

Stork Prints Austria

AGRIOS 5122



bestIMAGE

64 Bit Edition

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Initializing...

spgprints®

Release 5.00.00
CAM Plus

CAM Plus Highlights Page 1

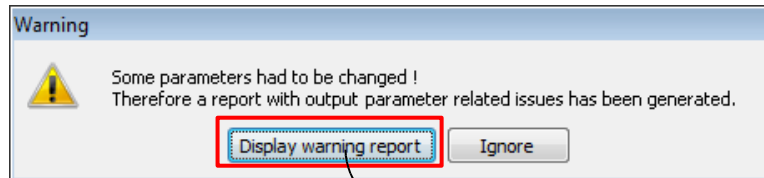
- Error reports are collected in one dialog
- Define position during duplicate
- Context menu inside object list
- Printed area calculation of the whole engraving area
- Predefined Label and Unit for Macros
- Inverted Text objects
- Inlay text orientation is independent from the orientation of the file
- Mask out of Inlay text
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 - Automatic order offset of 'Single' and 'Single + Register marks'
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 - Marking objects with inlay text

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- Separate Active 3D-Relief parameter for linework
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- Activate pre-engrave border automatically
- Automatic depth calibration with 'Surface compensation'
- Sleeve measuring add-ons
- Show printing form surface in view
- Easy Power limit detection
- Production calibration password protection

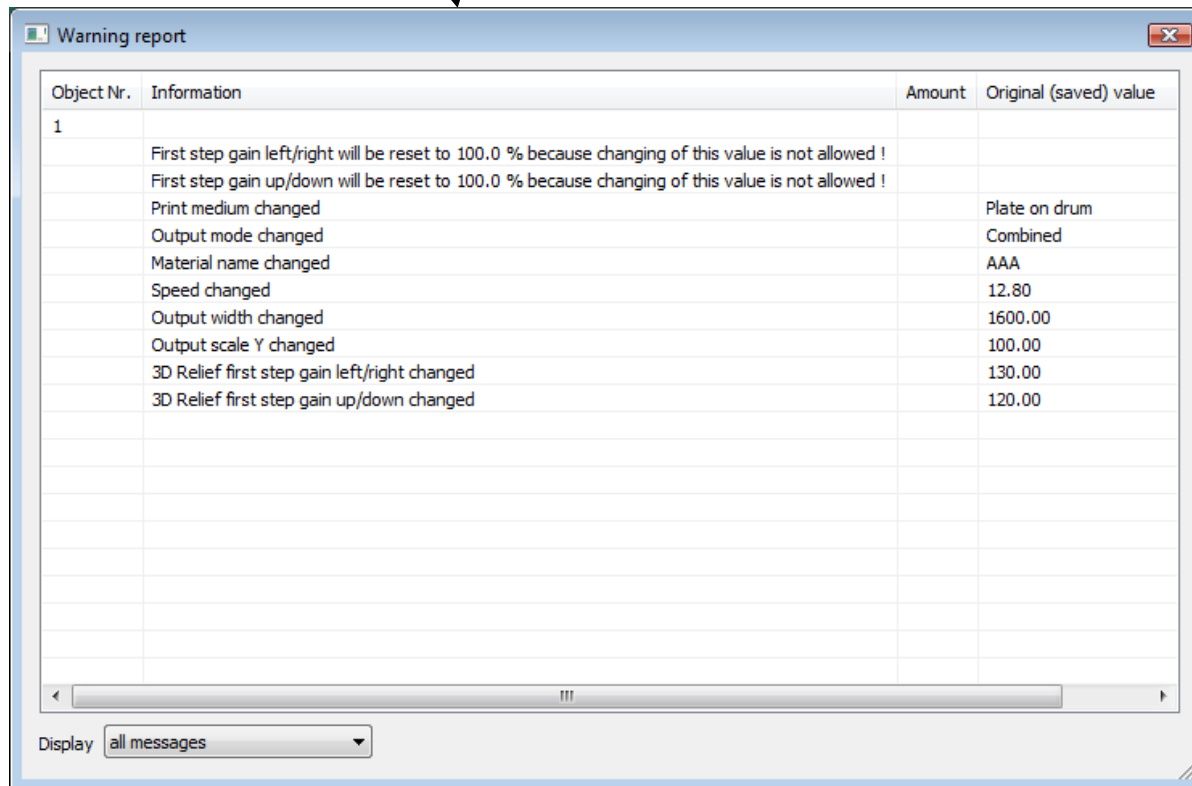
CAM Plus Highlights

- Error reports are collected in one dialog

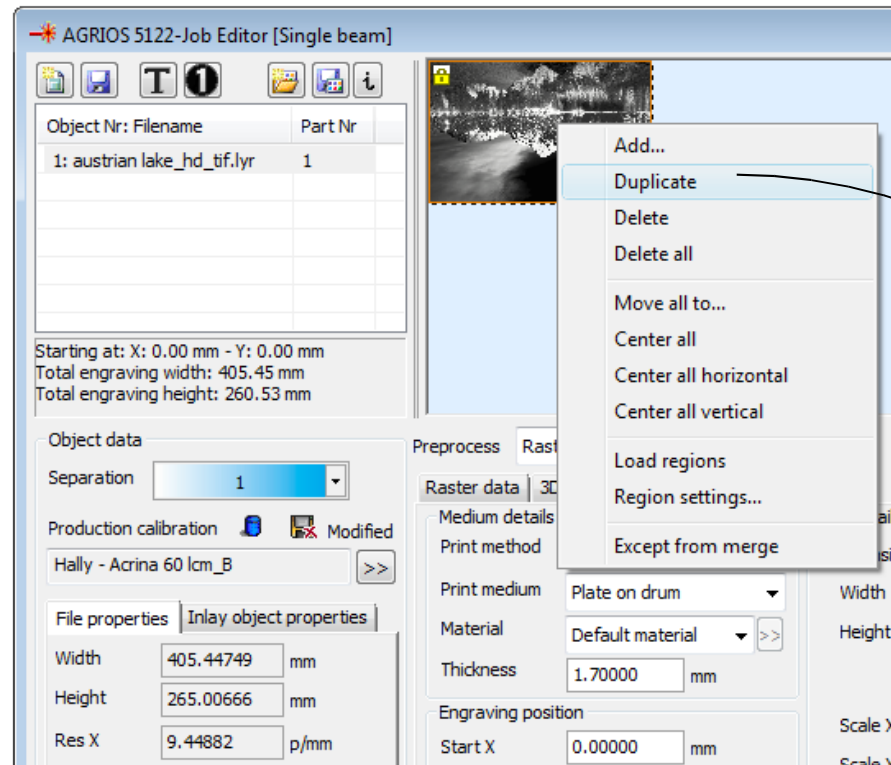


During opening a desing several Warning or Error dialogs are displayed and had to be confirmed.

Now one Warning report is shown after opening the Job or file object which includes all errors in order for a better and quicker Overview. Click on '**Display warning report**' the warning report dialog includes all parameter changes which have to be done.

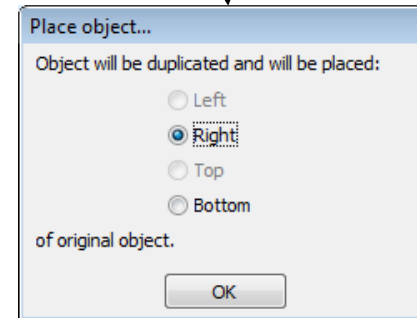


– Define position during duplicate

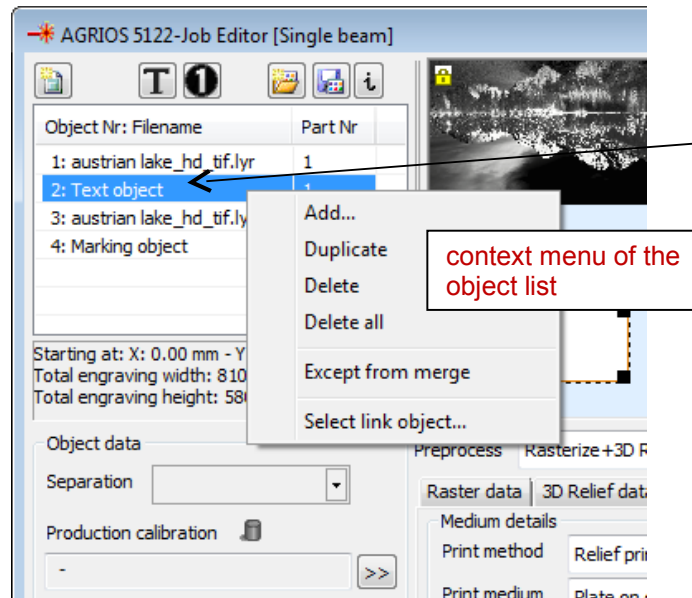


After activating the duplicate process the 'Place object ...' dialog appears, which allows you to choose the directions (left, right, top, bottom) of the duplicated object.

If no space is available in any direction the place mode is switched inactive.



– Context menu inside object list



All pop-up functions which could be activated within the view, can be activated now within the object list also via a pop-up menu .

Select the specified object and press the right mouse key to activate the context menu (Add..., Duplicate, Delete, Delete all, Except from merge or Select link object)

- Printed area calculation of the whole engraving area

MORPHEUS 6213 [Emulation, TIFFOutput: 5-00-Test]

Object Nr: Filename Part Nr

1:	austrian lake_hd_tif_pdf...	1
2:	<DATE><PRODUCTION...	1

Starting at: X: 0.00 mm - Y: 0.00 mm
Total engraving width: 405.30 mm
Total engraving height: 370.91 mm

Object data

Separation: Cyan

Production calibration: Hally - Acrina 60 lcm_B

File properties | Inlay object properties

Width: 405.30000 mm
Height: 264.90000 mm
Res X: 10.00000 p/mm
Res Y: 10.00000 p/mm
Drop type: Vertical
Drop size: None mm

Remarks:

Printed area: 10.65218 %
Printed area (whole): 0.12354 %

Preprocess: Rasterize+3D Relief calculation

Raster data | 3D Relief data | Output data

Medium details

Print method: Relief printing
Print medium: Plate on drum
Material: Default material
Thickness: 1.70000 mm

Engraving position

Start X: 0.00000 mm
Start Y: 0.00000 mm
☒ Width: 405.30000 mm
☐ Height: 260.42300 mm

Device details

Circumference: 914.00000 mm
Mode: Spiral
Speed: 10.00000 m/sec
Power limit: 100.00000 %

File details

Dimension

Width: 405.30000 mm
Height: 260.42300 mm

Scale X: 100.00000 %
Scale Y: 98.30993 %
☐ proportional

☐ Use variable drop

Type: Vertical
Size: None mm

Origin

Begin at X: 0.00000 mm
Begin at Y: 0.00000 mm

Orientation on printform

Orientation: Vertical flipped

Drum details

Circumference: 914.00000 mm
Length: 620.00000 mm

Device information

Laser power: 400 W
Water temperature: 19.0 °C
Suction (Off)

Buffer: (Underruns: 4)

0001.78 MM

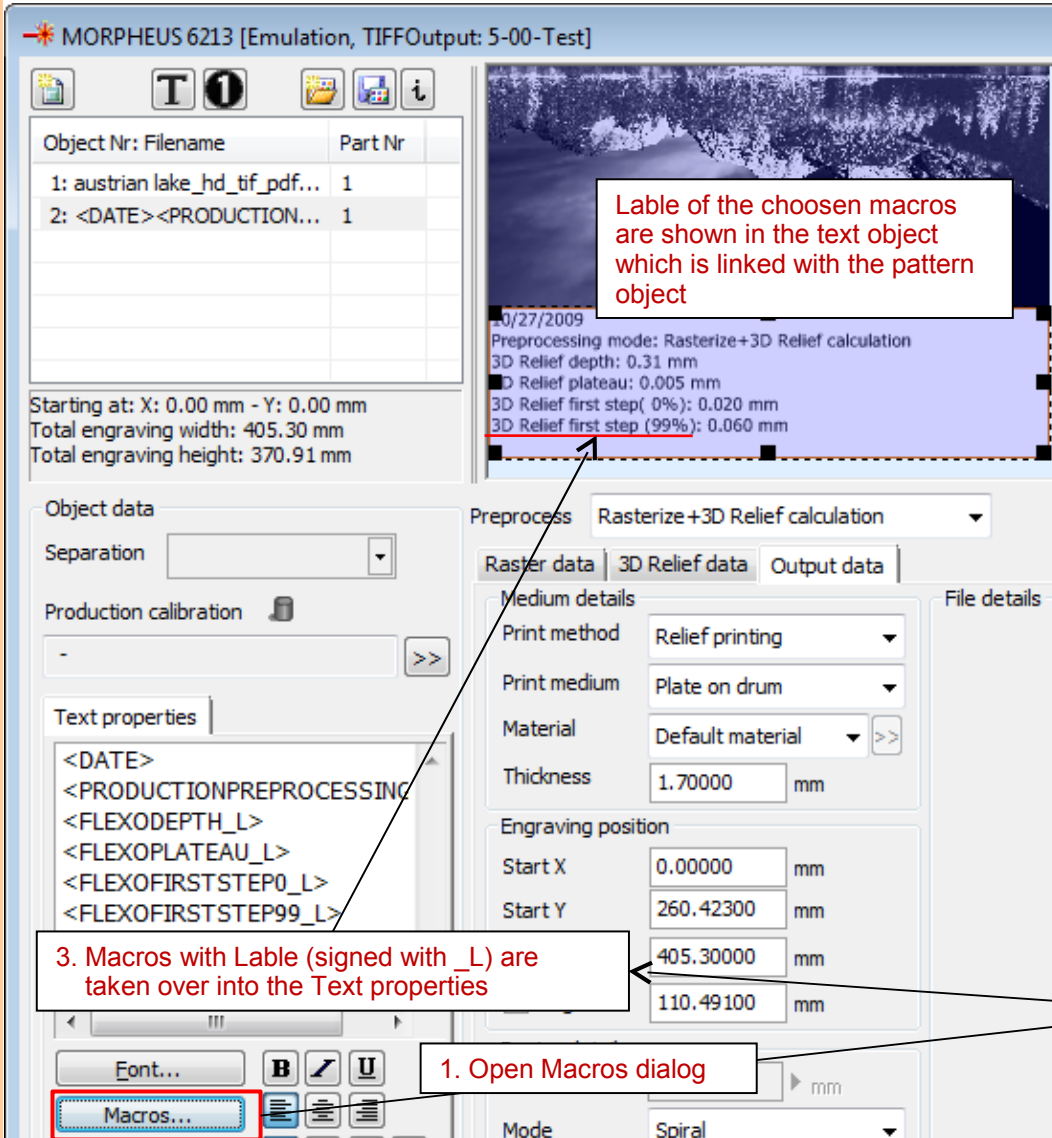
Output specials | Tool box | Settings

Start | Cancel

Depending on the placed objects, the circumference and the drum length the whole printed area (in % or cm2) of the current engraving job is displayed after engraving.

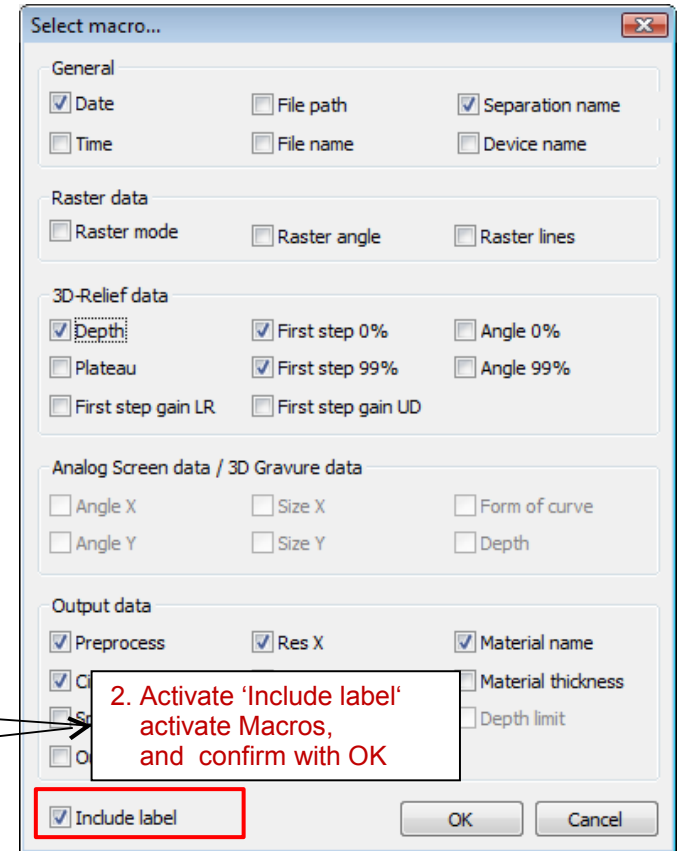
Note: After closing the engraving job the 'Printed area (whole)' will be lost. Please save a Jobfile to save the Printed area.

The whole engraving area = whole printed area



With an active **'Include label'** button in the **'Select macro...'** dialog, the labeling of the choosen macros is shown in front of the value.

Independet of an active label button each choosen macro is displayed with an unit at the end of the value.



– Inverted Text objects

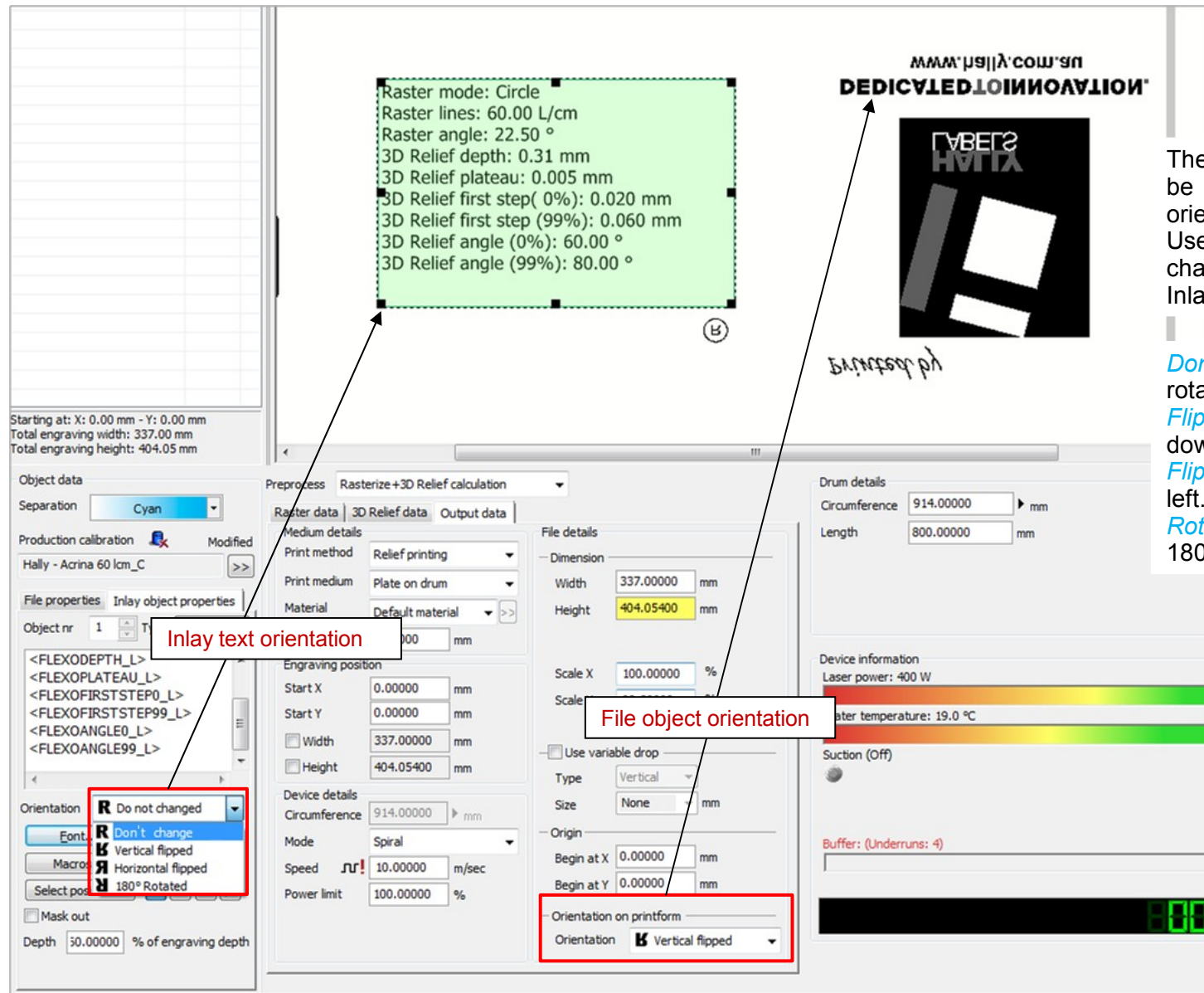
10/27/2009
Preprocessing mode: Rasterize+3D Relief
calculation
3D Relief depth: 0.31 mm
3D Relief plateau: 0.005 mm
3D Relief first step(0%): 0.020 mm
3D Relief first step (99%): 0.060 mm

With an active '**Invert**' button the placed text object is engraved inverted.
The Background is shown and engraved with shading 255 (black).
The Text is shown and engraved with shading 0 (white).

10/27/2009
Preprocessing mode: Rasterize+3D Relief
calculation
3D Relief depth: 0.31 mm
3D Relief plateau: 0.005 mm
3D Relief first step(0%): 0.020 mm
3D Relief first step (99%): 0.060 mm

Inactive '**Invert**' button

- Inlay text orientation is independent from the orientation of the file



The orientation of the inlay text can be defined independent from the orientation of the file object. Use following drop down menus to change the orientation of the current Inlay text.

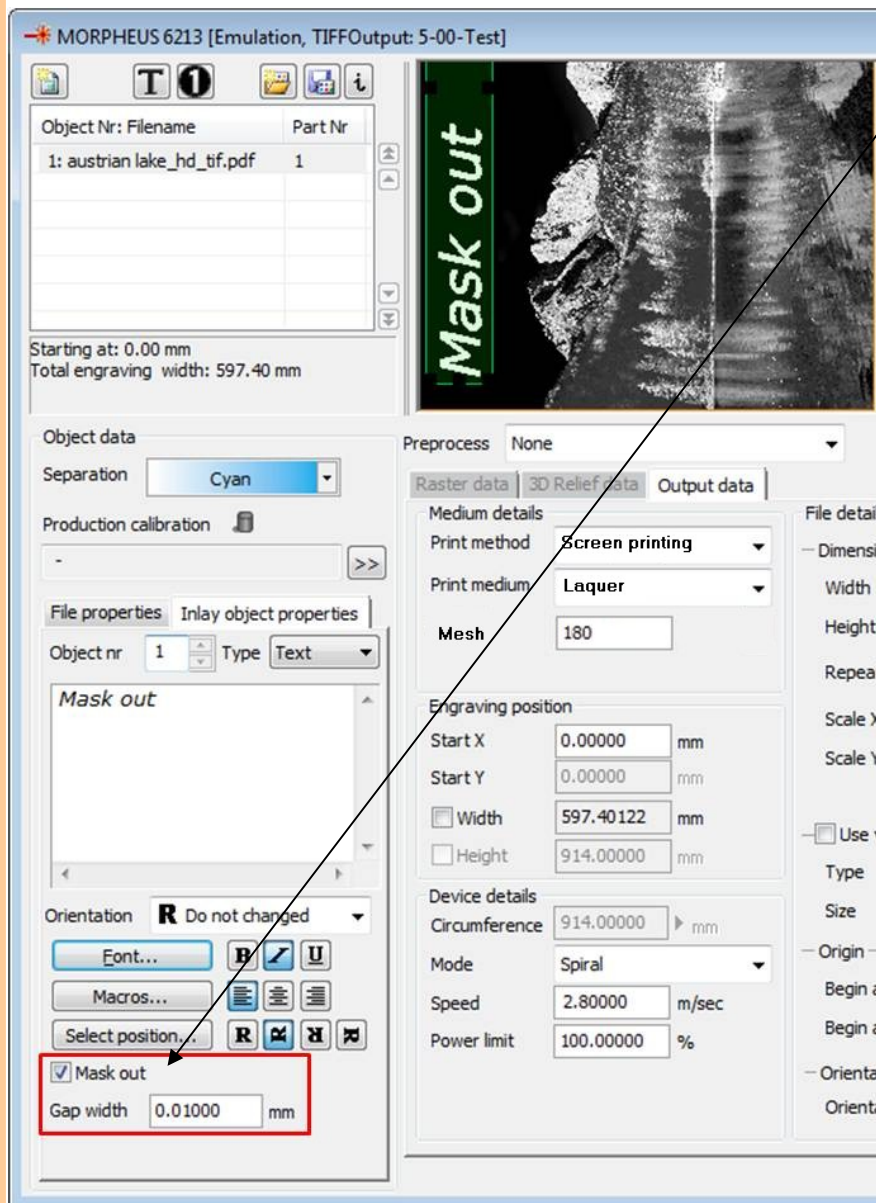
Don't change: Inlay text is not rotated or flipped

Flip vertical: Inlay text is flipped down.

Flip horizontal: Inlay text is flipped left.

Rotate180°: Inlay text is rotated 180°.

– Mask out of Inlay text



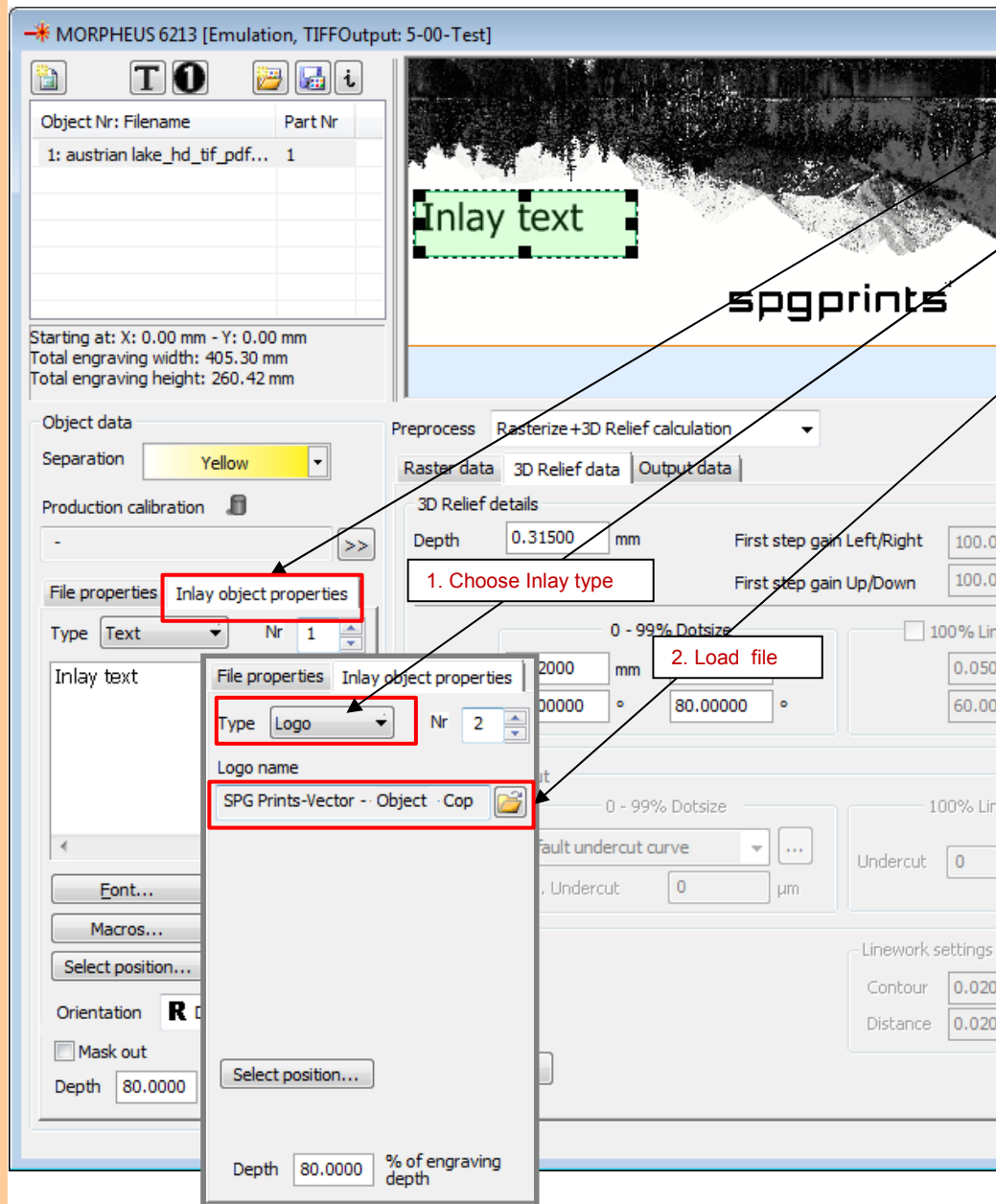
With an active '**Mask out**' button it is possible to print an Inlay text object which can be masked out in all further separations.

If all separation are printing one upon the other only one separation prints the text.



Additionally a '**Gap width**' can be defined if the Text is masked out to generate a frame between the printed separation and the masked out separations.

– Inlay Logo & Multiple Inlay objects can be inserted



Different and several Inlays (Inlay text and Inlay logos) can be inserted within one file object.

- Click onto the '**Inlay object properties**' Tab to define the Inlay parameter.

- Select the **Inlay-Type**, '**Logo**' to define which kind of Inlay should be placed. Depend on the selected type different parameters are adjustable.

- Load a logo file by clicking on the File open button

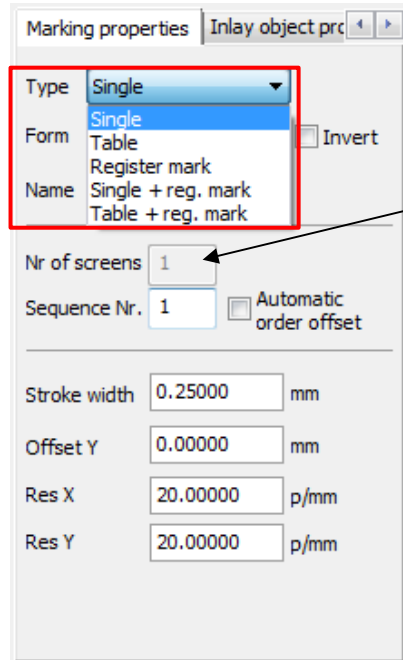
Note:

- Only the first separation of the loaded file is used as logo all other separations in the 'Logo file' are not considered.
- If the pattern includes half tone information the logo is shown and engraved as a 2 Level logo. Logo areas under 50% are assigned to Background. Logo areas above 50% are assigned to shading 255

– Marking object improvements

- **Different Marking Types (Single, Table, Register marks, Single+Register marks, Table+ Register marks).**

Marking types are choose able in the drop down menu of the Marking properties tab



Single: Only one Marking object is placed.



Table: The number of Marking object depends on the defined "Nr of screens" or the Nr. of separations which includes the linked File object.



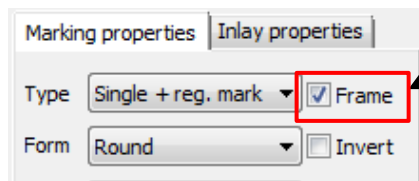
Register mark: A register mark is placed



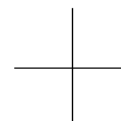
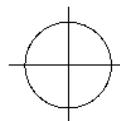
Single+ Register mark: This mode is a combination of Single and Register mark



Table+ Register mark: This mode is a combination of Table and Register mark

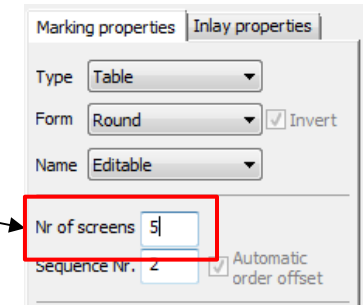


For the Single+reg.mark / Table+reg.mark the) the 'frame' of the register mark can be switchen on/off optional.



- For 'Table' and 'Table + Register marks' user defined number of screens are adjustable.

If the 'Table' or 'Table+Reg.mark' type is selected and no link object is defined, an individual number of Marking objects can be defined under 'Nr. of screens'

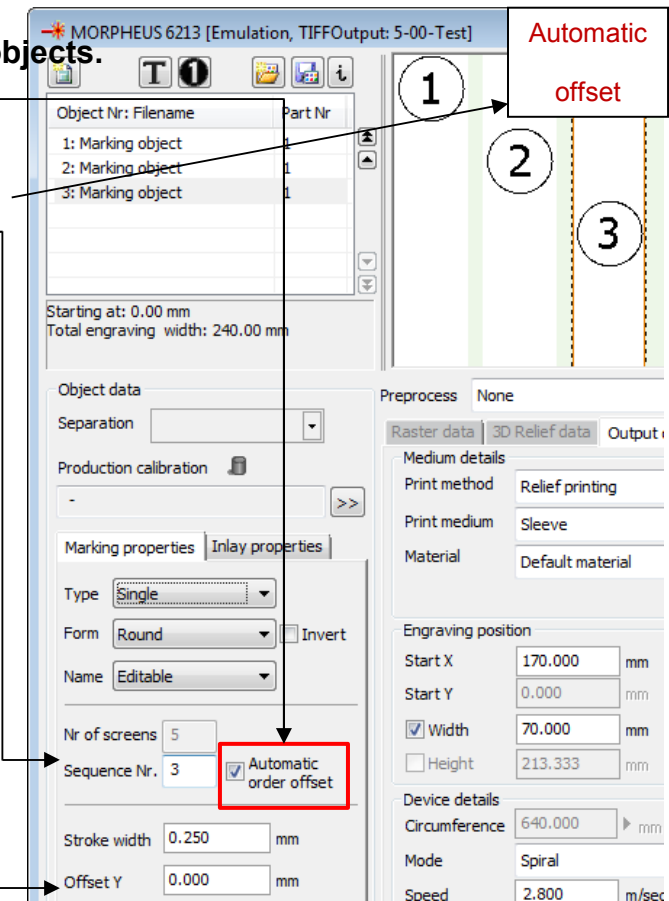


- Automatic order offset of 'Single' and 'Single+Register marks' marking objects.

If the 'Single' or 'Single+Reg.mark' type is selected, the 'Automatic order offset' button can be activated.

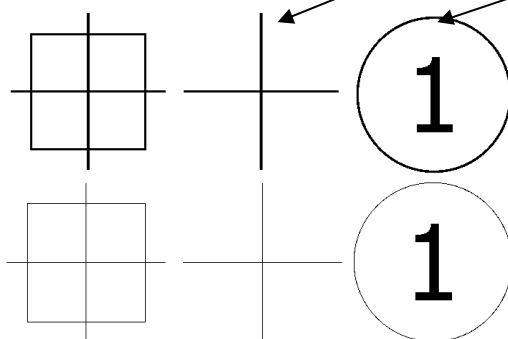
Active: the position of a marking object in y direction is changed automatically by changing the 'Sequence Nr.'

Inactive: The marking object is always placed on the top. Independent of the specified 'Sequence Nr. Use ,Offset Y' to change the the position manually

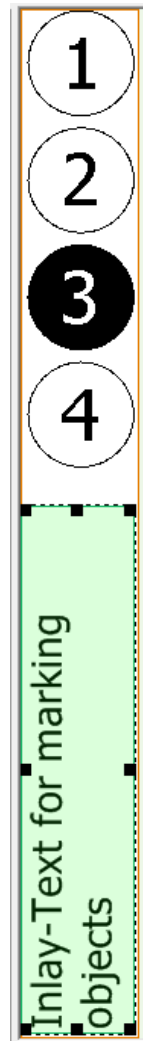
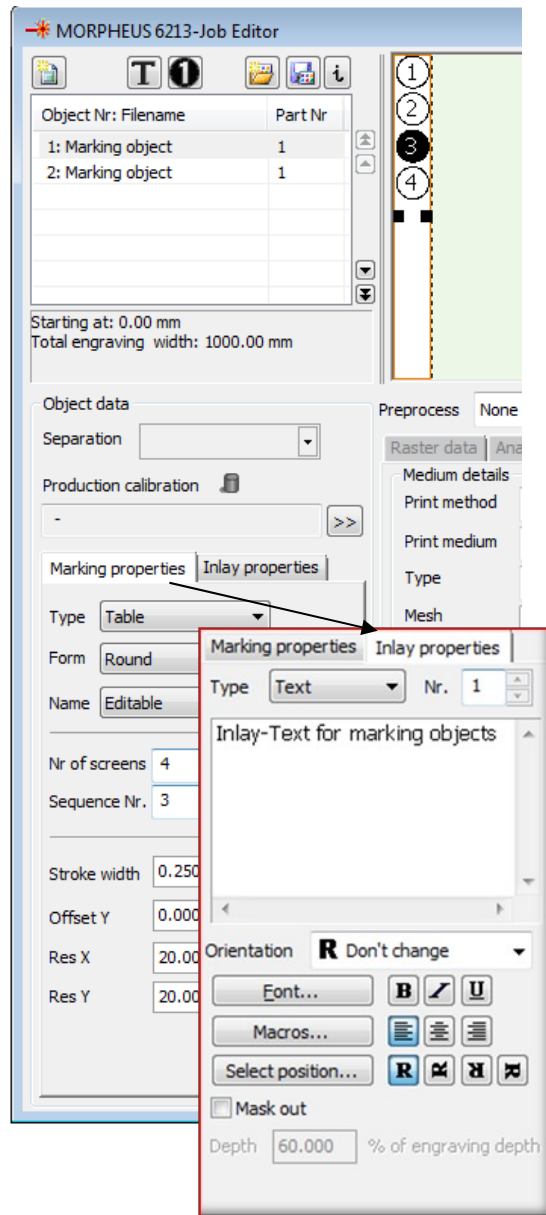


- Editable 'Stroke width' for Marking and Register marks

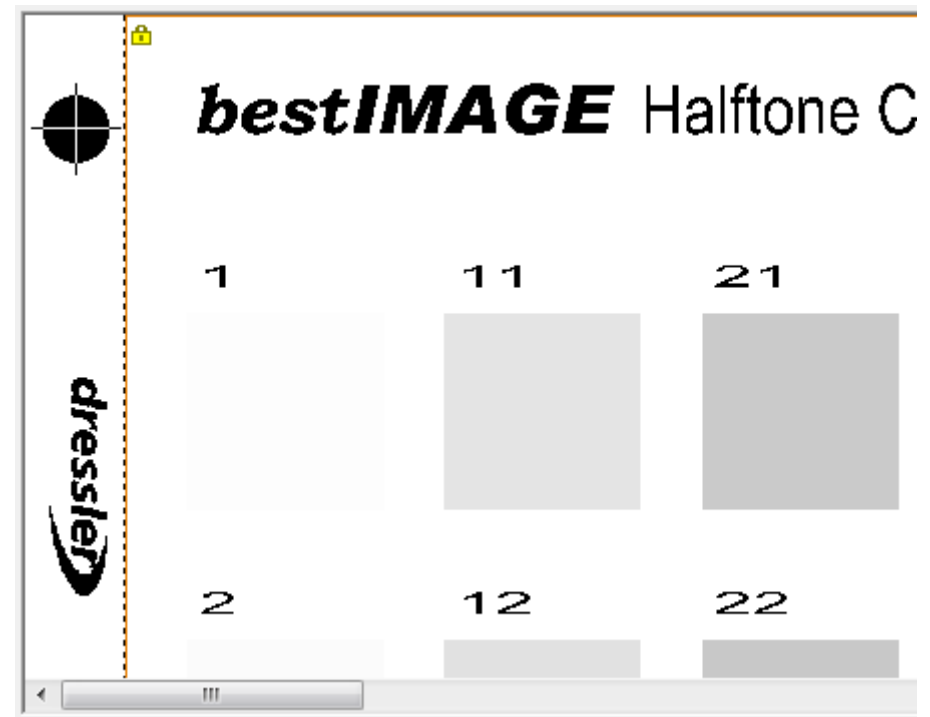
The 'Stroke width' of the **cross** and the **frame** of Marking and Register marks can be changed.



- Marking objects with inlay text



Within a Marking object an Inlay text or Logo can be placed.
After selecting the Marking object change from "Marking properties" tab to the "Inlay properties" tab to insert an Inlay text or Logo.



– Separate Active3D-Relief parameter for linework

Only one parameter set for negative and positive 100% linework could be adjusted before version 5.0 (different First step & Angle for dotsize values 0-99% but the 100% dotsize value got parameters of dotsize value 0%)

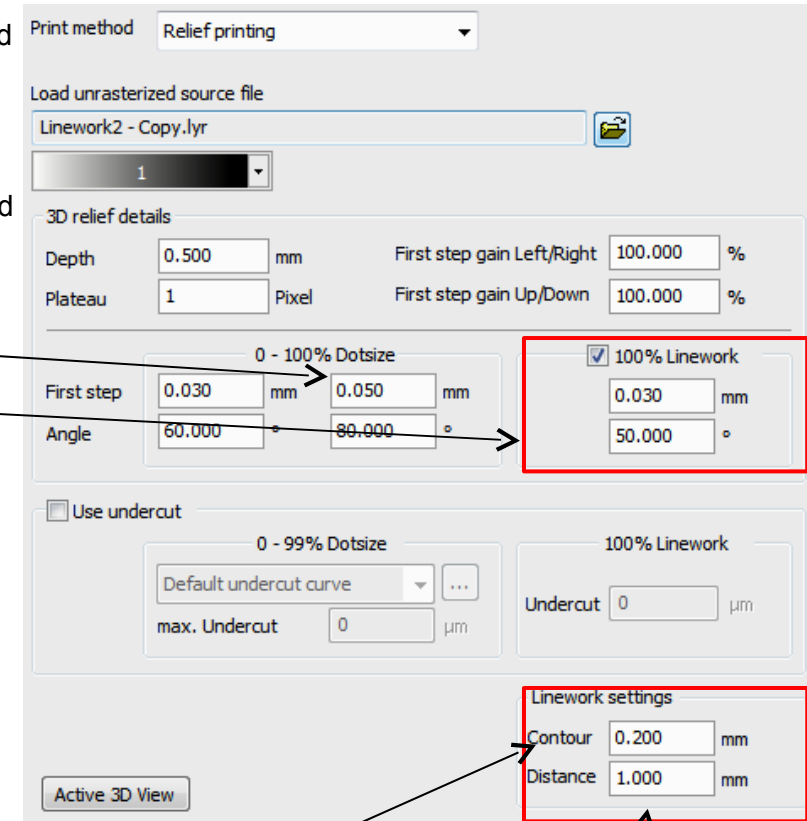
Disadvantage: to get stable small rasterdots it was necessary to set a flat 3D shaping for 100% flat colored elements.

This was good for positive text and linework but was very bad for negative text and lineworks especially if these elements are very fine or fragile.

Now different parameters (first step+ angle) for a *positive* and *negative* linework can be adjusted.

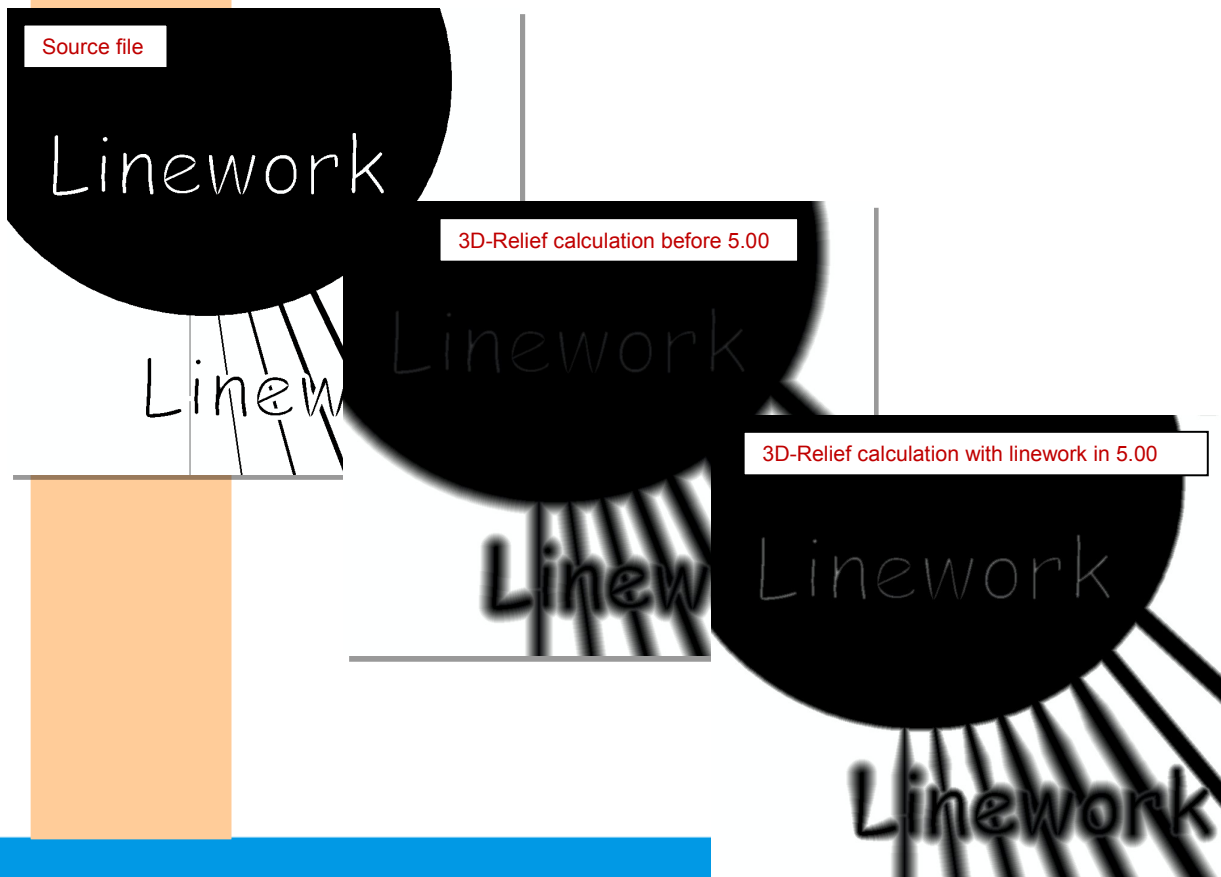
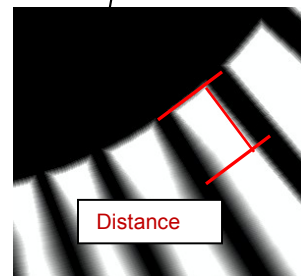
100% *Negative* linework can be 3D-Relief calculated steeper than 100% *Positive* linework.

Advantage: Negative linework stay visible.

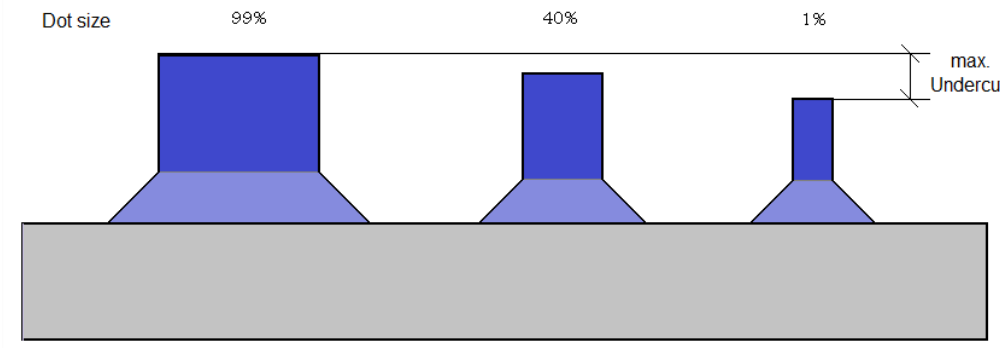


Contour: Lines smaller or equal the defined value are 3D calculated with the 100% Linework parameters

Distance: The distance defines the length where the 3D Relief calculation of the positive linework pass over to the 3D Relief calculation of the negative lineworks or big flat regions.



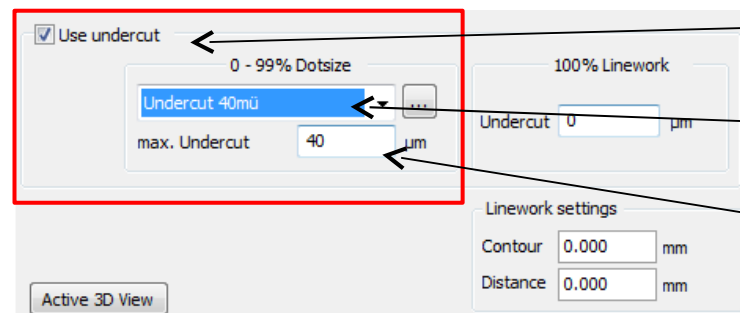
– 3D-Relief Undercut



Due a high pressure during the printing process small dots can be squeezed or bent so that the color transfer from the plate to the substrate is wrong.

3D Relief Undercut parameter allows you now to drop down smaller dots to protect them during the printing process.

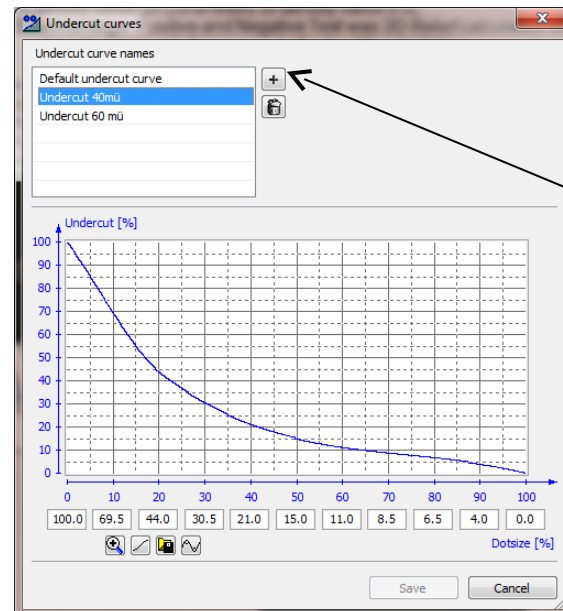
The graduation of the Undercut can be defined with a [curve](#).



Activate “[Use undercut](#)” to apply Undercut parameters for the 3D-Relief calculation.

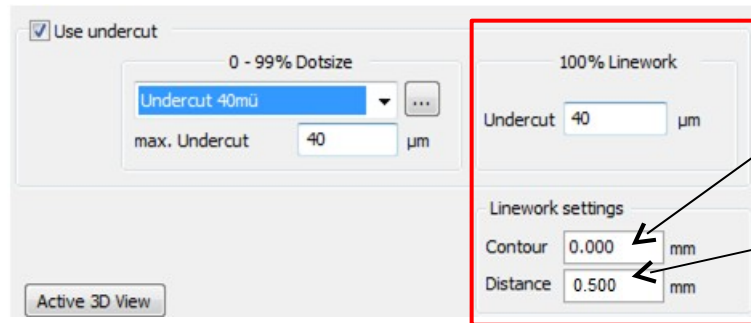
Predefined “Undercut curves” can be chosen via drop down menü in the 3D-Relief data.

The maximal drop down of the smallest dot is defined with “[max. Undercut](#)”



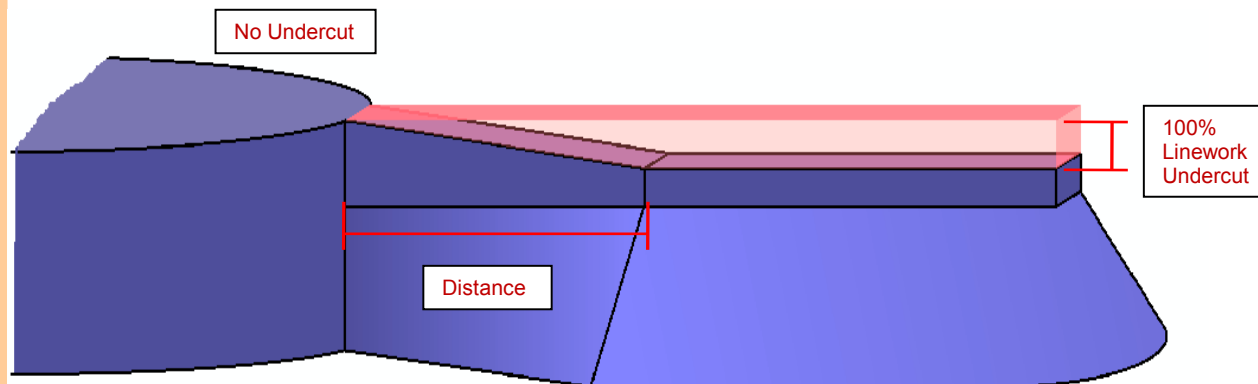
To add curves into the “[Undercut curve list](#)” open the “Undercut curves” dialog. Click on the “+” button to add a curve into the list and modify the Undercut curve within the graph area. After saving, the Undercut curve is taken over into the drop down menu.

– Linework Undercut

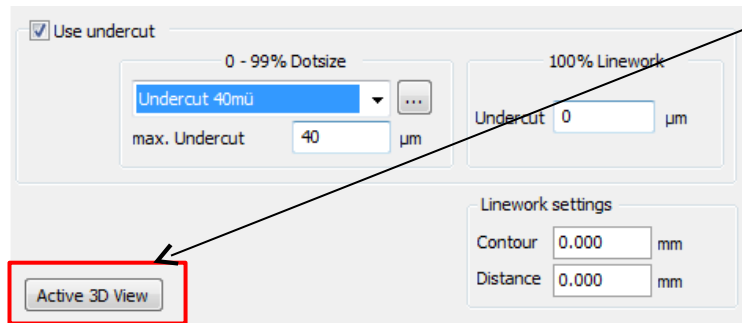


Contour: Lines smaller or equal the defined value are identified as Linework .

Distance: The distance defines the length where the Undercut of the “100% Linework” pass over to “No Undercut” of big flat regions.

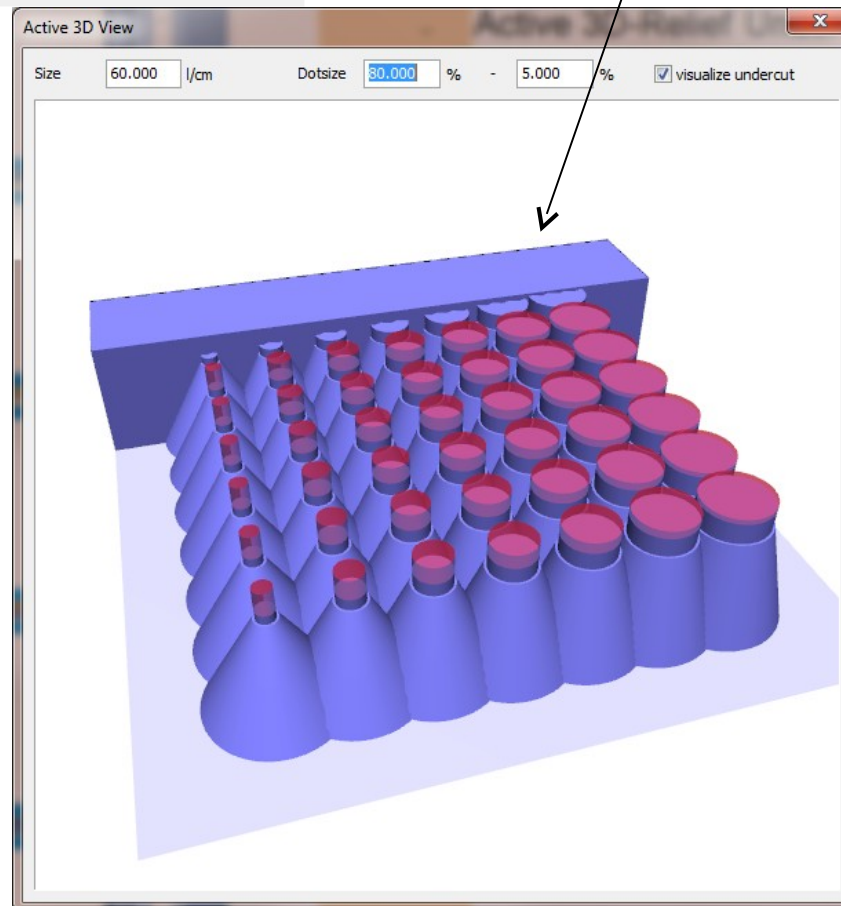


– Active 3D View



Adjusted Undercut parameters are simulated in the “*Active 3D View*”

Activate the “*Visualized undercut*” toggle button in the view to show the Undercut red colored .



– Limitations of repeats in circumference changed

The screenshot shows a software interface with a tabbed menu at the top: 'Preprocess', 'Rasterize + 3D Relief calculation' (selected), and a dropdown arrow. Below the tabs are three sub-tabs: 'Raster data', '3D Relief data' (selected), and 'Output data'. The '3D Relief data' tab is divided into two main sections: 'Medium details' and 'File details'.

The 'Medium details' section includes:
- 'Print method': Relief printing (dropdown)
- 'Print medium': Sleeve (dropdown)
- 'Material': Default material (dropdown with a '>>' button)

The 'File details' section includes:
- 'Dimension' header
- 'Width': 1.476 mm (text field)
- 'Height': 0.013 mm (text field)
- 'Repeats': 64000 X (text field, highlighted with a red box)
- 'Scale X': 1.00000 % (text field)
- 'Scale Y': 1.00000 % (text field)
- A checkbox labeled 'proportional' which is currently unchecked.

Below these sections is an 'Engraving position' section with:
- 'Start X': 0.000 mm (text field)
- 'Start Y': 0.000 mm (text field)
- A partially visible 'End X' field with the value 1.000.

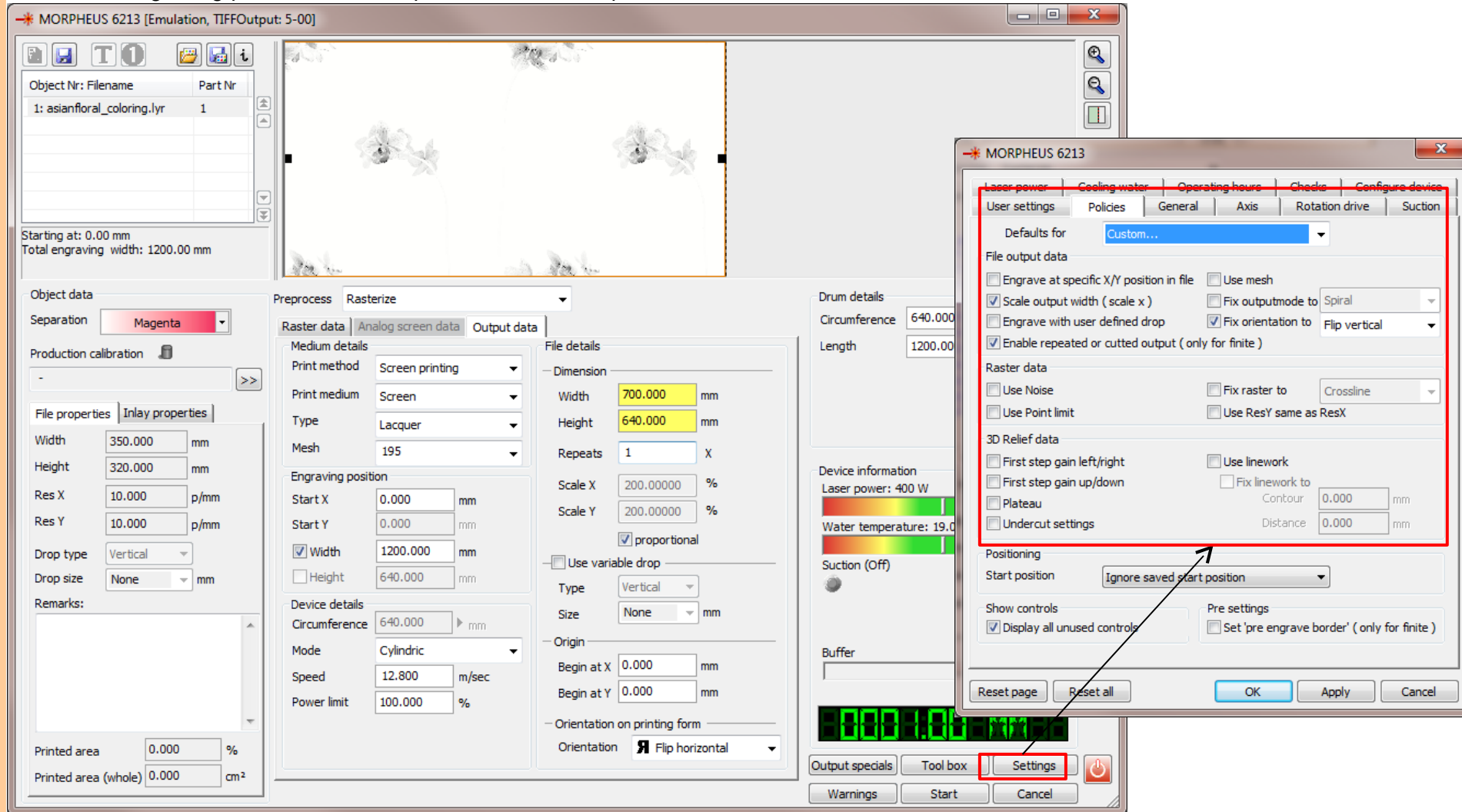
The number of repeats in circumference is changed from 1200 to 1 000 000.

Small files with only 1 Pixel are now engraveable.

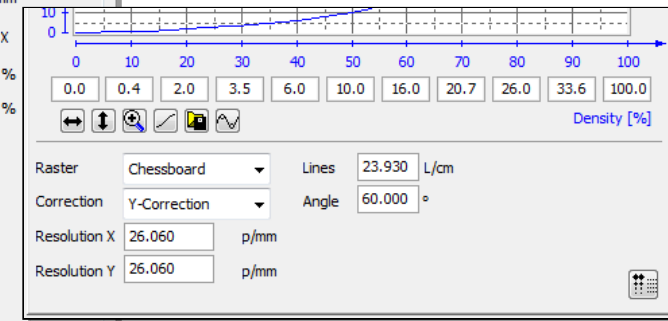
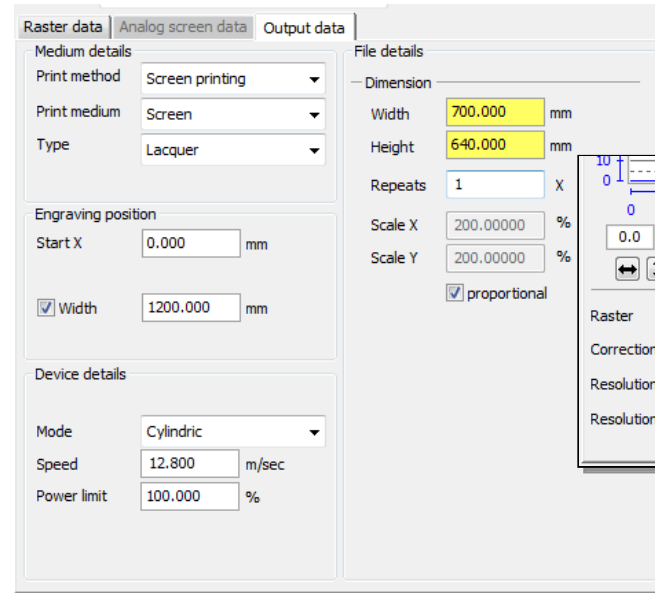
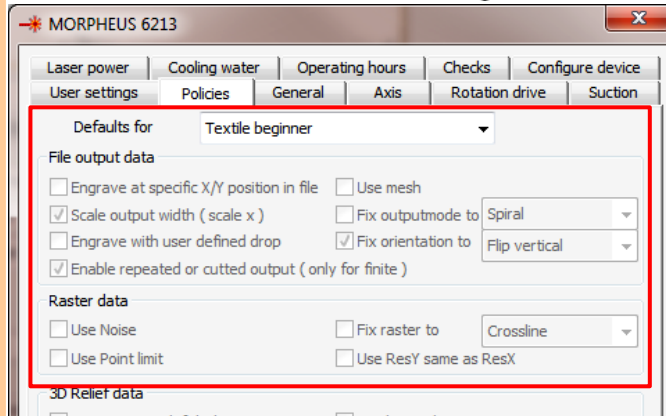
– Policies for Output, 3D-Relief and Raster data

To arrange Output parameters for the user in the CAM-Plugin clearer and easier, user-defined or pre-defined policies can be set in the Settings/Policy tab.

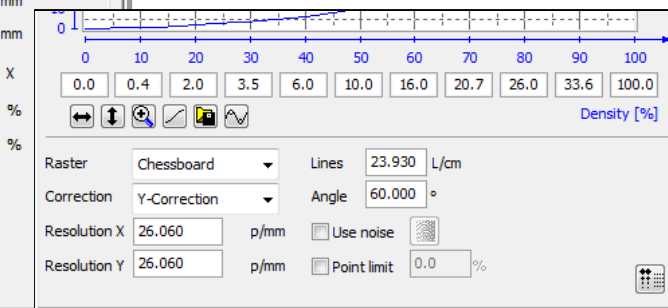
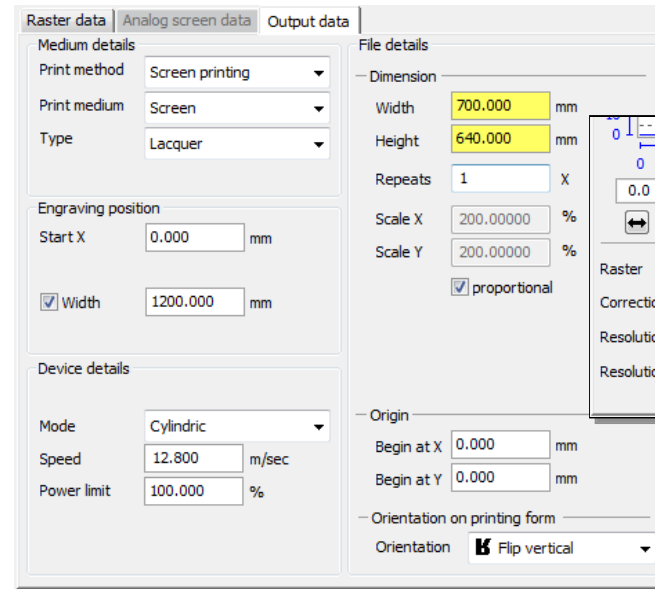
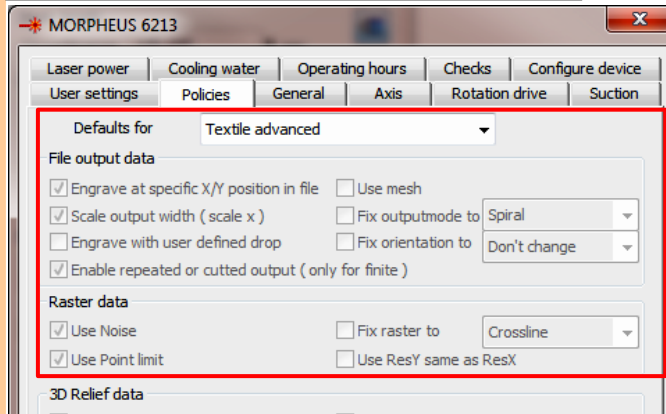
Unrelevant engraving parameters and input fields of the Output data, Raster data or Relief data can be deactivated, fixed and hidden.



Predefined Policies for Textile beginner



Predefined Policies for Textile advanced



Predefined Policies for Graphical beginner

MORPHEUS 6213

Lasers power | Cooling water | Operating hours | Checks | Configure device

User settings | Policies | General | Axis | Rotation drive | Suction

Defaults for: Graphical beginner

File output data

- ☐ Engrave at specific X/Y position in file
- ☐ Use mesh
- ☐ Scale output width (scale x)
- ☒ Fix outputmode to: Spiral
- ☐ Engrave with user defined drop
- ☐ Fix orientation to: Don't change
- ☐ Enable repeated or cutted output (only for finite)

Raster data

- ☐ Use Noise
- ☒ Fix raster to: Circle
- ☐ Use Point limit
- ☒ Use ResY same as ResX

3D Relief data

- ☐ First step gain left/right
- ☐ Use linework
- ☒ First step gain up/down
- ☐ Fix linework to: Contour
- ☐ Plateau
- ☐ Undercut settings
- Distance: 0.000 mm

Raster data | 3D Relief data | Output data

Medium details

Print method: Relief printing

Print medium: Plate on drum

Material: Default material

Thickness: 0.500 mm

Engraving position

Start X: 0.000 mm

Start Y: 0.000 mm

Device details

Speed: 10.000 m/sec

Power limit: 62.000 %

File details

Dimension

Height: 63.600 mm

Scale Y: 100.00000 %

Orientation on printing form

Orientation: R Don't change

0 10 20 30 40 50 60 70 80 90 100

0.4 10.2 20.4 30.2 40.4 50.2 60.0 70.2 80.0 90.2 100.0

Density [%]

Correction: Off

Lines: 72.700 L/cm

Form factor: 120.0 %

Angle: 32.000 °

Resolution X: 80.000 p/mm

Raster data | 3D Relief data | Output data

3D Relief details

Depth: 0.170 mm

First step gain Up/Down: 100.000 %

0 - 99% Dotsize

First step: 0.006 mm

Angle: 80.000 °

Predefined Policies for Graphical advanced

MORPHEUS 6213

Lasers power | Cooling water | Operating hours | Checks | Configure device

User settings | Policies | General | Axis | Rotation drive | Suction

Defaults for: Graphical advanced

File output data

- ☐ Engrave at specific X/Y position in file
- ☐ Use mesh
- ☐ Scale output width (scale x)
- ☐ Fix outputmode to: Spiral
- ☐ Engrave with user defined drop
- ☐ Fix orientation to: Don't change
- ☐ Enable repeated or cutted output (only for finite)

Raster data

- ☒ Use Noise
- ☐ Fix raster to: Crossline
- ☒ Use Point limit
- ☐ Use ResY same as ResX

3D Relief data

- ☒ First step gain left/right
- ☒ Use linework
- ☒ First step gain up/down
- ☐ Fix linework to: Contour
- ☒ Plateau
- ☒ Undercut settings
- Distance: 0.000 mm

Raster data | 3D Relief data | Output data

Medium details

Print method: Relief printing

Print medium: Plate on drum

Material: Default material

Thickness: 0.500 mm

Engraving position

Start X: 0.000 mm

Start Y: 0.000 mm

Device details

Mode: Spiral

Speed: 10.000 m/sec

Power limit: 62.000 %

File details

Dimension

Height: 63.600 mm

Scale Y: 100.00000 %

Orientation on printing form

Orientation: R Don't change

0 10 20 30 40 50 60 70 80 90 100

0.4 10.2 20.4 30.2 40.4 50.2 60.0 70.2 80.0 90.2 100.0

Density [%]

Raster: Circle

Lines: 72.700 L/cm

Form factor: 120.0 %

Correction: Off

Angle: 32.000 °

Resolution X: 80.000 p/mm

Resolution Y: 80.000 p/mm

☐ Use noise

☐ Point limit: 0.0 %

Raster data | 3D Relief data | Output data

3D Relief details

Depth: 0.170 mm

Plateau: 0.013 mm

First step gain Left/Right: 100.000 %

First step gain Up/Down: 100.000 %

0 - 99% Dotsize

First step: 0.006 mm

Angle: 80.000 °

100% Linework

0.000 mm

10.000 °

☐ Use undercut

0 - 99% Dotsize

Default undercut curve

max. Undercut: 0 µm

100% Linework

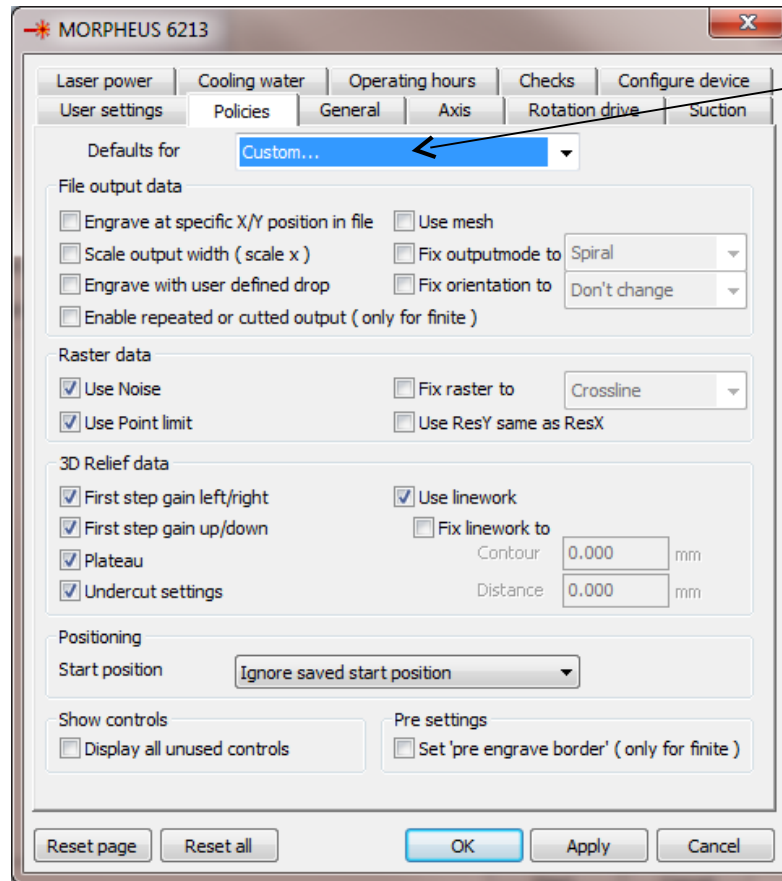
Undercut: 0 µm

Linework settings

Contour: 0.013 mm

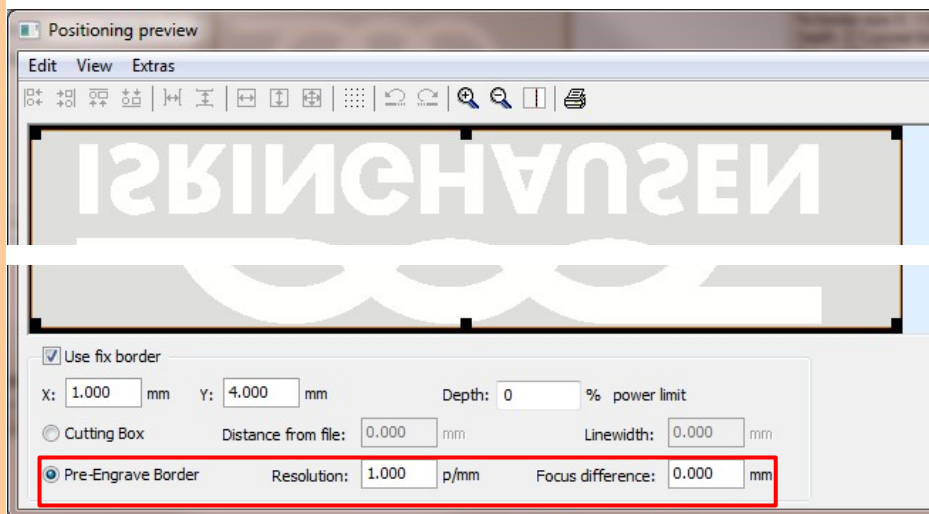
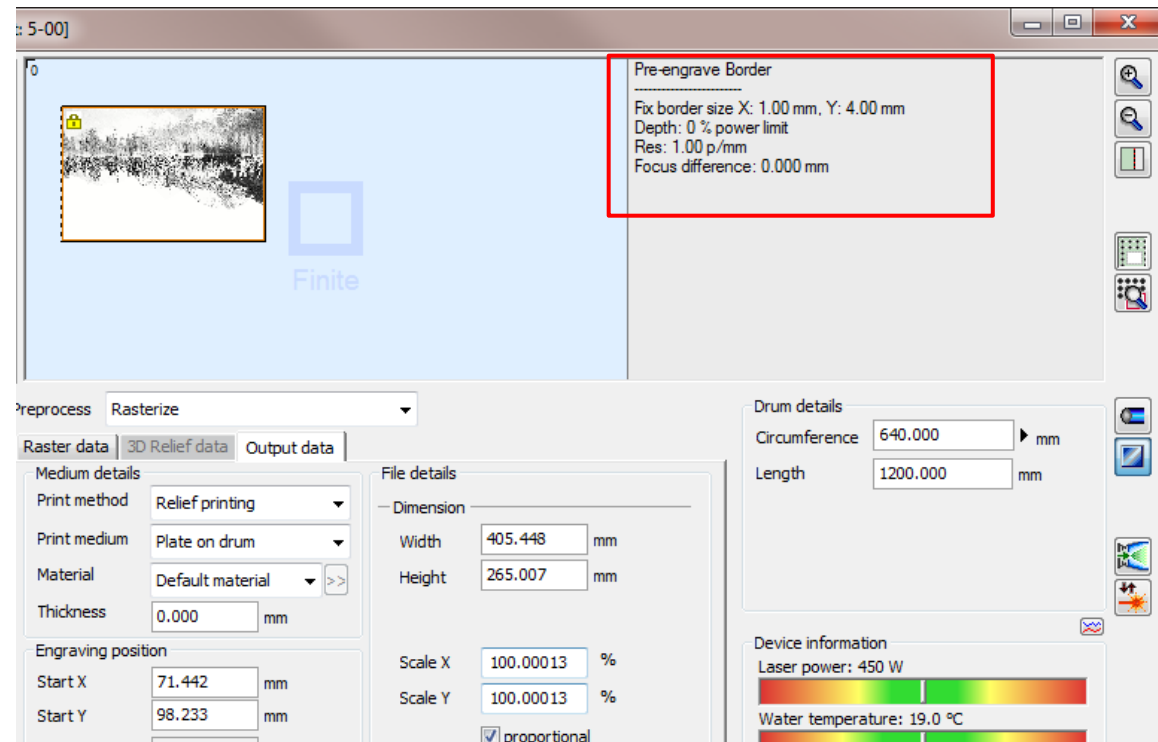
Distance: 0.013 mm

Customer Policies:

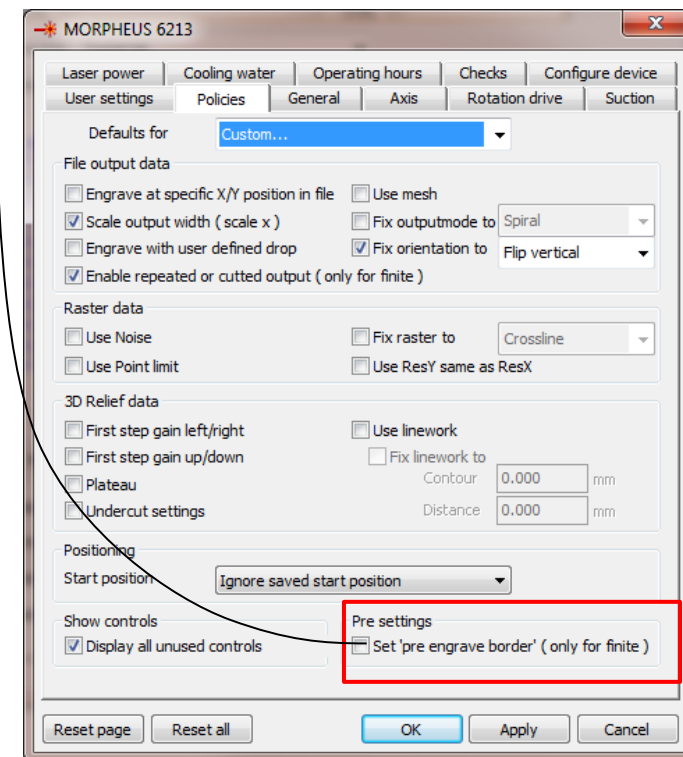


To define your own User interface of Output parameters select "*Custom...*"

- Activate pre-engrave border automatically



With an active button “*Set ‘pre engrave border (only for finite)’*” in the Policy tab of the settings, the last set Preengrave border parameters in the positioning preview are activated automatically during loading a file into the CAM-Plugin.



– Automatic depth calibration with 'Surface compensation'

Auto depth calibration

Data

Circumference 530.480 mm Drum speed 10.000 m/sec

Thickness 0.000 mm Resolution 80.000 p/mm

Power limit 100.000 %

Power limit check

The testfile was engraved first with your selected power limit and then power limit was decremented by 10 after each engraved part.

1. Check power limit

Calibrating

Engrave the calibration pattern with your individual parameters. If engraving successfully completed, clean the printing form manually.

If you want to unmont the printing form, please mark the position on printing form and also on retainer for re-mounting on the (nearly) same position.

Start X 58.000 mm Width 20.000 mm

Start Y 0.000 mm Height 188.000 mm

2. Engrave test pattern

Press 'Measurement of test pattern' if the printing form was engraved and cleaned. For a better measurement result you can use the 'surface compensation'.

☐ Surface compensation 3. Measurement of test pattern

Checking

After measurement you can make a check of your material calibration. Press 'Engrave calibrated test pattern' to engrave the same pattern calibrated.

4. Engrave calibrated test pattern

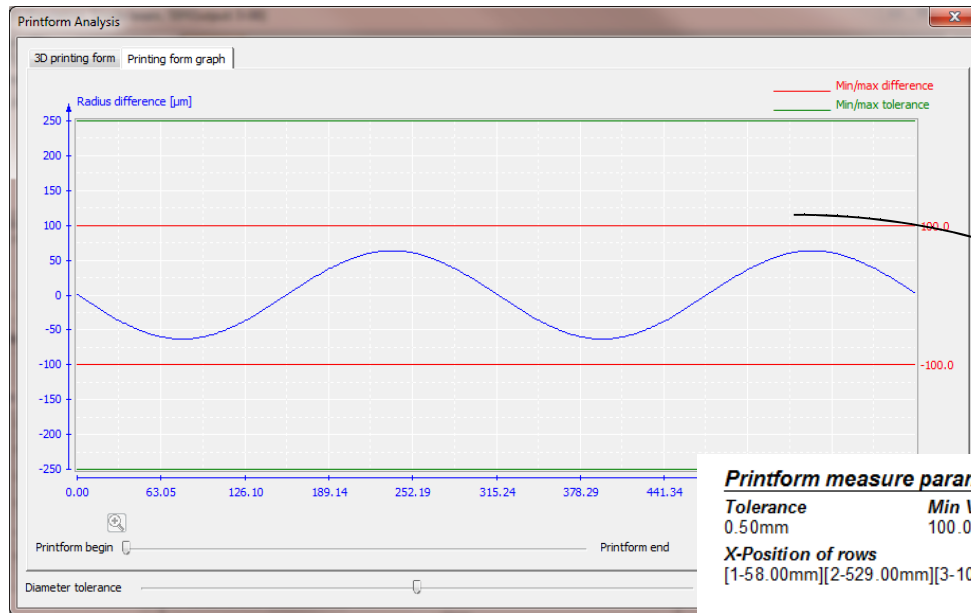
After engraving also clean the printing form and make a 'Measurement of calibrated test pattern' to get the calibrated curve. This curve should be linear. For a better measurement result you can use the 'surface compensation'.

☐ Surface compensation 5. Measurement of calibrated test pattern

Cancel

With an active Check button the not engraved surface is measured, before the measurement of the engraved depth calibration file on a sleeve is done. After the measurement of the calibration file the unevenness of the drum surface is subtracted. Therefore a more accurate calibration curve is calculated. Now it is also possible to calibrate materials with a very low engraving depth.

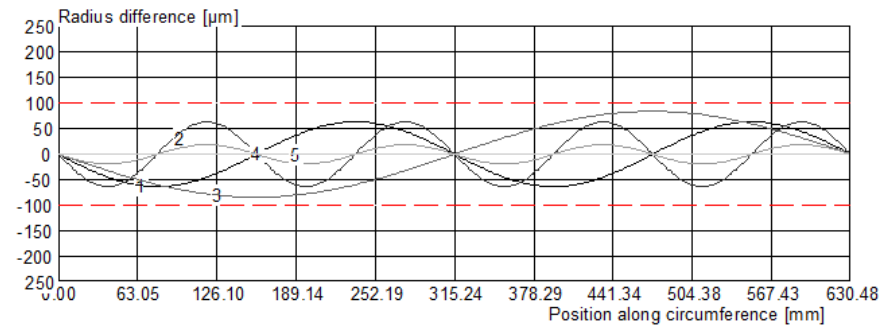
– Sleeve measuring add-ons



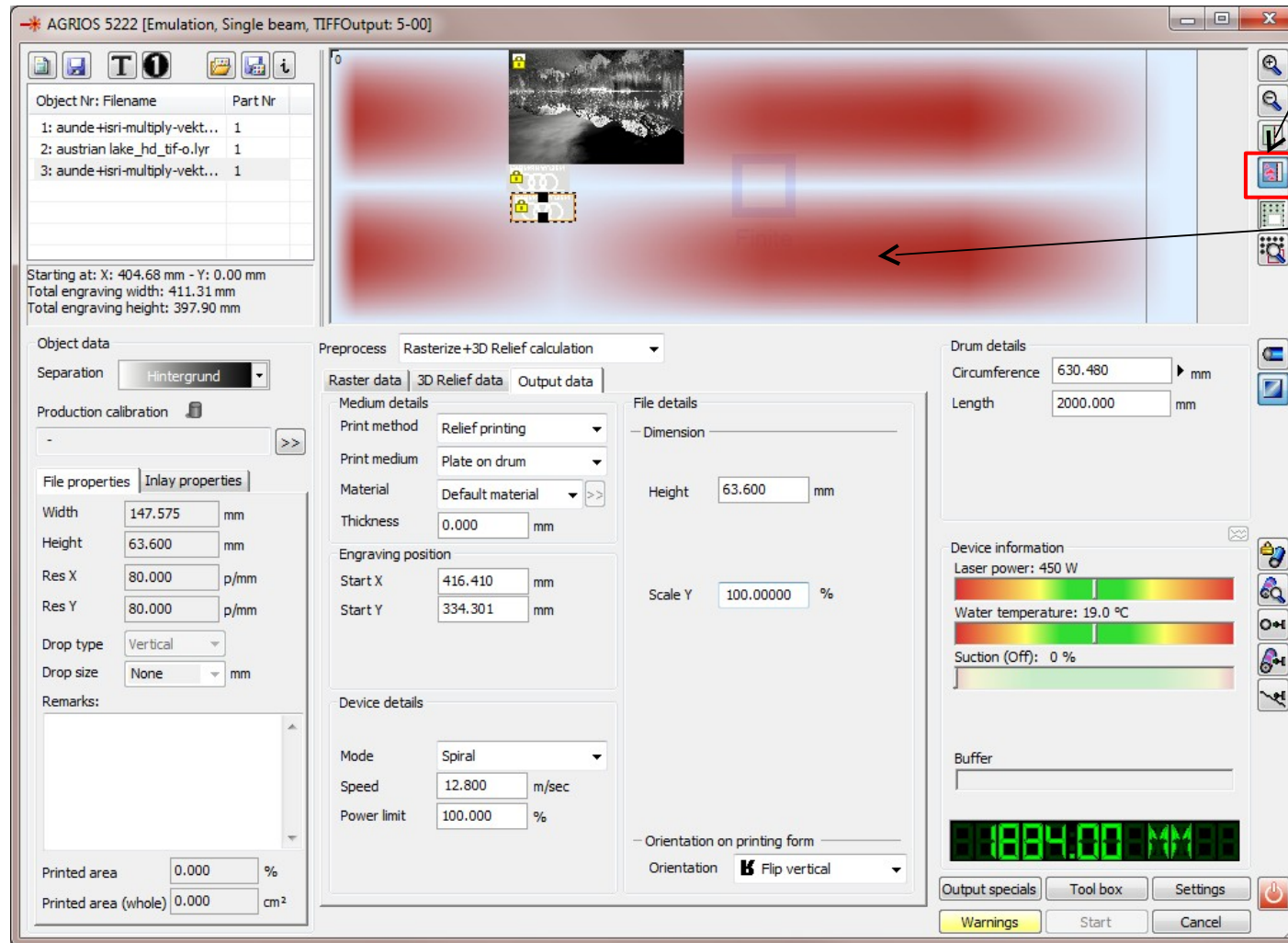
- The print form measurement curve is stored in the **Engraving Protocol** and can be printed there.
- The surface compensation can be activated in the view (Next Page)

Printform measure parameter

Tolerance	Min Value	Max Value
0.50mm	100.00μm	-100.00μm
X-Position of rows		
[1-58.00mm][2-529.00mm][3-1000.00mm][4-1471.00mm][5-1942.00mm]		



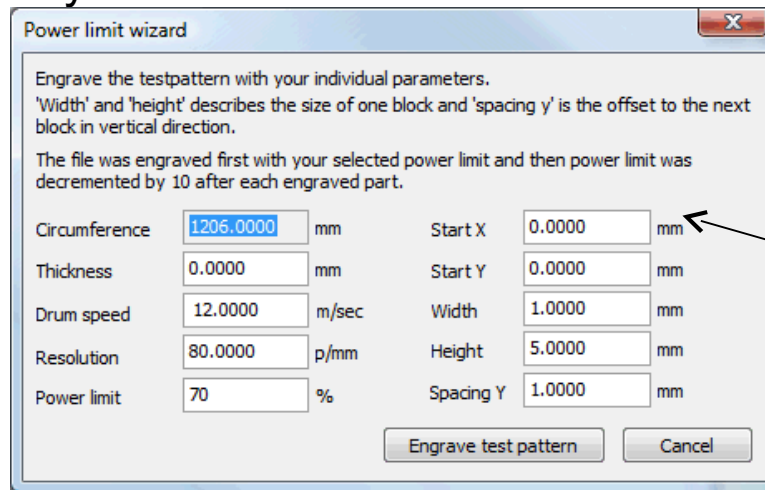
- Show printing form surface in view



If the mounted print form was analyzed 'Show analyzed print form' can be activated.

Unevenness ranges of the print form are fade in within the view. The user can now decide if the current engraving job can be still engraved on this print form or not.

– Easy Power limit detection



Power limit wizard

Engrave the testpattern with your individual parameters.
'Width' and 'height' describes the size of one block and 'spacing y' is the offset to the next block in vertical direction.

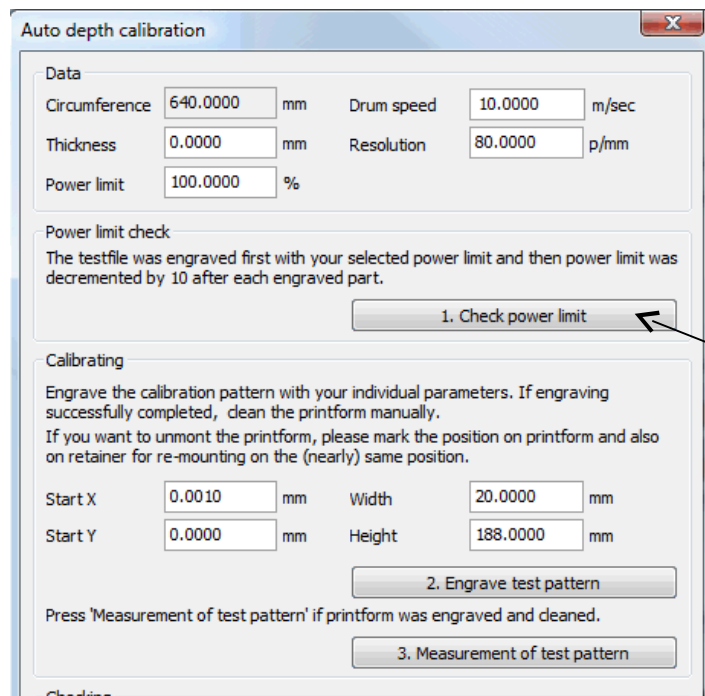
The file was engraved first with your selected power limit and then power limit was decremented by 10 after each engraved part.

Circumference	1206.0000	mm	Start X	0.0000	mm
Thickness	0.0000	mm	Start Y	0.0000	mm
Drum speed	12.0000	m/sec	Width	1.0000	mm
Resolution	80.0000	p/mm	Height	5.0000	mm
Power limit	70	%	Spacing Y	1.0000	mm

Engrave test pattern Cancel

To avoid a destroying of a mounted drum by engraving on a new and unknown material, vertical lines with different power can be engraved on a user defined position.

Click onto '[Check power limit](#)' button  to open the 'Power limit wizard' dialog where engraving parameters are adjustable.



Auto depth calibration

Data

Circumference	640.0000	mm	Drum speed	10.0000	m/sec
Thickness	0.0000	mm	Resolution	80.0000	p/mm
Power limit	100.0000	%			

Power limit check

The testfile was engraved first with your selected power limit and then power limit was decremented by 10 after each engraved part.

1. Check power limit

Calibrating

Engrave the calibration pattern with your individual parameters. If engraving successfully completed, clean the printform manually.
If you want to unmont the printform, please mark the position on printform and also on retainer for re-mounting on the (nearly) same position.

Start X	0.0010	mm	Width	20.0000	mm
Start Y	0.0000	mm	Height	188.0000	mm

2. Engrave test pattern

Press 'Measurement of test pattern' if printform was engraved and cleaned.

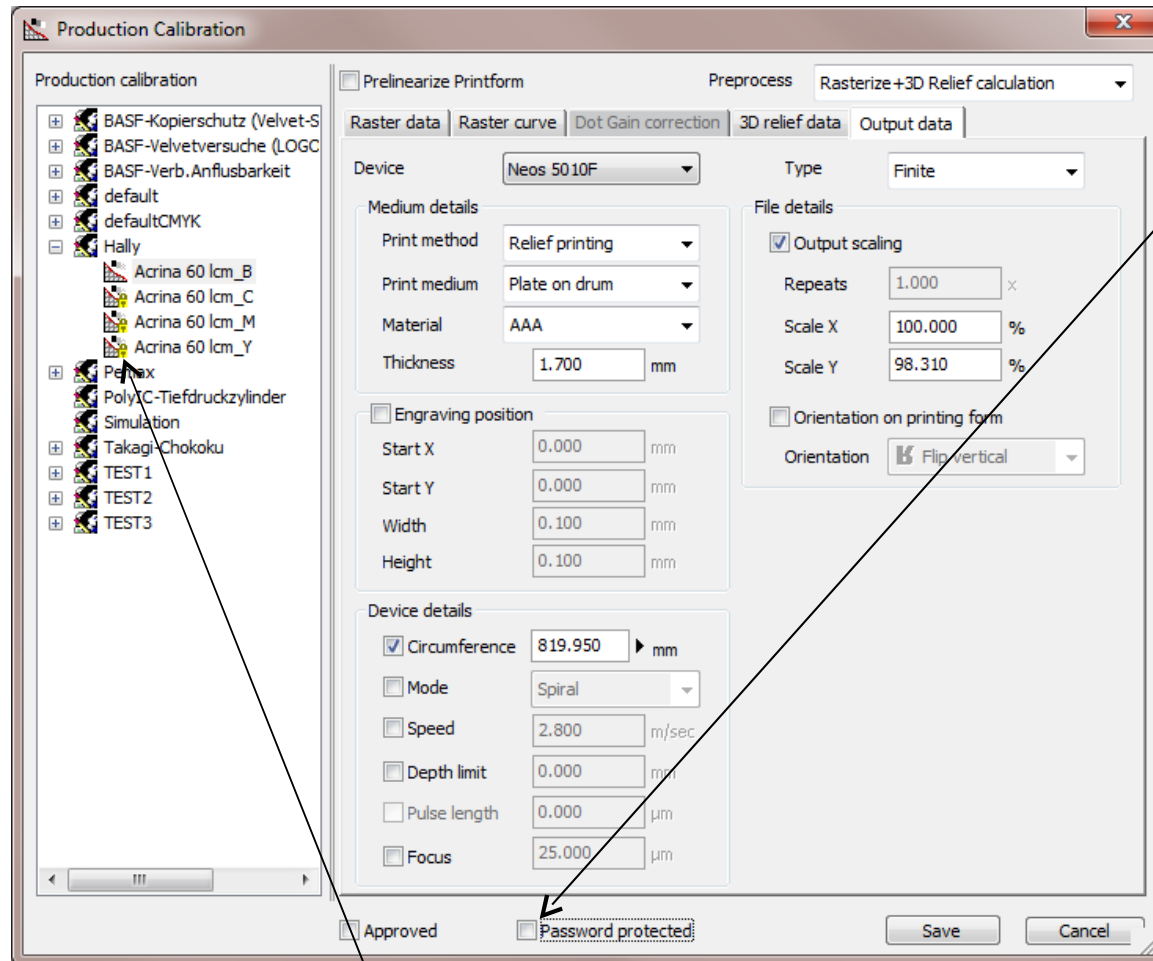
3. Measurement of test pattern

Checking

If a print form measuring sensor is mounted, the Power limit check is included in the 'Automatic depth calibration' dialog.

– Production calibration password protection

Production calibrations and CMYK calibration bundles can be protected via password. Changes can be stored only by entering of the password.



Select in the tree control the corresponding element and activate the check box *"Password protected"*.

A dialog opens where you can tip in your desired password under *"New password"* and once again under *"confirm password"*.



Password protected Production calibrations and CMYK calibration bundles are signed with a lock.



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