## How to create fixture setups for X+

## Load and prepare the part that should be used as a fixture

We are going to use the CentroLite 68M from AllLite.

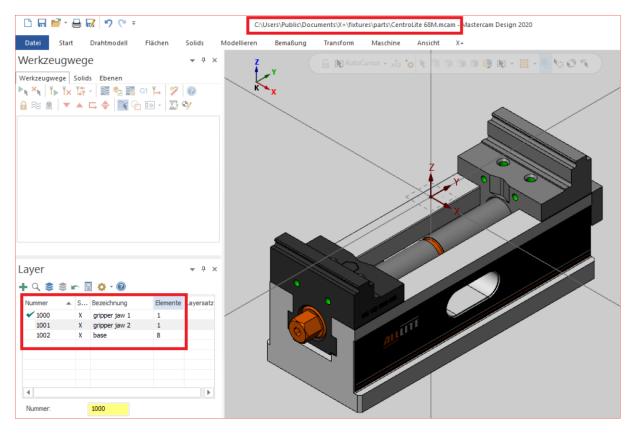
You can download the centric vice from their website at: <u>https://www.alllite.de/en/Products/CentroLite-68M</u>



After importing the part into Mastercam, we are going to delete unnecessary geometry (i.e. all wire geometry), transform the part to the TOP view and move the gripper jaws and the base to higher levels. It is very important that all components (jaw 1, jaw 2 and base) are on different levels.

Then we save the part to our fixture folder: *C:\Users\Public\Documents\X+\fixtures\parts* 

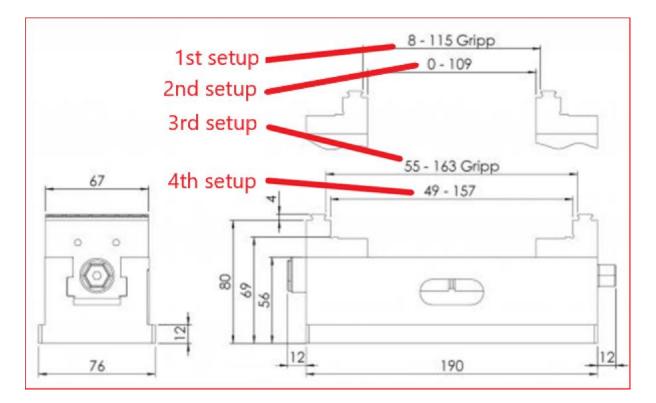
It should look something like this now:



## Create setups with the X+ fixture setup tool

Looking to the specs of the centric vice, we can create 4 setups.

## gmccs.de



To create a setup, the centric vice needs to be loaded into Mastercam.

Launch the fixture setup chook 📥.

Click on the "add component to list" button 📥.

Select the 1<sup>st</sup> gripper jaw and press enter. The 1<sup>st</sup> component will be added to the list.

X+ Fixture setup - CentroLite 68M	×	
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MC-File		
CentroLite 68M	<b>1</b>	
Chucking range from: 0.0 to: 0.0 Predefined span depth: 0.0	Reference point at fixture component × 0.0 Y 0.0 Reference point at stock	

Now we need to define a reference point from the 1<sup>st</sup> component. The reference point will be used to move the component to a specified position at the stock.

Select the *reference point at stock* as shown below then click on the black arrow **b** and select the point from the gripper jaw as shown below.

X+ Fixture setup - CentroLite 68M	×	
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MC-File		
CentroLite 68M	2	
Chucking range from: 0.0 to: 0.0 Predefined span depth: 0.0	Reference point at fixture component       X     0.0       Y     82.3	
	Reference point at stock	
Fixture components Component 1		
	<ul><li>✓</li></ul>	

Add a new component and repeat the previous step with the 2<sup>nd</sup> gripper jaw.

	X+ Fixture setup - CentroLite 68M	×
		<b>0</b>
/	CentroLite 68M	<b>1</b>
	Chucking range from: 0.0 to: 0.0 Predefined span depth: 0.0 Fixture components Component 1 Component 2	Reference point at fixture component X 0.0 Y -82.3 Reference point at stock
		<ul><li>✓</li></ul>

Add a new component for the base and select one of the remaining elements. That's all you need to do for the base.

X+ Fixture setup - CentroLite 68M		×	$\times$
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MC-File			
CentroLite 68M			
Chucking range from: 0.0 to: 0.0 Predefined span depth: 0.0	Reference point at fixture component     X   0.0     Y   0.0		
	Reference point at stock		
Fixture components Component 1 Component 2 Component 3			
	×	×	

Set the span depth to -4 and lock it. Set the range from 55 to 163 (According to the specs on page 2, 2<sup>nd</sup> setup).

X+ Fixture setup - CentroLite 68M	×
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MC-File	
CentroLite 68M	2
- Chucking range	Reference point at fixture component
from: 55.0 to: 163.0	× 0.0
Predefined span depth: -4.0	Y 0.0
Finture encourte	Reference point at stock
Fixture components Component 1	
Component 2	
Component 3	× ×
	<b>▲</b>

Save the setup as "CentroLite 68M\_55\_163.smk" by clicking on the "Save as..." button ...."

Then click on the "Create thumbnail" button 🔯.

Done!

You could now create the other configurations for this centric vice by clicking on the "New" button and then repeat the process.