suresmile Wire Design Options

1. Full Expression Archwire (setup wire)

2. Full Expression Archwires (with overrides):
   A. Overcorrected wire
   B. Undersized wire
   C. Limit Wire with Passive Segment, 0%
   D. Limit Value % Wire (e.g., 75%, 50%, 25%)
   E. Straight Archwire

3. Modification Wires:
   A. Setup Modification Wire (based on treatment simulation)
   B. Compensation Wire (based on progress model)

suresmile Lingual Archwire Stiffness Comparison Guide

<table>
<thead>
<tr>
<th>Stiffness</th>
<th>Type of the Material</th>
<th>Cross-Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td>Copper Nickel Titanium (CuNiTi) / Nickel Titanium (NiTi)</td>
<td>.016 round</td>
</tr>
<tr>
<td></td>
<td>CuNiTi /NiTi</td>
<td>.016 x .016</td>
</tr>
<tr>
<td></td>
<td>Beta Titanium (Beta-Ti)</td>
<td>.016 round</td>
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<tr>
<td></td>
<td>Beta-Ti</td>
<td>.016 x .016</td>
</tr>
<tr>
<td></td>
<td>CuNiTi /NiTi</td>
<td>.016 x .022</td>
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<tr>
<td></td>
<td>Beta-Ti</td>
<td>.016 x .022</td>
</tr>
<tr>
<td></td>
<td>CuNiTi /NiTi</td>
<td>.017 x .025</td>
</tr>
<tr>
<td></td>
<td>Beta-Ti</td>
<td>.017 x .025</td>
</tr>
<tr>
<td></td>
<td>Elgiloy/Azurloy</td>
<td>.016 x .022</td>
</tr>
<tr>
<td></td>
<td>Elgiloy/Azurloy</td>
<td>.017 x .025</td>
</tr>
</tbody>
</table>
**suresmile Lingual Recommended Wire Sequence**

<table>
<thead>
<tr>
<th>Recommended Archwires</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial phase:</strong></td>
<td>.014 NiTi mushroom <em>(minor to moderate crowding)</em> OR .012 NiTi mushroom <em>(moderate crowding)</em> use as the teeth are being aligned and derotated</td>
</tr>
<tr>
<td><strong>suresmile Archwires:</strong></td>
<td>1) .016 CuNiTi/NiTi 2) .016x.016 CuNiTi/NiTi 3) .016x.022 CuNiTi/NiTi 4) .017x.025 CuNiTi/NiTi 5) .017x.025 Elgiloy/Azurloy*</td>
</tr>
</tbody>
</table>

*Use if transversal expansion and torque expression is still required in full lingual treatment (upper lingual and lower lingual). Preferred use is in the maxilla because this wire is very difficult to insert.

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**Bracket Types**
Bracket types supported by suresmile Lingual*

- 3M-Orj Lingual
- Adenta Evolution Slt
- Adenta Joy
- American Orthodontics Stealth
- Cx Orthosupply Lingual
- Forestadent 3D Lingual
- GAC In-Ovation L
- GCO Experience L
- Kanno Absolute Brace
- Ormco Gen 7
- Ormco STb
- S and T Lingual
- Sky Orthodontics Stb Lingual
- Strite Industries Speed Lingual
- Tomy Clippy-L

Note:
- Brackets for canines and for molars should have hooks for attachment of elastics.
- See the suresmile software for the current full selection of lingual brackets supported by suresmile.

*As of January 2014. Contact suresmile Customer Care for the current list of supported brackets.
Bracket Placement Simulation Rationale

- Bracket placement may vary based on tooth morphology.
- Indirect bonding is strongly recommended with suresmile Lingual. Direct bonding placement may be used, but it is often necessary to reposition brackets due to wire bending constraints.

Bracket Placement Considerations

Lingual bracket placement - Upper arch
- Brackets on the upper arch should be placed as gingivally as possible to prevent bracket-tooth collisions in the final position (overbite 2mm+).
- The space between the gingival margin and the bracket base should be a minimum of 1mm to provide enough space for appropriate hygiene.

Lingual bracket placement - Lower arch
- Due to small inter-bracket distances it is important to bond the brackets as incisally as possible.
- We recommend a distance of 1mm between incisal edge and bracket base. The lower anterior teeth are typically widest (mesiodistally) at this height.

Note: This placement height can affect aesthetics prior to suresmile wire use, especially in overly protruded teeth.
Diagnostic Model Bracket Placement Simulation

- Bracket placement position is very important for successful suresmile wire bending and wire insertion.

- Always plan bracket positions in suresmile using a bracket placement simulation based on a diagnostic model.

  **Note**: The diagnostic model must be *Approved* in order to start a treatment simulation.

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Steps for Planning Placement of Lingual Brackets

1. Create a treatment simulation from a diagnostic model
2. Simulate bracket placement
Diagnostic Model Treatment Simulation

Create a Treatment Simulation from a Diagnostic Model

To start a simulation, a diagnostic model must be Approved

Select Treatment Simulation from the New drop-down menu to start a new simulation

Note: A bracket placement simulation must be based on a diagnostic model
Create a Treatment Simulation from a Diagnostic Model

From the Displacements tab, click Show Setup Workflow

Follow the Setup Workflow to complete the diagnostic simulation

Simulate Bracket Placement
Select the Lingually Bonded check box for the arch(es) that are bonded lingually.

In the Brackets/Attachments tab, select Apply Bracket Set, then Assign Bracket Set to select the desired bracket template.

From the Brackets palette, select the Planned Brackets icon.

From the Wire tab, select CuNiTi/NiTi .016 round.

From the Brackets palette, select the Wire icon to display the wire.
Simulate Bracket Placement

Display the bracket navigation plane by clicking on the Bracket Plane icon in the Brackets palette.

To improve the bracket plane position, select the plane by clicking it, then use the arrows on the bounding box to adjust the position of the plane, then select the Align Brackets icon on the Brackets palette to snap the brackets onto the plane.
Simulate Bracket Placement

Design issues are noted on the screen with visual cues on the wires.

A red wire segment indicates that the bend is too sharp for the robot to handle and cannot be bent.

A purple wire segment indicates that the bend does not fit between a bracket pair (e.g., the brackets are too close together).

A yellow wire segment indicates that the wire is pressing on the tooth where the yellow segment is located.

Note: All design issues must be resolved before the wires can be processed.

Display gingiva and adjust brackets horizontally (mesial-distally) and vertically as needed.
To improve bracket position, select the bracket and use the bounding box to move the bracket.

From the Brackets palette, select the Intersections icon to check tooth-bracket collisions.
Simulate Bracket Placement

From the Measure palette, select the Clipping Plane icon.

Use the clipping plane to review the intersections and correct bracket positions.

Lingual Bracket Template
Lingual Bracket Template

From the settings icon, click Preferences.

Select the Bracket Sets tab then click New Bracket Set.

New Bracket Set

Name the new bracket set here

Click Assign Bracket to Selected Tooth to open Bracket Selection window

Select Lingual for both the Upper and Lower options to indicate lingual bonding

Click Save Bracket Set when finished
OraMetrix has its headquarters in Richardson, Texas, with offices in Berlin, Germany and Chatswood, Australia. For general information about OraMetrix, visit the OraMetrix website at www.orametrix.com.

For SureSmile customer support, supplies, or other questions, e-mail customer support at customerscare@suresmile.com or use the following table to call SureSmile customer care:

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Number</th>
<th>Hours (Local Time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1800 976 453</td>
<td>Monday - Friday: 9am - 6pm</td>
</tr>
<tr>
<td>Austria</td>
<td>+43-720115539</td>
<td>Monday - Friday: 9:30 - 17:00</td>
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<tr>
<td>Belgium, Denmark, France,</td>
<td>+800-50055665</td>
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<td>Germany, Ireland, Italy,</td>
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<td>Netherlands, Portugal, Spain,</td>
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<tr>
<td>Sweden, United Kingdom</td>
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<tr>
<td>Japan</td>
<td>+1.972.728.5903</td>
<td>Monday - Friday: 9am - 6pm*</td>
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<tr>
<td>New Zealand</td>
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<td>Monday - Friday: 9am - 6pm</td>
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<td>0-800-896-845</td>
<td>Monday - Friday: 9am - 17:00</td>
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<tr>
<td>Switzerland</td>
<td>0800-661-214</td>
<td>Monday - Friday: 9am - 17:00</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>+1.972.728.5904</td>
<td>Monday - Friday: 4am - 1pm &amp; 6pm - midnight*</td>
</tr>
<tr>
<td>United States &amp; Canada</td>
<td>1.888.872.6387</td>
<td>Monday - Friday: 7am - 7pm*</td>
</tr>
<tr>
<td>All other countries</td>
<td>+1.972.728.5900</td>
<td>Monday - Friday: 7am - 7pm*</td>
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</tbody>
</table>

*Due to Daylight Savings Time in the U.S., phone support will be available 1 hour earlier from the second Sunday in March to the first Sunday in November.

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