

# Complete calibration guide for Altronik DMB Mobilomat XE

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Preparations:

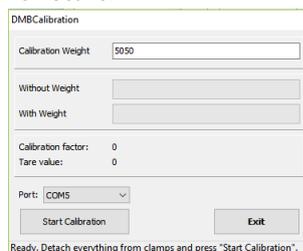
- You need the calibration weight (5kg)
- The calibration arm used to calibrate finger and cross
- DMBCalibration and DMBTools software

## 1. Reset positions

- Switch on the mobilomat and detach everything from clamps and tools. Start your mobilomat software and make sure that sledge and clamps are moving to zero position. After that, close your mobilomat software again.

## 2. Calibrate all tools using the calibration weight

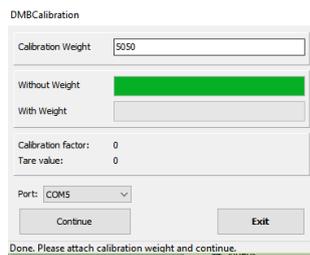
- Start DMBCalibration software, select COM Port and make sure nothing is attached on clamps or other tools. Also enter the weight in g (standard: 5050g, the 50g is for compensation of the band attached to the weight)
- Click start.



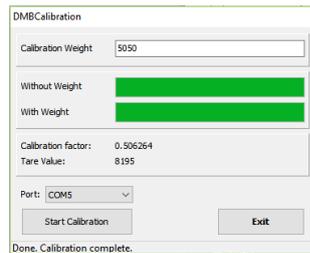
- Now attach the calibration weight to your middle clamp like on the pictures below.



- Make sure the weight does not move and hangs still.
- Click “Continue” and wait until it is finished.

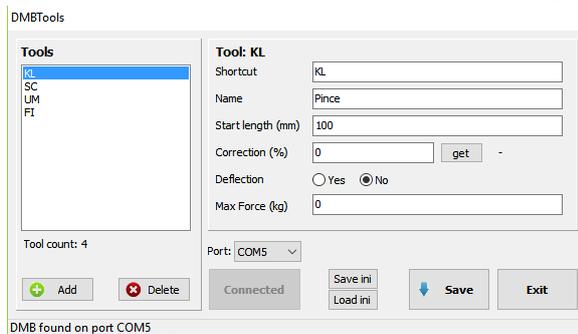


- You can see the new factor and tare value. This values are saved immediately.



- If the new factor is way off from the old value, you will get a warning. This can happen if you did not attach the weight correctly.

- Now close the DMBCalibration software and detach the weight from the machine
- Start the DMBCalibration software.
- Select COM Port and click connect
- On the left side you will see all the tools configured with the mobilomat



KL = clamp, middle clamp (on the sensor) and clamp on sledge

SC = cross

UM = deflection, using left clamp, the rolls on the sledge and the middle clamp

FI = fingers, the short tools above the cross

- We do not need to calibrate the KL and UM. We did that using the DMBCalibration software. FI and SC can have a variance because the force impact is differently.

- To calibrate the **FI**, attach the calibration weight like this using the calibration arm:



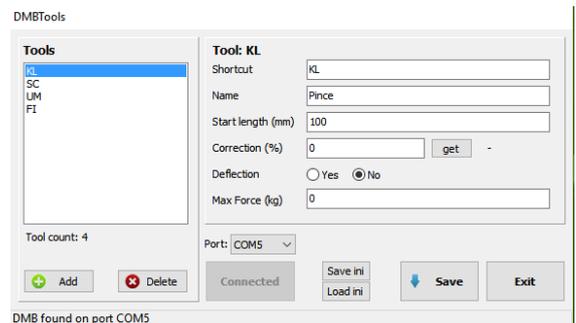
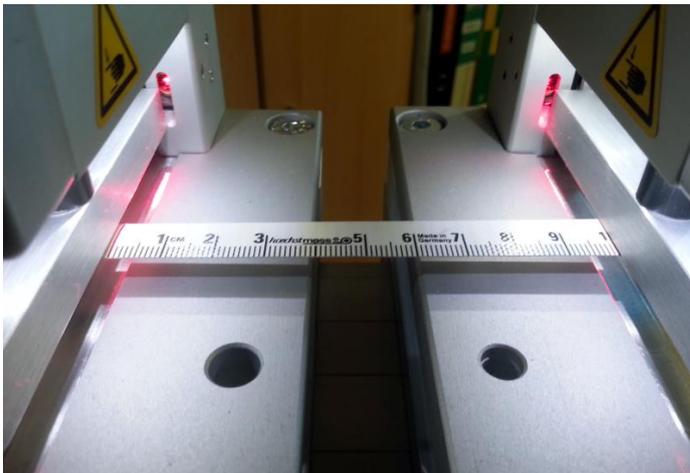
- Again, make sure the weight is still.
- Now click on FI in the tools section and click on “get” on the right side. It will show the value of the calibration weight. If not, change the value in “Correction(%)” and click get again. Repeat this step until it shows the correct weight (normally 5050g with a tolerance of +-40g)
- When you are done and the get-value is ok, we move on to the SC tool.
- Select SC in the tools section and attach the calibration weight like this:



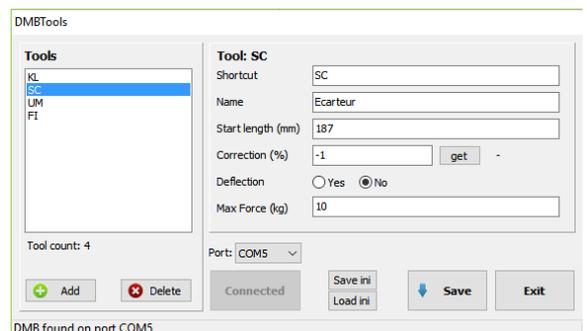
- Repeat the steps you made with the FI until you have the correct get-value for the SC-tool.
- When you are done, click “Save”. The new values will be saved on the machine. This may take a few seconds. Check the info on the bottom of the software.
- You are done calibrating the tools using the calibration weight. Detach the calibration weight for the next steps.

### 3. Set the correct distances for all tools

- In this section we will set the distances of the tools to its start position. Make sure you detached the calibration weight.
- For that we need the DMBTools software. Start it if you haven't done already.
- Click on "connect" if not already connected
- Every tool has its own start length. You can see if you step through your tools.
  
- First we will check the **KL-tool**. Click on it and have a look on "Start length (mm)"
- Make sure the correct value is entered by measuring the distance using a tape measure like this:

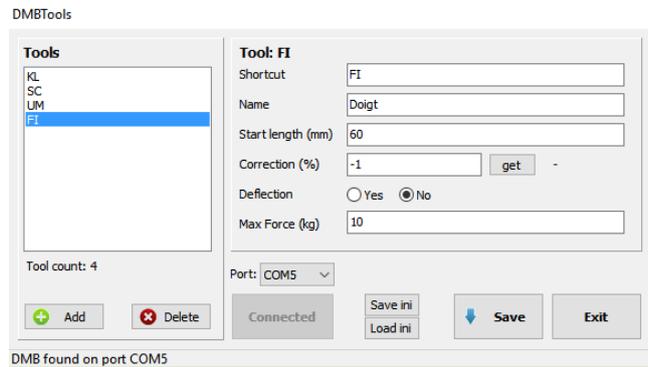
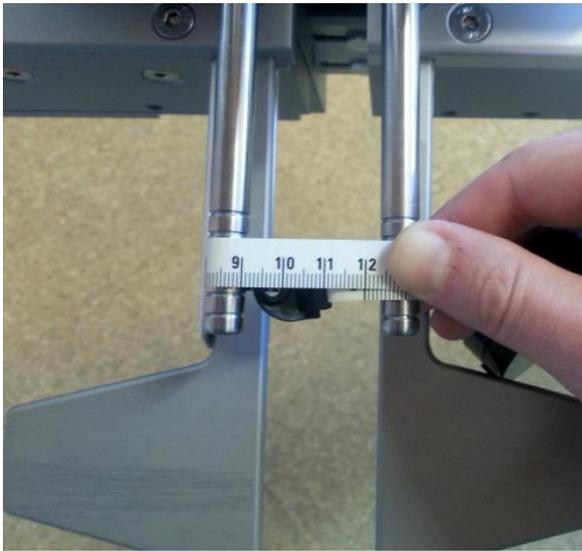


- You can see in the tape measurement is exactly 100mm. This value is entered as the "Start length (mm)".
  
- Moving on to the **SC-tool**. Click on it and have a look at the start length again.
- The tape measurement is a bit different since we measure the circumference and divide it by 2. See the pictures below:



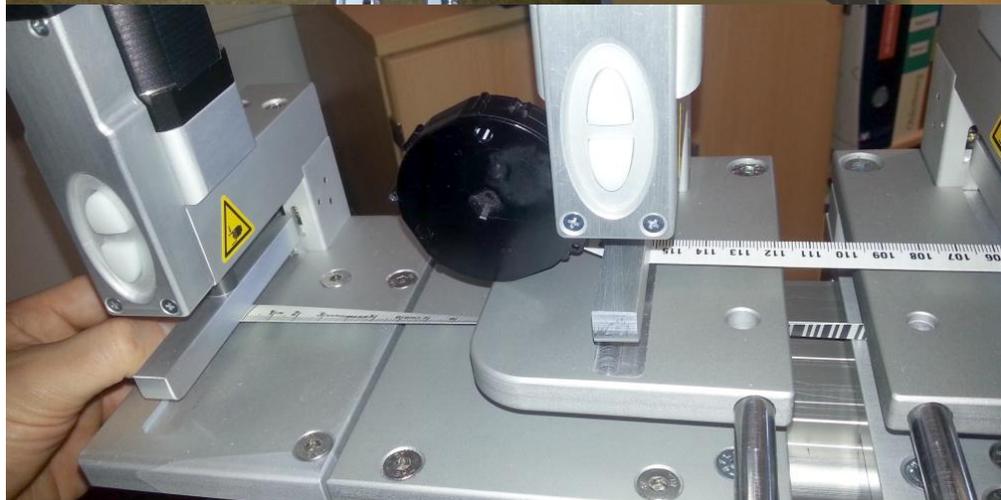
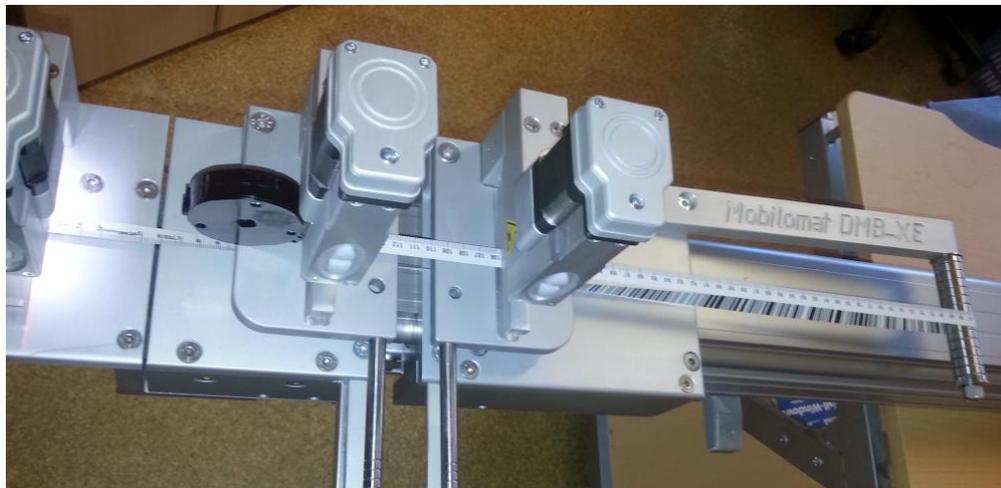
- As you can see, we measured a distance of 373mm. That divided by 2 is 186,5mm. The software only accepts non-float numbers so we round to 187mm. That is the value you enter in the start length.

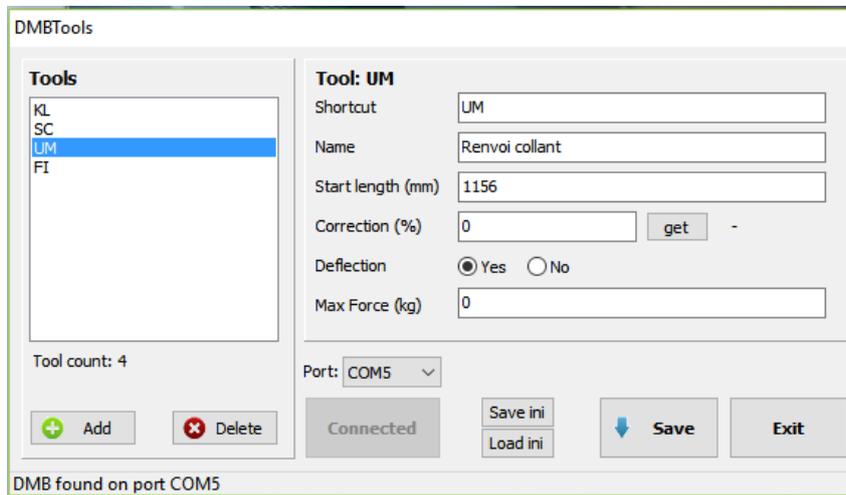
- You do the same steps for the **FI-tool**. Click on FI on the tools section.
- Again use the tape measure to measure the circumference for the FI tool and divide it by 2.



- We measured 120mm as circumference. That divided by 2 is 60mm. Enter that value as the start length for the FI-tool.

- Lastly the **UM-tool**. Click on UM in the tools section.
- For this tool we only have to measure the distance. Attach the tape measure like shown below:





- As you can see, the measured distance is 1156mm. Enter that value as the start length for the UM-tool.
- You are finished setting all start length for the mobilomat tools. Last step is to click on “Save” and wait for the process to finish. Now you can close the DMBTools software and power cycle the machine.
- The mobilomat is now fully calibrated and you can now use your mobilomat software to continue with your measurings.

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