

Tool-Designer Sketcher

Quick-Manual

as of V15.324.003



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1. First steps

1.1 Navigation

1.1.1 Keyboard navigation:

- Navigate using the arrow keys.
- Navigate to the target location and enter the value or open it by pressing 'enter' (Dropdown menu or tool symbols  ). To get there you may have to navigate left and right.
- To navigate the menu press 'Alt' once. Do not hold it down.

1.2 Load & Save

1.2.1 In the drawing: Files will be saved in the TDS format. This includes all the tool information, as well as position and content of charts, ...).

1.2.2 In the definition dialog: Files will be saved in IML format. This includes only the tool data, but IML files are much smaller and perfect to keep the 'original' design at hand.

1.3 Dimensioning

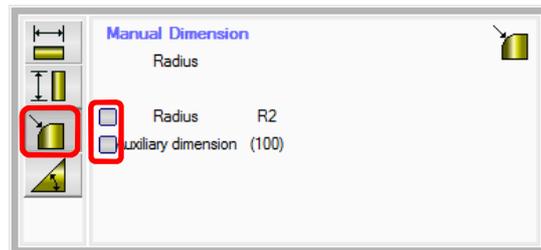
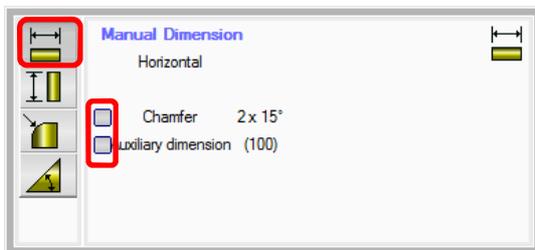
1.3.1 Position lines and values: Click and hold the left mouse button on a dimension line or value and drag it to the desired position.

1.3.2 Remove line: Right click on the line or value and select 'Delete'. Please note that both, the dimension line and the value will be removed.

1.3.3 Free line position: Click and hold the left mouse button on a dimension line or value while holding down the 'Ctrl' key and drag the line to the desired position.

1.4 Manual Dimensioning

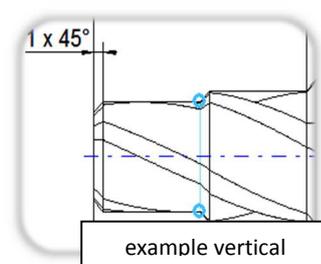
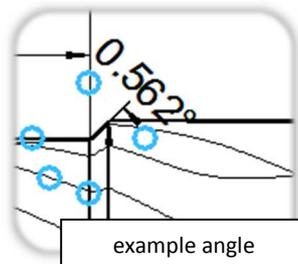
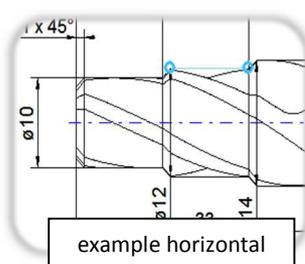
1.4.1 Click „Edit" - "Manual Dimension", radiuses, angles, full angels, both horizontal and vertical dimensions are made. Select the desired level and any additional "feature" option.



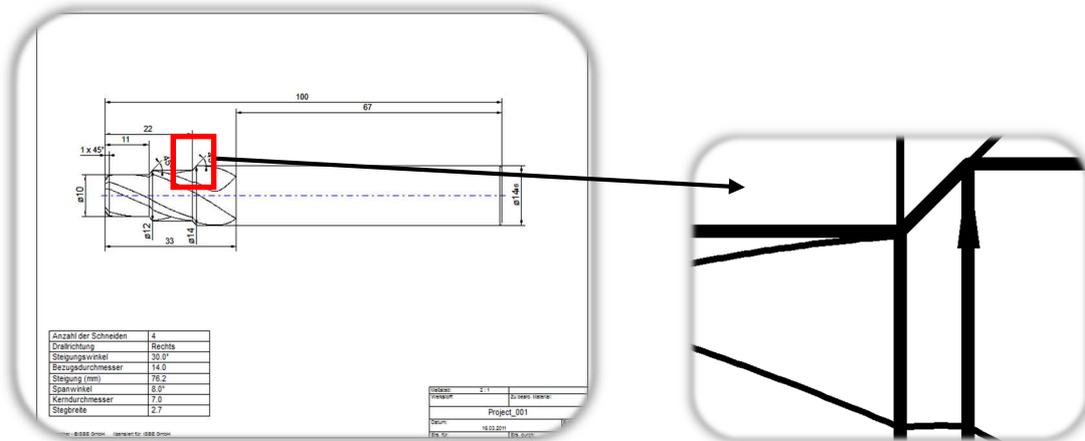
1.4.2 Dimensioning points: In the horizontal and vertical dimensions, the start and end points are selected

by a blue dot. At radiuses just a blue dot is selected by the value of the radius to get.

Angle need three blue selection handles, the starting point and two points for the angular dimension.



1.4.3 Quick zoom function: by holding the "Shift" key zooms in place of the part where the mouse is.



1.5 Tables

1.5.1 Add table: Click on 'Table' in the menu and select 'New'. Determine the size of the table by adding and removing rows and columns as well as the width of the columns. Please note that always the currently selected row/column will be edited. Fixed information may also be added at this state.

1.5.2 Position table: Click and hold the left mouse button on a line of the table and drag it to the desired position.

1.5.3 Font: In the table menu (right click table). Here you can change the font size as well as add options like **bold** or *italic*.

1.5.4 Edit / delete / save: Edit, remove or saves the table as a template.

1.5.5 Templates: Saved tables can be used as templates. Click "Templates" in the menu and mark all tables you wish to insert into the drawing. Confirm to insert the selected tables.

1.5.6 Tables (text boxes) format: Right-click at the table and choose "Framework Edit".

1.5.7 Table management: All saved tables can be exported and imported. Once created tables can be swapped between PCs easily.

1.5.8 About Right-click on the table / text field => "edit" it is possible, tables / text boxes to adjust the size, "Manual", "Automatic (Static)" and "Automatic Dynamic".

1.6 Tolerances

1.6.1 Add tolerances: Double click any value in the drawing and select a tolerance type. Enter the tolerance and close the dialog.

1.6.2 Delete tolerances: Double click the appropriate value and deselect the tolerance type.

1.7 Reference arrow

1.7.1 Insert: Select 'edit' – 'Insert reference arrow' from the menu.

1.7.2 Select starting point of the arrow.

1.7.3 Select ending point of the arrow.

1.8 Font size

1.8.1 Select Extras – Options from the menu and click on 'Font'

1.8.2 Select the font size from the drop-down menu.

1.9 Logo

- 1.9.1 Submit your logo in JPG format to: support@isbe.de
- 1.9.2 Once your logo has been converted from ISBE will receive an e-mail with your custom logo file.
- 1.9.3 Save this file in the directory ISBESketcher under "Data". If the Data folder does not exist, set this please.
- 1.9.4 Click on Tools in ISBESketcher => Import special functions and point it to the Data folder.
- 1.9.5 Open the Options and click the "Frame". In "Frame Type" select the position of your logo.
- 1.9.6 If not already selected, click on the tool icon in the series "Logo" and select your logo.

1.10 Print & Front option

- 1.10.1 Open the options on the menu item "Tools" and click on "Print" - here you can set, for example, if after saving a PDF should be generated or the 2D drawing should be direct printed.
- 1.10.2 About the option "Front" you can specified if the front view is displayed or not at the drawing and in the ProjektWizzard.

1.11 Duplicate Tools

- To copy the tool, Right-click on the Tool and use the menu "Duplicate Tool..." and submenus.

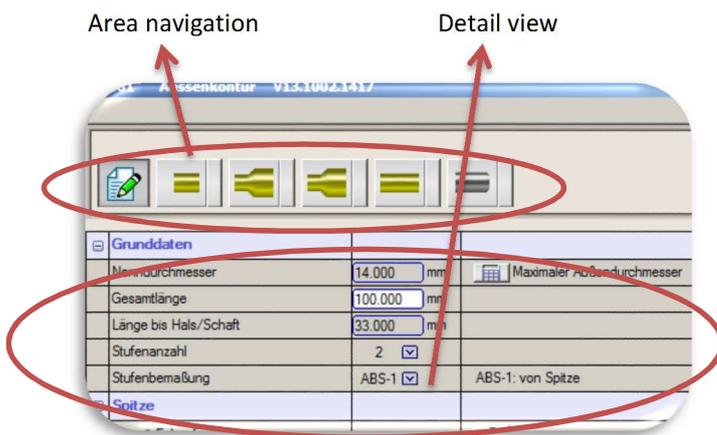
2. Tool Assistant

Take the opportunity of using tool templates – like for example step tools – or you can create a customized contour tool.

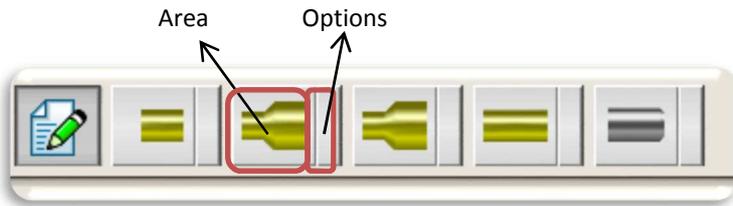
2.1 Contour tools (general)

The layout of the outer contour page is divided into two parts:

- The upper part shows all existing areas of the tool, e.g. tip, body or step.
- The lower part displays all values and configurations of one or more tool areas.



2.1.1 Area navigation



- In order to keep an overview when drawing complex tools, simply click on one of the area buttons to confine the detail view to a specified area. The area symbol itself is divided into two parts:
 - o Area: in this example a step
 - o Options: Access to additional options
- The report button displays all areas.



2.1.2 Detail view

- Displays the details of the selected areas, which can also be edited.
- Buttons on the right enable additional functions e.g. changing the tool tip or the shank.
- The functions available vary, depending on the tool type and area.

Base data		
Target diameter	10.000 mm	Max. outer diameter
Total length	100.000 mm	
Length till shank	40.000 mm	
Tool tip		
Straight tool tip		
Diameter after tool tip	10.000 mm	
Shank		
Cylindrical (with R, L and chamfer)		
Shank diameter	10.000 mm	Auto (last diameter)
Shank length	60.000 mm	Selected option is not available for this machine type
Chamfer length	1.000 mm	
Chamfer angle	45.000 °	

2.1.3 Use DXF import to import existing outer contours. This may be a complete tool including the shank or only part of a tool.

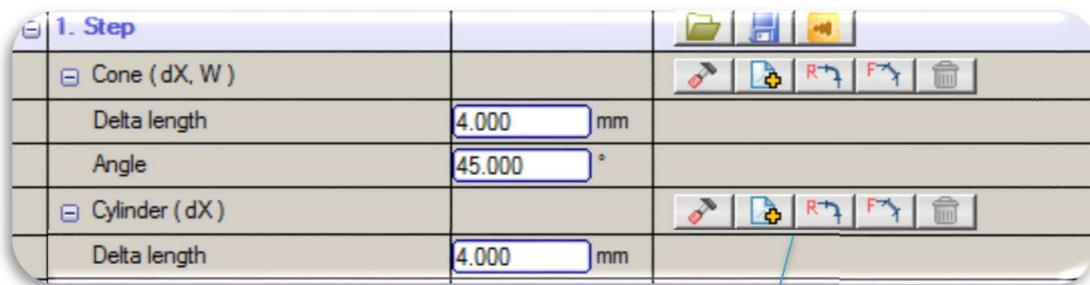
3. Advanced functions

3.1 Contour tools



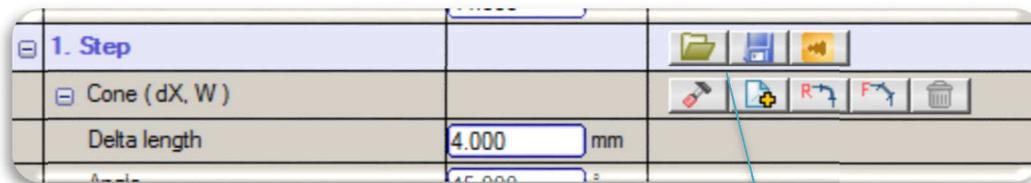
Unlike other templates, e.g. for step tools, the contour tool allows to create any combination of body and step area elements. To insert elements simply click on one of the option buttons within the area navigation bar. Those two areas can be filled with any types of geometrical elements.

The following example shows the composition of a customized step area with cone and straight step.



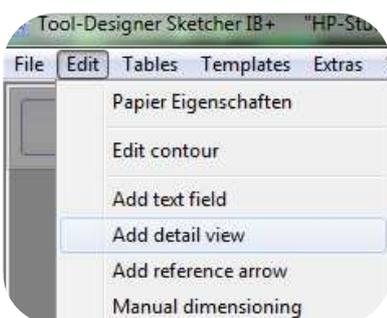
-  Changes the type of the line or circular element.
-  Adds a new line or circular element to the area.
-  Blends this element with the preceding one.
-  Chamfers this element with the preceding one.
-  Deletes the line or circular element.

Frequently used combinations can be saved/loaded to save time.



-  Loading a CSF File
-  Saving a CSF File
-  Using the Contoureditor

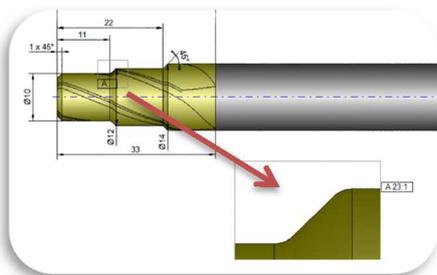
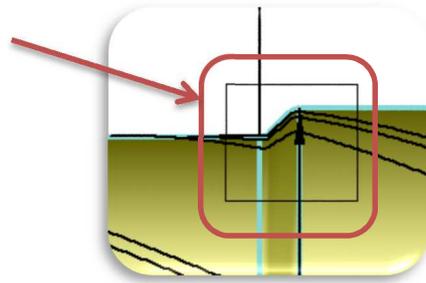
3.2 Detail view



- Include Detail view
- 3.2.1 Select "Edit" from the menu bar.
- 3.2.2 "Add detail view" menu.

Zoom range set

- 3.2.3 Click with the left mouse button once in the drawing, to define the first corner of the detail view.
- 3.2.4 Click with the left mouse button once in the drawing, to define the second corner of the detail view.

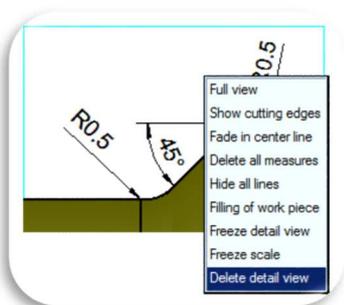
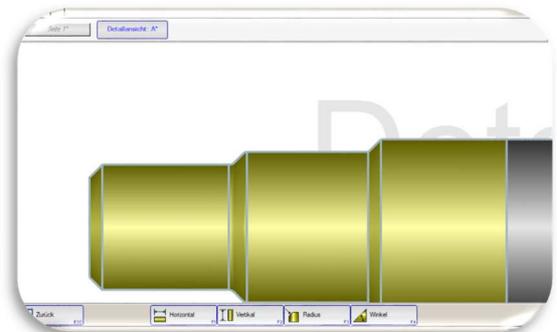


Zoom range position

- 3.2.5 Repeat step 3.2.3 and 3.2.4 at any point around the window with zoomed detail view position.
- 3.2.6 The window can be repositioned as desired by dragging with the mouse.
- 3.2.7 The window can move freely through the frame to be adjusted in size and shape.
- 3.2.8 Right-click in order to fix details.

Edit Detail view

- 3.2.9 In the gray bar to select the desired detail view.
- 3.2.10 New window opens in the size of the work piece drawing with the detail-neck
- 3.2.11 Dimension now on the bottom bar of the same process as the manual dimensioning.



Remove Detail view

- 3.2.12 Right-click an empty spot on the detail view.
- 3.2.13 "Delete detail view" option.
- 3.2.14 By right-clicking on any element of this drawing can also be removed, also like the ability to delete all dimensions

3.3 Templates

3.3.1 Creating a template

- Click at the ISBESketcher on the menu item "Templates" and select "New".
- Assign a name for the template and click on "Apply".
- A new window will open.
- Via the menu item "Edit" button to create the template as you need it.
 E.g. Sketcher the usual tables, private tables, text boxes, or completely new tables integrate.
- Via the menu item "template" can be saved, then click "Apply"

3.3.2 template set

- Select from over "Tools" menu item "Options"
- Under the menu "General" is the point "templates" which will be selected.
- Now you can set a template and are activated or deactivated simultaneously, which is then to look at each program start.

3.3.3 Manage Template

- Click the ISBESketcher on the menu item "Templates" and select "Manage".
- Here you can see all created templates as needed to edit, delete or export them, if you want to give the templates to another workplace.

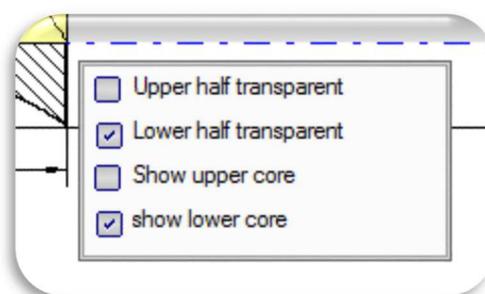
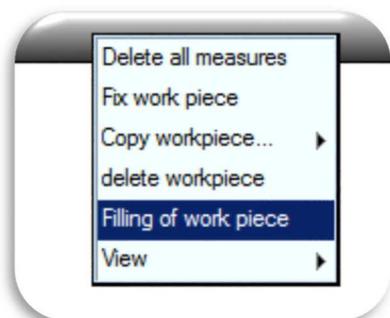
3.4 Watermark

3.4.1 Image file import and adapt

- Click the ISBESketcher on "Extras" and "Options".
- Select the item "watermark" under the overarching concept of "General".
- Under the image path you can be an arbitrary Image file for example invite a logo.
- Also, where it activates the watermark, the size and transparency can be adjusted.

3.5 Half-Sections

- Right-click on the Tool
- Select "Filling of workpiece"
- Half sections can be achieved Via combinations of "show...core" and "...half transparent"



3.6 DXF

3.6.1 DXF export

- Click on the DXF button.
- Select the appropriate DXF format and choose the scale.
- Select whether you wish to export the complete drawing or only the outer contour.
- When selecting the outer contour it is possible to export only parts of the outer contour.
- Name the save file and folder.

3.6.2 DXF import

- The import of DXF files is limited to contour tools.
- Click the DXF import button.
- Select the file you want to import.
- One file might contain several contours. Select the appropriate contour.
- In case that the contours are displayed only as segments it is necessary to merge them first. Use your CAD system to do this.
- The tool tip has to be centered on the coordinate center (Tool tip to the left)
- If the Tool is not centered correctly, adjust it by flipping and/or rotating the contour.

3.7 DIN 4000

Tool shape Milling cutter	
Sachmerkmal	Wert
() Kundensachnummer	Project_001
(NSM) Nomnummer Sachmerkmal	DIN4000-82
(J21) identifizierende Bestellnummer	

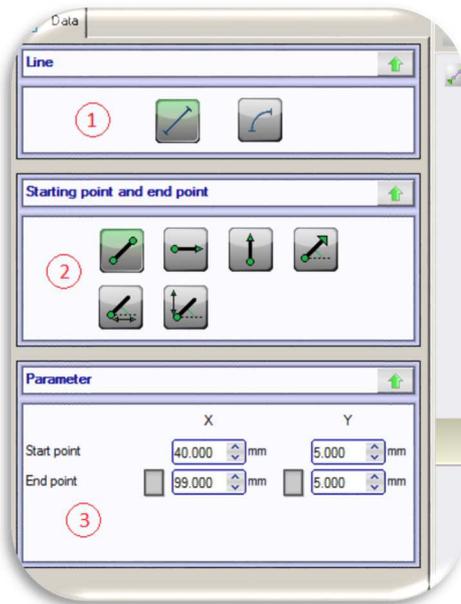
- Start the export dialog under "File->Export->DIN 4000"
- If possible you can change the tool shape with the hammer icon
- Edit controls which are yellow weren't automatically filled by the Sketcher and can be filled by the user. Depending on the system which imports the data some of values may be obligatory.

4. Contoureditor

The different areas of a tool can also be edited and defined with the contour editor.
 The transparent tool in the background shows the tool so far.

4.1 Controls

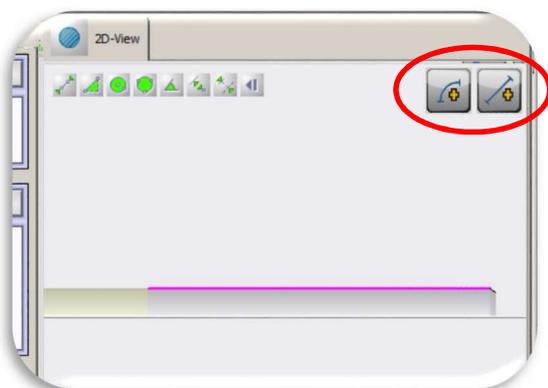
- Left-click items to select them
- Hold down the ctrl-/shift key to select multiple items
- hold down the shift key and left mouse button to draw a selection frame
- Zoom via mouse wheel
- Hold down the right mouse button while moving the mouse will move the scene
- Left-click items and holding the button will move items



1. Element. arc or line
2. Definition. E.g. Start/End point, Start point & arc, ...
3. Parameter.

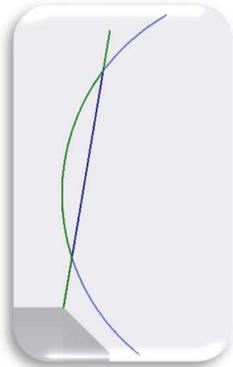
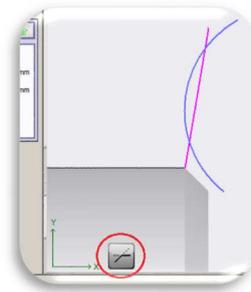
4.2 Create/Delete

- To create items click on one of the two buttons in the upper right corner. New Elements will be placed on the right side of already existing one's
- Right-click on items to delete them via the submenu. Selected items can also be deleted with the del key



4.3 Trim

If 2 items cross, they can be trimmed by clicking the trim button which appears in the lower part of the drawing window.



Left-click the trimmed items you want to keep.
 Pushing the enter key takes the selected items (green) and discards the rest (blue)
 Pushing the esc key aborts the action.

5. License deactivation/changing

5.1 How do I remove a license or change my license?

About the "?" in the Sketcher open the license information on "License".

In the next window click the button "deactivate license".

Save the subsequent message as a text file and send it to support@isbe.de

The Sketcher is now deactivated at this computer, unless it is a reactivation code is entered, which is available via the ISBE GmbH.

6. FAQ

6.1 How do I open the license information?

Follow the steps given in the ISBESketcher – Installation and license manual (PDF).

In the rare case that you are not able to access the license information, please check your antivirus software. Make sure the files ISBESketcher.exe and the ISBEDipatch.exe as defined as trusted programs.

6.2 I received and loaded the license file. Still the ISBESketcher runs in demo mode.

In this case too, restrictive antivirus software might prohibit the communication the ISBESketcher.exe and the ISBEDispatch.exe.

Open your antivirus software and define the ISBESketcher.exe and the ISBEDipatch.exe as trusted programs.

6.3 After clicking 'New' nothing happens.

Chances are that you do not have the required rights to write data on your PC or a specific path. Specifically this includes: C:\ProgramData\ (only Windows Vista and Windows 7), as well as C:\Benutzer\All Users\ (only Vista and Windows 7).

Contact your system administrator to get access to these paths.

6.4 I cannot send the mail with the license request.

Copy the contents of the mail and create a new mail, using you normal e-mail program (e.g. Microsoft Outlook). Past the contents in the new mail and send it to: sales@isbe.de.

6.5 Why can I not change the number of contour elements?

The number of contour elements is only for your information and cannot be changed manually.

The number of contour elements adjusts automatically every time you add or remove an element.