Do’s and Don’ts for Designing Bridges and Bars Provided with CARES Visual for Straumann D- and M-Series Milling

Release Date: November 2017

Connector Thickness Limits in Software
Until release 11.1.0 of CARES Visual the minimum thickness of the connectors was restricted to 9mm², in the release 11.1.0.33204 the user can reduce the value to 5mm² in the software. 5mm² is thinner than the minimum recommended thicknesses for connectors in the IFU (Sintron 7mm², Zi 7mm², Zolid HT 7mm², Zolid SHT 12mm², PEEK 16mm², TEMP multilayer 5mm², TEMP 12mm²).


Bar Profiles
For better fitting, the provided bar profiles may require adjustment (e.g. Milling Offset), to allow for milling machine differences and your post-processing method (e.g. polishing).

Straumann® Variobase™ Prosthetic Components for Bridge/Bar

- Follow the instructions contained in BPZ701627 -Instructions for use: Straumann® Variobase™ Prosthetic Components for Bridge/Bar.

Extremely angulated implants may not be possible to mill or may not fit onto the model or in the patient. Do ensure that the angulation between any two implants is under the sum of the two respective implant values given in the table.

<table>
<thead>
<tr>
<th>Group</th>
<th>Max. implant angle deviation</th>
<th>Interface</th>
<th>Variobase for Bars &amp; Bridges without Measurement</th>
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</thead>
<tbody>
<tr>
<td>BL</td>
<td>5°</td>
<td>BL</td>
<td>15°</td>
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<tr>
<td>TL</td>
<td>5°</td>
<td>TL</td>
<td>20°</td>
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<tr>
<td>SRA</td>
<td>15°</td>
<td>SRA</td>
<td>20°</td>
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</tbody>
</table>

Extremely angulated implants may not be possible to mill or may not fit onto the model or in the patient. Do ensure that the angulation between any two implants is under the sum of the two respective implant values given in the table.
Note: If the angulation is too high consider using the SRA angular abutments from Straumann that can provide 17° and 30° correction for both NC and RC implants.

BAR Pillar Wall thickness for Cantilevers
The Bar Pillar adjacent to the cantilever should be made thicker than the default value in order to ensure sufficient strength to support the cantilever.
For Metal is should be at least 1,2mm thick and for Ceramic it should be at least 1,6mm thick

Use the Bar Option menu to do this – Decrease the Base Angle and Top Cone Angle and increase the Base Height for the best results

(Hint – Use the Clip Planes in the Merged Surfaces View to measure the thickness)

Fillet Radius Between Bar and Supporting Abutment
To optimise the loading capability of the bar there should be a larger radius between the bar and the abutment

By selecting a “Connector Rounding Radius” of 2mm for Zirconia and a 1,0mm radius for metals a smoother, better load bearing structure can be created, see picture below.