

1. Products and Services

Custom Milling Center offers the laboratory three convenient choices for participation depending upon the laboratory's desired level of control in the design and fabrication process. The partnership options are as follows.

- **Outsourcing Customer:** The lab sends cases model/die(s) to Custom Milling Center (CMC) for scanning/design and milling.
- **Scanning Lab:** The Lab purchases a scanner, scans and designs the restorations and sends the file via the DDX system to Custom Milling Center for fabrication. CMC accepts scans from Dental Wings, 3Shape and D4D systems. Two days of training at our milling center is included.
- **Milling Lab:** The lab purchases both the scanner and milling unit and takes control of all facets of the production process: Scanning/designing and milling. Installation and training is included.

Our investments in the latest industrial CNC systems enable us to provide a wide range of products and design options. These machines allow us to fabricate titanium, ceramic, zirconia, composite materials and precious and non-precious alloys.

2. Educational and Technical Support

In collaboration with our marketing partner we offer the most extensive technical support and educational programs in the industry. We host more than 40 hands-on classes, demonstrations, and presentations annually. Technical training for CAD (scanning) laboratories consists of a two-day, hands-on scanning and design instruction. Training for CAD/CAM laboratories (scanning and milling) consists of a five day hands-on course. The training includes: software, scanning, case/framework design, advanced bridge design techniques, milling and manufacturing.

Both courses will be held at our state-of-the-art Educational Center. Additional technical assistance can be obtained from Custom Milling Center directly at 877-933-MILL (6455).

3. Prescriptions and Instructions

Please thoroughly read our technical/instructional information before completing your lab slip. Write legibly and only use our lab slips. Do not substitute yours or another laboratory prescription form. Additional prescription and instruction bulletins can be obtained by request or at www.custom-milling.com.

4. Technical and Instructional Information

To achieve the optimal results and avoid the potential for remakes and returned cases, please read the following before sending a case.

1. Use light colored die stone (buff or neutral color).
2. Do not mark the margins.
3. Do not seal the die or apply die spacer.
4. Please trim the die with a gentle curve under the margin as you would for a porcelain shoulder. The gross reduction of the die should be smooth and uniform so that only one clear margin line is visible.
5. Block out will be done by the milling center. If you own a scanner the details of block out are covered during your training. Block out is used to eliminate undercuts and sharp areas where the radius of the 1.2mm bur cannot reach.
6. For bridge cases we need all dies, pontics and adjacent teeth to be removable. All pinned sections should be easily removable since part of the scanning process requires that the dies and sections are removed and scanned at different times while the based model remains in the scanner. The platform and scanner can be sensitive to forces generated during removal and replacement of the dies and sections which can result in an inaccurate scan. There should be no metal articulator attached to the based mode. On occasion, we may be required to remove the plastic articulator for scanning.

5. Bite Registration

Be sure to include a putty bite matrix of the bridge, preps, opposing teeth and a portion of the adjacent teeth. Light colored putty is preferred. The bite should capture approximately 1-2 mm of the coronal portion of the opposing teeth. The bite is scanned to create the virtual opposing teeth to aid in the framework design.

The based model should be no taller than 2" from the top of the prep to the base of the model or it may not fit in the scanner. This is critical for longer spanned anterior bridges as they are often tilted for scanning. Ideally these models should be a maximum of 1.75 inches from the tip of the prep to the base of the model.

6. Cases Ready for Porcelain

Our goal is to provide you with a product that should require a minimal amount of adjustments. Proper preparation design, as with all ceramic restorations, is essential for marginal integrity and fit. The more information you can provide us for the scan and design the better the results.

If adjustments to the margins, connectors or pontics are needed before applying porcelain you can use the following:

- Diamond impregnated rubber wheels such as Noritake Meister Point SD61 or Perla-Dia polishers from Super Dent.
- Coarse high-speed diamonds with light pressure (the use of water spray is recommended).

For additional shaping and contouring you can use the Diamon-All from Leach and Dillon. As with all ceramic materials avoid generating heat while adjusting.

7. Technical Notes

In designing zirconia bridge frameworks, the height and width of connectors can be problematic. Most manufacturers recommend 9 square mm connectors and do not guarantee the frameworks when they are below minimums. Each of our systems provides different design parameters to overcome some of the challenges we encounter during the design and construction process. Coping thicknesses should be no less than .4mm for anteriors and .5mm for the posterior. For press techniques the minimum thickness must be .4mm. We recommend the use of Noritake's Crack Finder Liquid prior to waxing and pressing.

All of our software systems are being constantly updated. We have the ability to design for pontics, connectors and copings. Lingul collars to aid with the emergence profile can be designed, as well as additional porcelain support when needed. We will soon have the ability to design connectors that incorporate the lingual collars of adjacent teeth which will allow for a stronger lingualized design with improved facial embrasures.

8. Warranties

Frameworks adjusted below the recommended minimums are not guaranteed. Remakes will be evaluated on an individual basis. To evaluate a remake and for a substructure to be remade by CMC at no charge CMC must receive the original die and copings. If a new impression has been taken on a remake full charge will apply. Visit custom-milling.com to read our credit remake policies.

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9. Case Tracking

CMC utilizes the Labnet software system for case management. Those Laboratories that also have the Labnet software will be able to track cases direct. The system will also allow CMC to automatically notify the laboratory of case shipment via e-mail. All scans can and will be archived with each case using this software.

10. Customer Service

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11. Revision History

Rev	Reason for change	Originator	ECR #	Release date
B	<ul style="list-style-type: none">Updated to a controlled document.Removed custom abutment warranty.	J. Koolstra	E19-063	09 DEC 2019

12. Document Approvals

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