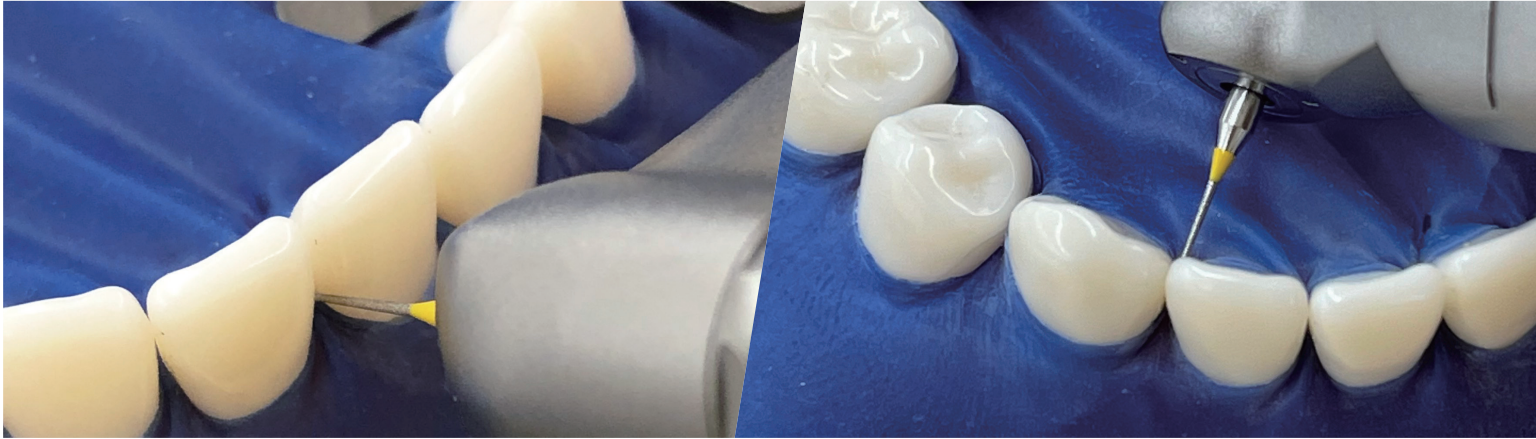


Benefits of Using a Diamond Bur for Interproximal Reduction



Introduction

The rising popularity of aligner orthodontics and Limited Orthodontic Treatment (LOT) has led to a rapid increase in the demand for interproximal reduction (IPR). However, the majority of conventional IPR instruments lack efficiency.

For example, manual strips are optimal for detailed work, but are limited in terms of control and time efficiency. On the other hand, strips that are used on contra-angle handpieces can cause excessive vibration, resulting in patient discomfort, and there are some concerns with their durability. Discs pose an extremely high risk of trauma to oral tissues and require caution when using.

In that sense, diamond burs are considered the most simple and efficient choice for performing IPR. Unfortunately, the tip diameters of most of the IPR diamond burs presently available on the market are too large while their working lengths are too short. Many of them also have large tapers, thus, making it challenging to be used for a typical IPR of 0.2mm recommended in aligner orthodontics.

IPR-01EF is a diamond bur designed with these challenges in mind. In this clinical report, this bur has been used to outline its features, performance, and overall user experience.

Features of the IPR-01EF

1. 0.19mm tip diameter with minimized thin taper
2. Slightly flexible
3. Ideal to be used for regions with crowding
4. Substantial reduction of chair time



Product name : MANI DIA-BURS

Clinical Report

Performing IPR

1. In standard aligner orthodontic treatment, an IPR typically ranges from 0.2mm to 0.5mm. With a tip diameter of 0.19mm, this bur allows for controlled management of reduction.
2. Conventional IPR burs are rigid, leading to a linear cutting surface. IPR-01EF is designed with a slight flexibility to glide more smoothly on the interproximal surface when used with minimal force.
3. The extremely thin design makes it adaptable to areas with moderate crowding.
4. Compared to traditional IPR instruments, IPR-01EF can substantially reduce chair time, to what feels like one fifth of time required when using a contra-angle, and one tenth required when using manual IPR methods.
5. While not all cases are applicable, IPR is indicated in many cases to achieve a balance in anterior-ratio between the upper and lower teeth and IPR-01EF can be used in such cases. Cases with the following conditions, however, are not indicated: young permanent teeth, enamel hypoplasia, dentin hypersensitivity, interproximal caries, and dental roots that are in close proximity. The bur can also be used for minor adjustment of overjet, achieving proper coupling, and making adjustments during wire treatment.

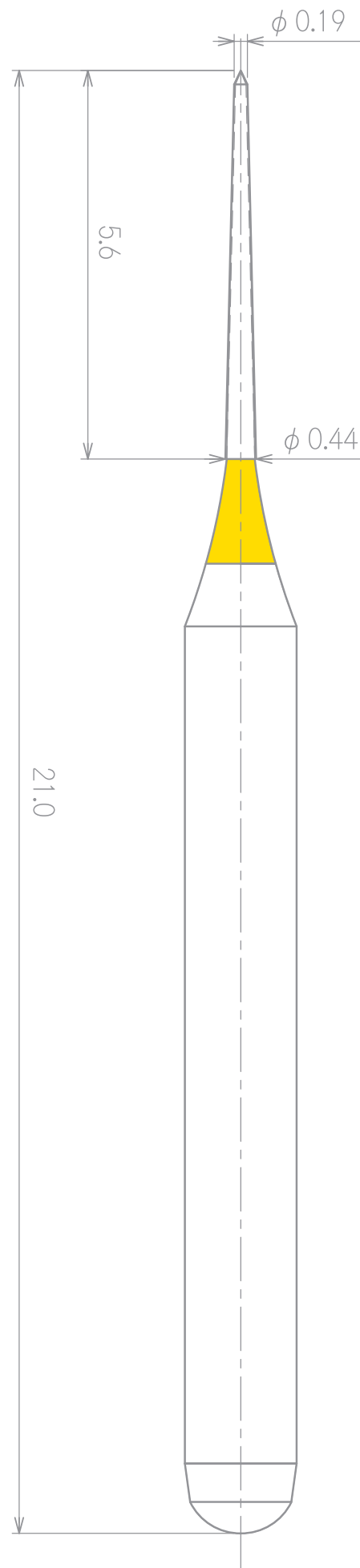
User Experience

With its ultra-fine feature, IPR-01EF has an exquisite gliding feeling when polishing the tooth surface. By using IPR-01EF in IPR, reduction can be limited to the minimal amount with respect to anatomy. A comprehensive procedure involving both upper and lower teeth was performed with a single bur without any concern for its durability.

Finally, it shall be noted that in the early stages of orthodontic treatment, ensuring a slight space between the adjacent teeth is important for facilitating effective tooth movement.

Notes on Usage

Due to its ultra-fine structure, IPR-01EF is designed for single-use for a set of upper and lower procedures. Make sure to replace the bar as soon as you sense the cutting ability to have diminished, and do not apply excessive force when using.



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