PlanMill® 60 S

Quick Reference Guide

PLANMECA
Digital Academy

Select Jobs/Start Job 3

Changing Tools 3

Adding New or Renaming Tools 4

C-Clamp Adapter 6

Block Adaptor 7

Position of the Table 8

Cleaning and Maintenance 8

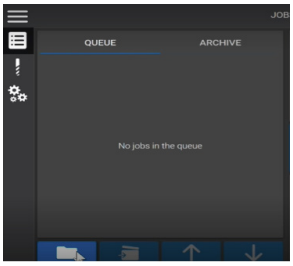
Calibration 9

Functions 12

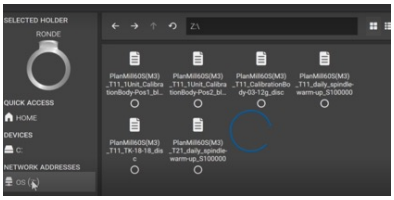
Spindle (Collet) Cleaning 12

Adding Multiple Crowns to a Disc 14

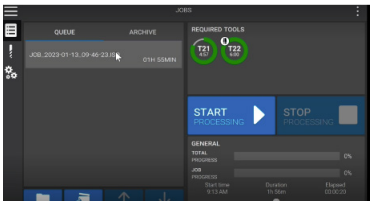
Select Jobs/Start Job



This is the job Display. To select a job, click on the folder bottom left.

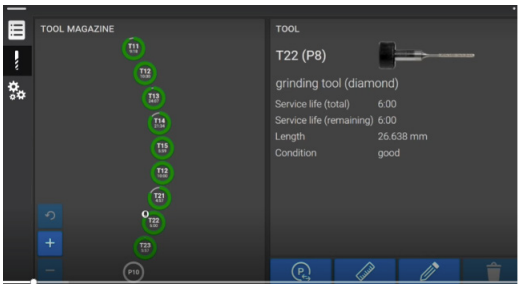


Click on the Z drive in the bottom left. Select job then hit Select in top right.



Your job is now in the queue. Select and hit Start. Make sure you have the disc or block you are milling in the milling unit before hitting start.

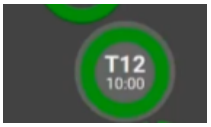
Changing Tools



To get to the tool chamber select the tool icon on the left side.

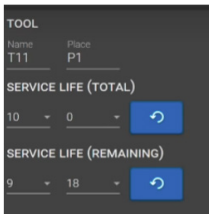
Pull the tool that needs to be replace out of its holder. Put a new one in with the bur down into the holder. Reset the timer on the bur life.

Reset timer:



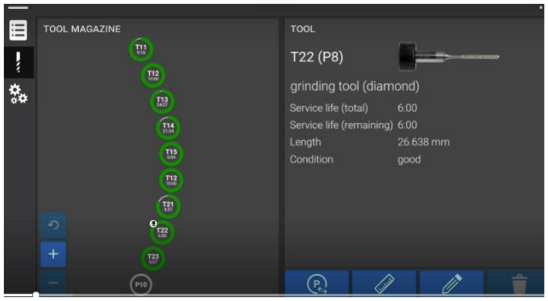
Highlight the tool.

Select the pencil (edit tool) on the bottom right.

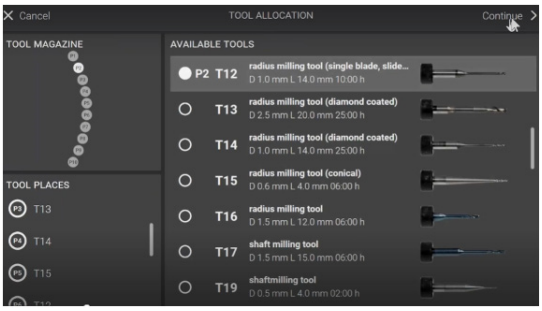


Select the back arrow on Service Life (Remaining) This will reset your timer on your bur. It lets the mill know you have replaced the old bur with a new bur.

Adding New or Renaming Tools

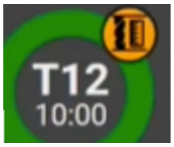


Select the tool you are renaming or a new tool in the chamber. Select the P (Positioning) on the bottom of the screen.

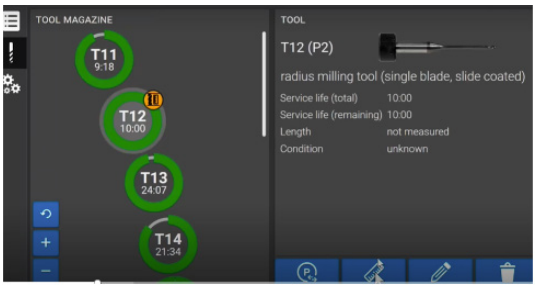


Now you can scroll through the right side to select which tool you would like to add or rename. Click Continue.

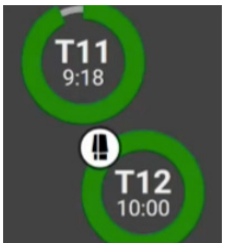
Click on Equipped.



Once the tool is in place then you will see the orange circle. This lets you know you need to measure the tool.



To measure the tool. Click on the tool then click on the ruler at the bottom of the screen. It will ask tool to verify: yes. Then it will measure the tool.

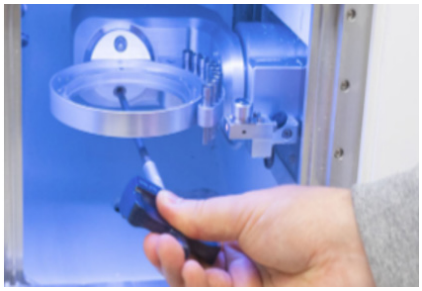


Once the tool is measured it will show the collet symbol on the tool. The tool is now measured and in the collet.

C-Clamp Adapter

Select the Setting icon on the left side of the mill.

Select the Blank position 0°. When cover status displays lights up then open the protective door.



Unscrew the bottom and top screws. Make sure to hold the ring so it doesn't fall.

Remove the ring.

Clean the mounting socket with a brush.

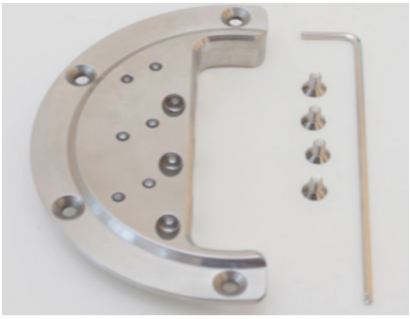
Clean the mounting plate of the C-Clamp adaptor with a brush.

Use the torque wrench to place both bolts. Put in loosely and once both are in place use the torque wrench to tighten them into place.

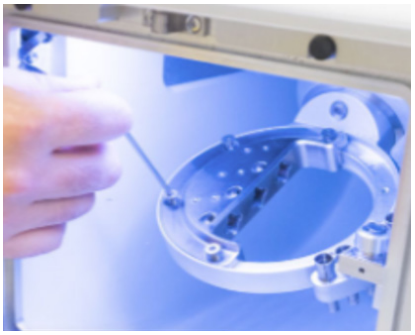
Block Adaptor

To add in the block adaptor. Make sure the full ring adaptor is in place. Loosen the main screws on top of the ring and take the top ring off.

What you will need is the:



The block adaptor, 4 screws, small allen wrench.



Once the top ring is off, remove the 4 screws on the left side. Place the block adaptor on the left side. Take the small screws and place them in the 4 holes on the left side. Once all screws are in loosely then tighten all 4 with the allen wrench.

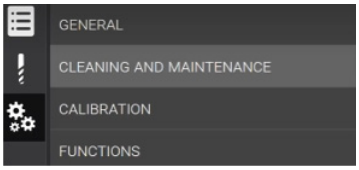
Position of the Table

Go to the setting wheels on the left side of the mill.

1. Home Position: Pulls the table towards the lid and it puts it in a 45-degree angle towards you. You will see the top of the disc, and this is how you will load the disc.
2. Cleaning Position: Pushes the table all the way to the back of the mill so you can clean the inside of the chamber.
3. Blank Position 0°: It puts the table completely flat. (Horizontal)
4. Blank Position 180°: Turns the table to the back side of the disc. You would also see the bottom of the screws.
5. Collet Position: Moves the table forward close to the lid for easy access to clean the collet.

Cleaning and Maintenance

1. Click the Settings icon on the left side of the mill. Click on Cleaning and Maintenance.



2. Click Execute wet cleaning.

This bleeds the lines. Wipe down the mill until it’s completely dry before you start dry milling.

3. Click Execute dry cleaning.

This blows air through the tool holder and the table. It spins, creating a vortex and turns on the vacuum at the same time so it can capture all the dust. Vacuum up the remaining dust and wipe out before milling wet.

4. Wet milling/Dry milling

   Clean the water tank every two weeks. There should be 300mL of solution with 3L of distilled water.

   When dry milling, ensure the chamber is dry and the plug is in the bottom of the chamber.

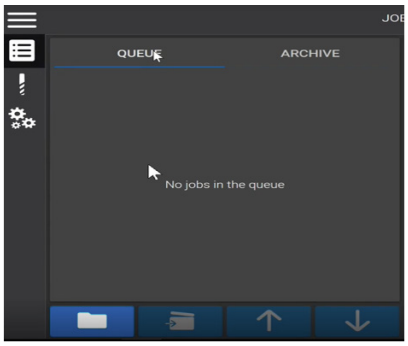
5. Spindle cleaning (Collet)

   This moves the collet closer to the lid for cleaning.

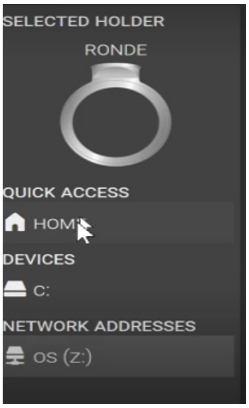
   Refer to the Cleaning of the spindle (collet) page.

   Spindle (collet) cleaning once a week.

Calibration



Select jobs in the top left corner of the screen. Select the folder in the bottom left of the screen.



Click Home.

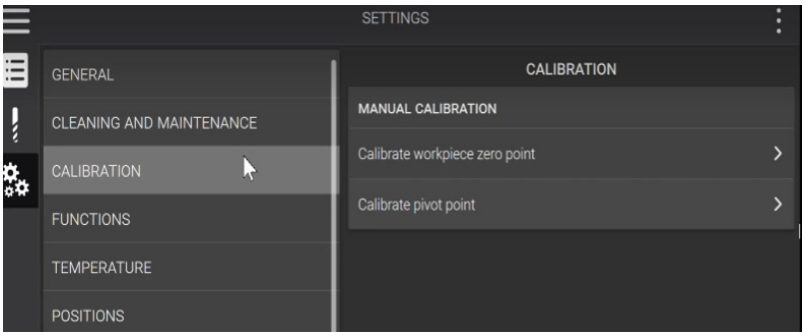
Click Calibration Body 3-12 disc.

Ring and Calibration Disc:

Add the calibration disc to the mill.
Please make sure your T11 and T13 burs are less than 5 hours of usage.
Close lid and hit Start.

Once the Calibration is completed. You will remove the calibration disc. Cut out the two milled calibrated blocks.

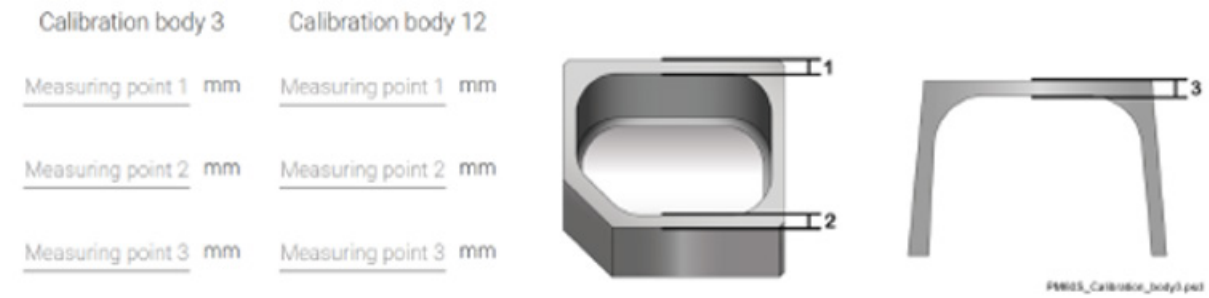
Calibration Sheet:



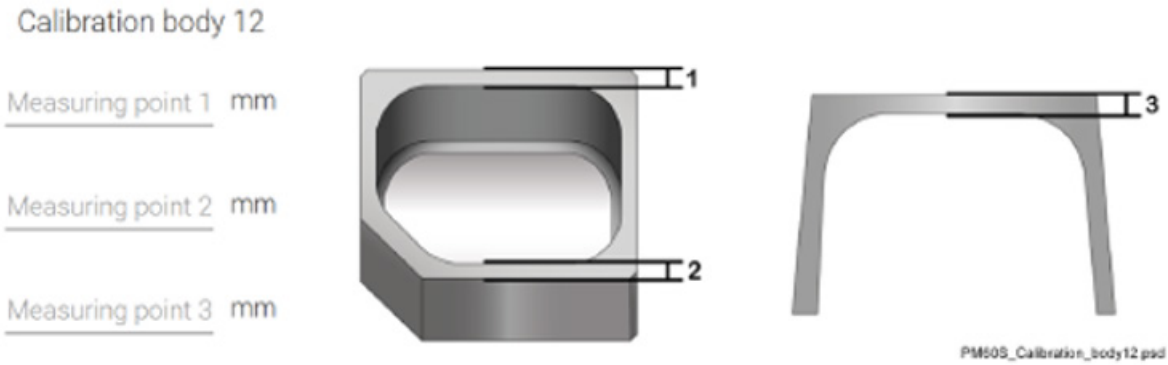
Click on the Setting icon on the left side.
Click Calibration, then click on Calibrate workpiece zero point.

This Calibration sheet will appear to show you how to measure and where to place your values.

One block looks like it has a 3 on top. This is so you can identify a calibration body 3 vs a calibration body 12 to place your values.



Enter the measurement results for calibration body 12 in the left column.



Save the entries.

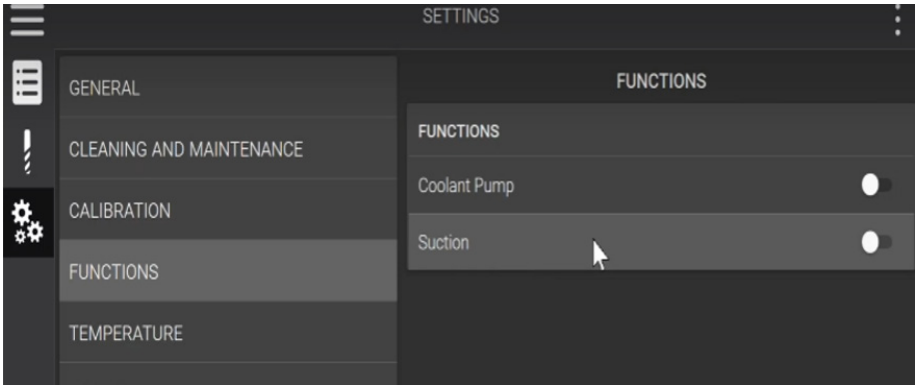
Please call Support once you have measured.

1-800-537-6070

*Please note you will have to cut the calibration block in half to measure #3 on each one.

Functions

Click on Settings icon on the left side.



Click Functions:

Functions is where you can turn on Coolant Pump and it will start spraying water in the chamber. This just cleans out the lines.

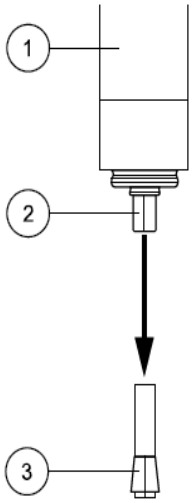
Suction will turn on the vacuum. This is another way you can turn on the vacuum so you can clean out the mill.

Spindle (Collet) Cleaning

The collet must be removed and cleaned at least once per week and after every tool breakage.
The collet must be checked for damage during cleaning.

Use the collet maintenance kit supplied for cleaning and maintaining the collet. The figure below shows the accessories included in the collet maintenance kit.

1. Chuck grease
2. Wrench
3. Dummy tool
4. Turning piece
5. Thin cleaning brush
6. Thick cleaning brush



1. Machining spindle
2. Inner cone shaft
3. Collet cone

Cleaning collet steps:

1. Ensure that the saft of the machining spindle does not turn.
2. Press the Settings menu item to open the Settings menu
3. Press the Collet position to move the position where you can clean the collet.

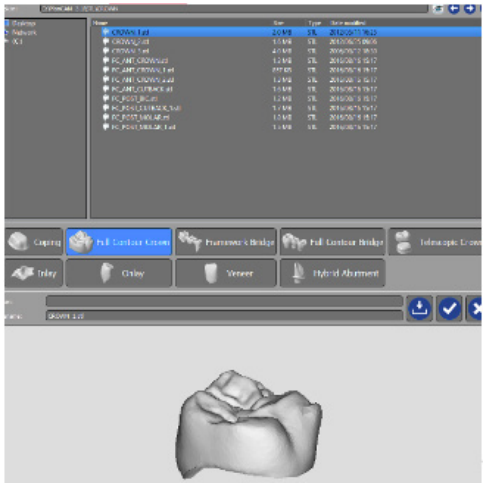
4. Grasp the ring of the clamped tool with your thumb and index finger.
   Then open the collet and remove the tool.

   Open the collet by first selecting Settings> Functions on the touch screen and then pressing the collet toggle button.

5. Use the pin and the collet tool to screw the collet counterclockwise out of the machining spindle.
6. Clean the inner cone of the machining spindle with the felt cone.
7. Clean the inside of the collet using the brush intended for this. Ensure that there is not dirt in the collet and that no dirt penetrates the collet during cleaning.
8. If a tool breaks and a piece is left in the collet, you can remove the residue with the help of the ejector pin.
9. Apply a light film of grease to the cone of the collet using the chuck grease.
10. Screw the collet back into the machining using the pin and the collet tool.
    Tighten the collet until it is hand-tight.
11. Use the thumb and index finger to grip the ring of the tool that was unclamped in step 5. Insert the tool into the machining spindle and close the collet.

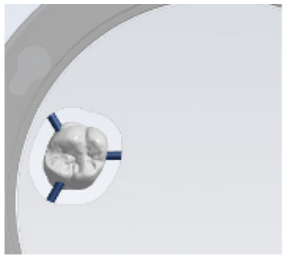
Adding Multiple Crowns to a Disc

Material and size of disc have already been selected.

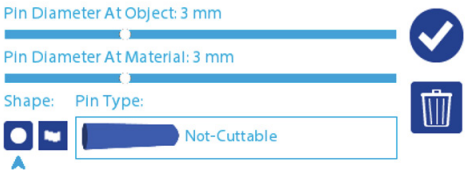


Bring in first crown by selecting the patients STL file for the crown. Select full contour and then click the check mark on right side.

Place the crown into the disc and move as needed.



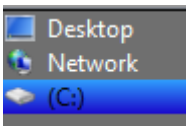
Make sure to change sprue size to 3mm, shape circle, and non-cuttable.



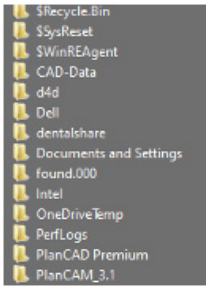
Click on the X in the bottom right corner of the screen.

Click on Import Object.

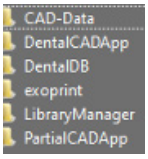
Click on on the (C:) drive.



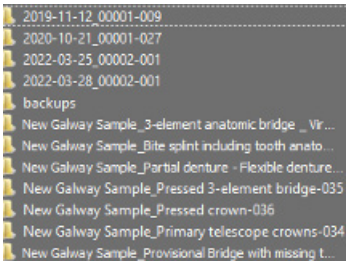
Click on PlanCAD Premium.



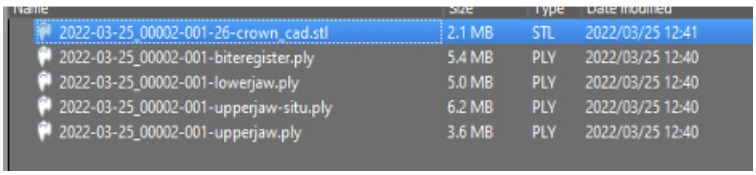
Click on CAD-Data.



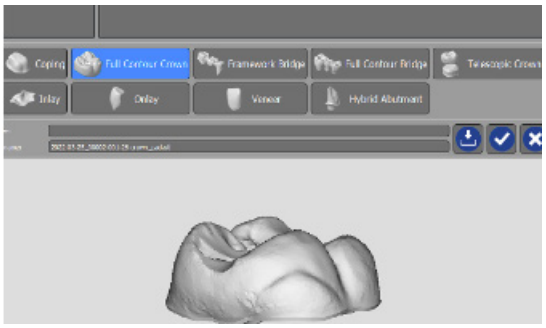
Find your patient's name and double click to open.



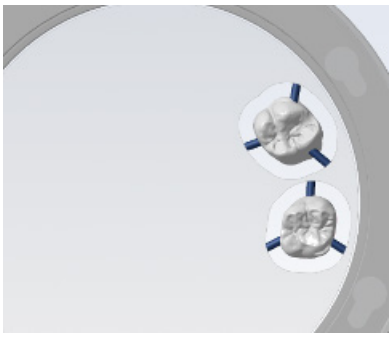
Select the crown STL.



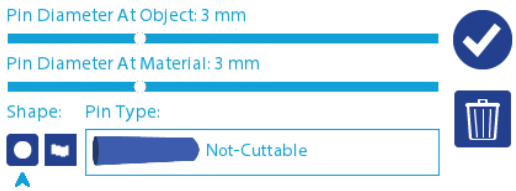
Once the crown STL is selected it comes in then select full contour then click on the check mark on the right.



This brings in the other crown. You can repeat to add more restorations to this disc.

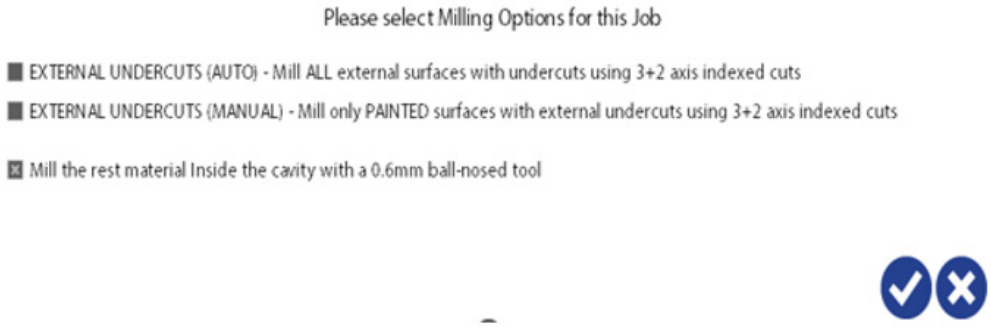


Make sure to move the tooth and verify sprue placement and shape. Size of the sprue 3mm, shape is full circle, and non-cuttable. Make sure you do not see red or yellow on the rown. If you see red or yellow, this means you need to move it to fit in the disc. Fuchsia color around the margin is normal.

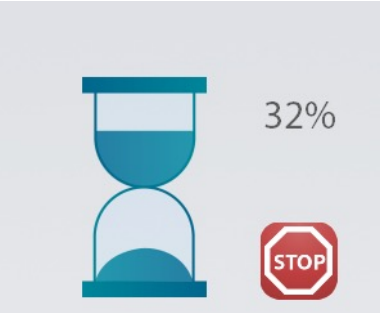


When you are finished adding restorations, click Select Save toolpath.

X is checked for milling in detail mode. If you choose not to detail mill, unselect the X in the last box. Click the checkmark when you are ready to send to the mill.



The hourglass appears and once it has reached 100 percent it goes to the mill. Then proceed to set up the mill and bring the case in for milling.

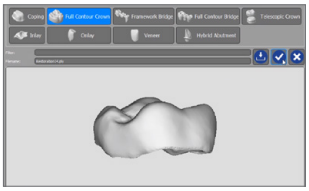


Nesting and Milling

1 - Click PlanCAM

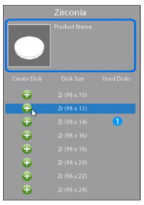
2 - Click New Job, Choose Material and click the checkmark in the bottom right corner.

3 - Select the type of restoration. The case should automatically appear at the bottom. Click the checkmark above the restoration.

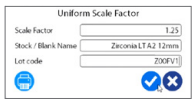


4 - Select the appropriate disc.

a) To enter a new disc, click **the green addition sign**.



b) Enter Scale Factor, Name, and Lot Code. The Stock/Blank Name can be a name that you decide. Scale Factor and Lot code are found on the side of the disc.

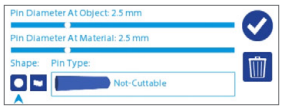


c) The software will automatically nest the restoration in the disc. To make modifications you can move use the colored arrows to move the restoration.

d) Left click and hold the mouse to move the restoration. If you are outside the milling parameters, the restoration will appear red.

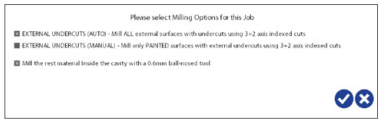
e) Left click on the sprue/pin to move or rotate it. Add or delete sprues/pins inside the sprue/pin window appears.

5 - Adjust sprue/pin diameter to 2.5mm and ensure Pin Type is Not-Cuttable. Click the checkmark.

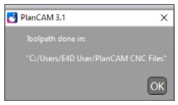


6 - Click the checkmark in the bottom right corner and Save Toolpath will appear.

7 - Click the first box 'EXTERNAL UNDERCUTS (AUTO). The last box will automatically be checked off for you as a default setting. Click the checkmark.



8 - You're done! Your restoration will be sent to the Planmeca PlanMill® 50 S.



QUESTIONS? Contact CAD/CAM Support @ (800) 537 6070

PMCA-EDU-IG0009A 02/21

PLANMECA

PLANMECA
Digital Academy

Investing in new technology opens the door to new services, advanced workflows, better diagnostics and improved patient care. To harness the potential and get the most out of your investment, Planmeca Digital Academy, has developed an extensive curriculum to help our customers realize their practice goals. Our programs begin the moment you invest in our technologies and lead you to more advanced programs to increase your technical knowledge and proficiency.

We offer educational opportunities in a variety of platforms from self-paced videos, webinars and in person training at customer locations and at our state-of-the-art training facility located in Hoffman Estates, Illinois, just outside Chicago. These programs were developed in collaboration with our Planmeca Board of Education, a group of doctors committed to delivering best-in-class education programs and advancing digital dentistry.

To view the latest training and education opportunities visit

planmeca.com/training

PLANMECA

(630) 529 2300 | www.planmeca.com

© Planmeca U.S.A. Inc. 2023 All Rights Reserved. PMCA-CDM-EDU0008A 04/23