

# Tooldatabase-Parameter

**Siemens NX CAM**

## Tooldatabase for „Connected Manufacturing“

Which parameter do we need and why?

Background:

- „Connected Manufacturing“ is creating the „digital twin“ of the existing tool and connects them with each other
- Through this all tools can be localized and the needed data can be sent to the machine or presetting device

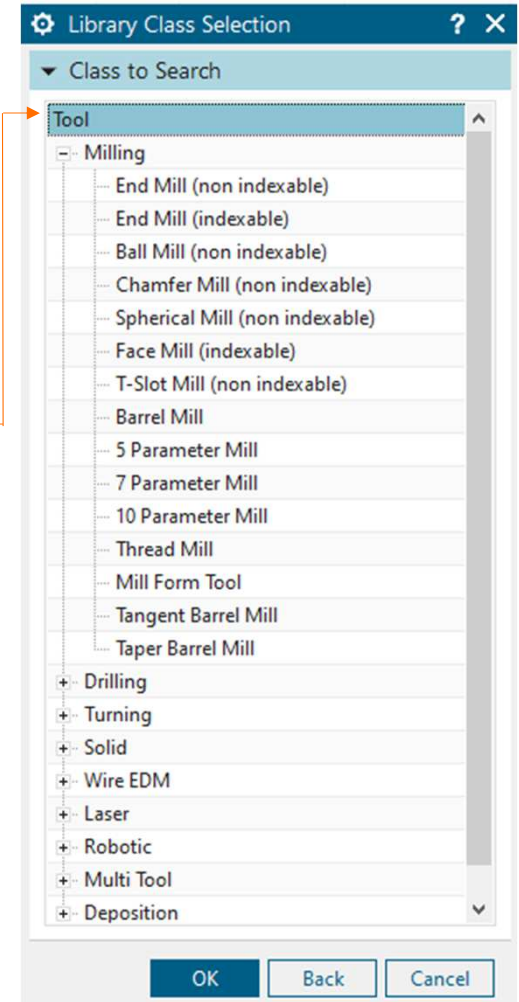
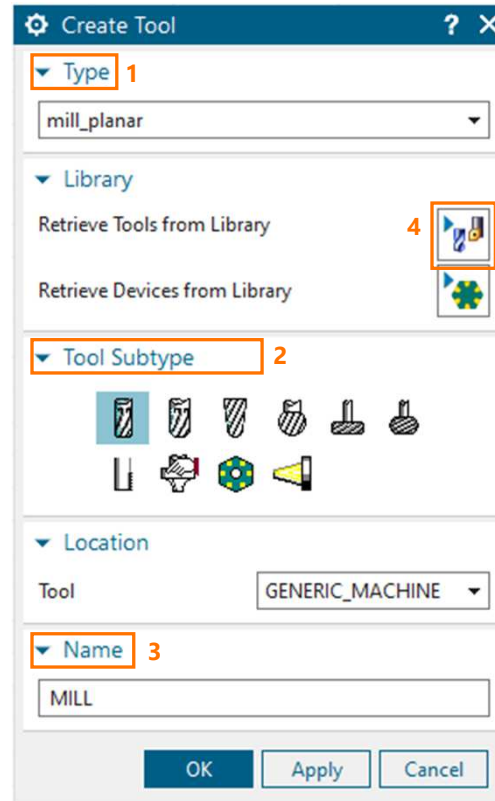
General:

- Toolassembly = Cutter + Baseholder
- If Hoffmann-Article-Numbers are maintained, the data can be automatically enriched
- Tools can be identified with „Name“ or „Tool-Nr.“

# Siemens NX CAM Tooldata

## Create new tool

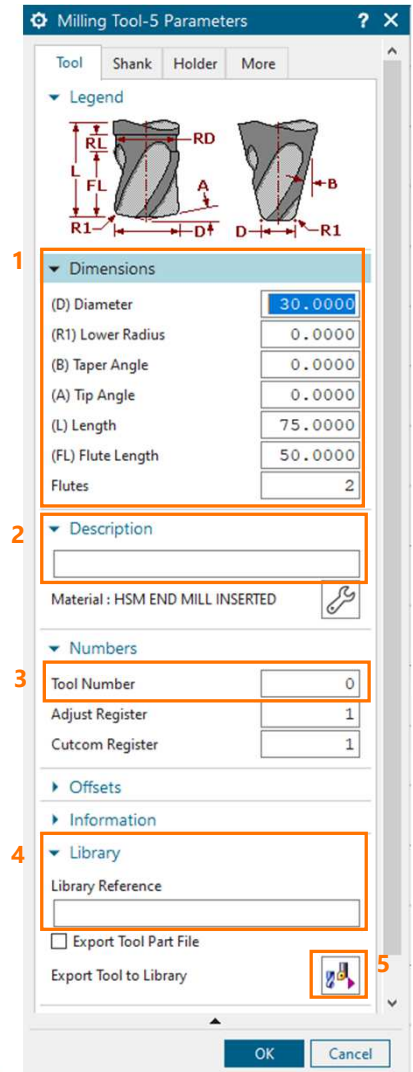
- 1. Type: defines the toolgroup
- 2. Tool Subtype: defines the tooltype
- 3. Name: the internal name in Siemens NX CAM is not used as „Name“ in Connected Manufacturing
- 4. Library: you can fill in some parameters automatically by choosing a tool from the library



# Siemens NX CAM Tooldata

## Cutter data

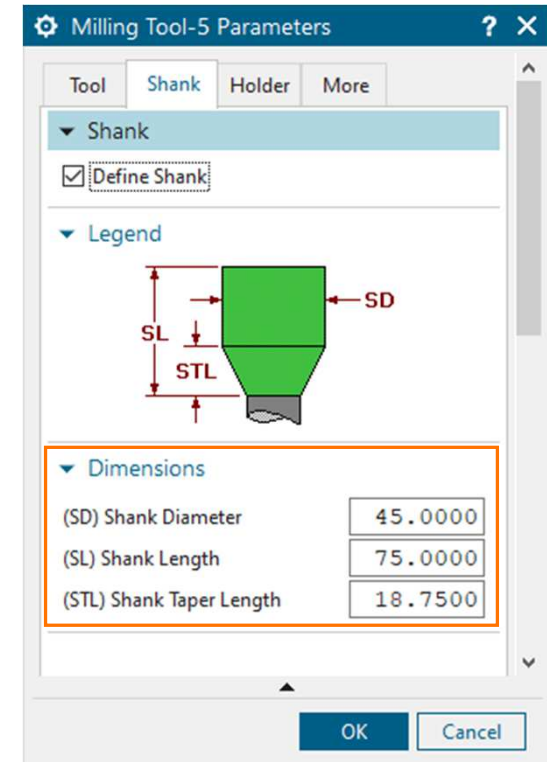
- 1. Dimensions: it is **required** to fill at least (D) Diameter and (L) Length (length of the cutter without holder – for calculation of further lengths)
- 2. Description (Articlenumber): here you can put in the Hoffmann-Articlenumber of the **cutter**. With this number the information can be automatically enriched by importing the tool to CM (pictures, dimensions, materials, etc.)
- 3. Tool Number: for clearly identification of the tool, if you are working with T-No.
- 4. Library: this field is saved as „Name“ in Connected Manufacturing and has to be unique (**required**)
- 5. Export tool to library: with this button you can export and save the cutter to the tool library



## Siemens NX CAM Tooldata

### Shank data

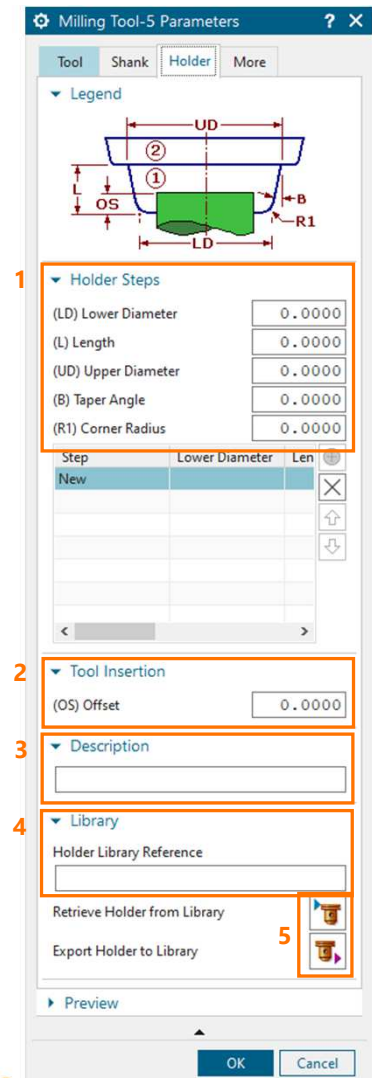
- Here you can define the shank geometry
- This tab is optional



# Siemens NX CAM Tooldata

## Holder data

- 1. Holder Steps: here you can define a new holder
- 2. Tool Insertion (Offset): the insertion length of the tool is for further calculations in Connected Manufacturing (**required**)
- 3. Description (Articlenumber): here you can put in the Hoffmann-Articlenumber of the **holder**. With this number the information can be automatically enriched by importing the tool to CM (pictures, dimensions, materials, etc.)
- 4. Library: for clearly identification (name) of the holder (**required**)
- 5. Load holder from library/Export holder to library: with this buttons you can load a holder from the library or export and save the new one to the library



## Siemens NX CAM Tooldata

### More settings

- Machine Control: for (automatic) transmission of the settings to the machine
- 1. Direction: spindirection of the tool
- 2. Coolant Through: if the tool has „coolant through“ the checkbox must be activated

Milling Tool-5 Parameters

Tool Shank Holder **More**

Machine Control

1 Direction CLW

2  Manual Tool Change

Coolant Through

Holder Number 0

Text

Tracking

Simulation

Operation Parameters

Non Cutting Moves - Engage

Ramp Angle 15.0000

Helical Diameter 90.0000 %Tool I

Min Ramp Leng 70.0000 %Tool I

Cutting Parameters

Max Cut Width 50.0000 %Tool I

OK Cancel