PEDOCA CUTS

The PEDOCA CUTS option integrates itself with FPCAM application and it allows to make optimized cuts by means of the rotation of cutting head or of table that holds the slab.

Facilitations:

- The cutting project is made easy with the aid of standard CAD (as Autocad and similar ones) that allow to define : the cut geometry, the cut type, the priority; and to export the result into a .dxf file.
- The project adaptation to the actual working is realized directly onto the machine by means of the FPCAM interface which runs on the CNC.
- The FPCAM elaboration can be verified before of the execution by means of the graphical simulation with the control of geometric result and of the axis end-stokes.
- The projects, opportunely elaborated by FPCAM, can be stored in a database that resides on the CNC.
- In order to improve the FPCAM interface practicality, the displays are equipped with Touch Screen functionality.
- The CAD, utilized for project, can run on PC or directly on the CNC.
- The project can be directly made on CN through a CAD environment that is integrated in FPCAM interface.
- The FPCAM interface can run on external PC making it as a true development and simulation station.

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The **working method**

- The operator makes the drawing of cuts through an external CAD using only few and simple rules.

  Type of cut:
  Passer-by ⇔ Continuous line;
  At dive ⇔ Dotted line;
  Mixed, that is passer-by in input and at dive in exit ⇔ tack-dot line.
  Cut priority : The colours identify the priority of cut and the pause in order to allow the material removing.
  Cut depth [Optional] The number of layer, where the drawing is made, identifies the depth in mm. The cut, with lower priority, that is drawn on the layer, identifies the pause, in order to allow the material removing.

- The operator imports the project in FPCAM interface, or creates the drawing by the aid of internal CAD, and proceeds with the inputting of parameters as

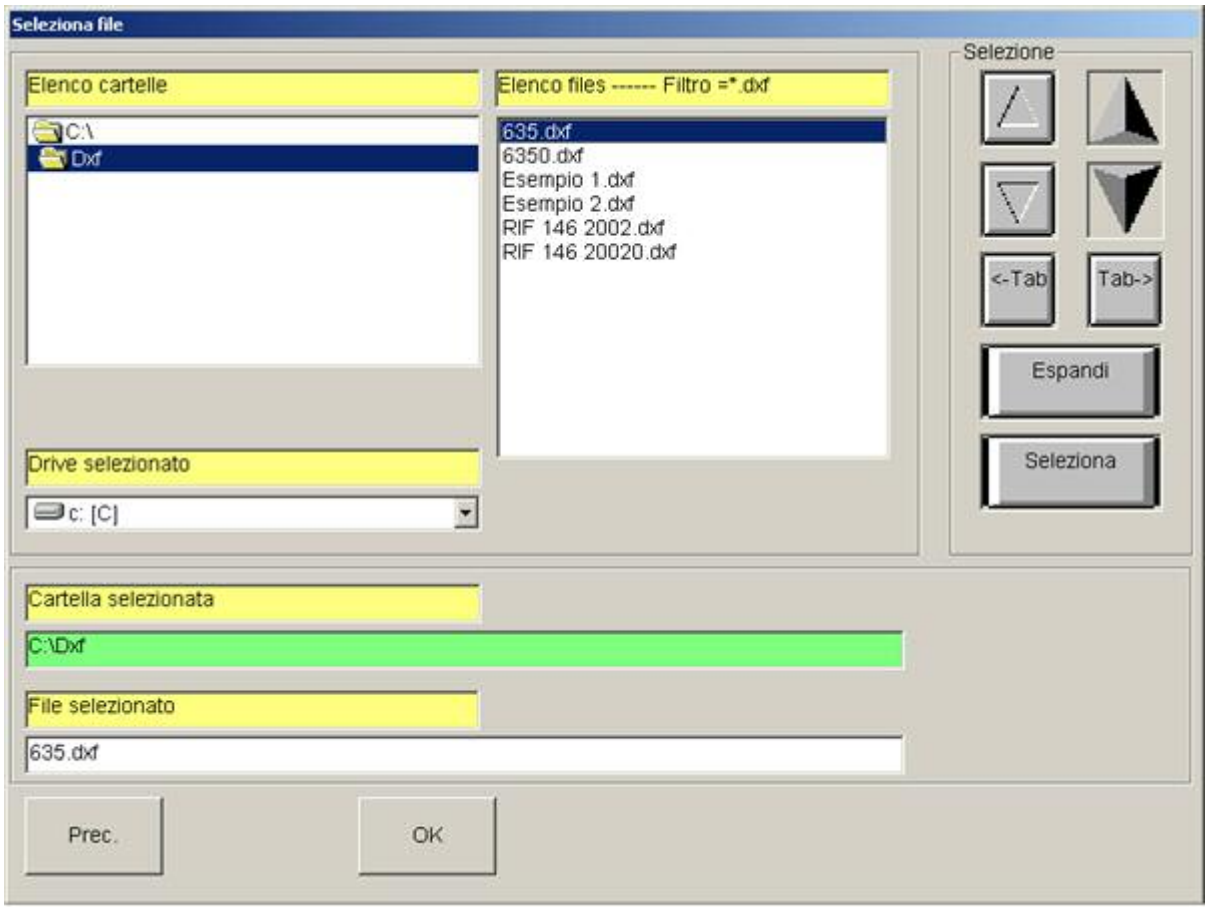
  type of material,
  slab thickness [Option],
  last residual cutting,
  thickness and diameter of disc,
  etc…..

- The operator can test the project thanks to the graphical representation on video and, if it is necessary, he can freely modify the project by means of a interactive editor that easily allows
  - Deleting the cuts that are not congruent with the slab to cut.
  - Modifying the beginning and ending point of already inserted points.
  - Selecting the cuts that belong to the same layer.
  - Modifying the cutting priority inside of the same layer.
  - Adding new cuts.
  - Saving the project into a database..

- The FPCAM process automatically elaborates the project, converts it into a working program, which accounts of already defined rules, and adds a further optimization in order to reduce the cutting time interval and to apply the compensation for disc thickness. Moreover it inserts the commands of cutting suspension in order to remove the cumbersome material. The optimization rules can be defined in function of needs.

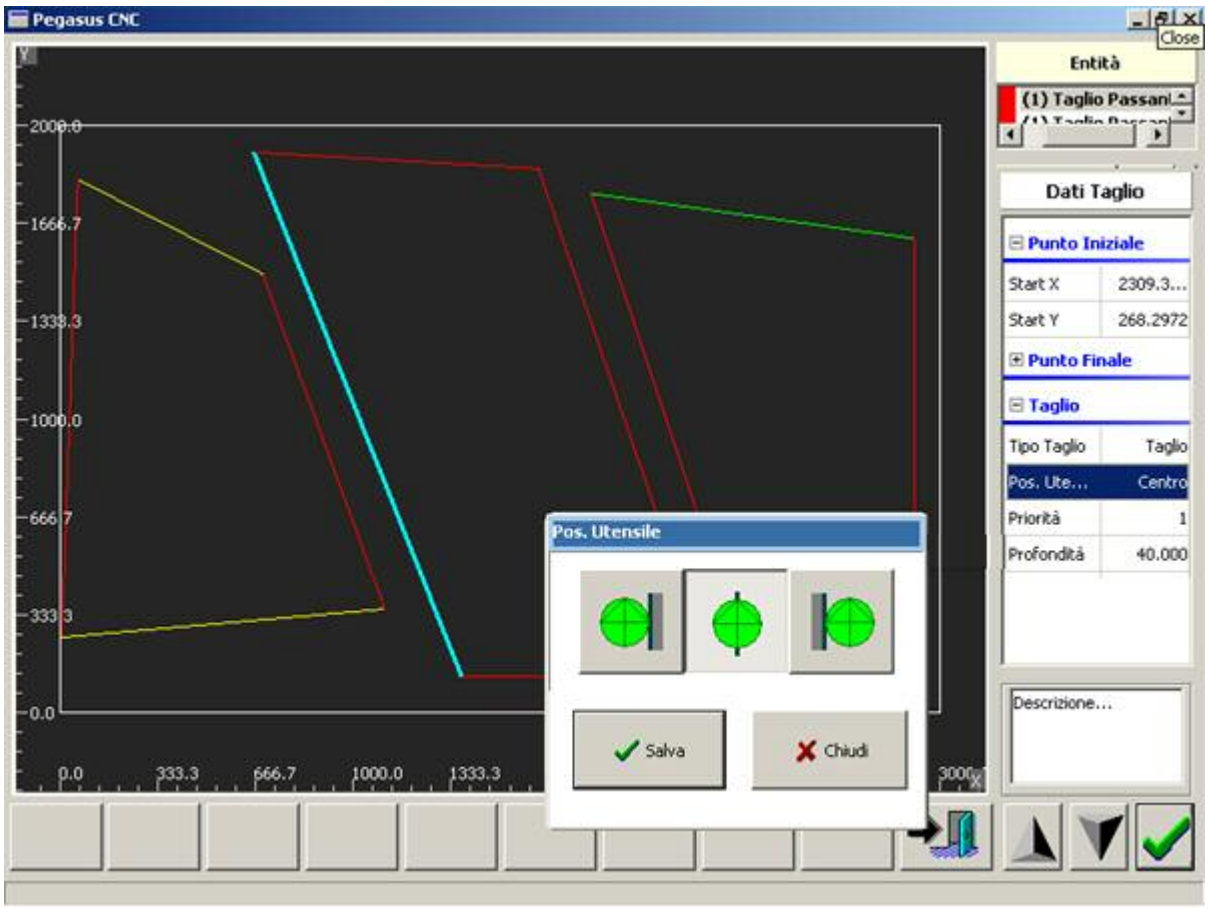
- The operator can test the project thanks to the graphical simulation that, other than representing the geometry of cuts, controls the end-strokes of the machine. After the test, the operator can proceeds with the execution in a certain and sure manner.

Importing of the project



Interactive Editor

The inserted cuts are listed in right column and the parameter of selected cut are listed below in the same column.
The editor offers guided procedure for parameter set up.



In previous picture there is an example of project with various cuts. The selected cut in the line of blue colour, the datum are listed in extensive manner in column. It is active the window for tool position set up.

Filing Database

The archive allows to store the project of previous working, in order to offer a wide choice and to always keep at disposal also the previous working. All projects can be again modified and fit, directly on machine, with respect to the actual piece to work.
All project can be equipped of description.
The archive make easy the selection of working thanks to the function of preview visualization of selected cut.