

Tool Management



Purpose

Tools are a part of the production and the mounting process. The process capability has to be assured – like for all other components of a process. One task of the quality assurance is to guarantee safe processes. The iQ-WZM (tool management) module supports the systematic entry of tools, the assembly, the constant monitoring regarding the process capability and the early initiation of repairs and the purchase of spare parts.

Master Data of Tools

Tool types are roughly distinguished in two classes: tools without an ident no. (consume material like borers, cutters etc.), and tools with an ident no. that are custom-made. In iQ-WZM tools without an ident no. are considered as a tool type.

Tools that have been manufactured for a production process **according to a drawing** usually only exist once and are called **idents**.

For one **tool type** an unlimited number of **individual tools** with their serial respectively inventory numbers can be registered in iQ-WZM.

Information that belongs to all tools is maintained on type level. This also applies to the history (e.g. tool type: new revision state of a drawing).

Master Data of Tool Types

- Key or tool type no., short description
- Lookup term
- Revision state
- Status of the revision state
- Validity period
- Drawing no. with revision state

Tool Characteristics

Because of the variety of tool types partly very different descriptions of characteristics are necessary.

- **Setting parameters** for casting tools, usually bound to a code no.
- **Part list** for a metal cutting tool with a drawing for the assembly
- Parameter defaults for the adjustment of the tool
- Description of the interface between **tool and workpiece**
- Description of the interface between **tool and machine** etc.

To deal with the variety of tool types they are categorized in classes. The characteristics can freely be set up by the user. The possible entries for a characteristic are predetermined in catalogues within the iQ-GL module.

Tool Part List

The tool part list contains all material ids that are used in the tool assembly. The list is maintained directly together with the tool.

Printing of the Setup Paper

When printing tools that have to be assembled the print result consists of the drawing, the part list, and the setup parameters.

Relations between Workpieces and Machines

It is possible to create a list of materials (i.e. their id's) that are handled with a special tool. Machines that are able to use the tool can also be written to a list. Materials and machines are maintained in iQ-GL.



