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PROfirst screen explanations

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IMPORTANT HINTS:
If you start a drawing position the first drawing element always to the zero point.

Absolute dimensions with COMMA ,
Incremental dimensions with SEMICOLON ;
Polar dimensions with COLON :
Calculate with + - / *()^

Draw **vertical** und **horizontal lines**
Enter start point
- **<Ctrl>** button turns to 90° mode
- or mention the **direction with the mouse** and enter the **length**

Filter - Functions
Choose certain elements
Click on the icon, click on type of the drawing elements, Filter is active. Press <Ctrl> + A to choose these elements.
Hold **<Shift> button** to filter/choose a **colour**.

Choose
Window **left to right** all elements **in** the window.
Right to left all **cut** by the window.
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	SNAP - FUNCTIONS
SE	**End point**
SM	**Middle point**
SN	**Circle Centre**
ST	**Tangent**
SP	**Perpendicular**
SI	**Intersection**

Dimension
Click on the lines /arcs or the start and end points. Use the **right mouse button** to change between **horizontal, vertical or polar**.

Check closed contour
Select all contours and confirm with <enter>.

Rotate
Enter **0** for arc with three points
Enter **+** for minimal rectangle

Trim
Hold <Shift> button to consider the help lines

Buttons **F2, F3 F4, F5,…** to change the type of line
F2: cutting, F3: construction line
F4: open contours, F5: marking

Round off
No sign= normal rounding,
+ round out,
- round in.

Dynamic Zoom
<Shift> + hold left mouse button or
<Shift> + hold middle mouse button
and move mouse.

Installation - Quick start

Test version

ATTENTION:
This program is a quick and modern 32-bit application for Windows 7 and XP and doesn't run under Windows 3.11. We no longer test under W98, NT W2000.

With the test version it is possible to use all functions except saving. You can test the drawing program before you buy it.

If the program isn't activated the software runs in test mode. The following message appears in the headline of the window:

Version ?.?.? Test version! YOU CAN DO EVERYTHING EXCEPT SAVING

Installation

You have to install the software to the hard disk before it could be started.

Click on "start", "run".

Enter D: or another drive letter for CD-ROM or floppy disc.

Click on folder ***PROfirst***.

Click on Setup.

ATTENTION:
The program should always be installed to the suggested folder C:\Program files\PROfirst

The files will be installed automatically.

Adjust screen at least to 800x640

PROfirst works at every screen size from 800x640 upwards

You can change the screen size this way:

Click with the right mouse button on a free place of your desktop and go to "properties", "settings". Here it is possible to change the screen size like wanted.

If you have problems call us or your PC distributor.

Password - System

After the first installation of ***PROfirst*** the software runs in test mode. It is possible to test the software completely in this mode and you even can print.

Having bought the software does the following:

To activate the software please click on "**Password to activate software**". A serial number will be shown. Please send this number via email to us.

With this number you will get immediately the password from us. Enter this password in the field password and click on adopt. Now the software is activated for a limited time or activated permanently. We remind you that ***PROfirst*** is like all commercial software a single user licence.

Start the program

„START“,
„PROGRAMS“, „PROfirst“, „PROfirst“.

Or click on the ***PROfirst*** icon on your desktop. A new drawing will be opened immediately.

Please read the hints for the "general way of working" and then draw the examples at the end of this manual.

The software *PROfirst* is activated with a password and not with a dongle.

The installation of the software creates a unique serial number. This number is shown in the menu under "Password to activate software".

You should send this serial number to your distributor. You will get the password via email or fax and you can enter it in the menu under "password to activate software". Now the software is activated.

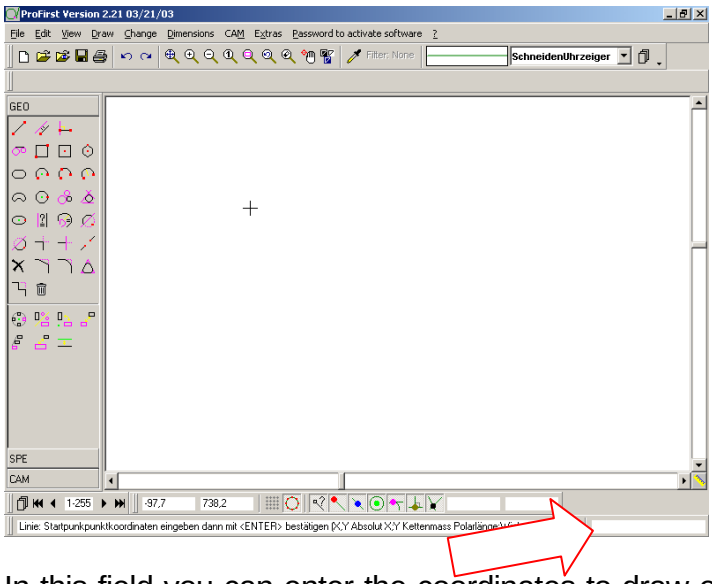
Define zero point

Before you start you have to define the zero point with (0,0) and <Enter>. The program has to know where the calculation starts. ***PROfirst*** shows the zero point with a blue cross.

Standard mode – draw lines (LI)

The function "draw lines" is activated automatically if you don't choose any other function.

Data entry field for coordinates



In this field you can enter the coordinates to draw elements or just check the entered values. You don't have to click on that field, it always works automatically.

Help

If you move the mouse on an icon you will get a short help about it. The short tag of the icon in brackets and the function are shown.

Quick 2 – button commands

It is possible to activate all drawing functions with a combination of 2 buttons directly with the keyboard. Drawing functions don't have to be confirmed with the <Enter> button. All numeric values have to be confirmed with the <Enter> button.

Command line

Having chosen a drawing function a command line is shown at the bottom of the screen. The steps to do are explained here. **Use this help function for your drawing**.

Quick snapping of points

The snap function is activated automatically. Example: A red circle appears if you move close to an end point. The drawing element itself gets a brighter colour. To snap this point you only have to click on the left mouse button.

Exact point of clicking on a line or a circle

The exact position of clicking on a drawing element is for some functions (for example LL, FI,…) of a special consequence. Parallel lines will be drawn on this side of the element where it has been clicked.

Specific points of the object are shown by the snap function:

LINE:	Start, end- and middle point
CIRCLE:	Circle centre and the 4 quadrants (0°, 90°,180°, 270°)
ARCS:	Middle, start and end point of the arc as well as circle centre
OVAL:	Middle, start and end point of the circle segments, as well as both circle centres
Circular OVAL:	Start and end points of the arc segments, as well as middle points of arc and circle

It is possible to turn the snap functions off and to call them up with a specific key combination:

	SNAP - FUNCTIONS
SE	**End point**
SM	**Middle point**
SN	**Circle Centre**
ST	**Tangent**
SP	**Perpendicular**
SI	**Intersection**

Read at least this chapter

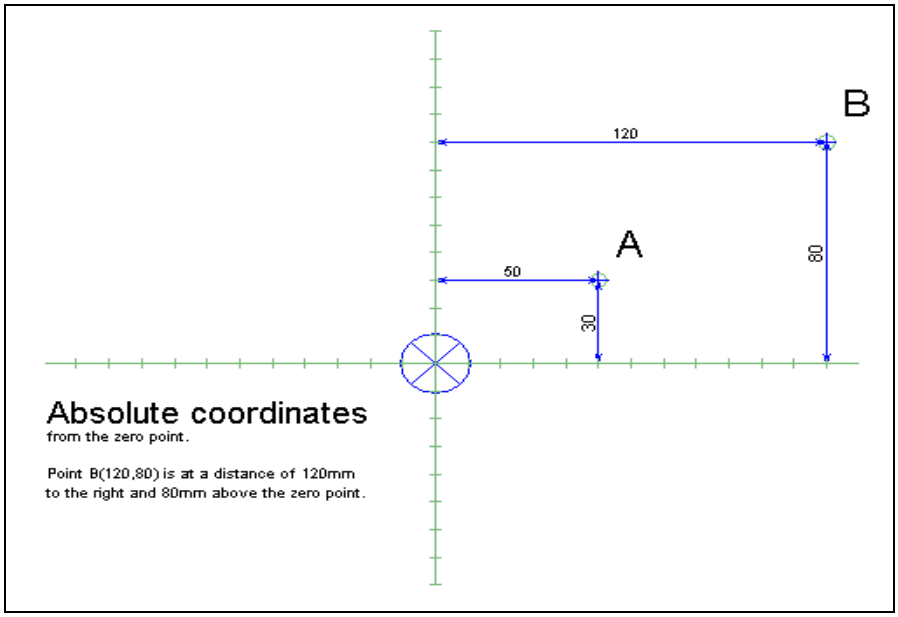
Calculator for entering coordinates

While you enter the coordinates it is possible to use the **+ - / * ( ) ^** functions to carry out easy calculations.

E.g. 100/2, 272+20 or if you have to enter diameter or radius 46*2 or 127/2

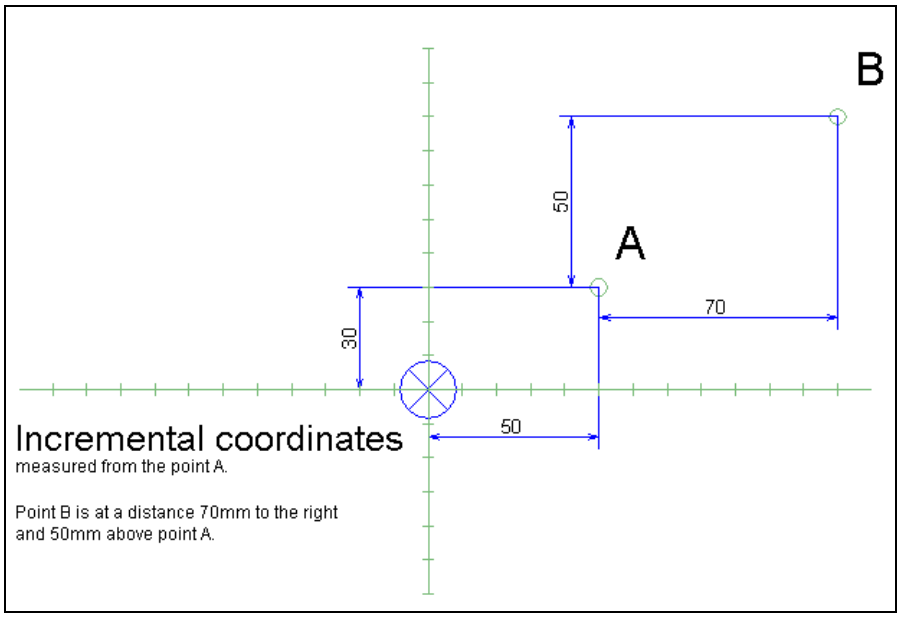
Draw elements from zero point (absolute coordinates)

A reference system is defined this way: horizontal coordinates (X) rise positive to the right and vertical coordinates (Y) rise positive to the top. The zero point (0,0) normally is set in the left under corner or on that place, where most dimensions start. A point with the absolute coordinates (100,-45) has a distance of 100mm to the right and 45mm under the zero point.



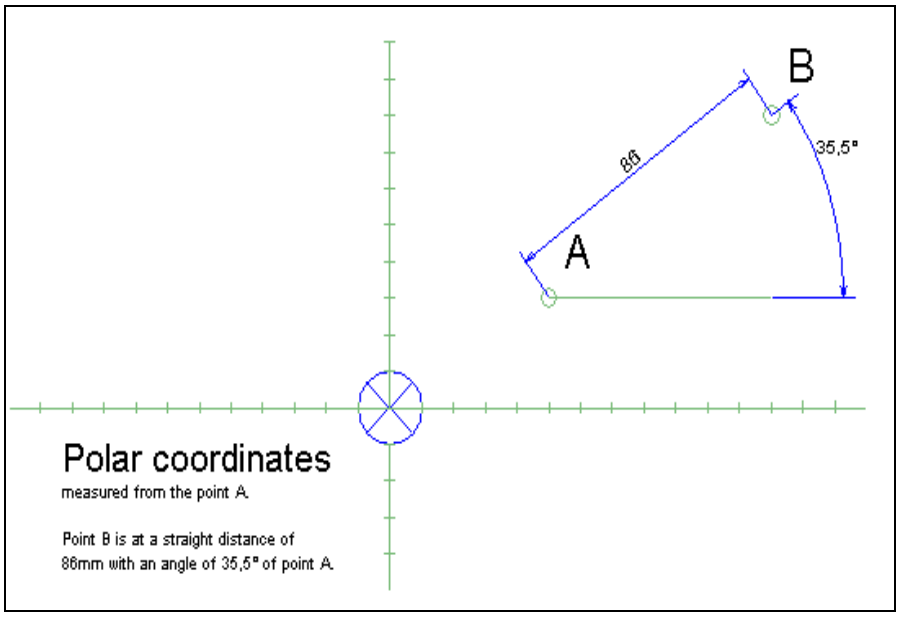
Draw elements from any point (Incremental coordinates)

Incremental coordinates don't refer to the coordinate zero point, but to the last dimensioned position.



Draw line with length and arc (polar coordinates)

The measures aren't identified as horizontal or vertical distances (x,y), but as a straight distance and a (direction) angle (l/a). The angle is measured from the horizontal axis anti clockwise, e.g. is 0°= 3 o'clock, 90°= 12 o'clock, 180°= 9 o'clock, 270°= 6 o'clock.



Quick entering of coordinates

1. Automatic snapping of points with the mouse
2. **Absolute** coordinates: Enter x**,**y (with **COMMA**)
3. **Incremental** coordinates: Enter x**;**y (with **SEMICOLON**)
4. **Polar** coordinates: Enter l **:** a (with **COLON** whereas l = Length and a = Angle)

5. **Length**: Length + show direction with the mouse.

If you only enter a dimension it will be interpreted as length or distance and the direction will be 0°, 90°, 180° or 270° and depends from the position of the mouse.

ATTENTION:

It isn't possible to use the comma as a decimal sign.

You have to use the POINT /

Hold <Ctrl> button to draw vertical and horizontal lines

Choose draw line and enter the start point. With the <Ctrl> button it is possible to draw vertical and horizontal lines.

Draw vertical and horizontal lines by entering the length

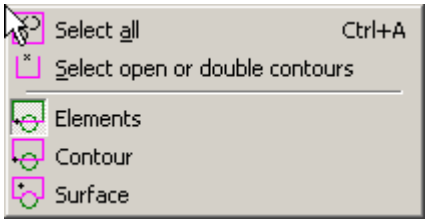
To draw vertical and horizontal lines you only have to enter the start point and then enter the length and show the direction with the mouse.

Deactivate functions with <Esc>, right mouse button or delete function

To deactivate drawing functions you have three different possibilities. Press the <Esc> button, press the right mouse button or use the delete function (red X).

Using the right mouse button

Some commands have further "sub commands" which you can show and select by clicking the right mouse button. If you click for example on "Check closed contour" you can show further "sub commands" by clicking the right mouse button. The following window appears:



Here you have 5 further possibilities. You can see the same selection left in the menu:

So it is possible to check quickly if a command has further "sub commands". If no icons appear in the left corner of the menu there are no further "sub commands". Of course these sub commands change, because they depend on which commands you have selected. With this possibility it's much easier to work with ***PROfirst***.

List of last opened drawings

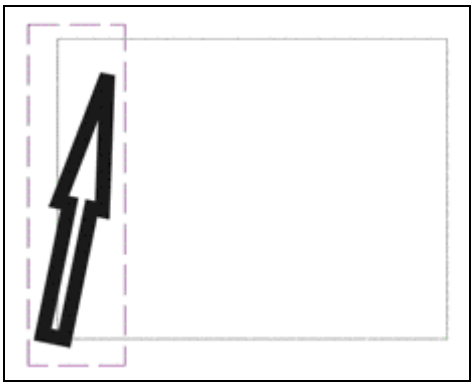
Click on “file” and you see at the end of this field a list of the last opened drawings. Simply click on the wanted drawing and it will be opened. This method is quite faster than the usual way to open drawings.

Methods to select the contours

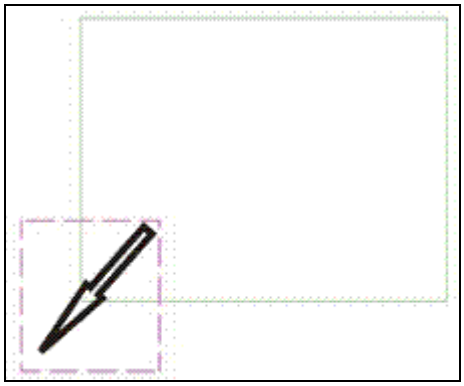
1. Click on element:

   Click on element, the colour changes.
   (to deselect click on it again)

2. Select elements which are **completely** in a window.
   Draw the window with the mouse from **left to right**.



3. Select elements which are only **partially** in a window.
   Draw the window with the mouse from **right to left**.



It is possible to draw one window after the other.

You can select a complete contour the following way:

Press **<ALT>** button and click with the mouse on a surface/element.

PROfirst selects all contours which are connected with the clicked element.

Select a surface/element with <Shift> button

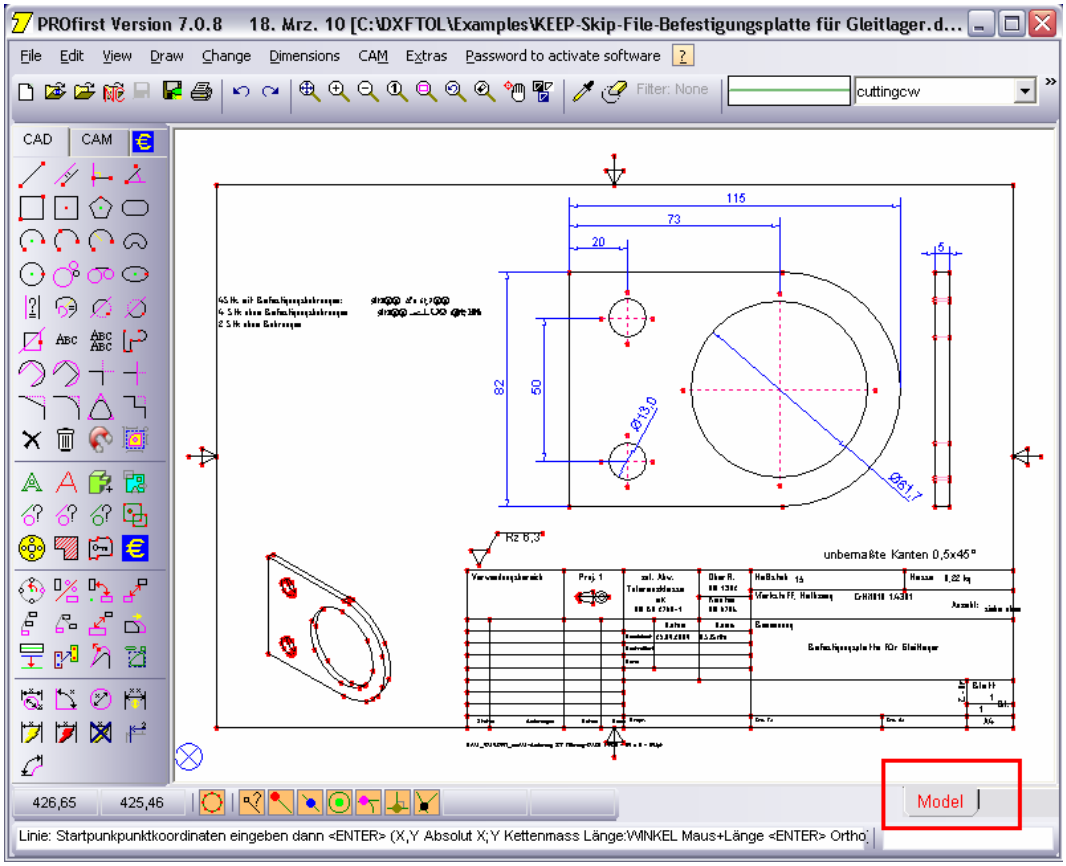
You can select a complete contour the following way:

Hold **<Shift>** button and click with the mouse on a surface/element.

PROfirst chooses all contours which are connected with the element you clicked on.

Switch back to viewing the model or Layout of the drawing

Click on “model” or the layout name at the bottom right of the screen to switch back to viewing the original view of the drawing


PROfirst Version 7.0.8 18. Mrz. 10 [C:\DXFTOL\Examples\KEEP-Skip-File-Befestigungsplatte für Gleitlager.d...
File Edit View Draw Change Dimensions CAM Extras Password to activate software ?
Filter: None
cuttingcw
CAD CAM
115
73
20
5
82
50
Ø13,0
Ø61,7
Rz 6,3
unbemaßte Kanten 0,5x45°
426,65
425,46
Model
Linie: Startpunkpunktkoordinaten eingeben dann <ENTER> (X,Y Absolut X;Y Kettenmass Länge:WINKEL Maus+Länge <ENTER> Ortho

MANAGEMENT - FUNCTIONS

 <Ctrl> + N New drawing

The old drawing isn't saved automatically and can't be opened again.

 <Ctrl> + O Open drawing ".DXF"

A drawing in DXF format is opened.

 Open with preview

DXF files can be seen in a preview and the wanted file can be opened.

 <Ctrl> + S Save

Save drawing as a file.

 <Ctrl> + P Print drawing

The drawing will be printed.

 <Ctrl> + Z or "OO" Undo

Undo the last command.

 Strg + Y or "UU" Redo

Redo the last command.

ZA Zoom all

The whole drawing will be shown if you click on the icon "Zoom all". Fills the whole screen.

ZR Zoom reduced

The drawing will get smaller. Useful after a "ZA: zoom all" to see the bottom margin of a drawing.

Z1 Zoom 1:1

Shows the drawing in the view 1:1.

ZW Zoom window

Zooms a wanted part (window) of the drawing.

- Click on first corner (start point)
- Click on second corner (end point)

ZP Zoom previous

Goes back to the last zoom setting.

RD ReDraw

Redraw the drawing.

PA Pan

Move the current window.

<Ctrl> + A Select all

Selects all elements of a drawing. Press the combination again to reselect all.

 SO Select open or double contours

Click on this icon and you will get all double and/or open contours.

 BG Switch background colour

If you click on this icon it is possible to switch the background colour from white to black.

 HP Display end points of lines and arcs

Displays the end points of lines and arcs. A second click on this icon turns the display off.

 + Select elements to be filtered

Enables the selection and the deletion of all lines of a colour, all circles off a colour, texts, etc.:

- Click on type of element – filter is active and is shown
- Choose element and enter the wanted command, e.g. delete
- Deselect filter to get back to the normal mode. To do that click again on the icon "Filter".

Hold <Shift> button during the selection to filter all arcs **and** lines **of a colour**.

E.g. to delete all red lines of a drawing:

1.  Click on this icon
2. Click on any red line. "Line red" is shown at the filter function.
3. Press <Ctrl> + A. All red lines are selected.

Press the <Enter> button to delete all selected lines.

DRAWING - FUNCTIONS

IMPORTANT:

It is **always** necessary to define the start point at the beginning of a drawing, normally it is (0,0) and <Enter> but do this **never** only with the mouse.

LI Line

Draws a line between 2 points:

- Enter or click on first point
- Enter or click on second point

To draw vertical or horizontal lines you only have to define the start point and then move the mouse to the right direction and enter the length of the line.

To draw lines with a direction of 0°, 90°, 180° and 270° you only have to press the <Ctrl> button and click with the mouse to the wanted position.

SL Line – parallel from a point

Draws a line from a defined point parallel to another line:

- Enter or click on point
- Click on line
- Extend the line like you want.

LP Line - perpendicular

Draws a line perpendicular to another line:

- Click on that point on the line where the perpendicular line should start. (At a crossing of two lines go to the point from the wanted line)
- Move the endpoint of the perpendicular line and click or enter the length to fix it.

LA Draw a line at an angle

Draws a line at a defined angles

- Enter the angle
- Draw the line with 2 points. You can also Enter the LENGTH of the line.

TC Tangent to two circles

Draws a line (tangent) to two circles:

- Click close to the first circle and the wanted tangent.
- Click close to the second circle and the wanted tangent.

R2 Rectangle

Rectangle between two corners:

- Click or enter first corner
- Click or enter second corner

RE Rectangle with centre point, length, width

Draws a rectangle with centre point, length and width:

- Click or enter the centre point
- Enter length and width or enter the coordinates of the corner point

PR Polygon

Draws a polygon:

- Enter number of sides
- Enter middle point
- Enter corner point of the radius.

 OB Oval

Draws an oval:

- If necessary change the angle of the oval and confirm with <Enter>
- Enter middle point of the oval
- Enter length and diameter.

 A2 Arc with centre, start and end point

- Enter centre point of the arc
- Enter start point of the arc
- Enter end point of the arc (it is easier to work with polar coordinates)

 A3 Arc with three points

- Enter start point of the arc
- Enter point that is on the arc
- Enter end point of the arc

 A4 Arc with two points and radius

- Enter start and end point of the arc
- Enter radius of the arc
- Move the mouse and you will get four possible arcs. Click with the mouse to get the wanted arc.

 OC Circular oval

Draws a circular oval:

- Enter centre point of the arc
- Enter start point of the arc. For this take the centre point of the first circle.
- Enter diameter of the small circle and angle of the arc of this circle.

The angle has to be entered positive and anti clockwise and with incremental coordinates.

 C2 Circle

Draws a circle if you enter the centre point and the diameter or if you enter the centre point and a point on the circumference.

- Enter centre point of the circle
- Enter diameter or a point on the circumference of the circle

 T2 Circle tangential to two circles

Draws a circle tangential to two other circles.

- If necessary change the diameter and confirm with the <Enter> button
- Click on first circle close to the tangent point
- Click on the second circle close to the tangent point

 T3 Circle tangential to three lines

Draws a circle tangential to three lines.

1. Click on first line close to the tangent point.
2. Click on second line close to the tangent point.
3. Click on third line close to the tangent point.

 EP Ellipse

1. Enter number of segments for the ellipse.
2. Enter start point coordinates for the first axis and confirm with <Enter>.
3. Enter end point coordinates for the first axis and confirm with <Enter>.
4. Enter end point coordinates or length of the second half axis and confirm with <Enter>.

LL Line/Arc – parallel with distance

Draws a parallel line or arc with a specific distance to another line or arc:

- If necessary change the distance and confirm with <Enter>
- Click on line at the side where the new parallel line should be drawn
- If wanted click on further lines

PL Draw polyline

Click on this icon. Enter the start point or click where the polyline should start. Click on the right mouse button and choose what you want to do: lines or arcs. If you click with the left mouse button the program finishes the line or arc. Now you can again click with the right mouse button and choose again what you want to do. You can do that as often as you want. If you want to exit click again with the right mouse button and choose "Quit".

TE Enter Text

For a single-line text click on the icon. Then click at the place where the text should be entered. You can change font, size, etc. if you go to the menu under "Extras", "Options" or if you click on and with the right mouse button in the drawing and go to "Edit text style". Here you have the possibility to change the settings for the single-line text, e.g. font (all which you have in your windows system), size (height of text in mm), bold and italic. Finally click on "Save" (now all single-line texts have this settings). If you want to change again do the steps above. Now you only have to confirm with <Enter> and the text is ready. Before you can cut the text you have to convert it to vectors it. To do that click on this icon, mark the text and confirm with <Enter>. Now the text is ready for the cutting.

TM Write multi-line text

If you want to write a multi-line text click on this icon. Then click on the place where the text should be entered. Another window opens where you can enter the text you want to write. For example enter "PROfirst" in the first line and confirm with <Enter>. The program jumps to the next line and here you enter "TOLsoftware". Now we want to use another font. To do that mark

the text with the mouse (like you do in other word processors) Press the left mouse button and mark the text "PROfirst" until the wanted text is marked black. Now click on the black arrow close to "Font" and choose "Times new Roman", the font changes at once. Next we want to change the size of the text. If the text "PROfirst" isn't marked any more do that again. Now click on the text field of "Height" and enter 100. The text gets very large. Now we want to stress the "PROfi" and change it to bold. Like before mark the "PROfi" and click on "**B**". Now you can try all these things with the second line, try all possibilities which you have, e.g. alignment left, right or centred. Further it is possible to align the text with a specific angle. It is only possible to align the whole text and not one line. If you want for example different angles create several "multi-line" texts and align each. If you are ready click on "OK" and the text appears on the screen.

It is still a text and we have to convert it to vectors if we want to cut it. Therefore click on the icon  and then on the text. The colour of the text turns to pink and finally you have to confirm with <Enter>.

Now you are asked if "Convert curves comprising of lines to arcs when possible". Please choose "No" (why we will explain soon). Now the text colour has changed, because it has been converted to vectors. Now we want to find out the number of lines which are used for the text. Therefore click on the icon  , mark the whole text with the mouse and confirm with <Enter>. You will see that there are many lines and that could lead to problems with the machine if you want to cut it. Now click on the icon  "Convert lines to arcs", mark the text as known and confirm with <Enter>. Now check again the number of lines and you will realise that the number is clearly lower. If you say "Yes" immediately after "Convert curves comprising of lines to arcs when possible" you will get a worse result. That's why we choose "No" at this question.

Now actually it is possible to cut. But, perhaps you did notice it too, we will get problems with the letters "P", "R", "O", "A" and with the "e" of "PROfirst" and "TOLsoftware". The cuttings will "fall out" and it is useful to work with micro joints.

Tip: Before you write the text change with F4 to "open contours". With this setting you will get fewer problems with the cutting, because some letters may lead to problems (like we have seen).

EDIT FUNCTIONS

 EF DELETE to next intersection

Contour will be deleted to the next intersection with another element:

- Click on the part of the element you want to delete
- Work method: **Click on that you want to delete**
- **Press <Shift> button and the help lines will be considered**

 GA KEEP to next intersection

Trims a contour to the next intersections:

- Click on the part of the element you want to keep
- Work method: **Click on that you want to keep**
- <**Press <Shift> button and the help lines will be considered**

 CA Convert lines to arcs

Enter accuracy, choose elements and confirm with <Enter>.

 CN Trim a corner

Trims 2 lines to create a corner:

1. Click on this side of a line you want to keep

2. Click on this side of a line you want to keep

The lines will be shortened or lengthened automatically so that they build a corner.

 TR Trim – Short/lengthen an element

Trims a line to another to build a trunk line:

- Click on line you want to trim
- Click on the other element close to the first line

 BR Break an element

Element will be split up between 2 points:

- Click on element
- 1. Enter or click on first split point
- 2. Enter or click on second split point

 CH Cut a corner

Cut a corner with a specific spacing:

If necessary change the settings for the spacing and confirm with <Enter>:

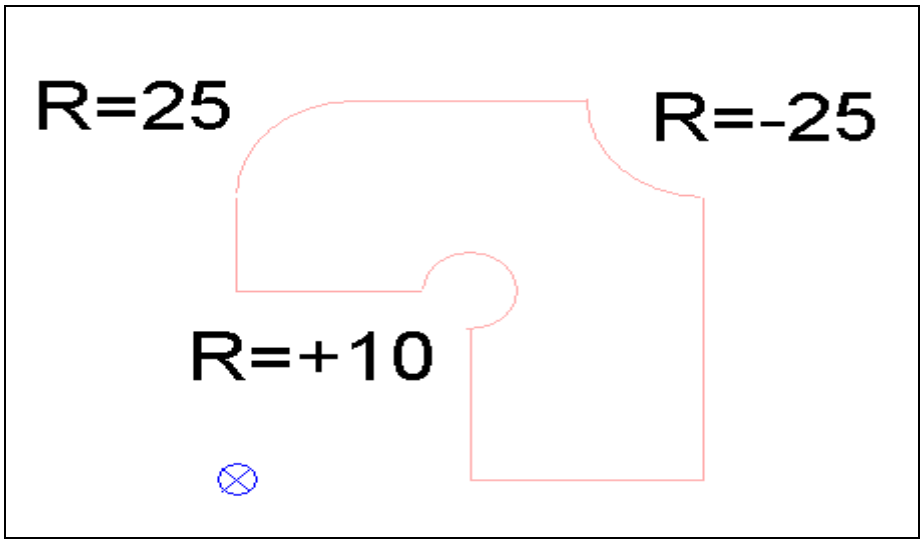
- Click on first element
- Click on second element
- First element is shorten with the fist dimension
- Second element is shorten with the second dimension

 FI Round a corner

- If necessary change the radius and confirm with <Enter>.
- Click on elements you want to round off.

ATTENTION:
Click on this side of the element where the centre point of the radius should be.

There are 3 types of radius that **depend** on the **algebraic sign**.



 JF Round corners on contour

Enter the radius, e.g. 10 and choose the contour.

Enter the parameter and then click on "Save".

 GU Put a step on a corner

Put a step on a corner with 2 values:

- Enter distances for the first and second element or change if necessary. Confirm with the <Enter> button
- Select first element, select second element
- 1. line will be shortened with the first dimension
- 2. line will be shortened with the second dimension

 OE Object Erase

Deletes an element immediately if you click on it.

 ER Erase selected elements

Delete several elements:

- Choose elements and confirm with <Enter> button

(This icon has the same function as the button <Del>).

 KE Keep part (outer and inner contours) and delete the rest

Click on the outer contour of the part. A whole list of actions will be carried out and the part with internal and external contours are kept.

 KZ Keep part using a windows then click on part and delete the rest

Zoom a windows containing the part. Then click on the outer contour of the part. A whole list of actions will be carried out and the part with internal and external contours are kept. Outer dimensions are kept in this case.

PROCESSING - FUNCTIONS

 OF OFFSET on elements

Enter Offset:

- Choose element and confirm with the <Enter> button.
- Click on this side of the contour where the new offset contour should be created.

It is possible to use this function for compensation of the cutting tool diameter or for adding fishplates on elements.

 Hatch a surface defined by a closed contour

Choose elements and confirm with <Enter>.

Change the hatching settings.

Click on "Extras", "Options", "Text" and then on "Parameters".

 Convert letters to vectors

Click on the icon  and then on the text. The colour of the text turns to pink and now you have to confirm with <Enter>.

To continue view chapter "TM - Text multi-line" on page 39 of this manual.

 Triangulation / 3D display

Creates a 3D body of the drawing and saves it automatically to a folder.

 AC Contour automatic

This icon creates an automatic contour from several elements.

Just select the elements that define the surface and confirm with "OK".

To finish you have to click or enter a point in the surface. ***PROfirst*** now has automatically created a new contour.

CB Create block

Create one element (block) of several elements.

Choose elements and confirm with <Enter>.

Choose zero point of the block and confirm with <Enter>.

Enter name of block and confirm with "OK".

Choose "Yes" or "No" if you want to delete the original elements or not, standard is "Yes".

BB Show blocks

Shows the existing blocks.

Choose the wanted block and confirm with "Add".

If you only click on "OK" the blocks are only shown and not added.

PS Create Polyline from selection

The elements chosen with Polyline exist only of one element.

Choose the elements and confirm with <Enter>.

EX Explode composite objects (origin)

Choose the element and confirm with <Enter>.

If you want to delete the original click on "Yes".

OI Object Information for one element

Click on the icon and then on the wanted element. Now you get the properties of the element.

IS Properties for a selection of elements

Click on the icon and then on the wanted elements. Now you get the properties of the chosen elements.

DI Properties of the drawing

Click on the icon and you get the properties of the whole drawing.

CU Calculate price of part

Click on the icon, enter your information and the program calculates automatically the price in Euro.

CF Check closed contour (Contour Finished)

This function checks if the contour is closed and can be cut:

- Choose elements (all with <Ctrl> + A)
- Press <Enter> to confirm
- The first checked elements are drawn in black. The program checks from this element anti clockwise and shows the first open contour

You should close open contours and repeat the contour check.

RC Copy in circle

Selected elements are copied in circle:

- Choose element and confirm with <Enter>
- If necessary change number of copies and angle and confirm with <Enter>
- Enter start point for displaying the dimension of the angle and enter centre point

MI Mirror

Chosen elements are mirrored along a specific axis:

- Choose element to mirror and confirm with the <Enter> button
- Enter first point of the axis
- Enter second point of the axis

RO Rotate

Chosen elements are rotated:

- Choose element and confirm with the <Enter> button
- Enter rotation point
- If necessary change angle and confirm with the <Enter> button

There are two other possibilities to define the angle of the rotation:

Rotate with angle from drawing:

Enter 0° in the field "Angle".

Now you define the angle with three points.

Enter the centre point of the angle.

Enter the start point of the angle.

Enter the end point of the angle.

Rotate to turn to minimum rectangle:

Enter a positive rotation angle.

The program calculates a rotation angle which creates a minimum rectangle dimension and rotates the drawing with this angle.

MV Move

Chosen elements are moved:

- Choose element and confirm with the <Enter> button
- Enter start point of the movement
- Enter end point of the movement

CO Copy

Chosen elements are copied from a start point to an end point with the possibility to create several copies:

- Choose element and confirm with the <Enter> button
- Enter start point
- Enter end point
- If necessary change the number of copies and confirm with the <Enter> button

SZ Scale

Change of the size of an element.

You always have to separate the X and Y coordinates with a comma, e.g. 2, 2 <Enter>.

For a decimal value enter a point, e.g. 2.3, 2.4 <Enter>.

- Choose element and confirm with <Enter>
- Enter start point where you want to scale from
- If necessary change the scale factor and confirm with <Enter>

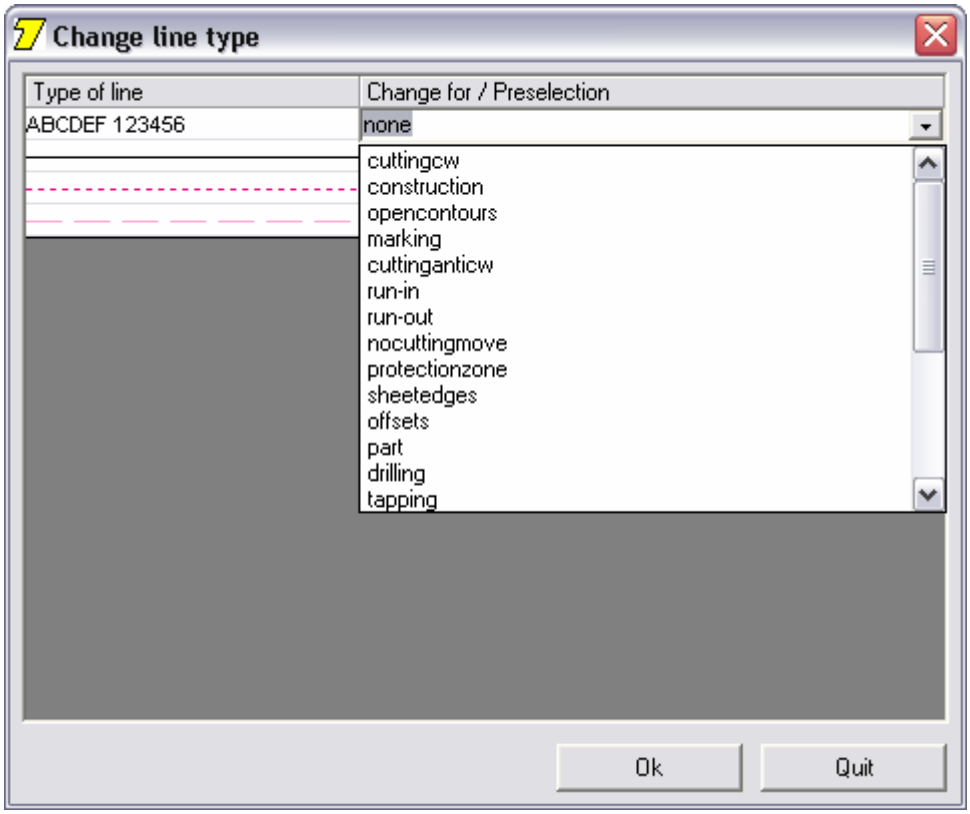
Change of the size of a text or a dimension

CG Change colour and line type

- Choose colour with  or F2, F3, F4, ...
- Choose elements and confirm with the <Enter> button

PC Change line type of whole drawing

Screen shows all line types in the drawing. Click in the fields at the left line type and set the required meaning. Lines you don't need are best set to construction.



DP Edit line or arc using the mouse

- Click on end point of line or arc to move and move to new position.

<Ctrl> + R Draw outer rectangle

Click on the icon and the software automatically draws an outer rectangle.

DIMENSION - FUNCTIONS

Aims of the dimension functions

Allows a quick dimensioning of the drawing

The dimension is calculated automatically. Before you start the dimension please create the outer contours of your drawing.

It is possible to dimension elements by clicking on the start and end points or by
clicking directly on the elements (lines, arcs, etc) without entering the start and end points.

Set the parameters of a dimensioning with the right mouse button:

- Click on the icon  or enter "D1"
- Press the right mouse button
- Choose options like horizontal, polar, vertical, etc. These options are activated until you change them again
- Click on the start and end point of an element or directly on the element
- Position the dimension arrow
- Press right mouse button to get other dimension possibilities
- Position the dimension arrow

RESULT: QUICK AND EASY DIMENSION FUNCTION!

 D1 Dimension – lines /arcs

Elements like lines or arcs are directly dimensioned between two points:

- Click directly on the element or click on the start and end point
- Position the dimension arrow
- Press right mouse button to change between horizontal, vertical, etc. dimensioning

Arcs: Pay attention for display the dimension of arcs and circles. Always click directly on the arc and not a start, middle or end point.

 D2 Dimension – angle

Dimensioning of an angle by entering the centre, start and end point:

- Enter centre point
- Enter start point of the angle
- Enter end point of the angle
- Position dimension arrow

It is also possible to click only on two lines or to click two times on a line. You get the angle between the two lines or the angle to the horizontal line. If you want to click on a line choose the side of the rotation point.

 Dimension – circle automatically

If you click on this icon all circles are dimensioned automatically with the diameter. Of course it is possible to change it, if you need for example the radius.

 DM Edit dimension

Change dimension of the drawing: click on the dimension arrow and move it

 DD Auto dimension

The drawing is dimensioned independently.

It is possible to dimension the just created drawing automatically by the program.

The auto dimension is a specific option and not contained in the standard delivery.

It is only possible to dimension the drawing automatically at once after the creation. Having closed the drawing it is only possible to dimension it with the quick manual functions.

If you don't want to keep the suggested auto dimension it is possible to delete it by pressing the buttons <Ctrl> + X or to change it with the edit function.

 DS Auto dimension part of the drawing

Auto dimension of the selected parts of the drawing. Choose the elements and confirm with <Enter>.

 <Ctrl> + X Delete auto dimension

This Icon or the buttons <Ctrl> + X deletes the auto dimension of the drawing.

GENERAL FUNCTIONS

Automatic dimension of any drawing

You get an automatic dimension of any DXF file. This is only possible because of the excellent filter function.

 Just click on „Auto dimension - DD“ and ***PROfirst*** dimensions the DFX drawing automatically. It is possible to edit these values like you want with the other dimensioning functions.

Files are saved in the DXF format

You don't have to transform files to the DXF format. Errors caused by double data storage (e.g. DWG und DXF) are avoided.

If you save files ***PROfirst*** saves them automatically in the DXF format.

Compatibility to AutoCAD ©

PROfirst is able to read and write AutoCAD © DWG files. It keeps the layer and the block structure of the original drawing.

Windows standard keyboard settings

The known Windows keyboard settings are used to make the work with ***PROfirst*** easier.

<Ctrl> + Z	**Undo – last command**
<Ctrl> + Y	**Redo - last command**
<Ctrl> + A	**Select all**
<Ctrl> + S	**Save (not possible in the test version)**
<Ctrl> + O	**Open file**
<Ctrl> + N	**New file**
<Ctrl> + P	**Print**

Data reduction with the CA function

External drawings contain often a lot of lines and arcs, which lead to problems if you want to cut the part on the machine.

 Click on “Drawing info properties – DI” to see how many lines and arcs the drawing contains.

 Click on “Convert lines to arcs – CA”, enter a specific accuracy and confirm with Enter. An accuracy of 0,5 means, that ***PROfirst*** converts lines to arcs within that value. The smaller this value is, the exacter is the result.

Then choose all with <Ctrl> + A and confirm with “OK” or Enter.

Check the result again with “Drawing info properties – DI” and you see the big difference of the number of elements in your drawing.

Layer management with preview

Complete layer management with preview of the contents of the layers. It is possible to filter very easy elements from complex drawings.

 This is the icon for the layer management.

Click on the layer icon. You get to the layer management where you can view the different layers and adjust 4 attributes, e.g.:

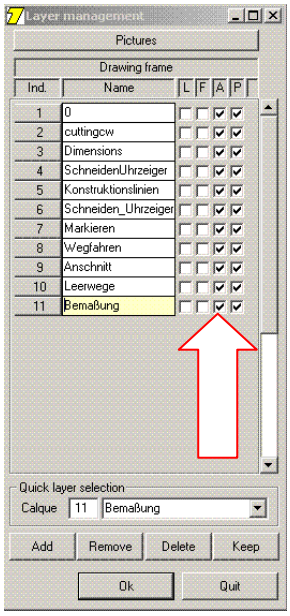
- S = layer locked (not changeable)

- F = layer frozen (not viewable, changeable or printable)

- A = layer active (viewable)

- P = layer printable (appears on the printout)

Generally the values **“A” and “P” should always be activated** and the values **“S” and “F” always be deactivated**!!!



Further it is possible to change the view between list and pictures.

Important is the function “Keep”. Choose a wanted layer (e.g. the layer cutting cw) and click on “Keep”. Now only this layer will be kept and shown. Often usually for drawings with many layer like dimensioning, drawing frame, etc.

If you have problems with layer or if you want to see or edit the layer management of your drawing, it is possible to do this in this menu of the layer management.

Check contours for open / double contours

A very important function is to check if the contour is closed. It is possible to check contours for open or double contours to have a good drawing for further processing (Read into programming software).

Click on “Check closed contour – CF”, add the tolerance if needed, click with the right mouse button on the drawing screen and do the following selection:

Select all to select the whole contour or

Select open or double contours, to just select these contours.

Contour gets pink, confirm with “OK” or Enter. ***PROfirst*** now shows if the contour is closed or where the open contour (two red points) or double contour is.

Close or clean the contour and do the check closed contour function again, until the contour is closed.

Explode blocks to origin

Drawings from external CAD systems often contain blocks, which could lead to problems if you want to proceed the drawing. If you open a drawing which contains blocks you get the message “Warning: Drawing contains blocks or polylines. Use the EX command several times to explode the drawing before editing the drawing.”

 A click on “Drawing Info properties – DI” shows how many blocks the drawing contains.

 Click on “Expode – EX , <Ctrl> + A to select all and confirm with “OK” or Enter.

Answer the question “Delete original elements” with yes. ***PROfirst*** explodes the blocks now to the original elements. Check blocks again with “Drawing info properties – DI” and do the explode command again, if there are still blocks in the drawing.

Proceed elements with the filter function

Drawings especially from external CAD-Systems often contain a lot of different lines, drawing frames, dimensions, etc. which you don’t need in ***PROfirst***.

 For this use the filter function. Click on the icon to activate the filter, click on the wanted type of line with pressed <Shift> button and this colour is activated in the filter.

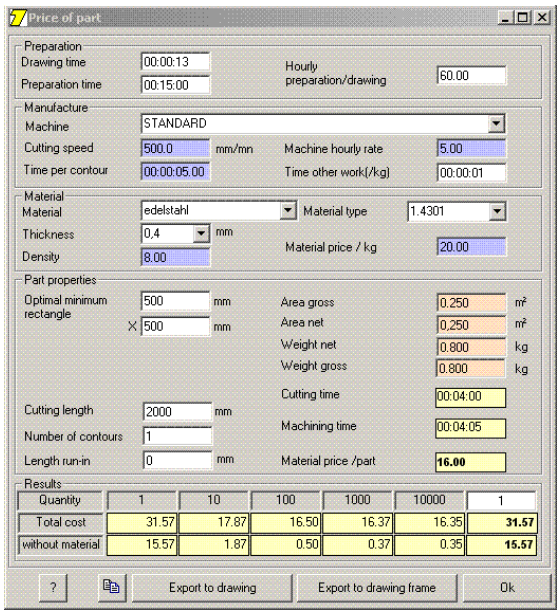
Then choose the wanted command, e.g. “Erase selected elements”, select all with <Ctrl> + A and confirm with “OK” or Enter. Now only the colour activated in the filter will be deleted.

A quite good function to clean up unnecessary lines from a drawing.

Calculate the price of elements for quotations with EURO function

All important data for the price of an element like surface, weight (gross /net), length of cutting, time of cutting and lead-in are calculated and so the price.

 Click on the Euro icon, simply enter all your data in the following window and the price will be calculated automatically.



It is possible to export this calculation directly to the drawing or to the drawing frame.

Calculation of the cutting time of a drawing

The cutting speed can be entered in the menu under:

"Extras", "Options", "Parameters", "Cutting speed [mm/min] “

If you have created a drawing it is possible to get the cutting time with the following command:

„IS: Properties selection“

In this screen you get the following important information for your calculation:

- Cutting time
- Cutting length
- Outer rectangle of the elements (needed sheet)
- etc.

Change texts with Oi – Object Information

You have created a text field with “text multi-line” and want to change it now.

Simply click on “OI – Object Information” and then on the wanted text field. In the following window it is possible to change the text like you want.

<Ctrl> + U for text fields for printout

The standard text field for printouts is a DXF file with the name FRAMED.DXF.

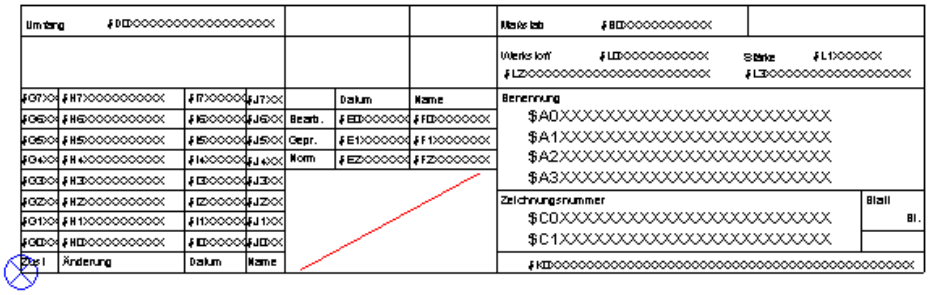
This file contains a standard drawing frame after DIN.In this text frame you can enter the following:

1. Standard texts
2. Variable texts
3. A graphic or company logo

The empty fields are the setting fields for the variable texts. The number of character X defines how many characters will be printed.

The position and size of the logo (in the formats *bmp., *jpg, *wmf) is defined by a red line.

Example: Standard drawing frame



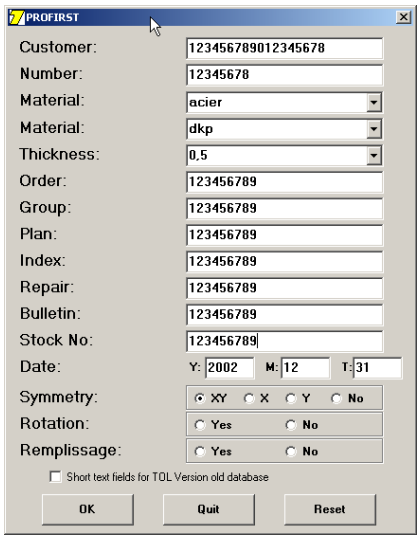
The data for this drawing can be opened by pressing **<Ctrl> + U** or in the menu under "Extras", "Drawing frame"

Text fields for TOLcut/punch and TOLfab

This function allows the quick entering of data base entries for an element if it should be imported in TOLcut/punch/fab.

The data is saved as text in the DXF file and directly used from TOL to fill the data fields in TOL.

This function can be called-up with the buttons **<Ctrl> + T** (or menu, extras, Information for TOL):



File view

It is possible to get a quick preview of all drawings.

Go to "file" and then on "open with preview" and you can see all your files in a preview window. With this possibility it is easier to find a specific file if you don't know the name any more.

3D view

Every element can be shown in 3D with only one mouse click.

Simply click on the 3D icon, choose the elements and confirm with <Enter>.

Then do the wanted settings and confirm with OK.

Page preview

PROfirst shows the page how it will be printed on the paper.

If you click on "Print" you see the drawing exactly like it will be printed on paper.

Text generator

It is possible to convert any Windows ® True Type texts to a minimum of lines and arcs. The results really can be cut.

You only click on the icon "Lettering, convert TTF to vectors", choose the text and confirm with <Enter>. Then you only have to confirm if you want to convert curves comprising of lines to arc when possible or not.

Extra power select functions

Select functions to select or separate elements over a surface. Selection of open or double contours to "clean" drawings for CNC processing

Hold the <Shift> button and click on the element which you want to select.

Automatic round of all corners of elements

All corners of an element can be round automatically with certain settings and a certain radius for cutting without problems.

Click on the icon, enter radius, choose contour and confirm with <Enter>. Then enter the wanted information and click on "Save".

Snap settings

You find the snap icons at the bottom of the screen.

You can adjust which points you want to snap. The points are shown in the same colour as above, e.g. middle point blue, tangent pink, etc.

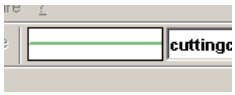
It is possible to turn on/off the snap functions with the button "Switch snap functions on/off".

With this snap functions it is possible to click close to flashing point. The exact coordinates of this point will be overtaken. You don't have to enter the coordinates to get to this point.

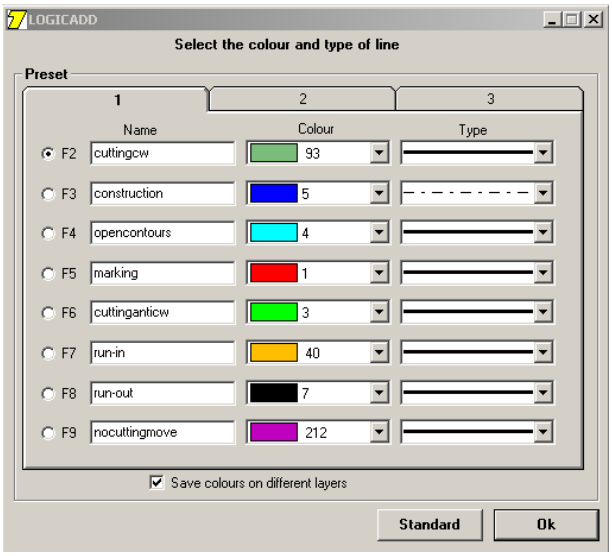
The coordinates of the currently snapped point are shown in this window:

This option should be turned off if you import big DXF files, because the software needs too much time to calculate all snap points. The program turns the snap function automatically off if a file has a specific size.

Selection of type and colour of lines



With the "select line type and colour" you define the colour of lines and the type of all new lines.



Here you can define several standard line settings.

It is possible to change quickly between theses settings with the buttons F2 to F9.

Standard settings:

F2: Cutting_clockwise
F3: Construction
F4: Open contours
F5: Marking
F6: Cutting_anticlockwise
F7: Run-in
F8: Run-out
F9: No cutting move

DXF colour allocation

The colours are shown in the sequence of the DXF colour numbers.

1	2	3	4	5	6	7	8
Bright Red	Bright Yellow	Bright Green	Bright Cyan	Bright Blue	Bright purple	Black	Bright Grey
Red	Yellow	Green	Cyan	Blue	Cyan	White	Grey
9	40	93	12	13	212	15	16

Standard allocation:

Cutting: 93
Marking: 1
Open contours: 4

Save part of a drawing

It is possible to select the important contour for the cutting of a big drawing and save it as another DXF file.

To do that:

Go to "File", "Export part of the drawing" or press <Ctrl> + W. Now choose the wanted part and confirm with <Enter>. Now enter the wanted file name and confirm with "Save".

Import

You can import drawings, icons, etc. of another file to the current file. To do that, do the following steps:

Go to "File", "Import" or press <Ctrl> + I.

Choose the wanted file and confirm with "Open".

Choose an import position and confirm with <Enter>.

Copy drawing to the clipboard

It is possible to copy a drawing to the clipboard.

Go to "Edit", "Copy to Windows clipboard" or <Ctrl> + C.

But these created copies are in the bitmap format.

How do I?

From which point do I start a drawing?

Always enter the **zero point** (0,0) if you begin a new drawing or click on the marked zero point. You should always begin drawings from this defined zero point.

Why isn’t the software activated permanently?

The software gets activated permanently if the accountancy has finished the booking of this process. So either the booking isn't finished yet or you didn't get the permanent password from your accountancy. Please check if the password has already been send to you.

How are DXF files which are shown empty correctly imported?

Open the file with DOS Edit and save it again. Edit inserts automatically after every row the missing <LF> "Line Feed" sign. Now the file can be opened with ***PROfirst***.

If the file is too big for edit it is also possible to open and save it with Word in the MS-DOS format.

How do I get a 1:1 – Printing?

Big drawings or elements can be printed automatically on several pages (A4, A3, etc.). This is especially useful for Photoscope machines if you don't have a big plotter.

Go to "File" and then "Print". Now click on "Scale 1:1" and you see at once in the preview on how many pages it will be printed. Having clicked on "Print" the printing of all pages starts and you can now connect the printouts with scale 1:1.

How do I find open contours?

If ***PROfirst*** notifies an open contour and you don't see one, try to select the contours at this place with a function and check the number of contours. By this way it is possible to detect very small contours of e.g. 0.01 mm.

Before you choose the function "check closed contour" the contours should be converted to the colour for cutting (green).

How do I change size of paper under WIN NT for printing or plotting?

Under WIN NT changes of the size of paper aren't considered of the program and only can be done by the following way:

Close program.

Define the wanted printer as standard:

"START", "PRINTER"

Choose printer, "FILE“, and "DEFINE AS STANDARD"

Define the wanted size of paper.

Start ***PROfirst*** and print the drawing.

Having printed reconvert the right standard printer and size of paper.

Is it possible to change the background colour and the colour of texts?

Go to the menu under "Extras", "Options", and "General".

Under Colours it is possible to change the colour of the background and of certain texts. Be careful and avoid setting the same colour for background and text.

Can I activate or deactivate the scales?

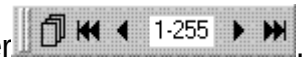
Downright is a yellow scales icon. Simply press it to turn the scales on or off.

How do I draw with raster?

It is possible to turn the raster on or off correspondingly change the size of raster.

To do that, follow the next steps. Go to "Extras", "Options", "General" and then to raster. Here it is possible to adjust the raster at "X" and "Y" axis or to turn the raster on or off. Of course the raster has to be adapted to the drawing. It isn't useful to set a small value at a big drawing and oppositely, because you won't get practical results. So it is meaningful to try which is the right setting for the actual drawing.

How do I use the layer navigation?

You find the layer navigation in the down left corner 

.

With the first icon you see all layers at once.

The second icon displays only the first layer.

The third icon displays the previous layer. For example if you are at layer five and click on this icon you go to layer four.

In the next field you can enter a layer number.

The fifth icon displays the next layer.

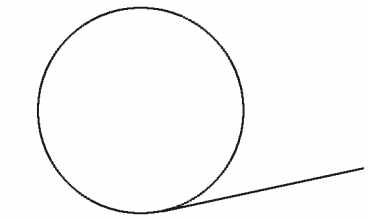
The sixth icon displays only the last layer.

I have entered a command and don't know how to continue?

In the bottom of the screen is a line where all working instructions are exactly described.

With this help you will soon understand the program.

How can I draw a tangential line to a circle?



First draw a circle. Now go to the centre point and enter the length and the angle of the line. Now only click on the icon  , enter the radius of the circle and click beside the line and you have the tangential line. Finally delete the help line.

How can I make a hatch in a surface?

Complex surfaces can easy get a hatch.

 Click on „Hatch a surface defined by a closed contour“, choose the wanted elements and confirm with “OK” or Enter.

How can I transfer the licence to a new/other PC?

ONLY POSSIBLE WITH PERMANENT LICENCE

1. Start ***PROfirst*** at the **new** PC

2. Click on "Password to activate Software" in the menu

3. Put a diskette in your floppy drive and click on "step 1 - copy serial number of new PC onto diskette"

4. Take the diskette out of the floppy drive and put it in the floppy drive of the **old** PC. Now continue with "step 2 – transfer licence from **old** PC to diskette".

5. Now take the diskette again out of the old PC and put it in the floppy drive of the new PC. Finish the transfer by doing "step 3 – transfer licence from diskette to new PC.

How do I import DXF files from other CAD programs?

Empty screen:

If you want to import DXF files from other CAD programs (e.g. AutoCAD, MegaCAD, etc.) it is possible that ***PROfirst*** shows you an empty screen. In the title bar the name of the opened file is shown, but you can't see a drawing. In this case do the following steps:

1.  Click on the button "Layer management" to get in the layer management window.

2. Go to the "List" mode, which means you see the layer of the drawing as a list and not as pictures.

3. Check if at all layers there is a **checkmark** at the fields A (layer active) and P (layer printable).

4. Check if at all layers the fields L (layer locked) and F (layer frozen) are **deactivated**.

5. Turn back to the picture mode, click on the changed layer and confirm with "Keep" and then with "OK" and you will see the drawing in ***PROfirst*** now.

EX – Function:

 If the drawing contains blocks, it is very important to use the "EX – Explode" function. With this function you set the often used block function back.

Export Part of the drawing:

For complex CAD drawings you should use this function to save only a certain and smaller part of the drawing and not the whole drawing. So it is possible to reduce the data, the number of lines, etc.

Filter Function:

 Click on the icon to activate the filter, click on the wanted type of line with pressed <Shift> button and this colour is activated in the filter.

Then choose the wanted command, e.g. "Erase selected elements", select all with <Ctrl> + A and confirm with "OK" or Enter. Now only the colour activated in the filter will be deleted.

CA – Function:

 Often drawings of other CAD programs contain a lot of lines (often several thousands). The function “CA – Convert lines to arcs” replaces these lines with a specific accuracy (which you have to enter) with arcs. So the number of elements will be reduced enormously.

If you have problems nevertheless it is possible to offer you a maintenance contract. Consider the wasted time if you have a problem or don't know how to continue.

Examples

The fastest way to learn the software

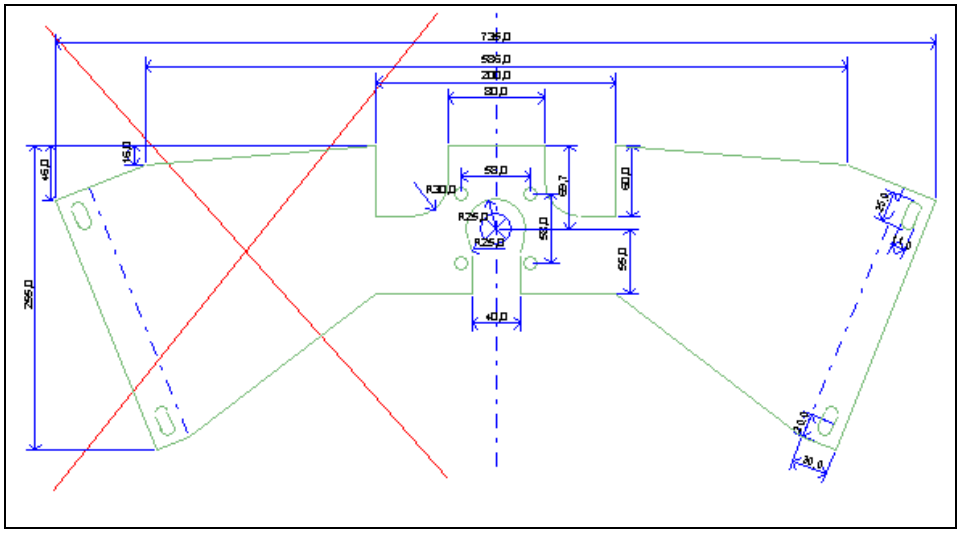
Don't click without knowing what you do!

The fastest way to work with the program is to take some time (about 15 minutes) and go through our example drawings. We show you the drawing functions and the most important shortcuts to save a lot of time later.

And if you make a mistake – no problem:

Press <Ctrl> + Z or use this icon  to make your mistake retrogressive.

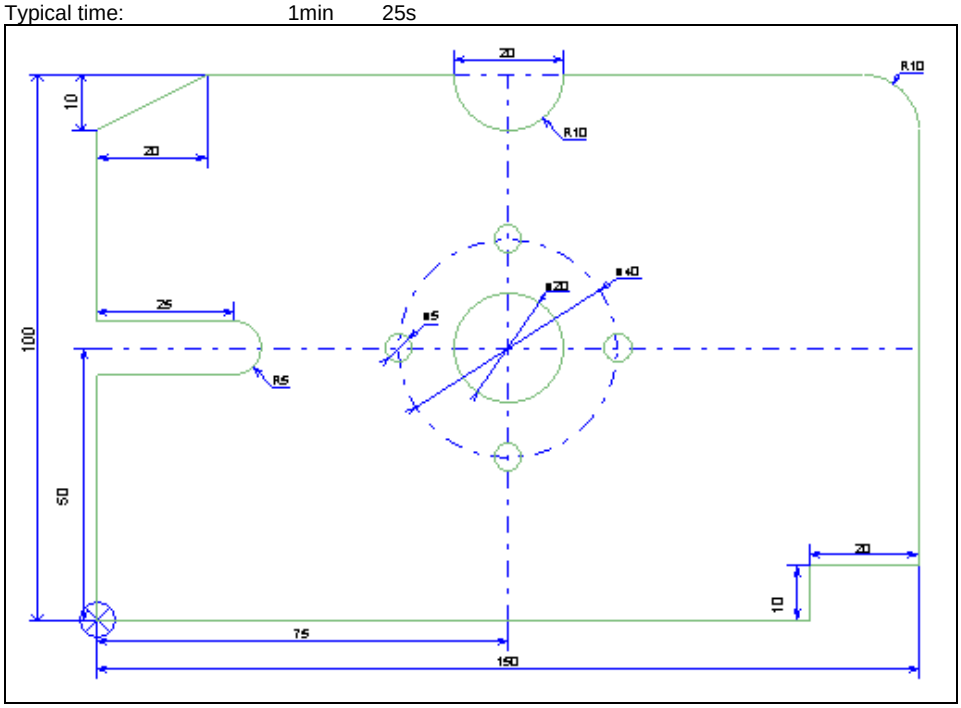
Important Hint:



Like you see in the picture above it is useful to draw only one side and mirror it along an axis. So you save nearly half of the time.

Example drawing 1 – your first drawing

Typical time: 1min 25s



Example 1:

1. Draw rectangle:
R2 - Enter first corner in absolute coordinates {0,0 <Enter>}
- Enter second corner {150,100 <Enter>}

2. Zoom all, then zoom reduced
ZA - Zoom all
ZR - Zoom reduced reduces the size of the drawing to see everything good

3. Draw vertical construction line:
- Press the key "F3" to draw construction lines
LI - Move cursor to the centre of the bottom line
- A blue point is shown (= exact middle point of the line), click on it
- Click on the middle point of the top line
- Confirm with <Esc> or the right mouse button

4. Draw horizontal construction line
LI - Move cursor to the middle point of the left line
- A blue point is shown (= exact middle point of the line), click on it
- Click on the middle point of the right line
- Confirm with <Esc> or the right mouse button

5. Draw construction circle with a diameter of 40mm:
C2 - Enter centre point in absolute coordinates {75,50 <Enter>}
- Enter diameter {40 <Enter>}

6. Draw circle with 20mm in the middle of the part
- Press the key "F2" to draw cutting lines
- Move the mouse to the middle point of the part.
A green middle point is shown, click on it to take it over
- Enter diameter {20 <Enter>}

7. Draw circle with 5mm at 3 o'clock on the circle with 40mm:
- Move the mouse to the 3 o'clock point on the 40mm circle
A red point is shown, click on it to take it over
- Enter diameter {20 <Enter>}

8. Copy circle with an angle of 90° to create the three other circles:
RC - Click on circle, it gets pink, press <Enter> to finish the selection
- Enter number of copies and the angle {3,90 <Enter> or OK}
- Click on a start point to display the dimension of the angle, e.g. centre point of the 5mm circle
- Move cursor to the centre point of the 20mm circle and click on the green point

9. Draw with arc 20mm for the sector in the top of the drawing
C2 - Move cursor to the middle point of the upper line and click on the blue middle point
- Enter diameter {20 <Enter>}

10. Draw circle with 10mm (left)
C2 - Move cursor to the middle point of the left line
Click on it and confirm immediately with <Esc> or the right mouse button
Now this point is saved as the last point
- Enter position of the centre point of the circle as a incremental dimension from this point {25;0 <Enter>}
- Enter diameter {10 <Enter>}

11. Draw to lines from the circle to the left line
LI - Move cursor to the 12 o'clock position of the circle, click on the red point
- Move cursor to the line, click on the green point for perpendicular
- Confirm with <Esc> or the right mouse button
- Do the same for the other line

12. Delete unwanted parts of the lines
EF - Click on the unwanted lines of the parts

13. Delete unwanted parts of the circles
EF - Click on the unwanted lines of the parts

14. Cut the upper left corner
CH - If necessary enter values {10,20 <Enter>}
- Click on first line which you want to cut with 10mm
- Click on the second line which you want to cut with 20mm

15. Round upper right corner
FI - If necessary enter value {10 <Enter>}
- Click on first line
- Click on second line

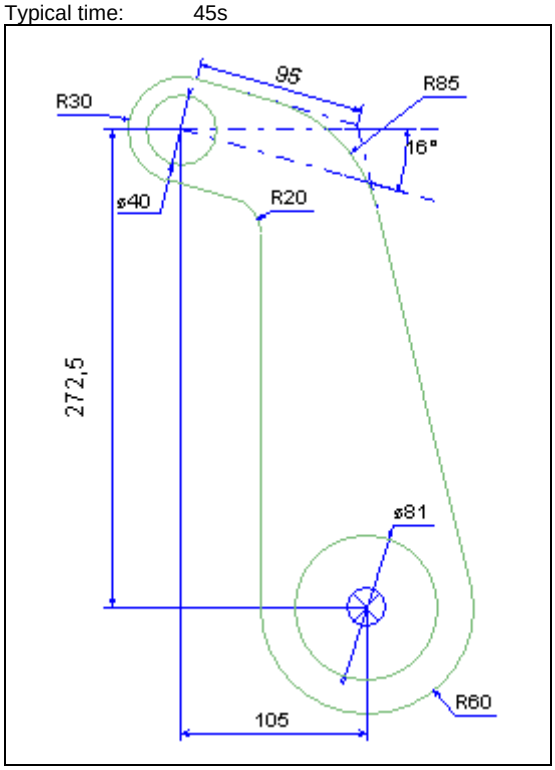
16. Put a step on the under right corner
GU - If necessary enter values {10,20 <Enter>}
- Click on the line which should be shortened with 10mm
- Click on the line which should be shortened with 20mm

17. Auto dimension
DD

18. Change dimension
DM - Click on the dimension which you want to change. You can choose another dimension option by clicking on the right mouse button or dimension manually

Example drawing 2

Typical time: 45s



1. Draw circle with a diameter of 120mm:
C2 - Enter centre point {0,0 <Enter>}
- Enter diameter {120 <Enter>}

2. Draw circle with a diameter of 81mm:
- Move cursor to the centre point of the first circle, click on the green centre point
- Enter diameter {81 <Enter>}

3. Draw circle with a diameter of 40mm:
- Enter centre point {-105,272.5 <Enter>}
- Enter diameter {40 <Enter>}
ATTENTION: Use POINT as decimal place!

4. Draw circle with a diameter of 60mm:
- Move cursor to the centre point of the third circle and click on the green centre point
- Enter diameter {60 <Enter>}

5. Zoom all:
ZA

6. Draw construction line at 95mm, -16°:
- Press "F3" to draw construction lines
LI - Click on centre point of the upper circle (60mm)
- Enter the end point of the line in polar coordinates
{95:-16 <Enter> and then <Esc> or right mouse button}
(-16 clockwise angle, +16 anticlockwise angle}

7. Draw parallel lines to this construction line:
- Press "F2" to turn back to cutting lines
LL - Enter distance {30 <Enter>}
- Click a little bit above the construction line for upper line
- Click a little bit under the construction line for under line

8. Draw line to the tangent point of the under circle: view the following picture
LI - Move cursor to the end point of the upper line and click on the red point
- Move cursor to the right tangent point of the circle (120mm) and click on the pink point
- {Confirm with <Esc> or the right mouse button}

9. Draw vertical line:

LI
- Move cursor to the 9 o'clock position on the circle 120mm and click on the red point
- Press <Ctrl> button and move the cursor up to draw a vertical line
- Click a close to the end point of the construction line, but draw a little bit longer line to see intersection. Now you can unhand the <Ctrl> button

10. Round corner with radius 85mm:

FI
- Enter radius 85mm if it is necessary and not already shown in brackets {85 <Enter>}
- Click on first line
- Click on second line

11. Round corner with radius 20mm

FI
- Enter radius 20mm {20 <Enter>}
- Click on first line
- Click on second line

12. Delete construction lines

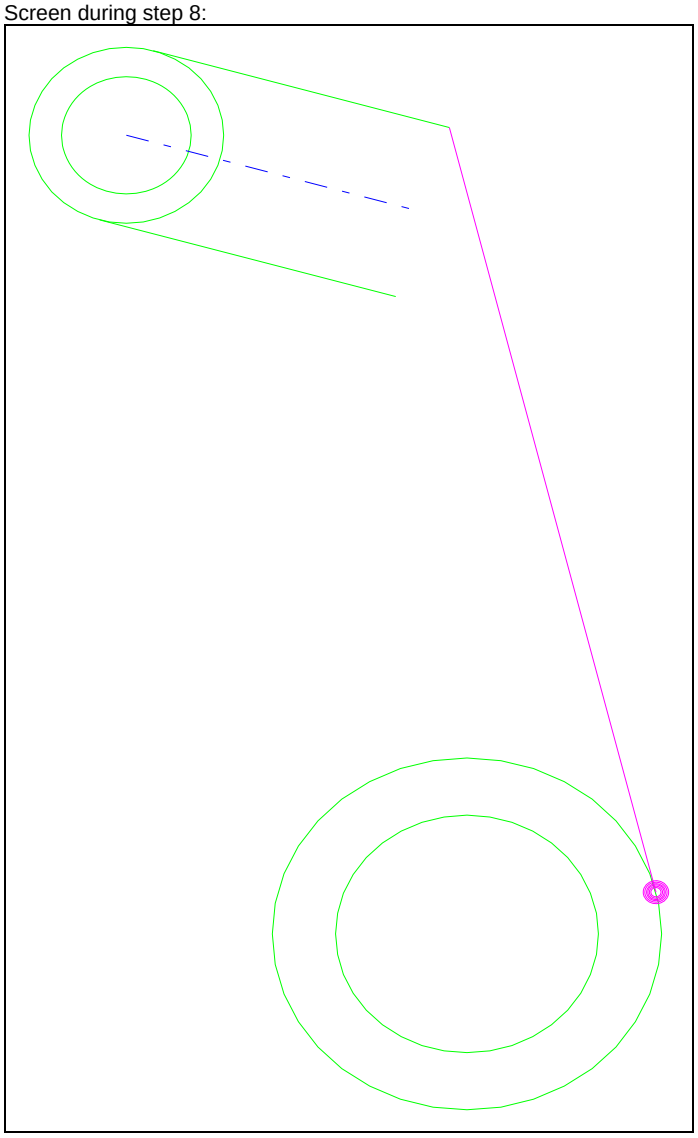
OE
- Click on line

13. Trim arcs

EF
- Click on the arcs you want to delete

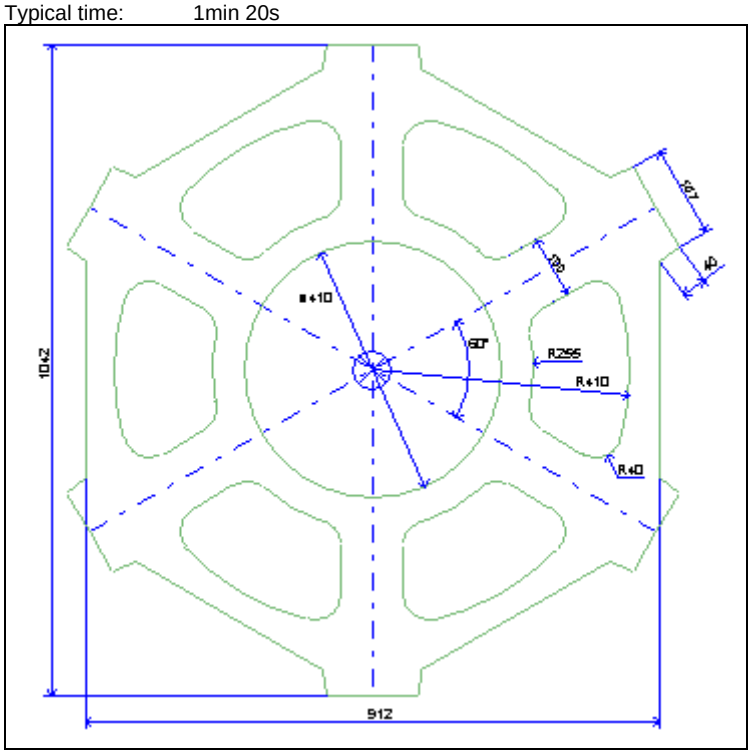
14. Auto dimension

Screen during step 8:



Example drawing 3

Typical time: 1min 20s



1. Draw circle A:
C2 - Enter centre point {0,0 <Enter>}
- Enter diameter {410 <Enter>}

2. Draw circle B:
C2 - Enter centre point {0,0 <Enter>}
- Enter radius * 2 {255*2 <Enter>}

3. Draw circle C:
C2 - Enter centre point {0,0 <Enter>}
- Enter radius * 2 {410*2 <Enter>}

4. Zoom all
ZA

5. Draw construction line D
- Press "F3" button to turn to construction mode
LI - Move cursor to the 12 o'clock position of circle C and click on the red point
- Move cursor to the green centre point of circle C and click on it

6. Draw construction line E
- Start point of the lines is the centre point of the circle
- Enter end point in polar coordinates {1042/2:30 <Enter>}
- Confirm with <Esc> or right mouse button

7. Draw parallel lines with a distance of 50mm from D and E:
- Press "F2" button to turn back to cutting mode
LL - Enter distance {50 <Enter>}
- Click a little bit right of line D
- Click a little bit left of line E

8. Delete the parts of circles B and C that you don't need any more:
GA - Click on the arc you want to keep

9. Round arc:
FI - Enter radius {40 <Enter>}
- Click on first line
- Click on arc
- Round all corners this way

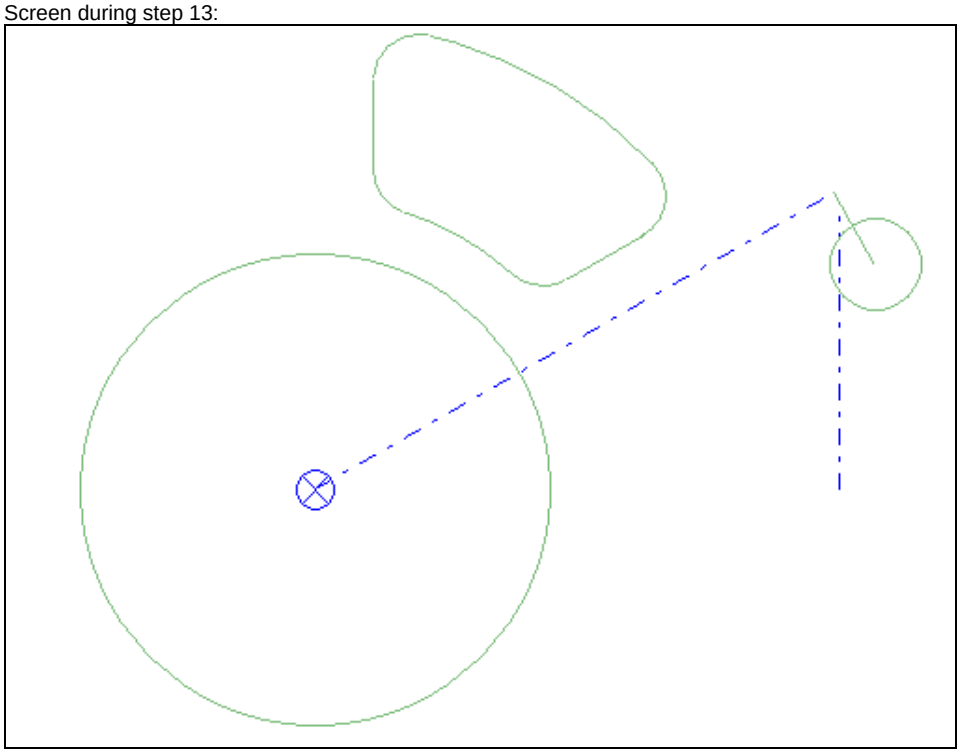
10. Zoom all:
ZA

11. Draw line G:
LP - Move cursor to the end point of line E and click on it
- Move cursor down
- Enter the length {147/2 <Enter>}

12. Draw circle with 80mm at the end of line G:
C2 - Click on end point of line G
- Enter radius * 2 {40*2 <Enter>}

13. Draw line H:
LI - Enter start point in absolute coordinates {912/2,0 <Enter>}
- Press <Ctrl> button and draw a vertical line
View the following picture

Screen during step 13:



14. Trim line H:
GA - Click on part of the line you want to keep (line under the circle)

15. Delete circle with diameter 80mm:
OE - Click on the circle

16. Connect lines G and H with a line:
LI - Click on the end point of line H
- Click on the end point of line G
- Confirm with <Esc> or the right mouse button

17. Mirror the lines G, H and I along the axis E:
MI - Select the three lines with a window
Move the window from left to right and be careful that all lines are completely in the window.
The lines are shown pink and the number (3) is shown. <Enter>
- Define the first point of the mirror axis by clicking to the centre point of the circle (410mm)
- Define the second point of the mirror axis by clicking on the end point of line E
- Answer with "No" on the question "Delete original elements" to keep the original lines

18. Delete line D and E:
OE - Click on line D and E

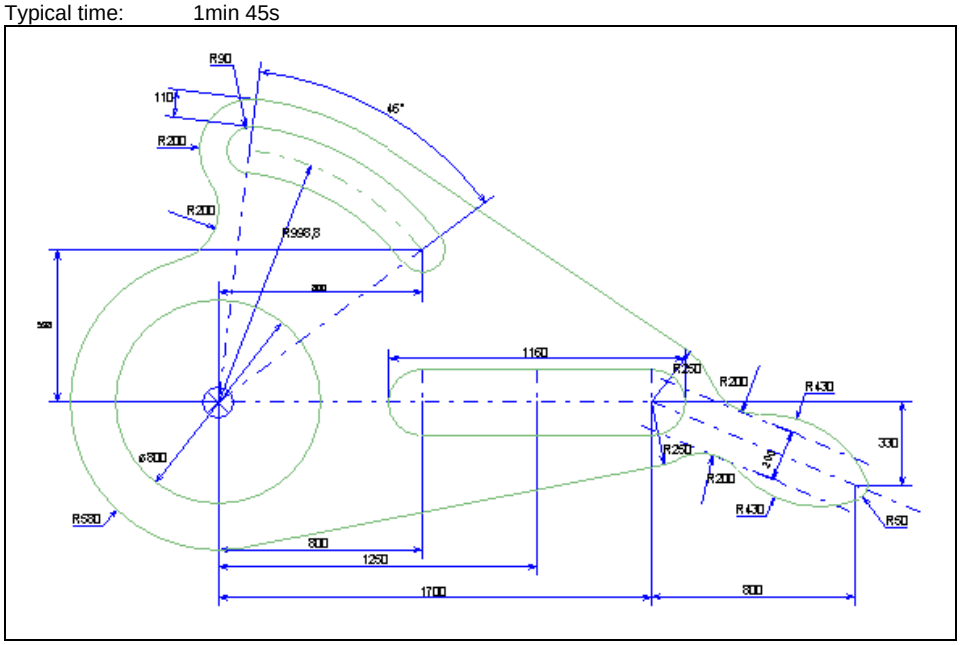
19. Copy in circle to finish the drawing:
RC - Select all lines you want to copy with a window, number (14) is shown, press <Enter> to confirm
- Enter number of copies and the angle {5,60 <Enter> or OK}
- Click on the centre point of the circle 410mm to define the centre point of the copy

20. Zoom all:
ZA

21. Auto dimension:
DD

Example drawing 4

Typical time: 1min 45s



1. Draw circle with a diameter of 800m:
C2 - Enter centre point {0,0 <Enter>}
- Enter diameter {800 <Enter>}

2. Draw circle with a diameter of 1160mm:
C2 - Click on centre point of the last circle
- Enter diameter {1160 <Enter>}

3. Draw circular oval, centre point (0,0), through point (800,598), diameter 180mm, angle 46°:
OC - Click on the centre point of the last circle
- Enter start point {800,598 <Enter>}
- Enter diameter and angle {180:46 <Enter>}

4. Zoom all:
ZA

5. Draw circle, diameter 400mm with centre point of the left circle of the circular oval:
C2 - Click on the centre point of the upper left circle
- Enter diameter {400 <Enter>}

6. Draw a parallel arc to the circular oval with a distance of 110mm:
LL - Enter distance {110 <Enter>}
- Click above the circular oval

7. Draw circle, diameter 400mm, tangential to the circles 400mm and 1160mm:
T2 - Enter diameter {400 <Enter}
- Click on the left side of the circles so that the centre point of the new circle is left

8. Draw oval, angle 0°, position (1250,0), length 1160mm and width 260mm:
OB - Enter angle if necessary {0 <Enter>}
- Enter position {1250,0 <Enter>}
- Enter width and length {260, 1160}

9. Zoom all:

ZA

10. Draw circle, diameter 500mm, centre point on the centre point of the oval:

C2 - Click on the centre point of the right circle of the last oval
- Enter diameter {500 <Enter}

11. Draw line from the centre point of the last circle to a point with incremental coordinates (800;-330):

- Press the "F3" button to turn to construction mode

LI - Click on centre point of the circle
- Enter end point with **incremental coordinates** {800;-330 <Enter> and then <Esc> or right mouse button}

12. Draw parallel lines to the last line with a distance of 100mm:

LL - Enter distance {100 <Enter>}
- To draw a parallel line click a little bit above the line
- To draw another parallel line click a little bit under the line

13. Zoom all:

ZA

14. Draw circle with a diameter of 100mm at the end of the middle construction line:

- Press the "F2" button to turn back to the cutting mode

C2 - Click on the right end point of the middle construction line
- Enter diameter {100 <Enter>}

15. Zoom window at the two circles with diameter 500 and 100nmm:

ZW - Define the window with the mouse

16. Delete part of the circle (500mm) between the two lines:

EF - Click on the arc to delete it

17. Round with a radius of 200mm:

FI - Enter radius {200 <Enter>}
- Click on first arc/line
- Click on second arc/line

18. Draw a tangential circle with diameter of 860mm to the two circles (400mm and 100mm):

T2 - Enter diameter {860 <Enter>}
- Click on the first circle on this side where the centre point of the new circle should be defined
- Click on the second circle on this side where the centre point of the new circle should be defined

19. Delete lines:

OE - Click on the two lines

20. Extend the two arcs with diameter 400mm to the arcs 860mm:

TR - Click on arc which should be extended
- Click on the other arc
- Do the same on the other side

21. Trim arcs with diameter of 860mm and 100mm:

GA - Click on the part of the arcs you want to keep

22. Zoom all:

ZA

23. Draw a tangential line to the two circles, diameter 500mm and the arc with the distance of 110mm from the circular oval:

TC - Click on the first circle near the tangential point
- Click on the second circle near the tangential point

24. Draw a tangential line to the two circles, diameter 500mm and 1160mm:

TC - Click on the first circle near the tangential point
- Click on the second circle near the tangential point

25. Trim circle 500mm:

EF - Click on the arcs you want to delete

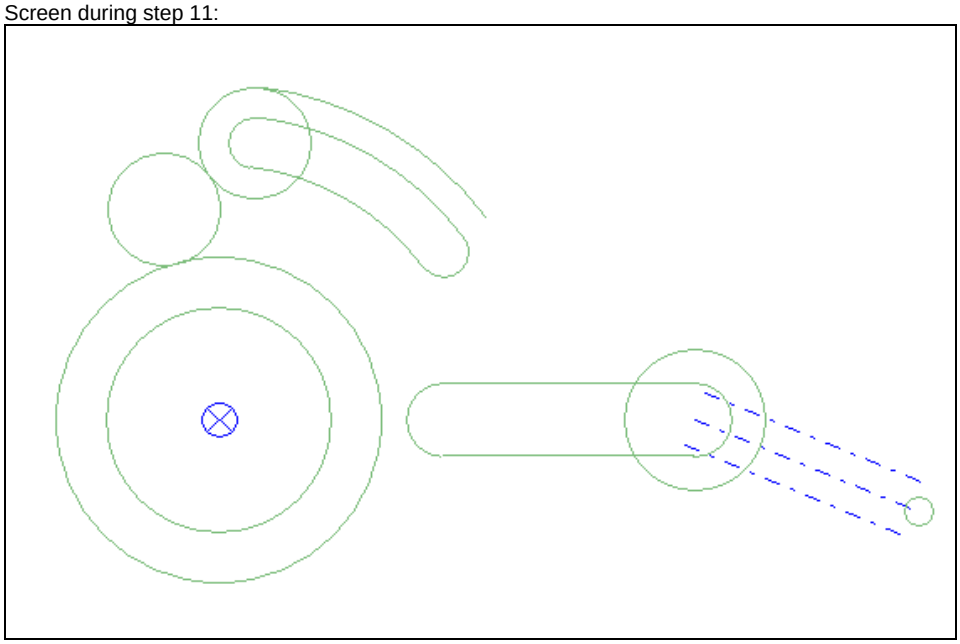
26. Trim the other five arcs:

GA - Click on the arcs you want to keep

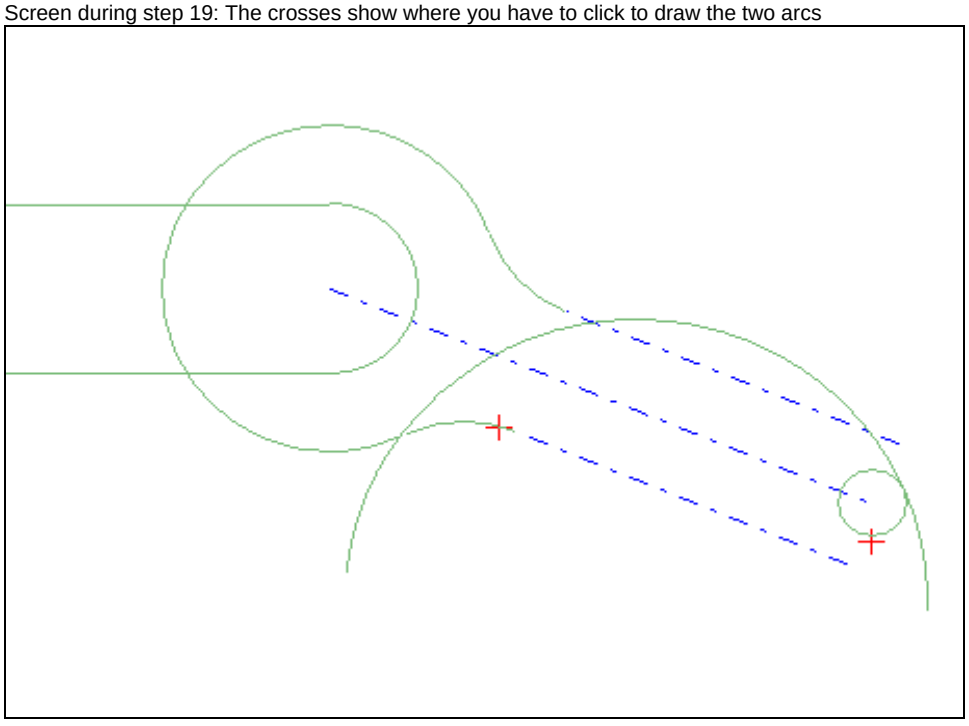
27. Auto dimension:

DD

Screen during step 11:

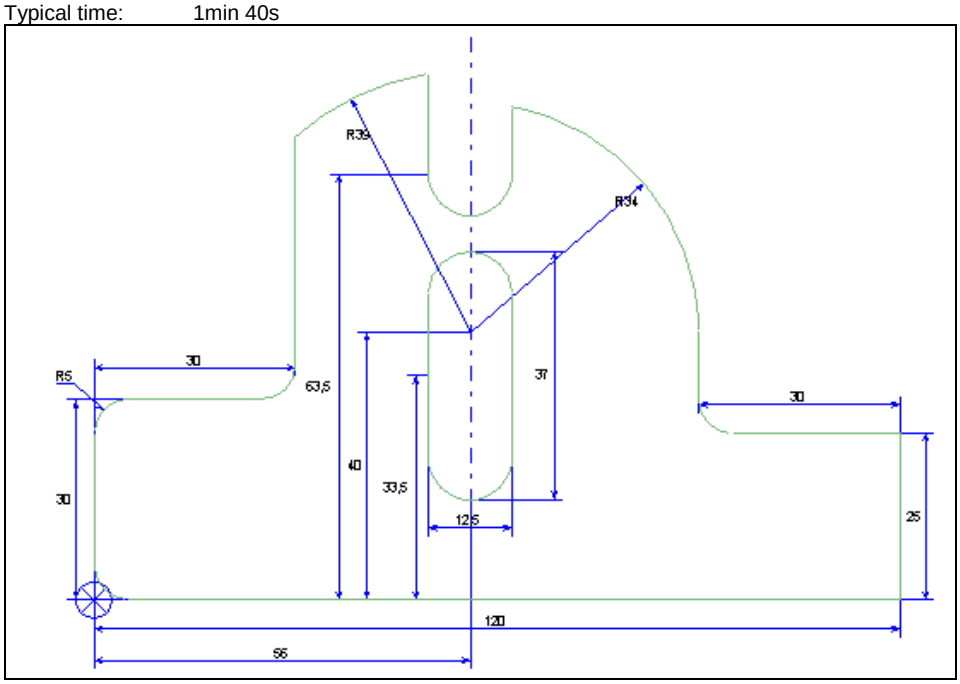


Screen during step 19: The crosses show where you have to click to draw the two arcs



Example drawing 5

Typical time: 1min 40s



This example shows you how to enter data to get a dimension similar to the original drawing.

1. Draw lines 120mm, 25mm and 30mm:
LI - Enter start point {0,0 <Enter>}
- Move mouse to the right {120 <Enter>}
- Move mouse up {25 <Enter>}
- Move mouse to the left {30 <Enter>}
- Hold <Ctrl> button and draw a perpendicular line to the top
- Choose any point and confirm with <Esc> or the right mouse button

2. Zoom all:
ZA

3. Draw two lines of 30mm:
LI - Enter start point {0,0 <Enter>}
- Move mouse up {30 <Enter>}
- Move mouse to the right {30 <Enter>}
- Hold <Ctrl> button and draw a perpendicular line to the top
- Choose any point and confirm with <Esc> or the right mouse button

4. Round corners with radius of 5mm:
FI - Enter radius 5mm {5 <Enter>}
- Click on the wanted lines

5. Draw vertical construction line:
- Press the "F3" button to turn to construction mode
LI - Enter start point {56,0 <Enter>}
- Enter length as incremental coordinates {0;63.5}
- Press the "F2" button to turn back to cutting mode

6. Draw circle with a diameter of 12.6mm:
C2 - Enter centre point {0;0 <Enter>}
- Enter diameter {12.6 <Enter>}

7. Draw circles with diameter of 78mm and 68mm:
C2 - Click on bottom end point of the construction line and confirm with <Esc> or the right mouse button
- Enter incremental coordinates to get to the centre point of the circles {0;40 <Enter>}
- Enter radius * 2 {39*2 <Enter>}
- Enter centre point again {0;0}
- Enter radius * 2 {34*2 <Enter>}

8. Draw 90° oval at the centre point (56,33.5) with a length of 37mm and a width of 12.6mm:
OB - Enter angle {90 <Enter>}
- Click on bottom end point of the construction line and confirm with <Esc> or the right mouse button
- Enter the centre point in incremental coordinates {0;33.5 <Enter>}
- Enter the width and the length {12.6, 37 <Enter>}

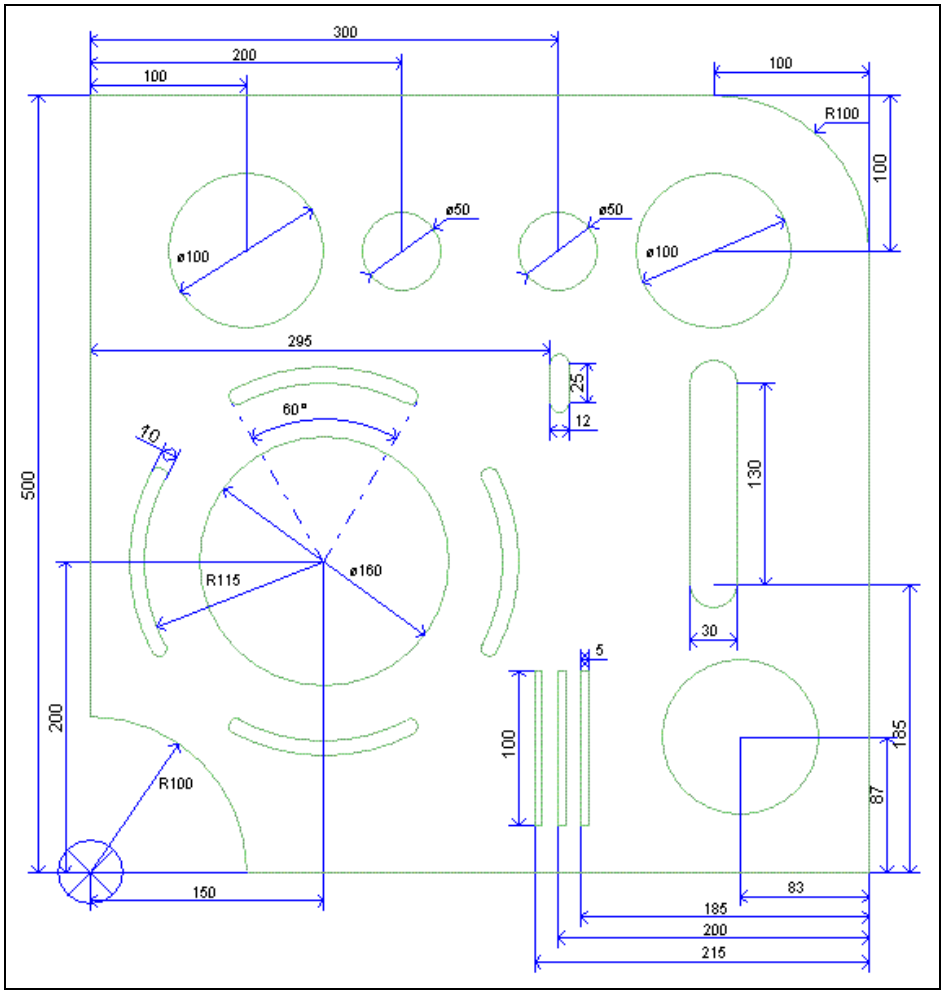
9. Draw two lines of both sides of the circle 12.6mm:
LI - Click on the 3 o'clock point of the circle
- Hold <Ctrl> button and draw a perpendicular line to the top
- Do the same on the other side

10. Trim lines:
GA - Click on the lines you want to keep

11. Auto dimension:
DD

Example drawing 6 – Without Help

Please create this drawing without help. With the knowledge of the previous drawings you should be able to create this drawing.



Technical support

Program starts in test mode / activation of the program

If you install the software a unique serial number is been created. For this serial number you need a unique password. Until you activate the software with this password the program runs in test mode.

Buying and activating the software:

1. Check your serial number

The serial number is shown in the menu under "Password to activate software".

Write down this serial number and send it to your supplier via fax or email.

2. Activation of the software

You will get a password from your supplier that you have to enter under "Password to activate software". This password is only valid for this serial number and having entered it the software gets activated.

If you have a problem please call our technical hotline.

To accelerate the problem solving please send us a copy of your drawing via email.

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www.profirst-group.com
info@tolsoftware.com

Contents 1 Click CAM

Installation

We recommend Windows 7

This program is a modern application.
We recommend using Windows 7 64 bit Professional.
We test on Windows 7 and XP.
It may run on Win 98/ME/NT4.0/Vista but we give no guarantee and do not test these operating systems.

Always install in folder suggested by the installation program

Local administrator rights are necessary with WIN 2000 / XP

All USERS need local administrator rights to avoid problem when using the program.

- **You need at least complete write/read/delete rights on the follow: installation folder and all sub-folder, not only at installation but also as user.**
- **Registry key HKEY_LOCAL_MACHINE/SOFTWARE/VB_and_VBA_Program_ settings and all sub-keys**

Adjust screen resolution to at least 800x600 best is 1200*1024

You can change the screen size this way:
Click with the right mouse button on a free place of your desktop and go to "properties", "settings". Here it is possible to change the screen size like wanted.

Program runs in test mode until special password has been entered

After the first installation of the software runs in test mode. It is possible to test the software completely in this mode.

To activate the software:

- click on "**Password to activate software**". A serial number, unique to this PC, will be shown. Send this number via email to password@tolsoftware.com.
- You will receive a password for this PC by return email.
- Enter this password in the field password.
- Now the software is activated for a limited time or activated permanently.

We remind you that ***PROfirst*** is like all commercial software a single user licence.

Settings in the *PROfirst Database*

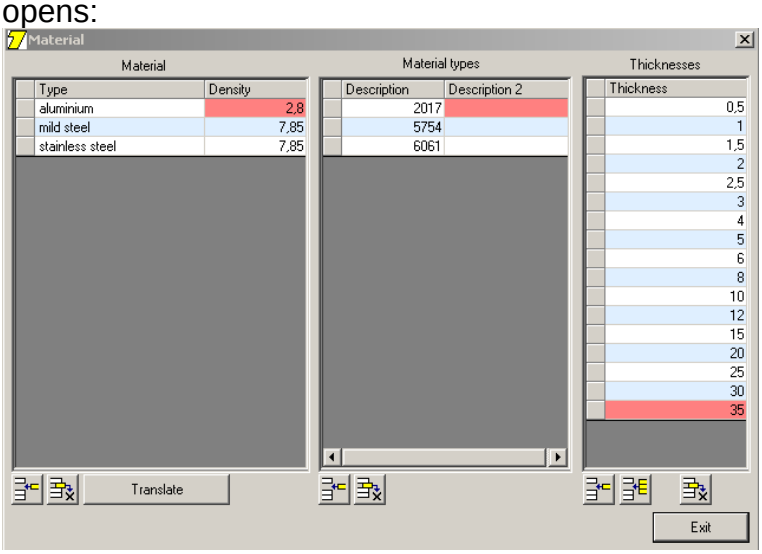
PROfirst material and machine Database

Choose **"Extras", "Database"** in the menu and the following window opens:

Here it is possible to manage your material database.

Add/change materials

Click in **"Extras", "Database"** on **"Materials"** and the following windows opens:



"Add a material" and enter a new material.

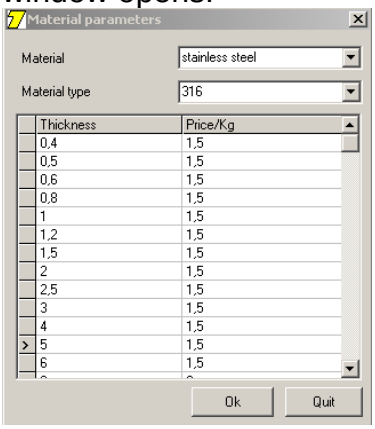
Click on **"Translate"** to edit the names of material

Then add edit values like density, description, and thickness as before.

"**Delete a material**", first choose material you want to delete and then confirm button with "yes".

Add/change material prices

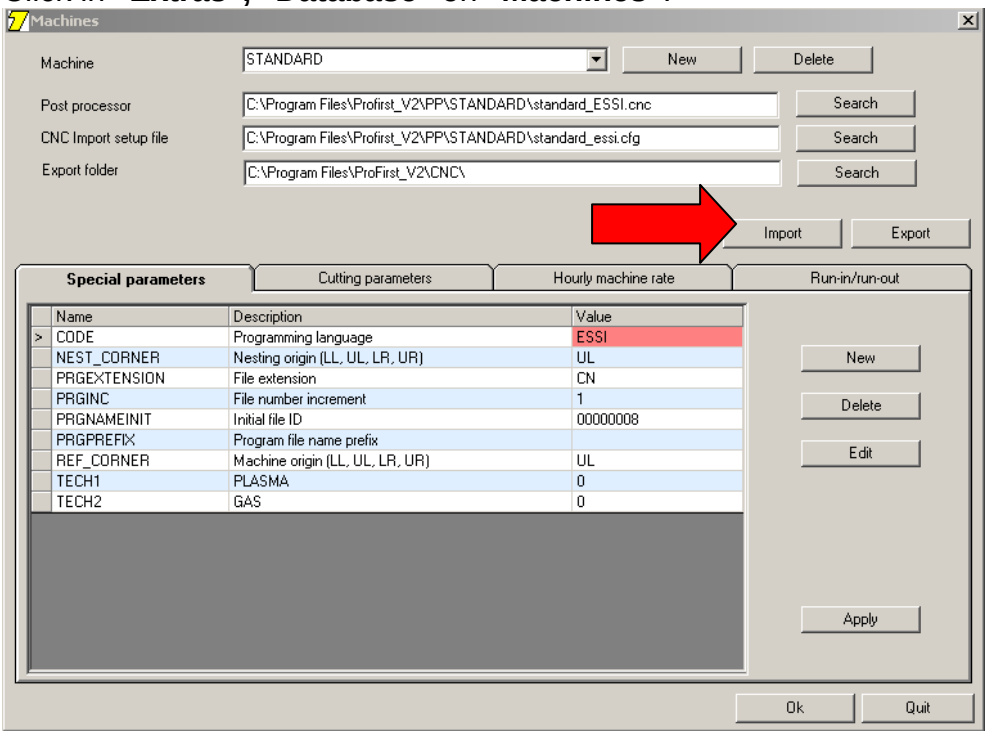
Click in **"Extras", "Database"** on **"Price/Material"** and the following window opens:



Enter the prices for your different materials and confirm with "OK".

Add/change machines

Click in **"Extras", "Database"** on **"Machines"**:



Here are the standard paths for post processor and CNC programs. If possible use these suggested paths.
IMPORTANT: If you make changes always confirm with the button **"Apply"**!

With the button **"Import"** it is possible to import your machine postprocessor. You get this data from us as a separate file.

Unzip the file to the folder: c:\program files\PROfirst_V2\Export

Click on “Import”, choose the file in the corresponding path and click on “Open”, now your machine data will be imported.

Then it is best to delete the STANDARD machine selecting the STANDARD machine and clicking on the “DELETE” button at the TOP of the screen.

Simple steps to make a program

Easy to follow steps

PROfi*rst* 1 Click CAM is very simple and easy to use with following simple steps:

- Select the DXF or DWG files you want to cut
- Set the number of parts.
- Define the size of the sheet and spacing
- Start the automatic nesting and cutting path
- Create CNC Program(s)
- Print sheet plan or labels

Start 1 Click CAM

To start 1 Click CAM just do the following steps:

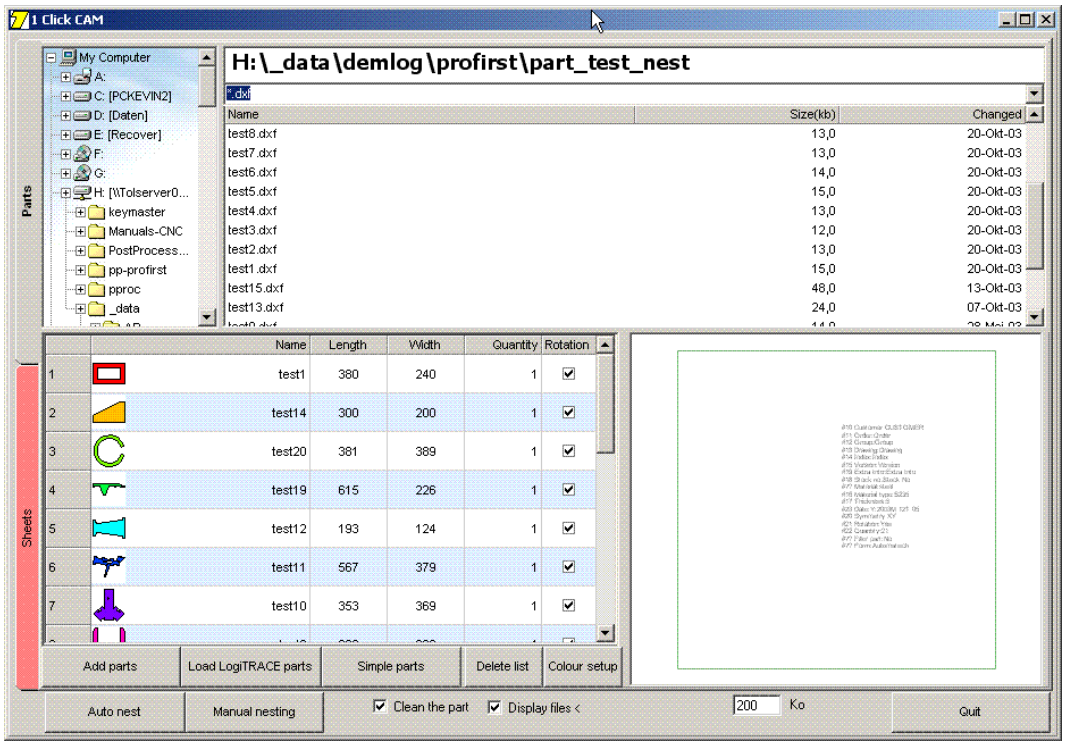
Open ***PROfi****rst* as usually and click down left in the icon menu on the button **"CAM**". The program changes from CAD mode to CAM mode.

 Then click on the icon **"1 Click CAM"** to open a new nesting.

IMPORTANT: 1 Click CAM is only displayed if the CAM option is activated!

Select parts to nest

The start screen of 1 Click CAM is shown in the picture below:



Here you can select the parts to nest.

Explanation of the screen

Path window: Choose wanted DXF files.
Sort them by clicking on "Name" or "Changed".

Choose one part: Click on DXF file and it gets blue. To pick it up to your selection make a double click on it or click on the button **"Add parts"**.

Choose several parts: Hold the <Ctrl> key and click on several parts or click on one part, hold the left mouse button and move the mouse.

Preview: Bottom right you see a preview of the chosen part to support the search.

Part window: All parts of the current selection are shown in this window. Here it is also possible to sort the parts or to change values, for example click in the field **quantity and enter the number of parts to nest**, allow rotation of the parts by clicking on the icon, etc.
Delete parts by clicking on the position number and press the key <del>.

"Add parts": Adds a chosen DXF file to the current selection. Same function as a double click on the file.

"Load LogiTRACE parts":
Procedure:
- Click in LogiTRACE (Version 12 or higher) in the menu on **"File", "Start new production list"**. A new production list is automatically started.
- Create developments in LogiTRACE. A list of the saved developments is created in C:\LogiTRACE_V12\Order_Logitrace.dat.

- Click in 1 Click CAM on **"Load LogiTRACE parts"** to import all parts created in LogiTRACE to 1 Click CAM.

"Simple parts": Simple Parts as flanges, rings and rectangles can be created here very easy. Just choose part, enter dimensions and confirm with “OK” to add it to your current selection.

"Delete list": Deletes the created selection and the path window is empty.

"Colour setup":
Definition of the colours in the DXF file:
Closed contours: 93 7 (7 is black or white, 93=light green)
Marking: 1 (1= red, set to zero if no marker on machine)
Open contours: 4 (light blue)

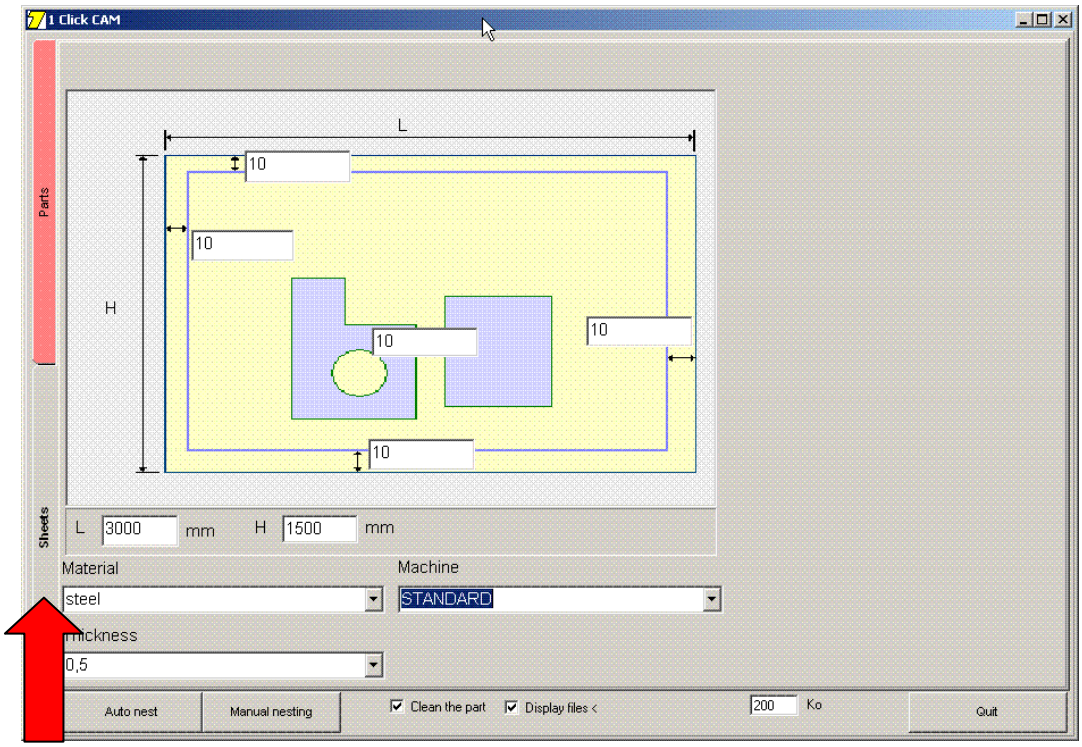
"Auto colour setting": A check mark activates this function. The parts are automatically shown in cutting colour if you read it in.

"Auto nest": If the wanted selection is finished click on "Auto nest" to calculate the nesting.

“**Manual nesting**”: If you want to nest the created selection manually, just click on the button “manual nesting”.

Sheets

Click on the button **"Sheets"** and you will see the window below to change the sheet and the materials.



Button to change to the window "sheets".

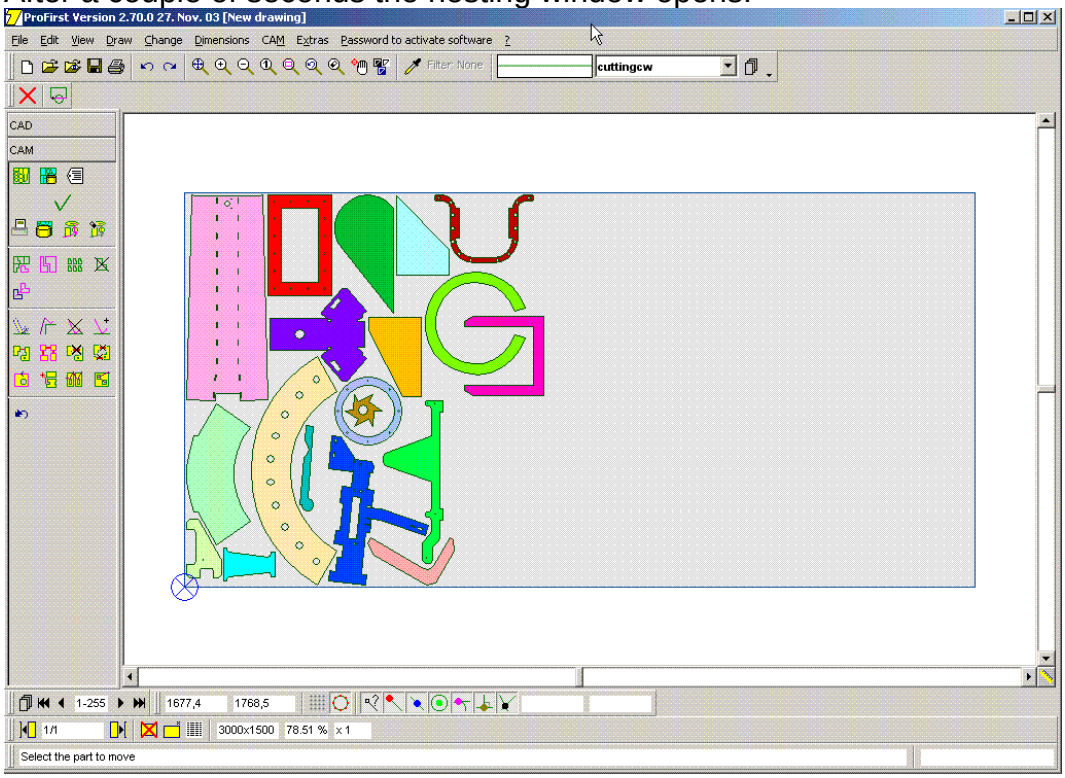
"Part distance + **edge distance"**: Enter values on the screen
"Size of sheet": Enter values in the fields "L" and "H".

"Material + Machine": Select desired values.

Nesting

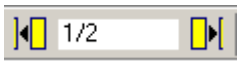
Auto nesting

If you have done all settings in the sheet window and created a selection of parts, click on **"Auto nest"** to calculate the nesting.
After a couple of seconds the nesting window opens:



The parts are nested in an optimum on the chosen sheet and the cutting path is set automatically.

Function of the icons



"Index of current sheet" shows the number of sheets and the current sheet. Browse between the sheets with the arrow buttons.


„Delete current sheet“ deletes the current sheet after confirmation.

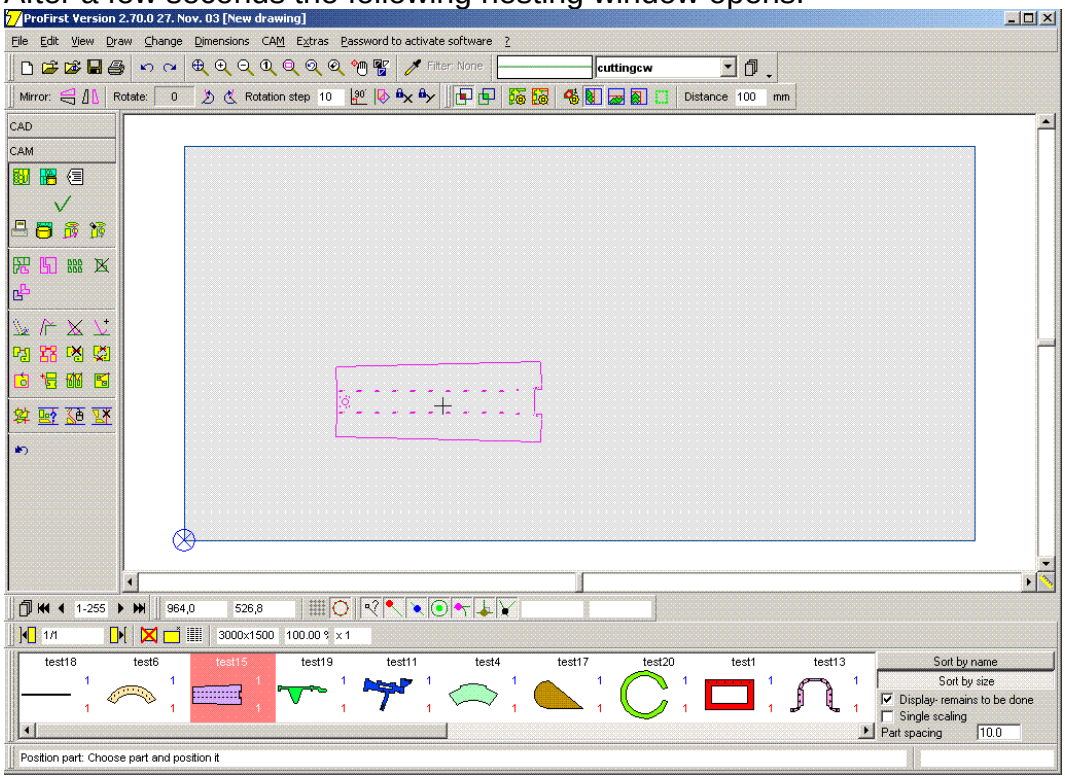

„Insert sheet“ inserts a selected sheet to the current nesting.


"View info on current nesting" shows statistically the nested parts on the sheets or the complete nesting.

Current sheet format, waste of the displayed sheet and quantity of identical sheets to be cut.

Manual nesting

If you have done all settings on the sheet format and have created a selection click on „manual nesting“ to start a nesting manually.
After a few seconds the following nesting window opens:



Using the different functions

Sort parts: The parts are listed at the bottom of the screen. It is possible to sort the parts in the following screen:

A click on “**Sort by name**” sorts the parts with the part name.
A click on “**Sort by size**” sorts the parts with their size, beginning with the biggest.
“**Display – remains to be done**” only shows the parts which have to be nested. Already nested parts disappear from the list.
“**Single scaling**” shows the parts sorted by the dimension of their real sizes.
“**Part spacing**” shows the actually defined part spacing and it is possible to change it whenever you want.

Position parts:

 A click on „Position part“ or a direct click on the part chooses the wanted part to position it on the sheet.
Choose part: Just click on the wanted part, it will be chosen and caught by the mouse cursor (colour pink). It is possible to position this part with the mouse on the sheet.

Position part on the sheet: Click with the left mouse button (colour blue). Move part with the cursor keys on your keyboard at the wanted position. Confirm with <Enter> and the part is fixed on the sheet and show coloured.

Rotate parts: 

If you have chosen a part it is possible to rotate it with the menu bar above or just use your keyboard.
<Home>: rotates part by 90°.
<Page up/down>: rotates part by entered rotation step (standard 10°) clockwise or anti-clockwise.

Define a group of parts:

 Parts to define a group have to be positioned on the sheet, then click on “**Define a group of parts**”, choose wanted parts with a zoom window or by clicking directly on the elements and confirm with <Enter>. Now this group is created automatically and the parts can be nested even quicker.

Position row/column of parts:

 At least one part for a row or column has to be positioned on the sheet. Then click on „**Position row/column of parts**“, choose wanted element with a zoom window or by clicking directly on the elements and confirm with <Enter>. Now draw a column by moving the mouse and confirm with the left mouse button.

Delete a part:

 Click on “**Delete a part**”, choose elements to be deleted with a zoom window or by directly clicking on them and confirm with <Enter>. Or it is possible to select all parts with <Ctrl> + A.

Move a part:

 Click on “**Move a part**”, choose parts you want to move with a zoom window or by directly clicking on the parts and confirm with <Enter>. Now it is possible to move the parts with the mouse or with the cursor keys of the keyboard.

Special functions:

 Turn „**Test for collisions**“ with other parts on or off.

 „**Restart nesting on the current sheet**“ nests an already manually started sheet with the remaining parts automatically, but only on this current sheet.

 „**Autonest on current sheet**“ nests the current selection on all sheets which are needed for this nesting.

 „**Nest the selected part**“ nests only the current selected part on the sheet.

 “**Nest the selected part from a defined position**” nests only the current selected part from a defined position on the sheet.

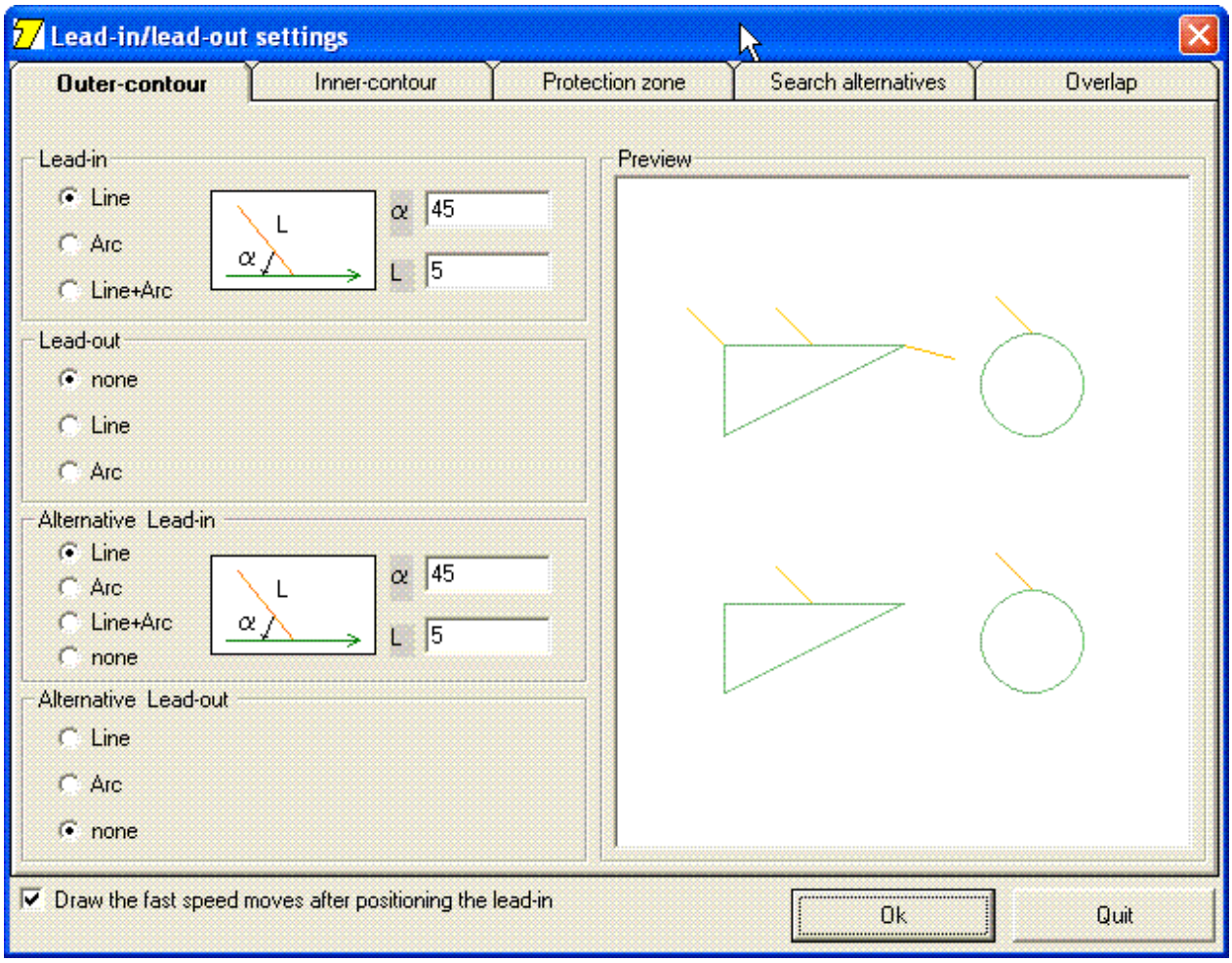
 „**Nest the selected part using the advanced form recognition**“ nests the selected part with a special algorithm for form recognition and so even more better results can be achieved (Power Nesting).

In this field you define the distance with which parts are moved. With pressed <Ctrl> button 1/10 of this value, here 10mm and with pressed <Shift> button 1/100 of this value, here 1 mm.

Seting Lead-In and Lead-Out for a particular sheet

Before setting the cutting path you should set the the lead-in /lead-out as required fort he sheet. Use the following symbol:

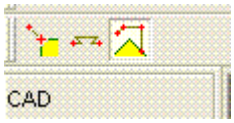
 „**(AD) Define lead-in/lead-out**“



Care: Here the length of the lead-in and lead-out is in mm. Make sure that the lead-in length is less than the part and edge spacing so that parts are not damaged.

IMPORTANT: This setup is valid on cutting path that is made after the changes are made and not on cutting path already made. This means that to change an existing cutting path it needs to be deleted and reset.


„**Position lead-in / lead out**“ positions the lead-in manually to the chosen contour. To do this, just zoom to the wanted position and click with the left mouse button on it.



Extra possibilities: are displayed in the context sensistive menu at the top of the screen


„**Manual lead-in/lead-out**“: Click on the piercing point and the point of contact with the contour. Then click on the exit point if required or right click if no exit point is required. THIS FUNCTION IS VERY IMPORTANT FOR GAS CUTTING


„**Manual lead-in with hook**“: Makes a lead-in in the shape of a hook to stop the waste sheet from moving too much when piercing from the edges.


„**Manual lead-in/lead-out**“: Click on the piercing point and the point of contact with the contour. Other points can be clicked between. Right click to finish the lead-in if required. Then click on the or several exit points if required, right click to finish the lead-out.


„**Position lead-in / lead out**“ positions the lead-in manually to the chosen contour. To do this, just zoom to the wanted position and click with the left mouse button on it.


„**Delete lead-in / lead-out**“ deletes the clicked lead-in from the existing cutting path.


„**Insert lead-in / lead-out in cutting path**“ inserts a lead-in to the existing cutting path. To do that click on the cutting path you want to replace so that it turns to cyan colour and then choose the wanted point for he lead-in by clicking on it with the left mouse button. This function can be repeated as often as you want.


„**Change lead-in and repeat on all identical parts** “: Allows you to change a run in and changes it on all identical parts that are positioned on the same sheet at the same angle and symmetry.
VERY IMPORTANT Function.

Set cutting path

Beside the automatic cutting path it is also possible to define the cutting path during the nesting manually or to change it if wanted.


„**Auto tool path**“ sets the cutting path automatically with the defined lead-ins on the nested sheet.


„**Delete tool path**“ deletes the existing cutting path completely from the sheet. Use this function always if you want to edit or change the lead-ins.


„**Change cutting direction**“ changes the cutting direction of a selected part by clicking on it with the left mouse button. It is necessary that a cutting path is defined before using this function.

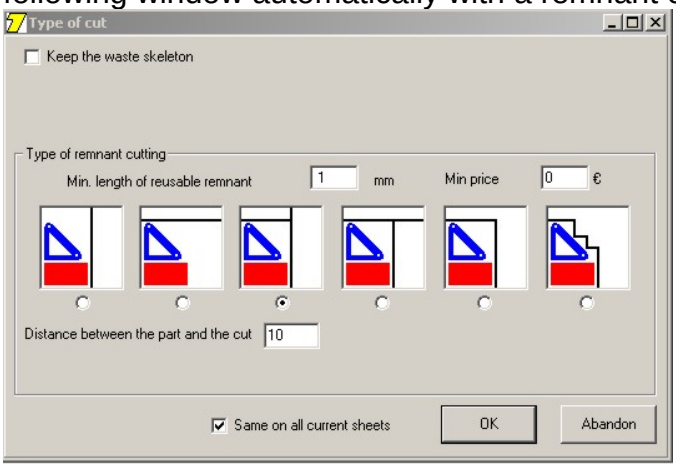

„**Repeat a cutting path**“ repeats the same cutting path for a part a soften as you want. To do that place a part on the sheet, set cutting path as wanted and click on this function. Now choose contour with a zoom window, confirm with <Enter>, enter number of repeats, confirm again with <Enter>. PROfirst CAM now repeats this cutting path with the entered number.


„**Cutting path auto for a part**“ sets automatically the cutting path on a selected part. To do that click on the element with the left mouse button.

Remnant cutting

Profirst CAM offers different possibilities to do remnant cuttings after a nesting.

 „**Auto remnant cutting**“ cuts the sheet with the entered settings in the following window automatically with a remnant cut.



Enter here the type of remnant cutting, distance between the part and the cut, etc. and click on “OK”.

 With „**Manual remnant cutting**“ it is possible to define the remnant cutting manually. To do that click outside of the sheet on the wanted position, define your remnant cut as wanted, click again outside the sheet on the other end and confirm with the right mouse button.

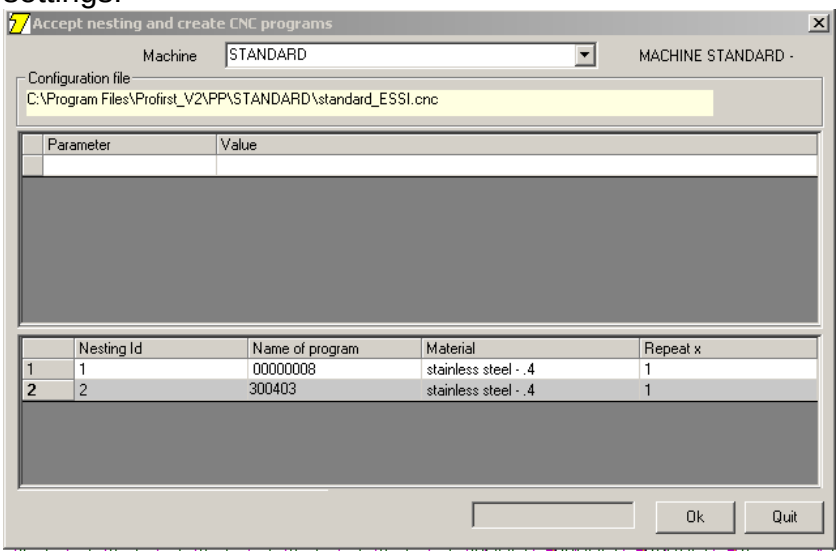
 „**Delete remnant cutting on the sheet**“ deletes the defined remnant cut from the sheet if you click on this function.

 „**Cut skeleton**“ sets after you have chosen the spacing for vertical and horizontal cuts automatically a skeleton cut on the nested sheet. The sheet is cut in small, defined skeletons.

Create CNC program

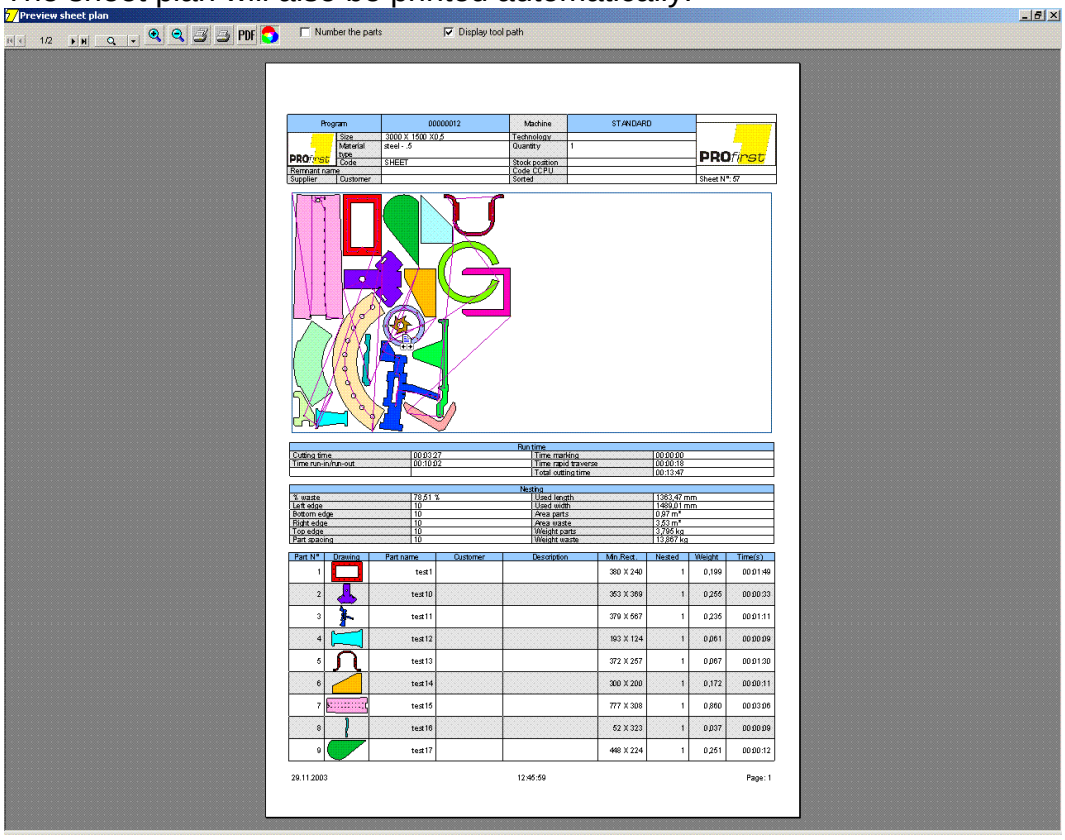
 After the nesting simply click on the icon **"Accept nest and make CNC programs"** and create the program code for your machine.

The following window opens where you can check once more your settings:



Control the machine, the technology and if wanted change the name of the program by clicking in the concerning column and enter the name of the file.

The sheet plan will also be printed automatically.

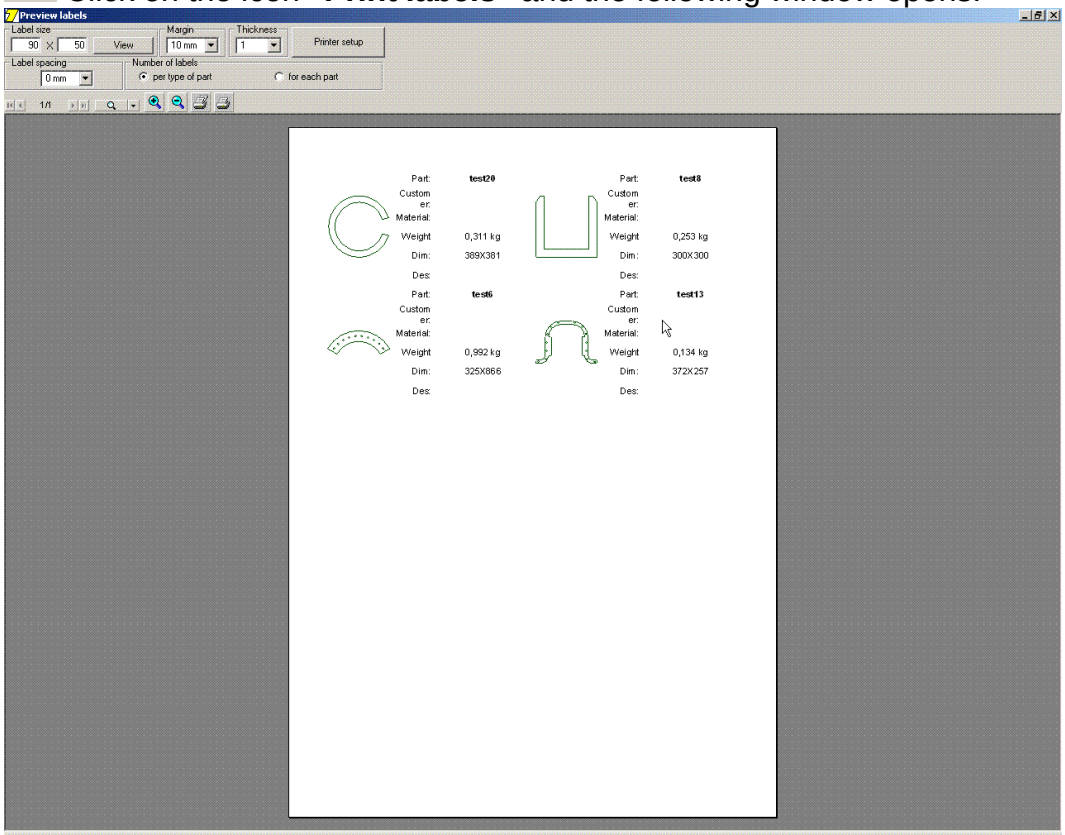


Confirm with "OK" and your CNC program is created and saved in the path **"C:\Program Files\PROfirst_V2\CNC"**.

Print labels

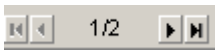
With 1 Click CAM it is possible to print labels for the cut parts.

 Click on the icon **"Print labels"** and the following window opens:



You can choose if you want to print one label per type of part or for each part. Further there are different settings to change (Size, margin, thickness (thickness of the drawing lines in pixel), etc.).

Function of the icons

 Browse between the different pages

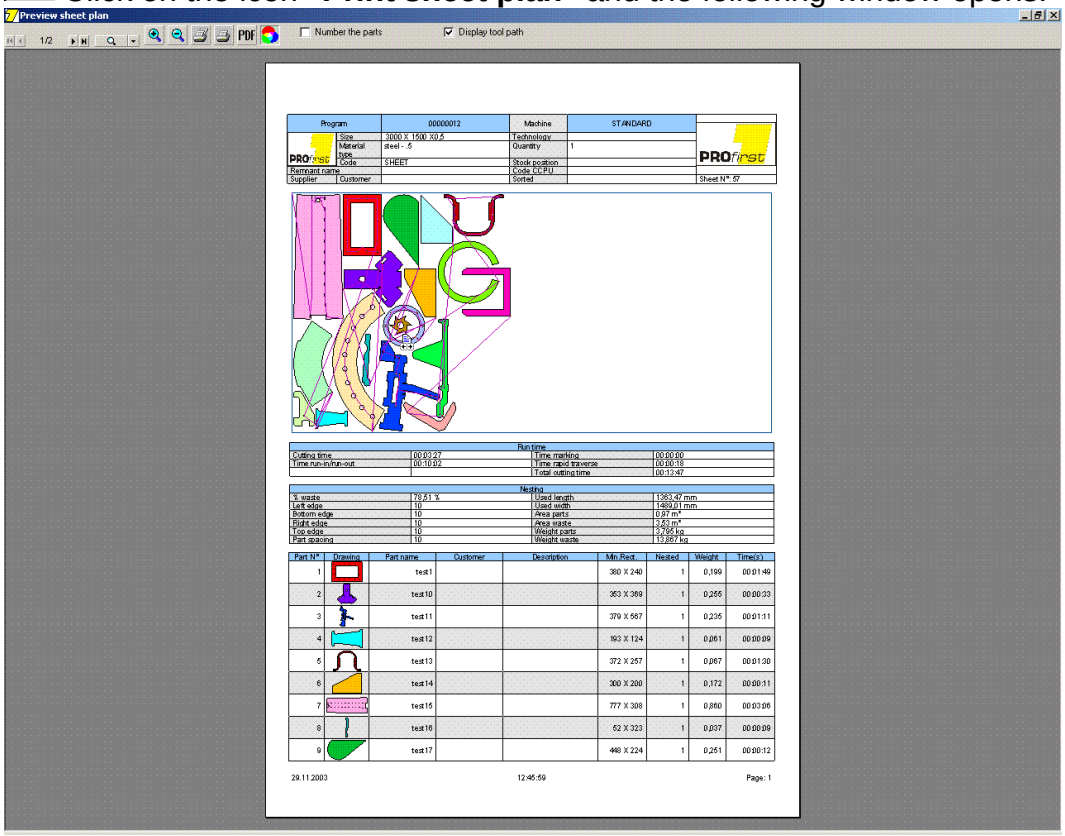
 Different page views and sizes

 Zoom: Enlarge or reduce view

 Print all or current page(s)

Print sheet plan

 Click on the icon **"Print sheet plan"** and the following window opens:



Layout of the printout of the sheets with all necessary information, structured in sheet, statistic and cutting parts.

Function of the icons

For the function of the icons view chapter **"Print labels"**.

Further it is possible to **save** the sheet as **PDF**, change between **colour and black/white** printout and **number the parts**.

How do I ?

Set a machine for multi head nesting?

To add the functionality of multi torch nesting to a machine:

“Extras”, “Database”, “Machine”
Use the button “New” to add the following parameters to the machine.

Parameter	***Value***	***Description***
HEADS	Integer	Maximum number of cutting heads
MAIN_HEAD	UP/DOWN	I the leading head with the motor at the top or bottom of the screen UP means max. Y-value TOP
MAX_PITCH	Integer	Max. head spacing
MIN_PITCH	Integer	IMPORTANT VALUE Minimum possible spacing between heads – simply measure it on the machine.

Backup the PROfirst database every day

You must backup the PROfirst database on a regular basis: At least every week, best daily, also before installing a new version.
To backup the complete PROfirst database use the following menu point:
“Extras”, “Database maintenance”, “Make a backup copy”

Select a network drive or another PC. Add the date to the file name, e.g. PFDB211103.bak. This file is saved to the entered folder if you click on “SAVE”.

Using an backup database
Always close PROfirst first.
Copy the file, e.g. PFDB211103 to the folder „**C:\Program files\Profirst_V2\DB**“.
Rename here the file PFDB.mdb to PFDB-old.mdb, then rename PFDB211103.bak to **PFDB.mdb**.

List of new symbols

 IMPORTANT: Test for collision between parts

 IMPORTANT: No testing for collision between parts FASTER but you must check for collisions yourself. A part can be positioned then puched using the cursor keys. This method is much faster but dangerous and you must always check for collisions yourself.

 Pair the part: The selected part is automatically paired to make an optimum group with minimum rectangular surface.

 Only one rotation: Power nesting will only nest parts on the sheet in one single rotation. Use this for parts with complex folding or sheets with a structured surface like brushed aluminium.

 Avoid part movement: Parts are positioned with the power nesting at an angle to avoid the part from moving when it is cut.

We use the value set in the database for the outer micro-joint to avoid positioning parts at an angle with a dimension of the outer rectangle in X of less than say 160mm for a Trumpf laser machine as an example (160mm is a typical value as 2 bars on a Trumpf laser measure 130mm in X)

 Common cut (option not standard):

Position the part on the sheet.
Click on the symbol common cut.
Click on the part and move the mouse to make a simple pair or row or column of part. Click with the mouse. A group of this part is made and can then be positioned on the sheet.

Technical support

If you install the software a unique serial number is been created. For this serial number you need a unique password. Until you activate the software with this password the program runs in test mode.

Buying and activating the software:

1. Check your serial number

The serial number is shown in the menu under "Password to activate software".

Write down this serial number and send it to your supplier via fax or email.

2. Activation of the software

You will get a password from your supplier that you have to enter under "Password to activate software". This password is only valid for this serial number and having entered it the software gets activated.

If you have any problems with the activation or the software please call our technical hotline!

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