Function description

The functions enable to define lead in and out strategies or when grooves have to be lengthened, for example.

This document explains how the individual functions can be set and which functions exist.

We have attempted to keep the content of the document complete, accurate and under permanent review.
However, due to the continuous development of described software, it is not possible to guarantee up to date and accurate information, integrity or quality of the content at all times.
As far as we are able to detect errors or omissions or those, which have been reported to us, our attempt is to correct these with the following versions.
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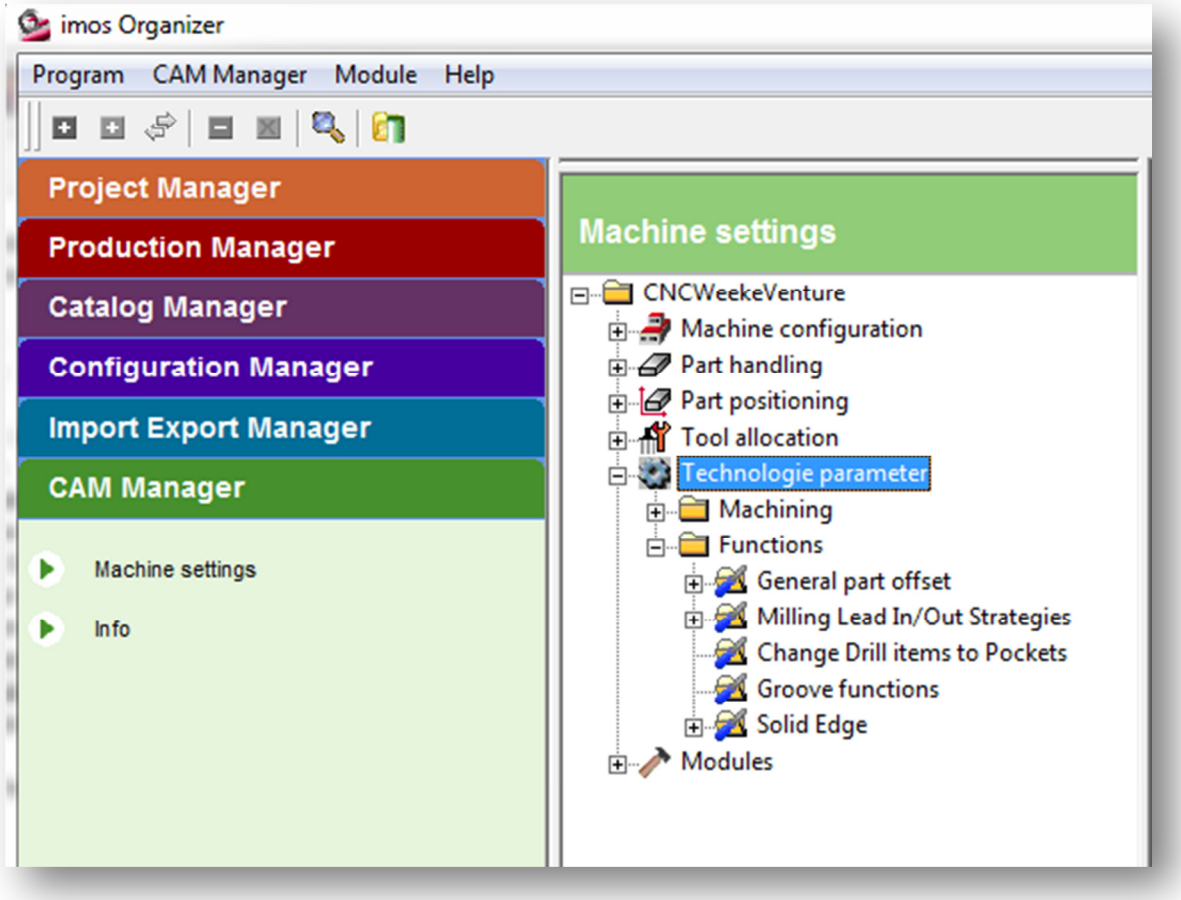
Creation date: June 2015
Used Version: 12.0; Standard CAM Installation mit einer CNC Weeke Venture Maschine

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1. Navigation

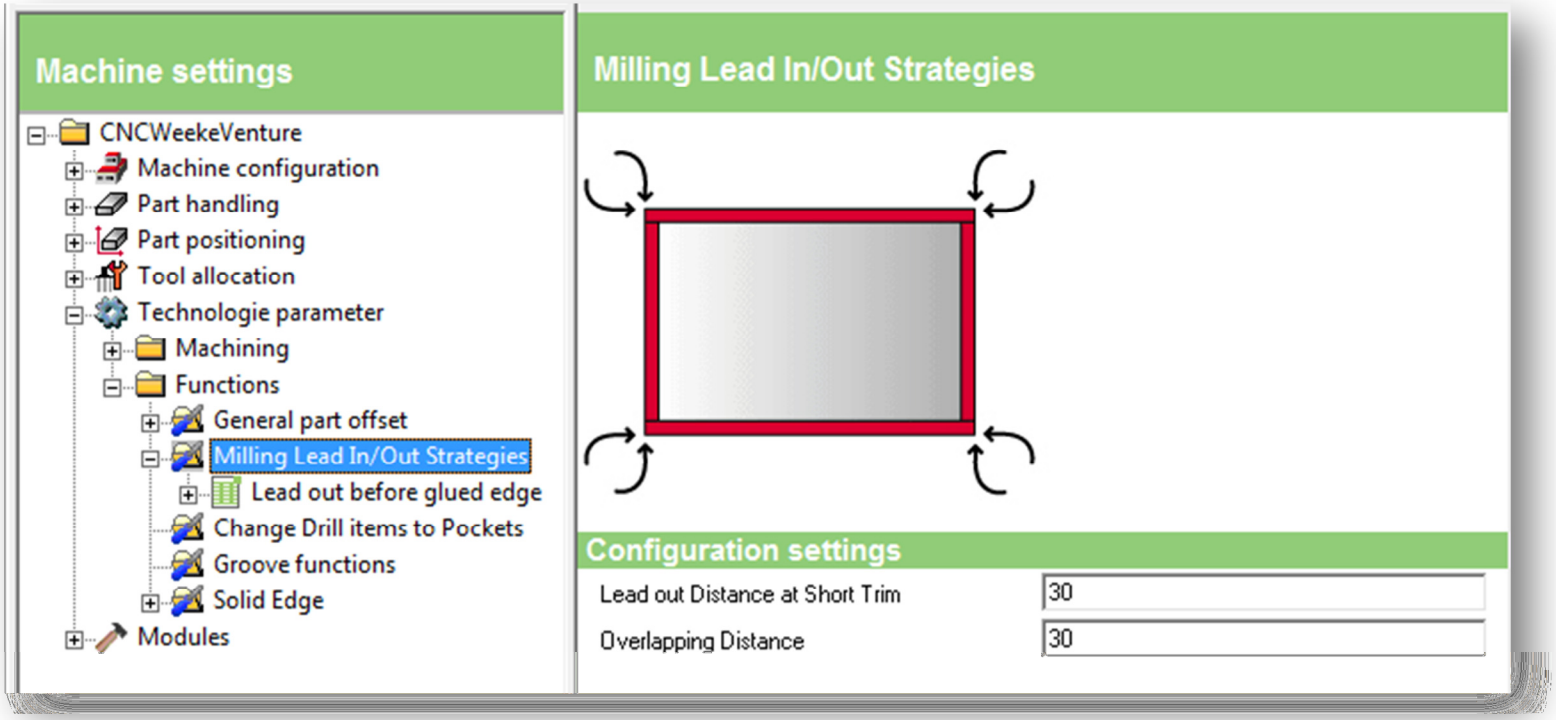
The functions to the functions are in the **Technology-Parameters** of the **CAM Manager**.



2. Configuration settings

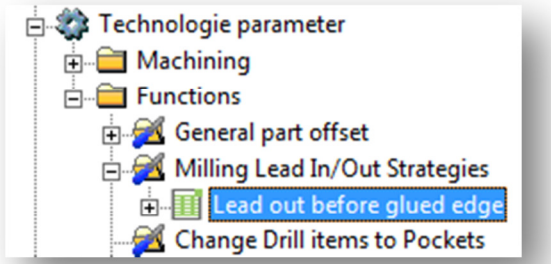
2.1 Milling Lead in/out Strategies

For defining the lead in and lead out movement with outer contours, some basic settings have to be made. By clicking on the **milling lead in/out strategies [mm]**, the **lead out distance at short trim** and the **overlapping distance [mm]** can be defined.

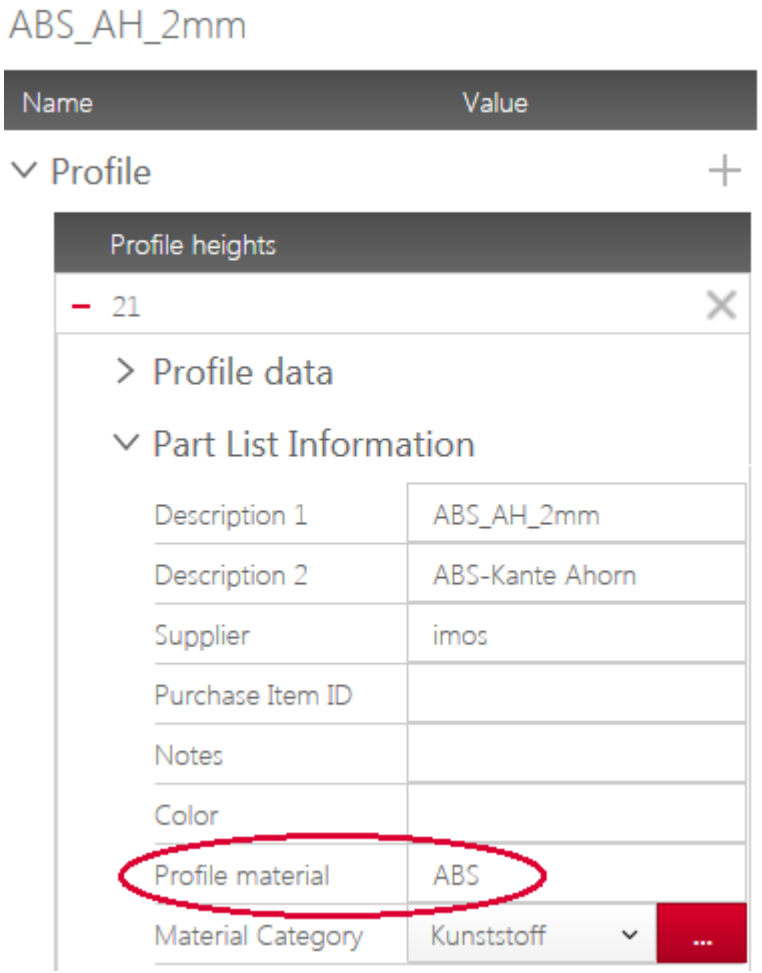


Description	Explanation
Lead out distance at short trim	The setting defines how far the router should run to the exposed edge. If -1 is entered, then the contour is divided in the middle.
Overlapping distance [mm]	The overlapping distance defines how far the router drives over the opposite contour.

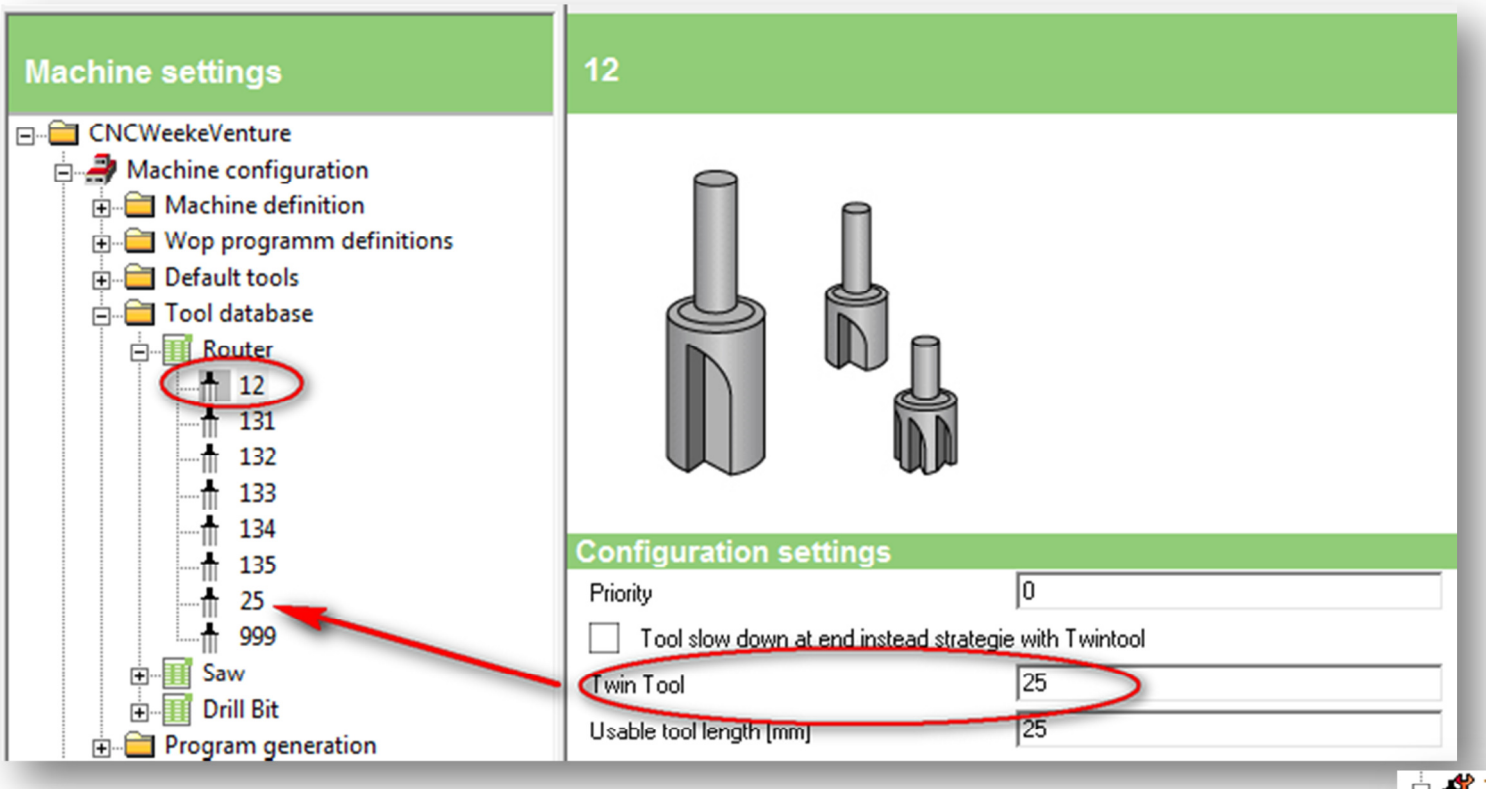
With **Lead out before glued edge** profile materials can be set where the lead in and lead out are effective.



The **profile material** is defined in the imos **Profiles** under **Part list information.**

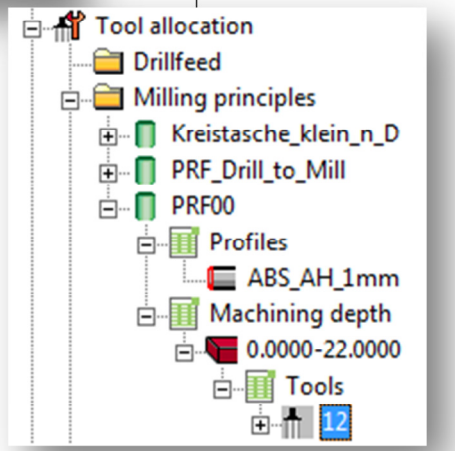


In addition to the machine settings in the **functions**, the respective twin tool must be entered for the tool in the **tool database**.

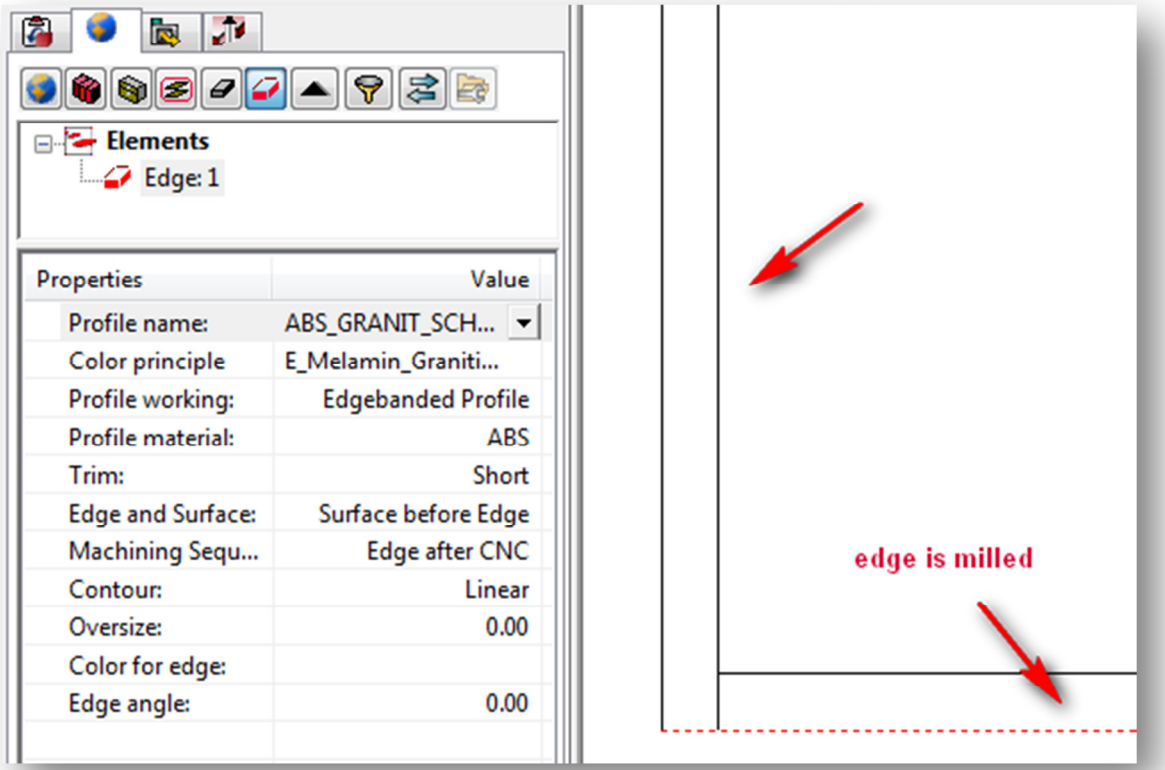


One of the tools must run **clockwise** and the other **counter-clockwise**.

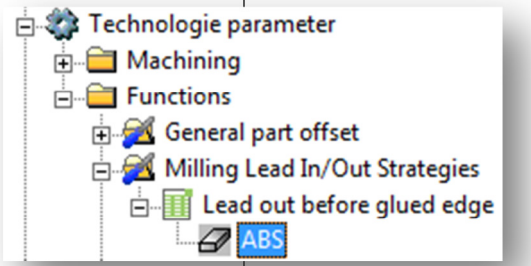
Furthermore, one of the selected tools must be deposited in the **profiles**.



The milled edge must be on **on CNC** or on **after CNC** and the **edge trim** must be on **short** so that the lead in and lead out can be evaluated with glued edge.
All adjacent edges, which have to be protected, must be **before CNC** and the **edge trim** must be on **long**.



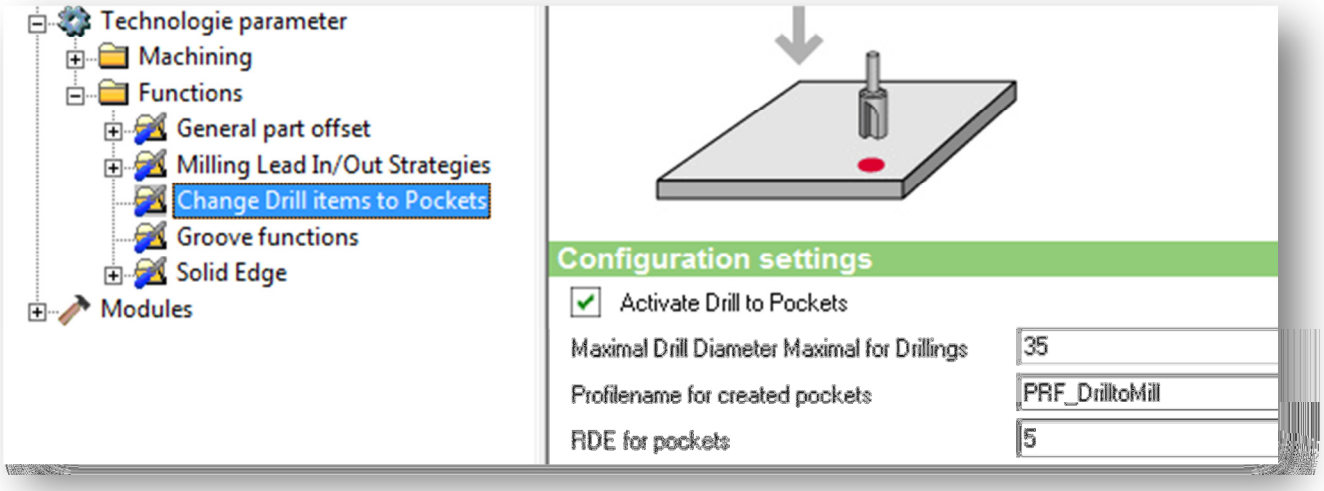
Additionally, the protected edge must have the **profile material** defined in the function **Milling Lead in/Lead out strategies**.



2.2 Change drills to pockets

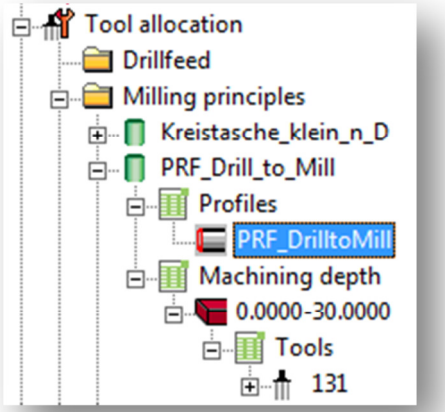
Before making the settings for this function, a profile must be created in the imos **Profile database** first. In this example, the profile is named **DirlltoMill.** This profile is only for assigning the correct tool later.

The function **change drills to pockets** is for changing drills to pockets from a certain value. The function takes effect if the checkbox **activate drill to pockets** has been activated.



Description	Explanation
Maximal drilling diameter for converting	Here the value is entered from where a driil should be converted into a pocket. For example, if 35 has been entered, then all drills with the value 35.1 are converted into pockets. The 35 drills are still output as drills.
Profile name for created pockets	A new profile must be created in the imos Profiles so that the pocket obtains a tool. This can be then used via the profile assignment in CAM Manager later.

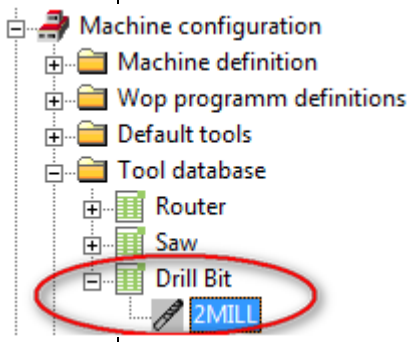
It is important that the name matches exactly with the element name of the profile. Please pay attention to the use of lowercase and capital letters!



RDE for pockets	Here the **infeed in Z** can be set for the pockets.

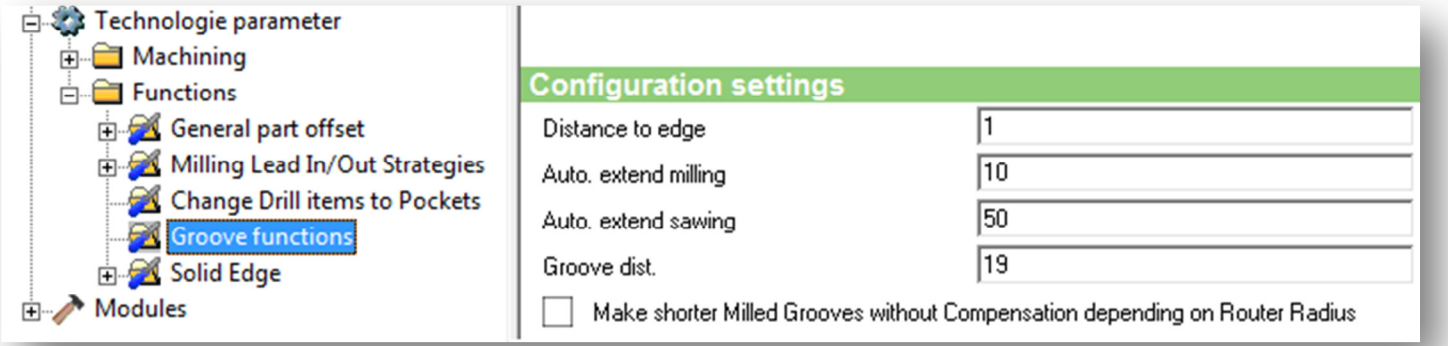
If the function **change drills to pockets** is activated, then the drill **2MILL** is automatically created with drill in the **tool database**.

This cannot be deleted, because otherwise the function **change drill to pockets** will be deactivated.



2.3 Groove functions

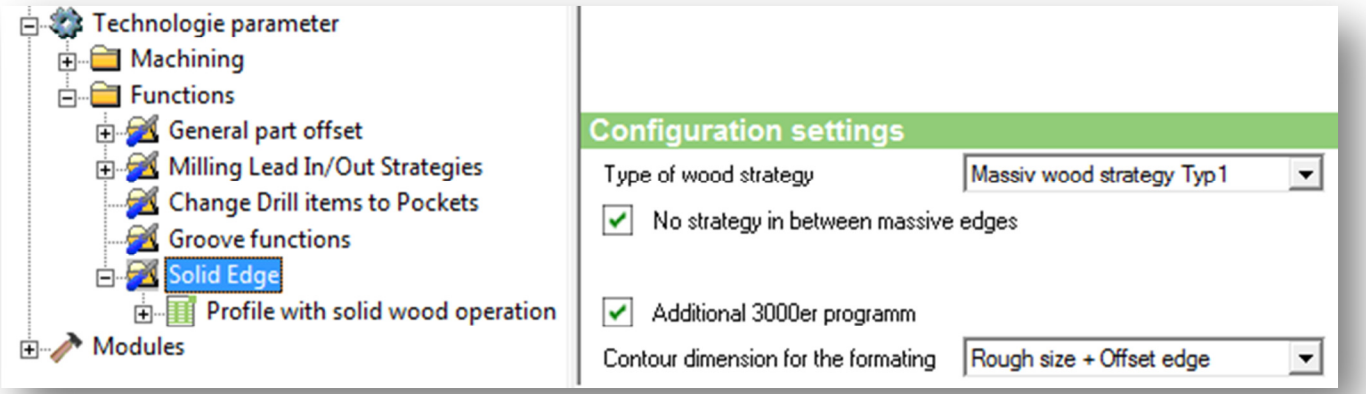
Grooves can be extended with the function **groove function.** For this purpose, different basic settings can be made.



Description	Explanation
Distance to edge	Defines from which distance to the edge the groove should be extended. For example, if 1 is set, then the groove is equivalently extended with a distance of 1mm to the outer edge. The value of the extension is defined with the respective value of **extend milling** or **extend sawing**.
Auto. extend milling	Defines how far the groove should be extended when it is transferred as milled.
Auto. extend sawing	Defines how far the groove should be extended when it is transferred as sawed.
Groove distance	Here the distance can be defined from where two grooves should be combined to one groove. This function is for X and Y.
Make shorter milled grooves without compensatuib depending on router radius	With an activated checkbox the milling contour if not able to transfer as macro, is shortened by the router radius.

2.4 Solid edge

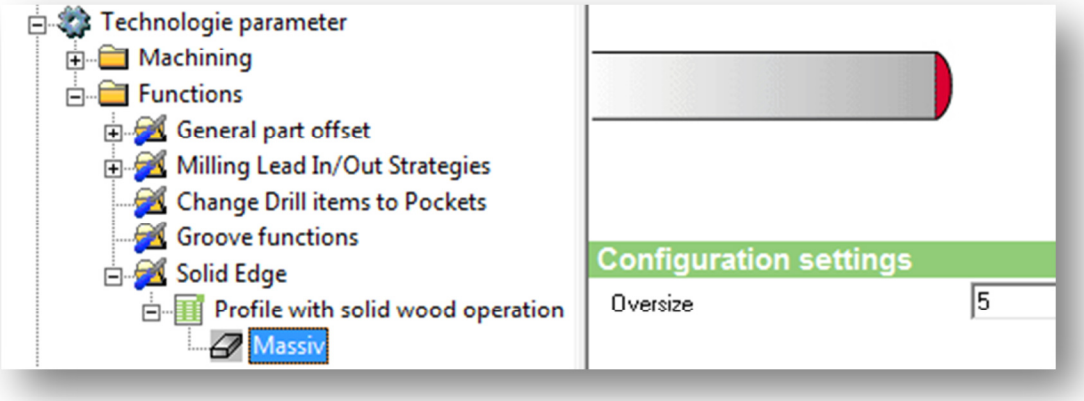
The function defines the operational strategies of solid edges.



Description	Explanation
Type of wood strategy	Here it is possible to select between two different strategies for milling solid edges.
No strategy in between massive edges	With an activated checkbox the function **milling lead in/out strategies** is also effective here. If the checkbox is not activated, then the type solid wood strategies takes effect.
Additional 300er program	With an activated checkbox a 3000er program, only containing formatting, is generated for massive edges. Please, note that the edge sequence in imos must be on **before CNC** so that a 3000er program can be generated.
Contour dimension for the formatting	Here it is possible to select how the contour dimension should be when formatting the part.

By right clicking once on **profile with solid wood operation**, the desired profile materials deposited in the imos Profile can be selected.

After assigning the profile materials, the corresponding entry can be marked and afterwards an **oversize** can be defined in the configuration settings on the right side.
The oversize is for being able to work on the edge once more after gluing the solid edge.



The function **solid edge** is only then evaluated if the profile working in the profiles is on **solid edge + milling**.

