



# Delta Force<sup>®</sup>

Bracket System

Putting you in the driver's seat for ultimate control



# Variable Force Orthodontics

The *Delta Force* Bracket System incorporates an advanced design that allows you to control the friction between the archwire, bracket and ligatures. The advanced technology and variations in ligature placement provide full control over the sliding mechanics offering the ability to easily increase or decrease friction for better treatment planning and results.

*Delta Force* Brackets have unique features to achieve variable force ligation throughout the treatment stages.

**Early in treatment:** Light force can be attained for excellent sliding mechanics and low friction.

**Intermediate stage of treatment:** Medium force can be utilized for anchorage and stabilization, as well as initial torquing forces.

**Final treatment stage:** Maximum force can be attained to provide precise finishing and detailing of the occlusion.

A combined single/twin bracket, the *Delta Force* Bracket has a unitary body featuring a gingival ball hook, mesial-distal ligature post as well as three occlusal tie wings, allowing greater inter bracket width. This configuration provides maximum archwire deflection for quick and easy ligation to irregular teeth. Plus, the triangular design gives the low friction advantages of a narrow bracket with the rotational control of a twin bracket. Variable ligation makes it possible to use a full rectangular wire earlier in treatment for torque control.

Enjoy the technical benefits of ligature placement and reduced archwire changes, while providing your patients more satisfaction. Plus, the low profile design offers increased patient comfort and better oral hygiene.



figure a

## Minimum Force

Start your treatment with passive ligation for minimum force. Rapid leveling and aligning can be attained as the ligation is configured to prevent the ligature from directly contacting the archwire. The free sliding mechanics created result in low friction and more patient comfort during this early phase of treatment (figure a – minimum force).



figure b

## Medium Force

In the next stage, medium force is achieved through limited contact of the ligature and the archwire. This configuration uses a standard ligation, full tip, torque and rotational control through lightly seating a rectangular archwire (figure b – medium force).

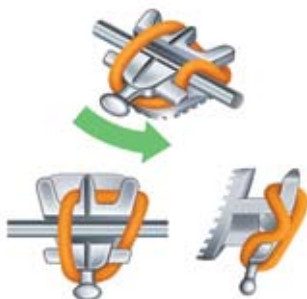


figure c

## Optional Step – Rotation Control and Force

If necessary, extra rotation can be created by ligating behind one tie wing on one side. Please note, rotation will occur towards the non-ligated wing (figure c – rotation ligation).



figure d

## Maximum Force

You may finish your treatment with maximum force by locking the archwire in for full expression of the straight arch bracket. Tie the ligature to lock the archwire in the tip, torque and rotational control (figure d – maximum force).

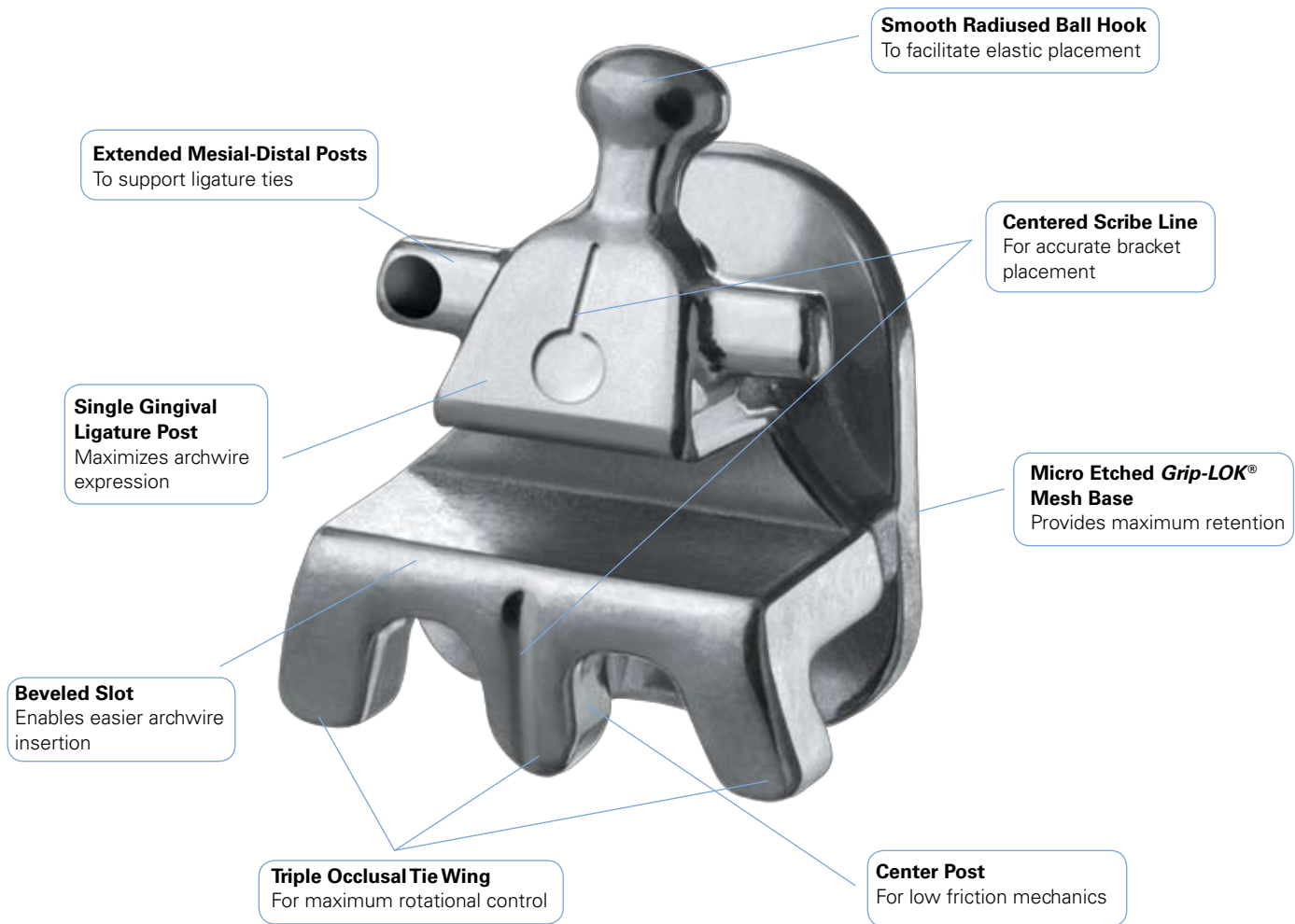


figure e

## Maximum + Force

If needed, for full expression of the straight arch bracket system, you can apply maximum + force, by placing an inverted V elastic ligation (figure e – maximum + force).

# Delta Force Bracket Features



## The *Delta Force* Bracket System allows you ultimate control:

- Incisor torque – Upper incisor brackets provide additional lingual root torque, while lower incisor brackets provide labial root torque. These adjustments assist in providing a full smile at the end of treatment
- One-piece metal injection molded bracket eliminates the bracket and pad separation
- *Nickel-Lite*® Material for nickel sensitive patients
- Low profile for increased patient comfort and better oral hygiene
- Micro etched *Grip-LOK* Base improves bond strength, thereby reducing bond failures



*Delta Force* Bracket  
*Grip-LOK* Base

# The Delta Force Bracket – A Change for the Better



figure 1

## Archwire Deflection

The reduced mesial-distal width of the gingival ligature post on the unitary body allows the archwire to be easily flexed into the bracket slot, especially in severe malocclusion cases (figure 1).

## Accurate In-Out Alignment

Individual bracket thickness is designed into each *Delta Force* Bracket (labial-lingual) reducing the need for 1<sup>st</sup> order (in/out) wire bends.



figure 2

## Torque in Base

Torque is incorporated into each bracket to provide you with ultimate precision and control. The brackets are also anatomically contoured (mesial-distal/occlusal-gingival) for an accurate fit of each individual tooth. In addition, the design promotes level slot line-up (figure 2).

## Torque Control

Torque in the mandibular bicuspid brackets and molar buccal tubes has been reduced to -12 degrees to reduce unwanted lingual dumping in the mandibular arch.



figure 3

## Rotational Control

The occlusal tie wings of the *Delta Force* Brackets are designed to be as wide as the tie wings on the *Elite® Mini-Twin®* Brackets to maximize rotational control (figure 3).



figure 4

## Reference Points

Each bracket has three reference points for fast and accurate placement. A center scribe line aligns with the long axis of the clinical crown. The archwire slot and occlusal base line up with the occlusal tooth surface (figure 4).



figure 5

## Power Hook

*Nickel Lite* Cuspid Brackets with optional power hooks are available for increased efficiency in closing spaces and retracting anterior teeth (figure 5).












figure 6

## Aesthetics Line

*Delta Force* Brackets are also available in ceramic providing patients with a fully translucent natural look. They are made from pure polycrystalline and crafted to resist breakage (figure 6).

## Delta Force Brackets

MAXILLARY	COLOR-CODE	TOOTH NUMBER	TORQUE	ANGULATION	Nickel-Lite Brackets		Ceramic Brackets		
					ITEM NUMBERS .022 R	.022 L	CERAMIC COLOR-CODE	ITEM NUMBERS .022 R	.022 L
Centrals 	black	U1	+22°	+5°	702-901	702-902	black	700-101	700-102
Laterals 	pink	U2	+14°	+10°	702-905	702-906	pink	700-103	700-104
Cuspids 	green	U3	+5°	+11°	702-909	702-910	green	700-105	700-106
Power Hooks 	green	U3	+5°	+11°	702-909PH	702-910PH			
Bicuspids 	no color dot	U4&5s	-5°	0°	702-915	702-915	purple	700-107	700-107
MANDIBULAR					.022 R	.022 L		.022 R	.022 L
Anteriors 	no color dot	L1&2s	-5°	0°	702-921	702-922	yellow	700-108	700-108
Cuspids 	blue	L3	-5°	+5°	702-925	702-926	blue	700-109	700-110
Power Hooks 	blue	L3	-5°	+5°	702-925PH	702-926PH			
Bicuspids 	no color dot	L4&5s	-12°	0°	702-929	702-929	red	700-111	700-111

\* Upper bicuspids have no ID marking. Lower bicuspids have a recessed dot on the hook.

## Ancillary Products

### Rotation Wedge



- Specifically designed for use with the *Delta Force* Bracket System, the simple opening actually fits around the entire perimeter. The wedge portion provides the pressure to efficiently rotate the tooth
- Available in silver, catalog number 400-302 and clear, catalog number 400-303 (50 per pack)

### Maxi-Tie Ligatures



- Larger than the standard ligature – gives extra space and flexibility with increased elasticity
- Use when ligating for maximum + force with inverted V elastic ligation for full expression of the straight arch bracket system
- Available in clear, catalog number 400-051 and silver, catalog number 400-052
- 10 ligatures per stick (10 sticks per pack)

### Nitanium® Closed Coil Springs



- Manufactured from super-elastic nickel titanium alloy. Coil springs close spaces with consistent and predictable results. Exclusive perpendicular loop design is easy to engage and remove. Available in 200 grams and 300 grams of force, and length from 9mm to 18mm

# The Delta Force Bracket System

## Recommended Archwire Sequence:

Initial	Diameter	Upper	Lower
 Dimpled <i>Bio-Kinetix</i> ™ Thermally Activated <i>Nitium</i> Archwire	.014	100-852DM	100-853DM
Intermediate	Diameter	Upper	Lower
 Dimpled <i>Bio-Kinetix</i> Thermally Activated <i>Nitium</i> Archwire	.016 x .025	100-874DM	100-875DM
 Multi Force <i>Nitium</i> Archwire	.020 x .020	100-840	100-841
Finishing	Diameter	Upper	Lower
 <i>CNA</i> ™ Beta <i>Pro Form</i> ™ Archwire	.018 x .025	100-947	100-957
For Extra Torque (optional)	Diameter	Upper	Lower
 <i>CNA</i> Beta III <i>Pro Form</i> Archwire	.019 x .025	100-948	100-958
 <i>CNA</i> Beta III <i>Pro Form</i> Archwire	.021 x .025	100-949	100-959

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