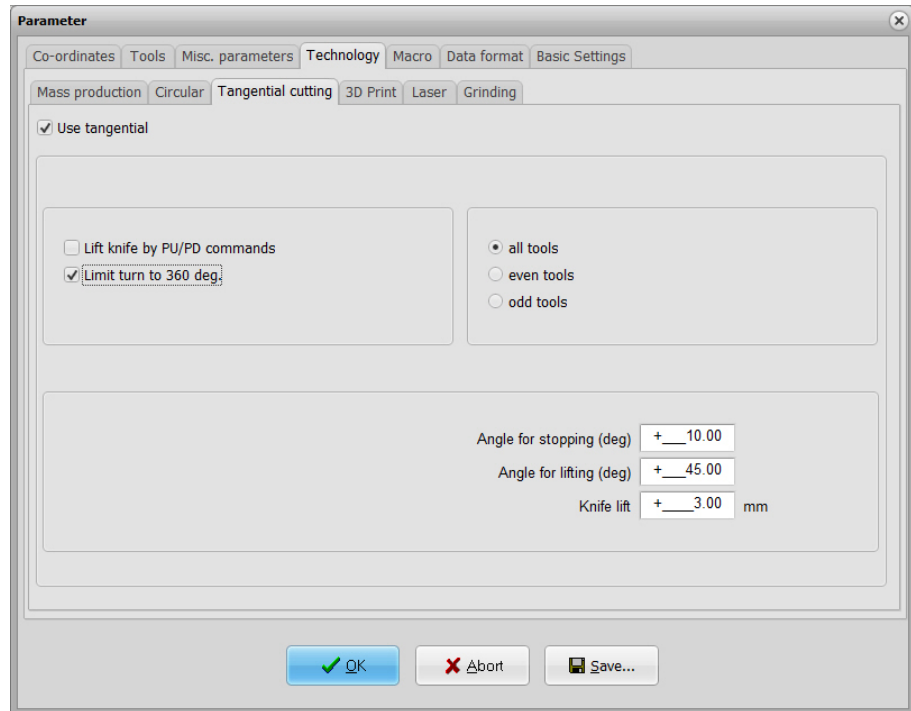


Technology-Tangential-cutting



Parameter-Technology-Tangential-cutting

Enable tangential axis

The parameter *Enable tangential axis* is generally responsible for switching on or off the tangential axis function. If it is activated this function will also be considered during reference move.

Tangential cuts are only possible if the 4th axis is equipped with a defined reference switch or if a reference move has been carried out. Otherwise the user is asked to execute a reference move.

This parameter is also part of this activation on the right side section for choosing tools. There are various options for actuating the tangential function: either by all available tools or by even or odd ones. While a job is running, it is easy to use tangential blades, gouge balls and perforating tools.

Lift with PU/PD

Lifting the cutter during rotations is normally directly effected by the program.

However, if macros are used which are working solely with

Lift and *Lower* commands, lifting of the cutter can be forced by this parameter with PD and PU commands integrated in HPGL data.

This parameter is only applicable using macros.

Rotation of max. 360 degree

With certain tangential heads it is impossible to carry out rotations over 360 degree because there can be strokes or overstripped cables.

Limitation of cutter rotations

An activated parameter carries out rotations always within the limits of 0 to 360 degree. Movements requiring cutter rotations over this limit are stopped, the cutter will be resetted and then movement will be continued.



Sample for foil cutting with tangential axis

Angle for stop, lift an lift height

During the process of tangential cutting it is important to avoid too large or too wide cutter rotations into the material. By means of both angle paramaters it is possible to determine exactly the moment of stopping a movement concerning direction change or cutter rotations or even when the cutter has to be lifted.

External cutter rotations

A movement will be previously stopped when the cutter rotations are greater than the stop angle, then the cutter will be rotated and subsequently the movement will be continued. If rotations are greater than the lifting angle the cutter will be lifted after a movememt stop and then it is rotated and put down again.

With the parameter knife lift you can determine the height in millimeters, in which the cutter is lifted prior to rotation. This should be setted in the way to avoid damages of the material to be cut.