**Certain® UCLA Abutment**

The OSSEOTITE® Certain Line of restorative components includes a newly designed UCLA Abutment. This new design provides greater predictability and more flexibility for laboratory technicians when waxing and casting implant level restorations.

- **Improved Cylinder Retention Design**
  The new design incorporates machined vertical grooves that reduces the potential for miscasts due to the smoother alloy flow onto the gold alloy cylinder during casting. The vertical grooves provide mechanical retention and are designed to eliminate the problem on previous UCLA designs of the alloy stopping on the horizontal retention instead of flowing to the margin (fig. 10).

- **Chamfer Margin**
  The chamfer margin design provides a smooth transition from the gold alloy cylinder to the cast alloy at the junction. It also aids in the prevention of alloy flowing onto the interface area of the gold alloy cylinder during casting (fig. 10).

- **Reduced Collar Height**
  The collar height has been reduced from 1mm to 0.25mm to provide greater flexibility when fabricating restorations for implants with shallow tissue depths. This allows the restoration to emerge from the implant platform more quickly and to add porcelain closer to the implant platform on screw retained restorations (fig. 11).

- **Collar Adjustment After Casting**
  The reduced collar height may cause an undercut laterally around the implant platform. The undercut should be removed after casting by tapering the collar back (fig. 12).
**Certain® Non-Hexed Abutments**

The Certain Non-hexed Abutments are designed to provide flexibility for laboratory technicians when fabricating splinted multi-unit, screw-retained provisionals, bridge frameworks and bars for implant level restorations.

- **Internal Engagement**
  The non-hexed abutments have a 1mm internal engagement feature to allow a greater degree of draw from multiple divergent implants than other internal connection implant systems (fig. 13).

- **Large Diameter Abutment Screw**
  The non-hexed abutments are retained into the implant with a unique Large Diameter Gold-Tite® or Titanium Abutment Screw. The larger diameter screw provides lateral stability to the restoration. It goes into the full depth of the internal connection, replacing the 4mm length of the hexed abutment’s connection (fig. 13). Each Certain Non-hexed Abutment is packaged with a Large Diameter Gold-Tite or Titanium Abutment Screw.

- **Maximum Draw Of Non-Hexed Abutments**
  The non-hexed abutments have a maximum draw angle of 40º between implants (fig. 14).

- **Gold Alloy Cylinder Formulation**
  The formulation specifics for the gold alloy cylinder material used with the UCLA Abutments is indicated on the chart to the right. The formulation should be taken into consideration during burnout and casting procedures.

### GOLD ALLOY CYLINDER FORMULATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Range</td>
<td>1400-1490°C (2550-2710°F)</td>
</tr>
<tr>
<td>Solidus</td>
<td>1400°C</td>
</tr>
<tr>
<td>Liquidus</td>
<td>1490°C</td>
</tr>
<tr>
<td>CTE</td>
<td>$13.5 \times 10^{-6}$ K at 500°C</td>
</tr>
</tbody>
</table>

An alloy with a CTE of $14.5 \times 10^{-6}$ K at 500°C is recommended.