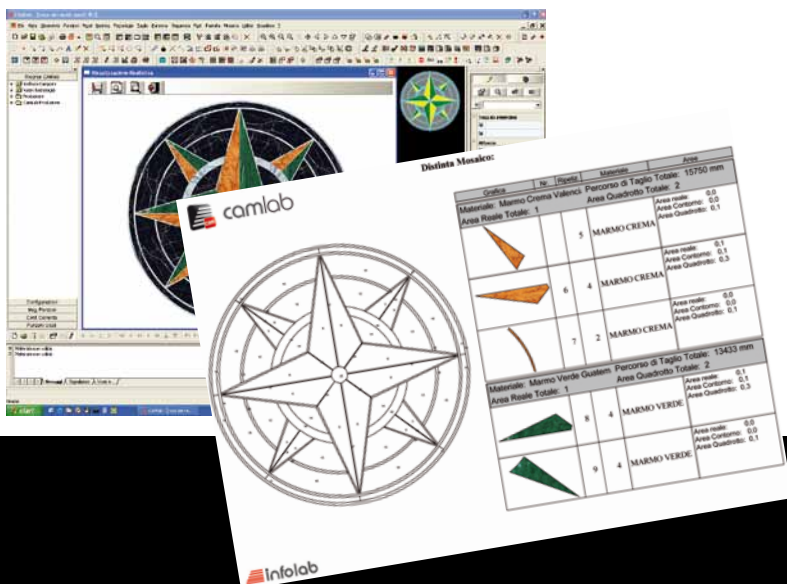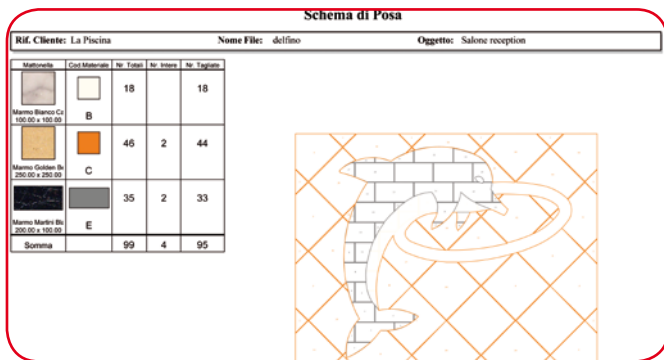
camlab special modules

Some specialised modules are available for Camlab for the resolution of specific problem:

- load/unload single piece
- scheduler and FMS
- machining COILS
- INLAY
- TILES

CAM for sheet metal working to improve your productivity

A flexible and efficient environment for all your geometry, nesting, cutting, punching and post-processor operations. It offers a complete service with all technologies, thus improving your company competiveness.

• geometry	*laser*
• different file extension import	
• interactive nesting	*plasma*
• automatic nesting	
• simultaneous cutting	*oxy-cutting*
• continuous cutting	
• cutting technology	*water-jet*
• punching technology	
• marking and tracing	*punching*
• sheet metal stock and waste	*combined*
• estimates and final cost	
• statistics	
• operating prints	
• SQL database	
• parametric shapes	
• boiler and conditioning	
• Inlay and tiles modules	
• convert BMP into vector	
• personalized post processor	
• CNC communication	

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