passion for precision

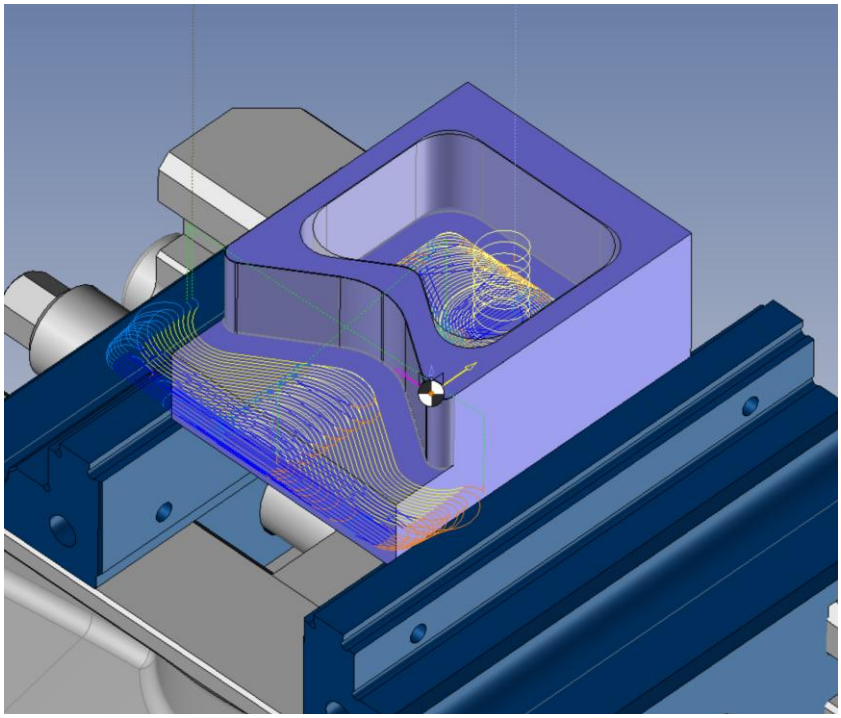
fraisa

TopSolid®

BUILDING TRUST, SHAPING THE FUTURE.

Training guide

Import of cutting conditions from the Fraisa ToolExpert



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Web: www.topsolid.com

Version 7.19

Rev. 04

Summary

Generalities

The Fraisa ToolExpert module allows you to import cutting conditions directly into TopSolid without having to search on internet or in the cutting tool catalogue.

This module is available from version 7.15 SP8 in TopSolid'Cam Standard Milling, Standard Turning, Pro Milling, Pro Milling-turning.

Requirement

In order to establish the link between TopSolid and the Fraisa ToolExpert, in the Tools/Options/CAM Options/Cutting conditions external/Fraisa tab, check the "Show ToolExpert button" box.

Then enter the download directory in « Download file name ».

This module is available in several languages. To define the desired language, in "ToolExpert culture identifier", enter en for English.
(English : en, French : fr, German : de, Italian : it, Hungarian : hu, Chinese : cn)

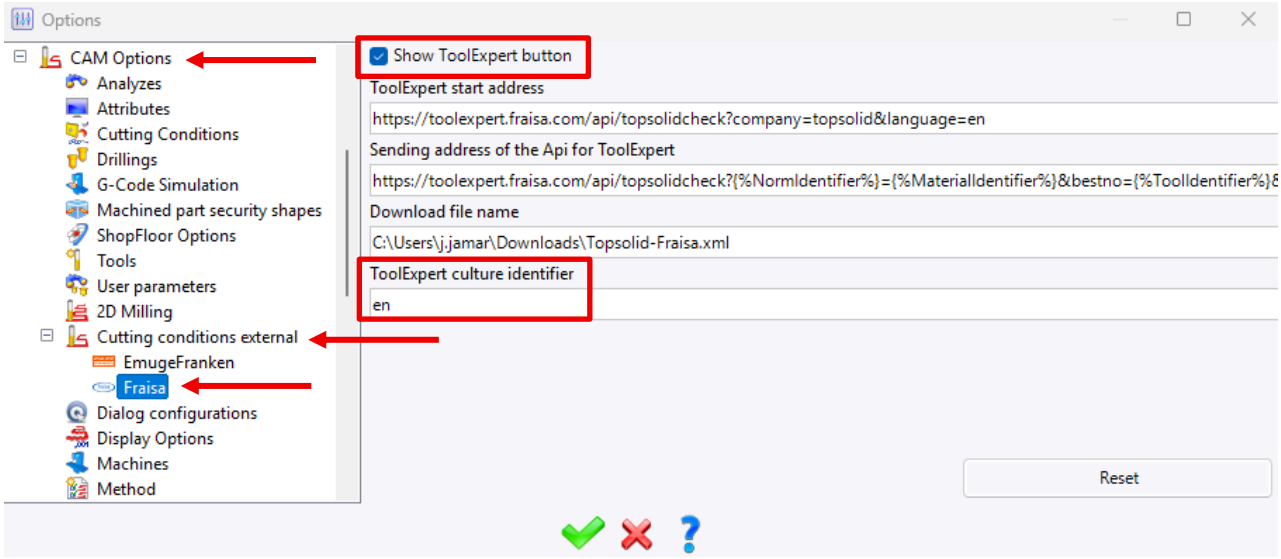
Finally, the computer used must have an Internet connection.

The links below are pre-defined in TopSolid:

ToolExpert start address :
https://toolexpert.fraisa.com/api/topsolidcheck?company=topsolid&language=hu

Sending address of the API for ToolExpert :
https://toolexpert.fraisa.com/api/topsolidcheck?{%NormIdentifier%}={%MaterialIdentifier%}&bestno={%ToolIdentifier%}&company=topsolid&language={%CultureIdentifier%}

If you make a mistake, the 'Reset' button allows you to restore the default settings.

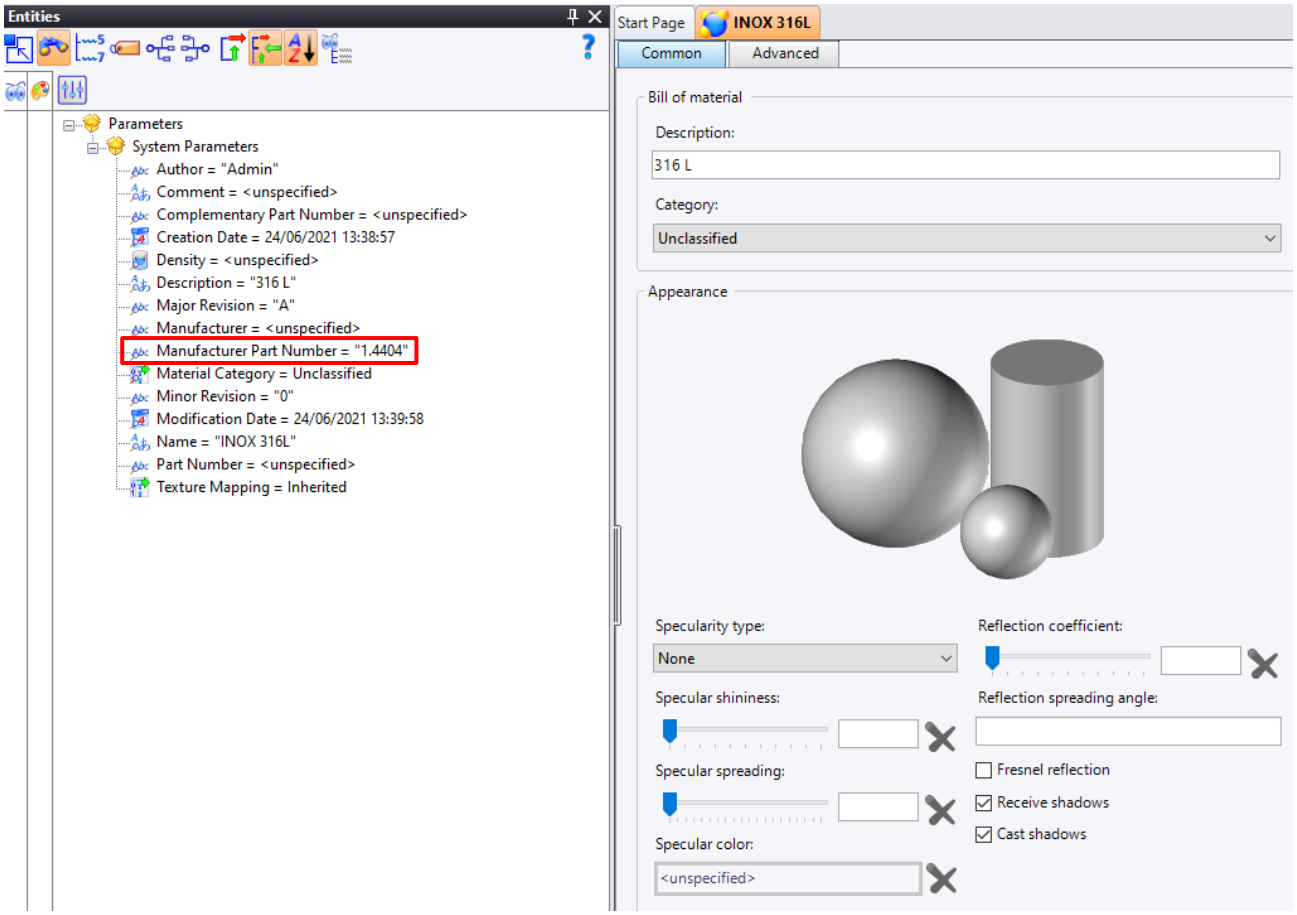


Setting

In order to import cutting conditions, you must first enter several pieces of information such as the material of the part to be machined, the reference of the cutting tool, its diameter and its number of teeth.

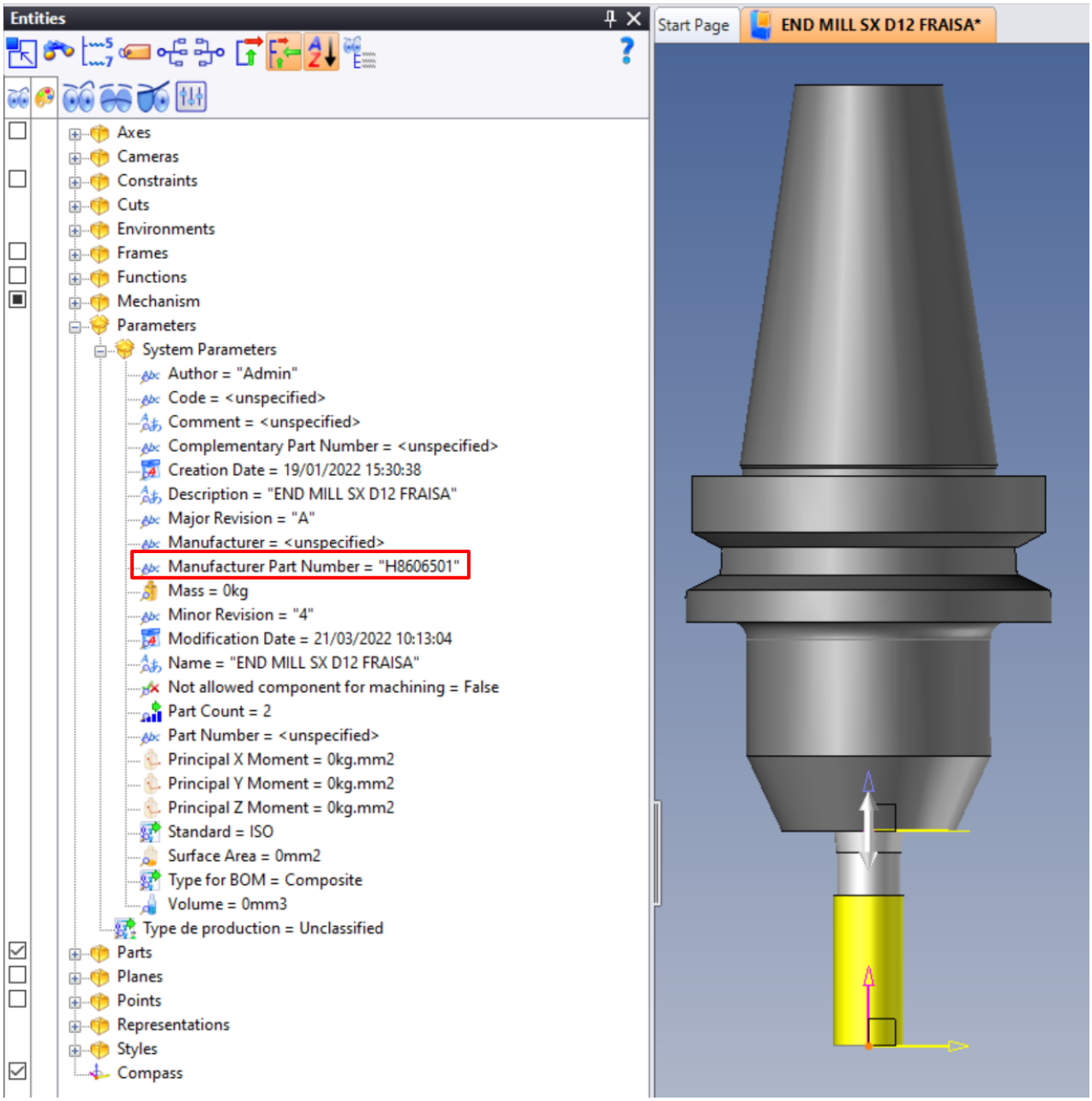
1. Material identification

In order for ToolExpert to automatically select the material of the part to be machined, the part must be associated with a material. The material document in TopSolid must be identified by a "Manufacturer Part Number".



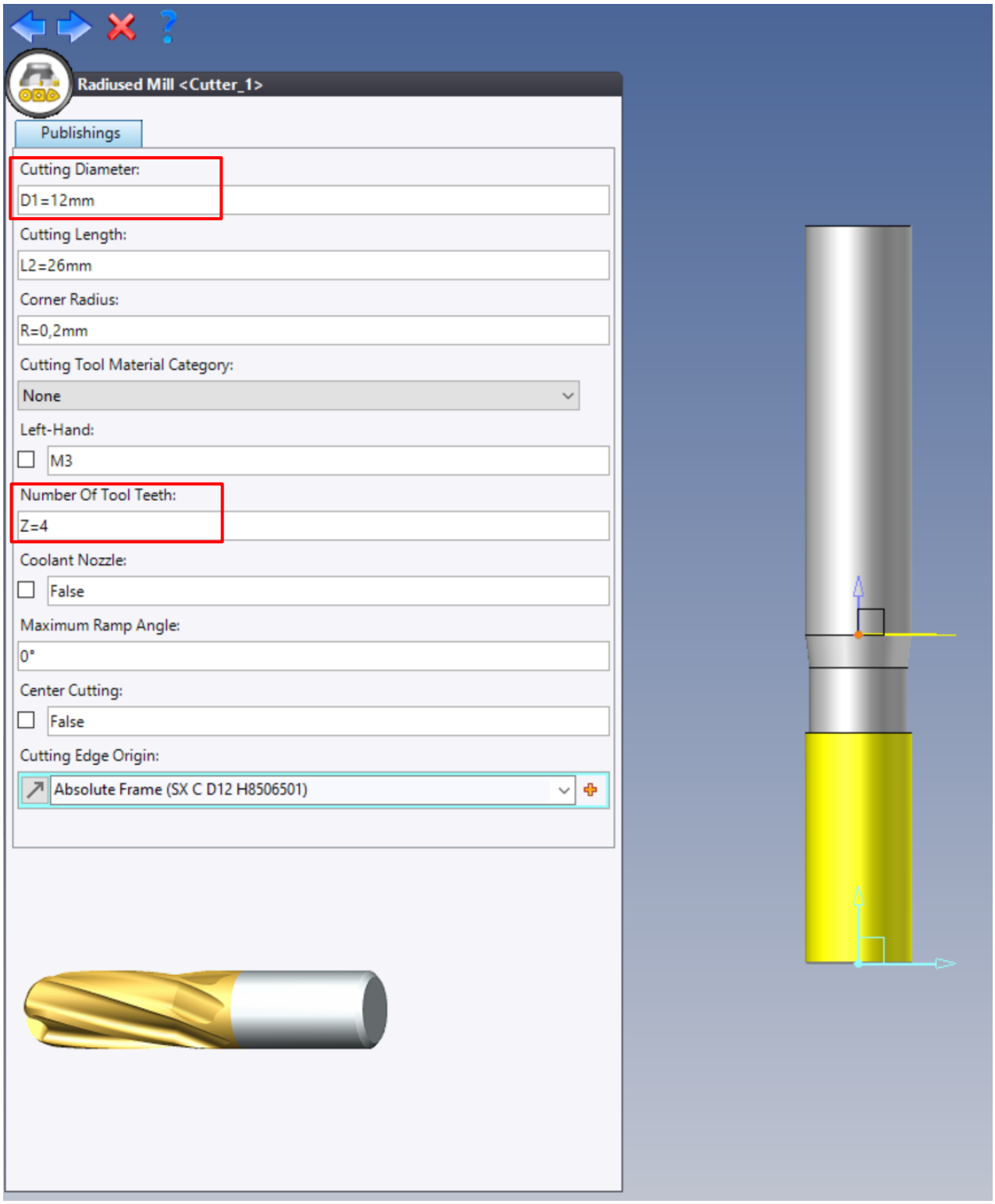
2. Tool identification

In the same way as for the material, the "Manufacturer Part Number" must be entered in the tool or the tool/toolholder assembly.



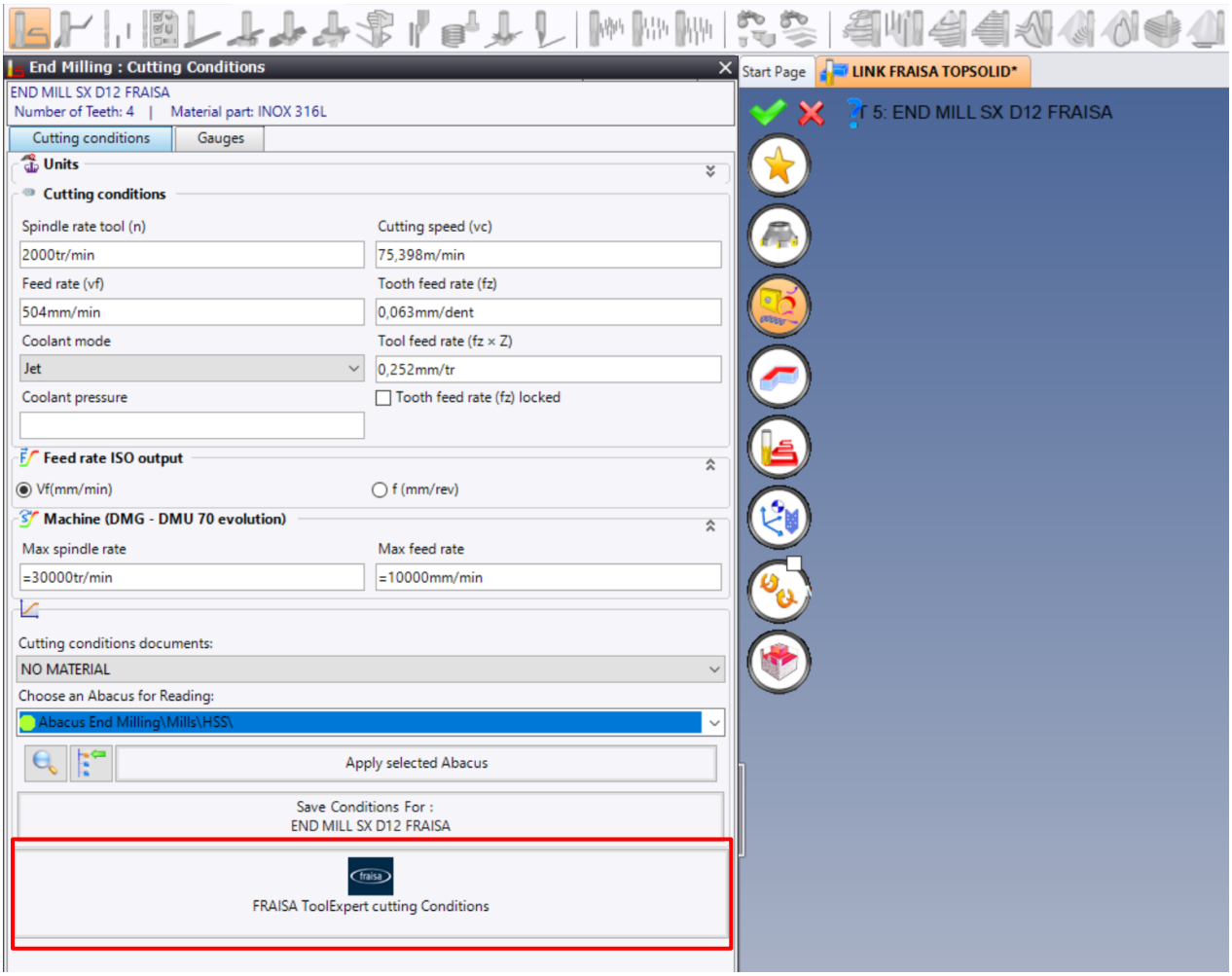
3. *Cutting Diameter and number of tool teeth*

This information is retrieved directly from the tool when it is created via the Tools/Functions/TopSolid'Cam Assistants/Machining component assistant tab.



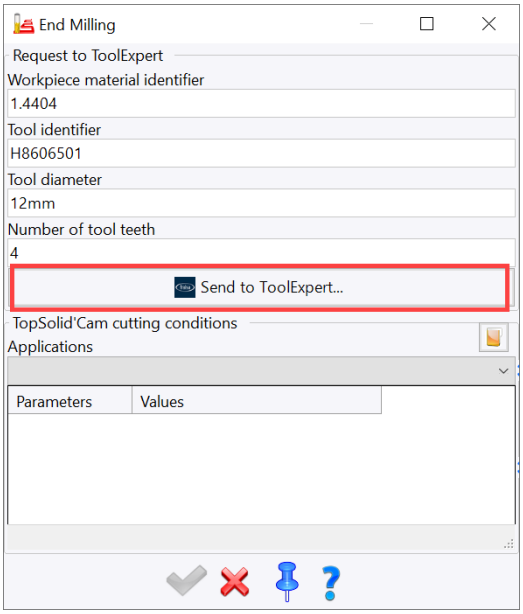
Import of cutting conditions

In the milling operations, in the "Cutting conditions" tab, the Fraisa ToolExpert button is now visible.

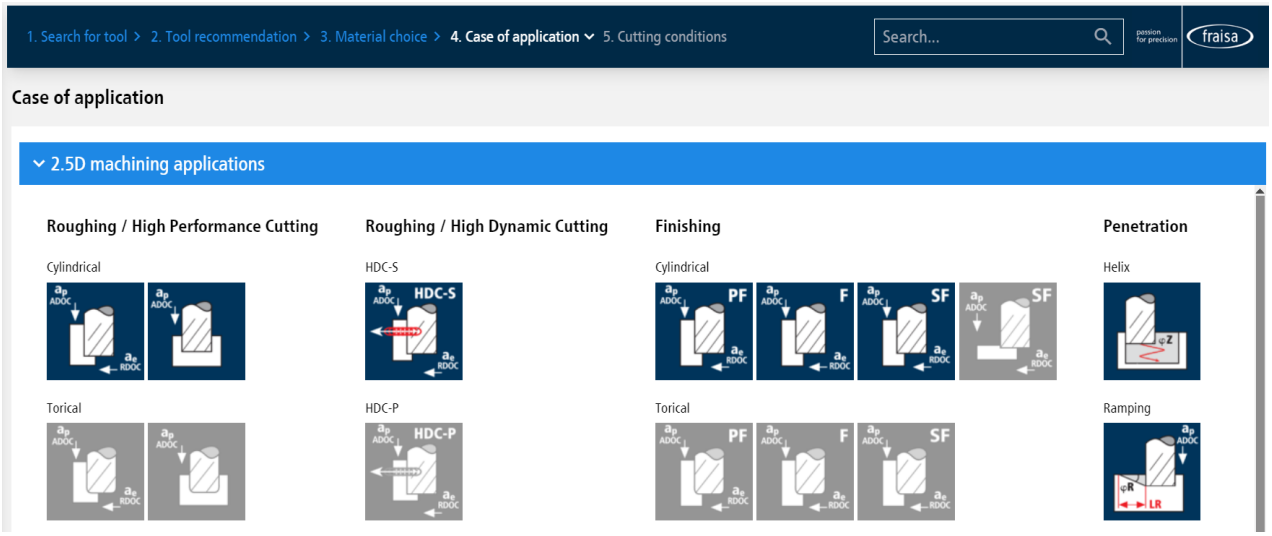


Clicking on this button opens a window containing the various information automatically retrieved by TopSolid, which is required to import cutting conditions.

Click on the "Send to ToolExpert" button to be redirected to it.

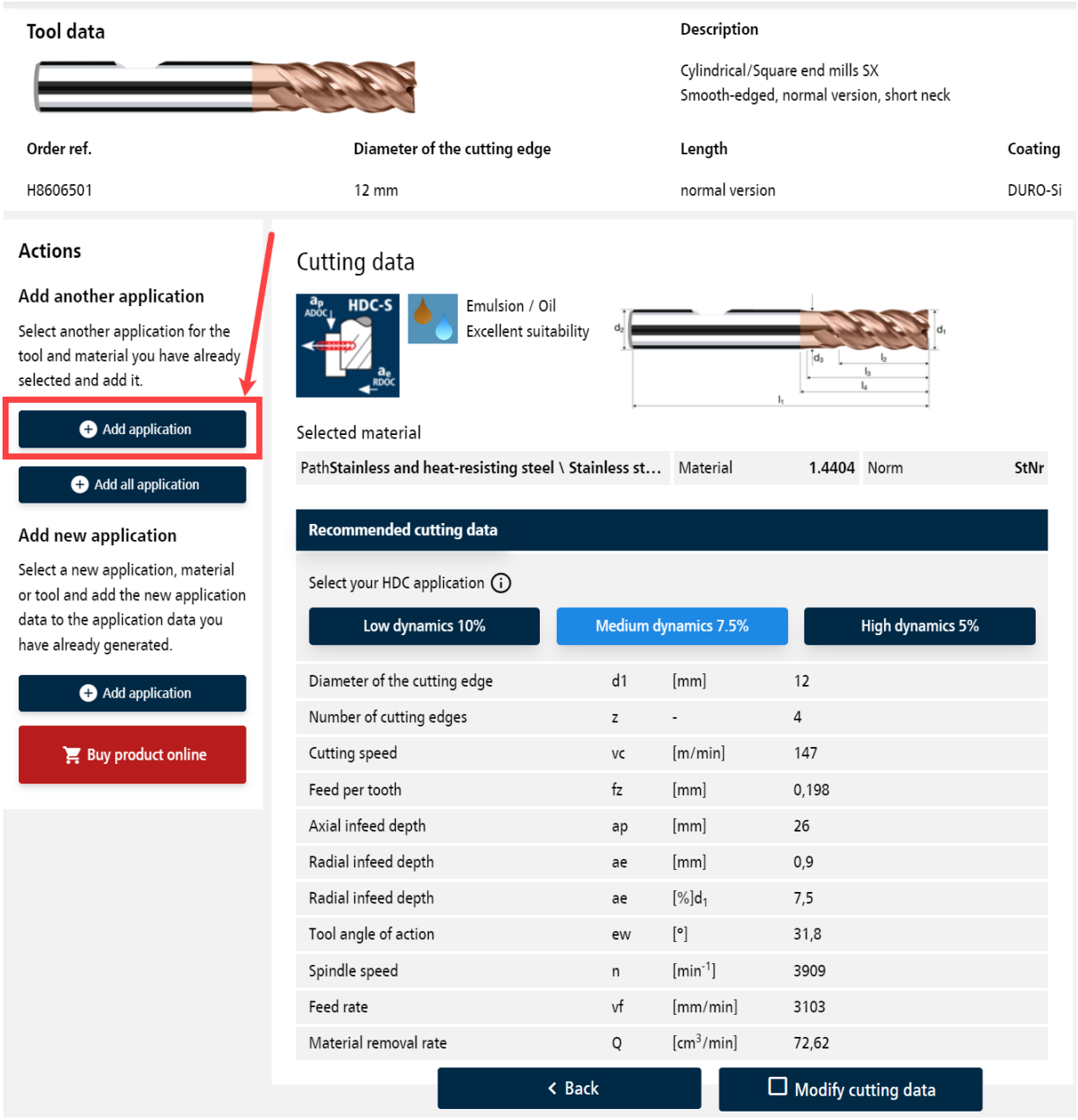


On ToolExpert, the material is pre-selected. If several variations of the material exist, the user must select one. Then you will reach the application selection page.



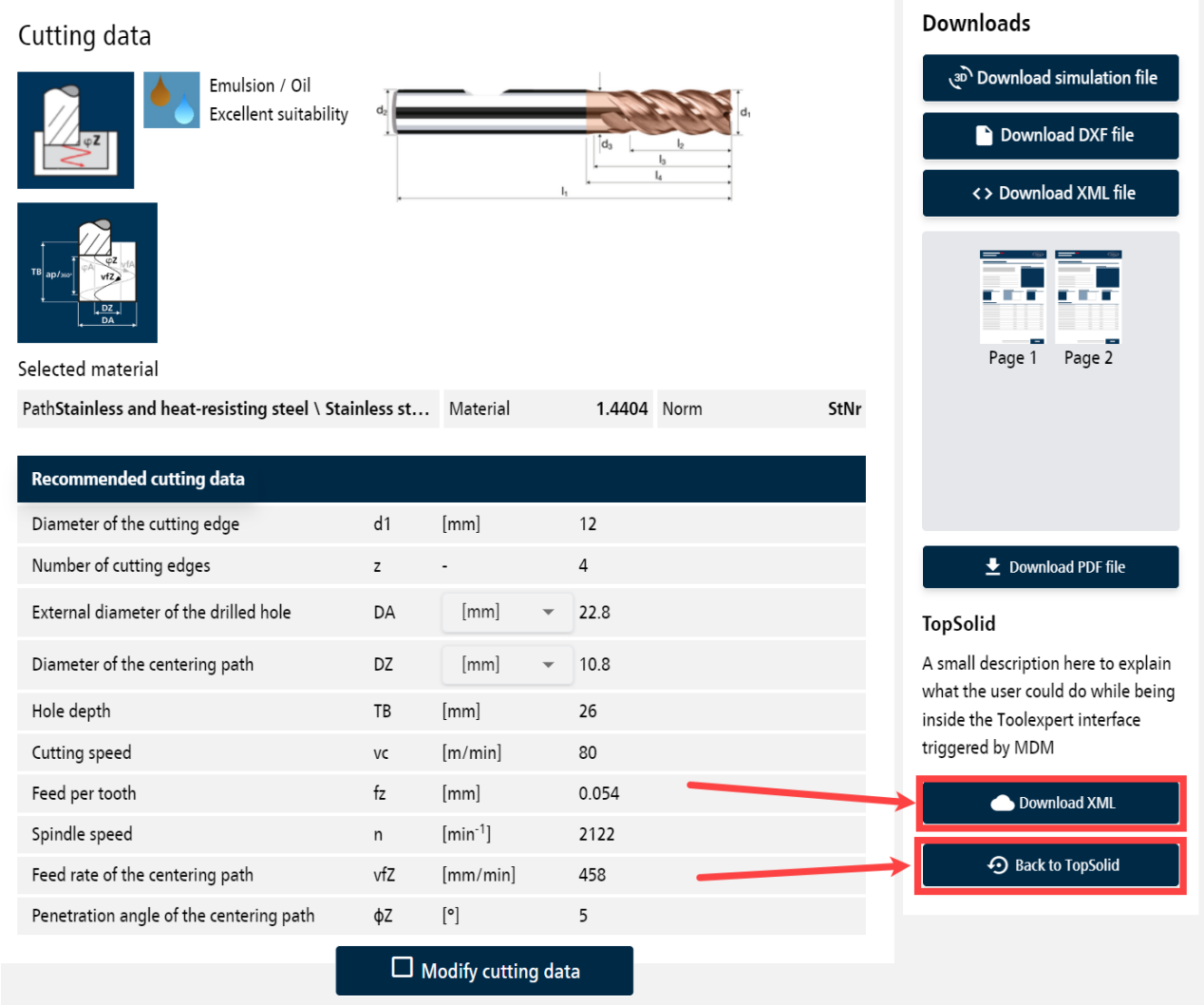
Select the application you are interested in and the ToolExpert will suggest cutting conditions that you can modify if necessary.

If you wish to import additional cutting conditions for the material penetration, which may be different, click on the "Add application" button.

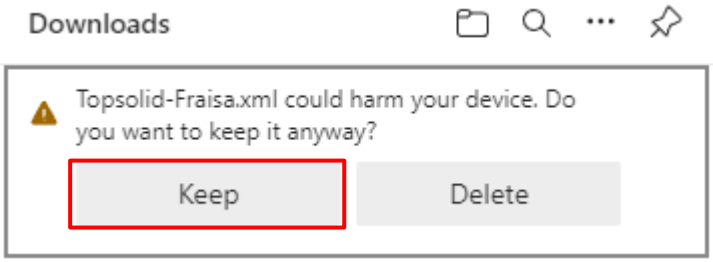


The ToolExpert then asks you to select another application, so select the cutting conditions according to the type of material penetration.

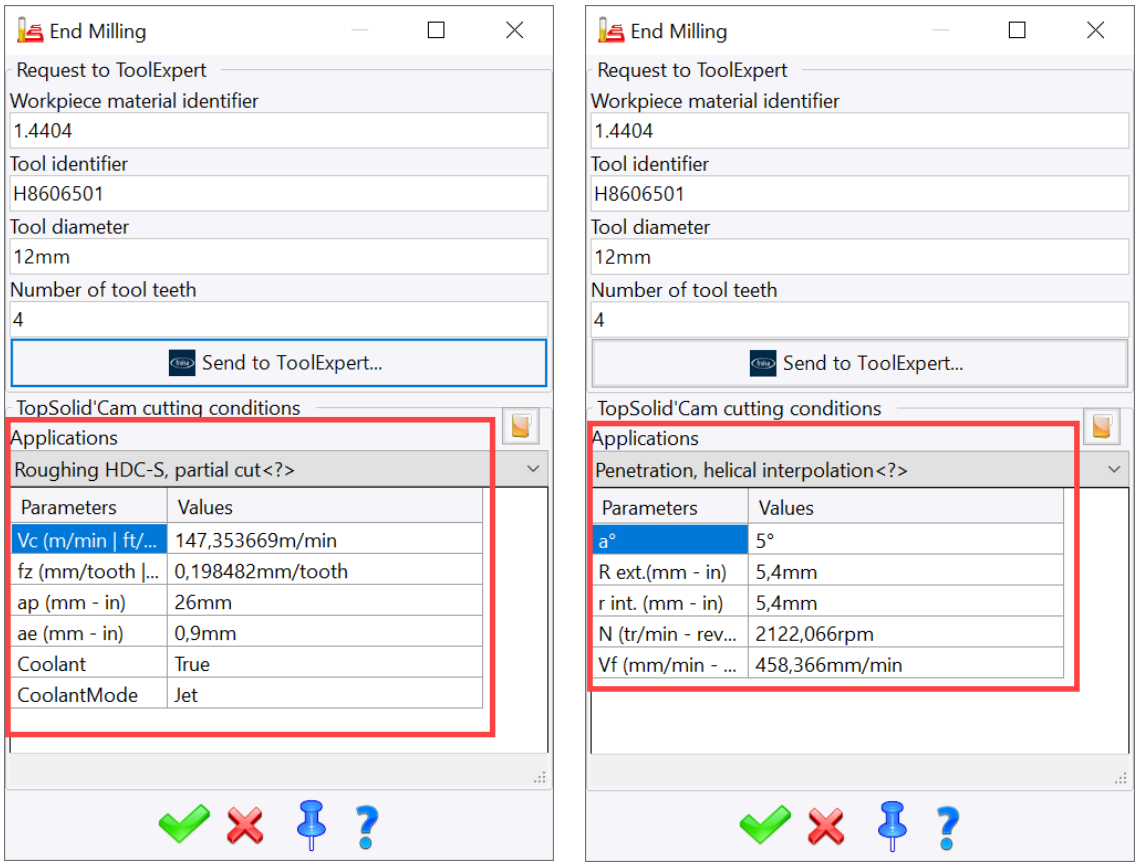
To integrate the selected cutting conditions into TopSolid, click on "Download XML" and then on the "Back to TopSolid" button.



Note : Some browsers automatically block downloads. In order to be able to import the cutting conditions, the download of the XML file is mandatory, so you will have to allow/hold the download.

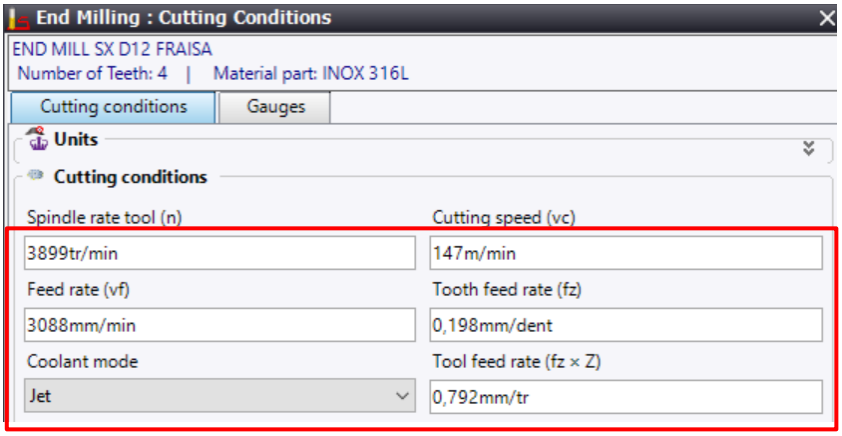


Back in TopSolid, we can see that the cutting conditions are now accessible in the "Applications" drop-down list.

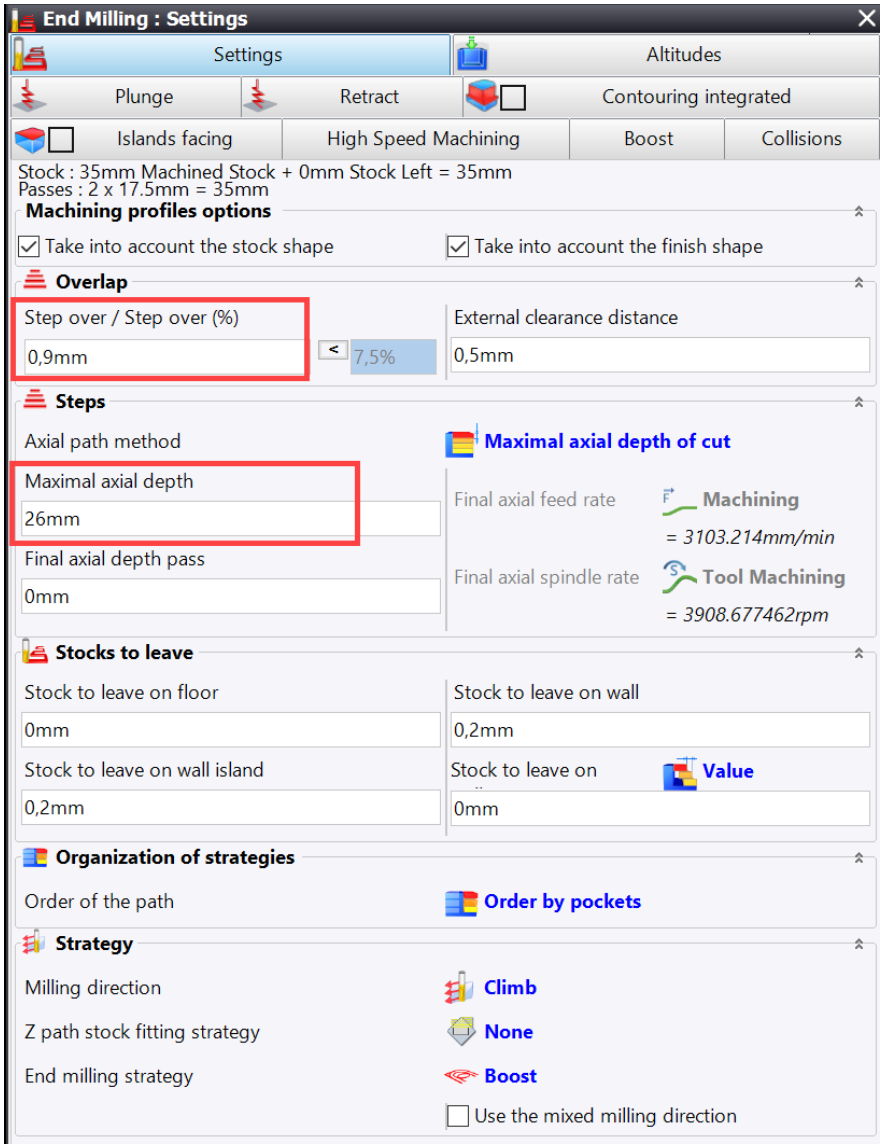


Simply validate to apply the cutting conditions to the tool and the operation settings.
Various parameters are imported:

- Cutting speed (Vc)
- Feed per tooth (fz)
- Spindle rate (N)
- Feed rate (Vf)



- Radial infeed depth (ae)
- Axial infeed depth (ap)



- Penetration strategy
- Radius of helix
- Penetration angle
- Custom pentration feed rate
- Custom penetration spindle rate