

# Tooldatabase-Parameter

**SolidCAM**

## Tool database 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.“

# SolidCAM Tooldata

## Common Data

- 1. Number (T-No.): for clearly identification of the tool, if you are working with T-No. (recommended)
- 2. Description: for additional information in SolidCAM (optional)
- 3. Tool ID.: for clearly identification of the tool, if you are not working with T-No. (not recommended) → is saved as „Tool Assembly Name“ and has to be unique. It is **required** even if you are working with T-No.
- 4. Tool parameters (dimensions): it is **required** to fill at least diameter (D) and H-length (total length including Holder)

1 Number: 99999 Turret: N Tool storage Station/Position: 1 A 0 Mounting >>

2 Description: EndMill 6 Steel Short Tool ID: EM\_D6\_MM 3 Color: Blue

M Topology Tool Data iData Holder Shape Coolant Tool Preset Tool Message

4 Tool parameters

Mm  Diameter (D): 6  
Inch  Shoulder diameter (SD): 6  
Arbor diameter (AD): 6

Length

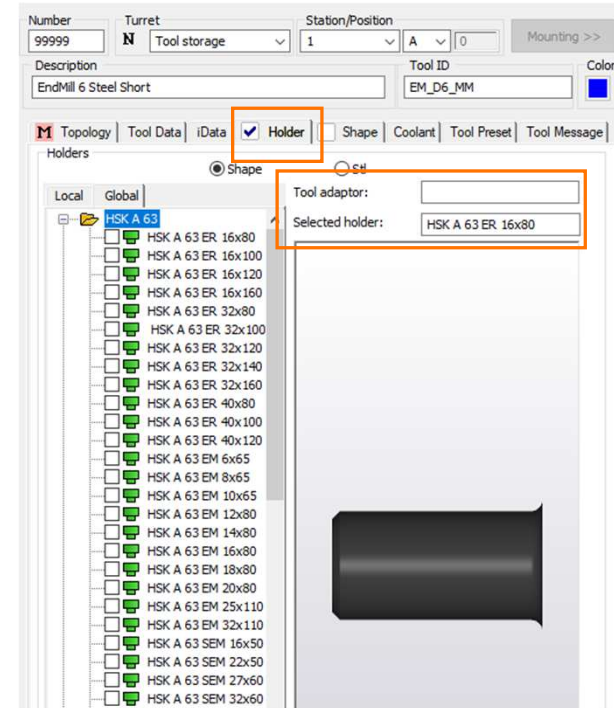
Mm  Total (TL): 80  
Inch  Outside holder (OHL): 60  
Shoulder length (SL): 30  
Shoulder angle (SA): 0  
Cutting (CL): 24  
H length:  100

Rough Number of flutes: 2

# SolidCAM Tooldata

## Holder Data

- Holder: A holder has to be selected!  
Otherwise only the cutter will be imported and there is no assignment to the Tool Assembly (assignment with Toolname or T-No.) (**required**)



# SolidCAM Tooldata

## Cooling Options (Coolant)

- Through tool coolant: for (automatic) transmission of the cooling options to the machine. If the tool has „Through Tool Coolant“ the checkbox must be activated

Number: 99999 | Turret: N | Tool storage: [v] | Station/Position: 1 | A | 0 | Mounting >>

Description: EndMill 6 Steel Short | Tool ID: EM\_D6\_MM | Color: [Blue]

M Topology | Tool Data | iData |  Holder |  Shape | Coolant | Tool Preset | Tool Message

Turret coolant | Machine coolant

| Names                                               | Values |
|-----------------------------------------------------|--------|
| <input checked="" type="checkbox"/> Flood           |        |
| <input type="checkbox"/> Flood: Pressure            | Low    |
| <input type="checkbox"/> Flood: Value               | 0      |
| <input type="checkbox"/> Mist                       |        |
| <input type="checkbox"/> Mist: Pressure             | Low    |
| <input type="checkbox"/> Mist: Value                | 0      |
| <input checked="" type="checkbox"/> Through tool    |        |
| <input type="checkbox"/> Through tool: Pressure     | Low    |
| <input type="checkbox"/> Through tool: Value        | 0      |
| <input type="checkbox"/> Active air                 |        |
| <input type="checkbox"/> Active air through spindle |        |
| <input type="checkbox"/> Min.Quantity Lubrication   | 0      |

## SolidCAM Tooldata

### Tool Message (Articlenumbers)

- Message 1: 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.)
- Message 2: 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.)
- Message 5: here you can put in the coupling adapter to the machine (e.g. HSK 63, SK 40, etc.)

The screenshot displays the SolidCAM Tooldata configuration window. At the top, there are fields for 'Number' (99999), 'Turret' (N), 'Tool storage' (dropdown), 'Station/Position' (1), 'A' (dropdown), and '0' (input). A 'Mounting >>' button is on the right. Below these are 'Description' (EndMill 6 Steel Short) and 'Tool ID' (EM\_D6\_MM) fields, along with a 'Color' selection (blue square). A navigation bar includes 'M Topology', 'Tool Data', 'iData', 'Holder' (checked), 'Shape', 'Coolant', 'Tool Preset', and 'Tool Message'. The 'Tool Message' section contains five input fields: 'Message 1' (202260 6), 'Message 2' (308170 6), 'Message 3' (empty), 'Message 4' (empty), and 'Message 5' (HSK 63). The first, second, and fifth message fields are highlighted with orange boxes.