

EVOLUTION SLT™ Bracket

The almighty non-locking flexible clip - for a purer, more controlled lingual moment of force - healthy, safe and harmonious biologic forces.

Lingual orthodontics is not just about the bracket, its about combining all that we know about the difficulties of lingual treatment and producing an absolute streamline system. The aim to provide complete control of treatment to ensure precise transmission of the prescription with a precise and uncomplicated application, for fast efficient and safe tooth movement.

THE BRACKET

Ensure full bracket engagement of the archwire

A flexible spring clip gently and without loss of power pushes the arch wire to the slot base. This type of efficiency ensures effective rotation and torque control allowing earlier archwire changes and less visit frequency

Easy archwire insertion

Self-ligating clip opens at the incisal edge and allows insertion of the archwire from the occlusal direction in the anterior zone

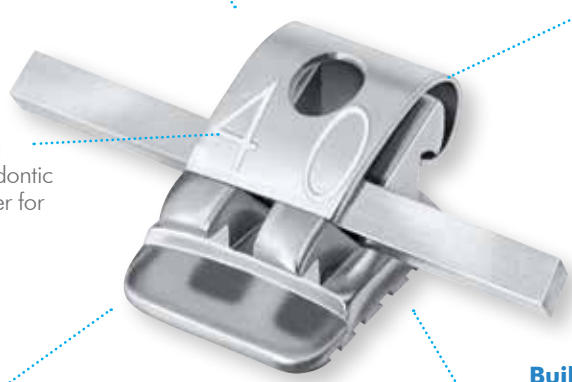


Secure robust ligation

Secure, reliable ligation that can withstand the rigors of full orthodontic treatment, and provide the power for efficient tooth movement

Quick and easy to use

No complicated instrument is needed to operate the spring clip, it requires very little force to open or close, our doctors report fast archwire changes, and this simple operation requires a minimal learning curve for doctors and staff



Safety release function

The only self-ligating bracket in the world that opens when pressure is exceeded beyond a force known to be damaging the periodontal ligament

Built-in bite plane

Self-ligating clip design acts as a bite plane to facilitate the mechanics in cases of deep bite to provide controlled opening of the bite without further appliances. In addition a bite plane on the lower anteriors transformed the wearing forces produced the anteriors into compressive forces in the apical and labial directions

Passive & Active

Passive with round wires producing nearly frictionless movement and active with wires starting at .016x.016 puts you in control of treatment, creating efficiency and reducing undesirable, unpredictable and uncontrolled frictional forces

Locking self-ligating clips vs. Flexible non-locking self-ligating clip - the challenge was on!

Locking self-ligating clips dominate the self-ligation market, however over the past number of years research and clinical experiences have revealed a number of undesirable effects.....The challenge was to understand why this locking design was creating these undesirable effects and how should we design a clip to eliminate them.

DESIGN CHALLENGE - Understanding why locking clips create undesirable effects

Unacceptable forces

The need to force the arch wire to the bottom of the bracket slot just to close/lock the clip can create strong unacceptable forces. The ideal metabolic state is lost, treatment slows down and unhealthy damaging pressure could possibly be produced

Pain

Patients report pain and discomfort and require emergency visits after wire changes

Breakage and de-bonding issues

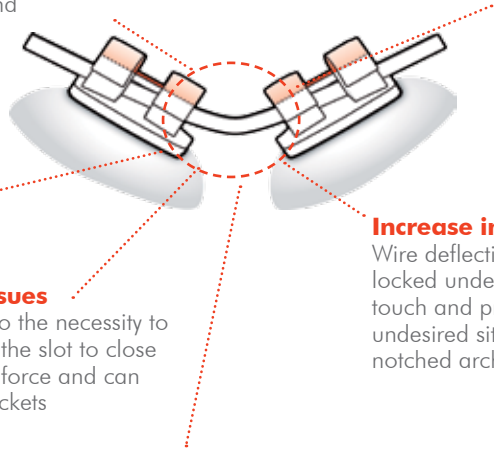
Clips can be easily damaged due to the necessity to push the archwire to the bottom of the slot to close the clip. This creates unacceptable force and can easily break clips and de-bond brackets

Undesired friction

When forces and angles are inappropriate for that stage of treatment, undesirable friction occurs. Tooth movement is uncontrolled, unpredictable and now force must be increased to overcome this friction for tooth movement

Increase in binding and notching

Wire deflection is increased as the clips hold the wire locked under a rigid wall. This angle permits the wire to touch and press against the locked clip, producing the undesired situation for binding, that ultimately creates a notched archwire



DESIGN SUCCESS - Understanding why a non-locking flexible clip eliminates undesirable effects

The ability to flex like an elastomeric and respond to the actual tooth position, produces the ideal metabolic state for safe and efficient tooth movement.



EVOLUTION SLT™
the softer side of braces

Reduction in friction

As the flexible clip does not need to be locked down, wire deflection is significantly reduced, binding is minimized and forces are within the ideal range, resulting in a significant reduction in friction

Ideal forces

Provides an active force of approx. 650 grams "power range", the ideal force required for the controlled pathology of Osteoclast and Osteoblast to be achieved. This ideal situation requires less force for tooth movement, lighter wires can be used and treatment progresses within a healthy range

No loss of power

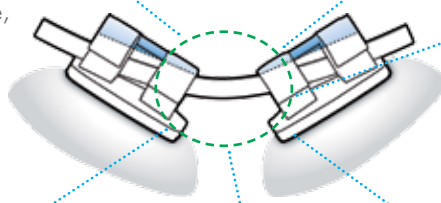
Designed to actively flex and adjust to the actual tooth position mimicking an elastomeric but without losing the power needed to control treatment

Reduction in pain

Flexing with the malocclusion produces less friction and appropriate pressure - patients report significantly less pain during treatment

Reduce binding - minimize notching

A flexing wall reduces the deflection on the archwire, the angle of the archwire is appropriate and pressure is ideal



Control of frictional forces during treatment

Findings suggest that self-ligating brackets are a great family of brackets that can generate different levels of force when coupled with thin, thick, rectangular or round archwires. At various stages in the orthodontic treatment we need frictional forces to be at a certain level. This situation occurs in the middle and end of treatment, when it is necessary to obtain an adequate torque. This is to say, whenever we need the most dental control possible.

In order to move teeth, frictional force is necessary - here we are referring to forces that we are controlling to make the movements we require.

Passive with smaller wires, producing nearly frictionless movement resulting in an efficiency increase in the leveling stage



Active with wires starting from .016x.016" (1-2-3) anterior zone and .016x.022" (4-7) bicuspid and molar zone - the bracket clip actively but gently guides the wire into the slot, creating early torque control and reducing treatment time by creating efficiency



The EVOLUTION SLT™ self-ligating spring clip is engaged even if the wire does not fill the slot.

Flexible self-ligating clip with built in safety release

Optimal tooth movement requires permanent blood supply to the surrounding tissue to produce the ideal metabolic state for safe and efficient tooth movement.

The active force of the self-ligating clip is approx. 650 grams "power range", the ideal force required for the controlled pathology of Osteoclast and Osteoblast to be achieved. This ideal situation requires less force for tooth movement, lighter wires can be used, and permanent blood supply to all surrounding periodontal tissues ensures healthy, safe and fast progressing tooth movement.

The self-ligating clip functions as an active flexible spring and is designed to alleviate pressure appropriately when force is exceeded over 900 grams. Force beyond this threshold might start to block the blood supply and create an unsafe situation, the ideal metabolic state is lost and treatment becomes unhealthy and ineffective.



Easy to open - Easy to close

Very little force is needed to open and close the bracket, creating optimum handling for the doctor and comfort for the patient.



THE INDIRECT BONDING SYSTEM



The SMART Lingual Indirect Bonding System provides a secure, repeatable, fast and precise method customized to the patients' case and habits of the practitioner.

Straight wire appliances make it imperative that the brackets be positioned with accuracy in order to fully exploit the interaction of their written prescription. The SMART Lingual Indirect Bonding System offers the orthodontist the precision of the HIRO technique with the speed and efficiency of a full bonding tray, or individual tooth cap. You choose which option works best for you - or combine the advantages of both options for ultimate customizing to best suit your needs. This system has complete flexibility, even teeth that are difficult to isolate or rebonds are simple and easy to handle.

2-TRAY FREEDOM-SYSTEM

Individual tooth bonding



Individual tray and full tray combination



Freedom to choose - combining speed, precision and customization that suits individual needs and practices.

Two systems in one:

Using both tray options together combines the speed of a full bonding tray, with the accuracy and precision of the HIRO technique. The desired bracket positions are encoded in a non-deformable individual transfer cap. These individual transfer caps sit snugly in a full silicone transfer tray. This provides the orthodontist the freedom to choose which indirect bonding method suits best, or combine together for speed and accuracy all in one system.



Full tray option:

The full tray option provides fast and efficient bonding of the brackets, and as the transfer tray is made of a special silicone material, it is flexible enough to adapt to minor tooth movements that often can happen between impression taking and bracket bonding. This provides the orthodontist with complete freedom to bond as their schedule permits, without the worry of additional tooth movement after impression taking.



Individual tray option:

Individual indirect bonding caps are also included, and are located inside the silicon tray, these caps are removed easily when needed. The individual cap is made of hard non-deformable light cured Triad material, and ensures precise transference of the written prescription. When crowding and space restraints are at their highest, the individual cap can be used - each individual cap is customized perfectly for each tooth, now one tooth can be bonded at a time. Bonding using the individual cap also offers the orthodontist a clear visual view of the bracket, now any excessive bonding material can be seen easily and removed before light curing.



BONDING OPTIONS

EVOLUTION SLT™ SMART CAP™ LINGUAL BONDING SYSTEM



Individual SMART CAP™ indirect bonding tray



Full tray SMART CAP™ indirect lingual bonding



THE LAB EVOLUTION™ SLT SMART CAP™ Components



SMART BASE

The Smart Base is the basic module of the EVOLUTION SLT SMART CAP™ Bonding System. This prefabricated part with its ball button is the connection module between the individual cap on the elastic tray, or the Smart Stick, when used individually.



SMART TUBE

The Smart Tube is an individual prefabricated PE cap, precisely matching the dimensions of the EVOLUTION™ SLT bracket and fixes the bracket securely.



SMART CONNECTOR

The Smart Connector is a metal sheet, connecting Smart Base and Smart Tube. These two prefabricated elements form an inseparable unit creating remarkably unique bonding precision.



SMART STICK

The Smart Stick can be connected to the ball button of the Smart Base for comfortable placement of single individual transfer caps. It allows precise alignment and secure fixation of the individual transfer cap. It can be put on the rear side of the EVOLUTION SLT™ opening and closing instrument, offering comfortable handling.

CERTIFIED LABS



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SERVICES

Bonding methods:

EVOLUTION SLT™ Smart Cap
indirect method

EVOLUTION SLT™ Smart Jig
indirect method

JOY™
indirect modified Hiro method

LAB^{TEC} Certified

SPAIN

Lingual Orthodontic



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Bonding methods:

EVOLUTION SLT™ Smart Cap
indirect method

EVOLUTION SLT™ Smart Jig
indirect method

JOY™ CLO³
indirect method

LAB^{TEC} Certified



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Bonding methods:

EVOLUTION SLT™ Smart Cap
indirect method

EVOLUTION SLT™ Smart Jig
indirect method

JOY™
indirect modified Hiro method



LINGUAL SUCCESS STORIES



DR. HATTO LOIDL - *Building your unique reputation*

Berlin, GERMANY - Dr. Loidl wanted to stand out in the crowd - now 13 years later his practice is primarily known for its fast treatment time due to a focus in self-ligating, and also for a completely invisible option for his patients that delivers high quality results.

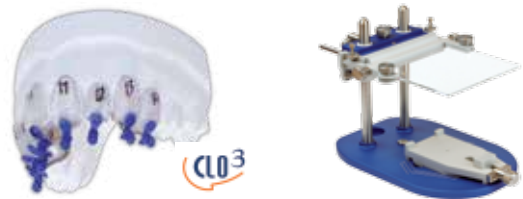
“Working primarily within the self-ligating field really got my potential patients attention. The system is streamlined and predictable and fulfills my need to complete all my cases to my absolute satisfaction - without compromise”



DR. PABLO ECHARRI - *Streamlining the lingual technique*

Barcelona, SPAIN - Dr. Echarrri works directly with the certified lab LADENT in Spain. His chosen method of indirect bonding is called **CLO³**. This method can easily be applied to both the EVOLUTION SLT™ and JOY™ lingual brackets.

LADENT recently completed the LABTEC certification. The LABTEC laboratory line was developed in order to standardize, streamline, and expedite the lab process for creating and modifying dental models, and assures at the same time the indispensable precision, appealing optics and fine-tuning adjustment for dental, surgical, and Set-Up models.



DR. VICTOR GRAZINA - *Stress-free | Routine Appointments*

East Hampton, NY - Dr. Grazina fondly known as "Dr. V" by his patients, introduced a new concept to his practice to serve the growing demand in his area for fast invisible orthodontics.

“In our office, the only difference between a lingual patient and a labial patient is that the lingual patient refers much more often! I’ve found limited lower lingual to be an excellent profit generator. Easy to sell, easy to treat and patients are raving fans- often referring friends and family!”



DR. MICHAEL SCHUBERT - *Lingual treatment and alignment of impacted cuspid*

Dr. Michael Schubert inventor of the EASY-WAY-COIL™ system modified his system to work in conjunction with lingual treatment.

“Lingual treatment can progress quickly, even if I need to align an impacted tooth. With the EASY-WAY-COIL, I am in control of force and direction. Choosing the right force minimizes root damages and reduces treatment time.”



EVOLUTION SLT™ prescriptions and order info

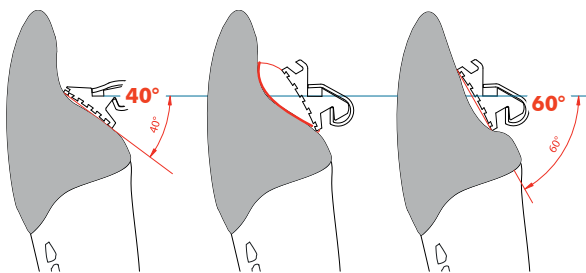
EVOLUTION SLT™ Brackets

UPPER	U - R 40°	U - L 40°	U - R 60°	U - L 60°
Central				
Lateral	300-40	300-40	300-60	300-60
Cuspid				
Tooth	U - R	U - L	U - R	U - L
1. & 2. Bicuspid	300-14/45	300-14/45	300-14/45	300-14/45
1. Molar WIDE	300-10W	300-10W	300-10W	300-10W
2. Molar STANDARD	300-10S	300-10S	300-10S	300-10S

LOWER	U - R 40°	U - L 40°	U - R 60°	U - L 60°
Anteriors				
Cuspid	300-40	300-40	300-60	300-60
Tooth	U - R	U - L	U - R	U - L
1. & 2. Bicuspid	300-14/45	300-14/45	300-14/45	300-14/45
1. Molar WIDE	300-10W	300-10W	300-10W	300-10W
2. Molar STANDARD	300-10S	300-10S	300-10S	300-10S

EVOLUTION SLT™ Cases

1 case 40°	10 case 40°	1 case 60°	10 case 60°	Description
300-001/40	300-001/10/40	300-001/60	300-001/10/60	EVOLUTION™ Bracket Upper + Lower 5-5
300-007/40	300-007/10/40	300-007/60	350-007/10/60	EVOLUTION™ Bracket Upper + Lower 7-7



Which bracket – 40° or 60°?

Due to the variation of the lingual crown surface, EVOLUTION SLT™ brackets are available with 40° and 60° base inclination. Choosing the correct degree will help keep the customized base to be as thin as possible, creating a lower and more comfortable profile.

NOTE: Degree values are NOT torque or tip values, but only lingual crown anatomical inclination values.

EVOLUTION SMART JIG™ and SMART CAP™



UPPER	SMART JIG	SMART BASE	SMART CONNECTOR	LOWER	SMART JIG	SMART BASE	SMART CONNECTOR
Central				Anteriors	300-SJ-1	300-UB	300-UC
Lateral	300-SJ-1	300-UB	300-UC	1. Bicuspid	300-SJ-2	300-UB	300-UC
Cuspid				2. Bicuspid	300-SJ-2	300-UB	300-UC
1. Bicuspid	300-SJ-2	300-UB	300-UC	1. Molar	300-SJ-3	300-UB	300-UC
2. Bicuspid	300-SJ-2	300-UB	300-UC	2. Molar	300-SJ-3	300-UB	300-UC
1. Molar	300-SJ-3	300-UB	300-UC				
2. Molar	300-SJ-3	300-UB	300-UC				

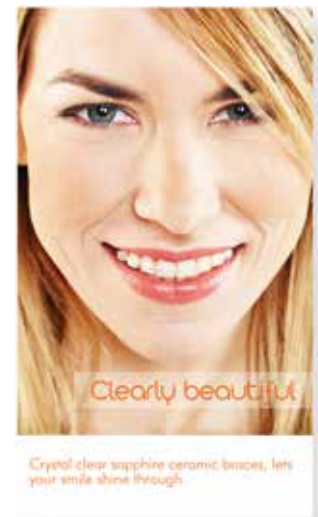
New invisible orthodontic marketing materials and crystal blue typodonts are now available



20" x 30" Full color CLEAR-POSTER



Tri-fold Brochure



MORE
INFO



More details on
page 45



EVOLUTION SLT™
Typodont



adenta's Lingual Archwires - offset free



The adenta wires are specifically designed to produce ultra-low deflection forces, this is imperative due to the decrease in inter-bracket distance in the lingual treatment.

The anatomy of the lingual arch is positioned in such a way that it is customary to offset your lingual wire at the canine and sometimes another offset at the distal face of the

second premolar. This offset bend will adjust the lingual wire form and follow the lingual arch, avoiding the molars. All adenta lingual wires are supplied without a lingual offset. This eliminates the need to stock many different offset sizes and make numerous adjustments to make the offset fit. With our offset free lingual wire the orthodontist can create an offset that fits perfectly and eliminates the need for further adjustments. Less forming in turn lessens the chance of improper torque, as perfect symmetry is the ultimate aim.

THERMADENT™ / heat activated NiTi

		Size 1	Size 2	Size 3	Size 4
5 pieces	.012"	NNTL112	NNTL212	NNTL312	NNTL412
	.014"	NNTL114	NNTL214	NNTL314	NNTL414
	.016"	NNTL116	NNTL216	NNTL316	NNTL416
5 pieces	.016" x .016"	NNTL116x16	NNTL216x16	NNTL316x16	NNTL416x16
	.016" x .022"	NNTL116x22	NNTL216x22	NNTL316x22	NNTL416x22
	.017" x .025"	NNTL117x25	NNTL217x25	NNTL317x25	NNTL417x25

FLEXADENT™ Nickel Titanium superelastic

		Size 1	Size 2	Size 3	Size 4
5 pieces	.014"	NNTL114	NNTL214	NNTL314	NNTL414

TRIDENT™ CNA BETA III/TM

		Size 1	Size 2	Size 3	Size 4
5 pieces	.016" x .016"	CNAL116x16	CNAL216x16	CNAL316x16	CNAL416x16
	.016" x .022"	CNAL116x22	CNAL216x22	CNAL316x22	CNAL416x22
	.017" x .025"	CNAL117x25	CNAL217x25	CNAL317x25	CNAL417x25

DURADENT™ Stainless Steel

		Size 1	Size 2	Size 3	Size 4
10 pieces	.016"	STL116	STL216	STL316	STL416

How to bend the lingual Offsets?

This bend can be completed with a NiTi thin Three Prong Pliers for the heat activated wires and a Bird Beak for all other wires.

1. Mark the position of the distal face of the canine with a wax marker.
2. Place the Three Prong Pliers on this mark and bend 90 degrees.
3. With a wax pencil mark the distance to the first premolar and bend 90 degrees.
4. Make the same adjustment to fit the premolar/molar relation, if necessary.
5. Eliminate any torque that would cause the wire to lift.

