crown prep tips – optimal control and ergonomics, thanks to the unique movement of the tips

The unique shape of the tip holder provides a superb view of the field during preparation and elliptical-like movement of the crown prep tip. The ultrasound vibrations preserve the soft tissues. The versatility of this technique makes it possible to prepare the margin with both the chamfer and vertical preparation techniques.
STEP BY STEP

METHOD OF USE

Use of the crown prep tip requires minor back-and-forth movements, always maintaining contact with the tooth. The special shape and unique movement of the tip makes it possible to work all the way around the tooth without changing position.

PREPARATION WITH CHAMFER TECHNIQUE

1 After initial preparation – performed with coarse bur – the cervical margin is rough and has not yet been positioned at the subgingival level.
2 Positioning of the non-impregnated retraction cord of a size suitable for the periodontium.
3 The diamond-coated crown prep tip D120 is used first, as it is more aggressive and thus removes the remaining enamel and dental material faster.
4 To obtain a more uniform preparation margin, crown prep tip D90 is then used.
5 Subsequently, diamond-coated crown prep tip D60 is used to even out the preparation obtained and to start smoothing and polishing the dentinal tissue to obtain a smooth microstructure.
6 The obtained cervical margin is extremely precise, which enables the operator to take a better quality impression. This, in turn, guarantees a perfect fit and longer life span for the dental restoration.
1 Following preparation of the tooth – performed with coarse-grained burs – the preparation margin is rough and irregular.

2 A bur of the same size as the previous one, but with finer grain, is used to smooth out the surface of the tooth. Since there is bleeding due to the “Gingival curettage” – caused by the burs working at the subgingival level – the conditions offer poor visibility, and thus the final dental surface is irregular and imprecise.

3 These defects need to be corrected in the final impression-taking session. A vertical crown prep tip D90 is used to obtain a more uniform dental surface.

4 Subsequently, a diamond-coated crown prep tip D60 is used to finalize the preparation obtained, smoothing and polishing the dentinal tissue.

5 After using the diamond-coated crown prep tip D60, the surface microstructure will be smooth. The cervical margin thus obtained is extremely precise, which enables the operator to take a better quality impression. This, in turn, guarantees a perfect fit and longer life span for the dental restoration.
CLINICAL CASES

PREPARATION WITH THE CHAMFER TECHNIQUE

1 Initial situation
2 Finishing of the margin with crown prep tip D60
3 Gingival veneer integration right)
4 Gingival veneer integration (left)
5 End result

1 Initial smile
2 Tooth to be treated D120
3 Preparation with crown prep tip
4 Finished dental surface
5 Veneer in situ
6 Final smile

Clinical cases courtesy of Dr. Domenico Baldi (Genoa, Italy)
PREPARATION WITH THE VERTICAL PREPARATION TECHNIQUE

Clinical case courtesy of Dr. Fiammetta Sinigaglia (Varese, Italy)

Clinical case courtesy of Dr. Domenico Baldi (Genoa, Italy)
Mectron offers 8 different crown prep tips for the tip holder. For finishing the closure margin, it is advisable to use a crown prep tip of the same diameter as the bur used for initial preparation.

### CROWN PREP TIPS

<table>
<thead>
<tr>
<th>Diameter</th>
<th>TA12D90</th>
<th>TA12D60</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4 mm</td>
<td>TA14D120</td>
<td>TA14D90</td>
</tr>
<tr>
<td>1.6 mm</td>
<td>TA16D120</td>
<td>TA16D90</td>
</tr>
</tbody>
</table>

### ADVANTAGES

1. Greater precision
2. Less bleeding
3. Mini-invasive
4. Fewer prosthetic treatment sessions
5. Reduced time to delivery of prosthesis

Mectron offers 4 different crown prep tips for the tip holder. For finishing of the closure area, it is advisable to use a crown prep tip of the same diameter as the bur used for initial preparation.

### VERTICAL PREPARATION TECHNIQUE

<table>
<thead>
<tr>
<th>Diameter</th>
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<tr>
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<td>TF16D90</td>
<td>TF16D60</td>
</tr>
</tbody>
</table>
THE SYSTEM FOR PIEZOSURGERY® AND ULTRASOUNDS

a perfect combination for maximum ergonomics – available for all mectron ultrasonic and PIEZOSURGERY® devices

→ ADAPTOR AB1
Used for secure the crown prep tip in the tip holder

→ TORQUE WRENCH K7
Special wrench to tighten the tip holder on the mectron ultrasound handpiece

→ TIP HOLDER DB
Support to hold the crown prep tips, specially bent to provide a superb view during preparation and elliptical-like movement of the crown prep tip