

Spider Screw®

Temporary Orthodontic Anchorage System

Distributor:



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Spider Screw is protected by international patent



Spider Screw®

Temporary Orthodontic Anchorage System

The **SPIDER SCREW** geometry is a result of a careful design in every single detail. In fact, the SPIDER SCREW has obtained two international patents due to its innovative characteristics: the simultaneous presence of the external and internal rectangular slots and round internal slots.

The **SPIDER SCREW** has been developed to offer a number of versatile anchorage options capable of immediate loading. Immediate loading is possible because the SPIDER SCREW is a non osteointegratable implant and consequently force can be applied immediately after placement. The applied force can range from 50 to 300 grams depending on screw choice, bone quality, and the desired orthodontic movement.

The **SPIDER SCREW** design is extremely versatile, due to its small dimensions and unique design. It is easily placed in either the maxilla or mandible, even where access is limited and bone quality is less than ideal. Placement is simplified by the self-drilling feature found in the K1 and K2 systems.

The **SPIDER SCREW** is an anchorage device that can be used during every phase of orthodontic treatment and is suitable for symmetric or asymmetric anchorage.

The **SPIDER SCREW** assists in the success of orthodontic treatment, both in adults and adolescents, by reducing treatment times without patient co-operation.

SPIDER SCREW is supplied clean and sterile inside a sealed polypropylene bottle. Included in the package are three removable stickers containing important information (device name, reference code, lot number, etc.) which can be applied to the patient's record card for traceability.



Orthodontic Head

The orthodontic head was designed to facilitate appliance (wires, springs, etc.) placement: there is a bracket like head featuring two intersecting .022" slots, the under tie wing area can also function as another slot .022" x .025" and features two intersecting slots of .027" in diameter with chamfered inlets to simplify insertion of wires or ligatures.

The head is available in two dimensions: the larger (Spider C2 2mm) to simplify the connection from the screw to the teeth where the working area and visibility are limited; the smaller (Spider K1 1.5mm, Spider Screw K2 1.9mm and Spider C1 1.5mm) are for patient comfort.



Transmucosal Portion

The length of the transmucosal portion is variable and allows an optimal adaptation to different intraoral mucosa thicknesses during bio-maintenance. Short for areas of thin attached gingiva. Long for areas with thick or freely moveable tissues.

The transmucosal portion is polished with a special treatment to help avoid soft tissue irritation and make cleaning easier to accomplish.



Infrabony Portion

The Spider Screw's thread shape has an asymmetrical profile making it easy to place while ensuring maximum stability and avoiding bone stress. Spider K1 1.5mm and Spider K2 1.9mm, tapered thread, are self-drilling and self-tapping which makes pre-drilling before insertion unnecessary. This makes the Spider Screw K1 and Spider Screw K2 easy to place while reducing the risk of root damage.

Spider C1 1.5mm and Spider C2 2mm, cylindrical thread, require pre-drilling and are used in areas that have poor bone quality or greater retention requirements.

Insertion Indications

MAXILLA

Edentulous ridges
Palate
Tuberosity
Interadicular areas
Infrazygomatic crest

MANDIBULA

Edentulous ridges
Retromolar region
Mandibular ramus
Interadicular areas
Synfisis

Indications

Spider Screw Anchorage System (SSAS) allows sagittal and vertical movement of all teeth (intrusion, extrusion, distalization and mesialization) and can be used for treating the following:

- Class I, Class II, Class III malocclusion treatment
- Anchorage Recovery
- Anchorage Reinforcement
- Asymmetrical case management
- Uprighting of upper and lower molars
- Correction of over erupted teeth (molar, premolar, incisors)
- Deep bite and open bite conditions
- Pre-Prosthetic Orthodontic treatment
- Border line cases
- Orthodontic treatment without patient cooperation (MBGM system)

General Information

The placement of Spider Screws is a procedure requiring specific knowledge of anatomy and technique. It is absolutely necessary that it is carried out by specifically trained doctors. It is important to know that improper patient selection and/or incorrect technique can cause placement failure and/or loss of supporting bone. An effective and complete screening of the patient must be performed and each case carefully evaluated. A very thorough examination is needed, as well as anatomical reference for the evaluation of bone quantity and quality using radiographic research (Long Cone Endoral Radiograph, Orthopantograph, Teleradiography, and Computerized Tomography). Carefully read the instructions for use inside the package before the Spider Screw placement. The Spider Screw is for single use only and should not be reused. Use only the instruments mentioned in this catalog, making sure that all the instruments are sterilized and efficient. It is suggested to disinfect the insertion area and give local anesthesia as needed. It is very important that the clinician attends a training course for a complete overview of all the possible applications, as this catalog shows only a few.



Spider K1 - K2 Placement

If a Spider Screw is to be inserted in an edentulous area where there is bone availability, references from a panoramic radiograph can be sufficient.

1. In areas close to delicate anatomical structures, such as interadicular spaces, a long cone radiograph is recommended.
2. A surgical splint can be made with orthodontic wire, fixing it to the teeth with acrylic or thermoplastic resin. The orthodontic wire is inserted in the acrylic resin and is appropriately bent so that its tip corresponds to the point of insertion of the Spider Screw.
3. Use a periapical radiograph (by using the long-cone parallel technique) to verify the correct placement of the orthodontic wire.
4. The insertion site can be marked with a pressure point or methylene blue dot on the soft tissue. In mobile mucosa it is recommended to leave the surgical guide in place during the drilling phase and/or the screw insertion.



5. After site disinfection (chlorhexidine) insert the Spider K1 or K2 using the manual pick-up driver DSX-1690-S+DSP-5052-S. It is also possible to use the contra-angle pick-up driver DPQ-2820 at low speed (25/30 rpm). In order to avoid excessive torque stress during insertion, (which could cause bone compression and consequent recession or cause the screw to break) it is recommended to use a technique of alternating between screwing and unscrewing to gradually ease the screw into position. Final placement is achieved by using the handle driver DSQ-2824 to complete the insertion as this provides the most controlled tactile method.

6. In the case of very compact bone use a spiral drill (FSC-1108 for K1 or FSC-1309 for K2) to make a pilot hole which makes screw insertion easy to perform.

Spider Pin - C1 - C2 Placement

Follow points 1 to 4 as above.

- 5a. After site disinfection (chlorhexidine) the spiral drill is used to perforate the soft tissue and cortical bone (no incision needed). Cold irrigation is used during the drilling procedure (5°C/41°F). Use the 0.9 mm drill for the PIN, 1.2 mm drill for the C1 and 1.5 mm for C2 Spider Screws.

- 6a. You can choose between two options: manual or mechanical insertion. For manual insertion use DSX-1690S + DSP-2352S for PIN, DSX-1690S + DSP-5052S for C1 and DSX-1690S + DSP-6052S for C2 Spider Screws. For mechanical insertion use the contra angle pick-up driver DPQ-2322 for PIN, DPQ-2820 for C1 or DPQ-4422 for C2 Spider Screws mounted on a low speed contra-angle handpiece (25/30 rpm). Final placement is achieved by using the handle driver to complete the insertion as this provides the most controlled tactile method.

Post Application Patient Instruction

Application of chlorhexidine rinse 2 - 3 times per day for the first 7 days. Perform normal hygiene procedures. The patient should brush the screw normally as a tooth.

Spider Screw Removal

To remove the Spider Screw, it is simply unscrewed with the appropriate screwdriver. For anterior and lateral areas is advisable to use the handle driver. While for posterior areas is advisable to unscrew with contra angle pick-up driver. This can be accomplished with or without anesthesia. If the Spider Screw does not unscrew easily it is recommended to use a technique of alternating between unscrewing and screwing. Healing takes place in a few days.

Self-Ligating K1

Spider Self-Ligating K1 Ø1,5 mm

Conical Thread (Self -Tapping / Self Drilling)
Available in 6,5 - 8 - 10 mm lengths.

The Spider Screw Self-Ligating TAD - K1 is self-drilling and self-tapping. Due to the design of the conical thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.1 mm drill provided to penetrate the cortical plate. During insertion of the Spider K1 do not exceed 20 Ncm.



SXL-1506 Ø 1.5 x 6.5 mm

SXL-1508 Ø 1.5 x 8.0 mm

SXL-1510 Ø 1.5 x 10.0 mm

CONTRA ANGLE PICK-UP DRIVER - SHORT
DPQ-3420



CONTRA ANGLE PICK-UP DRIVER - LONG
DPQ-3425



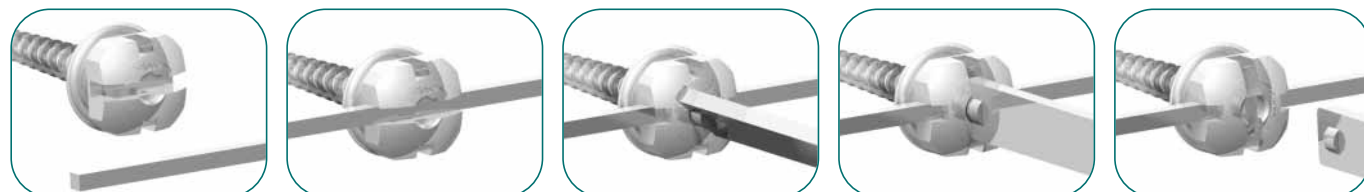
SELF LIGATING TAD KEY
DXL-2820



HANDLE SQUARE DRIVER
DSQ-3424



PICK-UP DRIVER SHAFT
DSP-5652S



Self-Ligating K2

Spider Self-Ligating K2 Ø1,9 mm

Conical Thread (Self -Tapping / Self Drilling)
Available in 6 - 7 - 9 - 11 mm lengths.

The Spider Screw Self-Ligating TAD - K2 is self-drilling and self-tapping. Due to the design of the conical thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.3 mm drill provided to penetrate the cortical plate. During insertion of the Spider K2 do not exceed 30 Ncm.



SXL-1906 Ø 1.9 x 6.0 mm

SXL-1907 Ø 1.9 x 7.0 mm

SXL-1909 Ø 1.9 x 9.0 mm

SXL-1911 Ø 1.9 x 11.0 mm

CONTRA ANGLE PICK-UP DRIVER - SHORT
DPQ-3420



CONTRA ANGLE PICK-UP DRIVER - LONG
DPQ-3425



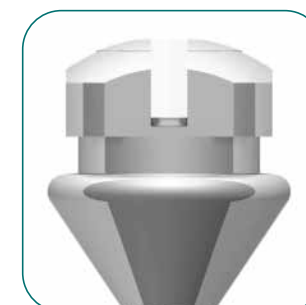
SELF LIGATING TAD KEY
DXL-2820



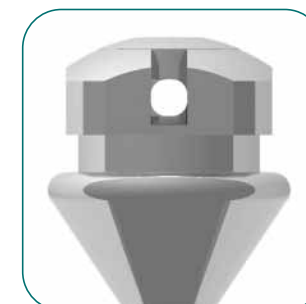
HANDLE SQUARE DRIVER
DSQ-3424



PICK-UP DRIVER SHAFT
DSP-5652S



OPEN



CLOSED

K1 Spider K1 Ø1,5 mm

Tapered Thread (Self-drilling/Self-tapping)

Available in 6,5 - 8 - 10 mm lengths.

The Spider Screw - K1 is self-drilling, due to the design of the tapered thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.1 mm drill provided to penetrate the cortical plate.

Available in the following versions:

LONG NECK - elongated neck height (2 mm) for areas of thick tissue (Posterior and lateral areas).

SHORT NECK - standard neck height (1 mm) for areas of thin tissue (Anterior and lateral areas).



SCL-1506 Long Neck Ø 1.5 x 6.5 mm

SCL-1508 Long Neck Ø 1.5 x 8.0 mm

SCL-1510 Long Neck Ø 1.5 x 10.0 mm



SCR-1506 Short Neck Ø 1.5 x 6.5 mm

SCR-1508 Short Neck Ø 1.5 x 8.0 mm

SCR-1510 Short Neck Ø 1.5 x 10.0 mm

DRILL Ø 1,1 mm
FSC-1108



CROSS DRIVER SHAFT
DSX-2852S for DSX-1690S



C.A. PICK-UP DRIVER
DPQ-2820



PICK-UP DRIVER SHAFT
DSP-5052S for DSX-1690S



C.A. CROSS DRIVER
DPX-2830



SCREWDRIVER BODY
DSX-1690S



HANDLE DRIVER SHORT
DSQ-2824



TORQUE DRIVER
DST-1600



PICK-UP HANDLE DRIVER
DPH-2824



- Torque driver to control insertion force.
- The torque driver has a range of torque of 15 N/cm: from 5 up to 20 N/cm.
- Interchangeable shafts for all kind of Spider Screw.
- Can be sterilized.



* Kit for Spider Screw
C1, K1 e K2

K2 Spider K2 Ø1,9 mm

Tapered Thread (Self-drilling/Self-tapping)

Available in 5 - 6 - 7 - 9 - 11 mm lengths.

The Spider Screw - K2 is self-drilling, due to the design of the tapered thread, drilling is eliminated in most areas of the mouth. In areas of high bone density, it may be necessary to utilize the 1.3 mm drill provided to penetrate the cortical plate.

The 5 mm and 6 mm lengths screws can be placed in the palate or in areas where the bone thickness is reduced. Available in the following versions:

LONG NECK - elongated neck height (2 mm) for areas of thick tissue (Posterior and lateral areas). **SHORT NECK** - standard neck height (1 mm) for areas of thin tissue (Anterior and lateral areas).



SCL-1905 Long Neck Ø 1.9 x 5.0 mm

SCL-1906 Long Neck Ø 1.9 x 6.0 mm

SCL-1907 Long Neck Ø 1.9 x 7.0 mm

SCL-1909 Long Neck Ø 1.9 x 9.0 mm

SCL-1911 Long Neck Ø 1.9 x 11.0 mm



SCR-1905 Short Neck Ø 1.9 x 5.0 mm

SCR-1906 Short Neck Ø 1.9 x 6.0 mm

SCR-1907 Short Neck Ø 1.9 x 7.0 mm

SCR-1909 Short Neck Ø 1.9 x 9.0 mm

SCR-1911 Short Neck Ø 1.9 x 11.0 mm

DRILL Ø 1,3 mm
FSC-1309



CROSS DRIVER SHAFT
DSX-2852S for DSX-1690S



C.A. PICK-UP DRIVER
DPQ-2820



PICK-UP DRIVER SHAFT
DSP-5052S for DSX-1690S



C.A. CROSS DRIVER
DPX-2830



SCREWDRIVER BODY
DSX-1690S



HANDLE DRIVER SHORT
DSQ-2824



TORQUE DRIVER
DST-1600



PICK-UP HANDLE DRIVER
DPH-2824



- Torque driver to control insertion force.
- The torque driver has a range of torque of 15 N/cm: from 5 up to 20 N/cm.
- Interchangeable shafts for all kind of Spider Screw.
- Can be sterilized.



* Kit for Spider Screw
C1, K1 e K2

C1 Spider C1 Ø1,5 mm

Cylindrical Thread (Pre-drilling/Self-tapping)

Available in 6,5 - 8 - 10 mm lengths.

The Spider Screw - C1 is self-tapping and requires pre-drilling with a drill of diameter 1.2 mm. Available in the following versions:

LONG NECK - elongated neck height (2 mm) for areas of thick tissue (Posterior and lateral areas).

SHORT NECK - standard neck height (1 mm) for areas of thin tissue (Anterior and lateral areas).



SLP-1506 Long Neck Ø 1.5 x 6.5 mm

SLP-1508 Long Neck Ø 1.5 x 8.0 mm

SLP-1510 Long Neck Ø 1.5 x 10.0 mm



SSM-1506 Short Neck Ø 1.5 x 6.5 mm

SSM-1508 Short Neck Ø 1.5 x 8.0 mm

SSM-1510 Short Neck Ø 1.5 x 10.0 mm

DRILL Ø 1,2 mm
FSC-1210



CROSS DRIVER SHAFT
DSX-2852S for DSX-1690S



C.A. PICK-UP DRIVER
DPQ-2820



PICK-UP DRIVER SHAFT
DSP-5052S for DSX-1690S



C.A. CROSS DRIVER
DPX-2830



SCREWDRIVER BODY
DSX-1690S



HANDLE DRIVER SHORT
DSQ-2824



TORQUE DRIVER
DST-1600



PICK-UP HANDLE DRIVER
DPH-2824



- Torque driver to control insertion force.
- The torque driver has a range of torque of 15 N/cm: from 5 up to 20 N/cm.
- Interchangeable shafts for all kind of Spider Screw.
- Can be sterilized.



* Kit for Spider Screw C1, K1 e K2

C2 Spider C2 Ø2 mm

Cylindrical Thread (Pre-drilling/Self-tapping) Available in 7 - 9 - 11 mm lengths.

The Spider Screw - C2 is self-tapping and requires pre-drilling with a drill of diameter 1.5 mm. Available in the following versions: **LONG NECK** - elongated neck height (1 mm) for areas of thick tissue (Posterior and lateral areas). **SHORT NECK** - standard neck height (0.5 mm) for areas of thin tissue (Anterior and lateral areas). **REGULAR PLUS** - standard neck height (0.5 mm). Besides providing anchorage, it can be inserted vertically in edentulous areas to support a temporary abutment. It is possible, after sand-blasting, to bond a bracket to the acetylic resin.



SLP-2007 Long Neck Ø 2 x 7.0 mm

SLP-2009 Long Neck Ø 2 x 9.0 mm

SLP-2011 Long Neck Ø 2 x 11.0 mm



SSM-2007 Short Neck Ø 2 x 7.0 mm

SSM-2009 Short Neck Ø 2 x 9.0 mm

SSM-2011 Short Neck Ø 2 x 11.0 mm



SSP-2007 Regular Plus Ø 2 x 7.0 mm

SSP-2009 Regular Plus Ø 2 x 9.0 mm

SSP-2011 Regular Plus Ø 2 x 11.0 mm

DRILL WITH STOP Ø 1,5 x 7
FSC-1507



CROSS DRIVER SHAFT
DSX-2852S for DSX-1690S



DRILL WITH STOP Ø 1,5 x 9
FSC-1509



PICK-UP DRIVER SHAFT
DSP-6052S for DSX-1690S



DRILL WITH STOP Ø 1,5 x 11
FSC-1511



SCREWDRIVER BODY
DSX-1690S



C.A. PICK-UP DRIVER
DPQ-4422



SPIDER ABUTMENT
PMA-5508



C.A. CROSS DRIVER
DPX-2830



HANDLE DRIVER FOR ABUTMENT
DSE-2410



PICK-UP HANDLE DRIVER
DSQ-4424



PIN Spider PIN Ø1,3 mm

Cylindrical - Conical thread (Self-Tapping)

Available in 8 - 10 mm lengths.

Spider PIN is a simple design Self -Tapping screw and requires pre-drilling. It is ideal for areas where a reduced size head is required (i.e. narrow interproximal spaces). The Spider PIN head is rounded to increase patient comfort and allow for better cleaning.

- Ideal for narrow interproximal spaces.
- Simple head, perfect for NiTi closed coil spring attachments or elastic chains.
- Requires no patient cooperation and reduces treatment time.
- Smooth, rounded design for patient comfort.



SCL-1308 Ø 1.3 x 8.0 mm

SCL-1310 Ø 1.3 x 10.0 mm

DRILL Ø 0,9 mm
FSC-0910



C.A. PICK-UP DRIVER
DPQ-2322



HANDLE DRIVER SHORT
DSQ-2324



PICK-UP DRIVER SHAFT
DSP-2352S for DSX-1690S or DST-1600



SCREWDRIVER BODY
DSX-1690S



TORQUE DRIVER
DST-1600



- To control insertion force and to avoid screw breakage.
- The torque driver has a range of torque of 15 N/cm: from 5 up to 20 N/cm.
- Interchangeable shafts for all kind of Spider Screw.
- Can be sterilized.



Spider Link

A system of Plates for skeletal anchorage

- Allows application of mini-screw in more suitable anatomical areas.
- Easy to place and remove.
- Easy to mould.

Spider Link is a skeletal anchorage system comprising of a **Self-Ligating Screw** and titanium preformed orthodontic anchorage attachment.

Current skeletal anchorage systems don't always allow the insertion of screws in the desired position, due to teeth interference and/or anatomy. This new system, Spider Link (Self-Ligating Spider Screw + Orthodontic Anchorage Attachment) lets you overcome this limitation.

The screw can be placed in more suitable anatomical areas and then, thanks to the orthodontic anchorage attachment, it is possible to apply forces to desired teeth.

	PSLV-0001		PSLI-0006
	PSLV-0002		PSLI-0007
	PSLH-0001		PSLI-0008
	PSLH-0002		PSLI-0009
	PSLH-0003		
	PSLH-0004		

Sumodis

Simultaneous upper Molars Distalizing System

SUMODIS it's a system for simultaneous distalization of upper molars in presence of second molars in II class non-extractive treatments without co-operation.

SUMODIS is a combination of sliding mechanics using Spider Screws as a sole anchorage resource.

SUMODIS main characteristic is two distalizing components: one against the first molar and the other one against the second, working simultaneously.

One Kit is two pieces of each of the following items:

Tempered wire 016x022

Sentalloy wire 100 gr. provided with stop 018x025

Protection elastomer tube

Neosentalloy Open coil spring 200 gr

Crimpable stop 018

Double tube

Preshaped palatal bar

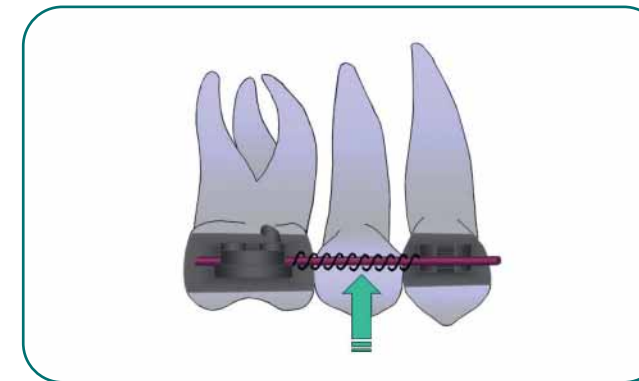
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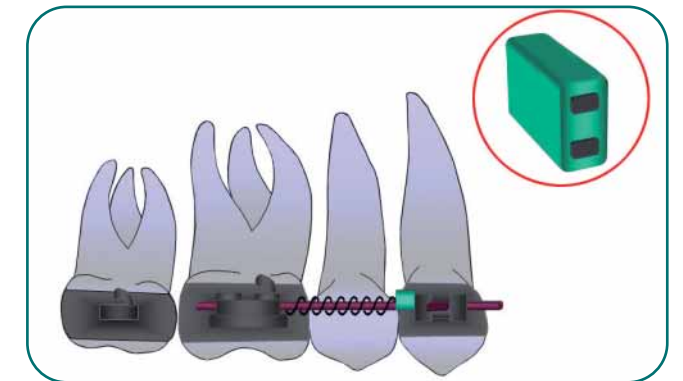
Protocol for Class II non extraction treatment without cooperation

Phase 1: Distalization of the maxillary molars

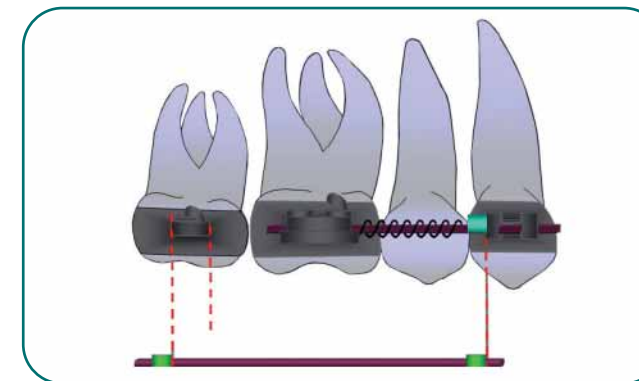
When the second molars are present, we use the SUMODIS (Simultaneous Upper Molar Distalizing System) in order to make a simultaneous distalization of the first and second molar.



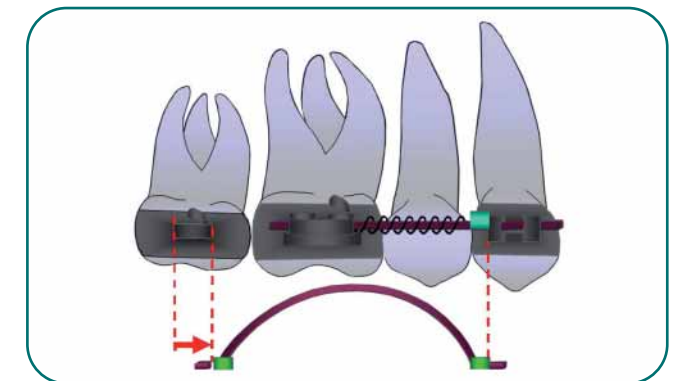
1. First distalizing component. Insert in a sectional .016 x .022 S.S. wire and a 200 gr. NeoSentalloy open coil between the first premolar and the molar.



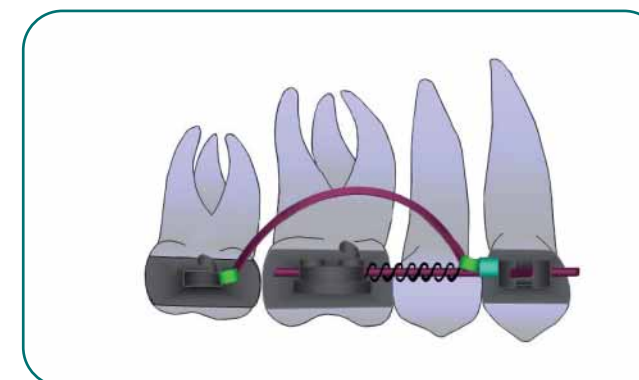
2. Before fixing .016 x .022 S.S. wire, insert the double tube into it using the lower tube and position it near by the premolar bracket. The double tube, which can slide, is blocked by the compressed coil on one side and the premolar bracket on the other side.



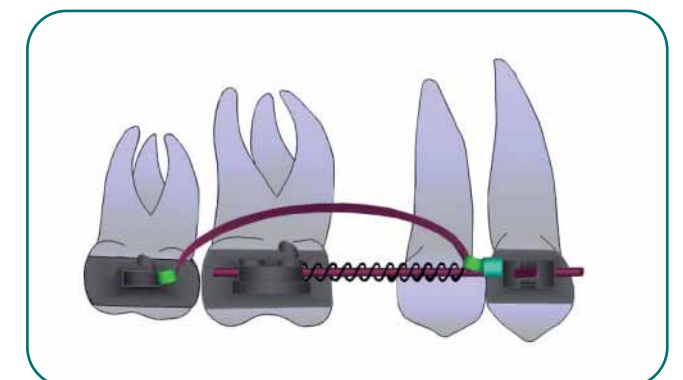
3. The second distalizing component is a shape memory .018 x .025 SS NeoSentalloy wire (with crimped stop). Put the second stop at a distance of 6mm longer than the distance between the mesial side of the buccal tube on the second molar and the distal side of the double tube on the sectional wire.



4. When the NeoSentalloy wire is inserted into the tube on the second molar and in the double tube free hole, it will raise in the buccal fold and activate 6mm.



5. In this phase you can see both distalizing components simultaneously activated.



6. End of first phase MBGM system. Molars Distalization done.

Manual Contrangle

The correct positioning and adjusting of the head of the Spider Screw, is very important to achieve good results when working with orthodontic attachments or plates.

HDC manual Contra-Angle is used to reach this target. It is a manual instrument that allows insertion of Spider Screws without the use of motors or other pneumatic or electrical machines.

It is very useful when placing spider screws in the palate, where access with standard drivers is difficult.

- Very easy access in posterior and palatal areas.
- Ideal angle for palatal vault.
- Manual driving, no motors or turbines.
- Snap-on facility.
- Autoclavable up to 135°C.



Clinical Cases

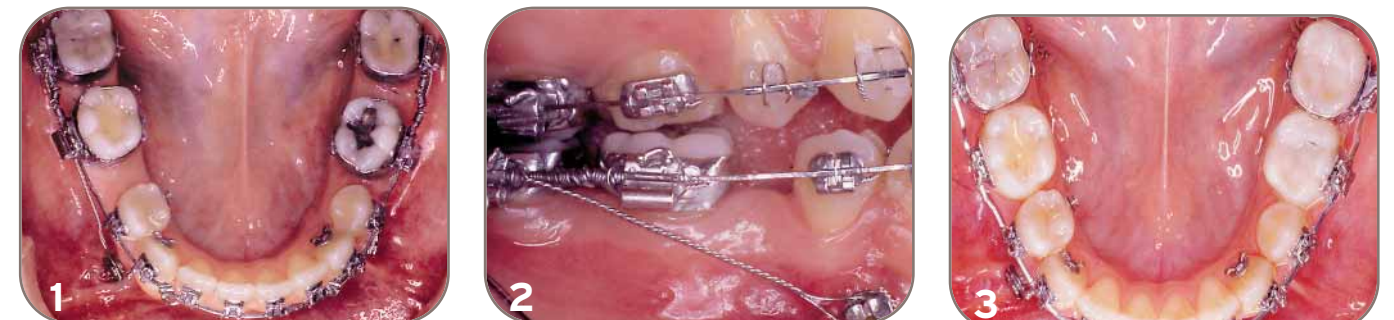
Intrusion Posterior Areas



Direct Anchorage - Uprighting and Molar Intrusion



Indirect Anchorage



By kind permission of Dr. B.G. Maino

Molar Uprighting and Intrusion



By kind permission of Dr. N.Derton

Spider Pin Application



Note

By kind permission of Dr. B.G. Maino

