PLUS SL[™]

Self-Ligating Brackets



SHORTER TREATMENT TIMES. FEWER APPOINTMENTS. PROVEN RESULTS.



PLUS SL[™] Self-Ligating Brackets



The Next Generation in Tip-Edge® Technology has arrived, offering our most impressive array of features yet.



- Less chair time
- Shorter treatment time
- Reduced friction from ligatures
- Extremely low nickel content
- Improved oral health

Introducing PLUS Self-Ligating Brackets, the latest advancement to Tip-Edge technology. PLUS SL brackets offer the results you expect with the added benefit of passive self-ligation. Studies show that self-ligating brackets produce less friction, resulting in reduced treatment time (and reduced chair time). Pair that with the lighter forces produced with Tip-Edge treatment mechanics, and take your practice to the next level of efficiency!

Advantages of PLUS SL Brackets

- All the features of Tip-Edge PLUS and the added benefits of self-ligating brackets.
- Manufactured with cobalt chromium (CoCr) alloy for added strength and reliability. With extremely low nickel content, PLUS SL brackets are ideal for nickel-sensitive patients.
- Possibility of increasing interval between appointments as ligatures do not need to be changed.¹¹ One article mentions over 5 minutes were saved per arch when comparing self-ligating brackets with conventional brackets tied using ligature wires.
- Reduced chair time wire removal and engagement (ligation) is quicker as there is no need to place ligatures.^{11, 12, 14, 15, 16}
- Improved oral health as there is no need for ligatures.^{11, 15, 18}
- Reduction of friction caused by ligatures.¹⁷ (Tip-Edge is already known for being a low friction system, and the self-ligating feature eliminates any friction caused by ligatures.)

PLUS SL: A Comparative Overview	PLUS SL	Tip-Edge PLUS	Conventional Self-Ligating Brackets
Light Forces	•	•	0*
Dynamic Archwire Slot/Differential Tooth Movement	•	•	0
Reduced Need for Additional Anchorage	•	•	0
Deep (horizontal) Tunnel	•	•	0
Vertical Slot	•	•	0
Reduced Overall Treatment Time	•	•	•
Reduced Chair Time	•	0	•
Reduced Friction from Ligatures	•	0	•
Improved Oral Health	•	0	•
Cobalt Chromium (CoCr) Alloy	•	0	0

- Yes - Some - No

Advantages of PLUS SL over conventional self-ligating brackets

- Lighter forces (1-4 oz).^{1, 2, 3, 5, 7} Conventional straight-wire brackets exert 6-16 oz.^{3,7}
- Dynamic archwire slot/differential tooth movement the unique slot design enables it to increase in size from .022" to .028" during initial phase permitting tipping and facilitating retraction, reducing friction. Once space is closed, slot size gradually

reduces back to .022", enabling torque expression during finishing phase.^{1, 2, 4, 7, 8}

- Deep tunnel, which allows synchronous torquing and tipping.^{2,8}
- Vertical slot option when needed.²
- Reduced treatment time opening and alignment can be performed simultaneously. ^{5, 7, 8}

*PLUS SL brackets are designed as a passive self-ligating system; other self-ligating brackets on the market may be active systems and have different frictional values.

PLUS SL – Streamlined Wire Sequence [†]			
Stage	Non-extraction Cases	Extraction Cases	
1 Leveling and aligning	.014" and .016" NiTi HA (some cases .012" NiTi HA)	.014" and .016" NITi HA (some cases .012" NITi HA)	
2 Midline and molar relationship correction/ finalize space closure	.018"x.025" or .019"x.025" NiTi HA (.021"x.025" NiTi HA in some cases)	.014" or .016" Bowflex (.020" Bowflex in cases where more space closure is required)	
		.018"x.025" or .019"x.025" NiTi HA (.021"x.025" NiTi HA in some cases)	
3 Finishing and detailing	.0215"x.027" Rounded Rectangular SS and .014" or .016" NiTi in deep tunnel	.0215"x.027" Rounded Rectangular SS and .014" or .016" NiTi in deep tunnel	
4 Settling and retention	Pre-Finisher® preformed finishing appliance, if indicated (see Instructions for Use)	Pre-Finisher preformed finishing appliance, if indicated (see Instructions for Use)	

tWire sequence is used by Ricardo Medellin, DDS and is shown for reference. The doctor should determine the wire sequence to be used for each individual case. TP Orthodontics. Inc. 100 Center Plaza La Porte, IN 46350-9672 USA 800 348 8856

💓 tportho.com



facebook.com/tportho

youtube.com/user/tportho

linkedin.com/company/tp-orthodontics

Ready to take your practice to the next level with PLUS SL Brackets?

Visit **tportho.com** or contact one of our offices below to learn more:

Worldwide Headquarters

TP Orthodontics, Inc. Tel: 219 785 2591 Toll-free: 800 348 8856 info@tportho.com

Australia

Tel: 61 +3 9342 3200 Toll-free: 1800 643 055 tpaus@tportho.com

China

Tel: +86 510 8516 3367 tpchina@tportho.com

England / Europe

Tel: 44 (0) 113 2203238 tpeng@tportho.com

Japan

Tel: 81 3 5961 3800 tpoj@tportho.com

México / South America

Tel: (55) 5662 56 67 Toll-free: 01 800 711 8035 tpmex@tportho.com

South Africa

Tel: +27 (0) 11 100 0956 tpsa@tportho.com

REFERENCES

1. Kesling, 2006 - Kesling, P.C. Tip-Edge PLUS Guide and the Differential Straight-Arch Technique. TP Orthodontics. 6th edition. 2006.

- 2. Parkhouse, 2009 (p.11) Parkhouse, R. Tip-Edge Orthodontics and the PLUS Bracket. Mosby Elsevier. 2nd edition. 2009
- 3. AGPO Slides https://cdn.ymaws.com/www.academygportho.com/resource/resmgr/Library/Tip-edge_Vs_Straightwire_w.pdf
- 4. Chamda (2013) Chamda, R.A. Exploring the Possibilities of Treating Difficult Malocclusions Non-Surgically using the Tip-Edge Bracket System. OHDM. 2013; 12(4): 205-212
- 5 Kaku (2006) Kaku, J.K. Overlay Mechanics with the Tip-Edge PLUS Bracket. J Clin Orthod. 2006; 40(2): 78-82.
- 6. Kapur-Wadhwa (2004) Kapur-Wadhwa, R. Physical and Mechanical Properties Affecting Torque Control. J Clin Orthod. 2004; 38(6): 335-340.
- 7. Kesling (1992) Kesling, C. The Tip-Edge Concept: Eliminating unnecessary anchorage strain. J Clin Orthod. 1992; 26(3): 165-178
- 8. Kesling (2006) Kesling, C. Eliminating Uprighting Springs & Auxiliaries: Treatment with The PLUS. J Am Orthod Society. 2006; Winter: 20-26.
- 11. Pandis et al. (2010) Pandis, N. et al. Mandibular dental arch changes associated with treatment of crowding using self-ligating and conventional brackets. Eu J Orthod. 2010; 32: 248-253
- 12. Berger and Byloff, 2001 Berger, J. & Byloff, F.K. The Clinical Efficiency of Self-Ligated Brackets. J Clin Orthod. 2001; 35(5): 304-308.
- 13. Turnbull and Birnie. 2007 Turnbull. N.R. & Birnie. D.J. Treatment efficiency of conventional vs self-ligating brackets: Effects of archwire size and material. Am J Orthod Dentofacial Orthop. 2007: 131(3): 395-399
- 14. Cattaneo et al. (2022) Cattaneo, P.M. et al. Operating time for wire ligation with self-ligating and conventional brackets: A standardized in vitro study. Clin Exp Dent Res. 2022; 1-11.
- 15. Meeran (2010) Meeran, N. A. Self-ligating brackets: an update. J Clin Orthod. 2012; 46(4):235-241
- 16, Jahanbin (2019) Jahanbin, A. et al. Comparison of self-ligating Damon3 and conventional MBT brackets regarding alignment efficiency and pain experience: A randomized clinical trial, J Dent Res Dent Clin Dent Prospects, 2019; 13(4); 281-288 17, Surendra et al. (2016) - Surendra, G. et al. Self-Ligating Brackets; The Present and Future, Annals & Essences Dentistry, 2016; 8(1); 12c-23c
- 18. Nassar (2021) Nassar, E.A. et al. An Evaluation of Microbial Flora, Alkaline Phosphatase and IL-8 Levels in GCF of Orthodontic Patients with Self-Ligating and Conventional Brackets. Clin Cosm Invest Dentist. 2021; 13: 343-352 19. Vourdouris (1997) - Vourdouris JC. Interactive edgewise mechanisms: form and function comparison with conventional edgewise brackets. Am J Orthod & Dentofacial Orthop. 1997; 111: 119-143.

Tip-Edge and Pre-Finisher are registered trademarks of TP Orthodontics, Inc. PLUS SL is a trademark of TP Orthodontics, Inc. Patents apply.