The Hycon® Device
Space Closure... fast, precise and successful - every patient, every time!

**HYCON® Tube**
Post inserted into the auxiliary-tube of your double buccal tube.

**HYCON® Clip On**
Clips on directly to your archwire
(perfect when no auxiliary tube is available)

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**Successful**
“...they are able to treat cases with the HYCON® device that before would have been beyond therapy. I close all my spaces with the HYCON® – it has never failed me.” Dr. Schütz, Germany

**Fast**
The movement of the tooth is determined solely by the advancement of the thread of the screw. The thread has been precisely calculated to a pitch of 0.014”, now you can precisely calculate this pitch by number of turns to precisely advance the screw and in-turn close the space with complete understanding and control.

**Precise**
The HYCON® is activated in small steps at intervals that create an intermittent tooth movement. This allows recovery of the tissue in-between activations, and provides the physiological stimulus for the alteration processes. This perfect balance provides a high efficiency in tooth movement.

**Painless**
Activated in small steps at intervals best suited to maintain adequate blood supply, closely emulates ideal bodily movement and produces pain free space closure for the patient.
Ideal tissue remodeling during orthodontic tooth movement

Tooth movement by orthodontic force application is dependent on remodelling in the periodontal ligament and alveolar bone. Supplying the correct stimuli for optimal tooth movement, creates a fast, safe and reliable space closure.

The appliance used to supply this force should create a maximum rate of tooth movement avoiding irreversible damage to the root, periodontal ligament and alveolar.

Research has proven that the periodontal ligament can be compressed up to 70%, the 30% remaining will provide the blood supply to all the surrounding structures. This adequate blood supply insures a safe and fast tooth movement as it is the physiological stimulus for the desired alternation process to progress.

Elastic force problems

Although elastic forces have been used for space closure for many years, this method has many unanswered questions:

- How much force is applied to the tooth?
- How much of the elastic force is eaten up by the friction in the connected system?
- How can the orthodontist measure this force?

HYCON screw - the mathematics of SUCCESSFUL SPACE CLOSURE

In contrast to elastic force, we are able to control the compression of the periodontal ligament by measuring distance. The size and pitch of the screw threads is directly proportional to the movement of the screw. The distance the screw travels can easily be determined - each 180° rotation moves the screw 0.175mm.

Average width periodontal ligament
0.25mm x 70% = 0.175mm

Movement can be measured as to not overpower the PDL beyond 70% maintaining ideal blood supply

Capable of overcoming any friction in the system
Capable of controlled activation in intervals based on periodontal health
Pain free

Unintentional tooth movement
Too little force application resulting in no movement
High pain and discomfort for the patient
Easy activation protocol

**HYCON® Tube**

Designed specifically with a support-wire which is inserted into the auxiliary-tube of the molar band from the mesial side and bent back.

A double buccal tube is required for the use of this appliance.

Holding pin of the HYCON® Tube is inserted into auxiliary tube on your buccal tube.

**HYCON® ClipOn**

If a double buccal tube is not available, the HYCON® ClipOn simply clips onto the archwire.

HYCON® self-ligating locking clip is shown in open state, revealing the HYCON's slot.

Close the HYCON® ClipOn by applying pressure with the pliers.

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**Activation rate**

<table>
<thead>
<tr>
<th>Category</th>
<th>Turns per week or Days per Turn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent + optimal tissue + No periodontosis</td>
<td>turn every 2 days</td>
</tr>
<tr>
<td>Adult + normal tissue + no/little periodontal tissue</td>
<td>2 turns per week</td>
</tr>
<tr>
<td>Adult + Reduced tissue + reduced marginal bone ridge</td>
<td>1 turn per week</td>
</tr>
</tbody>
</table>

**HYCON® order info**

<table>
<thead>
<tr>
<th>Item #</th>
<th>.018</th>
<th>.022</th>
<th>Sales Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYCON Tube*</td>
<td>HCN-018-5</td>
<td>HCN-022-5</td>
<td>5 Patient Kit</td>
</tr>
<tr>
<td>HYCON ClipOn</td>
<td>HCN-018-5</td>
<td>HCN-022-5</td>
<td>5 Patient Kit</td>
</tr>
</tbody>
</table>

*Available in .018" slot technique with a .018x.025 support wire
*Available in .022" slot technique with a .021x.025 support wire

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**HYCON® ClipOn**

[Image of HYCON® ClipOn]