Punktlektion: Autodesk Netfabb 2019
Preparing files for Z-Printer 450

This guide aims to help you to prepare a file for print with Z-Printer 450 gypsum printer. It will cover hollowing out a part and making escapes holes to allow for the removal of build material and calculate the volume of your part so you know the production cost. This guide is separate in to multiple parts. Read headings in the table of contents before you begin.
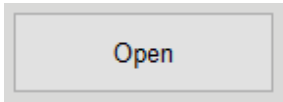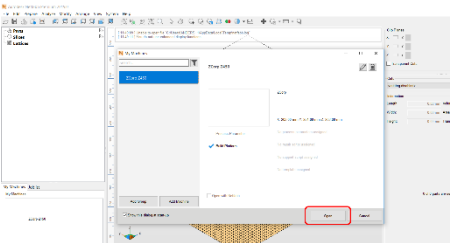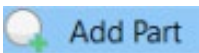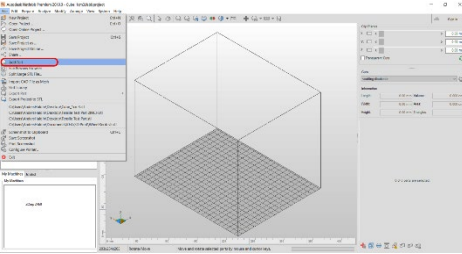
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Punktlektion: Z Printer 450

Start the computer and follow the steps outlined below:
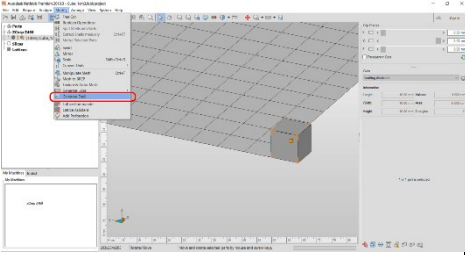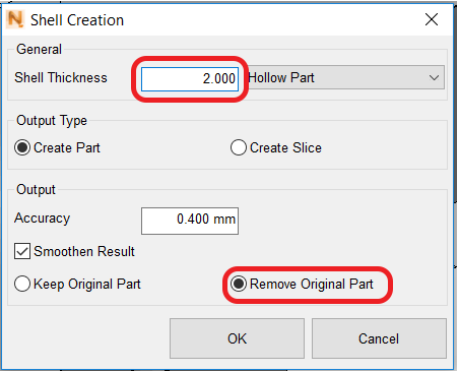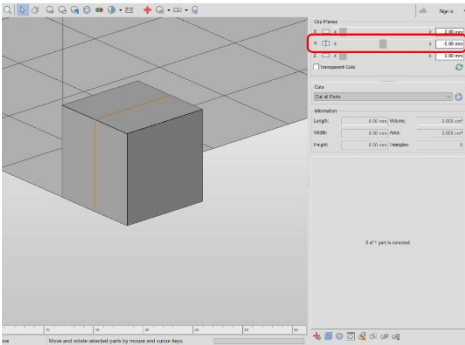
1: Import File:
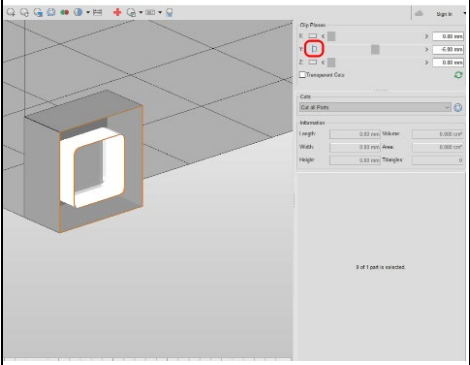
Tekst	Symbol	Billede
1.1 Open Autodesk Netfabb	→ Open	
1.2 Click open. To the selected machine (Z Printer 450)	Open	
1.3 Import your file with **Add Part**	Add Part	

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1.4 Locate your file on your machine.	 Open	
1.5 Select Automatic Repair & Extended Repair.	→ Automatic Repair → Extended Repair	
1.6 Click **Add Parts** to add them to your scene.	Add Parts	

2: Generate a Shell:

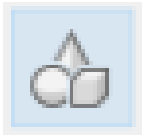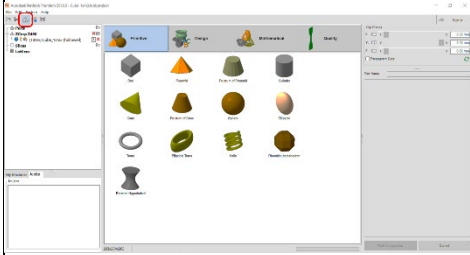We set a thickness of your part, called shell. This will make your part hollow and this way you can save a lot of material.

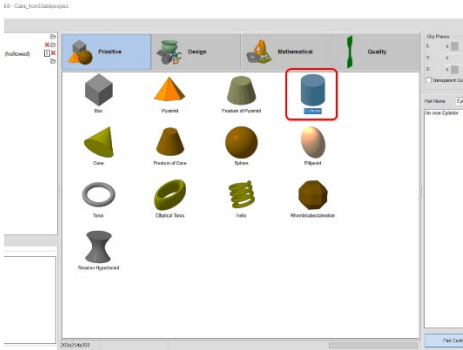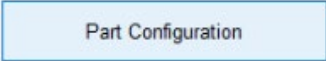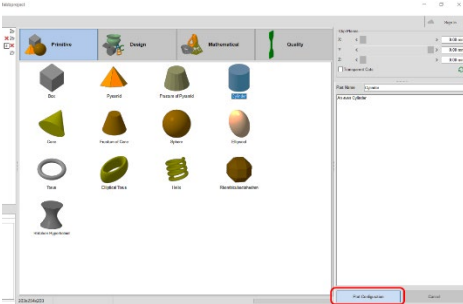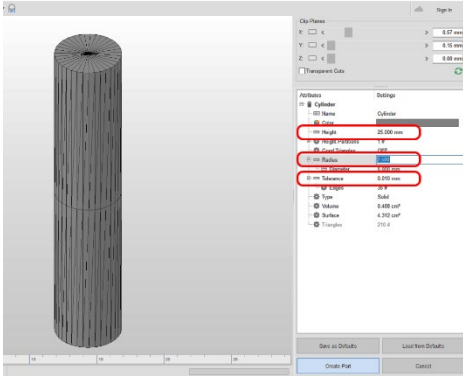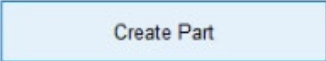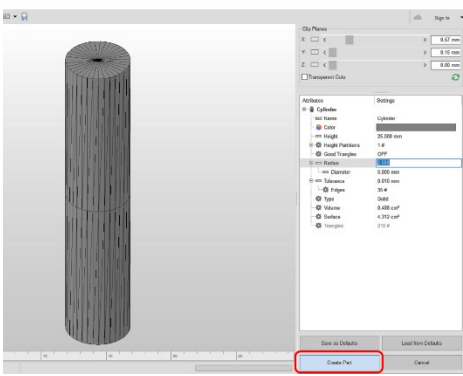|		
2.1 Generate Shell Modify -> **Generate Shell** Select: **REMOVE ORIGINAL!**	Generate Shell	
2.2 Set thickness to **min 2mm** (See design guidelines for the printer) Select: **REMOVE ORIGINAL Part!**	→ 2mm →Remove Original Part!	
2.3 Define a clip plane to see inside of your model by sliding the Y axis Clip Plane.	←⟲→	

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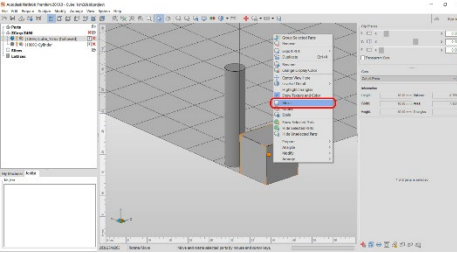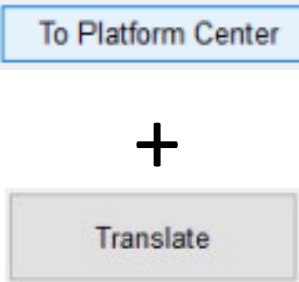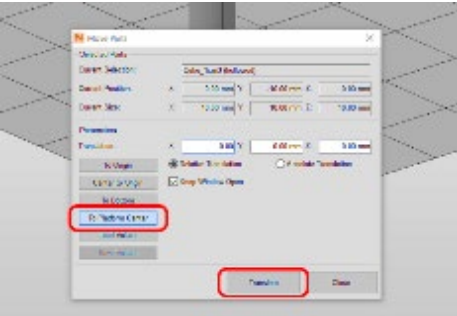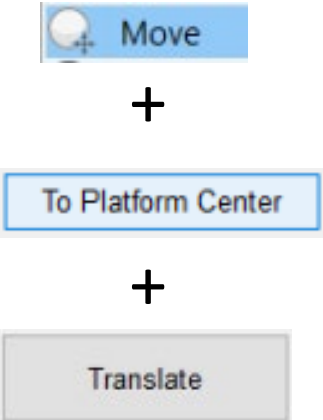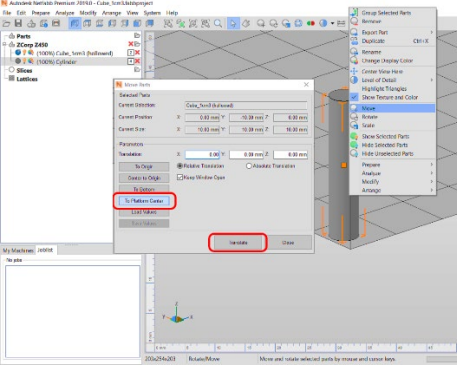
2.4 Click on the left or right side of the blue line to hide and show the clip plane you defined with the slider.		
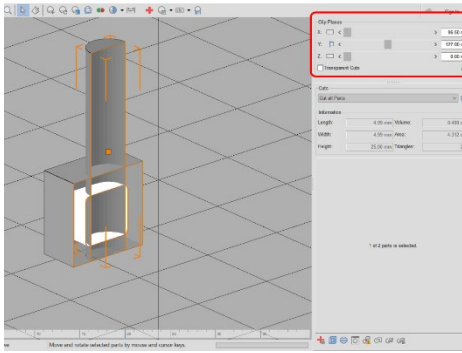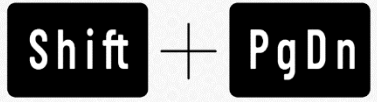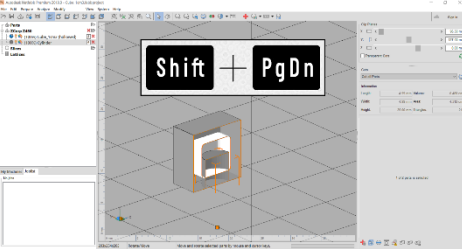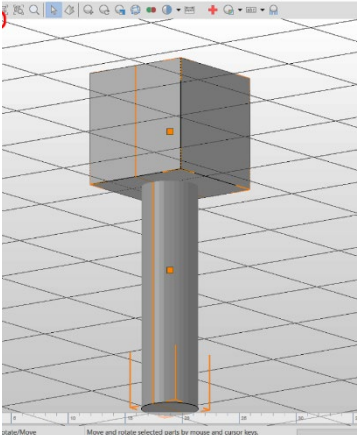
3: Add an Escape Hole:
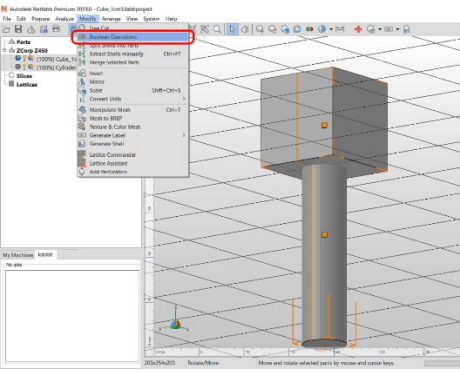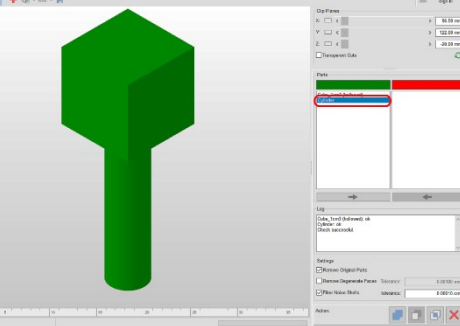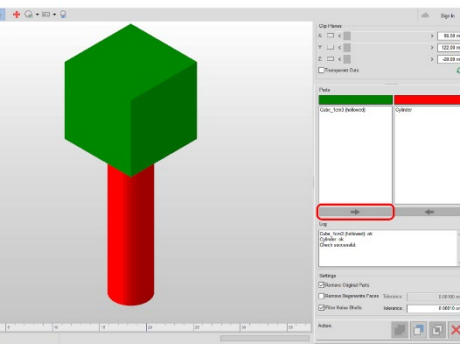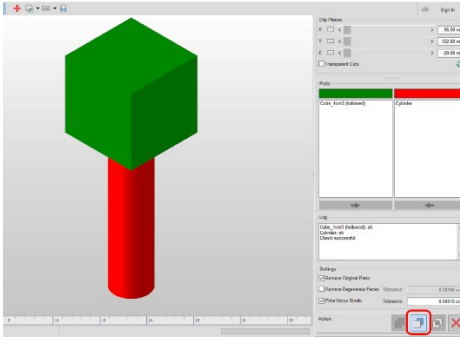
We need to add an escape hole in your part so all the excess material can get out and make the price of the print cheaper.
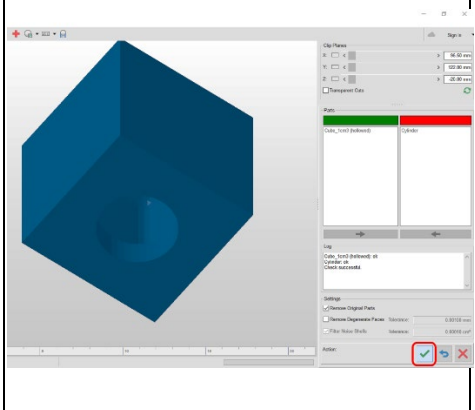
3.1 We are adding a cylinder to use as a cut tool for the escape hole. Click on **Part Library**		

3.2 Select a cylinder	 Cylinder	
3.3 Click on **Part Configuration**	Part Configuration	
3.4 Define your cylinder depending on your needs. Here is a good starting point.	→ Height: 25mm → Radius: 2.5mm → Tolerance: 0.01mm	
3.5 Click **Create Part**	Create Part	

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3.6 Right Click on your model and select **Move**		
3.7 Choose **To Platform Center** and Click **Translate**	 + 	
3.8 Repeat **Step 3.6-3.7** on your cylinder.	 + + 	

3.9 Set up a your clipping plain again to see where to move your cylinder (see steps 2.3 - 2.4)		
3.10 Move the cylinder down so it intersects both shapes. Keyboard shortcut: Shift + Page Down		
3.11 Select both parts. By holding Shift and click on both models.		
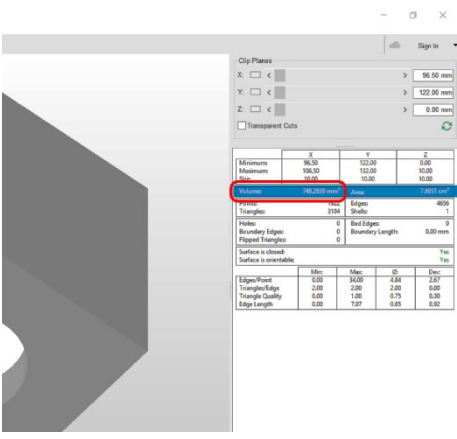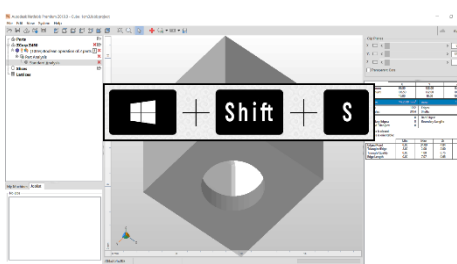
3.12 Click Modify -> Boolean Operations		
3.13 Select your cylinder.		
3.14 Click the arrow pointing right to move it over to the red (cutting) column		
3.15 Click Subtract Red Part form Green Parts		

3.15 Confirm Operation		

4: Volume Analysis & Screenshot:

Let´s find out the volume of your part so you know how much it will cost to print it. Screen capture your volume plus your part with the escape hole in view.

4.1 New analysis -> **Standard analysis**		

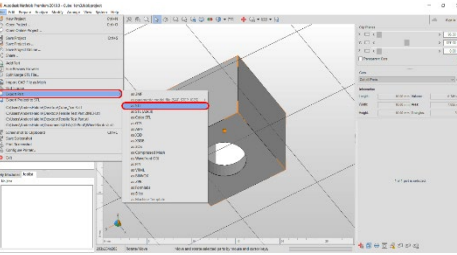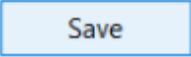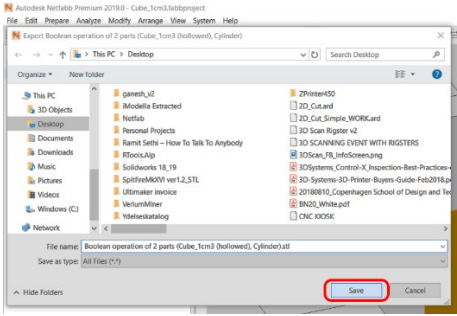|		
4.2 You can see your total volume of your part.		
4.3 Screen capture the Volume of your print including your part. Keyboard shortcut: **Win Key + Shift + S** Drag select window to mark the area that you want to capture. Open Paint, or any other imaging editing software Paste your screen shot. **CTRL + V** Save file.	 ------------------------------------ **CTRL + V**	

5: Export File:

Back in Autodesk Netfabb.

5.1 Export your file: File -> Export part -> as STL		

5.2 Save it on your machine	Save	

5.3
 	
Create a folder containing:
   •   New exported file.
   •   Screen shot name it your name and volume of your part.
 	
And give it to KEA Store personal.		