

PTV Self-ligating brackets– How to select High and Low Torques



To develop personalized orthodontic program, every orthodontist must face the problem of choosing bracket torques. New orthodontist may not know how to start when they face with a variety of data. Here we offer a general knowledge of Protect self–ligating brackets torques.

▶ PTV self ligating bracket have five torques

PTV Self ligating bracket MBT

Slot	Torque
UL1,UR1/0.022	+17°
UL2,UR2/0.022	+10°
UL3,UR3/0.022	0°
UL45,UR45/0.022	-7°
LL12,LR12/0.022	-6°
LL3,LR3/0.022	-6°
LL4,LR4/0.022	-12°
LL5,LR5/0.022	-17°

PTV Self ligating bracket ROTH

Slot	Torque
UL1,UR1/0.022	+12°
UL2,UR2/0.022	+8°
UL3,UR3/0.022	0°
UL45,UR45/0.022	-7°
LL12,LR12/0.022	0°
LL3,LR3/0.022	-11°
LL4,LR4/0.022	-17°
LL5,LR5/0.022	-22°

PTV Self ligating bracket High torque

Slot	Torque
UL1,UR1/0.022	+23°
UL2,UR2/0.022	+14°
UL3,UR3/0.022	+12°
UL45,UR45/0.022	-8°
LL12,LR12/0.022	-2°
LL3,LR3/0.022	+14°
LL4,LR4/0.022	-4°
LL5,LR5/0.022	-17°

PTV Self ligating bracket Middle torque

Slot	Torque
UL1,UR1/0.022	+17°
UL2,UR2/0.022	+9°
UL3,UR3/0.022	+7°
UL45,UR45/0.022	-8°
LL12,LR12/0.022	-2°
LL3,LR3/0.022	+7°
LL4,LR4/0.022	-12°
LL5,LR5/0.022	-17°

PTV Self ligating bracket Low torque

Slot	Torque
UL1,UR1/0.022	+3°
UL2,UR2/0.022	-4°
UL3,UR3/0.022	-8°
UL45,UR45/0.022	-8°
LL12,LR12/0.022	-10°
LL3,LR3/0.022	0°
LL4,LR4/0.022	-12°
LL5,LR5/0.022	-17°



» Why do you need to select torque?

(1) Incisor protrusion after crowded teeth were aligned.



(2) Teeth extraction, incisor lingual inclination.



These are the performance of tooth torque loss. In order to prevent these teeth from being excessive protrusion and lingual inclination, the orthodontist always need additional bending moments on the arch wires. Are there any choice for orthodontist except bending arch wire? Of course, by using of PTV high and low torque self-ligating brackets can be a good way to prevent the occurrence of adverse conditions above.

» When should we select Low torque?

Principle: In the course of treatment, if the teeth may be lips out, you need to use low torque brackets to prevent undesirable lip incline in the incisors. In the traditional treatment, additional torque may be required on the arch wire

Common types:

1. Non-extraction with mild and moderate overcorrection
2. Long time class II traction under the incision
3. Long time class III traction of the upper incisor
4. Palate to dislocation, the need for the overall movement of the lateral incisor

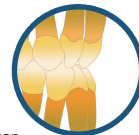


» When should we select High torque?

Principle: In the course of treatment, if the teeth may be too lingual inclination, need to use high torque brackets to prevent unwanted tongue incision from occurring. In the traditional treatment, it may be necessary to add an additional torque to the archwire.

Common types:

1. Extraction cases required anterior teeth adduction
2. Need to receive the anterior teeth of the gap in the case
3. Long time class II traction of the upper incisor
4. Long time class III traction of the lower incisor



» When should we select Middle torque?

Principle: The teeth will not occur obvious torque problems, orthodontic treatment process, then choose to use middle torque.

Common types:

1. Tooth is basically normal, do not need a lot of movement;
2. Mandibular incisors periodontal condition is poor, this time should not be controlled root too much.

PTV self ligating bracket- Recommend arch wire order

Due to the unique passive self-ligating structure, Protect arch wire are suggested when using PTV self ligating brackets. Protect arch wire size is complete, orthodontists can select wires according to their own habits, we here recommend and share some commonly order of wires.

Regarding copper wires of PTV Self ligating bracket:

The effectiveness could be played when Protect cooper wires are used as set with the PTV self ligating bracket. Force of protect cooper wires are more gentle and sustainable than the traditional arch wires The following models are available for selection:

Protect	Item
.013	4010C-13
.014	4010C-14
.016	4010C-16
.018	4010C-18
.014x.025	4010C-1425
.016x.025	4010C-1525
.018x.025	4010C-1825

STEP1: Mild thin wires as start

- Wire sizes: 0.014 copper wire
- Aim: ①Alignment; ②90% correct the torque
- Recommend return visit interval:6-8 weeks

Attention:

1. Particularly crowded or periodontal disease patients need to use lighter force as starting could choose 0.013 copper wire.
2. Start the arch wire at least 8 weeks or more, so that the effective of light force could be played, please do not replace to the next wire hurry.

STEP2: High-tech rectangular wire to correct the twist

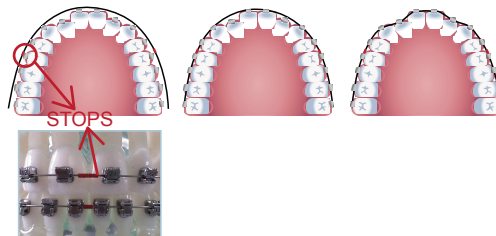
- Wire sizes:0.014x0.025 copper wire
- Aim: ①Leveling; ② Correct the remaining twist
③Start a small amount of torque expression
- Recommend return visit interval:6-8 weeks

Attention:

1. After this stage, you can check the position of the lower bracket, for the bracket position is not correct, re-bonded it.

About stopper:

The arch wire will be preset stopper to prevent moving of the arch wire in mouth. The stopper must be located in the mesioclusion of crowded teeth. If the arch wire can not slide back, crowded can not be effectively lifted, the anterior teeth are easy to protrude.



Presentation of Stopper

Recommended clamp position of stopper is at the mesiodistal of medium incisors.

STEP3: Preparation of the main cooper wire

- Arch wire size: 0.018 × 0.025 copper rectangular wire
- Aim: ① Re-leveling; ② Expression of torque
- ③ Preparation for stainless steel wire
- Recommend return visit interval:4-6 weeks

Attention:

1. This wire can be used to prepare for stainless steel wire. If not use this wire to do preparation, when change to stainless steel wire ,the wire would difficult trough the slot or if go trough the slot forcedly ,the bracket will break down.
2. If the mandible is only required to use 0.016 × 0.025 stainless steel wire at end, this stage of the jaw only need to use 0.016 × 0.025 copper rectangular wire.



STEP4 End stage: main arch wire stage

- Arch wire size: maxillary 0.018 × 0.025 or 0.019 × 0.025 stainless steel wire, mandibular 0.018 × 0.025 or 0.019 × 0.025 stainless steel wire
- Aim: ① Close the tooth gap; ② Correct sagittal relationship
- ③ Vertical and horizontal relationship adjustment
- Recommend return visit interval:4-6 weeks

Attention:

1. If you need to close the extraction gap, the mandibular arch wire may be appropriate to increase to 0.018 × 0.25ss.
2. When use of stainless steel wire, it must be based on the patient's oral arch shape to prepare personality bowed instead of using a unified bow pattern.

1. When closing the tooth gap, it is recommended to use the sliding method. Crimple hook should be placed on the arch wire, between 2nd and 3th teeth, so that the power can be effectively dispersed to the entire arch. In addition, it is recommended to use nickel-titanium close springs because the force of the close spring is stronger, more continued and gentle than the elastic chain.