



## Tool Measurement Probe Calibration

**#1** Start by measuring the blade by hand with a tape measure.

**Hand Measured Blade Diameter: 16.219**

**#2** Now measure the Blade from the Tool Measurement Probe

**Tool Measurement Probe Diameter: 16.274**

**Math to calibrate Tool Probe: Tool Measurement Probe Diameter-Hand Measured Blade Diameter = (ERROR/2) X 25.4**

**Example:**

$$16.274 - 16.219 = 0.055$$

**Error= 0.055**

To calibrate the Tool Probe we need to take the error and divide it by 2 and then convert it to Millimeters.

$$0.055 / 2 = 0.0275$$

$$\text{Convert to MM} = 0.0275 \times 25.4 = 0.6985$$

Next step is to adjust the calibration parameter.

**Click F9 (the one with the gear on it)**

**Click F2 (Password 0546)**

**Find the parameter listed as Center Blade Z Axis (this is for the blade). Center Mill Z Axis for the Fingerbit.**

**Edit this parameter by adding or subtracting from the value.**

(NOTE): The bigger the Center Blade Z Axis Parameter value the smaller the measurement will be.

To finish our example we can add or subtract from the Center Blade Z Axis Parameter

(NOTE): The bigger the Center Blade Z Axis Parameter value the smaller the measurement will be.

In this case we need to add to the parameter because our probe is measuring big

$$105.3 + 0.6985 = 105.9985$$

Now we can update Center Blade Z Axis Parameter to 105.9985 and then escape in the top right corner and retest.

Image of the Center Blade Z Axis Parameter below

The screenshot shows the SASSO Machine Parameters interface. At the top, there is a logo for SASSO (MAKE IT EASY) and a power button icon. The interface displays the version (Ver. 3.3.190) and the current date and time (03 Oct 2022 10:49:00). Below this, there is a table of machine parameters. The 'Center Blade Z Axis' parameter is highlighted in blue, showing a value of 112.7. Below the table, there are input fields for 'Variabile:' and 'Nome:'. At the bottom, there is a row of function keys (F1 to F10) and a power button icon.

Information	Name	Display
SpindleType(W419=5).	Spindle Type	Digital inverter without encoder
MaxSpeedSpindle(V939=4500).	Max Speed Mill Tool RPM	4500.0
MaxSpeedBlade(V943=3000).	Max Speed Blade Tool RPM	3000.0
MaxPower(V300=40).	Max Power	40.0
MaxAmpere(V1001=37).	Max Ampere Supply	37.0
MinAmpere(V1155=0).	Min Ampere Supply	0.0
TimeoutMaxAmpere(V1156=1.5).	Time Out Max Ampere	1.5
TimeoutMinAmpere(V1157=0.5).	Time Out Min Ampere	0.5
OffsetAmpere(W1035=0).	Spindle Offset Ampere	0.0
InverterAxisZ(R1215=1).	Inverter Axis Z	Yes
LaserState(W423=1).	Laser State	Yes
Joysticks(R1208=1).	Joysticks Presence	Yes
FeedEndCut(R1210=0).	End Cut Feeder	No
RecoveryAxesC(R1216=0).	Tcp function for C axis	No
BladePlusCoreBit(R1218=0).	Blade Plus Core bit	No
WearCheking(R1220=0).	Wear cheking without laser	No
SensorControlBlade(R1217=1).	Sensor Control Blede Presence	Yes
CenterZDisc(V395=112.747).	Centre Blade Z Axis	112.7
XPositionDisc(V397=3942.436).	X Axis Position Blade Control	3942.4