

NOBILCAM Flexible Disc is a nylon disc used in making clear, flexible, partial denture frameworks, occlusal splints and nightguards. The content below is about how to manufacture removable partial dentures with NOBILCAM Flexible Disc.

NOBILCAM Flexible Disc is designed for CAD/CAM digital workflow. Due to its unique chemical properties, NOBILCAM Flexible Disc is strong and resistant to the development of stains, bacteria, and odors. In the event that the surface is stained, the restoration can easily be restored with a cleaner or by polishing.

Because NOBILCAM Flexible disc is flexible and clear, it offers increased patient comfort and esthetics, blending perfectly with the patient's gums. Furthermore, the digital workflow results in an excellent fit due to the accuracy offered by scanned models and digital manufacturing.

## Indications for Use

- **Partial Denture Framework**
- **Occlusal Splints**
- **Nightguards**





## Product Specifications

- Diameter: 98 mm
- Thickness: 16mm, 18mm, 20mm
- Mills using standard PMMA tools and wet milling is recommended

## Prep Guide

### Partial Denture Framework

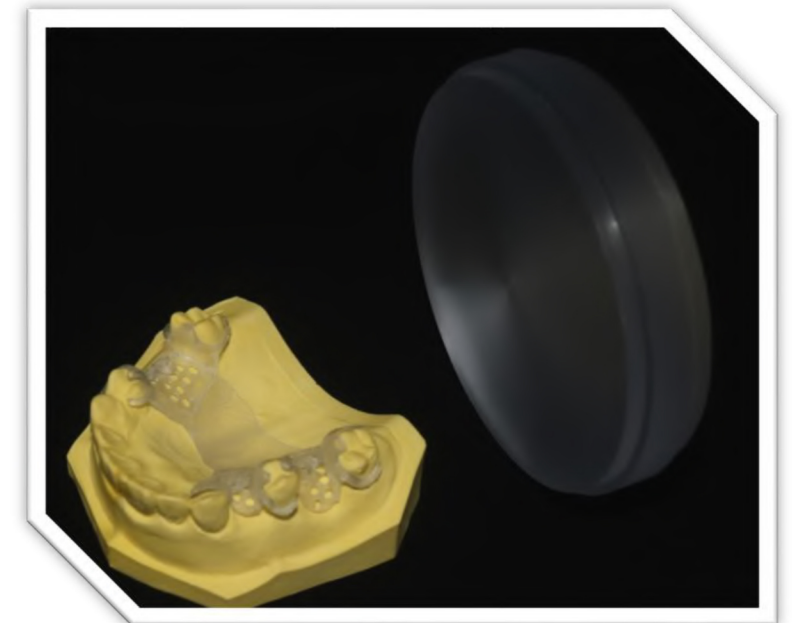
- Major: 1.2 mm
- Saddle Connectors Area: 0.8 mm

### Clasp on Anterior Tooth

- 3.0 mm where clasp joins framework thinning to 0.7 mm at tip

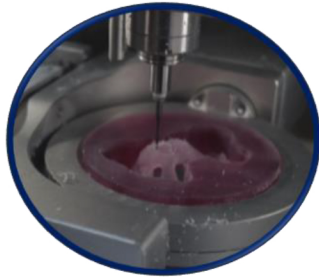
### Clasp on Posterior Tooth

- 4.0 mm where clasp joins framework thinning to 0.7 mm at tip





**Design**



**Mill**



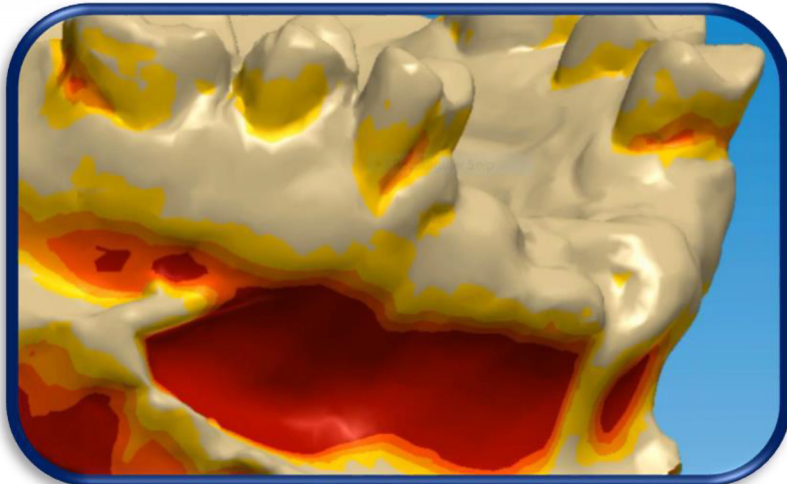
**Wax-up saddle & Set teeth**



**Invest**



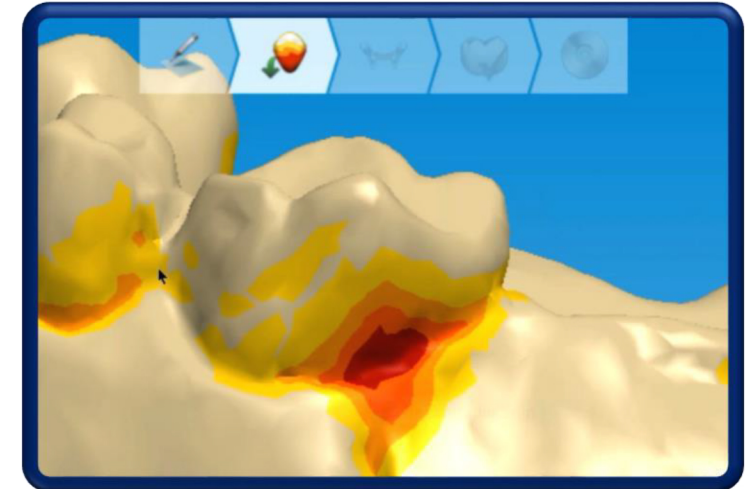
**Polish & finish**



Referencing the 3Shape image to the left, the undercut is characterized with a yellow color for a mild undercut, an orange color for more undercut, and red colors for an extreme undercut. It's important to understand that there is limited flexibility in the area where the clasp attaches to the major connector, because the material becomes stiffer the thicker that it is. Having acrylic keeps the clasp from moving, therefore it needs to be at or above the height of contour in that area.

At the middle of the clasp to the tip, you can drop in to the deepest undercut, even into some of the red colored areas at the tip. Once 3Shape shows where the undercuts are, the insertion direction can be positioned so the undercuts are exactly where you want them—for example, less undercut in the anterior, more in the posterior.

Next 3Shape will block out the undercuts and add wax to that area. As the frame is designed, it is important to stay above the height of contour, and then drop the clasp down in to gain retention. One advantage of the Flexible disc is that retention from the lingual can be added if it seems too light.

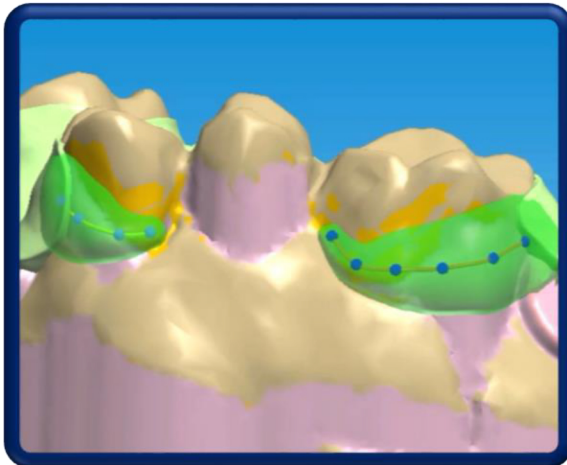
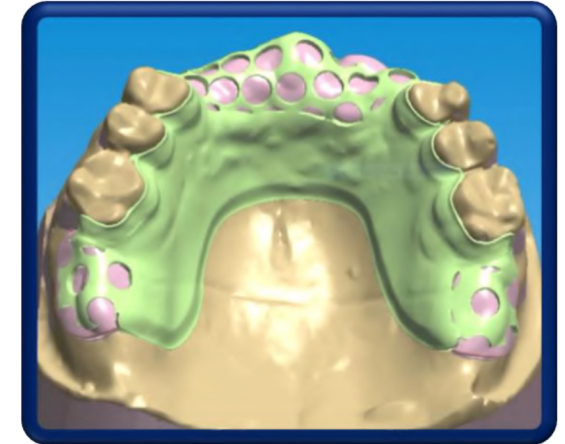


The nylon material is flexible, and it can move into the lingual undercuts. Using 3Shape, you can remove some of the block-out to expose the undercut on the lingual, and then use the facial clasp as a reciprocation instead of a retentive option, allowing them to work together.

For a major connector, be sure to mark different spaces: the major connector, the necks of the teeth, and the top half down to the lower half.

**For most designs, the following parameters work well:**

- **Major connector – 1.0 mm to 1.2 mm thick**
- **Wax thickness – 0.10 mm**
- **Substructure thickness – 0.80 mm**

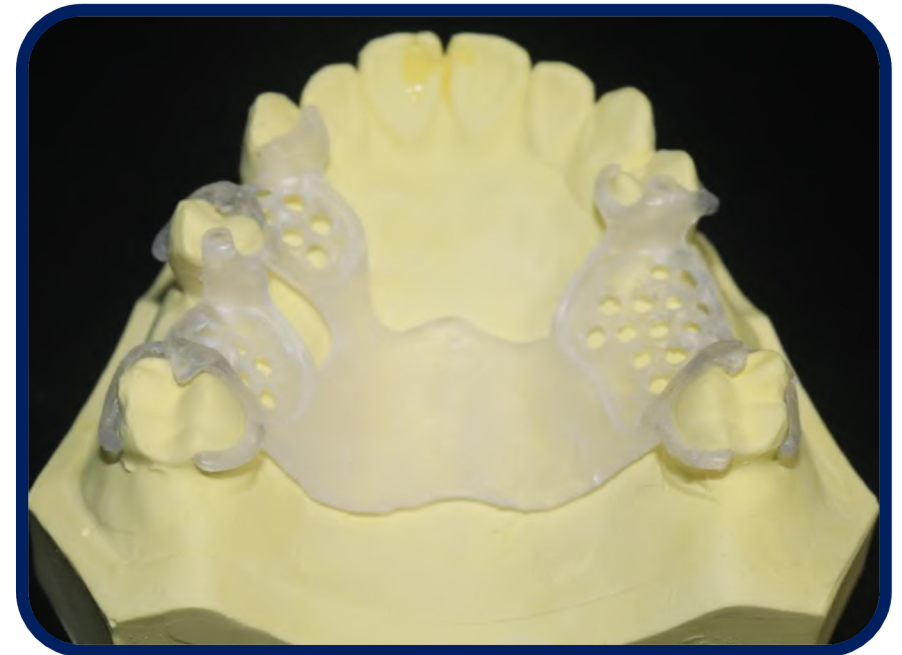


Another advantage of 3Shape is the use of mouse controls and shortcuts. Using any one of the dots created in designing the positioning of the clasp, a combination of the ctrl or shift key when using the scroll wheel can be used to widen or shrink the clasp. The software will report the measurements as you work, so it takes seconds to make the clasp the correct dimensions

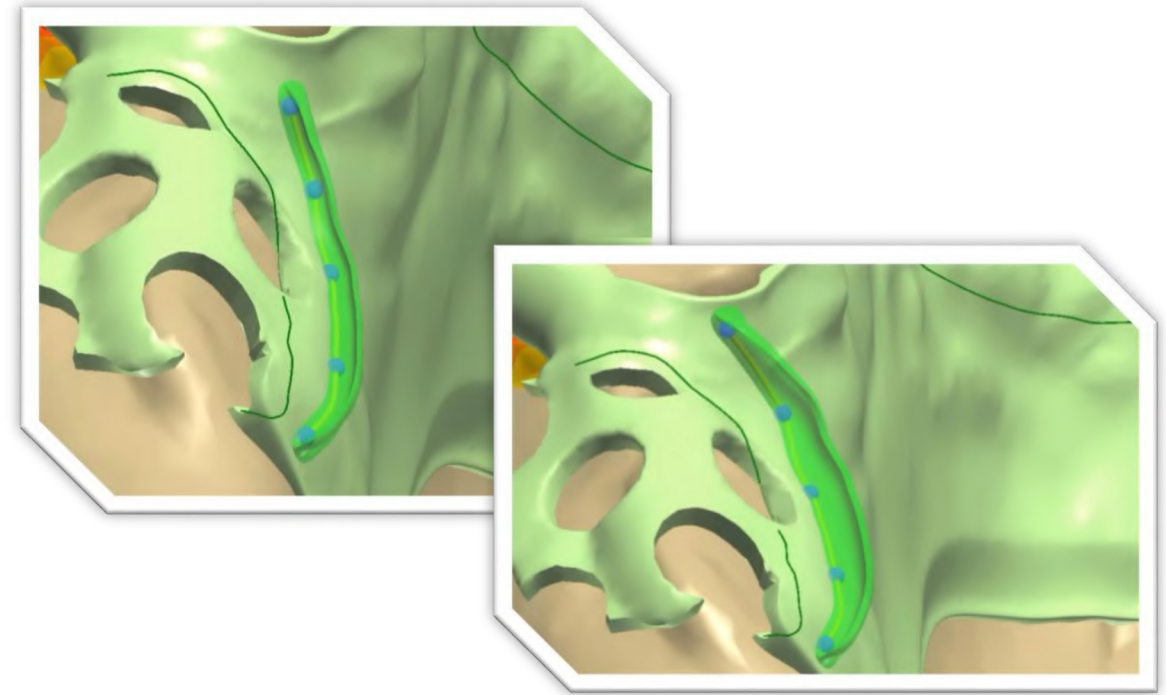
In order to have proper retention and esthetics, the clasp is designed to be much wider and flatter to the tooth. This causes it to be more esthetic because it's thinner and light can pass through it. This creates two major benefits to the patient:

- (1) food will not get caught on it because it's flat to the tooth
- (2) it won't rub the cheek, making it significantly more comfortable for the patient.

Because of the flexible nature of NOBILCAM Flexible Discs, the tissue stops should be a little thicker and more robust than with metal (at least twice the size). Tissue stops are essential with flexible material. During try-in, the saddle areas should be stable, so the doctor doesn't experience movement or an improper fit when they push back. A robust tissue stop is needed to keep things stable during try-in. Similarly, when packing or injecting acrylic, thousands of pounds of pressure can warp the meshwork, resulting in a bad fit after processing



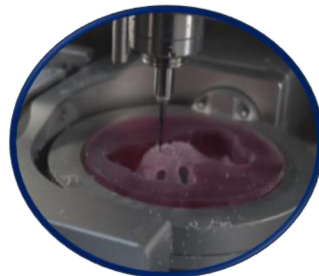
When the material comes out of the mill, it can be adjusted very easily with a handpiece and grinds beautifully. Because of this, when first starting to design, you can be a little bit heavier on the clasps and then fine tune it to your own philosophy and the requirements of the doctor. Right out of the mill, the material can be snipped out clean, polished, and ready to go for a frame try-in.





Finally, having a heavier butt joint will allow for more thickness of materials. There should be space where the rigid acrylic would combine with the flexible material. Having a more robust butt joint that is solid will create less likelihood of any movement, separation, or staining.

## The finished framework



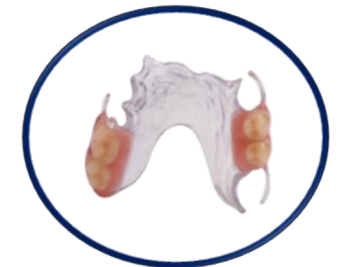
**Milling**



**Wax-up saddle & Set teeth**



**Invest**



**Polish & finish**



# Thank You Very Much

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