

# StellarMark

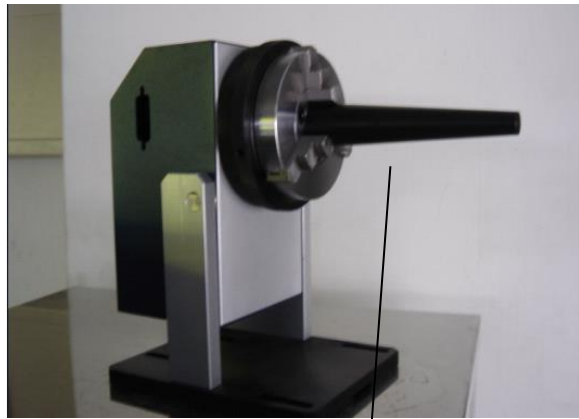
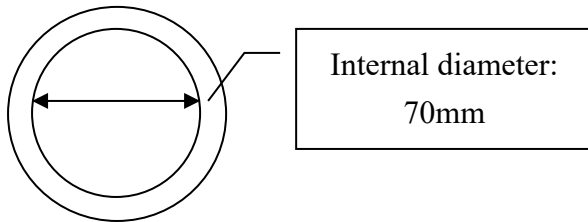
## Rotary Attachment User Manual



With the rotary attachment and G-Mark Library, it will allow you to mark out side or inside of cylindrical or round objects.

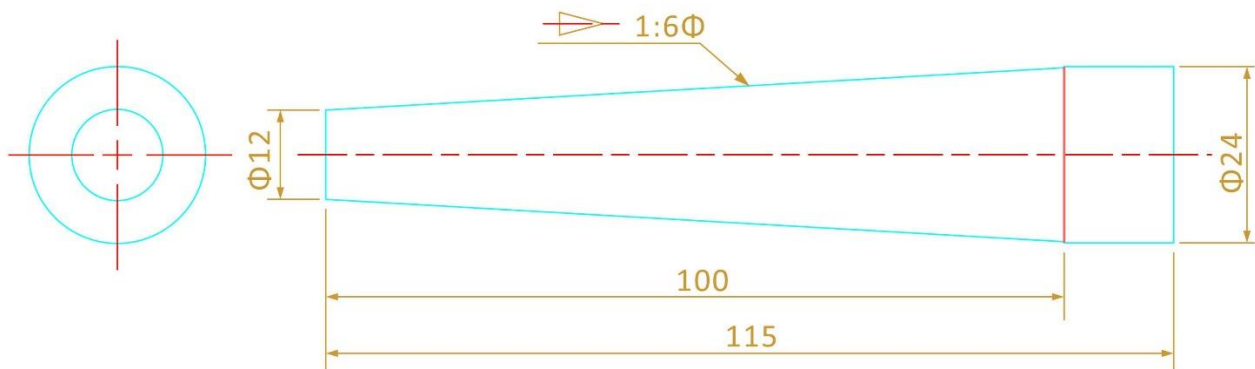
The maximum external and internal diameter of to be-marked object is 81 mm and 70 mm respectively. Its maximum weight should not exceed 5 kg

If you would like to mark out side of the ring, use the ring stick to position it.



Ring stick

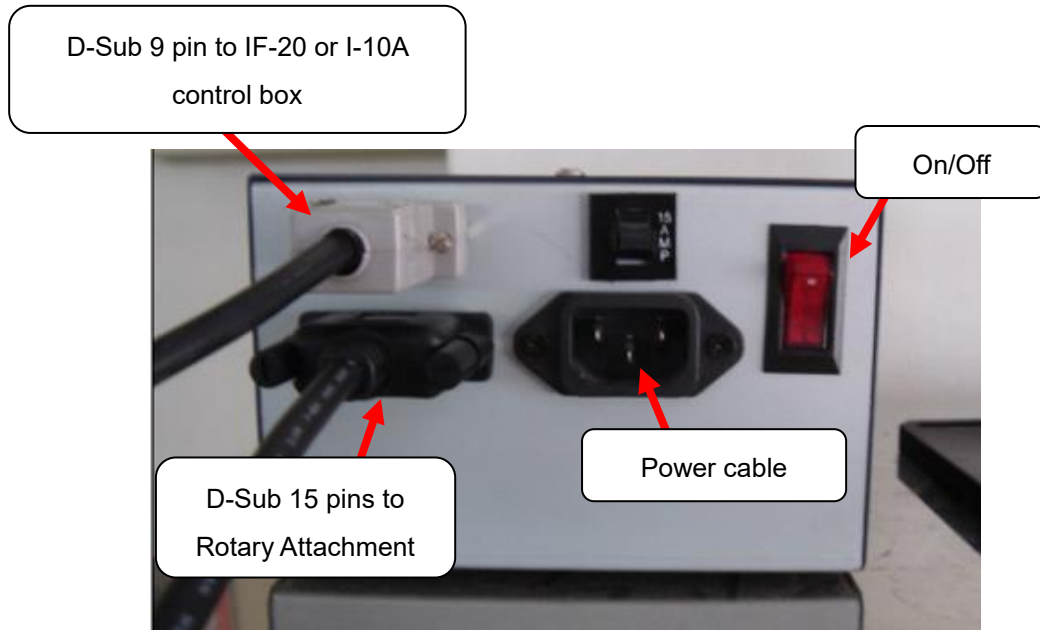
Dimension of Ring stick:



## Hardware Installation:

Please perform the following step to start a rotary attachment:

Step 1. Take out the small control box and three cables of (1) D-sub 15 pins (2) Power (3) D-Sub 9 pin out of box.

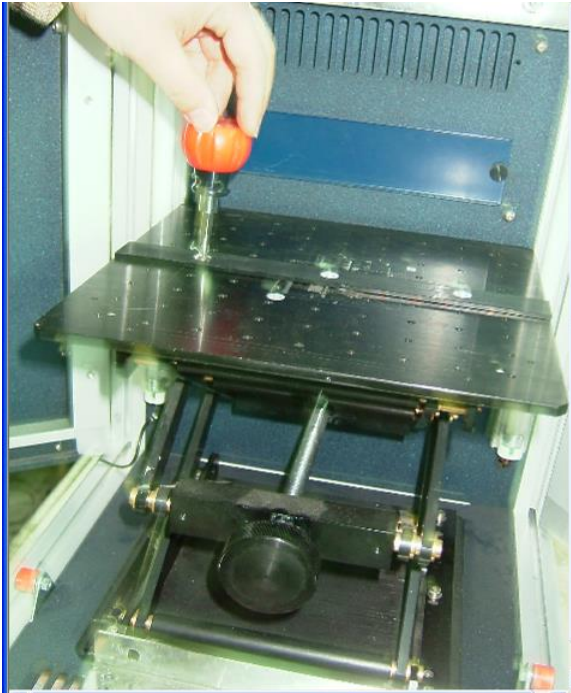


Step 2. Attach the D-Sub 15 pin cable between the control box and rotary attachment.

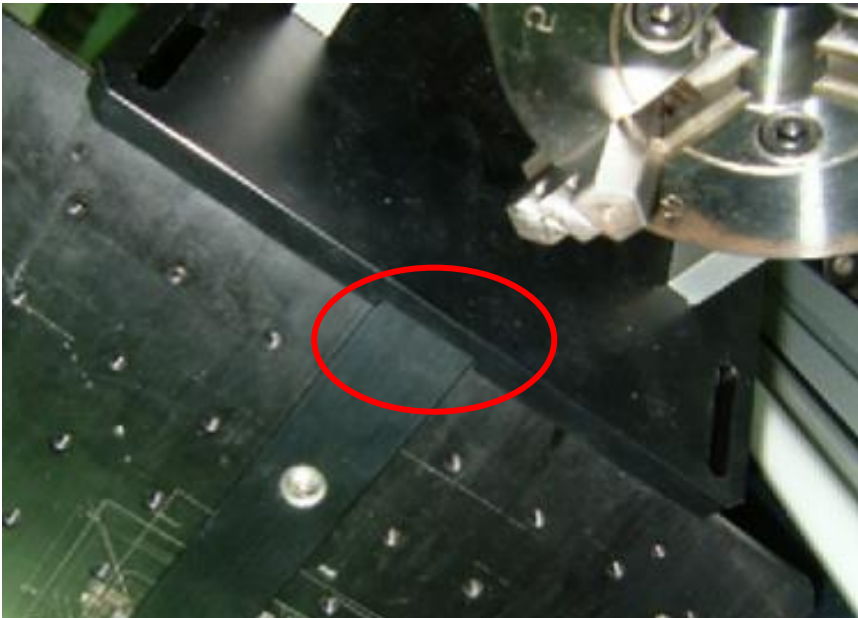


Step 3. Attach the power cable between the outlet and control box of Rotary Attachment.

Step 4. Take out the rectangle fixture and screw it on the top of the adjustable Z-Axis table



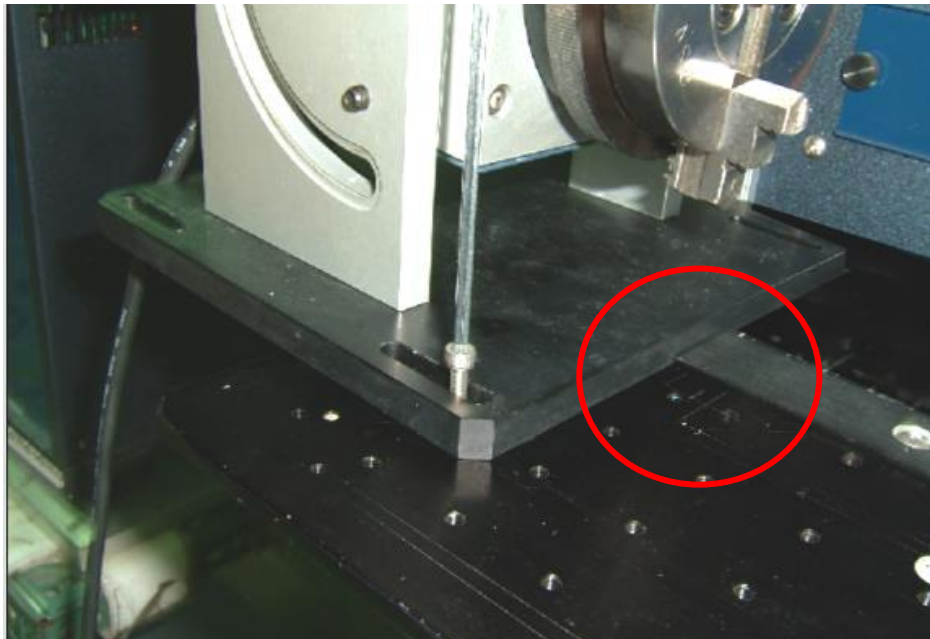
Step 5. Slide the fillister of the base of rotary attachment into the rectangle fixture which you have screwed on the top of Z-Axis table.



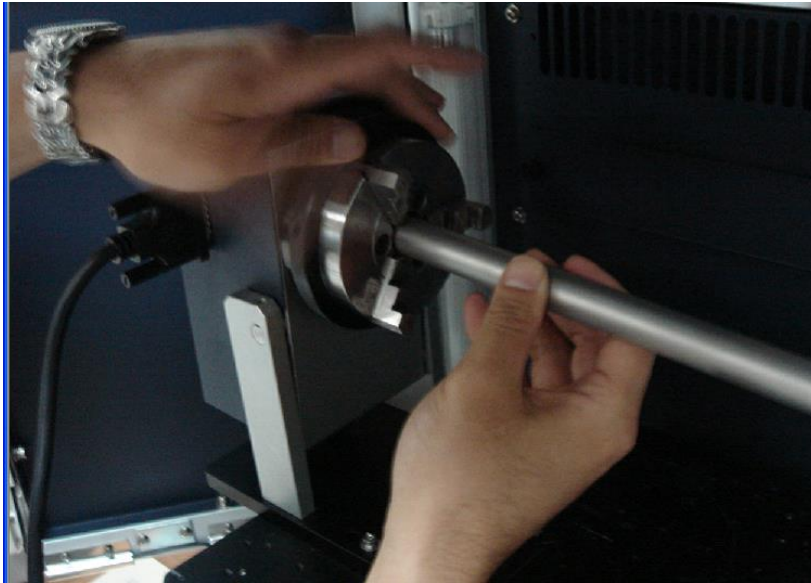




Step 6. Slide the rotary attachment to a desired position and screw it once the marking position is confirmed.



Step 7. Use the claw of the rotary attachment to clip the desired marking object



Note:

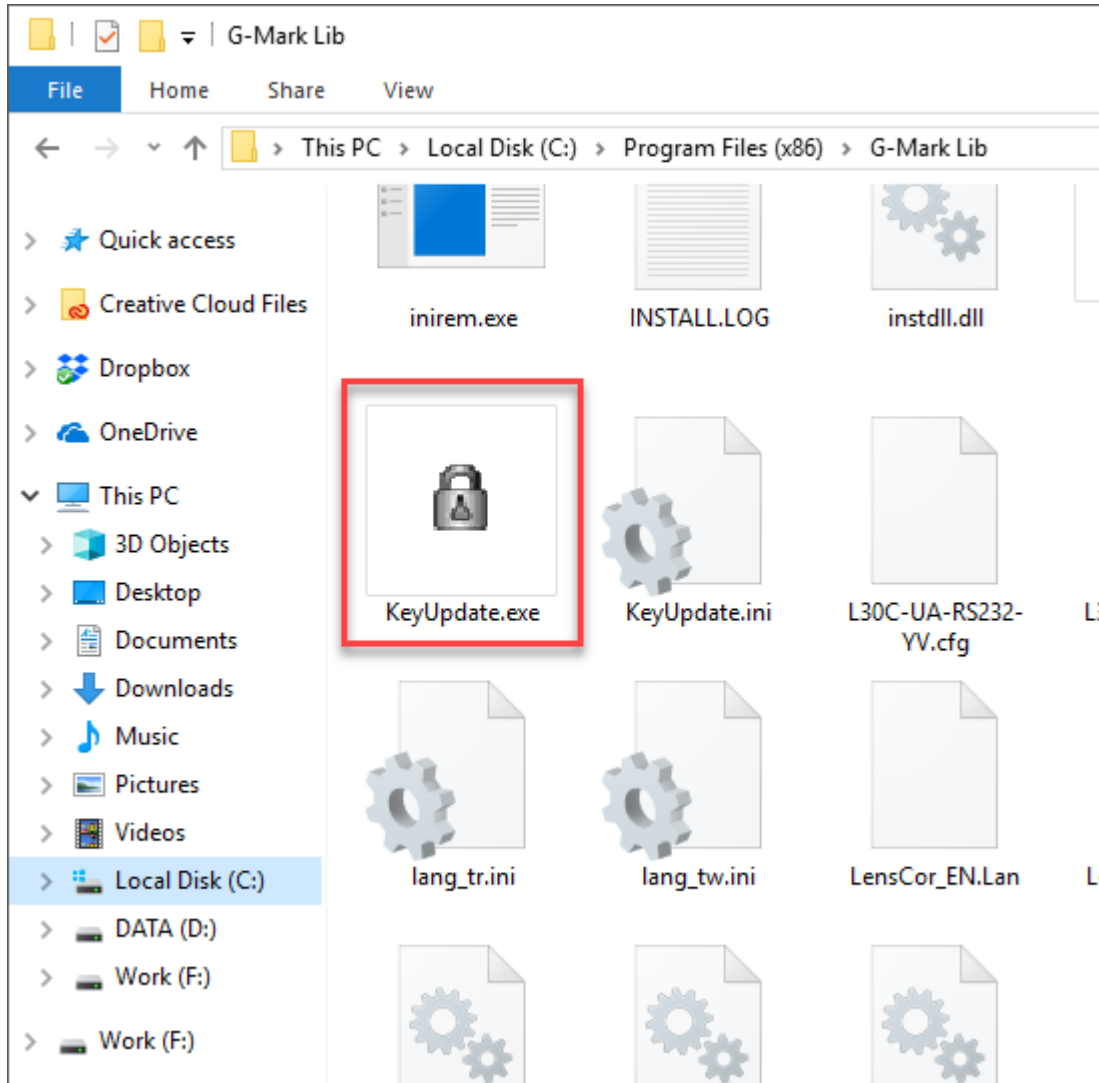
If you want to use the ring stick, you will need to change the direction of the three claws to attach it.



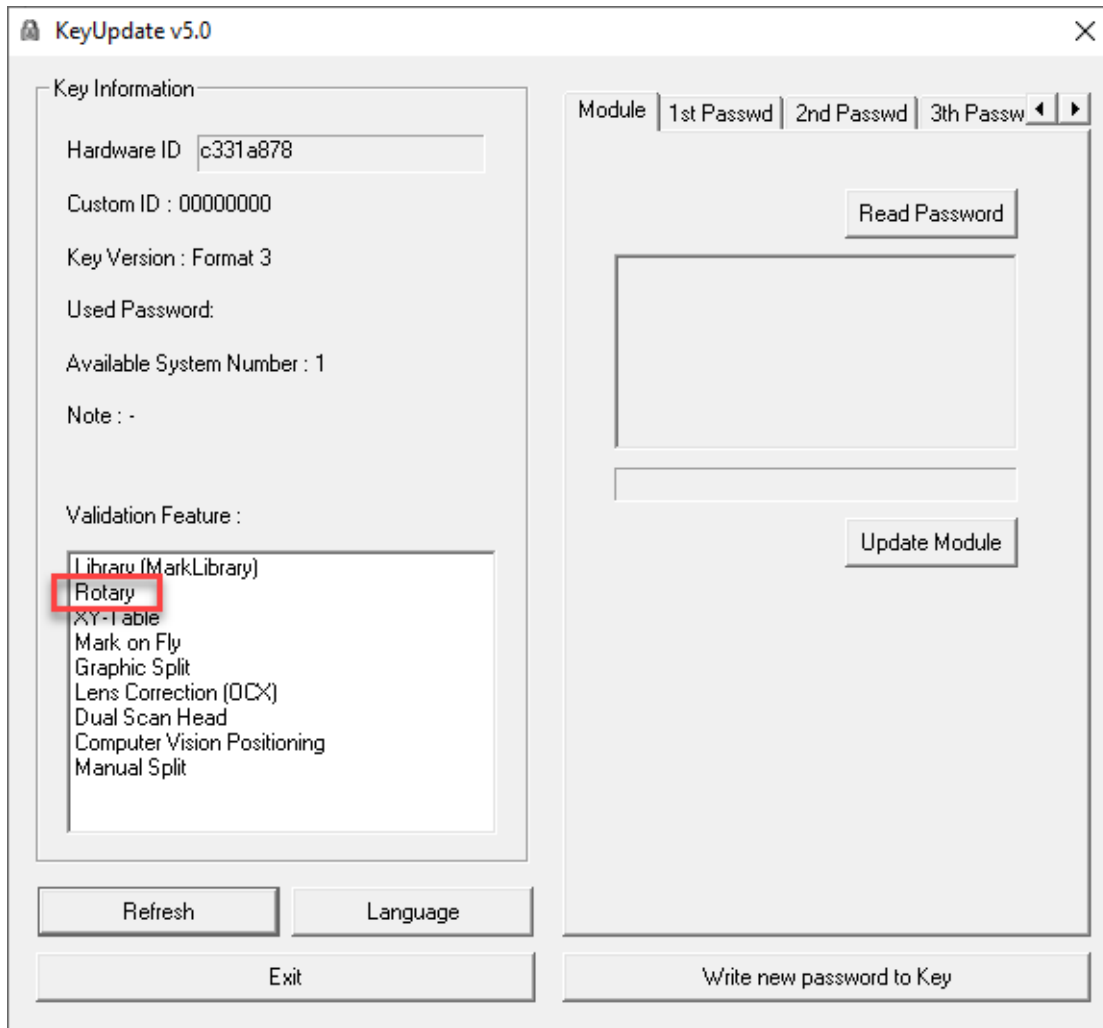
# Software Installment:

## Check G-Mark Key Update

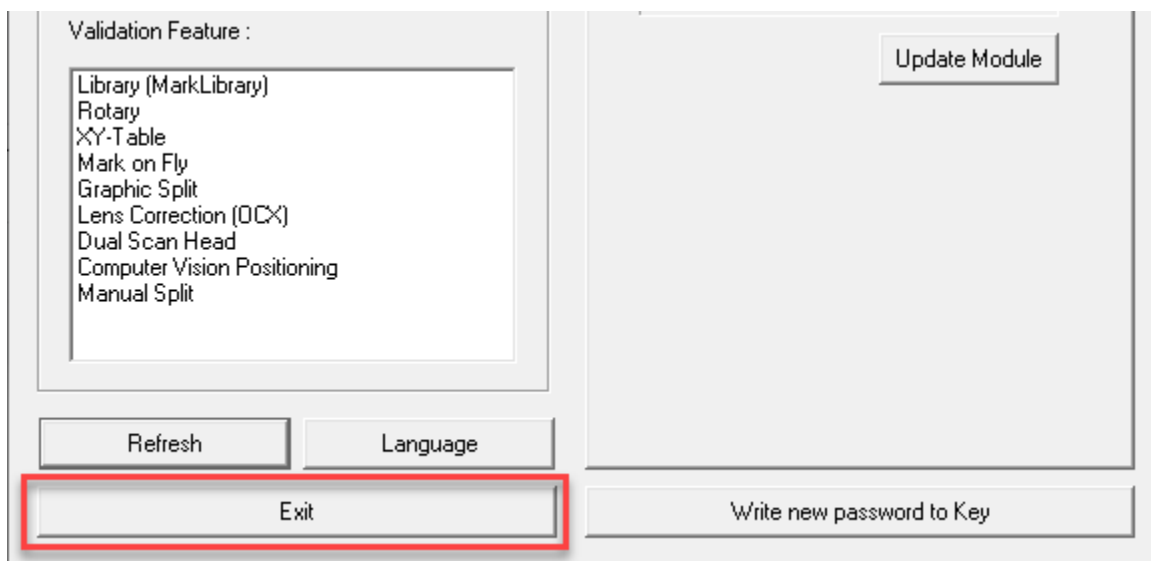
1) Run "KeyUpdate" program at C:\Program Files (x86)\G-Mark Lib



- 2) Check if the “Rotary” is in list of “Validation Features”, if not, please contact your distributor to purchase the function of Rotary with your Keypro.



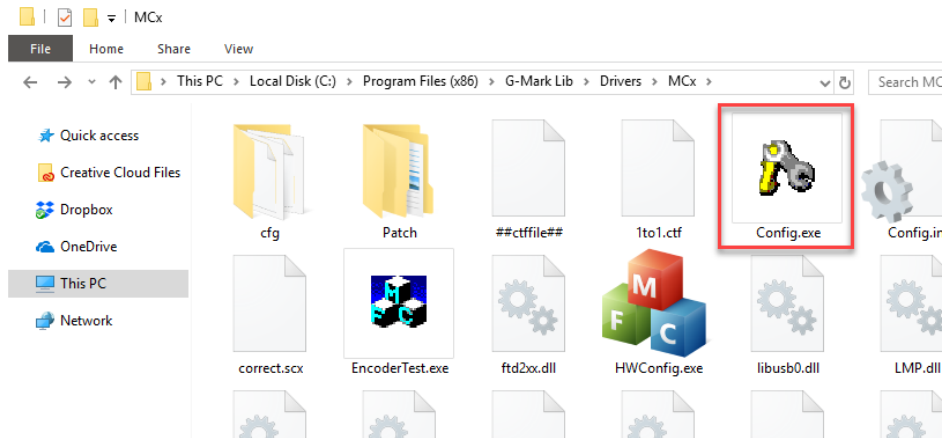
- 3) After the checking, Click on “Exit” to close the KeyUpdate window.



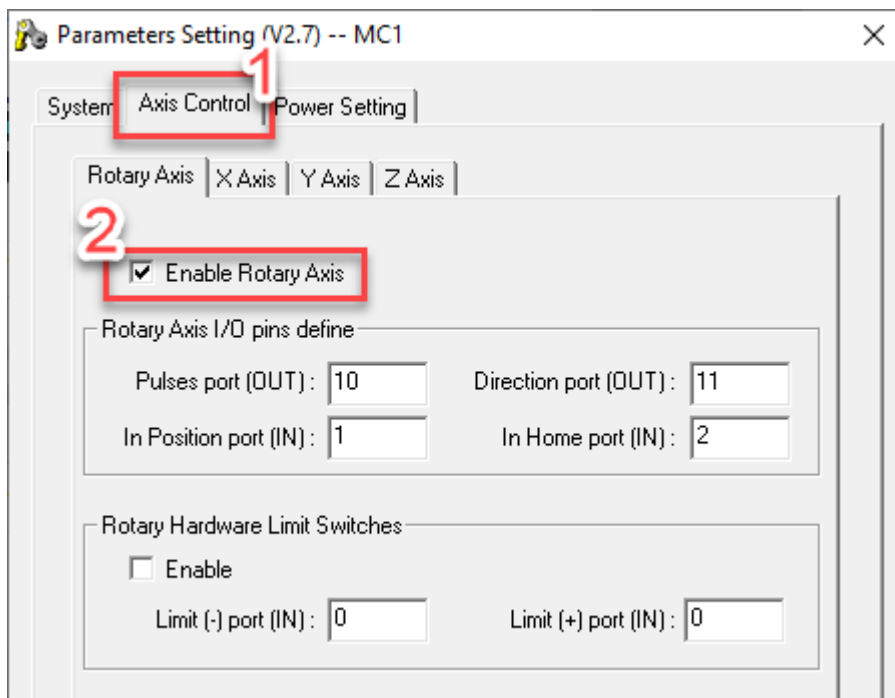


## Enable Rotary Function

Step 1. Run "Config.exe" program at "C:\Program Files\G-Mark Lib\Drivers\MCx"



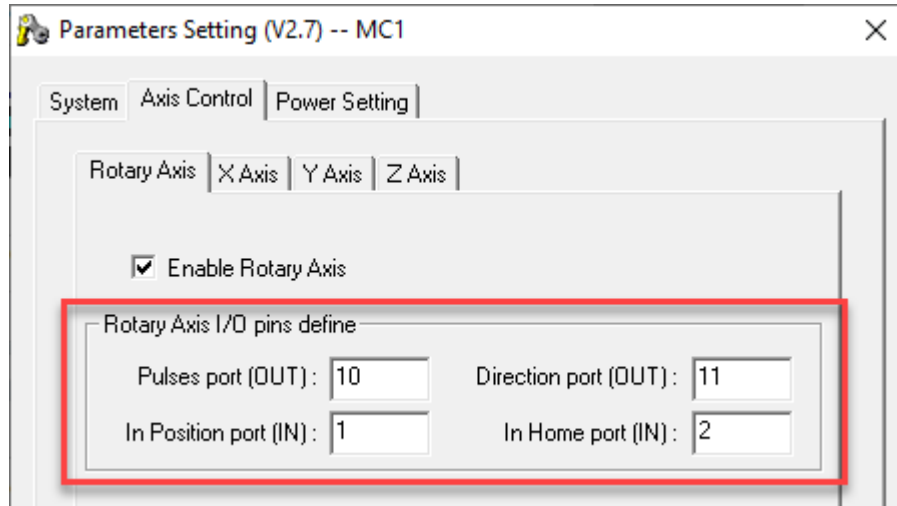
Step 2. Check the "Enable Rotary Axis" checkbox under the Axis Control tab



Step 3. Enter the correct Rotary Axis I/O pins define setting values according to the model being used.

### I-10A

For the StellarMark I-10A model, key in the value as shown below

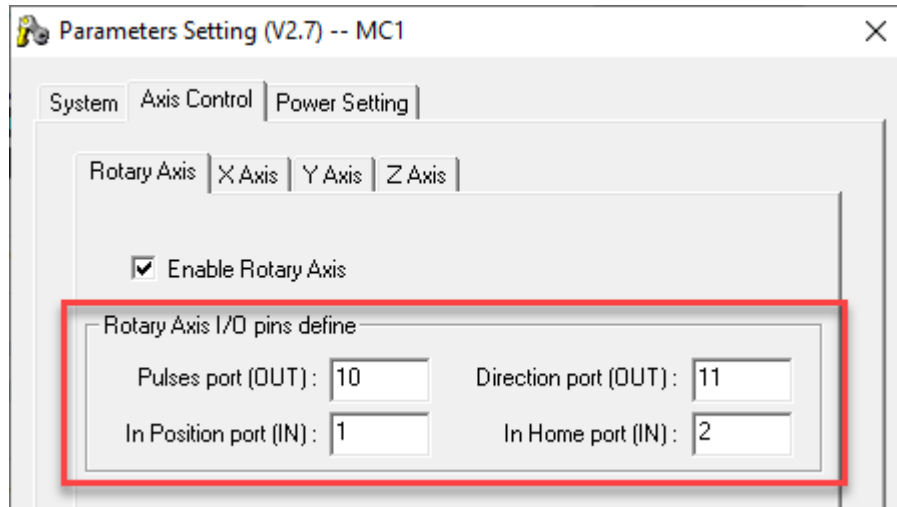


### CIIA Series

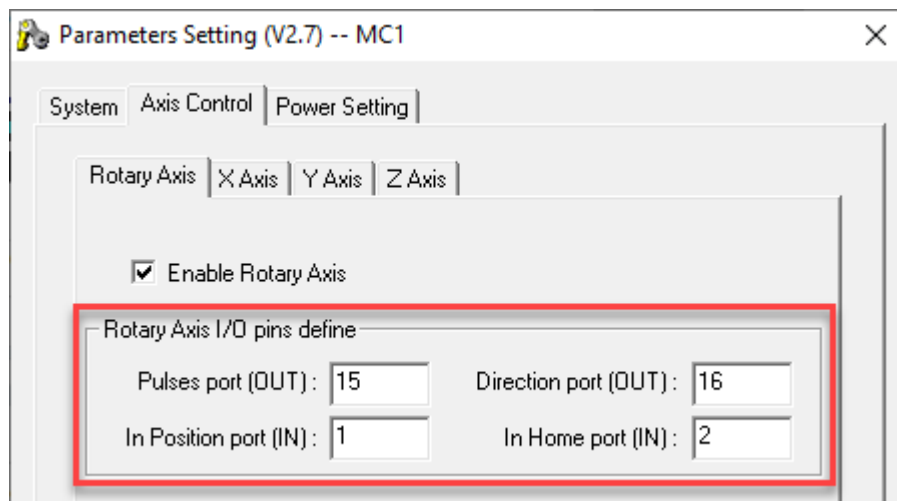
For the StellarMark CIIA series, please check the rear lower left side of the control unit to see if a Body I/O Board Version 1 sticker can be found.



Key in the values shown in the picture below if the Body I/O Board Version 1 sticker is found on the back of the machine

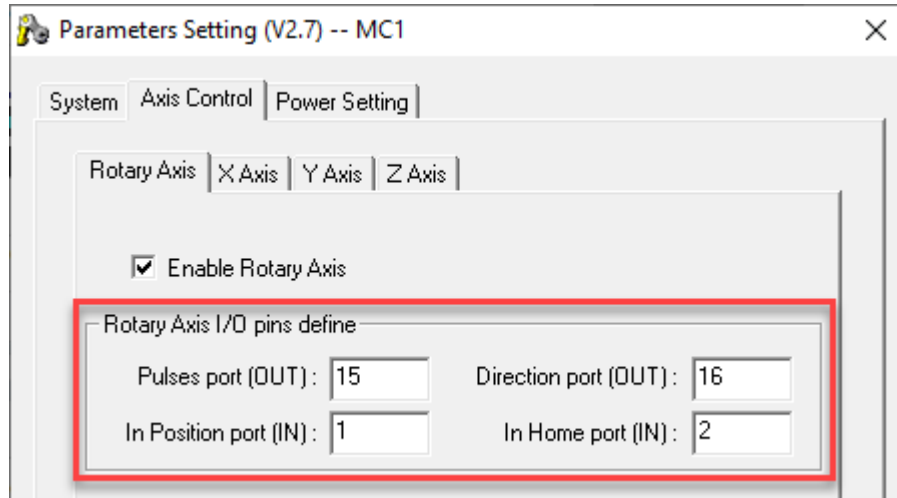


Key in the values shown in the picture below if the Body I/O Board Version 1 sticker is not found on the back of the machine.



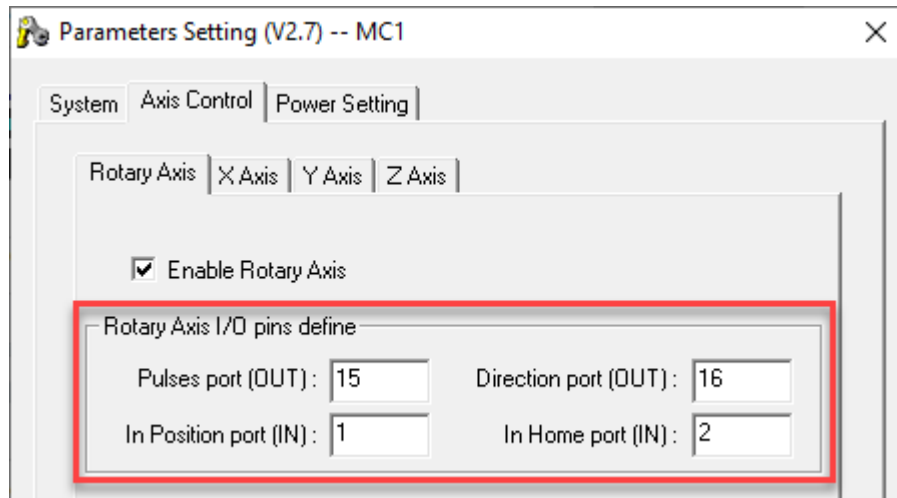
## CIIP Series

For the StellarMark CIIP series, key in the value as shown below



## IF-20

For StellarMark IF 20 model, please check the manufactured date of the machine. If the machine is manufacture from May 2013, please key in the values shown in the picture below.



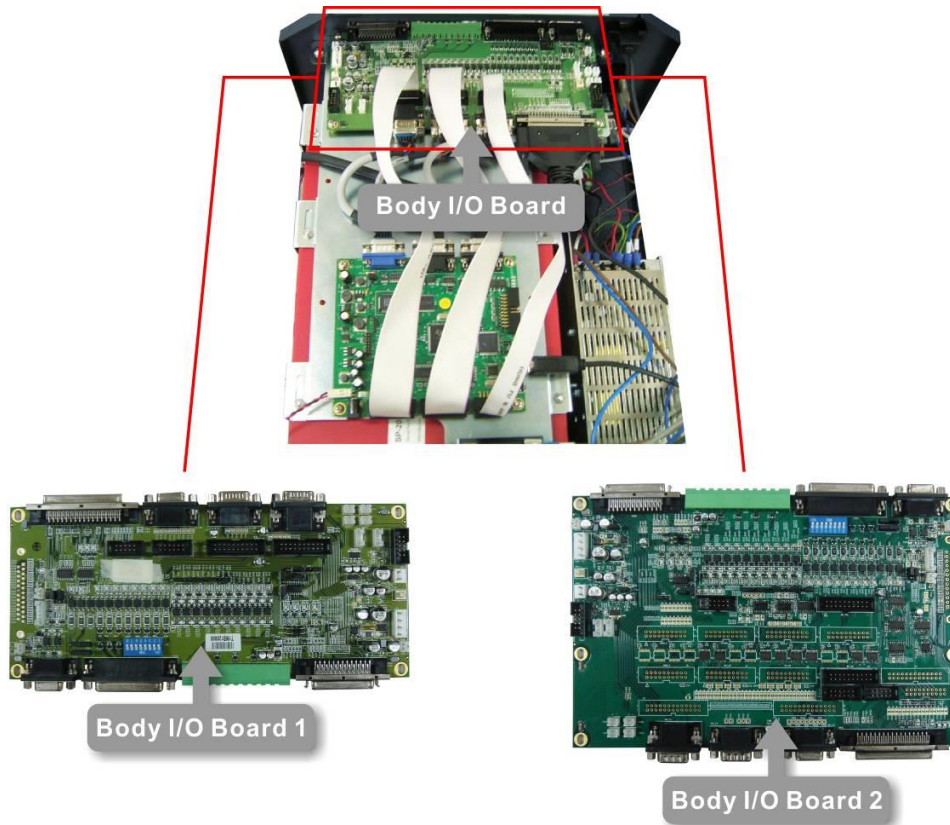


If the machine is manufacture before May 2013, please identify the version of the Body I/O board.

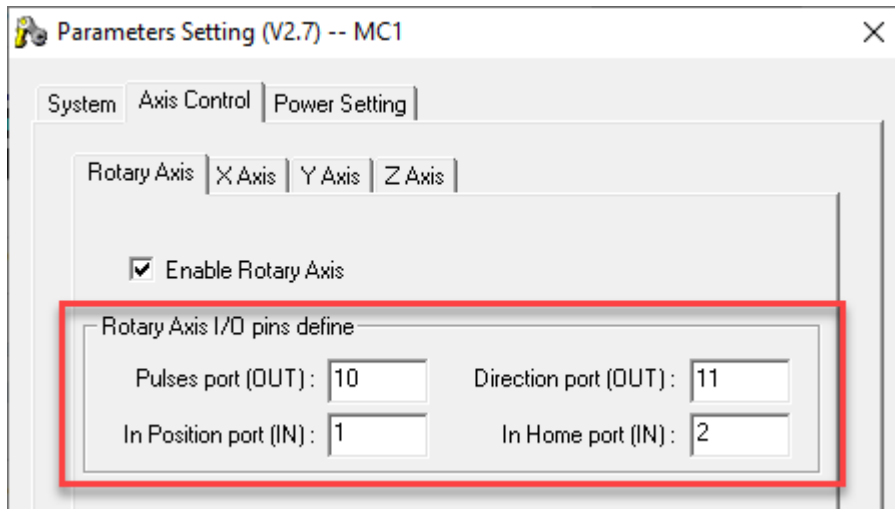
1) Remove the screws on the cover of the power supply



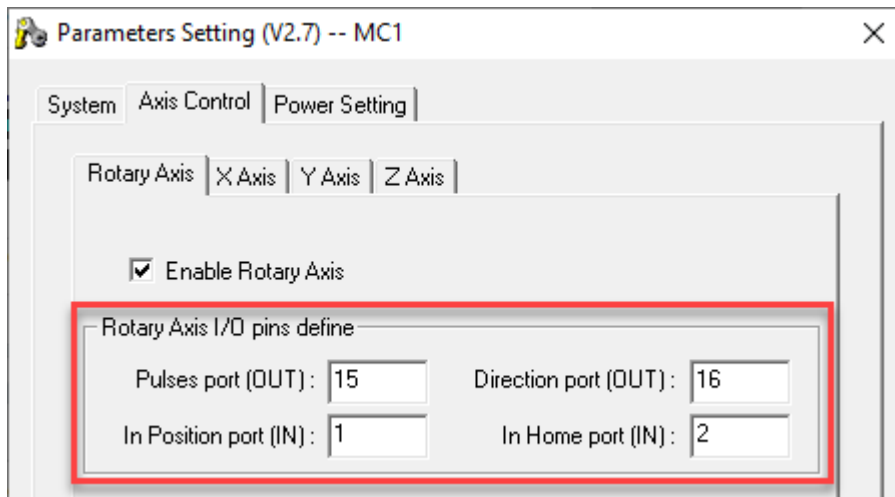
2) Identify the version of the installed Body I/O Board



3) Enter the following values for Body I/O Board Version 1

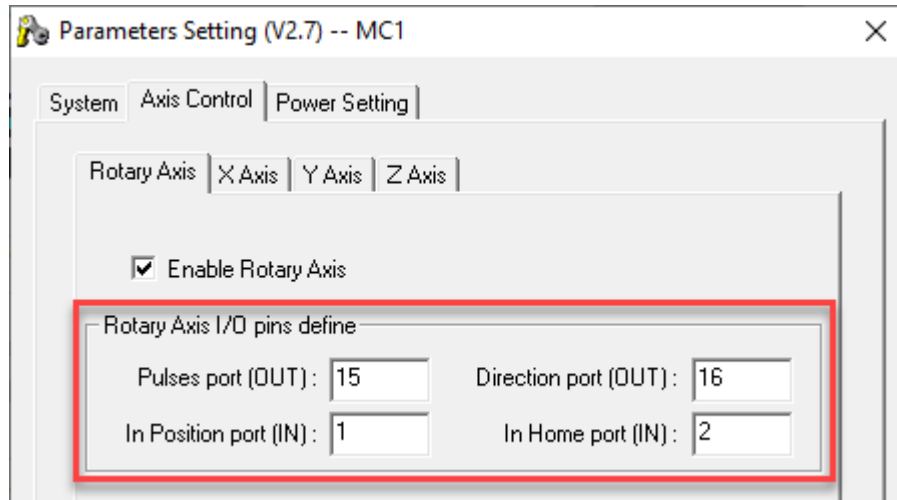


4) Enter the following values for Body I/O Board Version 2

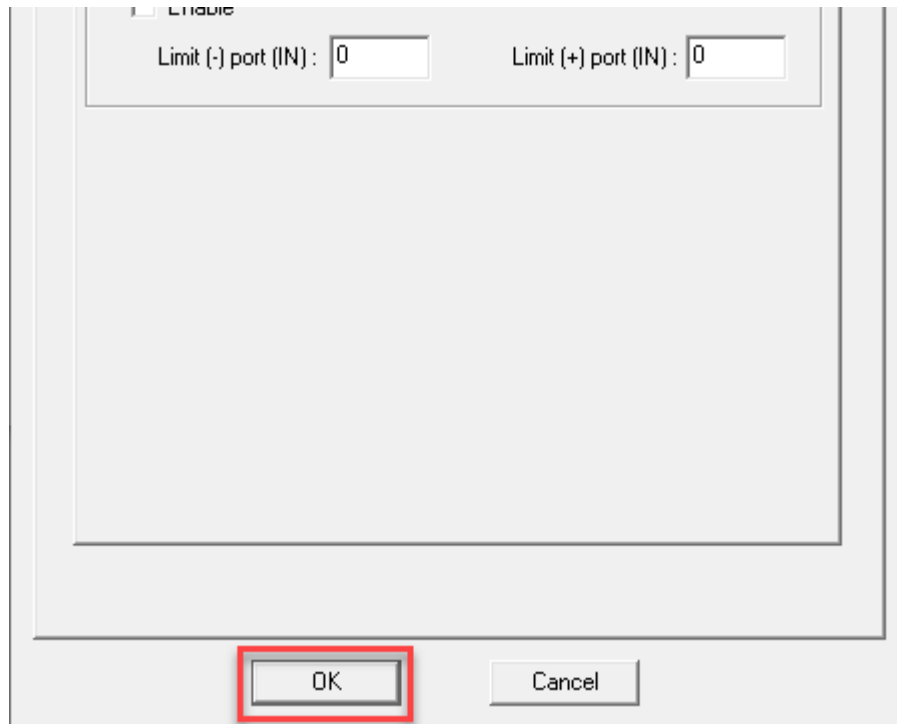


**IF-40/IF20LRM/20SHS/40HHS/IFII 20RMZ/20SHS/40HHS/IFII JFL**

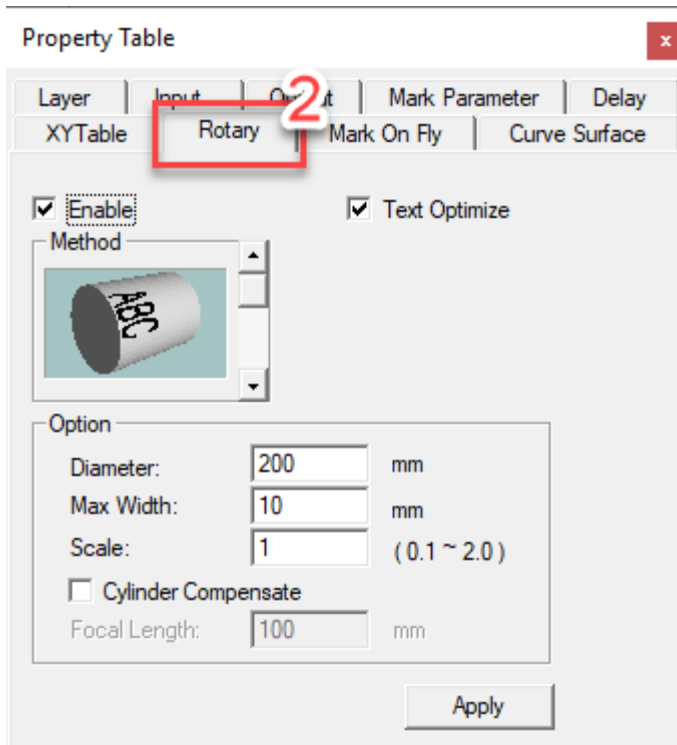
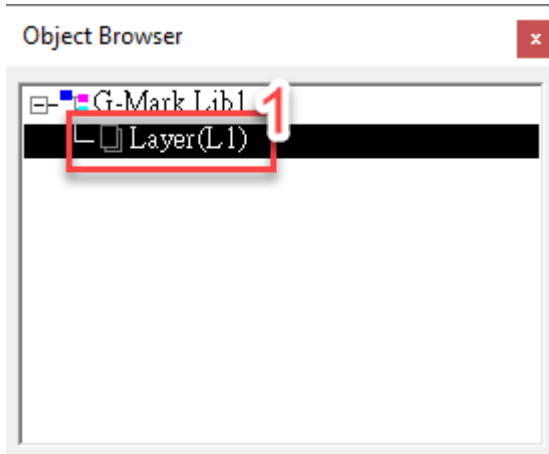
On StellarMark IF-40/IF20LRM/20SHS/40HHS/IFII 20RMZ/20SHS/40HHS/IFII JFL, key in the value as showing below



Step 4. Click on “OK” to close the Parameters Setting window.

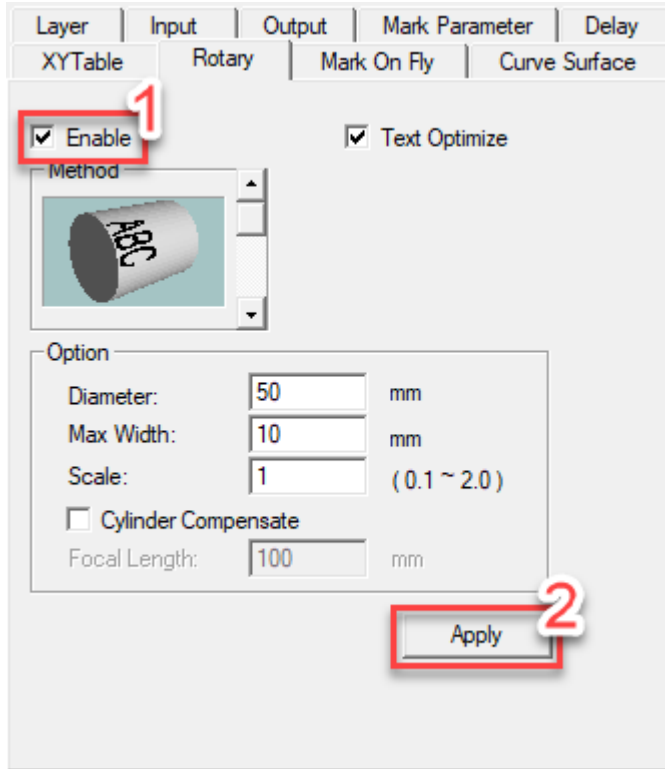


Step 5. Open G-Mark marking software and click on the layer of Object Browser and the “Rotary” under property table will pop up.





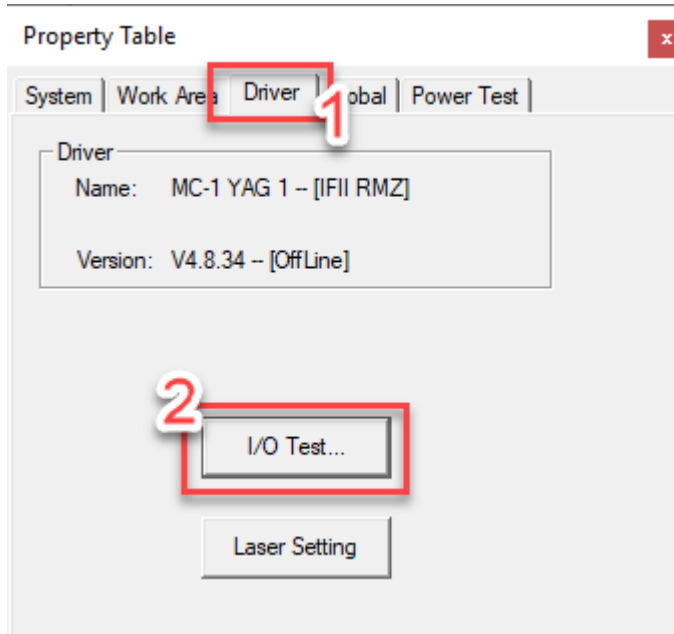
Step 6. Then click on “Enable” and “Apply” to activate rotary marking function from the Property table.



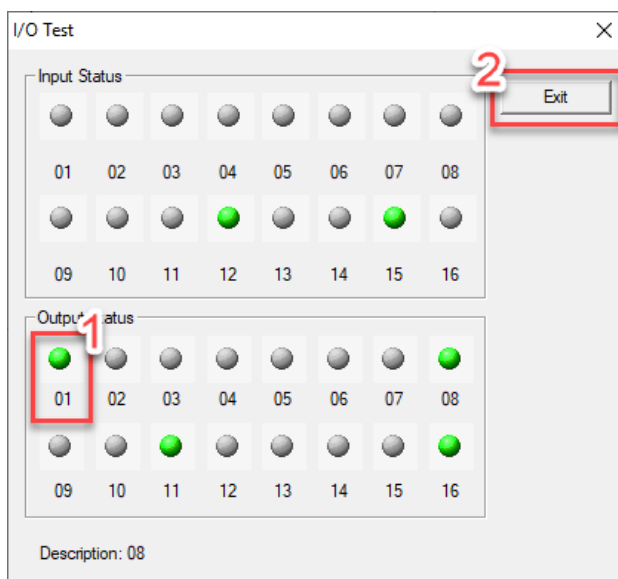
Step 7. You will need to do the below settings and tests to make sure the rotary attachment can work the way you want.

- ◆ Enable output status 01 light

Before testing and settings rotary attachment please make sure the output status 01 light is enable, click the Driver from property table and press “I/O Test...”



- ◆ Click the 01 light from output status, the gray light will become green light it means the output status 01 is enable. And then click on “Exit” to close the I/O Test window.

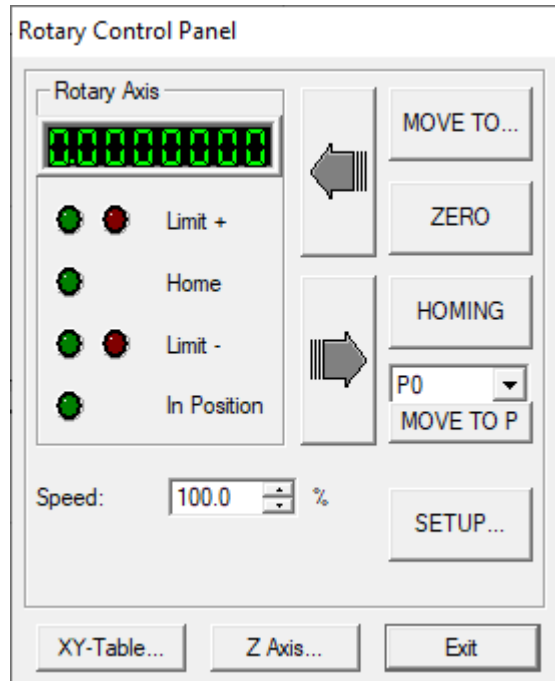


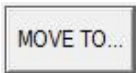
◆ Setting

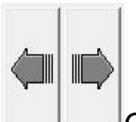
To set the desired parameter of rotary marking. Please click “Rotary Control Panel” from Mark Panel in right side of G-Mark marking software.

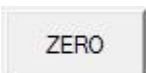


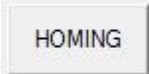
Once the setting is clicked, a rotary control panel window will pop up.

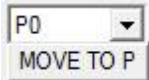


1.  Click “MOVE TO...” button and input the degree value in the box, rotary axis will rotate that specific angle. The rotating speed can be adjusted by moving the speed bar by mouse.

2.  Click the two direction buttons can also move the rotary axis by the Jog Step degree. The Jog Step can be adjusted by mouse too.

3.  Click “ZERO” button, the present position will be set as the program origin.

4.  Click "HOMING" button, the rotary axis will rotate to the original position.

5.  Select P0~P9, the rotary axis will directly rotate to the setting position of P0~P9. You can click "SETUP" button to reset the value of P0~P9.

6.  Click the "SETUP" button can do more settings as below:

**Rotary Setup** ✕

Program Org. [deg.]	0
Axis Unit [pulse/rev.]	2800
Speed [deg./sec]	20
Backlash [deg.]	0
Motor Reverse	<input type="checkbox"/>
Jog Reverse	<input type="checkbox"/>
Limit Trigger Level(0/1)	1
Home Trigger Level(0/1)	1
Inpos Trigger Level(0/1)	1
Acc/Dec Times [sec]	0.1
Init. Speed [deg./sec]	10
Inpos Timeout [sec]	0.02
Inpos Delay [sec]	0.02
Rotary Direction	...
Method of Mark End	Reverse Direction <span style="float: right;">▼</span>
Ext I/O Home	Null <span style="float: right;">▼</span>

Speed Range  ~  %



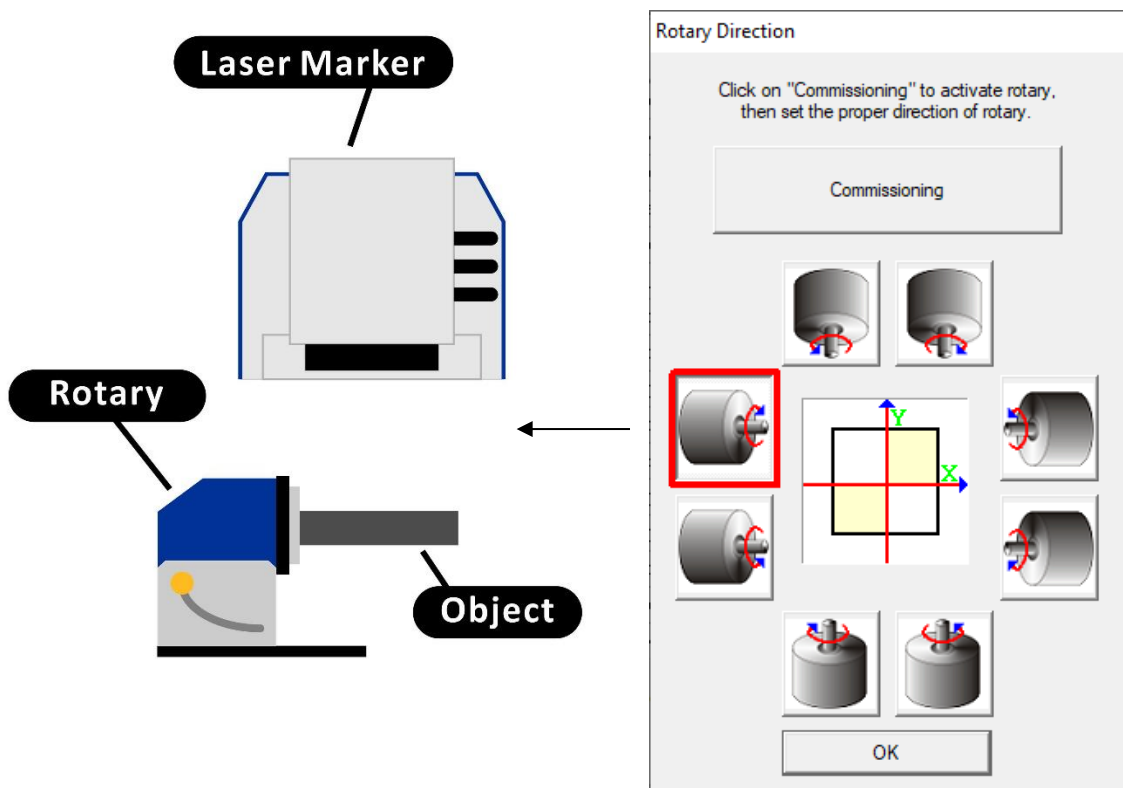
### A. Setting Rotary Direction

Limit Trigger Level(0/1)	1
Home Trigger Level(0/1)	1
Inpos Trigger Level(0/1)	1
Acc/Dec Times [sec]	0.1
Init. Speed [deg./sec]	10
Inpos Timeout [sec]	0.02
Inpos Delay [sec]	0.02
Rotary Direction	...
Method of Mark End	Forward
Ext I/O Home	Null

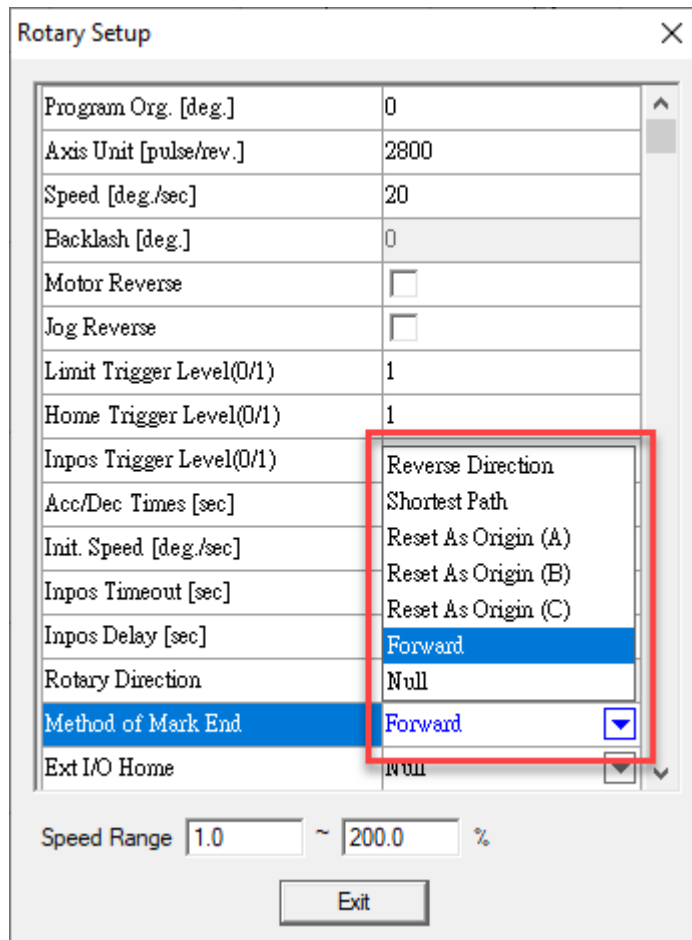
Speed Range  ~  %

You will need to select the desired position of rotary attachment and which direction you want it to be rotated.

For example:



## B. Return mode window



Parameter	Value
Program Org. [deg.]	0
Axis Unit [pulse/rev.]	2800
Speed [deg./sec]	20
Backlash [deg.]	0
Motor Reverse	<input type="checkbox"/>
Jog Reverse	<input type="checkbox"/>
Limit Trigger Level(0/1)	1
Home Trigger Level(0/1)	1
Inpos Trigger Level(0/1)	Reverse Direction
Acc/Dec Times [sec]	Shortest Path
Init. Speed [deg./sec]	Reset As Origin (A)
Inpos Timeout [sec]	Reset As Origin (B)
Inpos Delay [sec]	Reset As Origin (C)
Inpos Delay [sec]	Forward
Rotary Direction	Null
Method of Mark End	Forward
Ext I/O Home	Null

Speed Range: 1.0 ~ 200.0 %

Exit

You will need to select the Method of Mark End of

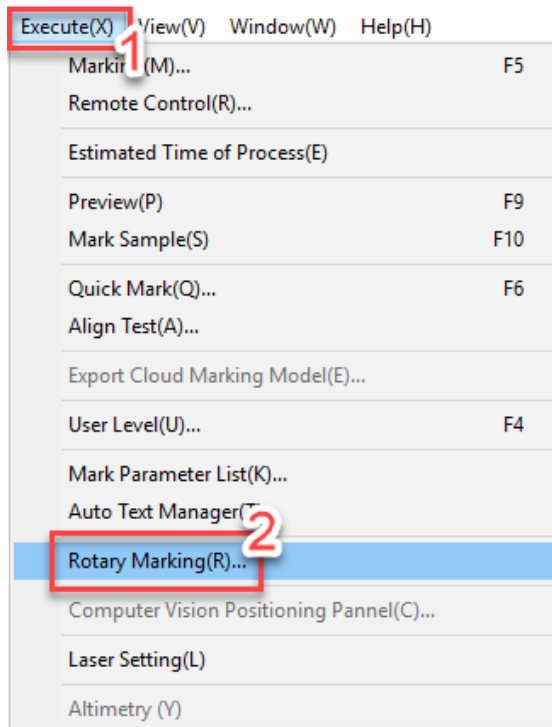
- (1) Reverse direction
- (2) Shortest Path
- (3) Reset as Origin (A)
- (4) Reset as Origin (B)
- (5) Reset as Origin (C)
- (6) Forward of rotary attachment once the job is completed.



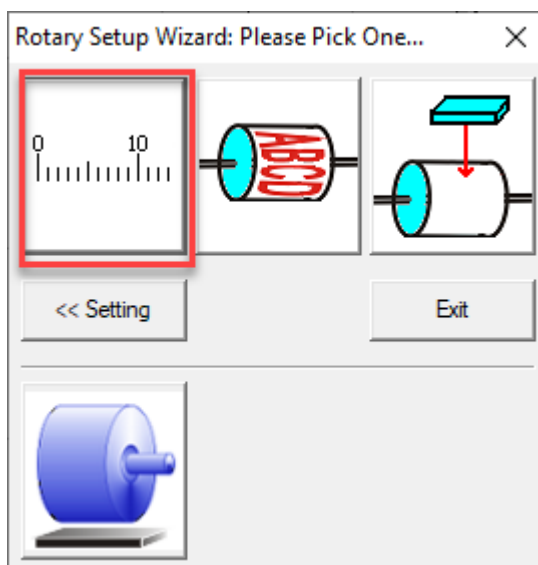
◆ Scale

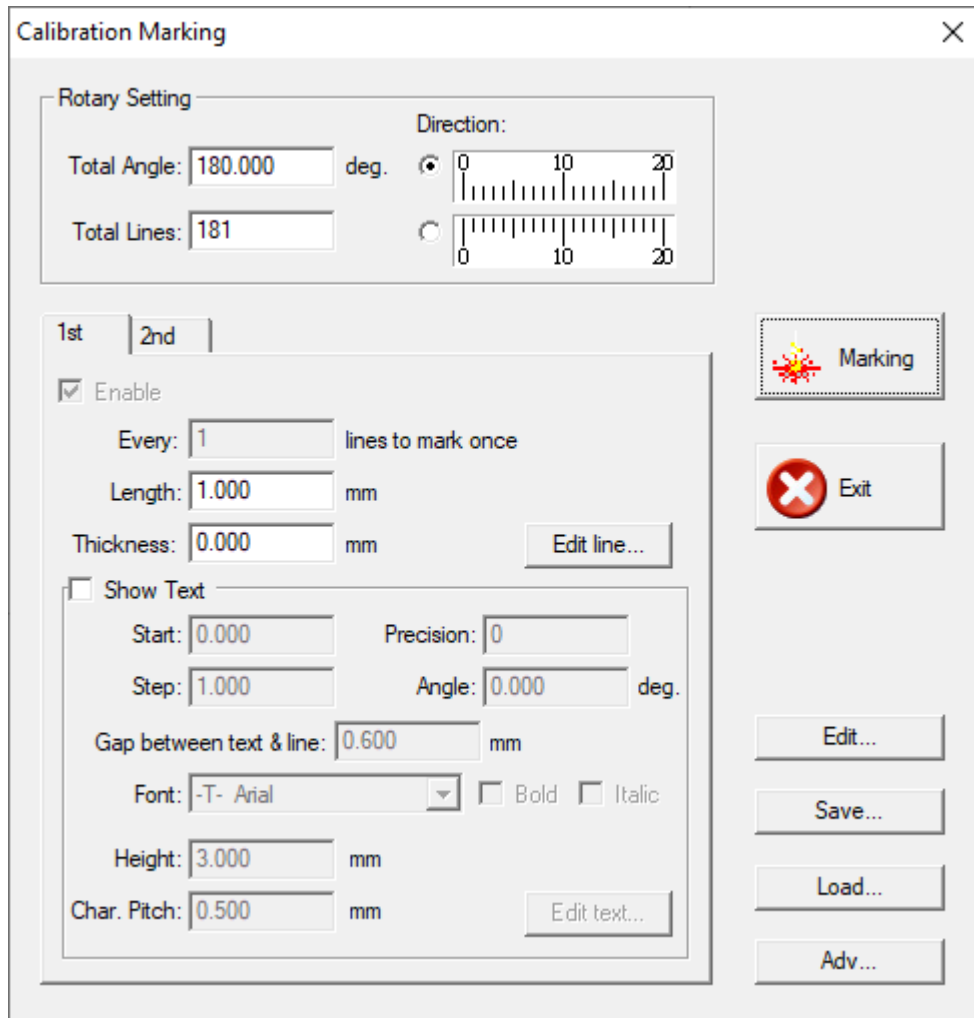
This will allow you to test the scale marking of rotary attachment.

Click on the “Execute” → “Rotary Marking” from menu bar, a “Rotary Setup Wizard” window will pop up.



Click on the “Scale” picture, a “Calibration Marking” window will pop up.





**1. Total Angle:**

What are the total rotating angles you want it to be mark.

**2. Total Line:**

How many scale lines you want it to be marked.

**3. Direction:**

Which directions you want the scale to be marked.

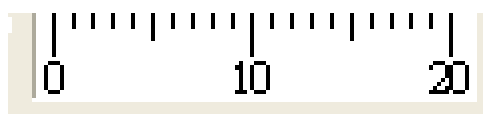
**4. Laser Setting:**

The setting is set as default, so you will no need to adjust it.

**5. 1<sup>st</sup> & 2<sup>nd</sup>**

This is page is for scale lines and text settings.

You can use 1<sup>st</sup> and 2<sup>nd</sup> windows to create long and short scale lines with texts.



5-1 Every: Setting the number of lines to mark once

5-2 Length: What length of the scale line you want it to be marked.

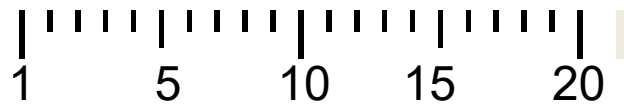
5-3 Show Text

◆ Start:

Where you want the text begins along the scale.

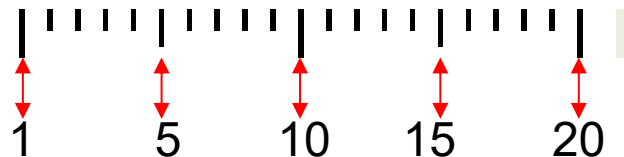
◆ Step:

If you want every 5 lines is marked with text, then you will need to select 5.



◆ Gap between Text and Line:

You can select the distance between the text and line.



◆ Height:

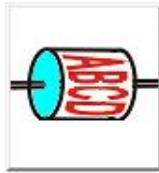
Allow you to select the desired size of text.

◆ Chart Pitch: The gap between the character..

5-4 Marking

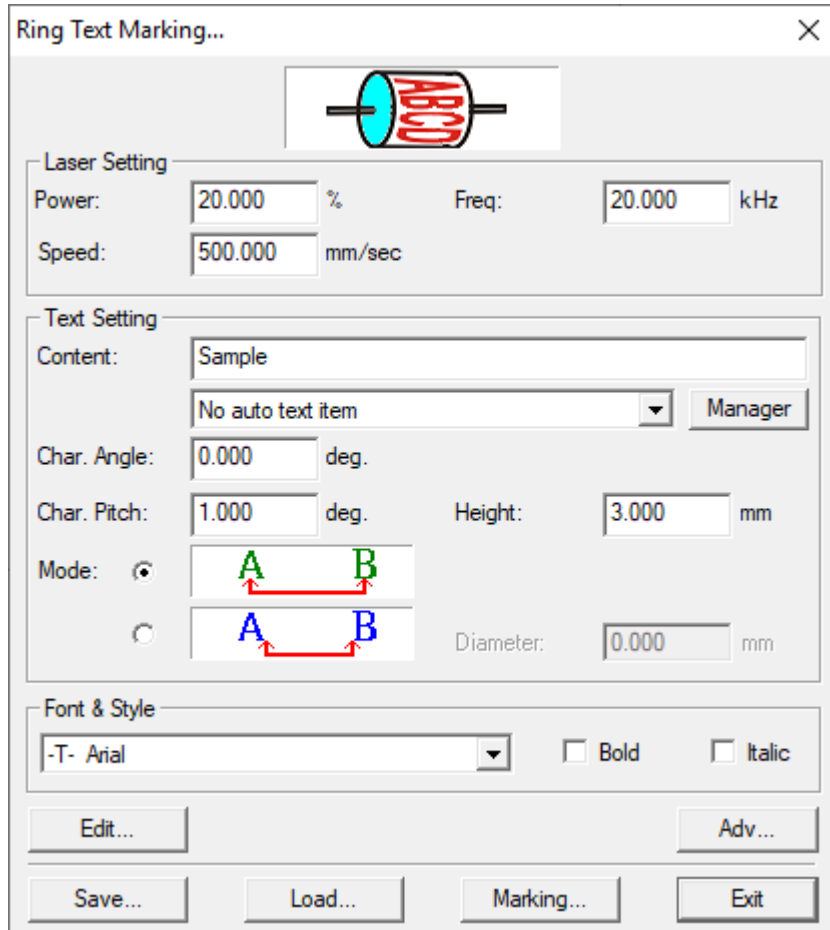
You can execute the scale marking by press the button.





◆ Ring text marking

This will allow you to test the rotary marking with text.



1. Laser setting:

The settings are set as default, you won't need to adjust the settings.

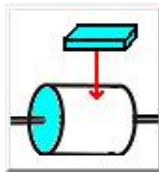
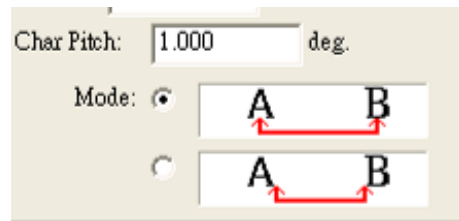
2. Text setting:

2-1 Content: The content of text you want to mark..

2-2 Height: The height of text you want to mark.

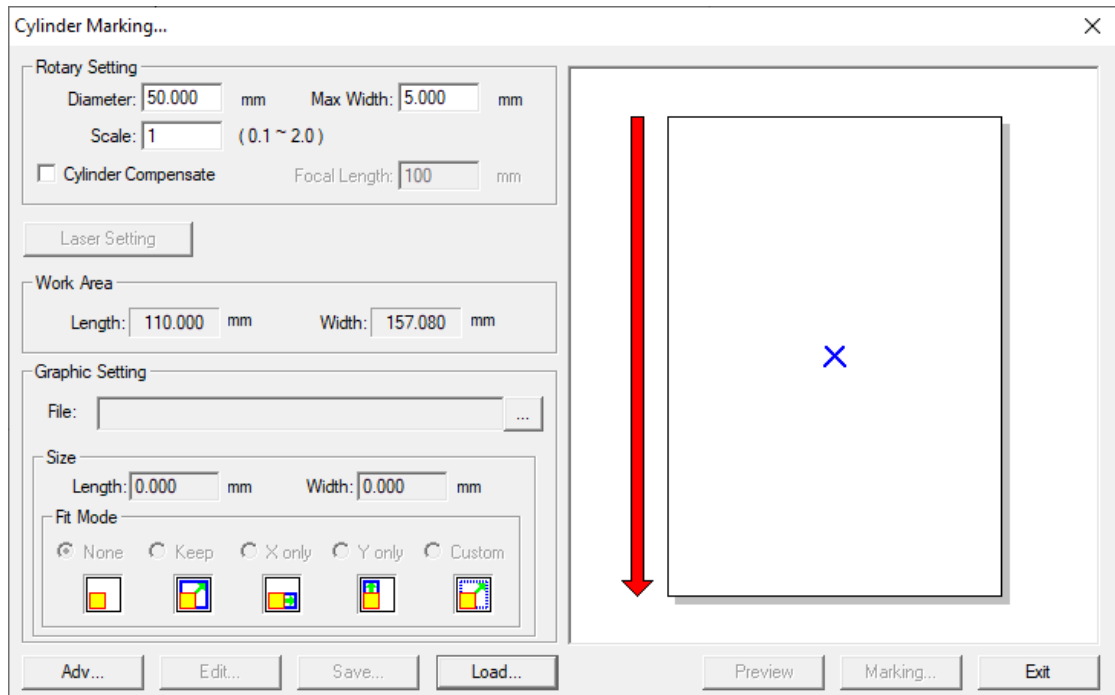
2-3 Char Pitch: The gab between tow texts.

2-4 Mode: To select the mode where you want to start to calculate the gap between the two texts.



◆ Cylinder Marking

This will allow you to test the rotary marking with .dxf files.



1. Rotary Setting

**1-1 Diameter:**

Key in the diameter of the object that will be marked.

**1-2 Max. Width:**

The max. area you want the laser to mark every time when rotary is rotated.

## 2. Laser Setting

The settings are set as default so you won't need to adjust it.

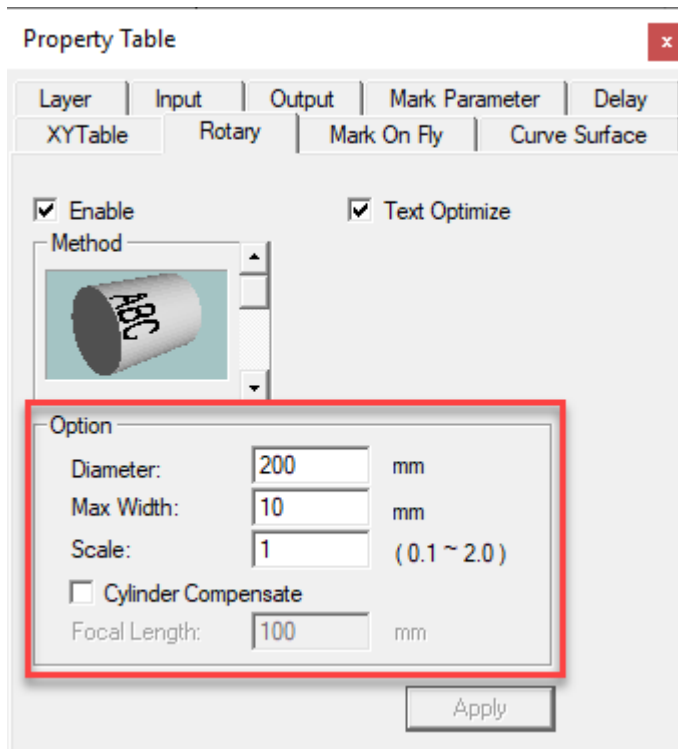
## 3. Fit mode

You can select different mode to make the dxf file to meet the marking area.

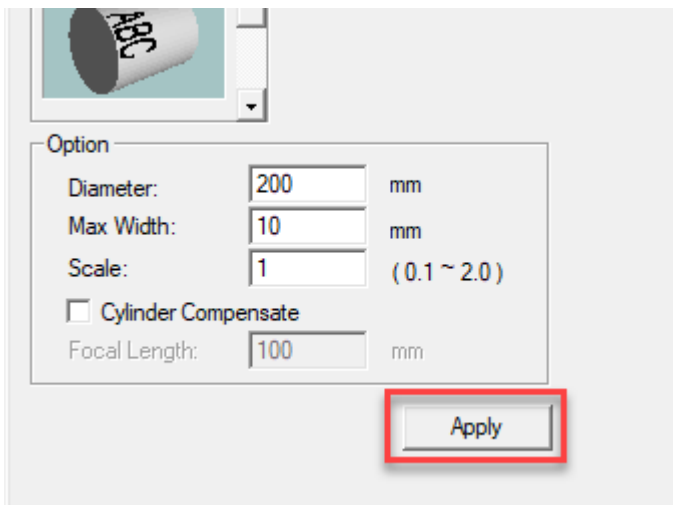
If you select custom, then you can resize of your dxf file manually.

Step 8. Once the above tests and settings are complete, please disable the output status 01 light under I/O test to ensure the rotary attachment is able to process normally. You can now start to work with Rotary attachment.

Step 9. Click on "Rotary" tab from Property Table and then key in the diameter and Max. width of your to be marked object.



Step 10. Then click 'Apply' to activate the working page for rotary marking



Step 11. Type the desired text or import files and get ready for the marking procedure.