# An Anatomical Investigation of the Mandibular First Molar Using Micro-Computed Tomography

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## Dedication

I'd like to dedicate this work to my family for their love and support throughout the past twenty-eight years.

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# INTRODUCTION

The primary aim of endodontic therapy is to prevent or treat apical disease. In order to accomplish this goal, effective cleaning, shaping, and disinfection of the canal space is necessary, followed by a three-dimensional obturation of the root canal system (Schilder, 1967, 1974). Yet, the complexity of the pulpal anatomy often makes accomplishing these goals a challenge (Peters et al., 2004). A thorough understanding of both normal root canal morphology and the possible anomalies can deeply impact the prognosis for treatment outcomes (Segura-Egea et al., 2002). A deeper knowledge of pulpal anatomy will enhance the dentist's ability to address the elimination of the microbial challenge to the pulp space.

New technologies in treatment and investigations have improved our knowledge of dental anatomy and our ability to treat. In the 1970's, the introduction of the surgical operating microscope into both the research and clinical applications of dentistry enhanced researchers' and clinicians' ability to more clearly evaluate root canal anatomy (Hume & Greaves, 1983). Since that time, the microscope has become an integral part of the armamentarium for endodontic investigations and treatment (Kulild & Peters, 1990; Stropko, 1999).

Similarly, advancements in medical imaging have now come to the forefront of endodontic research and clinical therapy. Like the microscope, imaging technologies, such as digital radiography, cone beam computed tomography, and micro-computed tomography, allow practitioners and investigators to evaluate tooth, root and pulpal

morphology on a magnified scale. However, unlike microscopy, these new technologies allow visualization of internal structures, such as the pulp chamber and canals, without direct access to these spaces (Bonse & Busch, 1996).

The mandibular first molar is not only the most frequently endodontically-treated tooth (Hull et al., 2003; Wayman et al., 1994), but it also poses a series of anatomical challenges. With an ethnic variation in the number of roots (Ferraz & Pécora, 1993), once accessed, within each root can be found a wide variation in canal morphology. These variations include multiple canals, isthmuses, lateral canals, and apical ramifications (De Deus, 1975; Fabra-Campos, 1989; Hsu & Kim, 1997). Beyond even the canal morphology, the distal surface of the mesial root presents with a thin area of dentin termed a "Danger Zone" due to the increased risk of perforation of furcal dentin in this area during mechanical instrumentation (Abou-Rass et al., 1980; Berutti & Fedon, 1992). These complexities make it difficult to achieve Schilder's goals of cleaning, shaping and obturating within this tooth.

Owing to the complex morphology of the mandibular first molar, orthograde endodontic therapy may not always result in healing of the apical tissues. A follow-on retrograde surgical approach may then be considered as a treatment option. As the surgical technique involves addressing the pulp space from the apical aspect of the root, the success of surgical endodontic therapy also relies on an understanding of apical root and canal anatomy.

While there is already a large amount of endodontic literature dedicated to the mandibular first molar, most of the literature is based on older research techniques that

may have introduced error into the reported results. Additionally, much of the previous literature documents the canal type morphology found within the roots (Hartwell & Bellizzi, 1982; Pineda, 1973; Skidmore & Bjorndal, 1971), but very few studies evaluate the pre-operative canal width (Kerekes & Tronstad, 1977). Also, although there is a basis in the literature for the standard amount of root to be resected on retrograde endodontic treatment (Kim et al., 2001), there is little research specifically focused on the appropriate level of resection of the roots of the mandibular first molar in order to remove the majority of lateral canals and apical ramifications.

The purpose of this study is to utilize micro-computed tomography (micro-CT) technology to evaluate the mandibular first molar in order to accomplish the following goals: 1) to advance the morphological knowledge of the mandibular first molar root canal system with emphasis on the application to both orthograde and retrograde endodontic therapy; 2) to assess the relationship of canal orifices to one another just below the pulpal floor to aid in canal identification upon orthograde access; 3) verify the cross sectional width of the canals along the length of each root to advance the understanding of working width in this tooth; 4) to measure the thinnest area of dentin on the furcal aspect along the length of each root; 5) to document the presence of lateral canals and apical ramifications in each root; 6) to record the presence, type, and location of isthmuses in each root; and 7) to make a clinical judgment on the ideal level of root resection in each root. Because of the breadth of the data gathered for this study, data will be presented but not thoroughly subjected to statistical analysis. The hope is that the

observations made here will help guide dentists to predictably treat the mandibular first molar root canal system from both an orthograde and a retrograde approach.

## REVIEW OF THE LITERATURE

Non-Surgical Endodontic Therapy:

Several studies have confirmed that the etiology of pulpal and apical disease is bacteria (Kakehashi et al., 1965; Möller et al., 1981). Accordingly, Schilder identified the biological objective of root canal treatment as the removal of all pulp tissue, bacteria, and their endotoxins from the root canal system in order to restore and maintain the health of the apical tissues (Schilder, 1974). More recent investigations have confirmed the validity of Schilder's objective with the finding that one of the major causes of persistent disease after root canal treatment is un-debrided, infected tissue not removed from the canal space due to missed canals or anatomical variations such as isthmuses or lateral canals (Siqueira, 2001). Therefore, locating all of the canals in a tooth, and cleaning those canals and their ramifications in all dimensions is the goal for root canal therapy. This forces the clinician to pay special attention not only to the number and length of canals in a tooth, but also the width of the canals being cleaned and shaped (Jou et al., 2004).

In addition to the biological goals of root canal preparation, Schilder also discussed that the mechanical objective is to produce a sufficient canal shape to achieve a three-dimensional obturation (Schilder, 1967). To accomplish these goals, many authors have suggested flaring the coronal portion of the canal as an essential step in the cleaning

and shaping of the root canal space. This coronal flaring has been shown to aid in access to and removal of apical tissue (Goerig et al., 1982), the placement of medicament along the entire canal, and delivery of irrigating solution (Ram, 1977), the compaction of obturation materials (Allison et al., 1979), and the prevention of canal aberrations in the apical third (Fogarty & Montgomery, 1991; Weine et al., 1975). It has even been shown that a flared preparation may lead to more favorable outcomes after endodontic treatment (Marquis et al., 2006). Yet, despite the numerous benefits of a flared preparation in terms of debridement, disinfection and obturation, the clinician must also consider the risks involved in removing this radicular dentin, especially in multi-rooted teeth (Abou-Rass et al., 1980). These risks include strip perforations and undermining of the structural integrity of the tooth in general (Clark & Khademi, 2010). Weighing the benefits of complete debridement and a flared preparation against the risk of intraoperative complications, it becomes evident that a thorough knowledge and understanding of the morphology of teeth undergoing endodontic treatment is essential.

Surgical Endodontic Therapy:

Although the first consideration for an endodontically treated tooth with persistent apical pathosis should be orthograde retreatment (Bergenholtz et al., 1979), when retreatment results in non-healing, or orthograde retreatment is not possible or practical, surgical endodontic treatment may be indicated. Despite the more invasive nature, and therefore, more medical contraindications related to a surgical approach (Gutmann & Harrison, 1994), when indicated, recent reports suggest that complete healing following

root end resection (74%) (Barone et al., 2010) approaches that of non-surgical retreatment (82%) (de Chevigny et al., 2008). The rationale behind root resection is to remove apical canal ramifications (lateral canals and isthmuses) that could not be effectively disinfected, debrided or sealed via orthograde retreatment. Due to the small size of these apical complexities, these uninstrumented and unfilled lateral canals or apical ramifications are thought to contain bacteria capable of re-infecting the canal (Lin et al., 2008; Rapp et al., 1991). By removing the root end, these ramifications are also eradicated, eliminating the source of persistent disease. Previous anatomical research has suggested that most foramina, either from the main canal or lateral canals, occur in the apical region of the tooth (De Deus, 1975). Accordingly, research by Kim et al. suggests that 98% of apical ramifications and 93% of lateral canals are removed when the apical 3 mm of the root is resected (Kim et al., 2001). After the root is resected, it is suggested that a retro-preparation of at least 3mm is made into the canal space, along the long axis of the canal to permit an adequate bulk of filling material to prevent apical leakage (Carr, 1997). The preparation is made with small-tipped ultrasonic instruments at a low power setting to avoid creating microfractures in the apical root dentin (Calzonetti et al., 1998), ideally leaving 2mm of solid dentin circumferentially around the preparation to maintain root strength (Arens et al., 1998). The preparation is then filled with an appropriate restorative material such as IRM, Super EBA or MTA (Johnson, 1999). With such goals as removing the majority of apical ramifications, while preserving dentin wall thickness, it is clear that the success of surgical endodontic therapy also hinges on an understanding of tooth morphology.

The Mandibular First Molar:

Regarding the different tooth types, a recent study from the University of Pennsylvania found that the most commonly endodontically treated tooth was the mandibular molar (Iqbal et al., 2008). Other investigations confirm this finding and further specify the most frequently treated tooth as the mandibular first molar (Hull et al., 2003; Wayman et al., 1994). Furthermore, several researchers have noted that root canal-treated multi-rooted teeth are at a higher risk for non-healing (de Chevigny et al., 2008; Imura et al., 2007). Therefore, it would follow that mandibular first molars are often candidates for both non-surgical and surgical endodontic therapy. Thus, an understanding of mandibular first molar anatomy from both a surgical and non-surgical standpoint is paramount for the dentist performing endodontic therapy.

Consequently, numerous anatomical surveys of the mandibular first molar have been carried out, contributing greatly to our knowledge of this tooth. Coronally, the mandibular first molar most often presents with five cusps (three buccal cusps and two lingual cusps) and a "Y" shaped groove pattern in the occlusal surface (Garn et al., 1966). On accessing the mandibular first molar for endodontic treatment, it is generally found that the ceiling of the pulp chamber is 6.36mm from the buccal cusp tips, the pulp chamber is 1.57mm in height and the pulpal floor is 2.96mm from the furcation (Deutsch & Musikant, 2004). Once the pulp chamber is accessed, the pulpal floor anatomy of this tooth usually follows a pattern described by Krasner and Rankow (Krasner & Rankow, 2004):

1. The floor of pulp chamber is always a darker color than the surrounding dentinal walls;
2. This color difference creates a distinct junction where the walls and the floor of the

pulp chamber meet;
3. The orifices of the root canals are always located at the junction of the walls and floor;
4. The orifices of the root canals are located at the angles in the floor wall junction;
5. The orifices lay at the terminus of developmental root fusion lines, if present;
6. The developmental root fusion lines are darker than the floor color.

Considering the number of roots in the mandibular first molar, Skidmore and Bjorndal found that 98% of these teeth have two roots and 2% present with three roots (Skidmore & Bjorndal, 1971). The incidence of 4 roots is very rare, although it has been documented in some case reports (Friedman et al., 1986; Lee et al., 2006). Recent studies have suggested that the number of roots varies greatly with the ethnicity of the population in question. For example, Ferraz found that within a Brazilian population, a third root was found in 2.8% of people of African descent, 4.2% of Caucasians, and 11.4% of Japanese descent (Ferraz & Pécora, 1993). Even more, several researchers have found the incidence of a third root among a Taiwanese population to be over 20% (Huang et al., 2010; Tu et al., 2009).

Notable concerning the root morphology of the mandibular first molar is an area of thin radicular dentin on the distal aspect of the mesial root in the furcation region (Berutti & Fedon, 1992). Previous research on this anatomical area has suggested that 1.5mm apical to the root bifurcation, the width of dentin on the distal aspect of the mesial root is, on average, only 1.2-1.3 mm, prompting this region to be termed a "danger zone" (Kessler et al., 1983). More recent examination of this region has proposed that the width of dentin in this area may correlate with root length, with longer roots having the smallest mean thickness values of 0.92 ± 0.11 mm (Sauáia et al., 2010). The significance of the "Danger Zone" is that a flared preparation in this location may create a strip perforation

in the furcation area of the root (Bower, 1979). While any type of root perforation will cause inflammation within the periodontal ligament space (Seltzer et al., 1970), furcal perforations present a poor prognosis for repair (Strömberg et al., 1972).

Root canal morphology and configuration have been classified by Weine et al, Pineda and Kuttler , and Vertucci (Pineda & Kuttler, 1972; Vertucci, 1984; Weine et al., 1969). Vertucci's original classification has since been expanded by modifications as reported in the literature (See Figure 1) (de Pablo et al., 2010).

**CANAL CLASSIFICATIONS**

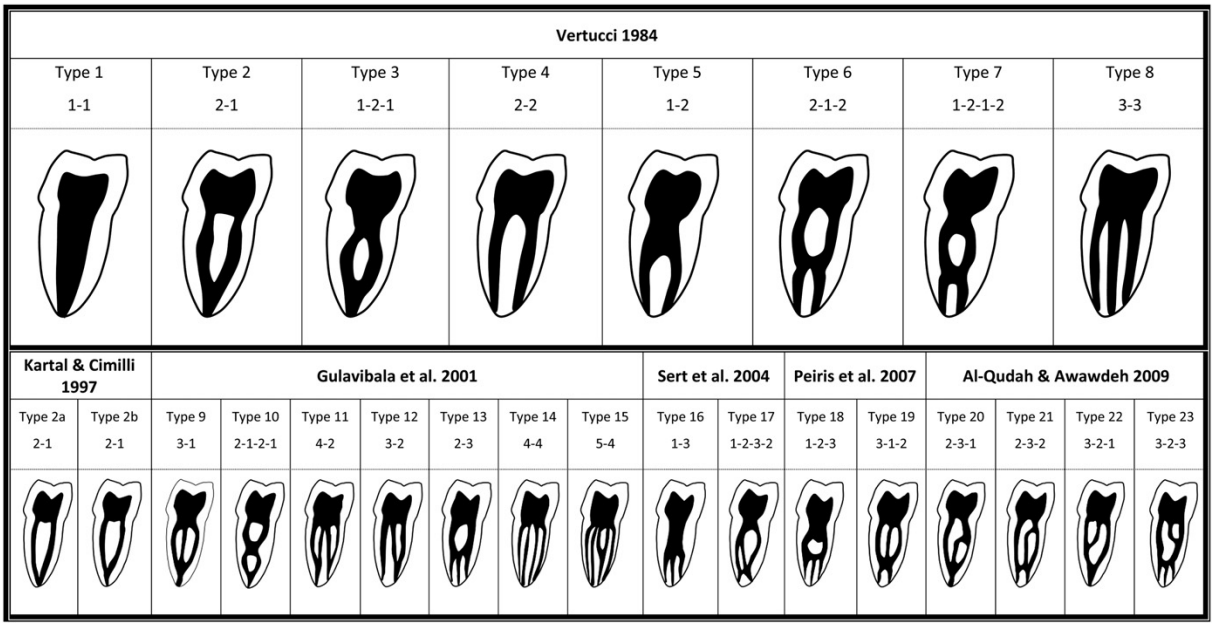


**FIGURE 1**
(de Pablo et al., 2010)

Most historical studies characterize the mesial root as typically presenting with two canals (Hartwell & Bellizzi, 1982; Pineda & Kuttler, 1972; Skidmore & Bjorndal, 1971). A recent review of classic and current research on the morphology of the mandibular first molar confirmed that two canals were present in the mesial root in

94.4% of cases (de Pablo et al., 2010). In this same review, it was found that 52.3% of mesial canals followed a type IV arrangement while the type II configuration was present in 35% of mesial roots (de Pablo et al., 2010). However, reports of the presence of a third canal in a small percentage of mandibular first molars have been confirmed by both in vitro (Barker et al., 1974; Vertucci, 1984) and in vivo (Fabra-Campos, 1989; Pomeranz et al., 1981; Weine, 1982) investigations. A more recent review found the incidence of a middle mesial canal to be as high as 13%, although this third canal may be difficult to locate as often clinically (Navarro et al., 2007). In reference to the distal root canal anatomy, most anatomical evaluations suggest that the majority of teeth, 62.7% according to de Pablo's review, demonstrate a single canal with the remainder of teeth presenting with either two canals that join into one apically (14.5%) or two completely separate canals from orifice to apex (12.4%) (de Pablo et al., 2010).

When considering the pre-operative canal width, few studies have been done to look at these dimensions in mandibular molars. In one sectioning study, it was found that the diameter of the canals in the mesial root of mandibular molars varied considerably. Starting at the apex, at the l mm level, values between 0.15 and 2.2 mm were recorded; at the 5 mm level, values between 0.3 and 5.0 mm were recorded. The diameter of the widest root canals exceeded that of a size 140 reamer at all levels of the mesial root in these teeth. The width of the distal root canal of mandibular molars was somewhat less variable than in the mesial root. Most of the distal canals were at least 0.6 mm wide at the 1mm level and, at the 2-, 3-, and 5-mm levels, the largest diameter of the widest canals exceeded 1.4 mm (Kerekes & Tronstad, 1977).

Beyond the morphology of the main canals, another important anatomical consideration in the mandibular first molar is the presence of ramifications along the length of the canals. These canal irregularities have been given different names by various investigators, but in the present study will be referred to as isthmuses, lateral canals and apical ramifications.

Weller defined the isthmus as "a narrow, ribbon-shaped, communication between two root canals that contains pulp or pupally derived tissue" (Weller et al., 1995). Previous studies may have referred to the isthmus as a corridor (Green, 1973), a lateral interconnection (Pineda, 1973), or a transverse anastomosis (Vertucci, 1984). Any root that contains more than one canal has the capacity to contain an isthmus. With the ubiquitous presence of isthmuses apparent within several tooth types, Hsu and Kim devised a classification system of isthmus configuration (Hsu & Kim, 1997). In Hsu and Kim's classification system, there are five types of canal isthmuses (See Figure 2). Type I was defined as either two or three canals with no notable communications. Type II was defined as two canals that possessed a definite but narrow connection between the two main canals. Type III differs from Type II by the presence of three canals instead of two. Incomplete C-shaped canals with three canals were also considered Type III. Type IV occurred when canals extended into the isthmus area. Type V was recognized as a true connection or corridor (Hsu & Kim, 1997).

**ISTHMUS CLASSIFICATIONS**

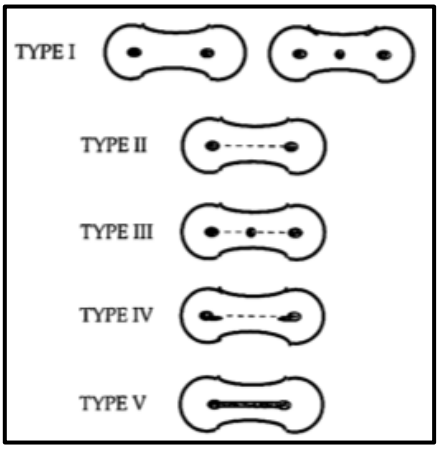


**FIGURE 2**
(Hsu & Kim, 1997)

Within the mesial root of the mandibular first molar, the Type V isthmus (a wide corridor of tissue between the 2 main canals) is reported as the most common shape (Y. Y. Hsu & S. Kim, 1997). In a recent report on the incidence of isthmuses upon endoscopic evaluation of mandibular first molar root ends during surgical treatment, von Arx found overall the presence of isthmuses in 83% of mesial roots (29% Type V) and 36% of distal roots (21% Type V) (von Arx, 2005a). These isthmuses, although apparently common, present a challenge in the cleaning and shaping of the root canal system both from an orthograde and a retrograde approach (Teixeira et al., 2003).

Another ramification present along the root canals of mandibular first molar is the lateral canal. This morphological variation is classified by a fairly large canal branching off of the main canal in a mostly perpendicular and slightly apical direction, extending to the periodontal ligament (De Deus, 1975). These canals were classified into lateral, accessory and secondary canals by DeDeus based on their location along the canal with lateral canals branching off of the main canal in the body of the root, the secondary canal

branching off in the apical region and the accessory canal branching off of a secondary canal (De Deus, 1975). In mandibular first molars, DeDeus found lateral canals in the main body of the root in 10.4% and secondary canals in the apical region in 19.4% of teeth, indicating a high number of ramifications in the apical region of these teeth (De Deus, 1975). Vertucci similarly found a high percentage of mandibular first molars to contain lateral canals (45% in the mesial root and 30% in the distal root) with the most common location being the apical third (Vertucci, 1984). In a histological evaluation of endodontically-treated teeth, Ricucci expertly described the challenges these spaces pose to traditional endodontic techniques: 1) the tissue within the apical ramifications remains essentially unaltered by chemomechanical preparation, 2) in vital cases, sealer is pushed into these spaces, causing inflammation of the vital tissue within the ramifications, 3) the radiographic appearance of obturated lateral canals and apical ramifications does not indicated that these spaces are effectively debrided or sealed and 4) bacteria remaining in these undebrided spaces may multiply to numbers great enough to re-infect the main canal (Ricucci & Siqueira, 2010).

Finally, in reference to apical ramifications, recent anatomical studies have shown that main root canals often end in multiple portals of exit at the apical of the canal (Yu et al., 2006). Although the distinction between lateral canals and apical ramifications is likely a matter of location along the root canal, in the present study, apical ramifications are defined as those branches off of the main canal to portals of exit in the apical 0.5mm of the canal. The challenge with apical ramifications is the same as that with lateral canals in that cleaning, shaping and sealing of these spaces is nearly

impossible (Ricucci & Siqueira, 2010). Kim et al. proposed that, as a general rule for all tooth types, 93% of apical ramifications and lateral canals could be removed with a 3 mm resection of the root (Kim et al., 2001). However, in focusing on the mesiobuccal root of maxillary first and second molars, Degerness found that 80% of the accessory canals were located within the apical 3.6mm of the root, and therefore proposed a 3.6mm resection when surgically treating this root (Degerness & Bowles, 2008). To date, no studies were found that measured where a 90° root end resection should occur specifically in the mesial or distal roots of mandibular first molar to remove the majority of lateral canals and apical ramifications.

Anatomical Study Design:

The history of documented root canal morphology studies dates back to Carabelli's drawing and descriptions of pulp canals in 1844 (Hess, 1925). Since that time, several methods have been employed to assess the anatomy of the pulp space. These methods include both in vitro and in vivo investigations. One of the first in vitro methods described in the literature is a corrosion technique accredited to Preiswerk (Barrett, 1925). By this technique, heated, liquid Wood's metal was forced into the root canal spaces of teeth, creating metal casts of the root canal system. With these metal casts, Prieswerk was able to observe lateral branching and anastomosing between the canals in some roots, particularly in the mesial roots of mandibular molars (Barrett, 1925). Despite the advancements in canal anatomy knowledge gained from the corrosion techniques, the drawback to this method is that due to the viscosity of the casting material, it may not

flow into the intricate ramifications within the pulp space. As a remedy to this problem, Skidmore and Bjorndal introduced a casting technique using resin, which would more easily flow into small spaces, enhancing the detail of the casts of the root canal space (Skidmore & Bjorndal, 1971). The drawback with the resin casts is that they are fragile due to the their small diameter and are easily distorted or broken when handled. Also, as with any type of casting technique, because the enamel and dentin are removed in these methods, it is impossible to see the relationship of the canal anatomy to the hard tissue outline of the tooth.

Another bench-top method employed by Vertucci to evaluate canal anatomy is a clearing technique. By this method, Hematoxylin dye is injected into the pulp space, the teeth are dehydrated, placed in a clear liquid plastic casting resin, and the remaining tooth structure is dissolved away and replicated in clear resin (Vertucci, 1984). Hematoxylin was used by Vertucci because it was found to stain fresh pulp tissue even into the finest accessory canals, but could also be easily removed from the external surface of the root, allowing for a clear, clean replica (Vertucci, 1984). The downside to this technique was that the clearing dehydration and clearing process may introduce fine artifacts or cracks in the tooth, which will hold stain and may be misinterpreted as part of the pulpal anatomy after clearing.

Other in vitro studies were carried out using extracted teeth that were mounted in resin, sectioned manually, and evaluated with or without magnification (Bramante et al., 1987; Degerness & Bowles, 2008). However, sectioning the root as described by Bramante, results in a loss of dental hard tissues and would potentially lead to ledges (or

steps) for a curved canal when the slices were reassembled (Bramante et al., 1987). Also, by the sectioning technique, the sample is destroyed and measurements can only be made at the predetermined levels of the sectioning cuts.

Ex vivo root canal therapy carried out in extracted teeth is a clinically relevant method of examining root canal anatomy. This technique, used by Kulild in studying the morphology of the mesial root of the maxillary molar, is useful in determining the number of canals likely to be found in a root and their basic morphology (Kulild & Peters, 1990). However, this method does little to highlight the finer anatomical variations such as isthmuses and apical ramifications, into which traditional endodontic instruments cannot fit.

Scanning electron microscopic (SEM) evaluation has also been employed to evaluate root canal orifices, apical foramina (Gilles & Reader, 1990) and accessory canals in the furcation area (Goldberg et al., 1987). Via SEM, researchers are able to observe surface anatomy at very fine detail. However, internal canal anatomy cannot be evaluated without sectioning the specimen. Additionally, the process for preparing a specimen for SEM requires drying of the specimen, possibly introducing fractures and artifacts (Crang & Klomparens, 1988).

In vitro radiographic evaluation has also been employed as a way to evaluate canal morphology (Pineda, 1973; Pineda & Kuttler, 1972). This technique offers the advantage of obtaining multiple views while leaving the specimen intact. With radiographic images at different angles, number of canals and curvatures can be evaluated. However, overlap and poor resolution may cause teeth with transverse

anastomoses within a root to be mistakenly reported as having two separate canals (Green, 1973). A variation on this technique, using a radiopaque material injected into the pulp space has been used to resolve this issue and further delineate pulpal anatomy upon radiographic examination (Thomas et al., 1993).

In vivo methods of analyzing pulp space morphology include documentation of canal anatomy found during endodontic treatment (Fogel et al., 1994; Stropko, 1999) or retrospective radiographic examination of completed endodontic cases (Hartwell & Bellizzi, 1982). While the results of these types of studies give practitioners valuable information on the number of canals and canal types that they are likely to find in a certain root, they give little information on untreated aspects of the pulp space, such as isthmuses, lateral canals and apical ramifications. The results of these studies depend also on the skill and experience of the practitioner involved and the instruments and magnification employed (Stropko, 1999).

Micro-Computed Tomography:

Although there is no perfect method of evaluating root canal anatomy, several recent studies have turned to a new technological advancement, micro-computed tomography (micro-CT), as an improved way to study tooth morphology (Dowker et al., 1997; Nielsen et al., 1995; Rhodes et al., 1999). The first clinically practical X-ray computed tomography (CT) method was introduced in the early 1970s (Ritman, 2004). The application of CT technology to study root canal morphology was first introduced in 1990 (Tachibana & Matsumoto, 1990). However, it was found that although CT scans

could be used to diagnose the number of canals present and basic root morphology, the low resolution of the images inhibited a detailed reproduction of the root apex (Tachibana & Matsumoto, 1990). Micro-CT technology was first developed in response to biomedical researchers interest in small-animal imaging (Service, 1999). The introduction of synchrotron radiation sources allowed CT imaging at micrometer resolutions (Ritman, 2004). However, the technology was not widely used until the introduction of the cone beam reconstruction algorithm authored by Feldkamp (Feldkamp et al., 1984). The first successful implementation of micro-CT in medical imaging was described in a 1984 study of the mineral distribution in bone (Elliot, 1984). Nielsen and colleagues pioneered the use of micro-CT in examining root canal morphology (Nielsen et al., 1995), and since that time, the technology has become an important tool in endodontic research (Gu et al., 2009; Mannocci et al., 2005; Oi et al., 2004; Peters et al., 2000).

Micro-CT scanners all operate on the same basic design scheme: an X-ray source, a sample to be imaged, an X-ray-to-electronic signal-converting imaging array, and a device that either rotates the specimen within the stationary scanner or rotates the scanner around the stationary sample (Ritman, 2004). There are three main approaches to achieving the magnification needed to exceed the inherent spatial resolution of the X-ray image conversion to signal system (See Figure 3). Each method has its different advantages and limitations. The first approach is the X-ray cone beam, which projects a magnified X-ray image onto a large-area X-ray imaging system. The second approach is to take a non-magnified X-ray image that can later be magnified by subsequent optical

means either by a lens or by a tapered fiber-optic coupling. The third approach is the use of a Bragg interferometer that can be used to magnify the image by virtue of photon wavelength-specific diffraction rather than specular reflection.

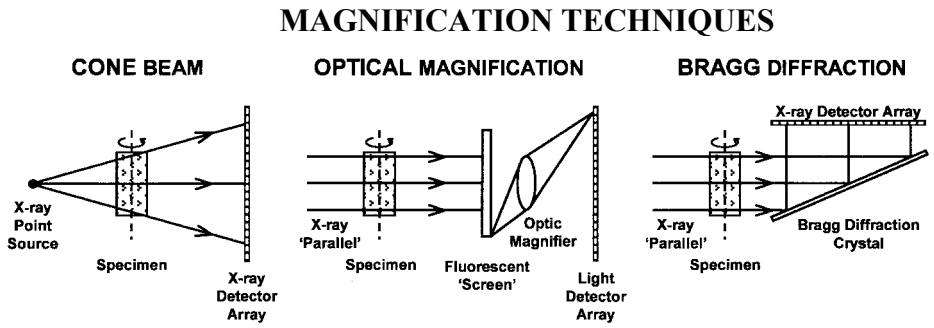


**FIGURE 3**
(Ritman, 2004)

In micro-CT scanners, the X-ray source is generally microfocus. The power output (P) of the microfocus tube is limited and follows Pmax = 1.4 (x)0.88, where x equals the focal spot diameter in μm. X-ray scatter has not been as serious a problem in micro-CT as it is in clinical CT. However, to obtain maximum signal to noise, the scatter can be greatly reduced by use of a diffraction X-ray optic placed between the specimen and the detector when monochromatic radiation is used (Ritman, 2004).

For the X-ray to light conversion system, a thin (<0.5 mm) fluorescent crystal plate is effective. A thicker crystal plate will convert more X-ray photons to light, but will also provide more opportunity for the light to stray from the X-ray-to-light interaction site before it leaves the crystal leading to poorer spatial resolution. Some very efficient crystalline materials have birefringence, which also degrades spatial resolution. Another concern of any fluorescent material is that of "lag," which is the duration during which fluorescence continues to be emitted from in the crystal after the X-ray exposure

has ceased. This can result in superposition of different angles of view or in blurring owing to cardiogenic or respiratory motion during the X-ray exposure. In most micro-CT scanners, the fluorescent image is coupled to a charge-coupled device (CCD) imaging array in order to convert the image to a digital value (Ritman, 2004).

By using tomography, it is possible to determine the 3 dimensional internal structure s(x', y', z') of a specimen without the need for making a direct local measurement at each position (x', y', z'), which often leads to destruction of the sample by sectioning (See Figure 4). In the coordinate system used x, y, z are relative to the laboratory, and x', y', z' are fixed to the sample. The X-ray beam originates at the tangent point S and propagates along y. z is normal to the orbit of the electron storage ring serving as SR- source, z' is either parallel to z (as assumed in the following discussion) or parallel to x. The principle of tomography says that a function s(x', y') defined in any given slice of the set can be reconstructed from its line integrals taken at any direction in the slice. The 3D structure s(x', y', z') of the sample is obtained by determining s(x', y') for all z' and combining the results (Bonse & Busch, 1996).

**COORDINATE SYSTEM FOR CT IMAGING**

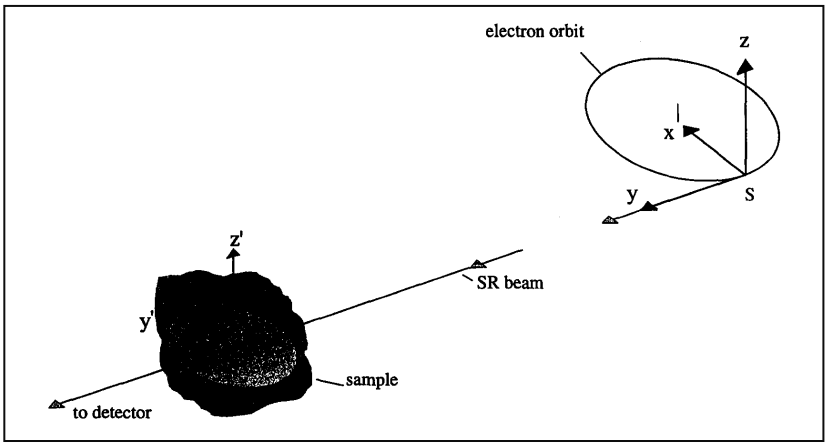


**FIGURE 4**
(Bonse & Busch, 1996)

Micro-CT has been found to be a reliable method of making linear measurements of both internal and external tooth structure (Kim et al., 2007). This non-destructive method of evaluating tooth anatomy recreates 3D images of the study tooth, allowing virtual sectioning and measurements while the actual tooth remains intact. This imaging tool takes advantage of the fact that the tooth is composed of several different tissues with unique radiodensities (Berghash & Hodge, 1940), providing an image in which dentin can be differentiated from pulp tissue, enamel and cementum. Using MCT with a pixel size of 127μm, Nielsen et al. showed that it was possible to reproduce tooth anatomy accurately and non-invasively (Nielsen et al., 1995).

## METHODS AND MATERIALS

Exemption from review was obtained for this study from the University of Minnesota IRB: Human Subjects Committee. Fifty-four mandibular molars were obtained from various dental clinics around the Minneapolis, MN area, most coming from the Vetarans Affairs Medical Center dental clinic. Teeth were stored in 0.2% $NaN_3$ (sodium azide) in 0.9% NaCl (saline) for a period of up to 1.5 years. A panel including 2 endodontic residents, 1 associate professor in dental anatomy, 1 associate professor in restorative sciences and biomaterials and 1 board certified endodontist was assembled to divide the teeth into two groups: mandibular first molars and mandibular second molars. Out of the group, 24 teeth were verified by the group as mandibular first molars. Periodontal and gingival tissue remnants on the root surfaces were removed by hand scaling.

In a modified version of the technique by Cheung and Cheung, each tooth was mounted by using a chemically-polymerized composite resin (Integrity Temporary Crown and Bridge Material, Dentsply International, York, PA) with the occlusal table facing down, on a cylindrical specimen holder (which corresponded to the internal diameter of the chamber of the CT scanner) (Cheung & Cheung, 2008). The negative replica of the specimen holder allowed precise repositioning of the tooth in the holder for future scans (See Figures 5 and 6). A series of tomographic images (at approximately 935x1001x1437 voxels, effective resolution 11.41μm x12.21μm x17.53μm were obtained for each specimen.

**SPECIMEN HOLDERS**

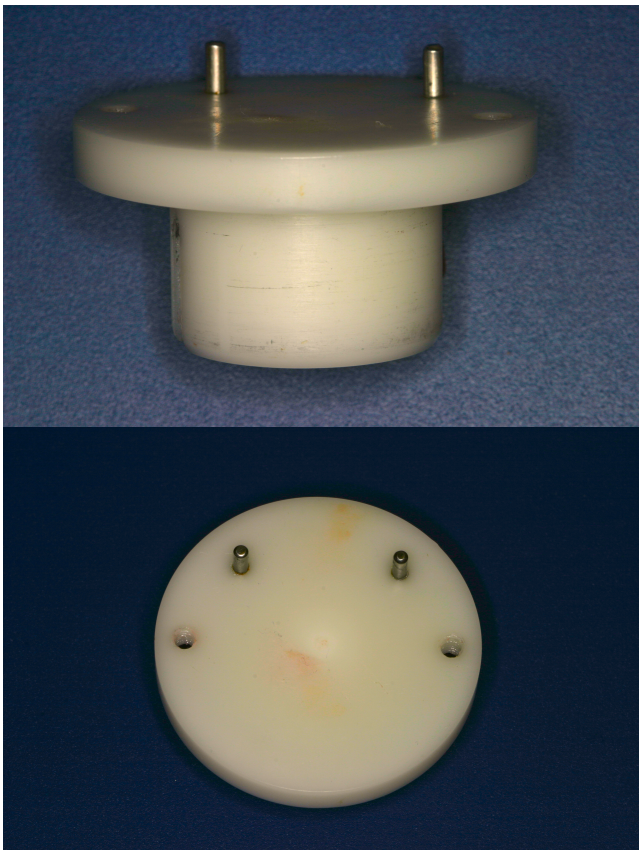

**FIGURE 5**

**SPECIMEN MOUNTED ON HOLDER**

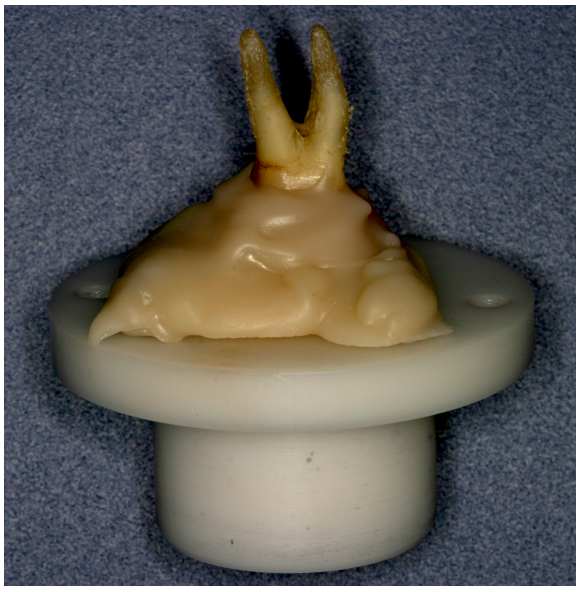

**FIGURE 6**

CT Pro software (Nikon Metrology, Belgium) was used to reconstruct a 3-dimmensional image of each tooth. VG Studio MAX 2.1 software (Volume Graphics GmbH, Germany) was then used to view the reconstructed images and make measurements. To verify the measurement accuracy of the imaging software, measurements were calibrated with digital calipers (S-T Industries, St. James, MN) accurate to 0.01mm. This was accomplished by measuring the diameter of the shank of a #2 Gates Glidden bur (Dentsply International, York, PA) 4.0mm from the tip and the diameter of the end of the shank of a 0.70mm PREPI bur (Dentsply International, York, PA) with the digital calipers. The same Gates Glidden and PREPI burs were then scanned and reconstructed in the same manner as described above. Measurements were made twice using VG Studio MAX 2.1 at the same points at which they were taken with the calipers. The error established by this method was 0.025 mm. This amount of error was judged as clinically insignificant.

In adaptation of the virtual sectioning technique of Mannocci et al., the entire mesial root was sectioned from the root apex, along the path of the canal in 0.5mm increments for the first 6mm, and in 1.0mm increments from the 6mm point to the level of the furcation (Mannocci et al., 2005). The first 6mm of the distal root was also sectioned in 0.5mm increments from the apex. To examine the arrangement of the canals just below the level of the pulpal floor, each tooth was also section 1.5mm coronal to the furcation. The measurements made focused on the 1) the width of dentin toward the furcation side (Danger Zone) of each root, 2) the canal diameter (working width of the canal) in both a mesial/distal (M/D) and buccal/lingual (B/L) dimension 3) the canal

type morphology within each root according to the classification system presented by de Pablo (de Pablo et al., 2010) (See Figure 1), 4) the number of canal exits (apical ramifications) in the apical 0.5mm, 5) the presence of lateral canals 6) the presence, width, length and type of isthmuses, 7) the presence of additional canals (third and fourth mesial canals), and 8) the distances between the canal orifices 1.5mm coronal to the furcation (See Table 1 and Figures 7 through 18).

## TABLE 1
## DESCRIPTION OF MEASUREMENTS

| Measurement | Explanation |
|---|---|
| Tooth Name | Sample Number |
| Tooth Type | Tooth Number (19 or 30) |
| Number of Exits in Apical 0.5mm M Root | Number of canal exits seenin the mesial root upon scanning through apical 0.5mm |
| Number of Exits in Apical 0.5mm D Root | Number of canal exits seen in the distal root upon scanning through apical 0.5mm |
| M Root Length | Mesial Root Length |
| D Root Length | Distal Root Length |
| x mm from Apex Thinnest Danger Zone 1 M | The thinnest area of dentin at x mm from the apex as measured from the mesial canal to the outer surface dentin towards the furcation when only one mesial canal is present |
| x mm from Apex Thinnest Danger Zone MB | The thinnest area of dentin at x mm from the apex as measured from the mesiobuccal canal to the outer surface of dentin towards the furcation when a mesiobuccal canal is present |
| x mm from Apex Thinnest Danger Zone MB | The thinnest are of dentin at x mm from the apex as measured from the mesiolingual canal to the outer surface of dentin towards the furcation when a mesiolingual canal is present |
| x mm from Apex 1 M Width B/L | The width of the mesial canal at the widest point in the buccal/lingual dimension at x mm from the apex when only one mesial canal is present |
| x mm from Apex 1 M Width M/D | The width of the mesial canal at the widest point in the mesial/distal dimension at x mm from the apex when only one mesial canal is present |

| | |
|---|---|
| x mm from Apex ML Width B/L | The width of the mesiolingual canal at the widest point in the buccal/lingual dimension at x mm from the apex when the mesiolingual canal is present |
| x mm from Apex ML Width M/D | The width of the mesiolingual canal at the widest point in the mesial/distal dimension at x mm from the apex when the mesiolingual canal is present |
| x mm from Apex MB Width B/L | The width of the mesiobuccal canal at the widest point in the buccal/lingual dimension at x mm from the apex when the mesiobuccal canal is present |
| x mm from Apex MB Width M/D | The width of the mesiobuccal canal at the widest point in the mesial/distal dimension at x mm from the apex when the mesiobuccal canal is present |
| x mm from Apex Isthmus Width | The width of the isthmus between the mesiobuccal and mesiolingual canals when present at x mm from the apex |
| x mm from Apex Isthmus Length | The length of the isthmus between the mesiobuccal and mesiolingual canals when present at x mm from the apex |
| x mm from Apex Isthmus Type | The isthmus type according to the classification system by Hsu when present at x mm from the apex |
| x mm from Apex 3rd Canal | The buccal/lingual by mesial/distal dimensions of the 3rd canal when present in the mesial root at x mm from the apex |
| x mm from Apex 4th Canal | The buccal/lingual by mesial/distal dimensions of the 3rd canal when present in the mesial root at x mm from the apex |
| x mm from Apex Thinnest Danger Zone 1 D | The thinnest area of dentin at x mm from the apex as measured from the distal canal to the outer surface dentin towards the furcation when only one distal canal is present |
| x mm from Apex Thinnest Danger Zone DB | The thinnest area of dentin at x mm from the apex as measured from the distobuccal canal to the outer surface dentin towards the furcation when the distobuccal canal is present |
| x mm from Apex Thinnest Danger Zone DL | The thinnest area of dentin at x mm from the apex as measured from the distolingual canal to the outer surface dentin towards the furcation when the distolinguall canal is present |

| | |
|---|---|
| x mm from Apex 1 D Width B/L | The width of the distal canal at the widest point in the buccal/lingual dimension at x mm from the apex when only one distal canal is present |
| x mm from Apex 1 D Width M/D | The width of the distal canal at the widest point in the mesial/distal dimension at x mm from the apex when only one distal canal is present |
| x mm from Apex DL Width B/L | The width of the distolingual canal at the widest point in the buccal/lingual dimension at x mm from the apex when the distolingual canal is present |
| x mm from Apex DL Width M/D | The width of the distolingual canal at the widest point in the mesial/distal dimension at x mm from the apex when the distolingual canal is present |
| x mm from Apex DB Width B/L | The width of the distobuccal canal at the widest point in the buccal/lingual dimension at x mm from the apex when the distobuccal canal is present |
| x mm from Apex DB Width M/D | The width of the distobuccal canal at the widest point in the mesial/distal dimension at x mm from the apex when the distobuccal canal is present |
| x mm from Apex D Isthmus Width | The width of the isthmus between the distobuccal and distolingual canals when present at x mm from the apex |
| x mm from Apex D Isthmus Length | The length of the isthmus between the distobuccal and distolingual canals when present at x mm from the apex |
| x mm from Apex D Isthmus Type | The distal isthmus type according to the classification system by Hsu when present at x mm from the apex |
| x mm from Apex D 3rd Canal | The buccal/lingual by mesial/distal dimensions of the 3rd canal when present in the distal root at x mm from the apex |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | The longest distance from the mesiobuccal orifice to the mesiolingual orifice or the buccal/lingual width of the mesial canal if only one mesial canal is present at 1.5mm coronal to the furcation |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | The shortest distance from the mesiobuccal orifice to the mesiolingual orifice if both a mesiobuccal and a mesiolingual canal are present at 1.5mm coronal to the furcation |

| | |
|---|---|
| ML to Middle Mesial to MB | The buccal/lingual distance from the mesiolingual canal to the middle mesial canal and the distance from the middle mesial canal to the mesiobuccal canal when all three canals are present at 1.5mm coronal to the furcation |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | The longest distance from the distobuccal orifice to the distolingual orifice or the buccal/lingual width of the distal canal if only one distal canal is present at 1.5mm coronal to the furcation |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | The shortest distance from the distobuccal orifice to the distolingual orifice if both a distobuccal and a distolingual canal are present at 1.5mm coronal to furcation |
| Longest Distance M to D Orifice | The longest distance from the a line tangent to the distal canal(s) to a line tangent to the mesial canal(s) in the mesial/distal dimension at 1.5mm coronal to the furcation |
| Mesial Canal Type from Orifice to Apex | The canal system type from orifice to apex within the mesial root according to the classification system presented by de Pablo |
| Distal Canal Type from Orifice to Apex | The canal system type from orifice to apex within the distal root according to the classification system presented by de Pablo |
| Middle Mesial (Start/Stop) | The distance from the apex at which the middle mesial canal begins and the distance from the apex at which it ends when present |
| Middle Distal (Start/Stop) | The distance from the apex at which the middle distal canal begins and the distance from the apex at which it ends when present |
| D Level of Lateral Canal Exit | The distance from the apex at which the lateral canal(s) exit the distal root |
| M Level of Lateral Canal Exit | The distance from the apex at which the lateral canal(s) exit the mesial root |

**EXAMPLE OF SECTIONING THE ROOT**
**(MESIAL ROOT OF TOOTH 5 AT 5.0MM FROM THE APEX)**

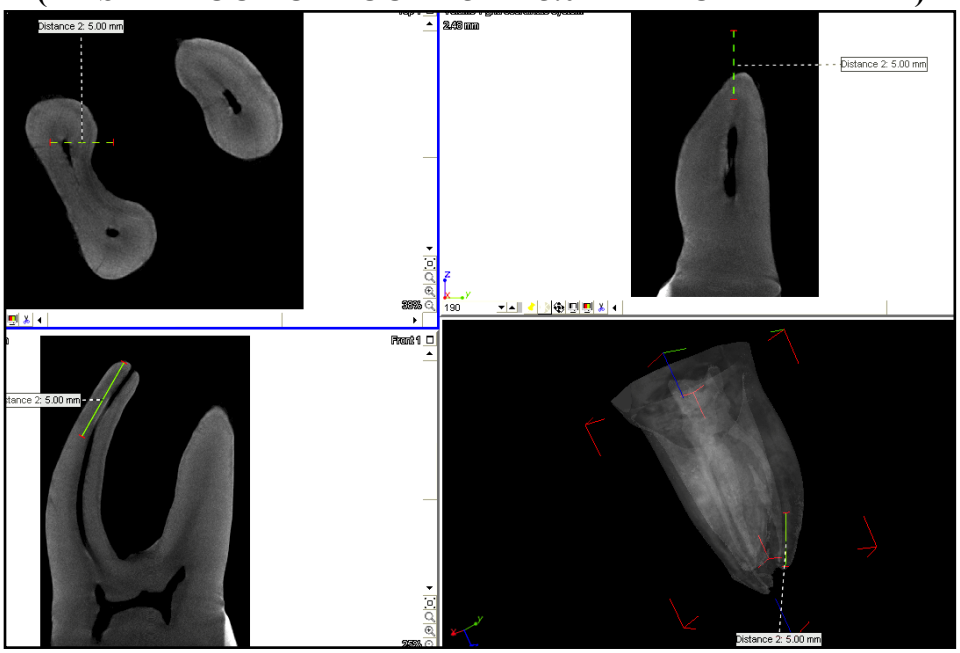


**FIGURE 7**

**EXAMPLE OF MEASURING THE THICKNESS OF DENTIN IN THE DANGER ZONE**
**(FROM THE ML CANAL OF TOOTH 5 AT 5.0MM FROM THE APEX)**

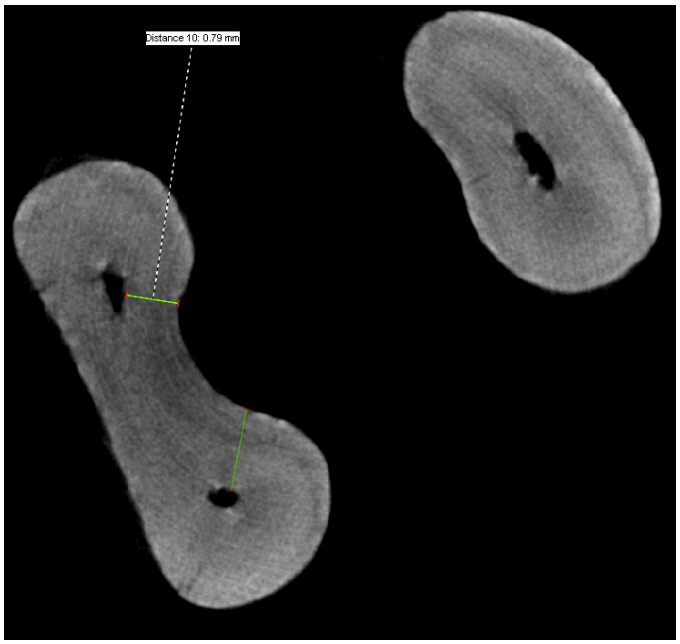


**FIGURE 8**

**EXAMPLE OF MEASURING THE CANAL WIDTH IN THE BUCCAL/LINGUAL DIMENSION (ML CANAL OF TOOTH 5 AT 5.0MM FROM THE APEX)**


**FIGURE 9**

**EXAMPLE OF MEASURING THE CANAL WIDTH IN THE MESIAL/DISTAL DIMENSION (ML CANAL OF TOOTH 5 AT 5.0MM FROM THE APEX)**


**FIGURE 10**

**EXAMPLE OF MEASURING THE ISTHMUS WIDTH (M ROOT OF TOOTH 18 AT 5.0MM FROM THE APEX)**

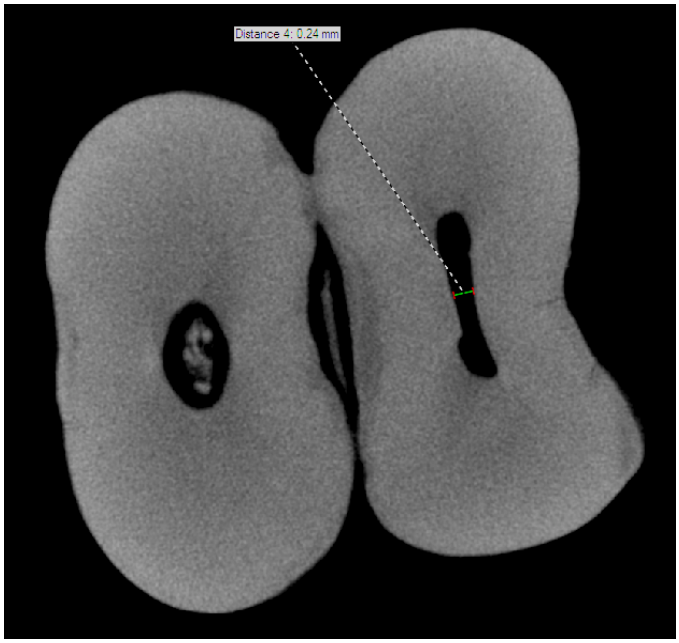


**FIGURE 11**

**EXAMPLE OF MEASURING THE ISTHMUS LENGTH (M ROOT OF TOOTH 18 AT 5.0MM FROM THE APEX)**

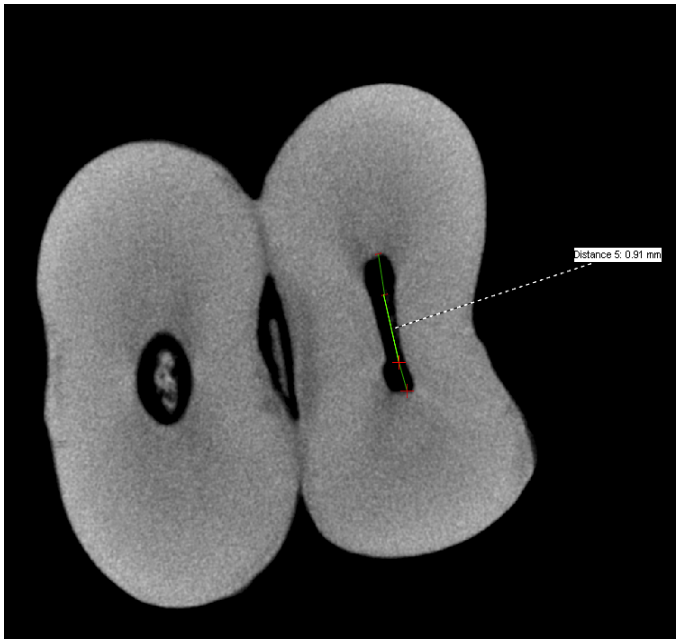


**FIGURE 12**

**EXAMPLE OF MEASURING THE LONGEST DISTANCE FROM THE MB TO ML ORIFICE AT 1.5MM FROM THE FURCATION (TOOTH 22)**


**FIGURE 13**

**EXAMPLE OF MEASURING THE SHORTEST DISTANCE FROM THE MB TO ML ORIFICE AT 1.5MM FROM THE FURCATION (TOOTH 22)**


**FIGURE 14**

**EXAMPLE OF MEASURING THE DISTANCE FROM THE ML ORIFICE TO THE MIDDLE MESIAL CANAL ORIFICE AT 1.5MM FROM THE FURCATION (TOOTH 22)**


**FIGURE 15**

**EXAMPLE OF MEASURING THE DISTANCE FROM THE MESIAL ORIFICES TO THE DISTAL ORIFICE AT 1.5MM FROM THE FURCATION (TOOTH 22)**


**FIGURE 16**

**EXAMPLE OF MEASURING THE LEVEL OF THE LATERAL CANAL EXIT (M ROOT OF TOOTH 7)**

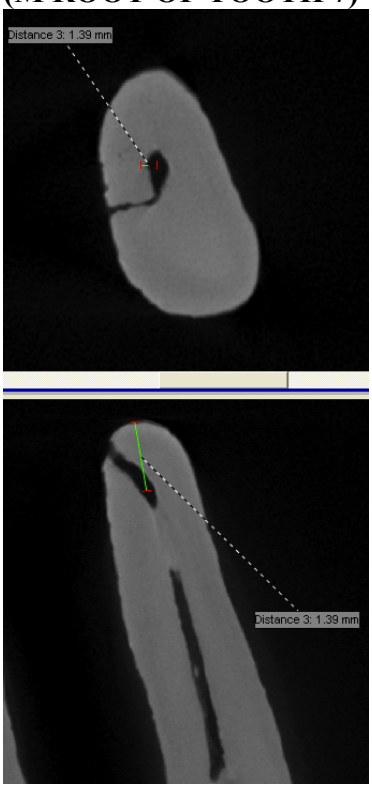


**FIGURE 17**

**EXAMPLE OF CANAL SYSTEM EVALUATION (M ROOT OF TOOTH 18 DISPLAYING A TYPE 22 (3-2-1) CANAL SYSTEM)**

**FIGURE 18**

## RESULTS

Twenty-four teeth were selected. After scanning and reconstruction, two teeth (tooth #4 and tooth #9) were excluded due to inability to interpret the images most likely due to movement of the samples during the scanning process. The average, standard deviation and standard error of the mean of each linear measurement were calculated and the mode for each nominal data category (canal type and isthmus type) was determined (See Tables 2-4). See Appendix I for data on individual teeth.

**TABLE 2**
**SUMMARY OF LINEAR DATA (IN MILLIMETERS)**

| Description | Std Dev | Error of means | Average |
|---|---|---|---|
| Number of Exits in Apical 0.5mm M Root | 1.804 | 0.385 | 3.73 |
| Number of Exits in Apical 0.5mm D Root | 2.258 | 0.481 | 3.36 |
| M Root Length | 1.825 | 0.389 | 10.28 |
| D Root Length | 1.654 | 0.353 | 10.10 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.269 | 0.075 | 0.38 |
| 0.5mm from Apex Thinnest Danger Zone MB | 0.272 | 0.136 | 0.64 |
| 0.5mm from Apex Thinnest Danger Zone ML | 0.076 | 0.038 | 0.21 |
| 0.5mm from Apex 1 M Width B/L | 0.254 | 0.070 | 0.40 |
| 0.5mm from Apex 1 M Width M/D | 0.180 | 0.050 | 0.32 |
| 0.5mm from Apex ML Width B/L | 0.214 | 0.088 | 0.40 |
| 0.5mm from Apex ML Width M/D | 0.145 | 0.059 | 0.28 |
| 0.5mm from Apex MB Width B/L | 0.142 | 0.064 | 0.31 |
| 0.5mm from Apex MB Width M/D | 0.128 | 0.057 | 0.28 |
| 0.5mm from Apex Thinnest Danger Zone 1 D | 0.449 | 0.201 | 0.99 |
| 0.5mm from Apex Thinnest Danger Zone DB | 0.308 | 0.138 | 0.64 |
| 0.5mm from Apex Thinnest Danger Zone DL | 0.110 | 0.064 | 0.25 |
| 0.5mm from Apex 1 D Width B/L | 0.170 | 0.076 | 0.35 |
| 0.5mm from Apex 1 D Width M/D | 0.177 | 0.079 | 0.35 |
| 0.5mm from Apex DL Width B/L | 0.205 | 0.102 | 0.47 |
| 0.5mm from Apex DL Width M/D | 0.096 | 0.048 | 0.23 |
| 0.5mm from Apex DB Width B/L | 0.169 | 0.097 | 0.48 |
| 0.5mm from Apex DB Width M/D | 0.164 | 0.095 | 0.44 |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.443 | 0.134 | 0.61 |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.385 | 0.122 | 0.71 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.291 | 0.092 | 0.46 |
| 1.0mm from Apex 1 M Width B/L | 0.258 | 0.078 | 0.44 |

| | | | |
|---|---|---|---|
| 1.0mm from Apex 1 M Width M/D | 0.185 | 0.056 | 0.33 |
| 1.0mm from Apex ML Width B/L | 0.221 | 0.070 | 0.38 |
| 1.0mm from Apex ML Width M/D | 0.147 | 0.046 | 0.26 |
| 1.0mm from Apex MB Width B/L | 0.187 | 0.059 | 0.33 |
| 1.0mm from Apex MB Width M/D | 0.176 | 0.056 | 0.30 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.565 | 0.141 | 0.85 |
| 1.0mm from Apex Thinnest Danger Zone DB | 0.528 | 0.236 | 0.92 |
| 1.0mm from Apex Thinnest Danger Zone DL | 0.184 | 0.082 | 0.40 |
| 1.0mm from Apex 1 D Width B/L | 0.493 | 0.116 | 0.68 |
| 1.0mm from Apex 1 D Width M/D | 0.226 | 0.053 | 0.39 |
| 1.0mm from Apex DL Width B/L | 0.152 | 0.108 | 0.50 |
| 1.0mm from Apex DL Width M/D | 0.098 | 0.069 | 0.33 |
| 1.0mm from Apex DB Width B/L | 0.131 | 0.093 | 0.45 |
| 1.0mm from Apex DB Width M/D | 0.117 | 0.083 | 0.40 |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.415 | 0.120 | 0.67 |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.446 | 0.141 | 0.81 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.327 | 0.103 | 0.58 |
| 1.5mm from Apex 1 M Width B/L | 0.331 | 0.092 | 0.56 |
| 1.5mm from Apex 1 M Width M/D | 0.180 | 0.050 | 0.33 |
| 1.5mm from Apex ML Width B/L | 0.241 | 0.080 | 0.43 |
| 1.5mm from Apex ML Width M/D | 0.210 | 0.070 | 0.33 |
| 1.5mm from Apex MB Width B/L | 0.224 | 0.075 | 0.42 |
| 1.5mm from Apex MB Width M/D | 0.160 | 0.053 | 0.29 |
| 1.5mm from Apex M Isthmus Width | 0.104 | 0.060 | 0.22 |
| 1.5mm from Apex M Isthmus Length | 0.394 | 0.227 | 0.77 |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.493 | 0.113 | 0.91 |
| 1.5mm from Apex Thinnest Danger Zone DB | 0.319 | 0.184 | 0.85 |
| 1.5mm from Apex Thinnest Danger Zone DL | 0.209 | 0.120 | 0.57 |
| 1.5mm from Apex 1 D Width B/L | 0.497 | 0.114 | 0.72 |
| 1.5mm from Apex 1 D Width M/D | 0.191 | 0.044 | 0.41 |
| 1.5mm from Apex DL Width B/L | 0.172 | 0.121 | 0.54 |
| 1.5mm from Apex DL Width M/D | 0.074 | 0.053 | 0.23 |
| 1.5mm from Apex DB Width B/L | 0.205 | 0.145 | 0.67 |
| 1.5mm from apex DB width M/D | 0.110 | 0.078 | 0.38 |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.421 | 0.133 | 0.77 |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.492 | 0.142 | 0.89 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.431 | 0.124 | 0.72 |
| 2.0mm from Apex 1 M Width B/L | 0.336 | 0.112 | 0.64 |
| 2.0mm from Apex 1 M Width M/D | 0.177 | 0.059 | 0.32 |
| 2.0mm from Apex ML Width B/L | 0.274 | 0.079 | 0.44 |
| 2.0mm from Apex ML Width M/D | 0.223 | 0.065 | 0.28 |
| 2.0mm from Apex MB Width B/L | 0.256 | 0.074 | 0.42 |
| 2.0mm from Apex MB Width M/D | 0.180 | 0.052 | 0.29 |
| 2.0mm from Apex M Isthmus Width | 0.061 | 0.027 | 0.12 |
| 2.0mm from Apex M Isthmus Length | 0.452 | 0.202 | 0.75 |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.432 | 0.097 | 1.12 |
| 2.0mm from Apex Thinnest Danger Zone DB | 0.194 | 0.137 | 0.66 |
| 2.0mm from Apex Thinnest Danger Zone DL | 0.203 | 0.144 | 0.65 |
| 2.0mm from Apex 1 D Width B/L | 0.446 | 0.100 | 0.73 |

| | | | |
|---|---|---|---|
| 2.0mm from Apex 1 D Width M/D | 0.150 | 0.034 | 0.37 |
| 2.0mm from Apex DL Width B/L | 0.286 | 0.202 | 0.97 |
| 2.0mm from Apex DL Width M/D | 0.078 | 0.055 | 0.26 |
| 2.0mm from Apex DB Width B/L | 0.251 | 0.178 | 0.82 |
| 2.0mm from Apex DB Width M/D | 0.106 | 0.075 | 0.36 |
| 2.0mm from Apex D Isthmus Width | 0.030 | 0.030 | 0.14 |
| 2.0mm from Apex D Isthmus Length | 0.049 | 0.049 | 0.23 |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.485 | 0.153 | 0.93 |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.577 | 0.167 | 1.02 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.491 | 0.142 | 0.84 |
| 2.5mm from Apex 1 M Width B/L | 0.403 | 0.127 | 0.69 |
| 2.5mm from Apex 1 M width M/D | 0.192 | 0.061 | 0.36 |
| 2.5mm from Apex ML Width B/L | 0.336 | 0.097 | 0.52 |
| 2.5mm from Apex ML Width M/D | 0.189 | 0.055 | 0.28 |
| 2.5mm from Apex MB Width B/L | 0.340 | 0.098 | 0.53 |
| 2.5mm from Apex MB Width M/D | 0.200 | 0.058 | 0.33 |
| 2.5mm from Apex M Isthmus Width | 0.072 | 0.027 | 0.14 |
| 2.5mm from Apex M Isthmus Length | 0.295 | 0.111 | 0.54 |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 0.486 | 0.112 | 1.18 |
| 2.5mm from Apex Thinnest Danger Zone DB | 0.339 | 0.196 | 0.91 |
| 2.5mm from Apex Thinnest Danger Zone DL | 0.347 | 0.200 | 0.84 |
| 2.5mm from Apex 1 D Width B/L | 0.393 | 0.090 | 0.64 |
| 2.5mm from Apex 1 D Width M/D | 0.175 | 0.040 | 0.41 |
| 2.5mm from Apex DL Width B/L | 0.468 | 0.270 | 1.25 |
| 2.5mm from Apex DL Width M/D | 0.165 | 0.095 | 0.41 |
| 2.5mm from Apex DB Width B/L | 0.359 | 0.207 | 0.94 |
| 2.5mm from Apex DB Width M/D | 0.118 | 0.068 | 0.32 |
| 2.5mm from Apex D Isthmus Width | 0.043 | 0.043 | 0.20 |
| 2.5mm from Apex D Isthmus Length | 0.132 | 0.132 | 0.62 |
| 3.0mm from Apex Thinnest Danger Zone 1 M | 0.546 | 0.223 | 1.13 |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.543 | 0.140 | 1.04 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.490 | 0.127 | 0.90 |
| 3.0mm from Apex 1 M Width B/L | 0.351 | 0.124 | 0.67 |
| 3.0mm from Apex 1 M Width M/D | 0.175 | 0.062 | 0.34 |
| 3.0mm from Apex ML Width B/L | 0.405 | 0.108 | 0.55 |
| 3.0mm from Apex ML Width M/D | 0.196 | 0.052 | 0.29 |
| 3.0mm from Apex MB Width B/L | 0.299 | 0.080 | 0.50 |
| 3.0mm from Apex MB Width M/D | 0.183 | 0.049 | 0.33 |
| 3.0mm from Apex M Isthmus Width | 0.091 | 0.030 | 0.15 |
| 3.0mm from Apex M Isthmus Length | 0.370 | 0.123 | 0.65 |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 0.492 | 0.113 | 1.22 |
| 3.0mm from Apex Thinnest Danger Zone DB | 0.394 | 0.227 | 1.03 |
| 3.0mm from Apex Thinnest Danger Zone DL | 0.386 | 0.223 | 0.99 |
| 3.0mm from Apex 1 D Width B/L | 0.357 | 0.082 | 0.68 |
| 3.0mm from Apex 1 D Width M/D | 0.169 | 0.039 | 0.40 |
| 3.0mm from Apex DL Width B/L | 0.350 | 0.202 | 0.94 |
| 3.0mm from Apex DL Width M/D | 0.152 | 0.088 | 0.41 |
| 3.0mm from Apex DB Width B/L | 0.394 | 0.228 | 1.02 |
| 3.0mm from Apex DB Width M/D | 0.149 | 0.086 | 0.40 |

| | | | |
|---|---|---|---|
| 3.0mm from Apex D Isthmus Width | 0.058 | 0.041 | 0.20 |
| 3.0mm from Apex D Isthmus Length | 0.334 | 0.236 | 1.13 |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 0.491 | 0.185 | 0.99 |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.581 | 0.150 | 1.10 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.573 | 0.148 | 1.01 |
| 3.5mm from Apex 1 M Width B/L | 0.432 | 0.163 | 0.83 |
| 3.5mm from Apex 1 M Width M/D | 0.164 | 0.062 | 0.33 |
| 3.5mm from Apex ML Width B/L | 0.407 | 0.105 | 0.63 |
| 3.5mm from Apex ML Width M/D | 0.162 | 0.042 | 0.30 |
| 3.5mm from Apex MB Width B/L | 0.323 | 0.083 | 0.52 |
| 3.5mm from Apex MB Width M/D | 0.183 | 0.047 | 0.32 |
| 3.5mm from Apex Isthmus Width | 0.088 | 0.031 | 0.14 |
| 3.5mm from Apex Isthmus Length | 0.404 | 0.143 | 0.78 |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 0.426 | 0.095 | 1.18 |
| 3.5mm from Apex Thinnest Danger Zone DB | 0.376 | 0.266 | 1.22 |
| 3.5mm from Apex Thinnest Danger Zone DL | 0.381 | 0.269 | 1.20 |
| 3.5mm from Apex 1 D Width B/L | 0.510 | 0.114 | 0.84 |
| 3.5mm from Apex 1 D Width M/D | 0.169 | 0.038 | 0.44 |
| 3.5mm from apex DL width B/L dimension | 0.236 | 0.167 | 0.79 |
| 3.5mm from Apex DL Width M/D | 0.091 | 0.064 | 0.30 |
| 3.5mm from Apex DB Width B/L | 0.306 | 0.216 | 0.92 |
| 3.5mm from Apex DB Width M/D | 0.155 | 0.109 | 0.52 |
| 3.5mm from Apex D Isthmus Width | 0.055 | 0.055 | 0.26 |
| 3.5mm from Apex D Isthmus Length | 0.311 | 0.311 | 1.46 |
| 4.0mm from Apex Thinnest Danger Zone 1 M | 0.469 | 0.210 | 1.08 |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.538 | 0.130 | 1.08 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.564 | 0.137 | 1.06 |
| 4.0mm from Apex 1 M Width B/L | 0.497 | 0.222 | 1.11 |
| 4.0mm from Apex 1 M Width M/D | 0.156 | 0.070 | 0.35 |
| 4.0mm from Apex ML Width B/L | 0.389 | 0.094 | 0.62 |
| 4.0mm from Apex ML Width M/D | 0.150 | 0.036 | 0.29 |
| 4.0mm from Apex MB Width B/L | 0.266 | 0.065 | 0.49 |
| 4.0mm from Apex MB Width M/D | 0.168 | 0.041 | 0.33 |
| 4.0mm from Apex M Isthmus Width | 0.103 | 0.031 | 0.16 |
| 4.0mm from Apex M Isthmus Length | 0.454 | 0.137 | 0.78 |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 0.483 | 0.111 | 1.17 |
| 4.0mm from Apex Thinnest Danger Zone DB | 0.514 | 0.297 | 1.42 |
| 4.0mm from Apex Thinnest Danger Zone DL | 0.495 | 0.286 | 1.36 |
| 4.0mm from Apex 1 D Width B/L | 0.528 | 0.121 | 0.89 |
| 4.0mm from Apex 1 D Width M/D | 0.177 | 0.041 | 0.44 |
| 4.0mm from Apex DL Width B/L | 0.272 | 0.157 | 0.74 |
| 4.0mm from Apex DL Width M/D | 0.110 | 0.064 | 0.31 |
| 4.0mm from Apex DB Width B/L | 0.326 | 0.188 | 0.79 |
| 4mm from Apex DB width M/D | 0.197 | 0.113 | 0.52 |
| 4mm from Apex D Isthmus Width | 0.063 | 0.044 | 0.20 |
| 4mm from Apex D Isthmus Length | 0.329 | 0.232 | 0.93 |
| 4.5mm from Apex Thinnest Danger Zone 1 M | 0.473 | 0.212 | 1.09 |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.555 | 0.135 | 1.11 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.566 | 0.137 | 1.06 |

| | | | |
|---|---|---|---|
| 4.5mm from Apex 1 M Width B/L | 0.574 | 0.257 | 1.28 |
| 4.5mm from Apex 1 M Width M/D | 0.168 | 0.075 | 0.38 |
| 4.5mm from Apex ML Width B/L | 0.410 | 0.099 | 0.63 |
| 4.5mm from Apex ML Width M/D | 0.145 | 0.035 | 0.30 |
| 4.5mm from Apex MB Width B/L | 0.275 | 0.067 | 0.52 |
| 4.5mm from Apex MB Width M/D | 0.180 | 0.044 | 0.33 |
| 4.5mm from Apex M Isthmus Width | 0.102 | 0.031 | 0.17 |
| 4.5mm from Apex M Isthmus Length | 0.516 | 0.156 | 0.92 |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 0.498 | 0.114 | 1.20 |
| 4.5mm from Apex Thinnest Danger Zone DB | 0.515 | 0.297 | 1.45 |
| 4.5mm from Apex Thinnest Danger Zone DL | 0.494 | 0.285 | 1.38 |
| 4.5mm from Apex 1 D Width B/L | 0.536 | 0.123 | 1.05 |
| 4.5mm from apex 1 D width M/D | 0.208 | 0.048 | 0.48 |
| 4.5mm from Apex DL Width B/L | 0.257 | 0.148 | 0.65 |
| 4.5mm from Apex DL Width M/D | 0.121 | 0.070 | 0.33 |
| 4.5mm from Apex DB Width B/L | 0.345 | 0.199 | 0.84 |
| 4.5mm from Apex DB Width M/D | 0.176 | 0.102 | 0.48 |
| 4.5mm from Apex D Isthmus Width | 0.065 | 0.046 | 0.21 |
| 4.5mm from Apex D Isthmus Length | 0.438 | 0.310 | 1.21 |
| 5.0mm from Apex Thinnest Danger Zone 1 M | 0.349 | 0.202 | 0.99 |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.497 | 0.114 | 1.17 |
| 5.0mm from Apex Tinnest Danger Zone ML | 0.507 | 0.116 | 1.08 |
| 5.0mm from Apex 1 M Width B/L | 0.608 | 0.351 | 1.70 |
| 5.0mm from Apex 1 M Width M/D | 0.131 | 0.076 | 0.37 |
| 5.0mm from Apex ML Width B/L | 0.355 | 0.081 | 0.64 |
| 5.0mm from Apex ML Width M/D | 0.143 | 0.033 | 0.34 |
| 5.0mm from Apex MB Width B/L | 0.263 | 0.060 | 0.53 |
| 5.0mm from Apex MB Width M/D | 0.154 | 0.035 | 0.33 |
| 5.0mm from Apex M Isthmus Width | 0.089 | 0.025 | 0.15 |
| 5.0mm from Apex M Isthmus Length | 0.591 | 0.164 | 0.97 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 0.504 | 0.116 | 1.19 |
| 5.0mm from Apex Thinnest Danger Zone DB | 0.497 | 0.287 | 1.41 |
| 5.0mm from Apex Thinnest Danger Zone DL | 0.521 | 0.301 | 1.47 |
| 5.0mm from Apex 1 D Width B/L | 0.588 | 0.135 | 1.18 |
| 5.0mm from Apex 1 D Width M/D | 0.223 | 0.051 | 0.52 |
| 5.0mm from Apex DL Width B/L | 0.299 | 0.173 | 0.74 |
| 5.0mm from Apex DL Width M/D | 0.111 | 0.064 | 0.31 |
| 5.0mm from Apex DB Width B/L | 0.347 | 0.200 | 0.82 |
| 5.0mm from Apex DB Width M/D | 0.199 | 0.115 | 0.52 |
| 5.0mm from Apex D Isthmus Width | 0.065 | 0.046 | 0.21 |
| 5.0mm from Apex D Isthmus Length | 0.495 | 0.350 | 1.43 |
| 5.5mm from Apex Thinnest Danger Zone 1 M | 0.285 | 0.202 | 0.96 |
| 5.5mm from Apex Thinnest Danger Zone MB | 0.471 | 0.105 | 1.22 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.469 | 0.105 | 1.17 |
| 5.5mm from Apex 1 M Width B/L | 0.616 | 0.436 | 2.06 |
| 5.5mm from Apex 1 M Width M/D | 0.106 | 0.075 | 0.35 |
| 5.5mm from Apex ML Width B/L | 0.278 | 0.062 | 0.60 |
| 5.5mm from Apex ML Width M/D | 0.127 | 0.028 | 0.34 |
| 5.5mm from Apex MB Width B/L | 0.272 | 0.061 | 0.61 |

| | | | |
|---|---|---|---|
| 5.5mm from Apex MB Width M/D | 0.134 | 0.030 | 0.32 |
| 5.5mm from Apex M Isthmus Width | 0.084 | 0.024 | 0.15 |
| 5.5mm from Apex M Isthmus Length | 0.690 | 0.199 | 1.05 |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 0.529 | 0.121 | 1.22 |
| 5.5mm from Apex Thinnest Danger Zone DB | 0.434 | 0.251 | 1.22 |
| 5.5mm from Apex Thinnest Danger Zone DL | 0.473 | 0.273 | 1.29 |
| 5.5mm from Apex 1 D Width B/L | 0.652 | 0.150 | 1.27 |
| 5.5mm from Apex 1 D Width M/D | 0.204 | 0.047 | 0.51 |
| 5.5mm from Apex DL Width B/L | 0.329 | 0.190 | 0.87 |
| 5.5mm from Apex DL Width M/D | 0.114 | 0.066 | 0.32 |
| 5.5mm from Apex DB Width B/L | 0.367 | 0.212 | 0.95 |
| 5.5mm from Apex DB Width M/D | 0.170 | 0.098 | 0.47 |
| 5.5mm from Apex D Isthmus Width | 0.052 | 0.030 | 0.14 |
| 5.5mm from Apex D Isthmus Length | 0.487 | 0.281 | 1.26 |
| 6.0mm from Apex Thinnest Danger Zone 1 M | 0.185 | 0.185 | 0.87 |
| 6.0mm from Apex Thinnest Danger Zone MB | 0.470 | 0.103 | 1.28 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.423 | 0.092 | 1.19 |
| 6.0mm from Apex 1 M Width B/L | 0.554 | 0.554 | 2.60 |
| 6.0mm from Apex 1 M Width M/D | 0.098 | 0.098 | 0.46 |
| 6.0mm from Apex ML Width B/L | 0.418 | 0.091 | 0.73 |
| 6.0mm from Apex ML Width M/D | 0.117 | 0.026 | 0.34 |
| 6.0mm from Apex MB Width B/L | 0.238 | 0.052 | 0.61 |
| 6.0mm from Apex MB Width M/D | 0.117 | 0.026 | 0.35 |
| 6.0mm from Apex M Isthmus Width | 0.092 | 0.025 | 0.15 |
| 6.0mm from Apex M Isthmus Length | 0.755 | 0.202 | 1.02 |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 0.584 | 0.138 | 1.22 |
| 6.0mm from Apex Thinnest Danger Zone DB | 0.528 | 0.264 | 1.33 |
| 6.0mm from Apex Thinnest Danger Zone DL | 0.556 | 0.278 | 1.37 |
| 6.0mm from Apex 1 D Width B/L | 0.661 | 0.156 | 1.34 |
| 6.0mm from Apex 1 D Width M/D | 0.257 | 0.061 | 0.56 |
| 6.0mm from Apex DL Width B/L | 0.395 | 0.198 | 0.91 |
| 6.0mm from Apex DL Width M/D | 0.163 | 0.082 | 0.41 |
| 6.0mm from Apex DB Width B/L | 0.417 | 0.208 | 0.95 |
| 6.0mm from Apex DB Width M/D | 0.232 | 0.116 | 0.55 |
| 6.0mm from Apex D Isthmus Width | 0.068 | 0.034 | 0.15 |
| 6.0mm from Apex D Isthmus Length | 0.498 | 0.249 | 1.22 |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.402 | 0.088 | 1.20 |
| 7.0mm from Apex Thinnest Danger Zone ML | 0.405 | 0.088 | 1.19 |
| 7.0mm from Apex ML Width B/L | 0.341 | 0.074 | 0.77 |
| 7.0mm from Apex ML Width M/D | 0.127 | 0.028 | 0.40 |
| 7.0mm from Apex MB Width B/L | 0.297 | 0.065 | 0.72 |
| 7.0mm from Apex MB width M/D | 0.143 | 0.031 | 0.38 |
| 7.0mm from Apex M Isthmus Width | 0.088 | 0.023 | 0.15 |
| 7.0mm from Apex M Isthmus Length | 0.861 | 0.222 | 1.29 |
| 8.0mm from Apex Thinnest Danger Zone MB | 0.523 | 0.123 | 1.16 |
| 8.0mm from Apex Thinnest Danger Zone ML | 0.539 | 0.127 | 1.19 |
| 8.0mm from Apex ML Width B/L | 0.472 | 0.111 | 0.81 |
| 8.0mm from Apex ML Width M/D | 0.176 | 0.041 | 0.38 |
| 8.0mm from Apex MB Width B/L | 0.458 | 0.108 | 0.79 |

| | | | |
|---|---|---|---|
| 8mm from Apex MB Width M/D | 0.170 | 0.040 | 0.38 |
| 8mm from Apex M Isthmus Width | 0.193 | 0.056 | 0.21 |
| 8mm from Apex M Isthmus Length | 1.105 | 0.319 | 1.45 |
| 9.0mm from Apex Thinnest Danger Zone MB | 0.549 | 0.129 | 1.22 |
| 9.0mm from Apex Thinnest Danger Zone ML | 0.524 | 0.123 | 1.17 |
| 9.0mm from Apex ML Width B/L | 0.458 | 0.108 | 0.92 |
| 9.0mm from Apex ML Width M/D | 0.195 | 0.046 | 0.41 |
| 9.0mm from Apex MB Width B/L | 0.386 | 0.091 | 0.75 |
| 9.0mm from Apex MB width M/D | 0.203 | 0.048 | 0.42 |
| 9.0mm from Apex M Isthmus Width | 0.098 | 0.026 | 0.15 |
| 9.0mm from Apex M Isthmus Length | 1.163 | 0.311 | 1.61 |
| 10.0mm from Apex Thinnest Danger Zone MB | 0.636 | 0.176 | 1.21 |
| 10.0mm from Apex Thinnest Danger Zone ML | 0.637 | 0.177 | 1.22 |
| 10.0mm from Apex ML Width B/L | 0.522 | 0.145 | 0.88 |
| 10.0mm from Apex ML Width M/D | 0.231 | 0.064 | 0.43 |
| 10.0mm from Apex MB Width B/L | 0.438 | 0.121 | 0.75 |
| 10.0mm from Apex MB Width M/D | 0.247 | 0.068 | 0.43 |
| 10.0mm from Apex M Isthmus Width | 0.076 | 0.027 | 0.14 |
| 10.0mm from Apex M Isthmus Length | 0.959 | 0.339 | 1.51 |
| 11.0mm from Apex Thinnest Danger Zone MB | 0.624 | 0.221 | 1.24 |
| 11.0mm from Apex Thinnest Danger Zone ML | 0.638 | 0.226 | 1.26 |
| 11.0mm from Apex ML Width B/L | 0.342 | 0.121 | 0.66 |
| 11.0mm from Apex ML Width M/D | 0.198 | 0.070 | 0.38 |
| 11.0mm from Apex MB Width B/L | 0.372 | 0.131 | 0.67 |
| 11.0mm from Apex MB Width M/D | 0.215 | 0.076 | 0.43 |
| 11.0mm from Apex M Isthmus Width | 0.057 | 0.028 | 0.14 |
| 11.0mm from Apex M Isthmus Length | 0.926 | 0.463 | 1.90 |
| 12.0mm from Apex Thinnest Danger Zone MB | 0.516 | 0.258 | 1.27 |
| 12.0mm from Apex Thinnest Danger Zone ML | 0.507 | 0.253 | 1.27 |
| 12.0mm from Apex ML Width B/L | 0.300 | 0.150 | 0.73 |
| 12.0mm from Apex ML Width M/D | 0.207 | 0.104 | 0.51 |
| 12.0mm from Apex MB Width B/L | 0.273 | 0.137 | 0.66 |
| 12.0mm from Apex MB Width M/D | 0.207 | 0.104 | 0.51 |
| 12.0mm from Apex M Isthmus Width | 0.045 | 0.045 | 0.21 |
| 12.0mm from Apex M Isthmus Length | 0.111 | 0.111 | 0.52 |
| 13.0mm from Apex Thinnest Danger Zone MB | 0.369 | 0.261 | 1.25 |
| 13.0mm from Apex Thinnest Danger Zone ML | 0.376 | 0.266 | 1.28 |
| 13.0mm from Apex ML Width B/L | 0.256 | 0.181 | 0.83 |
| 13.0mm from Apex ML Width M/D | 0.172 | 0.122 | 0.59 |
| 13.0mm from Apex MB Width B/L | 0.221 | 0.156 | 0.75 |
| 13.0mm from Apex MB Width M/D | 0.146 | 0.103 | 0.50 |
| 13.0mm from Apex M Isthmus Width | 0.034 | 0.034 | 0.16 |
| 13.0mm from Apex M Isthmus Length | 0.215 | 0.215 | 1.01 |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 0.757 | 0.161 | 3.09 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 0.887 | 0.281 | 1.43 |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 0.866 | 0.185 | 1.98 |
| Longest Distance M to D Orifice | 0.431 | 0.092 | 4.35 |

**TABLE 3**
**SUMMARY OF DISTANCE FROM THE APEX AT WHICH ISTHMUSES START AND STOP (IN MILLIMETERS)**

| Tooth Name | Mesial Isthmus Start | Mesial Isthmus Stop | Distal Isthmus Start | Distal Isthmus Stop | Most Common Isthmus Type |
|---|---|---|---|---|---|
| 1 | 1.5 | 3 | 2 | 6 | 5 |
| 2 | 5 | 7 | | | 5 |
| 3 | 9 | 9 | | | 4 |
| 5 | 6 | 9 | | | 4 |
| 6 | 6 | 11 | | | 5 |
| 7 | 5.5 | 10 | | | 5 |
| 8 | 1.5 | 11 | | | 5 |
| 10 | 2.5 | 11 | | | 5 |
| 11 | 2.5 | 10 | | | 5 |
| 12 | 4 | 4.5 | | | 5 |
| 13 | 2.5 | 9 | | | 5 |
| 14 | 1.5 | 9 | | | 5 |
| 15 | 2.5 | 4 | 4 | 6 | 5 |
| 16 | 2 | 5 | | | 2 |
| 17 | 3.5 | 11 | | | 5 |
| 18 | 3 | 5 | | | 5 |
| 19 | 6 | 10 | | | 5 |
| 20 | 5.5 | 10 | | | 4 |
| 21 | 7 | 10 | | | 5 |
| 22 | 4 | 7 | | | 5 |
| 23 | 5 | 6 | | | 3 |
| 24 | 2 | 7 | | | 5 |
| **Average** | **4** | **8.11** | **3** | **6** | **-** |
| **Mode** | **-** | **-** | **-** | **-** | **5** |

**TABLE 4**
**SUMMARY OF DISTANCES FROM THE APEX AT WHICH MIDDLE MESIAL CANAL STARTS AND STOPS (IN MILLIMETERS)**

| Tooth Number | Middle Mesial Canal Start | Middle Mesial Canal Stop |
|---|---|---|
| 2 | 8.95 | 11.32 |
| 5 | 8.56 | 11.63 |
| 6 | 7.97 | 10.99 |
| 10 | 2.11 | 4.48 |
| 18 | 6.93 | 9.51 |
| 19 | 8.83 | 12.32 |
| 20 | 1.99 | 8.25 |
| 22 | 8.64 | 12.55 |
| 23 | 5.26 | 9.87 |
| **Average** | **6.58** | **10.10** |

**TABLE 5**
**SUMMARY OF DISTANCE FROM THE APEX AT WHICH LATERAL CANALS EXIT (IN MILLIMETERS)**

| Tooth Name | Level of Lateral Canal Exit Mesial Root | Level of Lateral Canal Exit Distal Root |
|---|---|---|
| 1 | 1.14 | |
| 2 | 1.58 | |
| 3 | 0.66 | |
| 3 | 2.82 | |
| 5 | 1.48 | |
| 7 | 0.78 | 0.62 |
| 7 | | 1.09 |
| 7 | | 1.53 |
| 7 | | 2.16 |
| 8 | 6.36 | 0.98 |
| 10 | 1.82 | 1.88 |
| 10 | 3.42 | 3.64 |
| 10 | 6.68 | |
| 11 | 1.49 | |
| 11 | 1.83 | |
| 12 | 0.36 | 0.59 |
| 12 | 0.66 | 0.99 |
| 12 | 0.92 | |
| 12 | 1.02 | |
| 13 | 1.26 | 2.31 |
| 13 | 4.7 | |
| 14 | 0.97 | 1.59 |
| 14 | 4.19 | 2.15 |
| 15 | 1.04 | 0.53 |
| 15 | | 1.34 |
| 15 | | 2.46 |
| 16 | 0.79 | 1.39 |
| 17 | 1.12 | 0.62 |
| 17 | | 1.58 |
| 18 | 1.01 | 0.64 |
| 18 | 1.36 | 1.01 |
| 18 | 1.7 | |
| 18 | 2.19 | |
| 19 | 1.25 | 0.72 |
| 20 | 1.31 | 1.34 |
| 20 | 2.31 | 3.14 |
| 20 | 3.77 | |
| 20 | 10.04 | |
| 21 | 0.73 | |
| **Average** | **2.20** | **1.49** |
| **Percentage Within the Apical 3mm** | **0.79** | **0.91** |

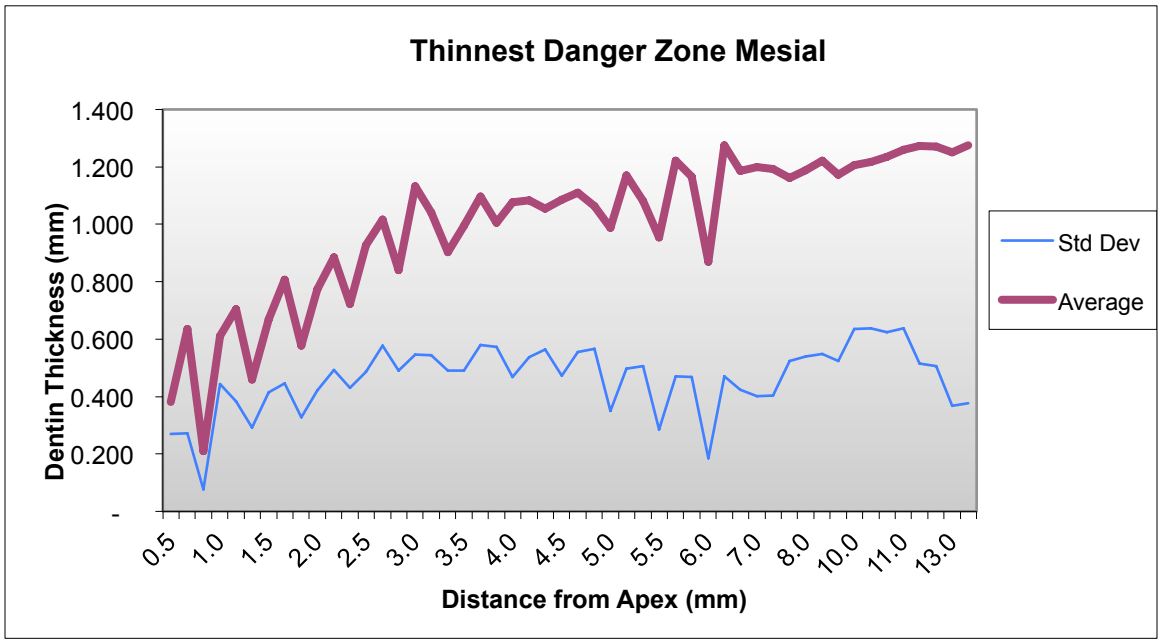


**FIGURE 19**

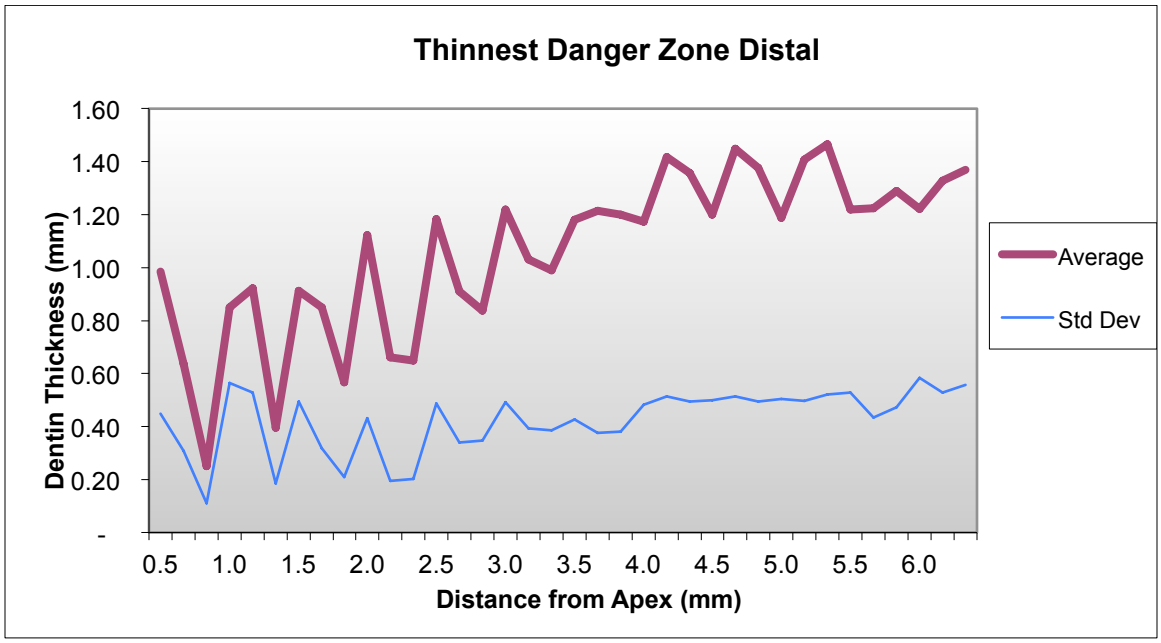


**FIGURE 20**

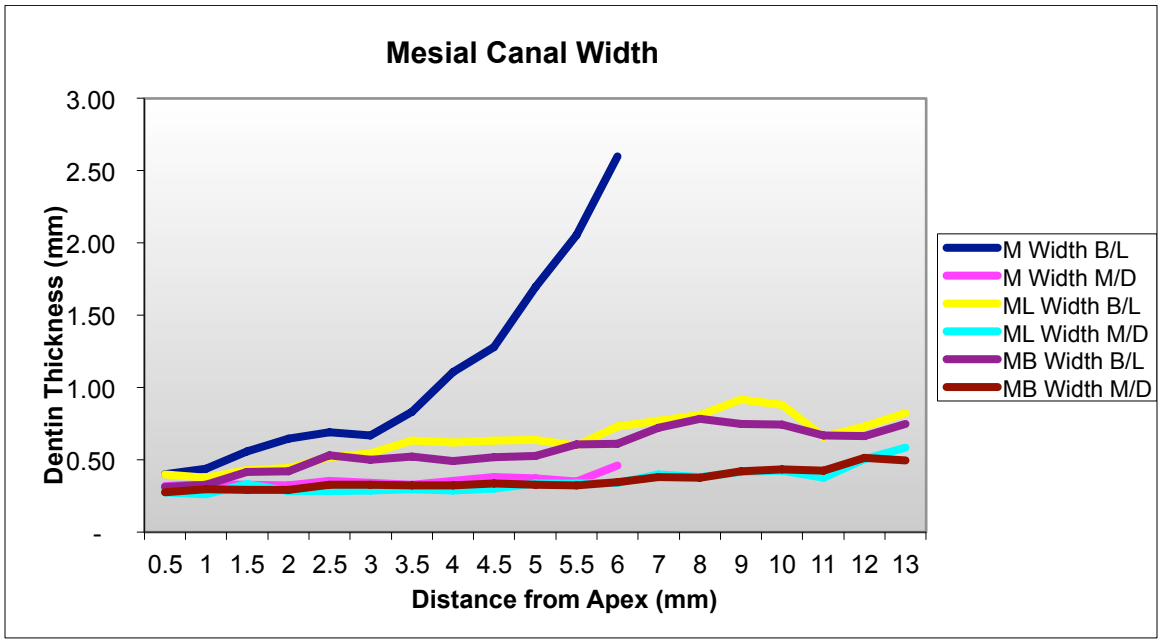


**FIGURE 21**

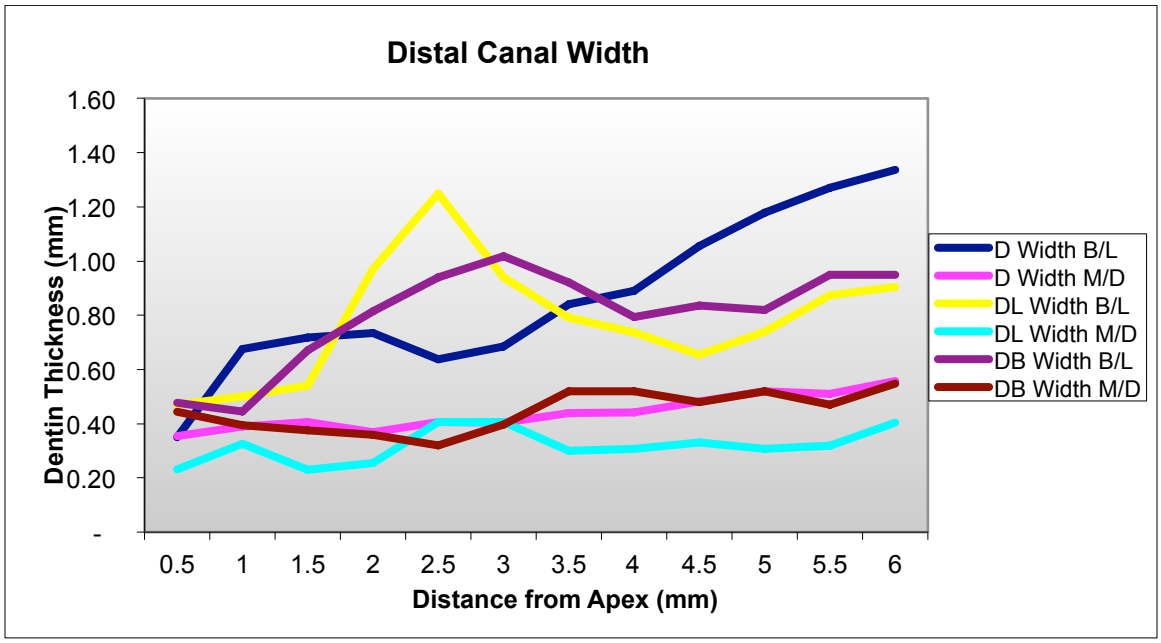


**FIGURE 22**

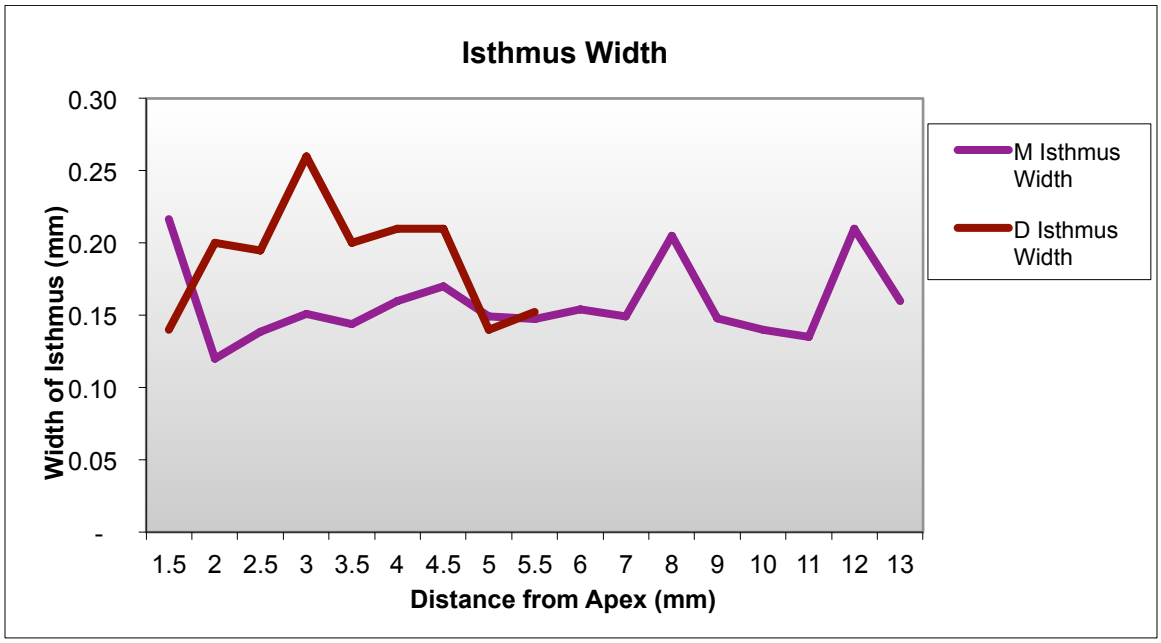


**FIGURE 23**

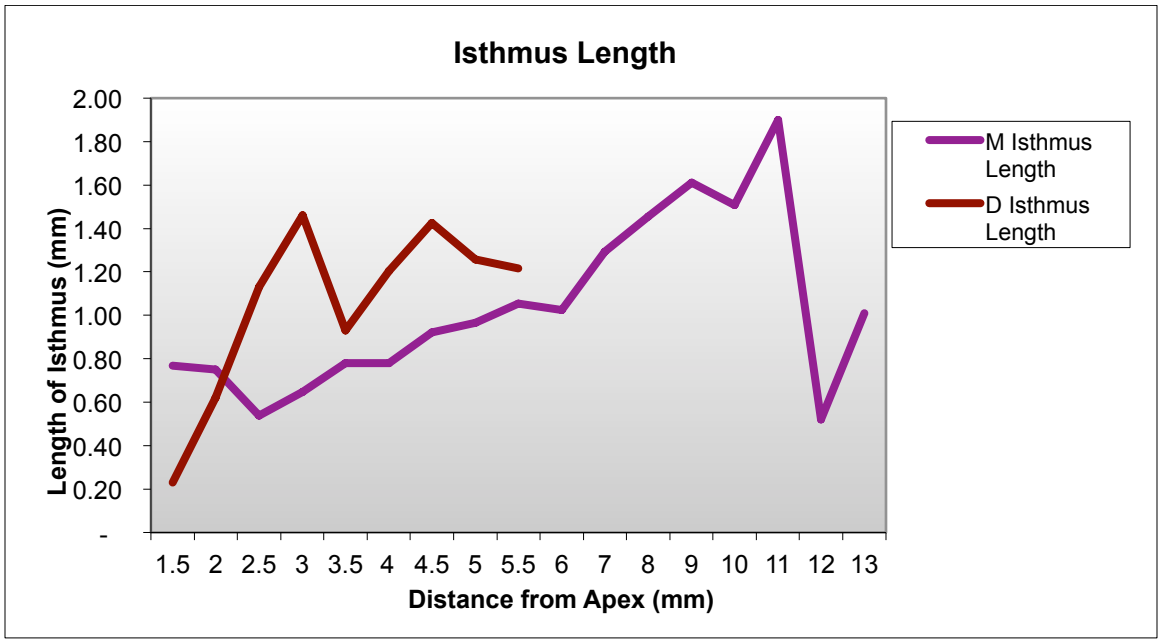


**FIGURE 24**

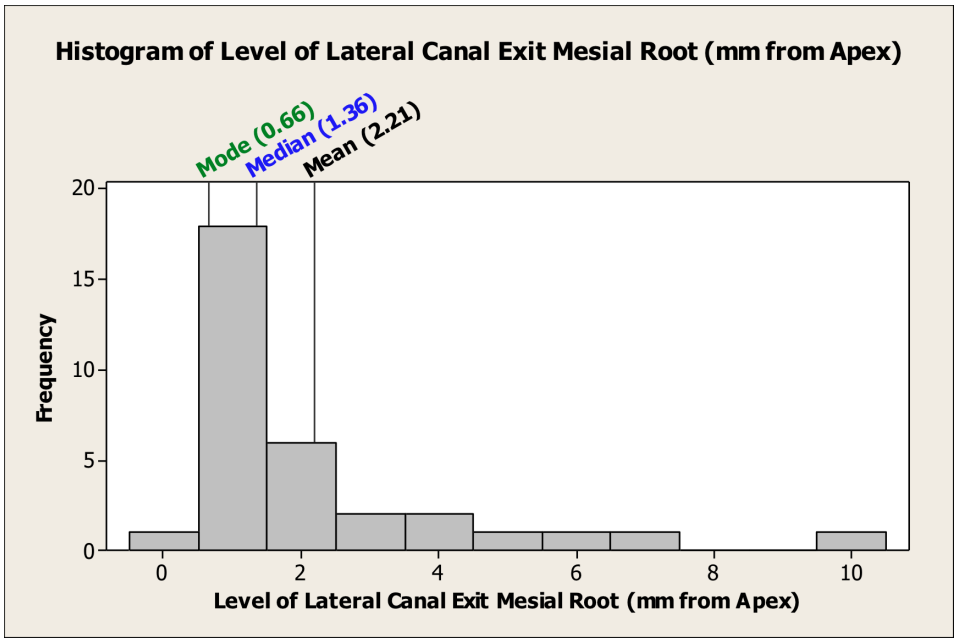


**FIGURE 25**

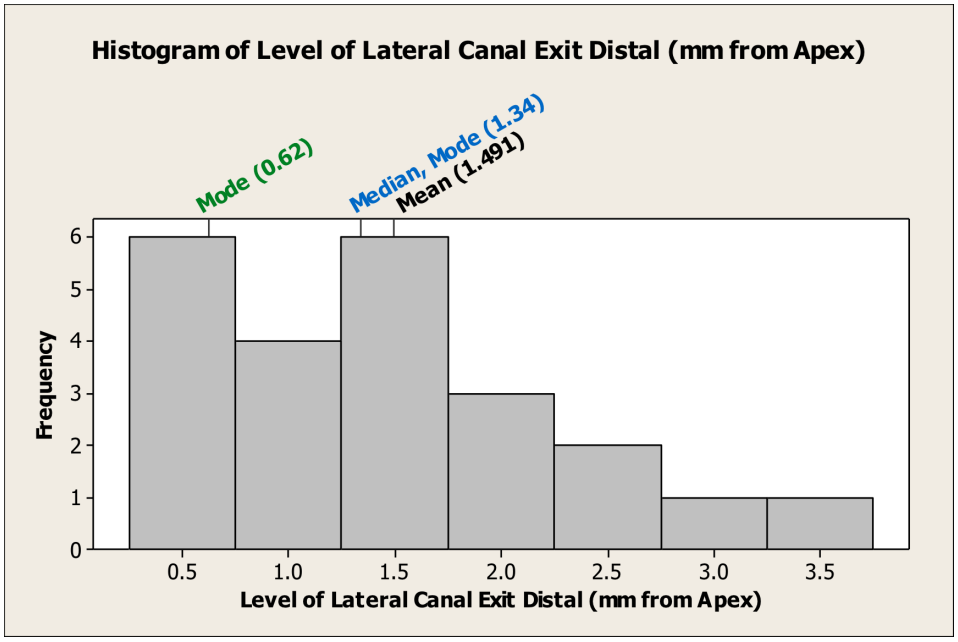


**FIGURE 26**

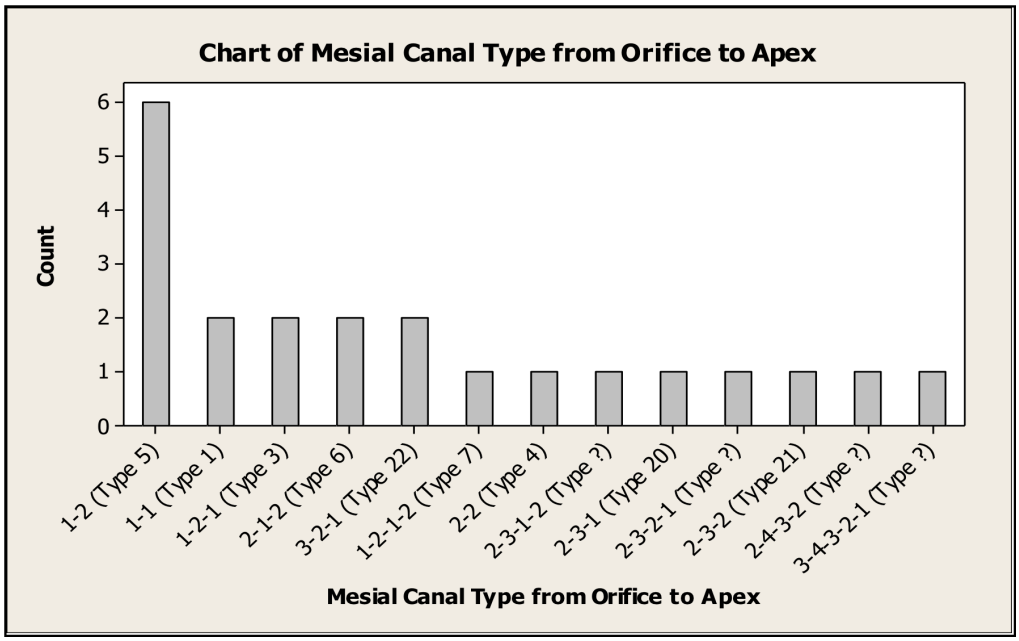


**FIGURE 27**

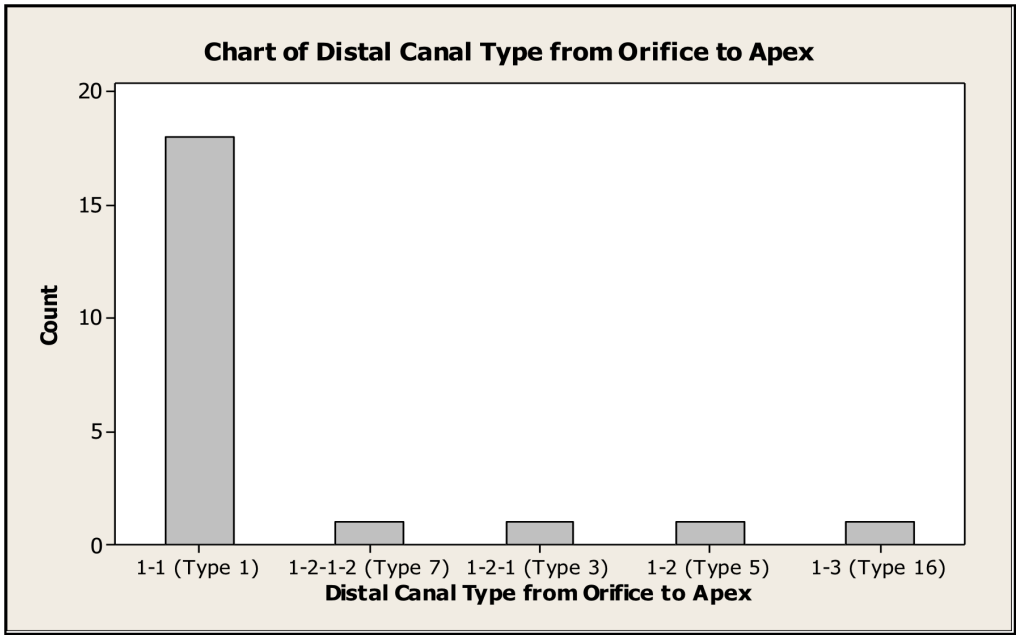


**FIGURE 28**

## DISCUSSION

The Width of Dentin in Danger Zone

According to Berutti, the thinnest area of dentin in the coronal aspect of the mesial root located on the distal surface of the root, 1.5 mm below the furcation (Berutti & Fedon, 1992). At this level, the average thickness was found to be 1.2 to 1.3mm. In the present study, with the average mesial root length measuring 10.28mm, the relevant "Danger Zone" would occur within the 8mm-10mm sections. At these levels, the average thinnest area of dentin ranged from 0.81mm to 1.22mm in width (See Figure 19), re-confirming the thinness of dentin on the furcal aspect of the mesial root. However, an even thinner average width of dentin was found in the apical aspect of the mesial root, ranging within the apical 3mm from 0.22mm to 1.13mm. Interestingly, along the entire mesial root, the highest average dentin thickness was 1.28mm. The astonishing realization that can be made from these figures is that the furcal aspect of the entire mesial root can most likely be considered a "Danger Zone" when preforming endodontic cleaning and shaping from both an orthograde and a retrograde approach.

Regarding the apical 6.0mm of the distal root, the average width of dentin on the furcation side of the root ranged from 0.25mm at the 0.5mm level to 1.47mm at the 5.0mm level (See Figure 20). Within the literature, there is no official "Danger Zone" along the distal root of the mandibular first molar. However, the finding that, at least within the apical 6mm of the root, there are most likely areas in which the dentin is less than 1.5mm thick supports the idea that the furcal aspect of the distal root may also be considered an area at risk for strip perforation.

Canal Diameter (Working Width)

In the apical 0.5mm to 1.0mm of the mesial root, the average buccal/lingual width ranged from 0.31mm to 0.44mm and the mesial/distal width ranged from 0.26mm to 0.33mm (See Figure 21). These measurements fall within the range of 0.15mm to 2.2mm found by Kerekes and Tronstad (Kerekes & Tronstad, 1977) and the range of 0.2mm to 0.4mm found by Green (Green, 1958). This finding would support an apical working width of at least an ISO size 30 file (diameter 0.3mm at the tip) to adequately clean the apical extent of the mesial canals of mandibular molars.

Along the length of the mesial root, on average, the buccal/lingual dimension of the canals was greater than the mesial/distal dimension. Also, within most sections, when two mesial canals were present, the mesial lingual canal was slightly larger than the mesial buccal canal in both dimensions. As expected, the dimensions of the canals widened with each successive coronal section. Accordingly, when two separate mesial canals were present the widest average dimension occurred in the mesial lingual canal at the section 9mm from the apex, with the buccal/lingual dimension measuring 0.92mm and the mesial/distal dimension measuring 0.41mm. When only one mesial canal was present, this canal was usually larger than each of the two separate canals, reaching the largest average width at 6.0mm from the apex, measuring 2.6mm (buccal/lingual) by 0.46mm (mesial/distal). These measurements illustrate that these canals are not round, as are most endodontic files. This means that most instruments will inevitably widen the mesial/distal aspect of the canal (towards the “Danger Zone” in the mandibular first

molar) more than the buccal lingual/aspect. If an endodontic file were to be taken down the center of a canal with these dimensions, it could lead to a reduction in the thickness of the already-thin furcal aspect of the root, while possibly leaving some of the buccal or lingual walls un-instrumented. For this reason, coronal enlargement with instruments such as Gates Glidden burs or orifice-opening rotary files, used in a brushing motion against the buccal, lingual and mesial walls ("bulk" or "safety" zones) is essential to adequately clean and shaped these dimensions while avoiding a perforation of the furcal wall.

Within the distal root, again, the buccal/lingual dimension of the canal or canals was larger than the mesial/distal dimension (See Figure 22). These canals were, in general, larger than the mesial canals in both dimensions at all levels from the apex. At the apical 0.5mm to 1.0mm of the distal root, the average buccal/lingual width ranged from 0.35mm to 0.48mm and the mesial/distal width ranged from 0.23mm to 0.44mm. These measurements are slightly smaller than the average of 0.6mm at the 1.0mm found by Kerekes (Kerekes & Tronstad, 1977) and the range of 0.4mm to 0.7mm found by Green (Green, 1958). However, at 5.0 and 6.0mm from the apex, the buccal/lingual average widths of single distal canals were found to be 1.18mm and 1.34 respectively, corresponding well with Kerekes finding that these canals need to be prepared to at least 1.4mm at these more coronal levels in order to adequately shape all of the walls. Although only 4 of the 22 samples (18%) contained more than one canal within the distal root, because the single distal canals were so broad in the buccal/lingual aspect, it would make sense to treat these distal canals as two canals. This means, instead of placing a

round instrument down the center of the broad canal, the instrument should be placed along the buccal wall, withdrawn, and then placed along the lingual wall in order to make the final preparation more closely follow the initial shape of this canal.

Number of Canals and Canal Morphology

Among the twenty-two teeth, the morphology of the canals in mesial root was highly variable (See Figure 27). A single mesial canal along the entire length of the root was found in only 2 teeth (9.1%). This percentage is only slightly higher than Skidmore's finding of a single mesial canal in 6.7% of mandibular first molars (Skidmore & Bjorndal, 1971). However, the presence of more than two canals along any point of the mesial root was found in 8 of the 22 teeth (36%), which is significantly higher than the 2.3% reported by de Pablo (de Pablo et al., 2010). In fact, 2 of these 8 teeth, or 9.1% of the total sample, were seen to have a fourth canal at some point along the length of the root. The average distance from the apex at which an additional canal initiated was 6.58mm. The reason why the incidence of a third or fourth canal reported in this study may be higher than those reported in the literature may be due to the use of micro-CT technology. With the detail of the scans and the ability to magnify each section with the visualization software, these additional canals, which were always smaller than the main canals at each level, may be more visible by this method than traditional sectioning or casting methods.

As far as the canal types within the mesial root, the type V anatomy (1 to 2 canals moving coronal to apical) was the most common (22.7%). This does not agree with the

review of the literature in which the most common canal type in the mesial root was found to be type IV (52.3%) (de Pablo et al., 2010). The type IV anatomy was only seen in 1 of the 22 teeth in this study (4.5%) and three of the teeth (13.6%) presented with canal configurations which had not been previously classified. These disagreements may be due to the inherent morphological inconsistency among mesial roots and the relatively small sample size used in this study.

The distal root canal anatomy of was much less variable than that within the mesial root (See Figure 28). Within the distal root, the type I anatomy (a single canal from pulpal floor to apex) was seen in 81.8% of the teeth. This corresponds well with a previous micro-CT investigation of the mandibular first molar in which 72% of two-rooted mandibular first molars were found to have a 1-1 canal anatomy in the distal root (Y. Gu et al., 2010). The second most common type within the distal root was the type V anatomy (9.1%). Although these findings seem to suggest that the distal root canal system may be more straightforward to treat than the mesial system, this is not exactly the case. The fact that these single root canals are often very broad in the buccal/lingual dimension and sometimes split into additional systems coronally or apically supports the conclusion that these canals should be treated with fine attention to detail to adequately debride all of the walls and spaces.

Isthmuses

Isthmuses, or a connection between two or more canals, were found along the length of all of the mesial roots (100%) and two out of the twenty-two distal roots (9.1%).

These results are in agreement with a previous research in which the majority of mesial roots were found to include isthmuses, the majority being type V isthmuses (von Arx, 2005; Mannocci et al., 2005, Hsu & Kim, 1997). On average, in the mesial root, the isthmus started at 4.0mm from the apex and ended 8.1mm from the apex. In the distal root, on average, the isthmus started at 3.0mm and ended at 6.0mm from the apex. The fact that isthmuses are often present within the apical 6.0mm implies that these spaces may be a concern during both non-surgical and surgical endodontic therapy. However, the dimensions of the isthmuses may make these spaces difficult to clean. For example, within the apical 2.0mm to 6.0mm the average width of the isthmus measures 0.17mm or less, with the thinnest average width of 0.12mm occurring at the 2.0mm level. Clinically, during a root end resection/root end preparation procedure on the mesial root, such a thin isthmus would be difficult to both visualize and to treat with the currently-available surgical instruments. Yet, these spaces may harbor tissue and bacteria, which, if not adequately cleaned, could lead to non-healing.

Apical Ramifications and Lateral Canals

As previously mentioned, the distinction between lateral canals and apical ramifications is most likely a question of location along the length of the canal. In this study, apical ramifications were defined as portals of exit, distinct from the main canal(s) occurring in the apical 0.5mm. All other additional portals of exit were termed lateral canals. Among the mesial roots, there was an average of 3.73 portals of exit in the apical 0.5mm and within the distal roots, this average was 3.36. These spaces, separate from

the main canal or canals may be difficult to reach and mechanically debride with endodontic instruments, and therefore, during non-surgical treatment, are often only chemically debrided, if cleaned at all. As far as lateral canals (See Figures 25 and 26), on the mesial root, the average exit point for lateral canals was 2.21mm from the apex, with 78.8% occurring within the first 3.00mm of the root. On the distal root, the average lateral canal exited at 1.49mm with 91.3% exiting in the apical 3.00mm. These measurements are in agreement with Kim's assessment that a 3.00mm root end resection will eliminate the majority of lateral canals and apical ramifications (Kim, 2001).

Position of Canal Orifices

The measurement of the distances between canal orifices at the level 1.5mm coronal to the furcation was completed in order to give a guideline for clinicians of canal locations in the circumstance that it becomes necessary to search for the opening of calcified canals bellow the level of the pulpal floor. The measurements between the orifices at this level were fairly consistent, with the shortest and longest distance between the mesial canals averaging 1.43mm and 3.09mm respectively. At 1.5mm from the furcation, there was no sample that contained two distal orifices, but the width of the one distal orifice present measured 1.98mm. The average tangential distance from the mesial canals to the distal canals below the pulpal floor was 4.35mm. Due to the consistency of these measurements, it is the hope that these numbers will assist dentists in locating canals while minimizing the risk for perforation. In future studies, it may be interesting to look at similar dimensions all the way along the canals, from pulpal floor to apex due

to the fact that clinicians sometimes find themselves searching for canals further down the root than 1.5mm coronal to the furcation.

Micro-Computed Tomography

The resolution and detail of the micro-CT images and the ability of the software to allow accurate measurement and manipulation of the images offered by this technology make it an invaluable resource in evaluating tooth anatomy. Countless measurements can be made without destroying the sample or permanently altering the image. The only drawbacks to this technology seem to be the time and cost incurred in scanning the samples, reconstructing the images and taking measurements. These factors make having a sample size much higher than 20 samples an expensive and time-consuming endeavor. Additionally, the detail offered by these scans, due to the ability to magnify the images, may offer the ability to locate canal anatomy, such as narrow isthmuses, which would not be visible, or even treatable, clinically. Yet, the knowledge that these anatomic variation exist, may explain some cases of non-healing lesions, or, even more importantly, inspire the development of instruments or techniques to better clean these spaces.

## CONCLUSION

Micro-computed tomography is a relatively recent addition to the endodontic anatomical research armamentarium. The precision and ease of use of this technology make it an ideal tool for evaluating tooth anatomy. This morphological evaluation of the

mandibular first molar, investigated the thickness of dentin along the furcation side of the mesial root and the apical 6mm of the distal root, the canal anatomy within each root, the working width of the canals, the presence, location and type of isthmuses along the roots, the location of lateral canals and apical ramifications, and the relationship of canal orifices to one another just below the pulpal floor. For the most part, the results of this study correspond well with previous investigations. It was found that, due to the thinness of dentin, the furcal aspect of the entire mesial root can most likely be considered a "Danger Zone." Also of note was the fact that the mesial root canals were much more variable than the distal root in both their morphology from pulpal floor to apex but also in their cross sectional diameters along the roots. Reconfirmed was the finding that a 3.0mm root end resection of the mesial and distal roots would remove the majority of lateral canals and apical ramifications. Finally, it was noted that the relative position of the orifices of the canals to one another was relatively consistent at 1.5mm from the pulpal floor. It is hoped that the measurements made in this study will aid dentists in both orthograde and retrograde endodontic treatment.

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# APPENDIX I: INDIVIDUAL MEASUREMENTS BY TOOTH (IN MILLIMETERS)

## TOOTH 1

| | |
|---|---|
| Tooth Name | 1.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 4.00 |
| Number of Exits in Apical 0.5mm D Root | 2.00 |
| M Root Length | 7.63 |
| D Root Length | 8.29 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | 0.34 |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | 0.27 |
| 0.5mm from Apex ML Width M/D | 0.32 |
| 0.5mm from Apex MB Width B/L | 0.45 |
| 0.5mm from Apex MB Width M/D | 0.37 |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | 0.27 |
| 0.5mm from Apex Thinnest Danger Zone DL | 0.13 |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | 0.40 |
| 0.5mm from Apex DL Width M/D | 0.34 |
| 0.5mm from Apex DB Width B/L | 0.40 |
| 0.5mm from Apex DB Width M/D | 0.36 |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.63 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.28 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.68 |
| 1.0mm from Apex ML Width M/D | 0.27 |
| 1.0mm from Apex MB Width B/L | 0.50 |
| 1.0mm from Apex MB Width M/D | 0.38 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | - |
| 1.0mm from Apex Thinnest Danger Zone DB | 0.42 |
| 1.0mm from Apex Thinnest Danger Zone DL | 0.23 |
| 1.0mm from Apex 1 D Width B/L | - |
| 1.0mm from Apex 1 D Width M/D | - |
| 1.0mm from Apex DL Width B/L | 0.63 |
| 1.0mm from Apex DL Width M/D | 0.39 |
| 1.0mm from Apex DB Width B/L | 0.41 |
| 1.0mm from Apex DB Width M/D | 0.35 |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.84 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.44 |

| | |
|---|---|
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |
| 1.5mm from Apex ML Width B/L | 0.55 |
| 1.5mm from Apex ML Width M/D | 0.18 |
| 1.5mm from Apex MB Width B/L | 0.64 |
| 1.5mm from Apex MB Width M/D | 0.33 |
| 1.5mm from Apex M Isthmus Width | 0.06 |
| 1.5mm from Apex M Isthmus Length | 1.83 |
| 1.5mm from Apex M Isthmus Type | 2.00 |
| 1.5mm from Apex Thinnest Danger Zone 1 D | - |
| 1.5mm from Apex Thinnest Danger Zone DB | 0.62 |
| 1.5mm from Apex Thinnest Danger Zone DL | 0.34 |
| 1.5mm from Apex 1 D Width B/L | - |
| 1.5mm from Apex 1 D Width M/D | - |
| 1.5mm from Apex DL Width B/L | 0.75 |
| 1.5mm from Apex DL Width M/D | 0.33 |
| 1.5mm from Apex DB Width B/L | 0.49 |
| 1.5mm from apex DB width M/D | 0.36 |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.81 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.58 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.55 |
| 2.0mm from Apex ML Width M/D | 0.16 |
| 2.0mm from Apex MB Width B/L | 0.50 |
| 2.0mm from Apex MB Width M/D | 0.31 |
| 2.0mm from Apex M Isthmus Width | 0.04 |
| 2.0mm from Apex M Isthmus Length | 1.97 |
| 2.0mm from Apex M Isthmus Type | 2.00 |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | - |
| 2.0mm from Apex Thinnest Danger Zone DB | 0.63 |
| 2.0mm from Apex Thinnest Danger Zone DL | 0.43 |
| 2.0mm from Apex 1 D Width B/L | - |
| 2.0mm from Apex 1 D Width M/D | - |
| 2.0mm from Apex DL Width B/L | 0.90 |
| 2.0mm from Apex DL Width M/D | 0.32 |
| 2.0mm from Apex DB Width B/L | 0.57 |
| 2.0mm from Apex DB Width M/D | 0.35 |
| 2.0mm from Apex D Isthmus Width | 0.14 |
| 2.0mm from Apex D Isthmus Length | 0.23 |
| 2.0mm from Apex D Isthmus Type | 5.00 |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.89 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.66 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.94 |

| | |
|---|---|
| 2.5mm from Apex ML Width M/D | 0.23 |
| 2.5mm from Apex MB Width B/L | 0.46 |
| 2.5mm from Apex MB Width M/D | 0.34 |
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | - |
| 2.5mm from Apex Thinnest Danger Zone DB | 0.72 |
| 2.5mm from Apex Thinnest Danger Zone DL | 0.56 |
| 2.5mm from Apex 1 D Width B/L | - |
| 2.5mm from Apex 1 D Width M/D | - |
| 2.5mm from Apex DL Width B/L | 0.70 |
| 2.5mm from Apex DL Width M/D | 0.29 |
| 2.5mm from Apex DB Width B/L | 0.73 |
| 2.5mm from Apex DB Width M/D | 0.35 |
| 2.5mm from Apex D Isthmus Width | 0.20 |
| 2.5mm from Apex D Isthmus Length | 0.62 |
| 2.5mm from Apex D Isthmus Type | 5.00 |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.96 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.67 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 1.61 |
| 3.0mm from Apex ML Width M/D | 0.24 |
| 3.0mm from Apex MB Width B/L | 0.56 |
| 3.0mm from Apex MB Width M/D | 0.37 |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | - |
| 3.0mm from Apex Thinnest Danger Zone DB | 0.79 |
| 3.0mm from Apex Thinnest Danger Zone DL | 0.60 |
| 3.0mm from Apex 1 D Width B/L | - |
| 3.0mm from Apex 1 D Width M/D | - |
| 3.0mm from Apex DL Width B/L | 0.58 |
| 3.0mm from Apex DL Width M/D | 0.38 |
| 3.0mm from Apex DB Width B/L | 0.45 |
| 3.0mm from Apex DB Width M/D | 0.38 |
| 3.0mm from Apex D Isthmus Width | 0.22 |
| 3.0mm from Apex D Isthmus Length | 1.22 |
| 3.0mm from Apex D Isthmus Type | 5.00 |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.97 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.59 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |

| | |
|---|---|
| 3.5mm from Apex ML Width B/L | 1.27 |
| 3.5mm from Apex ML Width M/D | 0.31 |
| 3.5mm from Apex MB Width B/L | 0.48 |
| 3.5mm from Apex MB Width M/D | 0.40 |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | - |
| 3.5mm from Apex Thinnest Danger Zone DB | 0.84 |
| 3.5mm from Apex Thinnest Danger Zone DL | 0.74 |
| 3.5mm from Apex 1 D Width B/L | - |
| 3.5mm from Apex 1 D Width M/D | - |
| 3.5mm from apex DL width B/L dimension | 0.65 |
| 3.5mm from Apex DL Width M/D | 0.37 |
| 3.5mm from Apex DB Width B/L | 0.46 |
| 3.5mm from Apex DB Width M/D | 0.45 |
| 3.5mm from Apex D Isthmus Width | 0.26 |
| 3.5mm from Apex D Isthmus Length | 1.46 |
| 3.5mm from Apex D Isthmus Type | 5.00 |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.90 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.83 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.55 |
| 4.0mm from Apex ML Width M/D | 0.33 |
| 4.0mm from Apex MB Width B/L | 0.39 |
| 4.0mm from Apex MB Width M/D | 0.49 |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | - |
| 4.0mm from Apex Thinnest Danger Zone DB | 0.93 |
| 4.0mm from Apex Thinnest Danger Zone DL | 0.85 |
| 4.0mm from Apex 1 D Width B/L | - |
| 4.0mm from Apex 1 D Width M/D | - |
| 4.0mm from Apex DL Width B/L | 0.81 |
| 4.0mm from Apex DL Width M/D | 0.39 |
| 4.0mm from Apex DB Width B/L | 0.57 |
| 4mm from Apex DB width M/D | 0.51 |
| 4mm from Apex D Isthmus Width | 0.27 |
| 4mm from Apex D Isthmus Length | 1.52 |
| 4mm from Apex D Isthmus Type | 5.00 |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.91 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.89 |
| 4.5mm from Apex 1 M Width B/L | - |

| | |
|---|---|
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.45 |
| 4.5mm from Apex ML Width M/D | 0.36 |
| 4.5mm from Apex MB Width B/L | 0.43 |
| 4.5mm from Apex MB Width M/D | 0.45 |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | - |
| 4.5mm from Apex Thinnest Danger Zone DB | 1.18 |
| 4.5mm from Apex Thinnest Danger Zone DL | 1.00 |
| 4.5mm from Apex 1 D Width B/L | - |
| 4.5mm from apex 1 D width M/D | - |
| 4.5mm from Apex DL Width B/L | 0.33 |
| 4.5mm from Apex DL Width M/D | 0.46 |
| 4.5mm from Apex DB Width B/L | 0.54 |
| 4.5mm from Apex DB Width M/D | 0.47 |
| 4.5mm from Apex D Isthmus Width | 0.28 |
| 4.5mm from Apex D Isthmus Length | 2.04 |
| 4.5mm from Apex D Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.99 |
| 5.0mm from Apex Thinnest Danger Zone ML | 0.83 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.46 |
| 5.0mm from Apex ML Width M/D | 0.43 |
| 5.0mm from Apex MB Width B/L | 0.51 |
| 5.0mm from Apex MB Width M/D | 0.47 |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | - |
| 5.0mm from Apex Thinnest Danger Zone DB | 1.21 |
| 5.0mm from Apex Thinnest Danger Zone DL | 1.18 |
| 5.0mm from Apex 1 D Width B/L | - |
| 5.0mm from Apex 1 D Width M/D | - |
| 5.0mm from Apex DL Width B/L | 0.31 |
| 5.0mm from Apex DL Width M/D | 0.40 |
| 5.0mm from Apex DB Width B/L | 0.51 |
| 5.0mm from Apex DB Width M/D | 0.42 |
| 5.0mm from Apex D Isthmus Width | 0.28 |
| 5.0mm from Apex D Isthmus Length | 2.28 |
| 5.0mm from Apex D Isthmus Type | 5.00 |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 0.91 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.83 |
| 5.5mm from Apex 1 M Width B/L | - |

| | |
|---|---|
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.52 |
| 5.5mm from Apex ML Width M/D | 0.37 |
| 5.5mm from Apex MB Width B/L | 0.61 |
| 5.5mm from Apex MB Width M/D | 0.47 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | - |
| 5.5mm from Apex Thinnest Danger Zone DB | 1.12 |
| 5.5mm from Apex Thinnest Danger Zone DL | 1.17 |
| 5.5mm from Apex 1 D Width B/L | - |
| 5.5mm from Apex 1 D Width M/D | - |
| 5.5mm from Apex DL Width B/L | 0.53 |
| 5.5mm from Apex DL Width M/D | 0.39 |
| 5.5mm from Apex DB Width B/L | 0.86 |
| 5.5mm from Apex DB Width M/D | 0.41 |
| 5.5mm from Apex D Isthmus Width | 0.20 |
| 5.5mm from Apex D Isthmus Length | 1.97 |
| 5.5mm from Apex D Isthmus Type | 5.00 |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 0.89 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.75 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.59 |
| 6.0mm from Apex ML Width M/D | 0.43 |
| 6.0mm from Apex MB Width B/L | 0.61 |
| 6.0mm from Apex MB Width M/D | 0.49 |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | - |
| 6.0mm from Apex Thinnest Danger Zone DB | 1.22 |
| 6.0mm from Apex Thinnest Danger Zone DL | 1.06 |
| 6.0mm from Apex 1 D Width B/L | - |
| 6.0mm from Apex 1 D Width M/D | - |
| 6.0mm from Apex DL Width B/L | 0.73 |
| 6.0mm from Apex DL Width M/D | 0.43 |
| 6.0mm from Apex DB Width B/L | 1.09 |
| 6.0mm from Apex DB Width M/D | 0.39 |
| 6.0mm from Apex D Isthmus Width | 0.19 |
| 6.0mm from Apex D Isthmus Length | 1.50 |
| 6.0mm from Apex D Isthmus Type | 5.00 |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.96 |
| 7.0mm from Apex Thinnest Danger Zone ML | 0.82 |
| 7.0mm from Apex ML Width B/L | 0.67 |

| | |
|---|---|
| 7.0mm from Apex ML Width M/D | 0.51 |
| 7.0mm from Apex MB Width B/L | 1.01 |
| 7.0mm from Apex MB width M/D | 0.53 |
| 7.0mm from Apex M Isthmus Width | - |
| 7.0mm from Apex M Isthmus Length | - |
| 7.0mm from Apex M Isthmus Type | - |
| 7.0mm from Apex M 3rd Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.62 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 0.69 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 3.01 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.19 |
| Mesial Canal Type from Orifice to Apex | 2-1-2 (Type 6) |
| Distal Canal Type from Orifice to Apex | 1-2-1-2 (Type 7) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | 1.14 |

## TOOTH 2

| | |
|---|---|
| Tooth Name | 2.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 4.00 |
| Number of Exits in Apical 0.5mm D Root | 2.00 |
| M Root Length | 9.37 |
| D Root Length | 9.13 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.11 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.17 |
| 0.5mm from Apex 1 M Width M/D | 0.13 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.27 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.29 |
| 1.0mm from Apex 1 M Width M/D | 0.26 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | - |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | - |
| 1.0mm from Apex 1 D Width M/D | - |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.54 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.84 |
| 1.5mm from Apex 1 M Width M/D | 0.17 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.19 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.19 |
| 1.5mm from Apex 1 D Width M/D | 0.49 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.83 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.67 |
| 2.0mm from Apex 1 M Width M/D | 0.15 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.02 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.40 |
| 2.0mm from Apex 1 D Width M/D | 0.29 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 1.15 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.83 |
| 2.5mm from Apex 1 M width M/D | 0.25 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.04 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.46 |
| 2.5mm from Apex 1 D Width M/D | 0.24 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | 1.17 |
| 3.0mm from Apex Thinnest Danger Zone MB | - |
| 3.0mm from Apex Thinnest Danger Zone ML | - |
| 3.0mm from Apex 1 M Width B/L | 0.75 |
| 3.0mm from Apex 1 M Width M/D | 0.26 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.18 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.33 |
| 3.0mm from Apex 1 D Width M/D | 0.25 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 1.23 |
| 3.5mm from Apex Thinnest Danger Zone MB | - |
| 3.5mm from Apex Thinnest Danger Zone ML | - |
| 3.5mm from Apex 1 M Width B/L | 0.97 |
| 3.5mm from Apex 1 M Width M/D | 0.21 |
| 3.5mm from Apex ML Width B/L | - |
| 3.5mm from Apex ML Width M/D | - |
| 3.5mm from Apex MB Width B/L | - |

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|---|---|
| 3.5mm from Apex MB Width M/D | - |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.23 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.41 |
| 3.5mm from Apex 1 D Width M/D | 0.31 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | 1.39 |
| 4.0mm from Apex Thinnest Danger Zone MB | - |
| 4.0mm from Apex Thinnest Danger Zone ML | - |
| 4.0mm from Apex 1 M Width B/L | 1.23 |
| 4.0mm from Apex 1 M Width M/D | 0.24 |
| 4.0mm from Apex ML Width B/L | - |
| 4.0mm from Apex ML Width M/D | - |
| 4.0mm from Apex MB Width B/L | - |
| 4.0mm from Apex MB Width M/D | - |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.32 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.46 |
| 4.0mm from Apex 1 D Width M/D | 0.36 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | 1.39 |
| 4.5mm from Apex Thinnest Danger Zone MB | - |
| 4.5mm from Apex Thinnest Danger Zone ML | - |
| 4.5mm from Apex 1 M Width B/L | 1.47 |
| 4.5mm from Apex 1 M Width M/D | 0.31 |
| 4.5mm from Apex ML Width B/L | - |
| 4.5mm from Apex ML Width M/D | - |

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|---|---|
| 4.5mm from Apex MB Width B/L | - |
| 4.5mm from Apex MB Width M/D | - |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.48 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.72 |
| 4.5mm from apex 1 D width M/D | 0.46 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.58 |
| 5.0mm from Apex Tinnest Danger Zone ML | 1.47 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.31 |
| 5.0mm from Apex ML Width M/D | 0.30 |
| 5.0mm from Apex MB Width B/L | 0.33 |
| 5.0mm from Apex MB Width M/D | 0.12 |
| 5.0mm from Apex M Isthmus Width | 0.11 |
| 5.0mm from Apex M Isthmus Length | 1.05 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.59 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.87 |
| 5.0mm from Apex 1 D Width M/D | 0.52 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.53 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.56 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.41 |
| 5.5mm from Apex ML Width M/D | 0.30 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.56 |
| 5.5mm from Apex MB Width M/D | 0.11 |
| 5.5mm from Apex M Isthmus Width | 0.08 |
| 5.5mm from Apex M Isthmus Length | 1.15 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.65 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 0.95 |
| 5.5mm from Apex 1 D Width M/D | 0.57 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.54 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.69 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.55 |
| 6.0mm from Apex ML Width M/D | 0.23 |
| 6.0mm from Apex MB Width B/L | 0.55 |
| 6.0mm from Apex MB Width M/D | 0.15 |
| 6.0mm from Apex M Isthmus Width | 0.07 |
| 6.0mm from Apex M Isthmus Length | 1.29 |
| 6.0mm from Apex M Isthmus Type | 4.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.66 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.03 |
| 6.0mm from Apex 1 D Width M/D | 0.65 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.52 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.74 |
| 7.0mm from Apex ML Width B/L | 1.05 |
| 7.0mm from Apex ML Width M/D | 0.39 |
| 7.0mm from Apex MB Width B/L | 0.75 |
| 7.0mm from Apex MB width M/D | 0.23 |

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|---|---|
| 7.0mm from Apex M Isthmus Width | 0.10 |
| 7.0mm from Apex M Isthmus Length | 1.26 |
| 7.0mm from Apex M Isthmus Type | 3.00 |
| 7.0mm from Apex M 3rd Canal | 0.74 x 0.17 |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.66 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.61 |
| 8.0mm from Apex ML Width B/L | 1.06 |
| 8.0mm from Apex ML Width M/D | 0.49 |
| 8.0mm from Apex MB Width B/L | 1.07 |
| 8mm from Apex MB Width M/D | 0.27 |
| 8mm from Apex M Isthmus Width | - |
| 8mm from Apex M Isthmus Length | - |
| 8mm from Apex M Isthmus Type | - |
| 8mm from Apex M 3rd Canal | 0.53 x 0.21 |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.64 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.40 |
| 9.0mm from Apex ML Width B/L | 1.13 |
| 9.0mm from Apex ML Width M/D | 0.55 |
| 9.0mm from Apex MB Width B/L | 1.19 |
| 9.0mm from Apex MB width M/D | 0.21 |
| 9.0mm from Apex M Isthmus Width | - |
| 9.0mm from Apex M Isthmus Length | - |
| 9.0mm from Apex M Isthmus Type | - |
| 9.0mm from Apex M 3rd Canal | 0.2 x 0.11 |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.38 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 1.10 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 0.92 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.38 |
| Mesial Canal Type from Orifice to Apex | 3-2-1 (Type 22) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 8.95 to 11.32 |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | 1.58 |

## TOOTH 3

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|---|---|
| Tooth Name | 3.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 3.00 |
| Number of Exits in Apical 0.5mm D Root | 1.00 |
| M Root Length | 9.07 |
| D Root Length | 9.75 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.43 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.48 |
| 0.5mm from Apex 1 M Width M/D | 0.28 |
| 0.5mm from Apex ML Width B/L | 0.48 |
| 0.5mm from Apex ML Width M/D | 0.28 |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.61 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.38 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.34 |
| 1.0mm from Apex ML Width M/D | 0.29 |
| 1.0mm from Apex MB Width B/L | 0.36 |
| 1.0mm from Apex MB Width M/D | 0.35 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.80 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 1.03 |
| 1.0mm from Apex 1 D Width M/D | 0.26 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.77 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.63 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |
| 1.5mm from Apex ML Width B/L | 0.21 |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | 0.18 |
| 1.5mm from Apex MB Width B/L | 0.30 |
| 1.5mm from Apex MB Width M/D | 0.31 |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.95 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.97 |
| 1.5mm from Apex 1 D Width M/D | 0.30 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.79 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.71 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.35 |
| 2.0mm from Apex ML Width M/D | 0.23 |
| 2.0mm from Apex MB Width B/L | 0.32 |
| 2.0mm from Apex MB Width M/D | 0.34 |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.99 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 1.11 |
| 2.0mm from Apex 1 D Width M/D | 0.34 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.84 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.73 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.34 |
| 2.5mm from Apex ML Width M/D | 0.28 |
| 2.5mm from Apex MB Width B/L | 0.33 |
| 2.5mm from Apex MB Width M/D | 0.36 |

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|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 0.96 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 1.05 |
| 2.5mm from Apex 1 D Width M/D | 0.39 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.86 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.80 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.51 |
| 3.0mm from Apex ML Width M/D | 0.26 |
| 3.0mm from Apex MB Width B/L | 0.31 |
| 3.0mm from Apex MB Width M/D | 0.34 |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 0.94 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.94 |
| 3.0mm from Apex 1 D Width M/D | 0.38 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.83 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.87 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.51 |
| 3.5mm from Apex ML Width M/D | 0.29 |
| 3.5mm from Apex MB Width B/L | 0.35 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.34 |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 0.92 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 1.04 |
| 3.5mm from Apex 1 D Width M/D | 0.46 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.83 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.78 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.43 |
| 4.0mm from Apex ML Width M/D | 0.24 |
| 4.0mm from Apex MB Width B/L | 0.34 |
| 4.0mm from Apex MB Width M/D | 0.36 |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 0.99 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 1.15 |
| 4.0mm from Apex 1 D Width M/D | 0.35 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.90 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.67 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.40 |
| 4.5mm from Apex ML Width M/D | 0.31 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.35 |
| 4.5mm from Apex MB Width M/D | 0.30 |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.03 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.22 |
| 4.5mm from apex 1 D width M/D | 0.42 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.98 |
| 5.0mm from Apex Tinnest Danger Zone ML | 0.78 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.40 |
| 5.0mm from Apex ML Width M/D | 0.35 |
| 5.0mm from Apex MB Width B/L | 0.49 |
| 5.0mm from Apex MB Width M/D | 0.38 |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.14 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.36 |
| 5.0mm from Apex 1 D Width M/D | 0.42 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.03 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.87 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.40 |
| 5.5mm from Apex ML Width M/D | 0.36 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.51 |
| 5.5mm from Apex MB Width M/D | 0.38 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.21 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.50 |
| 5.5mm from Apex 1 D Width M/D | 0.49 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.01 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.93 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.43 |
| 6.0mm from Apex ML Width M/D | 0.35 |
| 6.0mm from Apex MB Width B/L | 0.93 |
| 6.0mm from Apex MB Width M/D | 0.31 |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.15 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.54 |
| 6.0mm from Apex 1 D Width M/D | 0.55 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.12 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.02 |
| 7.0mm from Apex ML Width B/L | 0.58 |
| 7.0mm from Apex ML Width M/D | 0.38 |
| 7.0mm from Apex MB Width B/L | 1.11 |
| 7.0mm from Apex MB width M/D | 0.36 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | - |
| 7.0mm from Apex M Isthmus Length | - |
| 7.0mm from Apex M Isthmus Type | - |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.01 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.08 |
| 8.0mm from Apex ML Width B/L | 0.74 |
| 8.0mm from Apex ML Width M/D | 0.27 |
| 8.0mm from Apex MB Width B/L | 1.92 |
| 8mm from Apex MB Width M/D | 0.27 |
| 8mm from Apex M Isthmus Width | - |
| 8mm from Apex M Isthmus Length | - |
| 8mm from Apex M Isthmus Type | - |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.58 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.38 |
| 9.0mm from Apex ML Width B/L | 1.16 |
| 9.0mm from Apex ML Width M/D | 0.31 |
| 9.0mm from Apex MB Width B/L | 0.73 |
| 9.0mm from Apex MB width M/D | 0.30 |
| 9.0mm from Apex M Isthmus Width | 0.13 |
| 9.0mm from Apex M Isthmus Length | 1.66 |
| 9.0mm from Apex M Isthmus Type | 4.00 |
| 9.0mm from Apex M 3rd Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.08 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 0.39 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.72 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.01 |
| Mesial Canal Type from Orifice to Apex | 1-2 (Type 5) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | .66, 2.82 |

## TOOTH 5

| | |
|---|---|
| Tooth Name | 5.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 3.00 |
| Number of Exits in Apical 0.5mm D Root | 5.00 |
| M Root Length | 13.07 |
| D Root Length | 12.32 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.34 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.20 |
| 0.5mm from Apex 1 M Width M/D | 0.27 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.62 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.21 |
| 1.0mm from Apex 1 M Width M/D | 0.28 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.72 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 1.61 |
| 1.0mm from Apex 1 D Width M/D | 0.42 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.68 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.23 |
| 1.5mm from Apex 1 M Width M/D | 0.38 |
| 1.5mm from Apex ML Width B/L | - |

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|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 1.06 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 1.04 |
| 1.5mm from Apex 1 D Width M/D | 0.33 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.82 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.19 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.28 |
| 2.0mm from Apex ML Width M/D | 0.29 |
| 2.0mm from Apex MB Width B/L | 0.26 |
| 2.0mm from Apex MB Width M/D | 0.48 |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.97 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.82 |
| 2.0mm from Apex 1 D Width M/D | 0.36 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.97 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.56 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.27 |
| 2.5mm from Apex ML Width M/D | 0.39 |
| 2.5mm from Apex MB Width B/L | 0.28 |
| 2.5mm from Apex MB Width M/D | 0.44 |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 0.97 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.80 |
| 2.5mm from Apex 1 D Width M/D | 0.38 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 1.06 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.69 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.33 |
| 3.0mm from Apex ML Width M/D | 0.43 |
| 3.0mm from Apex MB Width B/L | 0.27 |
| 3.0mm from Apex MB Width M/D | 0.47 |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.08 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.90 |
| 3.0mm from Apex 1 D Width M/D | 0.32 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 1.07 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.77 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.35 |
| 3.5mm from Apex ML Width M/D | 0.35 |
| 3.5mm from Apex MB Width B/L | 0.32 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.42 |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.01 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.98 |
| 3.5mm from Apex 1 D Width M/D | 0.35 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.13 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.82 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.61 |
| 4.0mm from Apex ML Width M/D | 0.31 |
| 4.0mm from Apex MB Width B/L | 0.35 |
| 4.0mm from Apex MB Width M/D | 0.37 |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.00 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.97 |
| 4.0mm from Apex 1 D Width M/D | 0.39 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.15 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.84 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.63 |
| 4.5mm from Apex ML Width M/D | 0.35 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.32 |
| 4.5mm from Apex MB Width M/D | 0.42 |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 0.99 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.13 |
| 4.5mm from apex 1 D width M/D | 0.33 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.24 |
| 5.0mm from Apex Thinnest Danger Zone ML | 0.79 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.81 |
| 5.0mm from Apex ML Width M/D | 0.30 |
| 5.0mm from Apex MB Width B/L | 0.33 |
| 5.0mm from Apex MB Width M/D | 0.45 |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 0.95 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.18 |
| 5.0mm from Apex 1 D Width M/D | 0.41 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.21 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.78 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.95 |
| 5.5mm from Apex ML Width M/D | 0.37 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.28 |
| 5.5mm from Apex MB Width M/D | 0.45 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 0.96 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.26 |
| 5.5mm from Apex 1 D Width M/D | 0.39 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.18 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.74 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 1.07 |
| 6.0mm from Apex ML Width M/D | 0.40 |
| 6.0mm from Apex MB Width B/L | 0.37 |
| 6.0mm from Apex MB Width M/D | 0.48 |
| 6.0mm from Apex M Isthmus Width | 0.07 |
| 6.0mm from Apex M Isthmus Length | 0.79 |
| 6.0mm from Apex M Isthmus Type | 4.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.04 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.39 |
| 6.0mm from Apex 1 D Width M/D | 0.40 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.12 |
| 7.0mm from Apex Thinnest Danger Zone ML | 0.86 |
| 7.0mm from Apex ML Width B/L | 0.73 |
| 7.0mm from Apex ML Width M/D | 0.42 |
| 7.0mm from Apex MB Width B/L | 0.63 |
| 7.0mm from Apex MB width M/D | 0.35 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.15 |
| 7.0mm from Apex M Isthmus Length | 0.87 |
| 7.0mm from Apex M Isthmus Type | 4.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.08 |
| 8.0mm from Apex Thinnest Danger Zone ML | 0.94 |
| 8.0mm from Apex ML Width B/L | 0.71 |
| 8.0mm from Apex ML Width M/D | 0.36 |
| 8.0mm from Apex MB Width B/L | 0.56 |
| 8mm from Apex MB Width M/D | 0.54 |
| 8mm from Apex M Isthmus Width | 0.14 |
| 8mm from Apex M Isthmus Length | 1.05 |
| 8mm from Apex M Isthmus Type | 4.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.05 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.01 |
| 9.0mm from Apex ML Width B/L | 0.79 |
| 9.0mm from Apex ML Width M/D | 0.41 |
| 9.0mm from Apex MB Width B/L | 0.62 |
| 9.0mm from Apex MB width M/D | 0.43 |
| 9.0mm from Apex M Isthmus Width | 0.10 |
| 9.0mm from Apex M Isthmus Length | 1.47 |
| 9.0mm from Apex M Isthmus Type | 4.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.06 |
| 10.0mm from Apex Thinnest Danger Zone ML | 0.98 |
| 10.0mm from Apex ML Width B/L | 0.70 |
| 10.0mm from Apex ML Width M/D | 0.36 |
| 10.0mm from Apex MB Width B/L | 0.80 |
| 10.0mm from Apex MB Width M/D | 0.41 |
| 10.0mm from Apex M Isthmus Width | - |
| 10.0mm from Apex M Isthmus Length | - |
| 10.0mm from Apex M Isthmus Type | - |
| 10.0mm from Apex M 3rd Canal | 0.51 x 0.16 |
| 10.0mm from Apex M 4th Canal | - |
| 11.0mm from Apex Thinnest Danger Zone MB | 0.93 |
| 11.0mm from Apex Thinnest Danger Zone ML | 1.05 |
| 11.0mm from Apex ML Width B/L | 0.90 |
| 11.0mm from Apex ML Width M/D | 0.45 |
| 11.0mm from Apex MB Width B/L | 0.75 |
| 11.0mm from Apex MB Width M/D | 0.50 |
| 11.0mm from Apex M Isthmus Width | - |
| 11.0mm from Apex M Isthmus Length | - |
| 11.0mm from Apex M Isthmus Type | - |
| 11.0mm from Apex M 3rd Canal | 0.38 x 0.14 |
| 11.0mm from Apex M 4th Canal | 0.32 x 0.11 |
| 12.0mm from Apex Thinnest Danger Zone MB | 0.99 |
| 12.0mm from Apex Thinnest Danger Zone ML | 1.10 |
| 12.0mm from Apex ML Width B/L | 0.96 |

| | |
|---|---|
| 12.0mm from Apex ML Width M/D | 0.55 |
| 12.0mm from Apex MB Width B/L | 0.76 |
| 12.0mm from Apex MB Width M/D | 0.52 |
| 12.0mm from Apex M 3rd Canal | - |
| 12.0mm from Apex M 4th Canal | - |
| 12.0mm from Apex M Isthmus Width | 0.21 |
| 12.0mm from Apex M Isthmus Length | 0.52 |
| 12.0mm from Apex M Isthmus Type | 4.00 |
| 13.0mm from Apex Thinnest Danger Zone MB | 1.17 |
| 13.0mm from Apex Thinnest Danger Zone ML | 1.20 |
| 13.0mm from Apex ML Width B/L | 1.09 |
| 13.0mm from Apex ML Width M/D | 0.55 |
| 13.0mm from Apex MB Width B/L | 0.71 |
| 13.0mm from Apex MB Width M/D | 0.49 |
| 13.0mm from Apex M Isthmus Width | 0.16 |
| 13.0mm from Apex M Isthmus Length | 1.01 |
| 13.0mm from Apex M Isthmus Type | 4.00 |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.96 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 2.51 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.93 |
| Mesial Canal Type from Orifice to Apex | 2-4-3-2 (Type ?) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 8.56 to 11.63 |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | 1.48 |

## TOOTH 6

| | |
|---|---|
| Tooth Name | 6.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 1.00 |
| Number of Exits in Apical 0.5mm D Root | 2.00 |
| M Root Length | 11.72 |
| D Root Length | 12.04 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.62 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.23 |
| 1.0mm from Apex 1 D Width M/D | 0.27 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.28 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.76 |
| 1.5mm from Apex 1 M Width M/D | 0.42 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.61 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.31 |
| 1.5mm from Apex 1 D Width M/D | 0.38 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.73 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.88 |
| 2.0mm from Apex 1 M Width M/D | 0.47 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.91 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.40 |
| 2.0mm from Apex 1 D Width M/D | 0.61 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 1.22 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 1.02 |
| 2.5mm from Apex 1 M width M/D | 0.49 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

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|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.25 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.39 |
| 2.5mm from Apex 1 D Width M/D | 0.55 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 1.34 |
| 3.0mm from Apex Thinnest Danger Zone ML | 1.24 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.33 |
| 3.0mm from Apex ML Width M/D | 0.29 |
| 3.0mm from Apex MB Width B/L | 0.44 |
| 3.0mm from Apex MB Width M/D | 0.50 |
| 3.0mm from Apex M Isthmus Width | 0.22 |
| 3.0mm from Apex M Isthmus Length | 0.36 |
| 3.0mm from Apex M Isthmus Type | 5.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.39 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.48 |
| 3.0mm from Apex 1 D Width M/D | 0.50 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 1.30 |
| 3.5mm from Apex Thinnest Danger Zone ML | 1.25 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.32 |
| 3.5mm from Apex ML Width M/D | 0.36 |
| 3.5mm from Apex MB Width B/L | 0.47 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.45 |
| 3.5mm from Apex Isthmus Width | 0.21 |
| 3.5mm from Apex Isthmus Length | 0.64 |
| 3.5mm from Apex Isthmus Type | 5.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 0.83 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.42 |
| 3.5mm from Apex 1 D Width M/D | 0.69 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.27 |
| 4.0mm from Apex Thinnest Danger Zone ML | 1.24 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.32 |
| 4.0mm from Apex ML Width M/D | 0.37 |
| 4.0mm from Apex MB Width B/L | 0.52 |
| 4.0mm from Apex MB Width M/D | 0.42 |
| 4.0mm from Apex M Isthmus Width | 0.23 |
| 4.0mm from Apex M Isthmus Length | 0.90 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.35 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.70 |
| 4.0mm from Apex 1 D Width M/D | 0.51 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.23 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.24 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.39 |
| 4.5mm from Apex ML Width M/D | 0.31 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.73 |
| 4.5mm from Apex MB Width M/D | 0.47 |
| 4.5mm from Apex M Isthmus Width | 0.18 |
| 4.5mm from Apex M Isthmus Length | 1.22 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.30 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.90 |
| 4.5mm from apex 1 D width M/D | 0.59 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.28 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.18 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.50 |
| 5.0mm from Apex ML Width M/D | 0.39 |
| 5.0mm from Apex MB Width B/L | 0.62 |
| 5.0mm from Apex MB Width M/D | 0.41 |
| 5.0mm from Apex M Isthmus Width | 0.15 |
| 5.0mm from Apex M Isthmus Length | 1.23 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.23 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.10 |
| 5.0mm from Apex 1 D Width M/D | 0.60 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.13 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.24 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.88 |
| 5.5mm from Apex ML Width M/D | 0.47 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.69 |
| 5.5mm from Apex MB Width M/D | 0.37 |
| 5.5mm from Apex M Isthmus Width | 0.14 |
| 5.5mm from Apex M Isthmus Length | 1.09 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.17 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.36 |
| 5.5mm from Apex 1 D Width M/D | 0.64 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.23 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.16 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.73 |
| 6.0mm from Apex ML Width M/D | 0.45 |
| 6.0mm from Apex MB Width B/L | 0.74 |
| 6.0mm from Apex MB Width M/D | 0.34 |
| 6.0mm from Apex M Isthmus Width | 0.18 |
| 6.0mm from Apex M Isthmus Length | 1.62 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.20 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.59 |
| 6.0mm from Apex 1 D Width M/D | 0.63 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.23 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.17 |
| 7.0mm from Apex ML Width B/L | 0.74 |
| 7.0mm from Apex ML Width M/D | 0.42 |
| 7.0mm from Apex MB Width B/L | 0.51 |
| 7.0mm from Apex MB width M/D | 0.37 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.13 |
| 7.0mm from Apex M Isthmus Length | 2.56 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.19 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.06 |
| 8.0mm from Apex ML Width B/L | 0.59 |
| 8.0mm from Apex ML Width M/D | 0.36 |
| 8.0mm from Apex MB Width B/L | 0.72 |
| 8mm from Apex MB Width M/D | 0.40 |
| 8mm from Apex M Isthmus Width | 0.10 |
| 8mm from Apex M Isthmus Length | 2.78 |
| 8mm from Apex M Isthmus Type | 3.00 |
| 8mm from Apex M 3rd Canal | 0.35 x 0.2 |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.13 |
| 9.0mm from Apex Thinnest Danger Zone ML | 0.97 |
| 9.0mm from Apex ML Width B/L | 0.83 |
| 9.0mm from Apex ML Width M/D | 0.47 |
| 9.0mm from Apex MB Width B/L | 0.62 |
| 9.0mm from Apex MB width M/D | 0.40 |
| 9.0mm from Apex M Isthmus Width | - |
| 9.0mm from Apex M Isthmus Length | - |
| 9.0mm from Apex M Isthmus Type | - |
| 9.0mm from Apex M 3rd Canal | 0.31 x 0.15 |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.20 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.20 |
| 10.0mm from Apex ML Width B/L | 0.42 |
| 10.0mm from Apex ML Width M/D | 0.33 |
| 10.0mm from Apex MB Width B/L | 0.32 |
| 10.0mm from Apex MB Width M/D | 0.25 |
| 10.0mm from Apex M Isthmus Width | - |
| 10.0mm from Apex M Isthmus Length | - |
| 10.0mm from Apex M Isthmus Type | - |
| 10.0mm from Apex M 3rd Canal | 0.6 x 0.11 |
| 10.0mm from Apex M 4th Canal | - |
| 11.0mm from Apex Thinnest Danger Zone MB | 1.16 |
| 11.0mm from Apex Thinnest Danger Zone ML | 1.42 |
| 11.0mm from Apex ML Width B/L | 0.32 |
| 11.0mm from Apex ML Width M/D | 0.26 |
| 11.0mm from Apex MB Width B/L | 0.41 |
| 11.0mm from Apex MB Width M/D | 0.38 |
| 11.0mm from Apex M Isthmus Width | 0.08 |
| 11.0mm from Apex M Isthmus Length | 3.81 |
| 11.0mm from Apex M Isthmus Type | 3.00 |
| 11.0mm from Apex M 3rd Canal | 0.33 x 0.14 |
| 11.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.88 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 1.77 |

| | |
|---|---|
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.82 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 3.82 |
| Mesial Canal Type from Orifice to Apex | 2-3-1 (Type 20) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 7.97 to 10.99 |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | - |

## TOOTH 7

| | |
|---|---|
| Tooth Name | 7.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 4.00 |
| Number of Exits in Apical 0.5mm D Root | 3.00 |
| M Root Length | 10.70 |
| D Root Length | 10.30 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.18 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.71 |
| 1.0mm from Apex 1 M Width M/D | 0.46 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.02 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.74 |
| 1.0mm from Apex 1 D Width M/D | 0.62 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.60 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.63 |
| 1.5mm from Apex 1 M Width M/D | 0.33 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.54 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.68 |
| 1.5mm from Apex 1 D Width M/D | 0.59 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.82 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.46 |
| 2.0mm from Apex 1 M Width M/D | 0.33 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.96 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.68 |
| 2.0mm from Apex 1 D Width M/D | 0.62 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.87 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.48 |
| 2.5mm from Apex 1 M width M/D | 0.40 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.08 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.54 |
| 2.5mm from Apex 1 D Width M/D | 0.61 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | 0.87 |
| 3.0mm from Apex Thinnest Danger Zone MB | - |
| 3.0mm from Apex Thinnest Danger Zone ML | - |
| 3.0mm from Apex 1 M Width B/L | 0.64 |
| 3.0mm from Apex 1 M Width M/D | 0.37 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.27 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.69 |
| 3.0mm from Apex 1 D Width M/D | 0.55 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 0.92 |
| 3.5mm from Apex Thinnest Danger Zone MB | - |
| 3.5mm from Apex Thinnest Danger Zone ML | - |
| 3.5mm from Apex 1 M Width B/L | 0.97 |
| 3.5mm from Apex 1 M Width M/D | 0.37 |
| 3.5mm from Apex ML Width B/L | - |
| 3.5mm from Apex ML Width M/D | - |
| 3.5mm from Apex MB Width B/L | - |

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|---|---|
| 3.5mm from Apex MB Width M/D | - |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.17 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.70 |
| 3.5mm from Apex 1 D Width M/D | 0.47 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | 0.96 |
| 4.0mm from Apex Thinnest Danger Zone MB | - |
| 4.0mm from Apex Thinnest Danger Zone ML | - |
| 4.0mm from Apex 1 M Width B/L | 1.30 |
| 4.0mm from Apex 1 M Width M/D | 0.32 |
| 4.0mm from Apex ML Width B/L | - |
| 4.0mm from Apex ML Width M/D | - |
| 4.0mm from Apex MB Width B/L | - |
| 4.0mm from Apex MB Width M/D | - |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.07 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.74 |
| 4.0mm from Apex 1 D Width M/D | 0.54 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | 0.91 |
| 4.5mm from Apex Thinnest Danger Zone MB | - |
| 4.5mm from Apex Thinnest Danger Zone ML | - |
| 4.5mm from Apex 1 M Width B/L | 1.44 |
| 4.5mm from Apex 1 M Width M/D | 0.32 |
| 4.5mm from Apex ML Width B/L | - |
| 4.5mm from Apex ML Width M/D | - |

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|---|---|
| 4.5mm from Apex MB Width B/L | - |
| 4.5mm from Apex MB Width M/D | - |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.06 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.85 |
| 4.5mm from apex 1 D width M/D | 0.52 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | 0.97 |
| 5.0mm from Apex Thinnest Danger Zone MB | - |
| 5.0mm from Apex Thinnest Danger Zone ML | - |
| 5.0mm from Apex 1 M Width B/L | 1.63 |
| 5.0mm from Apex 1 M Width M/D | 0.43 |
| 5.0mm from Apex ML Width B/L | - |
| 5.0mm from Apex ML Width M/D | - |
| 5.0mm from Apex MB Width B/L | - |
| 5.0mm from Apex MB Width M/D | - |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 0.94 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.92 |
| 5.0mm from Apex 1 D Width M/D | 0.65 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.04 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.88 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.56 |
| 5.5mm from Apex ML Width M/D | 0.33 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.51 |
| 5.5mm from Apex MB Width M/D | 0.29 |
| 5.5mm from Apex M Isthmus Width | 0.18 |
| 5.5mm from Apex M Isthmus Length | 0.87 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 0.86 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.06 |
| 5.5mm from Apex 1 D Width M/D | 0.45 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 0.93 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.90 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.61 |
| 6.0mm from Apex ML Width M/D | 0.39 |
| 6.0mm from Apex MB Width B/L | 0.37 |
| 6.0mm from Apex MB Width M/D | 0.40 |
| 6.0mm from Apex M Isthmus Width | 0.16 |
| 6.0mm from Apex M Isthmus Length | 1.41 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 0.76 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.15 |
| 6.0mm from Apex 1 D Width M/D | 0.51 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.70 |
| 7.0mm from Apex Thinnest Danger Zone ML | 0.68 |
| 7.0mm from Apex ML Width B/L | 0.92 |
| 7.0mm from Apex ML Width M/D | 0.37 |
| 7.0mm from Apex MB Width B/L | 0.70 |
| 7.0mm from Apex MB width M/D | 0.39 |

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|---|---|
| 7.0mm from Apex M Isthmus Width | 0.11 |
| 7.0mm from Apex M Isthmus Length | 0.52 |
| 7.0mm from Apex M Isthmus Type | 4.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 0.64 |
| 8.0mm from Apex Thinnest Danger Zone ML | 0.84 |
| 8.0mm from Apex ML Width B/L | 0.65 |
| 8.0mm from Apex ML Width M/D | 0.31 |
| 8.0mm from Apex MB Width B/L | 1.04 |
| 8mm from Apex MB Width M/D | 0.34 |
| 8mm from Apex M Isthmus Width | 0.16 |
| 8mm from Apex M Isthmus Length | 0.38 |
| 8mm from Apex M Isthmus Type | 5.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 0.76 |
| 9.0mm from Apex Thinnest Danger Zone ML | 0.87 |
| 9.0mm from Apex ML Width B/L | 1.47 |
| 9.0mm from Apex ML Width M/D | 0.33 |
| 9.0mm from Apex MB Width B/L | 1.32 |
| 9.0mm from Apex MB width M/D | 0.33 |
| 9.0mm from Apex M Isthmus Width | 0.17 |
| 9.0mm from Apex M Isthmus Length | 0.68 |
| 9.0mm from Apex M Isthmus Type | 5.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.09 |
| 10.0mm from Apex Thinnest Danger Zone ML | 0.92 |
| 10.0mm from Apex ML Width B/L | 1.64 |
| 10.0mm from Apex ML Width M/D | 0.30 |
| 10.0mm from Apex MB Width B/L | 1.14 |
| 10.0mm from Apex MB Width M/D | 0.29 |
| 10.0mm from Apex M Isthmus Width | 0.15 |
| 10.0mm from Apex M Isthmus Length | 0.71 |
| 10.0mm from Apex M Isthmus Type | 5.00 |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 2.90 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 2.35 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 3.77 |
| Mesial Canal Type from Orifice to Apex | 1-2-1 (Type 3) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | .62, 1.09, 1.53, 2.16 |

| | |
|---|---|
| M Level of Lateral Canal Exit | 1.39 |

## TOOTH 8

| | |
|---|---|
| Tooth Name | 8.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 3.00 |
| Number of Exits in Apical 0.5mm D Root | 4.00 |
| M Root Length | 11.52 |
| D Root Length | 10.88 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.22 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.40 |
| 0.5mm from Apex 1 M Width M/D | 0.37 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | 0.37 |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | 0.26 |
| 0.5mm from Apex 1 D Width M/D | 0.71 |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.43 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.13 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.33 |
| 1.0mm from Apex ML Width M/D | 0.24 |
| 1.0mm from Apex MB Width B/L | 0.34 |
| 1.0mm from Apex MB Width M/D | 0.18 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.63 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.47 |
| 1.0mm from Apex 1 D Width M/D | 0.35 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.48 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.33 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |
| 1.5mm from Apex ML Width B/L | 0.47 |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | 0.22 |
| 1.5mm from Apex MB Width B/L | 0.37 |
| 1.5mm from Apex MB Width M/D | 0.17 |
| 1.5mm from Apex M Isthmus Width | 0.48 |
| 1.5mm from Apex M Isthmus Length | 0.10 |
| 1.5mm from Apex M Isthmus Type | 5.00 |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.76 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.58 |
| 1.5mm from Apex 1 D Width M/D | 0.28 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.55 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.46 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.28 |
| 2.0mm from Apex ML Width M/D | 0.13 |
| 2.0mm from Apex MB Width B/L | 0.47 |
| 2.0mm from Apex MB Width M/D | 0.26 |
| 2.0mm from Apex M Isthmus Width | 0.14 |
| 2.0mm from Apex M Isthmus Length | 0.52 |
| 2.0mm from Apex M Isthmus Type | 5.00 |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.98 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.57 |
| 2.0mm from Apex 1 D Width M/D | 0.29 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.61 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.55 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.27 |
| 2.5mm from Apex ML Width M/D | 0.13 |
| 2.5mm from Apex MB Width B/L | 0.44 |
| 2.5mm from Apex MB Width M/D | 0.30 |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | 0.13 |
| 2.5mm from Apex M Isthmus Length | 0.83 |
| 2.5mm from Apex M Isthmus Type | 5.00 |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.10 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.55 |
| 2.5mm from Apex 1 D Width M/D | 0.35 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.75 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.65 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.32 |
| 3.0mm from Apex ML Width M/D | 0.18 |
| 3.0mm from Apex MB Width B/L | 0.45 |
| 3.0mm from Apex MB Width M/D | 0.24 |
| 3.0mm from Apex M Isthmus Width | 0.14 |
| 3.0mm from Apex M Isthmus Length | 0.78 |
| 3.0mm from Apex M Isthmus Type | 5.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.09 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.54 |
| 3.0mm from Apex 1 D Width M/D | 0.41 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.79 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.73 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.28 |
| 3.5mm from Apex ML Width M/D | 0.18 |
| 3.5mm from Apex MB Width B/L | 0.40 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.29 |
| 3.5mm from Apex Isthmus Width | 0.21 |
| 3.5mm from Apex Isthmus Length | 0.76 |
| 3.5mm from Apex Isthmus Type | 5.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.09 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.50 |
| 3.5mm from Apex 1 D Width M/D | 0.40 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.83 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.76 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.27 |
| 4.0mm from Apex ML Width M/D | 0.18 |
| 4.0mm from Apex MB Width B/L | 0.41 |
| 4.0mm from Apex MB Width M/D | 0.32 |
| 4.0mm from Apex M Isthmus Width | 0.18 |
| 4.0mm from Apex M Isthmus Length | 0.77 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 0.98 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.56 |
| 4.0mm from Apex 1 D Width M/D | 0.49 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.75 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.76 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.24 |
| 4.5mm from Apex ML Width M/D | 0.24 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.38 |
| 4.5mm from Apex MB Width M/D | 0.32 |
| 4.5mm from Apex M Isthmus Width | 0.20 |
| 4.5mm from Apex M Isthmus Length | 0.64 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.02 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.67 |
| 4.5mm from apex 1 D width M/D | 0.47 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.73 |
| 5.0mm from Apex Thinnest Danger Zone ML | 0.77 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.34 |
| 5.0mm from Apex ML Width M/D | 0.28 |
| 5.0mm from Apex MB Width B/L | 0.36 |
| 5.0mm from Apex MB Width M/D | 0.33 |
| 5.0mm from Apex M Isthmus Width | 0.24 |
| 5.0mm from Apex M Isthmus Length | 0.61 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.06 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.73 |
| 5.0mm from Apex 1 D Width M/D | 0.41 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 0.76 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.81 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.30 |
| 5.5mm from Apex ML Width M/D | 0.23 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.36 |
| 5.5mm from Apex MB Width M/D | 0.29 |
| 5.5mm from Apex M Isthmus Width | 0.23 |
| 5.5mm from Apex M Isthmus Length | 0.60 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.12 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 0.79 |
| 5.5mm from Apex 1 D Width M/D | 0.41 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 0.80 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.90 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.37 |
| 6.0mm from Apex ML Width M/D | 0.24 |
| 6.0mm from Apex MB Width B/L | 0.52 |
| 6.0mm from Apex MB Width M/D | 0.38 |
| 6.0mm from Apex M Isthmus Width | 0.26 |
| 6.0mm from Apex M Isthmus Length | 0.68 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.15 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 0.88 |
| 6.0mm from Apex 1 D Width M/D | 0.41 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.97 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.07 |
| 7.0mm from Apex ML Width B/L | 0.37 |
| 7.0mm from Apex ML Width M/D | 0.25 |
| 7.0mm from Apex MB Width B/L | 0.63 |
| 7.0mm from Apex MB width M/D | 0.34 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.24 |
| 7.0mm from Apex M Isthmus Length | 0.81 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.06 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.23 |
| 8.0mm from Apex ML Width B/L | 0.49 |
| 8.0mm from Apex ML Width M/D | 0.26 |
| 8.0mm from Apex MB Width B/L | 0.31 |
| 8mm from Apex MB Width M/D | 0.28 |
| 8mm from Apex M Isthmus Width | 0.16 |
| 8mm from Apex M Isthmus Length | 1.54 |
| 8mm from Apex M Isthmus Type | 5.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.14 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.28 |
| 9.0mm from Apex ML Width B/L | 0.53 |
| 9.0mm from Apex ML Width M/D | 0.31 |
| 9.0mm from Apex MB Width B/L | 0.45 |
| 9.0mm from Apex MB width M/D | 0.33 |
| 9.0mm from Apex M Isthmus Width | 0.14 |
| 9.0mm from Apex M Isthmus Length | 1.89 |
| 9.0mm from Apex M Isthmus Type | 4.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.32 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.38 |
| 10.0mm from Apex ML Width B/L | 0.49 |
| 10.0mm from Apex ML Width M/D | 0.33 |
| 10.0mm from Apex MB Width B/L | 0.58 |
| 10.0mm from Apex MB Width M/D | 0.33 |
| 10.0mm from Apex M Isthmus Width | 0.10 |
| 10.0mm from Apex M Isthmus Length | 1.64 |
| 10.0mm from Apex M Isthmus Type | 4.00 |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| 11.0mm from Apex Thinnest Danger Zone MB | 1.48 |
| 11.0mm from Apex Thinnest Danger Zone ML | 1.60 |
| 11.0mm from Apex ML Width B/L | 0.57 |
| 11.0mm from Apex ML Width M/D | 0.31 |
| 11.0mm from Apex MB Width B/L | 0.41 |
| 11.0mm from Apex MB Width M/D | 0.30 |
| 11.0mm from Apex M Isthmus Width | 0.15 |
| 11.0mm from Apex M Isthmus Length | 1.69 |
| 11.0mm from Apex M Isthmus Type | 4.00 |
| 11.0mm from Apex M 3rd Canal | - |
| 11.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 2.76 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |

| | |
|---|---|
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 2.29 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.28 |
| Mesial Canal Type from Orifice to Apex | 1-2 (Type 5) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | 0.98 |
| M Level of Lateral Canal Exit | 6.36 |

## TOOTH 10

| | |
|---|---|
| Tooth Name | 10.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 7.00 |
| Number of Exits in Apical 0.5mm D Root | 10.00 |
| M Root Length | 11.39 |
| D Root Length | 11.24 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | 0.24 |
| 0.5mm from Apex Thinnest Danger Zone DL | 0.12 |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | 0.32 |
| 0.5mm from Apex DL Width M/D | 0.18 |
| 0.5mm from Apex DB Width B/L | 0.51 |
| 0.5mm from Apex DB Width M/D | 0.64 |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.48 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.48 |
| 1.0mm from Apex 1 M Width M/D | 0.18 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | - |
| 1.0mm from Apex Thinnest Danger Zone DB | 0.61 |
| 1.0mm from Apex Thinnest Danger Zone DL | 0.42 |
| 1.0mm from Apex 1 D Width B/L | - |
| 1.0mm from Apex 1 D Width M/D | - |
| 1.0mm from Apex DL Width B/L | 0.37 |
| 1.0mm from Apex DL Width M/D | 0.26 |
| 1.0mm from Apex DB Width B/L | 0.48 |
| 1.0mm from Apex DB Width M/D | 0.44 |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.51 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.47 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |

| | |
|---|---|
| 1.5mm from Apex ML Width B/L | 0.32 |
| 1.5mm from Apex ML Width M/D | 0.34 |
| 1.5mm from Apex MB Width B/L | 0.42 |
| 1.5mm from Apex MB Width M/D | 0.34 |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | - |
| 1.5mm from Apex Thinnest Danger Zone DB | 0.66 |
| 1.5mm from Apex Thinnest Danger Zone DL | 0.73 |
| 1.5mm from Apex 1 D Width B/L | - |
| 1.5mm from Apex 1 D Width M/D | - |
| 1.5mm from Apex DL Width B/L | 0.33 |
| 1.5mm from Apex DL Width M/D | 0.13 |
| 1.5mm from Apex DB Width B/L | 0.85 |
| 1.5mm from apex DB width M/D | 0.39 |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.71 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.45 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.53 |
| 2.0mm from Apex ML Width M/D | 0.21 |
| 2.0mm from Apex MB Width B/L | 0.60 |
| 2.0mm from Apex MB Width M/D | 0.29 |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | - |
| 2.0mm from Apex Thinnest Danger Zone DB | 0.69 |
| 2.0mm from Apex Thinnest Danger Zone DL | 0.87 |
| 2.0mm from Apex 1 D Width B/L | - |
| 2.0mm from Apex 1 D Width M/D | - |
| 2.0mm from Apex DL Width B/L | 1.04 |
| 2.0mm from Apex DL Width M/D | 0.19 |
| 2.0mm from Apex DB Width B/L | 1.06 |
| 2.0mm from Apex DB Width M/D | 0.37 |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.91 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.45 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.55 |
| 2.5mm from Apex ML Width M/D | 0.12 |
| 2.5mm from Apex MB Width B/L | 0.72 |

| | |
|---|---|
| 2.5mm from Apex MB Width M/D | 0.22 |
| 2.5mm from Apex M Isthmus Width | 0.10 |
| 2.5mm from Apex M Isthmus Length | 0.34 |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | - |
| 2.5mm from Apex Thinnest Danger Zone DB | 0.68 |
| 2.5mm from Apex Thinnest Danger Zone DL | 0.43 |
| 2.5mm from Apex 1 D Width B/L | - |
| 2.5mm from Apex 1 D Width M/D | - |
| 2.5mm from Apex DL Width B/L | 1.30 |
| 2.5mm from Apex DL Width M/D | 0.22 |
| 2.5mm from Apex DB Width B/L | 1.46 |
| 2.5mm from Apex DB Width M/D | 0.42 |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.99 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.47 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.97 |
| 3.0mm from Apex ML Width M/D | 0.13 |
| 3.0mm from Apex MB Width B/L | 0.82 |
| 3.0mm from Apex MB Width M/D | 0.27 |
| 3.0mm from Apex M Isthmus Width | 0.11 |
| 3.0mm from Apex M Isthmus Length | 0.41 |
| 3.0mm from Apex M Isthmus Type | 5.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | - |
| 3.0mm from Apex Thinnest Danger Zone DB | 0.69 |
| 3.0mm from Apex Thinnest Danger Zone DL | 0.76 |
| 3.0mm from Apex 1 D Width B/L | - |
| 3.0mm from Apex 1 D Width M/D | - |
| 3.0mm from Apex DL Width B/L | 0.91 |
| 3.0mm from Apex DL Width M/D | 0.25 |
| 3.0mm from Apex DB Width B/L | 1.53 |
| 3.0mm from Apex DB Width M/D | 0.58 |
| 3.0mm from Apex D Isthmus Width | 0.17 |
| 3.0mm from Apex D Isthmus Length | 1.04 |
| 3.0mm from Apex D Isthmus Type | 5.00 |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.81 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.63 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.77 |
| 3.5mm from Apex ML Width M/D | 0.19 |

| | |
|---|---|
| 3.5mm from Apex MB Width B/L | 0.73 |
| 3.5mm from Apex MB Width M/D | 0.20 |
| 3.5mm from Apex Isthmus Width | 0.08 |
| 3.5mm from Apex Isthmus Length | 0.68 |
| 3.5mm from Apex Isthmus Type | 5.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 0.93 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 2.07 |
| 3.5mm from Apex 1 D Width M/D | 0.45 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.89 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.74 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 1.04 |
| 4.0mm from Apex ML Width M/D | 0.13 |
| 4.0mm from Apex MB Width B/L | 0.68 |
| 4.0mm from Apex MB Width M/D | 0.20 |
| 4.0mm from Apex M Isthmus Width | 0.12 |
| 4.0mm from Apex M Isthmus Length | 0.40 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 0.67 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 1.77 |
| 4.0mm from Apex 1 D Width M/D | 0.47 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.77 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.51 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.66 |

| | |
|---|---|
| 4.5mm from Apex ML Width M/D | 0.21 |
| 4.5mm from Apex MB Width B/L | 0.78 |
| 4.5mm from Apex MB Width M/D | 0.25 |
| 4.5mm from Apex M Isthmus Width | 0.17 |
| 4.5mm from Apex M Isthmus Length | 0.88 |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 0.76 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.59 |
| 4.5mm from apex 1 D width M/D | 0.41 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.86 |
| 5.0mm from Apex Thinnest Danger Zone ML | 0.63 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.39 |
| 5.0mm from Apex ML Width M/D | 0.19 |
| 5.0mm from Apex MB Width B/L | 0.81 |
| 5.0mm from Apex MB Width M/D | 0.25 |
| 5.0mm from Apex M Isthmus Width | 0.14 |
| 5.0mm from Apex M Isthmus Length | 0.78 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 0.62 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.52 |
| 5.0mm from Apex 1 D Width M/D | 0.41 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.32 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.33 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.35 |

| | |
|---|---|
| 5.5mm from Apex ML Width M/D | 0.19 |
| 5.5mm from Apex MB Width B/L | 0.98 |
| 5.5mm from Apex MB Width M/D | 0.27 |
| 5.5mm from Apex M Isthmus Width | 0.16 |
| 5.5mm from Apex M Isthmus Length | 0.88 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 0.79 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.59 |
| 5.5mm from Apex 1 D Width M/D | 0.42 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.36 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.35 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.37 |
| 6.0mm from Apex ML Width M/D | 0.21 |
| 6.0mm from Apex MB Width B/L | 1.05 |
| 6.0mm from Apex MB Width M/D | 0.29 |
| 6.0mm from Apex M Isthmus Width | 0.19 |
| 6.0mm from Apex M Isthmus Length | 0.46 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 0.82 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.65 |
| 6.0mm from Apex 1 D Width M/D | 0.45 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.32 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.16 |
| 7.0mm from Apex ML Width B/L | 0.36 |
| 7.0mm from Apex ML Width M/D | 0.22 |
| 7.0mm from Apex MB Width B/L | 1.35 |

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|---|---|
| 7.0mm from Apex MB width M/D | 0.30 |
| 7.0mm from Apex M Isthmus Width | 0.19 |
| 7.0mm from Apex M Isthmus Length | 0.60 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.34 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.03 |
| 8.0mm from Apex ML Width B/L | 0.90 |
| 8.0mm from Apex ML Width M/D | 0.26 |
| 8.0mm from Apex MB Width B/L | 0.87 |
| 8mm from Apex MB Width M/D | 0.34 |
| 8mm from Apex M Isthmus Width | 0.20 |
| 8mm from Apex M Isthmus Length | 0.21 |
| 8mm from Apex M Isthmus Type | 4.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 0.98 |
| 9.0mm from Apex Thinnest Danger Zone ML | 0.88 |
| 9.0mm from Apex ML Width B/L | 0.92 |
| 9.0mm from Apex ML Width M/D | 0.31 |
| 9.0mm from Apex MB Width B/L | 0.93 |
| 9.0mm from Apex MB width M/D | 0.38 |
| 9.0mm from Apex M Isthmus Width | 0.19 |
| 9.0mm from Apex M Isthmus Length | 0.18 |
| 9.0mm from Apex M Isthmus Type | 4.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 0.99 |
| 10.0mm from Apex Thinnest Danger Zone ML | 0.97 |
| 10.0mm from Apex ML Width B/L | 0.91 |
| 10.0mm from Apex ML Width M/D | 0.32 |
| 10.0mm from Apex MB Width B/L | 0.85 |
| 10.0mm from Apex MB Width M/D | 0.37 |
| 10.0mm from Apex M Isthmus Width | 0.18 |
| 10.0mm from Apex M Isthmus Length | 0.43 |
| 10.0mm from Apex M Isthmus Type | 4.00 |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| 11.0mm from Apex Thinnest Danger Zone MB | 0.95 |
| 11.0mm from Apex Thinnest Danger Zone ML | 0.75 |
| 11.0mm from Apex ML Width B/L | 0.84 |
| 11.0mm from Apex ML Width M/D | 0.34 |
| 11.0mm from Apex MB Width B/L | 1.28 |
| 11.0mm from Apex MB Width M/D | 0.51 |
| 11.0mm from Apex M Isthmus Width | 0.20 |
| 11.0mm from Apex M Isthmus Length | 0.32 |
| 11.0mm from Apex M Isthmus Type | 4.00 |
| 11.0mm from Apex M 3rd Canal | - |
| 11.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 1.51 |

| | |
|---|---|
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 2.16 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 3.37 |
| Mesial Canal Type from Orifice to Apex | 1-2-1-2 (Type 7) |
| Distal Canal Type from Orifice to Apex | 1-3 (Type 16) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | .22 to 2.44 |
| D Level of Lateral Canal Exit | 1.88, 3.64 |
| M Level of Lateral Canal Exit | 1.82, 3.42, 6.68 |

## TOOTH 11

| | |
|---|---|
| Tooth Name | 11.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 4.00 |
| Number of Exits in Apical 0.5mm D Root | 3.00 |
| M Root Length | 10.07 |
| D Root Length | 10.20 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.33 |
| 0.5mm from Apex 1 M Width M/D | 0.34 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | 0.73 |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | 0.18 |
| 0.5mm from Apex 1 D Width M/D | 0.19 |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 1.59 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.27 |
| 1.0mm from Apex 1 M Width M/D | 0.25 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 1.04 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.57 |
| 1.0mm from Apex 1 D Width M/D | 0.15 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 1.32 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.43 |
| 1.5mm from Apex 1 M Width M/D | 0.29 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 1.13 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.65 |
| 1.5mm from Apex 1 D Width M/D | 0.23 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 1.22 |
| 2.0mm from Apex Thinnest Danger Zone ML | 1.36 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.65 |
| 2.0mm from Apex ML Width M/D | 0.15 |
| 2.0mm from Apex MB Width B/L | 0.34 |
| 2.0mm from Apex MB Width M/D | 0.23 |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.19 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.41 |
| 2.0mm from Apex 1 D Width M/D | 0.25 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 1.72 |
| 2.5mm from Apex Thinnest Danger Zone ML | 1.61 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.73 |
| 2.5mm from Apex ML Width M/D | 0.26 |
| 2.5mm from Apex MB Width B/L | 1.31 |
| 2.5mm from Apex MB Width M/D | 0.32 |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | 0.12 |
| 2.5mm from Apex M Isthmus Length | 0.53 |
| 2.5mm from Apex M Isthmus Type | 5.00 |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.18 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.46 |
| 2.5mm from Apex 1 D Width M/D | 0.37 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 1.43 |
| 3.0mm from Apex Thinnest Danger Zone ML | 1.48 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.35 |
| 3.0mm from Apex ML Width M/D | 0.19 |
| 3.0mm from Apex MB Width B/L | 1.02 |
| 3.0mm from Apex MB Width M/D | 0.28 |
| 3.0mm from Apex M Isthmus Width | 0.09 |
| 3.0mm from Apex M Isthmus Length | 0.55 |
| 3.0mm from Apex M Isthmus Type | 5.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.23 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.45 |
| 3.0mm from Apex 1 D Width M/D | 0.35 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 1.49 |
| 3.5mm from Apex Thinnest Danger Zone ML | 1.58 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 1.20 |
| 3.5mm from Apex ML Width M/D | 0.28 |
| 3.5mm from Apex MB Width B/L | 0.43 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.15 |
| 3.5mm from Apex Isthmus Width | 0.09 |
| 3.5mm from Apex Isthmus Length | 0.82 |
| 3.5mm from Apex Isthmus Type | 5.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.24 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.55 |
| 3.5mm from Apex 1 D Width M/D | 0.41 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.64 |
| 4.0mm from Apex Thinnest Danger Zone ML | 1.65 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 1.34 |
| 4.0mm from Apex ML Width M/D | 0.26 |
| 4.0mm from Apex MB Width B/L | 0.43 |
| 4.0mm from Apex MB Width M/D | 0.15 |
| 4.0mm from Apex M Isthmus Width | 0.08 |
| 4.0mm from Apex M Isthmus Length | 1.04 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.32 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.63 |
| 4.0mm from Apex 1 D Width M/D | 0.36 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.65 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.75 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 1.41 |
| 4.5mm from Apex ML Width M/D | 0.24 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.52 |
| 4.5mm from Apex MB Width M/D | 0.17 |
| 4.5mm from Apex M Isthmus Width | 0.11 |
| 4.5mm from Apex M Isthmus Length | 1.15 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.30 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.80 |
| 4.5mm from apex 1 D width M/D | 0.30 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.60 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.74 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 1.37 |
| 5.0mm from Apex ML Width M/D | 0.25 |
| 5.0mm from Apex MB Width B/L | 0.66 |
| 5.0mm from Apex MB Width M/D | 0.25 |
| 5.0mm from Apex M Isthmus Width | 0.11 |
| 5.0mm from Apex M Isthmus Length | 1.22 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.28 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.95 |
| 5.0mm from Apex 1 D Width M/D | 0.31 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.66 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.76 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.77 |
| 5.5mm from Apex ML Width M/D | 0.28 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.32 |
| 5.5mm from Apex MB Width M/D | 0.21 |
| 5.5mm from Apex M Isthmus Width | 0.11 |
| 5.5mm from Apex M Isthmus Length | 0.92 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.30 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.12 |
| 5.5mm from Apex 1 D Width M/D | 0.41 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.80 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.71 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 1.55 |
| 6.0mm from Apex ML Width M/D | 0.35 |
| 6.0mm from Apex MB Width B/L | 0.57 |
| 6.0mm from Apex MB Width M/D | 0.28 |
| 6.0mm from Apex M Isthmus Width | 0.10 |
| 6.0mm from Apex M Isthmus Length | 0.32 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.29 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.28 |
| 6.0mm from Apex 1 D Width M/D | 0.45 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.77 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.71 |
| 7.0mm from Apex ML Width B/L | 1.56 |
| 7.0mm from Apex ML Width M/D | 0.39 |
| 7.0mm from Apex MB Width B/L | 0.72 |
| 7.0mm from Apex MB width M/D | 0.23 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.09 |
| 7.0mm from Apex M Isthmus Length | 0.32 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.53 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.46 |
| 8.0mm from Apex ML Width B/L | 1.80 |
| 8.0mm from Apex ML Width M/D | 0.43 |
| 8.0mm from Apex MB Width B/L | 0.69 |
| 8mm from Apex MB Width M/D | 0.31 |
| 8mm from Apex M Isthmus Width | 0.07 |
| 8mm from Apex M Isthmus Length | 0.15 |
| 8mm from Apex M Isthmus Type | 4.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.28 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.39 |
| 9.0mm from Apex ML Width B/L | 1.03 |
| 9.0mm from Apex ML Width M/D | 0.46 |
| 9.0mm from Apex MB Width B/L | 0.67 |
| 9.0mm from Apex MB width M/D | 0.40 |
| 9.0mm from Apex M Isthmus Width | 0.10 |
| 9.0mm from Apex M Isthmus Length | 0.20 |
| 9.0mm from Apex M Isthmus Type | 4.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.71 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.51 |
| 10.0mm from Apex ML Width B/L | 1.02 |
| 10.0mm from Apex ML Width M/D | 0.52 |
| 10.0mm from Apex MB Width B/L | 0.81 |
| 10.0mm from Apex MB Width M/D | 0.31 |
| 10.0mm from Apex M Isthmus Width | 0.12 |
| 10.0mm from Apex M Isthmus Length | 0.22 |
| 10.0mm from Apex M Isthmus Type | 5.00 |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 1.85 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 0.77 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.09 |
| Mesial Canal Type from Orifice to Apex | 1-2 (Type 5) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |

| | |
|---|---|
| M Level of Lateral Canal Exit | 1.49, 1.83 |

## TOOTH 12

| | |
|---|---|
| Tooth Name | 12.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 4.00 |
| Number of Exits in Apical 0.5mm D Root | 5.00 |
| M Root Length | 6.59 |
| D Root Length | 6.65 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.96 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.76 |
| 0.5mm from Apex 1 M Width M/D | 0.27 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | 1.08 |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | 0.66 |
| 0.5mm from Apex 1 D Width M/D | 0.25 |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 1.19 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.77 |
| 1.0mm from Apex 1 M Width M/D | 0.24 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.66 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.71 |
| 1.0mm from Apex 1 D Width M/D | 0.29 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 1.19 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.80 |
| 1.5mm from Apex 1 M Width M/D | 0.23 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 1.00 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.45 |
| 1.5mm from Apex 1 D Width M/D | 0.35 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 1.23 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.70 |
| 2.0mm from Apex 1 M Width M/D | 0.24 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.30 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.52 |
| 2.0mm from Apex 1 D Width M/D | 0.29 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.71 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.23 |
| 2.5mm from Apex 1 M width M/D | 0.27 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

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|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.37 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.53 |
| 2.5mm from Apex 1 D Width M/D | 0.31 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | 1.32 |
| 3.0mm from Apex Thinnest Danger Zone MB | - |
| 3.0mm from Apex Thinnest Danger Zone ML | - |
| 3.0mm from Apex 1 M Width B/L | 0.73 |
| 3.0mm from Apex 1 M Width M/D | 0.25 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.51 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.56 |
| 3.0mm from Apex 1 D Width M/D | 0.37 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 1.33 |
| 3.5mm from Apex Thinnest Danger Zone MB | - |
| 3.5mm from Apex Thinnest Danger Zone ML | - |
| 3.5mm from Apex 1 M Width B/L | 1.29 |
| 3.5mm from Apex 1 M Width M/D | 0.23 |
| 3.5mm from Apex ML Width B/L | - |
| 3.5mm from Apex ML Width M/D | - |
| 3.5mm from Apex MB Width B/L | - |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | - |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.56 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.52 |
| 3.5mm from Apex 1 D Width M/D | 0.32 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.44 |
| 4.0mm from Apex Thinnest Danger Zone ML | 1.58 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.64 |
| 4.0mm from Apex ML Width M/D | 0.19 |
| 4.0mm from Apex MB Width B/L | 0.47 |
| 4.0mm from Apex MB Width M/D | 0.27 |
| 4.0mm from Apex M Isthmus Width | 0.12 |
| 4.0mm from Apex M Isthmus Length | 0.79 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.70 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.50 |
| 4.0mm from Apex 1 D Width M/D | 0.26 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.56 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.57 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.65 |
| 4.5mm from Apex ML Width M/D | 0.22 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.65 |
| 4.5mm from Apex MB Width M/D | 0.28 |
| 4.5mm from Apex M Isthmus Width | 0.11 |
| 4.5mm from Apex M Isthmus Length | 0.94 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.85 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.53 |
| 4.5mm from apex 1 D width M/D | 0.32 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.52 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.53 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.55 |
| 5.0mm from Apex ML Width M/D | 0.26 |
| 5.0mm from Apex MB Width B/L | 0.53 |
| 5.0mm from Apex MB Width M/D | 0.27 |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.92 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.58 |
| 5.0mm from Apex 1 D Width M/D | 0.43 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.64 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.60 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.47 |
| 5.5mm from Apex ML Width M/D | 0.28 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.63 |
| 5.5mm from Apex MB Width M/D | 0.23 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 2.12 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 0.65 |
| 5.5mm from Apex 1 D Width M/D | 0.42 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 2.18 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.70 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.54 |
| 6.0mm from Apex ML Width M/D | 0.22 |
| 6.0mm from Apex MB Width B/L | 0.55 |
| 6.0mm from Apex MB Width M/D | 0.24 |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 2.33 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 0.71 |
| 6.0mm from Apex 1 D Width M/D | 0.39 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 2.28 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 1.18 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 0.68 |

| | |
|---|---|
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.78 |
| Mesial Canal Type from Orifice to Apex | 1-2-1 (Type 3) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | .59, .99 |
| M Level of Lateral Canal Exit | .36, .66, .92, 1.02, |

## TOOTH 13

| | |
|---|---|
| Tooth Name | 13.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 2.00 |
| Number of Exits in Apical 0.5mm D Root | 1.00 |
| M Root Length | 9.51 |
| D Root Length | 9.02 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.82 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.18 |
| 0.5mm from Apex 1 M Width M/D | 0.19 |
| 0.5mm from Apex ML Width B/L | . |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | 0.18 |
| 0.5mm from Apex MB Width M/D | 0.19 |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 1.08 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.94 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.22 |
| 1.0mm from Apex ML Width M/D | 0.42 |
| 1.0mm from Apex MB Width B/L | 0.12 |
| 1.0mm from Apex MB Width M/D | 0.15 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 1.18 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.22 |
| 1.0mm from Apex 1 D Width M/D | 0.19 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 1.08 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.92 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |

| | |
|---|---|
| 1.5mm from Apex ML Width B/L | 0.25 |
| 1.5mm from Apex ML Width M/D | 0.37 |
| 1.5mm from Apex MB Width B/L | 0.19 |
| 1.5mm from Apex MB Width M/D | 0.27 |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 1.29 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.32 |
| 1.5mm from Apex 1 D Width M/D | 0.25 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 1.03 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.82 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.31 |
| 2.0mm from Apex ML Width M/D | 0.16 |
| 2.0mm from Apex MB Width B/L | 0.16 |
| 2.0mm from Apex MB Width M/D | 0.17 |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.24 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.37 |
| 2.0mm from Apex 1 D Width M/D | 0.28 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.98 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.77 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.41 |
| 2.5mm from Apex ML Width M/D | 0.21 |
| 2.5mm from Apex MB Width B/L | 0.52 |

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|---|---|
| 2.5mm from Apex MB Width M/D | 0.20 |
| 2.5mm from Apex M Isthmus Width | 0.08 |
| 2.5mm from Apex M Isthmus Length | 0.21 |
| 2.5mm from Apex M Isthmus Type | 5.00 |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.15 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.27 |
| 2.5mm from Apex 1 D Width M/D | 0.23 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.91 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.77 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.46 |
| 3.0mm from Apex ML Width M/D | 0.17 |
| 3.0mm from Apex MB Width B/L | 0.61 |
| 3.0mm from Apex MB Width M/D | 0.19 |
| 3.0mm from Apex M Isthmus Width | 0.09 |
| 3.0mm from Apex M Isthmus Length | 0.32 |
| 3.0mm from Apex M Isthmus Type | 5.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.04 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.42 |
| 3.0mm from Apex 1 D Width M/D | 0.28 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.96 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.77 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.41 |
| 3.5mm from Apex ML Width M/D | 0.21 |

| | |
|---|---|
| 3.5mm from Apex MB Width B/L | 0.53 |
| 3.5mm from Apex MB Width M/D | 0.21 |
| 3.5mm from Apex Isthmus Width | 0.03 |
| 3.5mm from Apex Isthmus Length | 0.91 |
| 3.5mm from Apex Isthmus Type | 2.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.09 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.34 |
| 3.5mm from Apex 1 D Width M/D | 0.32 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.88 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.67 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.56 |
| 4.0mm from Apex ML Width M/D | 0.20 |
| 4.0mm from Apex MB Width B/L | 0.55 |
| 4.0mm from Apex MB Width M/D | 0.23 |
| 4.0mm from Apex M Isthmus Width | 0.04 |
| 4.0mm from Apex M Isthmus Length | 0.98 |
| 4.0mm from Apex M Isthmus Type | 2.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.06 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.61 |
| 4.0mm from Apex 1 D Width M/D | 0.44 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.84 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.67 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.59 |

| | |
|---|---|
| 4.5mm from Apex ML Width M/D | 0.25 |
| 4.5mm from Apex MB Width B/L | 0.82 |
| 4.5mm from Apex MB Width M/D | 0.24 |
| 4.5mm from Apex M Isthmus Width | 0.05 |
| 4.5mm from Apex M Isthmus Length | 1.03 |
| 4.5mm from Apex M Isthmus Type | 2.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.10 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.72 |
| 4.5mm from apex 1 D width M/D | 0.54 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.81 |
| 5.0mm from Apex Thinnest Danger Zone ML | 0.52 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.69 |
| 5.0mm from Apex ML Width M/D | 0.26 |
| 5.0mm from Apex MB Width B/L | 0.70 |
| 5.0mm from Apex MB Width M/D | 0.28 |
| 5.0mm from Apex M Isthmus Width | 0.09 |
| 5.0mm from Apex M Isthmus Length | 0.54 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.11 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.77 |
| 5.0mm from Apex 1 D Width M/D | 0.63 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 0.81 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.82 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.85 |

| | |
|---|---|
| 5.5mm from Apex ML Width M/D | 0.35 |
| 5.5mm from Apex MB Width B/L | 0.94 |
| 5.5mm from Apex MB Width M/D | 0.29 |
| 5.5mm from Apex M Isthmus Width | 0.13 |
| 5.5mm from Apex M Isthmus Length | 0.26 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | - |
| 5.5mm from Apex Thinnest Danger Zone DB | 1.09 |
| 5.5mm from Apex Thinnest Danger Zone DL | 0.92 |
| 5.5mm from Apex 1 D Width B/L | 0.70 |
| 5.5mm from Apex 1 D Width M/D | 0.51 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 0.84 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.97 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.70 |
| 6.0mm from Apex ML Width M/D | 0.28 |
| 6.0mm from Apex MB Width B/L | 0.64 |
| 6.0mm from Apex MB Width M/D | 0.39 |
| 6.0mm from Apex M Isthmus Width | 0.15 |
| 6.0mm from Apex M Isthmus Length | 1.01 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.12 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 0.80 |
| 6.0mm from Apex 1 D Width M/D | 0.32 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.92 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.03 |
| 7.0mm from Apex ML Width B/L | 0.75 |
| 7.0mm from Apex ML Width M/D | 0.29 |
| 7.0mm from Apex MB Width B/L | 0.65 |

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|---|---|
| 7.0mm from Apex MB width M/D | 0.29 |
| 7.0mm from Apex M Isthmus Width | 0.08 |
| 7.0mm from Apex M Isthmus Length | 1.40 |
| 7.0mm from Apex M Isthmus Type | 2.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 0.97 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.18 |
| 8.0mm from Apex ML Width B/L | 0.94 |
| 8.0mm from Apex ML Width M/D | 0.32 |
| 8.0mm from Apex MB Width B/L | 0.83 |
| 8mm from Apex MB Width M/D | 0.39 |
| 8mm from Apex M Isthmus Width | 0.17 |
| 8mm from Apex M Isthmus Length | 1.19 |
| 8mm from Apex M Isthmus Type | 2.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.08 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.23 |
| 9.0mm from Apex ML Width B/L | 0.79 |
| 9.0mm from Apex ML Width M/D | 0.32 |
| 9.0mm from Apex MB Width B/L | 0.66 |
| 9.0mm from Apex MB width M/D | 0.40 |
| 9.0mm from Apex M Isthmus Width | 0.27 |
| 9.0mm from Apex M Isthmus Length | 1.29 |
| 9.0mm from Apex M Isthmus Type | 5.00 |
| 9.0mm from Apex M 3rd Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.17 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.50 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.30 |
| Mesial Canal Type from Orifice to Apex | 1-2 (Type 5) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | 2.31 |
| M Level of Lateral Canal Exit | 1.26, 4.7 |

## TOOTH 14

| | |
|---|---|
| Tooth Name | 14.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 5.00 |
| Number of Exits in Apical 0.5mm D Root | 5.00 |
| M Root Length | 9.15 |
| D Root Length | 8.87 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.58 |
| 0.5mm from Apex 1 M Width M/D | 0.21 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.77 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.74 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.23 |
| 1.0mm from Apex ML Width M/D | 0.14 |
| 1.0mm from Apex MB Width B/L | 0.25 |
| 1.0mm from Apex MB Width M/D | 0.23 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | - |
| 1.0mm from Apex Thinnest Danger Zone DB | 0.20 |
| 1.0mm from Apex Thinnest Danger Zone DL | 0.28 |
| 1.0mm from Apex 1 D Width B/L | - |
| 1.0mm from Apex 1 D Width M/D | - |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.98 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.86 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |
| 1.5mm from Apex ML Width B/L | 0.30 |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | 0.24 |
| 1.5mm from Apex MB Width B/L | 0.40 |
| 1.5mm from Apex MB Width M/D | 0.15 |
| 1.5mm from Apex M Isthmus Width | 0.11 |
| 1.5mm from Apex M Isthmus Length | 0.37 |
| 1.5mm from Apex M Isthmus Type | 5.00 |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.54 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.18 |
| 1.5mm from Apex 1 D Width M/D | 0.31 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.93 |
| 2.0mm from Apex Thinnest Danger Zone ML | 1.00 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.20 |
| 2.0mm from Apex ML Width M/D | 0.24 |
| 2.0mm from Apex MB Width B/L | 0.18 |
| 2.0mm from Apex MB Width M/D | 0.15 |
| 2.0mm from Apex M Isthmus Width | 0.08 |
| 2.0mm from Apex M Isthmus Length | 0.14 |
| 2.0mm from Apex M Isthmus Type | 5.00 |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.94 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.30 |
| 2.0mm from Apex 1 D Width M/D | 0.28 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.91 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.43 |
| 2.5mm from Apex 1 M width M/D | 0.28 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.40 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.44 |
| 2.5mm from Apex 1 D Width M/D | 0.32 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | - |
| 3.0mm from Apex Thinnest Danger Zone ML | - |
| 3.0mm from Apex 1 M Width B/L | 0.39 |
| 3.0mm from Apex 1 M Width M/D | 0.31 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.40 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.45 |
| 3.0mm from Apex 1 D Width M/D | 0.34 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 0.98 |
| 3.5mm from Apex Thinnest Danger Zone MB | - |
| 3.5mm from Apex Thinnest Danger Zone ML | - |
| 3.5mm from Apex 1 M Width B/L | 0.48 |
| 3.5mm from Apex 1 M Width M/D | 0.37 |
| 3.5mm from Apex ML Width B/L | - |
| 3.5mm from Apex ML Width M/D | - |
| 3.5mm from Apex MB Width B/L | - |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | - |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.41 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.53 |
| 3.5mm from Apex 1 D Width M/D | 0.30 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | 1.01 |
| 4.0mm from Apex Thinnest Danger Zone MB | - |
| 4.0mm from Apex Thinnest Danger Zone ML | - |
| 4.0mm from Apex 1 M Width B/L | 0.72 |
| 4.0mm from Apex 1 M Width M/D | 0.45 |
| 4.0mm from Apex ML Width B/L | - |
| 4.0mm from Apex ML Width M/D | - |
| 4.0mm from Apex MB Width B/L | - |
| 4.0mm from Apex MB Width M/D | - |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.41 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.37 |
| 4.0mm from Apex 1 D Width M/D | 0.36 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | 1.10 |
| 4.5mm from Apex Thinnest Danger Zone MB | - |
| 4.5mm from Apex Thinnest Danger Zone ML | - |
| 4.5mm from Apex 1 M Width B/L | 0.77 |
| 4.5mm from Apex 1 M Width M/D | 0.40 |
| 4.5mm from Apex ML Width B/L | - |
| 4.5mm from Apex ML Width M/D | - |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | - |
| 4.5mm from Apex MB Width M/D | - |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.39 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.60 |
| 4.5mm from apex 1 D width M/D | 0.48 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.27 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.14 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.83 |
| 5.0mm from Apex ML Width M/D | 0.39 |
| 5.0mm from Apex MB Width B/L | 0.20 |
| 5.0mm from Apex MB Width M/D | 0.18 |
| 5.0mm from Apex M Isthmus Width | 0.12 |
| 5.0mm from Apex M Isthmus Length | 0.20 |
| 5.0mm from Apex M Isthmus Type | 4.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.35 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.73 |
| 5.0mm from Apex 1 D Width M/D | 0.56 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.24 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.13 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.52 |
| 5.5mm from Apex ML Width M/D | 0.41 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 1.02 |
| 5.5mm from Apex MB Width M/D | 0.32 |
| 5.5mm from Apex M Isthmus Width | 0.20 |
| 5.5mm from Apex M Isthmus Length | 0.76 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.33 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 0.88 |
| 5.5mm from Apex 1 D Width M/D | 0.56 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.15 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.17 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.53 |
| 6.0mm from Apex ML Width M/D | 0.43 |
| 6.0mm from Apex MB Width B/L | 0.92 |
| 6.0mm from Apex MB Width M/D | 0.36 |
| 6.0mm from Apex M Isthmus Width | 0.23 |
| 6.0mm from Apex M Isthmus Length | 0.91 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.40 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.04 |
| 6.0mm from Apex 1 D Width M/D | 0.69 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.10 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.31 |
| 7.0mm from Apex ML Width B/L | 0.64 |
| 7.0mm from Apex ML Width M/D | 0.55 |
| 7.0mm from Apex MB Width B/L | 0.42 |
| 7.0mm from Apex MB width M/D | 0.74 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.22 |
| 7.0mm from Apex M Isthmus Length | 1.19 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.34 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.60 |
| 8.0mm from Apex ML Width B/L | 0.83 |
| 8.0mm from Apex ML Width M/D | 0.50 |
| 8.0mm from Apex MB Width B/L | 0.96 |
| 8mm from Apex MB Width M/D | 0.46 |
| 8mm from Apex M Isthmus Width | 0.09 |
| 8mm from Apex M Isthmus Length | 0.69 |
| 8mm from Apex M Isthmus Type | 4.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.77 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.92 |
| 9.0mm from Apex ML Width B/L | 0.67 |
| 9.0mm from Apex ML Width M/D | 0.42 |
| 9.0mm from Apex MB Width B/L | 0.96 |
| 9.0mm from Apex MB width M/D | 0.56 |
| 9.0mm from Apex M Isthmus Width | 0.31 |
| 9.0mm from Apex M Isthmus Length | 0.71 |
| 9.0mm from Apex M Isthmus Type | 5.00 |
| 9.0mm from Apex M 3rd Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 2.39 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.16 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 5.10 |
| Mesial Canal Type from Orifice to Apex | 1-2 (Type 5) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | 1.59, 2.15 |
| M Level of Lateral Canal Exit | .97, 4.19 |

## TOOTH 15

| | |
|---|---|
| Tooth Name | 15.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 6.00 |
| Number of Exits in Apical 0.5mm D Root | 5.00 |
| M Root Length | 13.02 |
| D Root Length | 13.05 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | 0.59 |
| 0.5mm from Apex Thinnest Danger Zone ML | 0.27 |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | 0.15 |
| 0.5mm from Apex ML Width M/D | 0.13 |
| 0.5mm from Apex MB Width B/L | 0.22 |
| 0.5mm from Apex MB Width M/D | 0.24 |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | 1.22 |
| 0.5mm from Apex Thinnest Danger Zone DL | 0.50 |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | 0.35 |
| 0.5mm from Apex DL Width M/D | 0.22 |
| 0.5mm from Apex DB Width B/L | 0.52 |
| 0.5mm from Apex DB Width M/D | 0.33 |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.70 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.54 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.17 |
| 1.0mm from Apex ML Width M/D | 0.19 |
| 1.0mm from Apex MB Width B/L | 0.20 |
| 1.0mm from Apex MB Width M/D | 0.28 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | - |
| 1.0mm from Apex Thinnest Danger Zone DB | 1.18 |
| 1.0mm from Apex Thinnest Danger Zone DL | 0.65 |
| 1.0mm from Apex 1 D Width B/L | 0.19 |
| 1.0mm from Apex 1 D Width M/D | 0.24 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.53 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.62 |
| 1.5mm from Apex 1 M Width M/D | 0.27 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | - |
| 1.5mm from Apex Thinnest Danger Zone DB | 1.27 |
| 1.5mm from Apex Thinnest Danger Zone DL | 0.63 |
| 1.5mm from Apex 1 D Width B/L | - |
| 1.5mm from Apex 1 D Width M/D | - |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.79 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.57 |
| 2.0mm from Apex 1 M Width M/D | 0.20 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.44 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.68 |
| 2.0mm from Apex 1 D Width M/D | 0.24 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.98 |
| 2.5mm from Apex Thinnest Danger Zone ML | 1.13 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.55 |
| 2.5mm from Apex ML Width M/D | 0.22 |
| 2.5mm from Apex MB Width B/L | 0.48 |
| 2.5mm from Apex MB Width M/D | 0.23 |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | 0.16 |
| 2.5mm from Apex M Isthmus Length | 0.27 |
| 2.5mm from Apex M Isthmus Type | 5.00 |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.40 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.77 |
| 2.5mm from Apex 1 D Width M/D | 0.34 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 1.15 |
| 3.0mm from Apex Thinnest Danger Zone ML | 1.12 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.32 |
| 3.0mm from Apex ML Width M/D | 0.18 |
| 3.0mm from Apex MB Width B/L | 0.35 |
| 3.0mm from Apex MB Width M/D | 0.24 |
| 3.0mm from Apex M Isthmus Width | 0.06 |
| 3.0mm from Apex M Isthmus Length | 0.65 |
| 3.0mm from Apex M Isthmus Type | 2.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.60 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.90 |
| 3.0mm from Apex 1 D Width M/D | 0.29 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 1.09 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.90 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.57 |
| 3.5mm from Apex ML Width M/D | 0.21 |
| 3.5mm from Apex MB Width B/L | 0.58 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.26 |
| 3.5mm from Apex Isthmus Width | 0.05 |
| 3.5mm from Apex Isthmus Length | 1.16 |
| 3.5mm from Apex Isthmus Type | 2.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.56 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.76 |
| 3.5mm from Apex 1 D Width M/D | 0.28 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.90 |
| 4.0mm from Apex Thinnest Danger Zone ML | 1.09 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.46 |
| 4.0mm from Apex ML Width M/D | 0.23 |
| 4.0mm from Apex MB Width B/L | 0.69 |
| 4.0mm from Apex MB Width M/D | 0.25 |
| 4.0mm from Apex M Isthmus Width | 0.06 |
| 4.0mm from Apex M Isthmus Length | 1.23 |
| 4.0mm from Apex M Isthmus Type | 4.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | - |
| 4.0mm from Apex Thinnest Danger Zone DB | 1.70 |
| 4.0mm from Apex Thinnest Danger Zone DL | 1.60 |
| 4.0mm from Apex 1 D Width B/L | - |
| 4.0mm from Apex 1 D Width M/D | - |
| 4.0mm from Apex DL Width B/L | 0.44 |
| 4.0mm from Apex DL Width M/D | 0.27 |
| 4.0mm from Apex DB Width B/L | 0.39 |
| 4mm from Apex DB width M/D | 0.29 |
| 4mm from Apex D Isthmus Width | 0.13 |
| 4mm from Apex D Isthmus Length | 0.34 |
| 4mm from Apex D Isthmus Type | 5.00 |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.20 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.06 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.87 |
| 4.5mm from Apex ML Width M/D | 0.26 |
| 4.5mm from Apex MB Width B/L | 0.44 |

| | |
|---|---|
| 4.5mm from Apex MB Width M/D | 0.23 |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | - |
| 4.5mm from Apex Thinnest Danger Zone DB | 1.64 |
| 4.5mm from Apex Thinnest Danger Zone DL | 1.49 |
| 4.5mm from Apex 1 D Width B/L | - |
| 4.5mm from apex 1 D width M/D | - |
| 4.5mm from Apex DL Width B/L | 0.57 |
| 4.5mm from Apex DL Width M/D | 0.26 |
| 4.5mm from Apex DB Width B/L | 0.46 |
| 4.5mm from Apex DB Width M/D | 0.32 |
| 4.5mm from Apex D Isthmus Width | 0.14 |
| 4.5mm from Apex D Isthmus Length | 0.37 |
| 4.5mm from Apex D Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.26 |
| 5.0mm from Apex Tinnest Danger Zone ML | 1.24 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.82 |
| 5.0mm from Apex ML Width M/D | 0.25 |
| 5.0mm from Apex MB Width B/L | 0.41 |
| 5.0mm from Apex MB Width M/D | 0.28 |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | - |
| 5.0mm from Apex Thinnest Danger Zone DB | 1.57 |
| 5.0mm from Apex Thinnest Danger Zone DL | 1.59 |
| 5.0mm from Apex 1 D Width B/L | - |
| 5.0mm from Apex 1 D Width M/D | - |
| 5.0mm from Apex DL Width B/L | 0.65 |
| 5.0mm from Apex DL Width M/D | 0.23 |
| 5.0mm from Apex DB Width B/L | 0.41 |
| 5.0mm from Apex DB Width M/D | 0.33 |
| 5.0mm from Apex D Isthmus Width | 0.14 |
| 5.0mm from Apex D Isthmus Length | 0.57 |
| 5.0mm from Apex D Isthmus Type | 5.00 |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.26 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.37 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.57 |
| 5.5mm from Apex ML Width M/D | 0.26 |
| 5.5mm from Apex MB Width B/L | 0.36 |

| | |
|---|---|
| 5.5mm from Apex MB Width M/D | 0.26 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.49 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | - |
| 5.5mm from Apex 1 D Width M/D | - |
| 5.5mm from Apex DL Width B/L | 0.80 |
| 5.5mm from Apex DL Width M/D | 0.27 |
| 5.5mm from Apex DB Width B/L | 0.51 |
| 5.5mm from Apex DB Width M/D | 0.38 |
| 5.5mm from Apex D Isthmus Width | 0.13 |
| 5.5mm from Apex D Isthmus Length | 0.64 |
| 5.5mm from Apex D Isthmus Type | 5.00 |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.41 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.35 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.64 |
| 6.0mm from Apex ML Width M/D | 0.20 |
| 6.0mm from Apex MB Width B/L | 0.33 |
| 6.0mm from Apex MB Width M/D | 0.28 |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | - |
| 6.0mm from Apex Thinnest Danger Zone DB | 1.44 |
| 6.0mm from Apex Thinnest Danger Zone DL | 1.47 |
| 6.0mm from Apex 1 D Width B/L | - |
| 6.0mm from Apex 1 D Width M/D | - |
| 6.0mm from Apex DL Width B/L | 0.71 |
| 6.0mm from Apex DL Width M/D | 0.28 |
| 6.0mm from Apex DB Width B/L | 0.60 |
| 6.0mm from Apex DB Width M/D | 0.39 |
| 6.0mm from Apex D Isthmus Width | 0.10 |
| 6.0mm from Apex D Isthmus Length | 0.75 |
| 6.0mm from Apex D Isthmus Type | 5.00 |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.28 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.37 |
| 7.0mm from Apex ML Width B/L | 0.61 |
| 7.0mm from Apex ML Width M/D | 0.34 |
| 7.0mm from Apex MB Width B/L | 0.40 |
| 7.0mm from Apex MB width M/D | 0.30 |
| 7.0mm from Apex M Isthmus Width | - |

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|---|---|
| 7.0mm from Apex M Isthmus Length | - |
| 7.0mm from Apex M Isthmus Type | - |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.36 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.22 |
| 8.0mm from Apex ML Width B/L | 0.34 |
| 8.0mm from Apex ML Width M/D | 0.36 |
| 8.0mm from Apex MB Width B/L | 0.46 |
| 8mm from Apex MB Width M/D | 0.30 |
| 8mm from Apex M Isthmus Width | - |
| 8mm from Apex M Isthmus Length | - |
| 8mm from Apex M Isthmus Type | - |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.34 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.25 |
| 9.0mm from Apex ML Width B/L | 0.47 |
| 9.0mm from Apex ML Width M/D | 0.34 |
| 9.0mm from Apex MB Width B/L | 0.64 |
| 9.0mm from Apex MB width M/D | 0.38 |
| 9.0mm from Apex M Isthmus Width | 0.05 |
| 9.0mm from Apex M Isthmus Length | 3.49 |
| 9.0mm from Apex M Isthmus Type | 2.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.30 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.34 |
| 10.0mm from Apex ML Width B/L | 0.70 |
| 10.0mm from Apex ML Width M/D | 0.43 |
| 10.0mm from Apex MB Width B/L | 0.51 |
| 10.0mm from Apex MB Width M/D | 0.43 |
| 10.0mm from Apex M Isthmus Width | - |
| 10.0mm from Apex M Isthmus Length | - |
| 10.0mm from Apex M Isthmus Type | - |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| 11.0mm from Apex Thinnest Danger Zone MB | 1.60 |
| 11.0mm from Apex Thinnest Danger Zone ML | 1.37 |
| 11.0mm from Apex ML Width B/L | 0.65 |
| 11.0mm from Apex ML Width M/D | 0.48 |
| 11.0mm from Apex MB Width B/L | 0.62 |
| 11.0mm from Apex MB Width M/D | 0.40 |
| 11.0mm from Apex M Isthmus Width | - |
| 11.0mm from Apex M Isthmus Length | - |
| 11.0mm from Apex M Isthmus Type | - |
| 11.0mm from Apex M 3rd Canal | - |
| 11.0mm from Apex M 4th Canal | - |
| 12.0mm from Apex Thinnest Danger Zone MB | 1.64 |
| 12.0mm from Apex Thinnest Danger Zone ML | 1.53 |
| 12.0mm from Apex ML Width B/L | 0.56 |
| 12.0mm from Apex ML Width M/D | 0.54 |

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|---|---|
| 12.0mm from Apex MB Width B/L | 0.64 |
| 12.0mm from Apex MB Width M/D | 0.44 |
| 12.0mm from Apex M 3rd Canal | - |
| 12.0mm from Apex M 4th Canal | - |
| 12.0mm from Apex M Isthmus Width | - |
| 12.0mm from Apex M Isthmus Length | - |
| 12.0mm from Apex M Isthmus Type | - |
| 13.0mm from Apex Thinnest Danger Zone MB | 1.33 |
| 13.0mm from Apex Thinnest Danger Zone ML | 1.35 |
| 13.0mm from Apex ML Width B/L | 0.56 |
| 13.0mm from Apex ML Width M/D | 0.62 |
| 13.0mm from Apex MB Width B/L | 0.79 |
| 13.0mm from Apex MB Width M/D | 0.50 |
| 13.0mm from Apex M Isthmus Width | - |
| 13.0mm from Apex M Isthmus Length | - |
| 13.0mm from Apex M Isthmus Type | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.45 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 2.32 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 2.66 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.61 |
| Mesial Canal Type from Orifice to Apex | 2-1-2 (Type 6) |
| Distal Canal Type from Orifice to Apex | 1-2-1 (Type 3) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | 8.05 to 9.01 |
| D Level of Lateral Canal Exit | .53, 1.34, 2.46 |
| M Level of Lateral Canal Exit | 1.04 |

## TOOTH 16

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|---|---|
| Tooth Name | 16.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 8.00 |
| Number of Exits in Apical 0.5mm D Root | 5.00 |
| M Root Length | 7.62 |
| D Root Length | 9.31 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | 1.01 |
| 0.5mm from Apex Thinnest Danger Zone ML | 0.14 |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | 0.49 |
| 0.5mm from Apex ML Width M/D | 0.15 |
| 0.5mm from Apex MB Width B/L | 0.34 |
| 0.5mm from Apex MB Width M/D | 0.42 |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.94 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.45 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.32 |
| 1.0mm from Apex ML Width M/D | 0.15 |
| 1.0mm from Apex MB Width B/L | 0.23 |
| 1.0mm from Apex MB Width M/D | 0.29 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.47 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.76 |
| 1.0mm from Apex 1 D Width M/D | 0.37 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.90 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.55 |
| 1.5mm from Apex 1 M Width B/L | 0.18 |
| 1.5mm from Apex 1 M Width M/D | 0.22 |
| 1.5mm from Apex ML Width B/L | - |

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|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.81 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 1.16 |
| 1.5mm from Apex 1 D Width M/D | 0.37 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 1.16 |
| 2.0mm from Apex Thinnest Danger Zone ML | 1.01 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.36 |
| 2.0mm from Apex ML Width M/D | 0.27 |
| 2.0mm from Apex MB Width B/L | 0.33 |
| 2.0mm from Apex MB Width M/D | 0.16 |
| 2.0mm from Apex M Isthmus Width | 0.10 |
| 2.0mm from Apex M Isthmus Length | 0.31 |
| 2.0mm from Apex M Isthmus Type | 5.00 |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.10 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.68 |
| 2.0mm from Apex 1 D Width M/D | 0.34 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 1.37 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.93 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.24 |
| 2.5mm from Apex ML Width M/D | 0.18 |
| 2.5mm from Apex MB Width B/L | 0.22 |
| 2.5mm from Apex MB Width M/D | 0.20 |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | 0.13 |
| 2.5mm from Apex M Isthmus Length | 0.84 |
| 2.5mm from Apex M Isthmus Type | 3.00 |
| 2.5mm from Apex M 3rd Canal | 0.36mm x 0.15mm |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.17 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.36 |
| 2.5mm from Apex 1 D Width M/D | 0.40 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 1.47 |
| 3.0mm from Apex Thinnest Danger Zone ML | 1.05 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.43 |
| 3.0mm from Apex ML Width M/D | 0.19 |
| 3.0mm from Apex MB Width B/L | 0.30 |
| 3.0mm from Apex MB Width M/D | 0.21 |
| 3.0mm from Apex M Isthmus Width | 0.11 |
| 3.0mm from Apex M Isthmus Length | 1.25 |
| 3.0mm from Apex M Isthmus Type | 2.00 |
| 3.0mm from Apex M 3rd Canal | 0.39mm x 0.19mm |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.12 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.43 |
| 3.0mm from Apex 1 D Width M/D | 0.39 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 1.24 |
| 3.5mm from Apex Thinnest Danger Zone ML | 1.12 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.54 |
| 3.5mm from Apex ML Width M/D | 0.15 |
| 3.5mm from Apex MB Width B/L | 0.52 |

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|---|---|
| 3.5mm from Apex MB Width M/D | 0.20 |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | 0.58mm x 0.16mm |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.30 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.56 |
| 3.5mm from Apex 1 D Width M/D | 0.43 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.27 |
| 4.0mm from Apex Thinnest Danger Zone ML | 1.26 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.80 |
| 4.0mm from Apex ML Width M/D | 0.16 |
| 4.0mm from Apex MB Width B/L | 0.56 |
| 4.0mm from Apex MB Width M/D | 0.20 |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | 0.78mm x 0.13mm |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.31 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.58 |
| 4.0mm from Apex 1 D Width M/D | 0.43 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.58 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.34 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 1.13 |
| 4.5mm from Apex ML Width M/D | 0.31 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.39 |
| 4.5mm from Apex MB Width M/D | 0.18 |
| 4.5mm from Apex M Isthmus Width | 0.09 |
| 4.5mm from Apex M Isthmus Length | 0.89 |
| 4.5mm from Apex M Isthmus Type | 4.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.31 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.77 |
| 4.5mm from apex 1 D width M/D | 0.51 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.52 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.41 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 1.11 |
| 5.0mm from Apex ML Width M/D | 0.28 |
| 5.0mm from Apex MB Width B/L | 0.91 |
| 5.0mm from Apex MB Width M/D | 0.25 |
| 5.0mm from Apex M Isthmus Width | 0.09 |
| 5.0mm from Apex M Isthmus Length | 1.12 |
| 5.0mm from Apex M Isthmus Type | 2.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.34 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.85 |
| 5.0mm from Apex 1 D Width M/D | 0.56 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.75 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.65 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.89 |
| 5.5mm from Apex ML Width M/D | 0.25 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.81 |
| 5.5mm from Apex MB Width M/D | 0.34 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.38 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 0.89 |
| 5.5mm from Apex 1 D Width M/D | 0.62 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.85 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.69 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.61 |
| 6.0mm from Apex ML Width M/D | 0.24 |
| 6.0mm from Apex MB Width B/L | 0.72 |
| 6.0mm from Apex MB Width M/D | 0.35 |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.44 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.08 |
| 6.0mm from Apex 1 D Width M/D | 0.63 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.89 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.59 |
| 7.0mm from Apex ML Width B/L | 0.62 |
| 7.0mm from Apex ML Width M/D | 0.45 |
| 7.0mm from Apex MB Width B/L | 0.59 |
| 7.0mm from Apex MB width M/D | 0.40 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | - |
| 7.0mm from Apex M Isthmus Length | - |
| 7.0mm from Apex M Isthmus Type | - |
| 7.0mm from Apex M 3rd Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.59 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 2.18 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.44 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.91 |
| Mesial Canal Type from Orifice to Apex | 2-3-1-2 (Type ?) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 2.11 to 4.48 |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | 1.39 |
| M Level of Lateral Canal Exit | 0.79 |

## TOOTH 17

| | |
|---|---|
| Tooth Name | 17.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 3.00 |
| Number of Exits in Apical 0.5mm D Root | 3.00 |
| M Root Length | 11.19 |
| D Root Length | 8.70 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | 1.76 |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | 0.31 |
| 0.5mm from Apex 1 D Width M/D | 0.25 |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.29 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.33 |
| 1.0mm from Apex 1 M Width M/D | 0.36 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 2.19 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.33 |
| 1.0mm from Apex 1 D Width M/D | 0.43 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.35 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.78 |
| 1.5mm from Apex 1 M Width M/D | 0.34 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 1.77 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.50 |
| 1.5mm from Apex 1 D Width M/D | 0.40 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.61 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.50 |
| 2.0mm from Apex 1 M Width M/D | 0.48 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.71 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.57 |
| 2.0mm from Apex 1 D Width M/D | 0.32 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 1.07 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.64 |
| 2.5mm from Apex 1 M width M/D | 0.48 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.72 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.48 |
| 2.5mm from Apex 1 D Width M/D | 0.39 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | 1.75 |
| 3.0mm from Apex Thinnest Danger Zone MB | - |
| 3.0mm from Apex Thinnest Danger Zone ML | - |
| 3.0mm from Apex 1 M Width B/L | 1.02 |
| 3.0mm from Apex 1 M Width M/D | 0.40 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.65 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.68 |
| 3.0mm from Apex 1 D Width M/D | 0.42 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 1.79 |
| 3.5mm from Apex Thinnest Danger Zone ML | 1.77 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.41 |
| 3.5mm from Apex ML Width M/D | 0.33 |
| 3.5mm from Apex MB Width B/L | 0.26 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.35 |
| 3.5mm from Apex Isthmus Width | 0.20 |
| 3.5mm from Apex Isthmus Length | 0.44 |
| 3.5mm from Apex Isthmus Type | 5.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.63 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.95 |
| 3.5mm from Apex 1 D Width M/D | 0.46 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.66 |
| 4.0mm from Apex Thinnest Danger Zone ML | 1.84 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.26 |
| 4.0mm from Apex ML Width M/D | 0.42 |
| 4.0mm from Apex MB Width B/L | 0.22 |
| 4.0mm from Apex MB Width M/D | 0.26 |
| 4.0mm from Apex M Isthmus Width | 0.20 |
| 4.0mm from Apex M Isthmus Length | 0.72 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.57 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 1.10 |
| 4.0mm from Apex 1 D Width M/D | 0.37 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.55 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.61 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.27 |
| 4.5mm from Apex ML Width M/D | 0.21 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.49 |
| 4.5mm from Apex MB Width M/D | 0.26 |
| 4.5mm from Apex M Isthmus Width | 0.17 |
| 4.5mm from Apex M Isthmus Length | 0.82 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.44 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.27 |
| 4.5mm from apex 1 D width M/D | 0.41 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.38 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.38 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.45 |
| 5.0mm from Apex ML Width M/D | 0.32 |
| 5.0mm from Apex MB Width B/L | 0.73 |
| 5.0mm from Apex MB Width M/D | 0.39 |
| 5.0mm from Apex M Isthmus Width | 0.17 |
| 5.0mm from Apex M Isthmus Length | 1.01 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.31 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.34 |
| 5.0mm from Apex 1 D Width M/D | 0.45 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.43 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.35 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.30 |
| 5.5mm from Apex ML Width M/D | 0.25 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.71 |
| 5.5mm from Apex MB Width M/D | 0.24 |
| 5.5mm from Apex M Isthmus Width | 0.14 |
| 5.5mm from Apex M Isthmus Length | 1.53 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.22 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.41 |
| 5.5mm from Apex 1 D Width M/D | 0.46 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.48 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.07 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.28 |
| 6.0mm from Apex ML Width M/D | 0.30 |
| 6.0mm from Apex MB Width B/L | 0.32 |
| 6.0mm from Apex MB Width M/D | 0.27 |
| 6.0mm from Apex M Isthmus Width | 0.12 |
| 6.0mm from Apex M Isthmus Length | 0.21 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.24 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.39 |
| 6.0mm from Apex 1 D Width M/D | 0.51 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.40 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.31 |
| 7.0mm from Apex ML Width B/L | 0.42 |
| 7.0mm from Apex ML Width M/D | 0.28 |
| 7.0mm from Apex MB Width B/L | 0.79 |
| 7.0mm from Apex MB width M/D | 0.28 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.11 |
| 7.0mm from Apex M Isthmus Length | 1.80 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.39 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.26 |
| 8.0mm from Apex ML Width B/L | 0.25 |
| 8.0mm from Apex ML Width M/D | 0.30 |
| 8.0mm from Apex MB Width B/L | 0.28 |
| 8mm from Apex MB Width M/D | 0.41 |
| 8mm from Apex M Isthmus Width | 0.90 |
| 8mm from Apex M Isthmus Length | 2.77 |
| 8mm from Apex M Isthmus Type | 5.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.28 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.17 |
| 9.0mm from Apex ML Width B/L | 0.41 |
| 9.0mm from Apex ML Width M/D | 0.29 |
| 9.0mm from Apex MB Width B/L | 0.36 |
| 9.0mm from Apex MB width M/D | 0.46 |
| 9.0mm from Apex M Isthmus Width | 0.08 |
| 9.0mm from Apex M Isthmus Length | 2.69 |
| 9.0mm from Apex M Isthmus Type | 2.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.14 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.19 |
| 10.0mm from Apex ML Width B/L | 0.61 |
| 10.0mm from Apex ML Width M/D | 0.37 |
| 10.0mm from Apex MB Width B/L | 0.50 |
| 10.0mm from Apex MB Width M/D | 0.52 |
| 10.0mm from Apex M Isthmus Width | 0.11 |
| 10.0mm from Apex M Isthmus Length | 2.41 |
| 10.0mm from Apex M Isthmus Type | 2.00 |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| 11.0mm from Apex Thinnest Danger Zone MB | 1.30 |
| 11.0mm from Apex Thinnest Danger Zone ML | 1.35 |
| 11.0mm from Apex ML Width B/L | 0.61 |
| 11.0mm from Apex ML Width M/D | 0.26 |
| 11.0mm from Apex MB Width B/L | 0.66 |
| 11.0mm from Apex MB Width M/D | 0.46 |
| 11.0mm from Apex M Isthmus Width | 0.11 |
| 11.0mm from Apex M Isthmus Length | 1.78 |
| 11.0mm from Apex M Isthmus Type | 2.00 |
| 11.0mm from Apex M 3rd Canal | - |
| 11.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 2.35 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |

| | |
|---|---|
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.01 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 3.96 |
| Mesial Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | .62, 1.58 |
| M Level of Lateral Canal Exit | 1.12 |

## TOOTH 18

| | |
|---|---|
| Tooth Name | 18.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 2.00 |
| Number of Exits in Apical 0.5mm D Root | 1.00 |
| M Root Length | 9.77 |
| D Root Length | 9.70 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.75 |
| 0.5mm from Apex 1 M Width M/D | 0.54 |
| 0.5mm from Apex ML Width B/L | 0.75 |
| 0.5mm from Apex ML Width M/D | 0.54 |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.79 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.62 |
| 1.0mm from Apex 1 M Width M/D | 0.44 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 1.22 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.39 |
| 1.0mm from Apex 1 D Width M/D | 0.60 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.84 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.57 |
| 1.5mm from Apex 1 M Width M/D | 0.34 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.91 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.75 |
| 1.5mm from Apex 1 D Width M/D | 0.54 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.84 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.83 |
| 2.0mm from Apex 1 M Width M/D | 0.30 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.89 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.79 |
| 2.0mm from Apex 1 D Width M/D | 0.45 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.87 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 1.23 |
| 2.5mm from Apex 1 M width M/D | 0.35 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 0.80 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.85 |
| 2.5mm from Apex 1 D Width M/D | 0.56 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 1.03 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.81 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.32 |
| 3.0mm from Apex ML Width M/D | 0.35 |
| 3.0mm from Apex MB Width B/L | 0.40 |
| 3.0mm from Apex MB Width M/D | 0.36 |
| 3.0mm from Apex M Isthmus Width | 0.30 |
| 3.0mm from Apex M Isthmus Length | 0.75 |
| 3.0mm from Apex M Isthmus Type | 5.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 0.87 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.92 |
| 3.0mm from Apex 1 D Width M/D | 0.57 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.97 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.93 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.23 |
| 3.5mm from Apex ML Width M/D | 0.42 |
| 3.5mm from Apex MB Width B/L | 0.24 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.42 |
| 3.5mm from Apex Isthmus Width | 0.28 |
| 3.5mm from Apex Isthmus Length | 0.84 |
| 3.5mm from Apex Isthmus Type | 5.00 |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 0.94 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 1.00 |
| 3.5mm from Apex 1 D Width M/D | 0.65 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.04 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.95 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.27 |
| 4.0mm from Apex ML Width M/D | 0.44 |
| 4.0mm from Apex MB Width B/L | 0.27 |
| 4.0mm from Apex MB Width M/D | 0.44 |
| 4.0mm from Apex M Isthmus Width | 0.34 |
| 4.0mm from Apex M Isthmus Length | 0.91 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 0.92 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.66 |
| 4.0mm from Apex 1 D Width M/D | 0.54 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.05 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.12 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.34 |
| 4.5mm from Apex ML Width M/D | 0.44 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.35 |
| 4.5mm from Apex MB Width M/D | 0.39 |
| 4.5mm from Apex M Isthmus Width | 0.32 |
| 4.5mm from Apex M Isthmus Length | 0.94 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 0.95 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.29 |
| 4.5mm from apex 1 D width M/D | 0.84 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.20 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.14 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.54 |
| 5.0mm from Apex ML Width M/D | 0.47 |
| 5.0mm from Apex MB Width B/L | 0.39 |
| 5.0mm from Apex MB Width M/D | 0.38 |
| 5.0mm from Apex M Isthmus Width | 0.24 |
| 5.0mm from Apex M Isthmus Length | 0.91 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.03 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.49 |
| 5.0mm from Apex 1 D Width M/D | 0.89 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.30 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.17 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.67 |
| 5.5mm from Apex ML Width M/D | 0.44 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.70 |
| 5.5mm from Apex MB Width M/D | 0.38 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.03 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 0.92 |
| 5.5mm from Apex 1 D Width M/D | 0.53 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.44 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.26 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.60 |
| 6.0mm from Apex ML Width M/D | 0.44 |
| 6.0mm from Apex MB Width B/L | 0.69 |
| 6.0mm from Apex MB Width M/D | 0.33 |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.07 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.77 |
| 6.0mm from Apex 1 D Width M/D | 0.93 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.32 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.39 |
| 7.0mm from Apex ML Width B/L | 0.62 |
| 7.0mm from Apex ML Width M/D | 0.38 |
| 7.0mm from Apex MB Width B/L | 0.65 |
| 7.0mm from Apex MB width M/D | 0.50 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | - |
| 7.0mm from Apex M Isthmus Length | - |
| 7.0mm from Apex M Isthmus Type | - |
| 7.0mm from Apex M 3rd Canal | 0.29 x 0.11 |
| 8.0mm from Apex Thinnest Danger Zone MB | 0.85 |
| 8.0mm from Apex Thinnest Danger Zone ML | 0.85 |
| 8.0mm from Apex ML Width B/L | 1.36 |
| 8.0mm from Apex ML Width M/D | 0.31 |
| 8.0mm from Apex MB Width B/L | 0.91 |
| 8mm from Apex MB Width M/D | 0.36 |
| 8mm from Apex M Isthmus Width | - |
| 8mm from Apex M Isthmus Length | - |
| 8mm from Apex M Isthmus Type | - |
| 8mm from Apex M 3rd Canal | 0.16 x 0.17 |
| 9.0mm from Apex Thinnest Danger Zone MB | 0.86 |
| 9.0mm from Apex Thinnest Danger Zone ML | 0.86 |
| 9.0mm from Apex ML Width B/L | 0.95 |
| 9.0mm from Apex ML Width M/D | 0.26 |
| 9.0mm from Apex MB Width B/L | 1.12 |
| 9.0mm from Apex MB width M/D | 0.39 |
| 9.0mm from Apex M Isthmus Width | 0.05 |
| 9.0mm from Apex M Isthmus Length | 1.34 |
| 9.0mm from Apex M Isthmus Type | 3.00 |
| 9.0mm from Apex M 3rd Canal | 0.5 x 0.19 |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 2.61 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.35 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.80 |
| Mesial Canal Type from Orifice to Apex | 2-3-2-1 (Type ?) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 6.93 to 8.08 and 8.59 to 9.51 |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | .64, 1.01 |
| M Level of Lateral Canal Exit | 1.01, 1.36, 1.7, 2.19 |

## TOOTH 19

| | |
|---|---|
| Tooth Name | 19.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 1.00 |
| Number of Exits in Apical 0.5mm D Root | 1.00 |
| M Root Length | 12.32 |
| D Root Length | 12.10 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.11 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.34 |
| 1.0mm from Apex 1 M Width M/D | 0.32 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | - |
| 1.0mm from Apex Thinnest Danger Zone DB | 2.20 |
| 1.0mm from Apex Thinnest Danger Zone DL | 0.40 |
| 1.0mm from Apex 1 D Width B/L | 0.33 |
| 1.0mm from Apex 1 D Width M/D | 0.31 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.28 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.34 |
| 1.5mm from Apex 1 M Width M/D | 0.40 |
| 1.5mm from Apex ML Width B/L | - |

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|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 1.70 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.32 |
| 1.5mm from Apex 1 D Width M/D | 0.51 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.31 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.90 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.59 |
| 2.0mm from Apex 1 D Width M/D | 0.36 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.81 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.47 |
| 2.5mm from Apex 1 M width M/D | 0.31 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

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|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.77 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.58 |
| 2.5mm from Apex 1 D Width M/D | 0.38 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | 0.92 |
| 3.0mm from Apex Thinnest Danger Zone MB | - |
| 3.0mm from Apex Thinnest Danger Zone ML | - |
| 3.0mm from Apex 1 M Width B/L | 0.49 |
| 3.0mm from Apex 1 M Width M/D | 0.34 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.66 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.55 |
| 3.0mm from Apex 1 D Width M/D | 0.42 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 0.97 |
| 3.5mm from Apex Thinnest Danger Zone MB | - |
| 3.5mm from Apex Thinnest Danger Zone ML | - |
| 3.5mm from Apex 1 M Width B/L | 0.62 |
| 3.5mm from Apex 1 M Width M/D | 0.33 |
| 3.5mm from Apex ML Width B/L | - |
| 3.5mm from Apex ML Width M/D | - |
| 3.5mm from Apex MB Width B/L | - |

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|---|---|
| 3.5mm from Apex MB Width M/D | - |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.48 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.71 |
| 3.5mm from Apex 1 D Width M/D | 0.48 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | 1.09 |
| 4.0mm from Apex Thinnest Danger Zone MB | - |
| 4.0mm from Apex Thinnest Danger Zone ML | - |
| 4.0mm from Apex 1 M Width B/L | 0.78 |
| 4.0mm from Apex 1 M Width M/D | 0.35 |
| 4.0mm from Apex ML Width B/L | - |
| 4.0mm from Apex ML Width M/D | - |
| 4.0mm from Apex MB Width B/L | - |
| 4.0mm from Apex MB Width M/D | - |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.46 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.71 |
| 4.0mm from Apex 1 D Width M/D | 0.55 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | 1.08 |
| 4.5mm from Apex Thinnest Danger Zone MB | - |
| 4.5mm from Apex Thinnest Danger Zone ML | - |
| 4.5mm from Apex 1 M Width B/L | 0.99 |
| 4.5mm from Apex 1 M Width M/D | 0.37 |
| 4.5mm from Apex ML Width B/L | - |
| 4.5mm from Apex ML Width M/D | - |

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|---|---|
| 4.5mm from Apex MB Width B/L | - |
| 4.5mm from Apex MB Width M/D | - |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.73 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 0.79 |
| 4.5mm from apex 1 D width M/D | 0.53 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | 1.14 |
| 5.0mm from Apex Thinnest Danger Zone MB | - |
| 5.0mm from Apex Tinnest Danger Zone ML | - |
| 5.0mm from Apex 1 M Width B/L | 1.35 |
| 5.0mm from Apex 1 M Width M/D | 0.33 |
| 5.0mm from Apex ML Width B/L | - |
| 5.0mm from Apex ML Width M/D | - |
| 5.0mm from Apex MB Width B/L | - |
| 5.0mm from Apex MB Width M/D | - |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.67 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 0.97 |
| 5.0mm from Apex 1 D Width M/D | 0.59 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | 1.11 |
| 5.5mm from Apex Thinnest Danger Zone MB | - |
| 5.5mm from Apex Thinnest Danger zone ML | - |
| 5.5mm from Apex 1 M Width B/L | 1.67 |
| 5.5mm from Apex 1 M Width M/D | 0.27 |
| 5.5mm from Apex ML Width B/L | - |
| 5.5mm from Apex ML Width M/D | - |

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|---|---|
| 5.5mm from Apex MB Width B/L | - |
| 5.5mm from Apex MB Width M/D | - |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.63 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.14 |
| 5.5mm from Apex 1 D Width M/D | 0.68 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.36 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.13 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.83 |
| 6.0mm from Apex ML Width M/D | 0.36 |
| 6.0mm from Apex MB Width B/L | 0.49 |
| 6.0mm from Apex MB Width M/D | 0.38 |
| 6.0mm from Apex M Isthmus Width | 0.20 |
| 6.0mm from Apex M Isthmus Length | 0.69 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.49 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.07 |
| 6.0mm from Apex 1 D Width M/D | 0.71 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.40 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.09 |
| 7.0mm from Apex ML Width B/L | 0.97 |
| 7.0mm from Apex ML Width M/D | 0.48 |
| 7.0mm from Apex MB Width B/L | 0.63 |
| 7.0mm from Apex MB width M/D | 0.50 |

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|---|---|
| 7.0mm from Apex M Isthmus Width | 0.24 |
| 7.0mm from Apex M Isthmus Length | 1.12 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.35 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.09 |
| 8.0mm from Apex ML Width B/L | 1.32 |
| 8.0mm from Apex ML Width M/D | 0.49 |
| 8.0mm from Apex MB Width B/L | 0.85 |
| 8mm from Apex MB Width M/D | 0.53 |
| 8mm from Apex M Isthmus Width | 0.12 |
| 8mm from Apex M Isthmus Length | 1.15 |
| 8mm from Apex M Isthmus Type | 5.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.47 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.14 |
| 9.0mm from Apex ML Width B/L | 1.57 |
| 9.0mm from Apex ML Width M/D | 0.56 |
| 9.0mm from Apex MB Width B/L | 0.73 |
| 9.0mm from Apex MB width M/D | 0.55 |
| 9.0mm from Apex M Isthmus Width | 0.09 |
| 9.0mm from Apex M Isthmus Length | 1.63 |
| 9.0mm from Apex M Isthmus Type | 4.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.30 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.39 |
| 10.0mm from Apex ML Width B/L | 0.96 |
| 10.0mm from Apex ML Width M/D | 0.47 |
| 10.0mm from Apex MB Width B/L | 0.84 |
| 10.0mm from Apex MB Width M/D | 0.50 |
| 10.0mm from Apex M Isthmus Width | 0.07 |
| 10.0mm from Apex M Isthmus Length | 2.78 |
| 10.0mm from Apex M Isthmus Type | 3.00 |
| 10.0mm from Apex M 3rd Canal | 0.28 x 0.16 |
| 10.0mm from Apex M 4th Canal | - |
| 11.0mm from Apex Thinnest Danger Zone MB | 1.11 |
| 11.0mm from Apex Thinnest Danger Zone ML | 1.18 |
| 11.0mm from Apex ML Width B/L | 0.82 |
| 11.0mm from Apex ML Width M/D | 0.58 |
| 11.0mm from Apex MB Width B/L | 0.83 |
| 11.0mm from Apex MB Width M/D | 0.52 |
| 11.0mm from Apex M Isthmus Width | - |
| 11.0mm from Apex M Isthmus Length | - |
| 11.0mm from Apex M Isthmus Type | - |
| 11.0mm from Apex M 3rd Canal | 0.4 x 0.17 |
| 11.0mm from Apex M 4th Canal | - |
| 12.0mm from Apex Thinnest Danger Zone MB | 1.04 |
| 12.0mm from Apex Thinnest Danger Zone ML | 1.13 |
| 12.0mm from Apex ML Width B/L | 0.87 |

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|---|---|
| 12.0mm from Apex ML Width M/D | 0.64 |
| 12.0mm from Apex MB Width B/L | 0.87 |
| 12.0mm from Apex MB Width M/D | 0.68 |
| 12.0mm from Apex M 3rd Canal | 0.21 x 0.2 |
| 12.0mm from Apex M 4th Canal | - |
| 12.0mm from Apex M Isthmus Width | - |
| 12.0mm from Apex M Isthmus Length | - |
| 12.0mm from Apex M Isthmus Type | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.84 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 2.75 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.45 |
| Mesial Canal Type from Orifice to Apex | 3-2-1 (Type 22) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 8.83 to orifice |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | 0.72 |
| M Level of Lateral Canal Exit | 1.25 |

## TOOTH 20

| | |
|---|---|
| Tooth Name | 20.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 6.00 |
| Number of Exits in Apical 0.5mm D Root | 7.00 |
| M Root Length | 10.45 |
| D Root Length | 9.22 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.21 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.29 |
| 0.5mm from Apex 1 M Width M/D | 0.35 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | 0.82 |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | 0.81 |
| 0.5mm from Apex DL Width M/D | 0.19 |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.75 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.08 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.62 |
| 1.0mm from Apex ML Width M/D | 0.31 |
| 1.0mm from Apex MB Width B/L | 0.51 |
| 1.0mm from Apex MB Width M/D | 0.61 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 1.10 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.98 |
| 1.0mm from Apex 1 D Width M/D | 0.23 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 1.29 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.42 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |
| 1.5mm from Apex ML Width B/L | 0.65 |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | 0.83 |
| 1.5mm from Apex MB Width B/L | 0.43 |
| 1.5mm from Apex MB Width M/D | 0.48 |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.95 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 1.67 |
| 1.5mm from Apex 1 D Width M/D | 0.24 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 1.41 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.79 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.97 |
| 2.0mm from Apex ML Width M/D | 1.01 |
| 2.0mm from Apex MB Width B/L | 0.56 |
| 2.0mm from Apex MB Width M/D | 0.63 |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | 0.5mm x 0.19mm |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.19 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 1.81 |
| 2.0mm from Apex 1 D Width M/D | 0.38 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 1.56 |
| 2.5mm from Apex Thinnest Danger Zone ML | 1.21 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 1.15 |
| 2.5mm from Apex ML Width M/D | 0.76 |
| 2.5mm from Apex MB Width B/L | 0.59 |
| 2.5mm from Apex MB Width M/D | 0.74 |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | 0.54mm x 0.2mm |
| 2.5mm from Apex Thinnest Danger Zone 1 D | - |
| 2.5mm from Apex Thinnest Danger Zone DB | 1.33 |
| 2.5mm from Apex Thinnest Danger Zone DL | 1.52 |
| 2.5mm from Apex 1 D Width B/L | - |
| 2.5mm from Apex 1 D Width M/D | - |
| 2.5mm from Apex DL Width B/L | 1.75 |
| 2.5mm from Apex DL Width M/D | 0.71 |
| 2.5mm from Apex DB Width B/L | 0.63 |
| 2.5mm from Apex DB Width M/D | 0.19 |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 1.43 |
| 3.0mm from Apex Thinnest Danger Zone ML | 1.35 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 1.01 |
| 3.0mm from Apex ML Width M/D | 0.81 |
| 3.0mm from Apex MB Width B/L | 0.40 |
| 3.0mm from Apex MB Width M/D | 0.54 |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | 1.3mm x 0.37mm |
| 3.0mm from Apex Thinnest Danger Zone 1 D | - |
| 3.0mm from Apex Thinnest Danger Zone DB | 1.61 |
| 3.0mm from Apex Thinnest Danger Zone DL | 1.61 |
| 3.0mm from Apex 1 D Width B/L | - |
| 3.0mm from Apex 1 D Width M/D | - |
| 3.0mm from Apex DL Width B/L | 1.33 |
| 3.0mm from Apex DL Width M/D | 0.59 |
| 3.0mm from Apex DB Width B/L | 1.07 |
| 3.0mm from Apex DB Width M/D | 0.23 |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 1.52 |
| 3.5mm from Apex Thinnest Danger Zone ML | 1.65 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.91 |
| 3.5mm from Apex ML Width M/D | 0.47 |
| 3.5mm from Apex MB Width B/L | 0.42 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.60 |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | 0.13mm x 0.27mm |
| 3.5mm from Apex Thinnest Danger Zone 1 D | - |
| 3.5mm from Apex Thinnest Danger Zone DB | 1.59 |
| 3.5mm from Apex Thinnest Danger Zone DL | 1.66 |
| 3.5mm from Apex 1 D Width B/L | - |
| 3.5mm from Apex 1 D Width M/D | - |
| 3.5mm from apex DL width B/L dimension | 0.93 |
| 3.5mm from Apex DL Width M/D | 0.23 |
| 3.5mm from Apex DB Width B/L | 1.38 |
| 3.5mm from Apex DB Width M/D | 0.59 |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 1.41 |
| 4.0mm from Apex Thinnest Danger Zone ML | 1.52 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.69 |
| 4.0mm from Apex ML Width M/D | 0.44 |
| 4.0mm from Apex MB Width B/L | 0.57 |
| 4.0mm from Apex MB Width M/D | 0.52 |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | 0.73mm x 0.22mm |
| 4.0mm from Apex Thinnest Danger Zone 1 D | - |
| 4.0mm from Apex Thinnest Danger Zone DB | 1.62 |
| 4.0mm from Apex Thinnest Danger Zone DL | 1.62 |
| 4.0mm from Apex 1 D Width B/L | - |
| 4.0mm from Apex 1 D Width M/D | - |
| 4.0mm from Apex DL Width B/L | 0.96 |
| 4.0mm from Apex DL Width M/D | 0.26 |
| 4.0mm from Apex DB Width B/L | 1.42 |
| 4mm from Apex DB width M/D | 0.76 |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 1.34 |
| 4.5mm from Apex Thinnest Danger Zone ML | 1.57 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.57 |
| 4.5mm from Apex ML Width M/D | 0.29 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.43 |
| 4.5mm from Apex MB Width M/D | 0.65 |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | 0.63mm x 0.13mm |
| 4.5mm from Apex Thinnest Danger Zone 1 D | - |
| 4.5mm from Apex Thinnest Danger Zone DB | 1.53 |
| 4.5mm from Apex Thinnest Danger Zone DL | 1.64 |
| 4.5mm from Apex 1 D Width B/L | - |
| 4.5mm from apex 1 D width M/D | - |
| 4.5mm from Apex DL Width B/L | 1.06 |
| 4.5mm from Apex DL Width M/D | 0.27 |
| 4.5mm from Apex DB Width B/L | 1.51 |
| 4.5mm from Apex DB Width M/D | 0.65 |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 1.52 |
| 5.0mm from Apex Thinnest Danger Zone ML | 1.57 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.59 |
| 5.0mm from Apex ML Width M/D | 0.43 |
| 5.0mm from Apex MB Width B/L | 0.39 |
| 5.0mm from Apex MB Width M/D | 0.51 |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | - |
| 5.0mm from Apex Thinnest Danger Zone DB | 1.44 |
| 5.0mm from Apex Thinnest Danger Zone DL | 1.63 |
| 5.0mm from Apex 1 D Width B/L | - |
| 5.0mm from Apex 1 D Width M/D | - |
| 5.0mm from Apex DL Width B/L | 1.26 |
| 5.0mm from Apex DL Width M/D | 0.29 |
| 5.0mm from Apex DB Width B/L | 1.54 |
| 5.0mm from Apex DB Width M/D | 0.81 |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 1.73 |
| 5.5mm from Apex Thinnest Danger zone ML | 1.55 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.46 |
| 5.5mm from Apex ML Width M/D | 0.40 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.36 |
| 5.5mm from Apex MB Width M/D | 0.49 |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | 0.6 x 0.19 |
| 5.5mm from Apex Thinnest Danger Zone 1 D | - |
| 5.5mm from Apex Thinnest Danger Zone DB | 1.46 |
| 5.5mm from Apex Thinnest Danger Zone DL | 1.78 |
| 5.5mm from Apex 1 D Width B/L | - |
| 5.5mm from Apex 1 D Width M/D | - |
| 5.5mm from Apex DL Width B/L | 1.29 |
| 5.5mm from Apex DL Width M/D | 0.30 |
| 5.5mm from Apex DB Width B/L | 1.48 |
| 5.5mm from Apex DB Width M/D | 0.62 |
| 5.5mm from Apex D Isthmus Width | 0.09 |
| 5.5mm from Apex D Isthmus Length | 1.16 |
| 5.5mm from Apex D Isthmus Type | 4.00 |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.71 |
| 6.0mm from Apex Thinnest Danger Zone ML | 1.76 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 1.82 |
| 6.0mm from Apex ML Width M/D | 0.46 |
| 6.0mm from Apex MB Width B/L | 0.65 |
| 6.0mm from Apex MB Width M/D | 0.46 |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | 0.82 x 0.32 |
| 6.0mm from Apex Thinnest Danger Zone 1 D | - |
| 6.0mm from Apex Thinnest Danger Zone DB | 1.50 |
| 6.0mm from Apex Thinnest Danger Zone DL | 1.81 |
| 6.0mm from Apex 1 D Width B/L | - |
| 6.0mm from Apex 1 D Width M/D | - |
| 6.0mm from Apex DL Width B/L | 1.57 |
| 6.0mm from Apex DL Width M/D | 0.44 |
| 6.0mm from Apex DB Width B/L | 1.57 |
| 6.0mm from Apex DB Width M/D | 0.87 |
| 6.0mm from Apex D Isthmus Width | 0.07 |
| 6.0mm from Apex D Isthmus Length | 1.14 |
| 6.0mm from Apex D Isthmus Type | 4.00 |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.57 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.82 |
| 7.0mm from Apex ML Width B/L | 1.33 |
| 7.0mm from Apex ML Width M/D | 0.42 |
| 7.0mm from Apex MB Width B/L | 0.98 |
| 7.0mm from Apex MB width M/D | 0.42 |

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|---|---|
| 7.0mm from Apex M Isthmus Width | 0.06 |
| 7.0mm from Apex M Isthmus Length | 2.88 |
| 7.0mm from Apex M Isthmus Type | 3.00 |
| 7.0mm from Apex M 3rd Canal | 0.6 x 0.23 |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.41 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.94 |
| 8.0mm from Apex ML Width B/L | 0.67 |
| 8.0mm from Apex ML Width M/D | 0.38 |
| 8.0mm from Apex MB Width B/L | 0.76 |
| 8mm from Apex MB Width M/D | 0.49 |
| 8mm from Apex M Isthmus Width | 0.11 |
| 8mm from Apex M Isthmus Length | 3.73 |
| 8mm from Apex M Isthmus Type | 3.00 |
| 8mm from Apex M 3rd Canal | 0.51 x 0.15 |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.49 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.38 |
| 9.0mm from Apex ML Width B/L | 0.73 |
| 9.0mm from Apex ML Width M/D | 0.49 |
| 9.0mm from Apex MB Width B/L | 0.64 |
| 9.0mm from Apex MB width M/D | 0.67 |
| 9.0mm from Apex M Isthmus Width | 0.13 |
| 9.0mm from Apex M Isthmus Length | 3.73 |
| 9.0mm from Apex M Isthmus Type | 4.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.54 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.63 |
| 10.0mm from Apex ML Width B/L | 1.11 |
| 10.0mm from Apex ML Width M/D | 0.53 |
| 10.0mm from Apex MB Width B/L | 0.67 |
| 10.0mm from Apex MB Width M/D | 0.69 |
| 10.0mm from Apex M Isthmus Width | 0.14 |
| 10.0mm from Apex M Isthmus Length | 2.79 |
| 10.0mm from Apex M Isthmus Type | 2.00 |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 4.34 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 2.66 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 3.14 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.50 |
| Mesial Canal Type from Orifice to Apex | 2-2 (Type 4) |
| Distal Canal Type from Orifice to Apex | 1-2 (Type 5) |
| Middle Mesial (Start/Stop) | 1.99 to 8.25 |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | 1.34, 3.14, |

| | |
|---|---|
| M Level of Lateral Canal Exit | 1.31, 2.31, 3.77, 10.04 |

## TOOTH 21

| | |
|---|---|
| Tooth Name | 21.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 3.00 |
| Number of Exits in Apical 0.5mm D Root | 3.00 |
| M Root Length | 10.86 |
| D Root Length | 10.58 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.14 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.32 |
| 0.5mm from Apex 1 M Width M/D | 0.41 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.43 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.45 |
| 1.0mm from Apex 1 M Width M/D | 0.39 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.43 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.80 |
| 1.0mm from Apex 1 D Width M/D | 0.44 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.63 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.75 |
| 1.5mm from Apex 1 M Width M/D | 0.41 |

| | |
|---|---|
| 1.5mm from Apex ML Width B/L | - |
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.49 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.79 |
| 1.5mm from Apex 1 D Width M/D | 0.42 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.79 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.56 |
| 2.0mm from Apex 1 M Width M/D | 0.41 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.87 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 1.06 |
| 2.0mm from Apex 1 D Width M/D | 0.33 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.88 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.78 |
| 2.5mm from Apex 1 M width M/D | 0.47 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |

| | |
|---|---|
| 2.5mm from Apex MB Width M/D | - |
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.08 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.48 |
| 2.5mm from Apex 1 D Width M/D | 0.52 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.89 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.92 |
| 3.0mm from Apex 1 M Width B/L | 0.47 |
| 3.0mm from Apex 1 M Width M/D | 0.51 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.09 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.80 |
| 3.0mm from Apex 1 D Width M/D | 0.53 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 0.93 |
| 3.5mm from Apex Thinnest Danger Zone MB | - |
| 3.5mm from Apex Thinnest Danger Zone ML | - |
| 3.5mm from Apex 1 M Width B/L | 1.05 |
| 3.5mm from Apex 1 M Width M/D | 0.47 |
| 3.5mm from Apex ML Width B/L | - |
| 3.5mm from Apex ML Width M/D | - |

| | |
|---|---|
| 3.5mm from Apex MB Width B/L | - |
| 3.5mm from Apex MB Width M/D | - |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.11 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 1.06 |
| 3.5mm from Apex 1 D Width M/D | 0.56 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | 0.93 |
| 4.0mm from Apex Thinnest Danger Zone MB | - |
| 4.0mm from Apex Thinnest Danger Zone ML | - |
| 4.0mm from Apex 1 M Width B/L | 1.50 |
| 4.0mm from Apex 1 M Width M/D | 0.41 |
| 4.0mm from Apex ML Width B/L | - |
| 4.0mm from Apex ML Width M/D | - |
| 4.0mm from Apex MB Width B/L | - |
| 4.0mm from Apex MB Width M/D | - |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.09 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 1.26 |
| 4.0mm from Apex 1 D Width M/D | 0.61 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | 0.95 |
| 4.5mm from Apex Thinnest Danger Zone MB | - |
| 4.5mm from Apex Thinnest Danger Zone ML | - |
| 4.5mm from Apex 1 M Width B/L | 1.72 |
| 4.5mm from Apex 1 M Width M/D | 0.51 |
| 4.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 4.5mm from Apex ML Width M/D | - |
| 4.5mm from Apex MB Width B/L | - |
| 4.5mm from Apex MB Width M/D | - |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.01 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.71 |
| 4.5mm from apex 1 D width M/D | 0.62 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | 0.85 |
| 5.0mm from Apex Thinnest Danger Zone MB | - |
| 5.0mm from Apex Thinnest Danger Zone ML | - |
| 5.0mm from Apex 1 M Width B/L | 2.11 |
| 5.0mm from Apex 1 M Width M/D | 0.35 |
| 5.0mm from Apex ML Width B/L | - |
| 5.0mm from Apex ML Width M/D | - |
| 5.0mm from Apex MB Width B/L | - |
| 5.0mm from Apex MB Width M/D | - |
| 5.0mm from Apex M Isthmus Width | - |
| 5.0mm from Apex M Isthmus Length | - |
| 5.0mm from Apex M Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 0.94 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.99 |
| 5.0mm from Apex 1 D Width M/D | 0.58 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | 0.80 |
| 5.5mm from Apex Thinnest Danger Zone MB | - |
| 5.5mm from Apex Thinnest Danger zone ML | - |
| 5.5mm from Apex 1 M Width B/L | 2.44 |
| 5.5mm from Apex 1 M Width M/D | 0.43 |
| 5.5mm from Apex ML Width B/L | - |

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|---|---|
| 5.5mm from Apex ML Width M/D | - |
| 5.5mm from Apex MB Width B/L | - |
| 5.5mm from Apex MB Width M/D | - |
| 5.5mm from Apex M Isthmus Width | - |
| 5.5mm from Apex M Isthmus Length | - |
| 5.5mm from Apex M Isthmus Type | - |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 0.85 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 2.48 |
| 5.5mm from Apex 1 D Width M/D | 0.60 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | 0.87 |
| 6.0mm from Apex Thinnest Danger Zone MB | - |
| 6.0mm from Apex Thinnest Danger Zone ML | - |
| 6.0mm from Apex 1 M Width B/L | 2.60 |
| 6.0mm from Apex 1 M Width M/D | 0.46 |
| 6.0mm from Apex ML Width B/L | - |
| 6.0mm from Apex ML Width M/D | - |
| 6.0mm from Apex MB Width B/L | - |
| 6.0mm from Apex MB Width M/D | - |
| 6.0mm from Apex M Isthmus Width | - |
| 6.0mm from Apex M Isthmus Length | - |
| 6.0mm from Apex M Isthmus Type | - |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 0.84 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 2.59 |
| 6.0mm from Apex 1 D Width M/D | 0.62 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.77 |
| 7.0mm from Apex Thinnest Danger Zone ML | 0.94 |
| 7.0mm from Apex ML Width B/L | 0.59 |
| 7.0mm from Apex ML Width M/D | 0.53 |
| 7.0mm from Apex MB Width B/L | 0.60 |

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|---|---|
| 7.0mm from Apex MB width M/D | 0.37 |
| 7.0mm from Apex M Isthmus Width | 0.25 |
| 7.0mm from Apex M Isthmus Length | 1.91 |
| 7.0mm from Apex M Isthmus Type | 5.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 0.71 |
| 8.0mm from Apex Thinnest Danger Zone ML | 0.94 |
| 8.0mm from Apex ML Width B/L | 0.84 |
| 8.0mm from Apex ML Width M/D | 0.55 |
| 8.0mm from Apex MB Width B/L | 0.75 |
| 8mm from Apex MB Width M/D | 0.36 |
| 8mm from Apex M Isthmus Width | 0.24 |
| 8mm from Apex M Isthmus Length | 1.80 |
| 8mm from Apex M Isthmus Type | 5.00 |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 0.82 |
| 9.0mm from Apex Thinnest Danger Zone ML | 0.81 |
| 9.0mm from Apex ML Width B/L | 0.96 |
| 9.0mm from Apex ML Width M/D | 0.62 |
| 9.0mm from Apex MB Width B/L | 0.96 |
| 9.0mm from Apex MB width M/D | 0.30 |
| 9.0mm from Apex M Isthmus Width | 0.26 |
| 9.0mm from Apex M Isthmus Length | 1.61 |
| 9.0mm from Apex M Isthmus Type | 5.00 |
| 9.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex Thinnest Danger Zone MB | 0.78 |
| 10.0mm from Apex Thinnest Danger Zone ML | 0.91 |
| 10.0mm from Apex ML Width B/L | 1.43 |
| 10.0mm from Apex ML Width M/D | 0.59 |
| 10.0mm from Apex MB Width B/L | 0.97 |
| 10.0mm from Apex MB Width M/D | 0.36 |
| 10.0mm from Apex M Isthmus Width | 0.25 |
| 10.0mm from Apex M Isthmus Length | 1.09 |
| 10.0mm from Apex M Isthmus Type | 5.00 |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.30 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 3.36 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.42 |
| Mesial Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |

| | |
|---|---|
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | 0.73 |

## TOOTH 22

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|---|---|
| Tooth Name | 22.00 |
| Tooth Type | 19.00 |
| Number of Exits in Apical 0.5mm M Root | 3.00 |
| Number of Exits in Apical 0.5mm D Root | 2.00 |
| M Root Length | 12.55 |
| D Root Length | 12.62 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.52 |
| 0.5mm from Apex 1 M Width M/D | 0.34 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | 0.78 |
| 1.0mm from Apex Thinnest Danger Zone MB | - |
| 1.0mm from Apex Thinnest Danger Zone ML | - |
| 1.0mm from Apex 1 M Width B/L | 0.33 |
| 1.0mm from Apex 1 M Width M/D | 0.49 |
| 1.0mm from Apex ML Width B/L | - |
| 1.0mm from Apex ML Width M/D | - |
| 1.0mm from Apex MB Width B/L | - |
| 1.0mm from Apex MB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 1.25 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.52 |
| 1.0mm from Apex 1 D Width M/D | 0.52 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | 0.78 |
| 1.5mm from Apex Thinnest Danger Zone MB | - |
| 1.5mm from Apex Thinnest Danger Zone ML | - |
| 1.5mm from Apex 1 M Width B/L | 0.34 |
| 1.5mm from Apex 1 M Width M/D | 0.49 |
| 1.5mm from Apex ML Width B/L | - |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | - |
| 1.5mm from Apex MB Width B/L | - |
| 1.5mm from Apex MB Width M/D | - |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 1.30 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.78 |
| 1.5mm from Apex 1 D Width M/D | 0.72 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | 0.78 |
| 2.0mm from Apex Thinnest Danger Zone MB | - |
| 2.0mm from Apex Thinnest Danger Zone ML | - |
| 2.0mm from Apex 1 M Width B/L | 0.63 |
| 2.0mm from Apex 1 M Width M/D | 0.32 |
| 2.0mm from Apex ML Width B/L | - |
| 2.0mm from Apex ML Width M/D | - |
| 2.0mm from Apex MB Width B/L | - |
| 2.0mm from Apex MB Width M/D | - |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.18 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.69 |
| 2.0mm from Apex 1 D Width M/D | 0.37 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | 0.79 |
| 2.5mm from Apex Thinnest Danger Zone MB | - |
| 2.5mm from Apex Thinnest Danger Zone ML | - |
| 2.5mm from Apex 1 M Width B/L | 0.79 |
| 2.5mm from Apex 1 M width M/D | 0.25 |
| 2.5mm from Apex ML Width B/L | - |
| 2.5mm from Apex ML Width M/D | - |
| 2.5mm from Apex MB Width B/L | - |
| 2.5mm from Apex MB Width M/D | - |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.24 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.63 |
| 2.5mm from Apex 1 D Width M/D | 0.42 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | 0.76 |
| 3.0mm from Apex Thinnest Danger Zone MB | - |
| 3.0mm from Apex Thinnest Danger Zone ML | - |
| 3.0mm from Apex 1 M Width B/L | 0.85 |
| 3.0mm from Apex 1 M Width M/D | 0.28 |
| 3.0mm from Apex ML Width B/L | - |
| 3.0mm from Apex ML Width M/D | - |
| 3.0mm from Apex MB Width B/L | - |
| 3.0mm from Apex MB Width M/D | - |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.19 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.72 |
| 3.0mm from Apex 1 D Width M/D | 0.43 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.80 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.78 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.98 |
| 3.5mm from Apex ML Width M/D | 0.42 |
| 3.5mm from Apex MB Width B/L | 0.93 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.31 |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.17 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.76 |
| 3.5mm from Apex 1 D Width M/D | 0.47 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.79 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.79 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.52 |
| 4.0mm from Apex ML Width M/D | 0.32 |
| 4.0mm from Apex MB Width B/L | 0.30 |
| 4.0mm from Apex MB Width M/D | 0.33 |
| 4.0mm from Apex M Isthmus Width | 0.14 |
| 4.0mm from Apex M Isthmus Length | 0.09 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.11 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 0.88 |
| 4.0mm from Apex 1 D Width M/D | 0.46 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.71 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.84 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.33 |
| 4.5mm from Apex ML Width M/D | 0.32 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.40 |
| 4.5mm from Apex MB Width M/D | 0.34 |
| 4.5mm from Apex M Isthmus Width | 0.22 |
| 4.5mm from Apex M Isthmus Length | 0.25 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.04 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.15 |
| 4.5mm from apex 1 D width M/D | 0.49 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.83 |
| 5.0mm from Apex Thinnest Danger Zone ML | 0.73 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.42 |
| 5.0mm from Apex ML Width M/D | 0.34 |
| 5.0mm from Apex MB Width B/L | 0.37 |
| 5.0mm from Apex MB Width M/D | 0.32 |
| 5.0mm from Apex M Isthmus Width | 0.19 |
| 5.0mm from Apex M Isthmus Length | 0.56 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 0.96 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.32 |
| 5.0mm from Apex 1 D Width M/D | 0.51 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 0.87 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.74 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.50 |
| 5.5mm from Apex ML Width M/D | 0.31 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.57 |
| 5.5mm from Apex MB Width M/D | 0.31 |
| 5.5mm from Apex M Isthmus Width | 0.17 |
| 5.5mm from Apex M Isthmus Length | 0.66 |
| 5.5mm from Apex M Isthmus Type | 5.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 0.88 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.44 |
| 5.5mm from Apex 1 D Width M/D | 0.48 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 0.80 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.76 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.83 |
| 6.0mm from Apex ML Width M/D | 0.29 |
| 6.0mm from Apex MB Width B/L | 0.76 |
| 6.0mm from Apex MB Width M/D | 0.30 |
| 6.0mm from Apex M Isthmus Width | 0.16 |
| 6.0mm from Apex M Isthmus Length | 0.47 |
| 6.0mm from Apex M Isthmus Type | 5.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 0.92 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.66 |
| 6.0mm from Apex 1 D Width M/D | 0.51 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.87 |
| 7.0mm from Apex Thinnest Danger Zone ML | 0.76 |
| 7.0mm from Apex ML Width B/L | 1.01 |
| 7.0mm from Apex ML Width M/D | 0.28 |
| 7.0mm from Apex MB Width B/L | 1.08 |
| 7.0mm from Apex MB width M/D | 0.31 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.11 |
| 7.0mm from Apex M Isthmus Length | 0.73 |
| 7.0mm from Apex M Isthmus Type | 4.00 |
| 7.0mm from Apex M 3rd Canal | - |
| 8.0mm from Apex Thinnest Danger Zone MB | 0.99 |
| 8.0mm from Apex Thinnest Danger Zone ML | 0.93 |
| 8.0mm from Apex ML Width B/L | 0.44 |
| 8.0mm from Apex ML Width M/D | 0.33 |
| 8.0mm from Apex MB Width B/L | 0.86 |
| 8mm from Apex MB Width M/D | 0.27 |
| 8mm from Apex M Isthmus Width | - |
| 8mm from Apex M Isthmus Length | - |
| 8mm from Apex M Isthmus Type | - |
| 8mm from Apex M 3rd Canal | - |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.30 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.09 |
| 9.0mm from Apex ML Width B/L | 1.17 |
| 9.0mm from Apex ML Width M/D | 0.38 |
| 9.0mm from Apex MB Width B/L | 0.53 |
| 9.0mm from Apex MB width M/D | 0.40 |
| 9.0mm from Apex M Isthmus Width | - |
| 9.0mm from Apex M Isthmus Length | - |
| 9.0mm from Apex M Isthmus Type | - |
| 9.0mm from Apex M 3rd Canal | 0.09 x 0.08 |
| 10.0mm from Apex Thinnest Danger Zone MB | 1.31 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.31 |
| 10.0mm from Apex ML Width B/L | 0.53 |
| 10.0mm from Apex ML Width M/D | 0.34 |
| 10.0mm from Apex MB Width B/L | 0.36 |
| 10.0mm from Apex MB Width M/D | 0.40 |
| 10.0mm from Apex M Isthmus Width | - |
| 10.0mm from Apex M Isthmus Length | - |
| 10.0mm from Apex M Isthmus Type | - |
| 10.0mm from Apex M 3rd Canal | 0.2 x 0.11 |
| 10.0mm from Apex M 4th Canal | 0.37 x 0.18 |
| 11.0mm from Apex Thinnest Danger Zone MB | 1.35 |
| 11.0mm from Apex Thinnest Danger Zone ML | 1.35 |
| 11.0mm from Apex ML Width B/L | 0.56 |
| 11.0mm from Apex ML Width M/D | 0.35 |
| 11.0mm from Apex MB Width B/L | 0.40 |
| 11.0mm from Apex MB Width M/D | 0.34 |
| 11.0mm from Apex M Isthmus Width | - |
| 11.0mm from Apex M Isthmus Length | - |
| 11.0mm from Apex M Isthmus Type | - |
| 11.0mm from Apex M 3rd Canal | 0.31 x 0.14 |
| 11.0mm from Apex M 4th Canal | 0.9 x 0.17 |
| 12.0mm from Apex Thinnest Danger Zone MB | 1.42 |
| 12.0mm from Apex Thinnest Danger Zone ML | 1.32 |
| 12.0mm from Apex ML Width B/L | 0.53 |

| | |
|---|---|
| 12.0mm from Apex ML Width M/D | 0.29 |
| 12.0mm from Apex MB Width B/L | 0.38 |
| 12.0mm from Apex MB Width M/D | 0.41 |
| 12.0mm from Apex M 3rd Canal | 0.22 x 0.19 |
| 12.0mm from Apex M 4th Canal | 0.43 x 0.18 |
| 12.0mm from Apex M Isthmus Width | - |
| 12.0mm from Apex M Isthmus Length | - |
| 12.0mm from Apex M Isthmus Type | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 3.16 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 1.35 |
| ML to Middle Mesial to MB | .52 to .56 |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 2.32 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.50 |
| Mesial Canal Type from Orifice to Apex | 3-4-3-2-1 (Type ?) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 8.64 to 8.86 (4 canals) to 10.45 (5 canals) to 12.19 (3 canals) to orifice |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | - |

## TOOTH 23

| | |
|---|---|
| Tooth Name | 23.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 2.00 |
| Number of Exits in Apical 0.5mm D Root | 3.00 |
| M Root Length | 10.88 |
| D Root Length | 10.42 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | - |
| 0.5mm from Apex Thinnest Danger Zone MB | 0.60 |
| 0.5mm from Apex Thinnest Danger Zone ML | 0.22 |
| 0.5mm from Apex 1 M Width B/L | - |
| 0.5mm from Apex 1 M Width M/D | - |
| 0.5mm from Apex ML Width B/L | 0.25 |
| 0.5mm from Apex ML Width M/D | 0.24 |
| 0.5mm from Apex MB Width B/L | 0.37 |
| 0.5mm from Apex MB Width M/D | 0.16 |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | - |
| 0.5mm from Apex 1 D Width M/D | - |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.75 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.61 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.48 |
| 1.0mm from Apex ML Width M/D | 0.22 |
| 1.0mm from Apex MB Width B/L | 0.44 |
| 1.0mm from Apex MB Width M/D | 0.14 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.65 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 1.85 |
| 1.0mm from Apex 1 D Width M/D | 0.43 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.69 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.81 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |
| 1.5mm from Apex ML Width B/L | 0.43 |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | 0.22 |
| 1.5mm from Apex MB Width B/L | 0.51 |
| 1.5mm from Apex MB Width M/D | 0.24 |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.70 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 1.86 |
| 1.5mm from Apex 1 D Width M/D | 0.43 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.64 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.70 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.50 |
| 2.0mm from Apex ML Width M/D | 0.23 |
| 2.0mm from Apex MB Width B/L | 0.85 |
| 2.0mm from Apex MB Width M/D | 0.18 |
| 2.0mm from Apex M Isthmus Width | - |
| 2.0mm from Apex M Isthmus Length | - |
| 2.0mm from Apex M Isthmus Type | - |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 1.01 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 1.71 |
| 2.0mm from Apex 1 D Width M/D | 0.43 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.71 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.79 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.39 |
| 2.5mm from Apex ML Width M/D | 0.31 |
| 2.5mm from Apex MB Width B/L | 0.60 |
| 2.5mm from Apex MB Width M/D | 0.23 |

| | |
|---|---|
| 2.5mm from Apex M Isthmus Width | - |
| 2.5mm from Apex M Isthmus Length | - |
| 2.5mm from Apex M Isthmus Type | - |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 1.14 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 1.85 |
| 2.5mm from Apex 1 D Width M/D | 0.39 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.67 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.85 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.40 |
| 3.0mm from Apex ML Width M/D | 0.31 |
| 3.0mm from Apex MB Width B/L | 0.66 |
| 3.0mm from Apex MB Width M/D | 0.25 |
| 3.0mm from Apex M Isthmus Width | - |
| 3.0mm from Apex M Isthmus Length | - |
| 3.0mm from Apex M Isthmus Type | - |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 1.14 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 1.56 |
| 3.0mm from Apex 1 D Width M/D | 0.32 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | - |
| 3.5mm from Apex Thinnest Danger Zone MB | 0.83 |
| 3.5mm from Apex Thinnest Danger Zone ML | 0.74 |
| 3.5mm from Apex 1 M Width B/L | - |
| 3.5mm from Apex 1 M Width M/D | - |
| 3.5mm from Apex ML Width B/L | 0.77 |
| 3.5mm from Apex ML Width M/D | 0.26 |
| 3.5mm from Apex MB Width B/L | 1.17 |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | 0.27 |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 1.26 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 2.01 |
| 3.5mm from Apex 1 D Width M/D | 0.39 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.88 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.76 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 1.26 |
| 4.0mm from Apex ML Width M/D | 0.33 |
| 4.0mm from Apex MB Width B/L | 0.95 |
| 4.0mm from Apex MB Width M/D | 0.29 |
| 4.0mm from Apex M Isthmus Width | - |
| 4.0mm from Apex M Isthmus Length | - |
| 4.0mm from Apex M Isthmus Type | - |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 1.24 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 2.16 |
| 4.0mm from Apex 1 D Width M/D | 0.36 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.91 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.86 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 1.30 |
| 4.5mm from Apex ML Width M/D | 0.45 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.91 |
| 4.5mm from Apex MB Width M/D | 0.29 |
| 4.5mm from Apex M Isthmus Width | - |
| 4.5mm from Apex M Isthmus Length | - |
| 4.5mm from Apex M Isthmus Type | - |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 1.18 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 2.12 |
| 4.5mm from apex 1 D width M/D | 0.31 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.90 |
| 5.0mm from Apex Thinnest Danger Zone ML | 0.91 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 1.11 |
| 5.0mm from Apex ML Width M/D | 0.46 |
| 5.0mm from Apex MB Width B/L | 0.85 |
| 5.0mm from Apex MB Width M/D | 0.23 |
| 5.0mm from Apex M Isthmus Width | 0.05 |
| 5.0mm from Apex M Isthmus Length | 1.93 |
| 5.0mm from Apex M Isthmus Type | 4.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 1.22 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 2.36 |
| 5.0mm from Apex 1 D Width M/D | 0.31 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 0.97 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.97 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 1.05 |
| 5.5mm from Apex ML Width M/D | 0.46 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.61 |
| 5.5mm from Apex MB Width M/D | 0.26 |
| 5.5mm from Apex M Isthmus Width | 0.04 |
| 5.5mm from Apex M Isthmus Length | 2.63 |
| 5.5mm from Apex M Isthmus Type | 3.00 |
| 5.5mm from Apex M 3rd Canal | 0.46 x 0.07 |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.19 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 2.48 |
| 5.5mm from Apex 1 D Width M/D | 0.34 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 1.03 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.99 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 1.30 |
| 6.0mm from Apex ML Width M/D | 0.41 |
| 6.0mm from Apex MB Width B/L | 0.35 |
| 6.0mm from Apex MB Width M/D | 0.25 |
| 6.0mm from Apex M Isthmus Width | 0.04 |
| 6.0mm from Apex M Isthmus Length | 2.95 |
| 6.0mm from Apex M Isthmus Type | 3.00 |
| 6.0mm from Apex M 3rd Canal | 0.48 x 0.09 |
| 6.0mm from Apex Thinnest Danger Zone 1 D | - |
| 6.0mm from Apex Thinnest Danger Zone DB | 1.15 |
| 6.0mm from Apex Thinnest Danger Zone DL | 1.14 |
| 6.0mm from Apex 1 D Width B/L | - |
| 6.0mm from Apex 1 D Width M/D | - |
| 6.0mm from Apex DL Width B/L | 0.61 |
| 6.0mm from Apex DL Width M/D | 0.47 |
| 6.0mm from Apex DB Width B/L | 0.54 |
| 6.0mm from Apex DB Width M/D | 0.54 |
| 6.0mm from Apex D Isthmus Width | 0.25 |
| 6.0mm from Apex D Isthmus Length | 1.47 |
| 6.0mm from Apex D Isthmus Type | 5.00 |
| 7.0mm from Apex Thinnest Danger Zone MB | 1.02 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.12 |
| 7.0mm from Apex ML Width B/L | 1.06 |
| 7.0mm from Apex ML Width M/D | 0.51 |
| 7.0mm from Apex MB Width B/L | 0.26 |
| 7.0mm from Apex MB width M/D | 0.28 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | - |
| 7.0mm from Apex M Isthmus Length | - |
| 7.0mm from Apex M Isthmus Type | - |
| 7.0mm from Apex M 3rd Canal | 0.4 x 0.11 |
| 8.0mm from Apex Thinnest Danger Zone MB | 1.03 |
| 8.0mm from Apex Thinnest Danger Zone ML | 1.13 |
| 8.0mm from Apex ML Width B/L | 0.69 |
| 8.0mm from Apex ML Width M/D | 0.58 |
| 8.0mm from Apex MB Width B/L | 0.29 |
| 8mm from Apex MB Width M/D | 0.48 |
| 8mm from Apex M Isthmus Width | - |
| 8mm from Apex M Isthmus Length | - |
| 8mm from Apex M Isthmus Type | - |
| 8mm from Apex M 3rd Canal | 0.17 x 0.13 |
| 9.0mm from Apex Thinnest Danger Zone MB | 1.03 |
| 9.0mm from Apex Thinnest Danger Zone ML | 1.08 |
| 9.0mm from Apex ML Width B/L | 0.89 |
| 9.0mm from Apex ML Width M/D | 0.63 |
| 9.0mm from Apex MB Width B/L | 0.37 |
| 9.0mm from Apex MB width M/D | 0.71 |
| 9.0mm from Apex M Isthmus Width | - |
| 9.0mm from Apex M Isthmus Length | - |
| 9.0mm from Apex M Isthmus Type | - |
| 9.0mm from Apex M 3rd Canal | 0.48 x 0.13 |
| 10.0mm from Apex Thinnest Danger Zone MB | 0.95 |
| 10.0mm from Apex Thinnest Danger Zone ML | 1.08 |
| 10.0mm from Apex ML Width B/L | 0.93 |
| 10.0mm from Apex ML Width M/D | 0.64 |
| 10.0mm from Apex MB Width B/L | 1.34 |
| 10.0mm from Apex MB Width M/D | 0.77 |
| 10.0mm from Apex M Isthmus Width | - |
| 10.0mm from Apex M Isthmus Length | - |
| 10.0mm from Apex M Isthmus Type | - |
| 10.0mm from Apex M 3rd Canal | - |
| 10.0mm from Apex M 4th Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 4.17 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | 0.69 |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 3.46 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 4.63 |
| Mesial Canal Type from Orifice to Apex | 2-3-2 (Type 21) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | 5.26 to 9.87 |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |

| | |
|---|---|
| M Level of Lateral Canal Exit | - |

## TOOTH 24

| | |
|---|---|
| Tooth Name | 24.00 |
| Tooth Type | 30.00 |
| Number of Exits in Apical 0.5mm M Root | 4.00 |
| Number of Exits in Apical 0.5mm D Root | 1.00 |
| M Root Length | 7.71 |
| D Root Length | 7.87 |
| 0.5mm from Apex Thinnest Danger Zone 1 M | 0.20 |
| 0.5mm from Apex Thinnest Danger Zone MB | - |
| 0.5mm from Apex Thinnest Danger Zone ML | - |
| 0.5mm from Apex 1 M Width B/L | 0.23 |
| 0.5mm from Apex 1 M Width M/D | 0.43 |
| 0.5mm from Apex ML Width B/L | - |
| 0.5mm from Apex ML Width M/D | - |
| 0.5mm from Apex MB Width B/L | - |
| 0.5mm from Apex MB Width M/D | - |
| 0.5mm from Apex Thinnest Danger Zone 1 D | - |
| 0.5mm from Apex Thinnest Danger Zone DB | - |
| 0.5mm from Apex Thinnest Danger Zone DL | - |
| 0.5mm from Apex 1 D Width B/L | 0.34 |
| 0.5mm from Apex 1 D Width M/D | 0.37 |
| 0.5mm from Apex DL Width B/L | - |
| 0.5mm from Apex DL Width M/D | - |
| 0.5mm from Apex DB Width B/L | - |
| 0.5mm from Apex DB Width M/D | - |
| 1.0mm from Apex Thinnest Danger Zone 1 M | - |
| 1.0mm from Apex Thinnest Danger Zone MB | 0.39 |
| 1.0mm from Apex Thinnest Danger Zone ML | 0.45 |
| 1.0mm from Apex 1 M Width B/L | - |
| 1.0mm from Apex 1 M Width M/D | - |
| 1.0mm from Apex ML Width B/L | 0.36 |
| 1.0mm from Apex ML Width M/D | 0.39 |
| 1.0mm from Apex MB Width B/L | 0.31 |
| 1.0mm from Apex MB Width M/D | 0.34 |
| 1.0mm from Apex Thinnest Danger Zone 1 D | 0.63 |
| 1.0mm from Apex Thinnest Danger Zone DB | - |
| 1.0mm from Apex Thinnest Danger Zone DL | - |
| 1.0mm from Apex 1 D Width B/L | 0.42 |
| 1.0mm from Apex 1 D Width M/D | 0.90 |
| 1.0mm from Apex DL Width B/L | - |
| 1.0mm from Apex DL Width M/D | - |
| 1.0mm from Apex DB Width B/L | - |
| 1.0mm from Apex DB Width M/D | - |
| 1.5mm from Apex Thinnest Danger Zone 1 M | - |
| 1.5mm from Apex Thinnest Danger Zone MB | 0.52 |
| 1.5mm from Apex Thinnest Danger Zone ML | 0.35 |
| 1.5mm from Apex 1 M Width B/L | - |
| 1.5mm from Apex 1 M Width M/D | - |
| 1.5mm from Apex ML Width B/L | 0.68 |

| | |
|---|---|
| 1.5mm from Apex ML Width M/D | 0.41 |
| 1.5mm from Apex MB Width B/L | 0.49 |
| 1.5mm from Apex MB Width M/D | 0.35 |
| 1.5mm from Apex M Isthmus Width | - |
| 1.5mm from Apex M Isthmus Length | - |
| 1.5mm from Apex M Isthmus Type | - |
| 1.5mm from Apex Thinnest Danger Zone 1 D | 0.64 |
| 1.5mm from Apex Thinnest Danger Zone DB | - |
| 1.5mm from Apex Thinnest Danger Zone DL | - |
| 1.5mm from Apex 1 D Width B/L | 0.46 |
| 1.5mm from Apex 1 D Width M/D | 0.60 |
| 1.5mm from Apex DL Width B/L | - |
| 1.5mm from Apex DL Width M/D | - |
| 1.5mm from Apex DB Width B/L | - |
| 1.5mm from apex DB width M/D | - |
| 2.0 mm from Apex Thinnest Danger Zone 1 M | - |
| 2.0mm from Apex Thinnest Danger Zone MB | 0.55 |
| 2.0mm from Apex Thinnest Danger Zone ML | 0.61 |
| 2.0mm from Apex 1 M Width B/L | - |
| 2.0mm from Apex 1 M Width M/D | - |
| 2.0mm from Apex ML Width B/L | 0.34 |
| 2.0mm from Apex ML Width M/D | 0.31 |
| 2.0mm from Apex MB Width B/L | 0.46 |
| 2.0mm from Apex MB Width M/D | 0.29 |
| 2.0mm from Apex M Isthmus Width | 0.24 |
| 2.0mm from Apex M Isthmus Length | 0.81 |
| 2.0mm from Apex M Isthmus Type | 5.00 |
| 2.0mm from Apex M 3rd Canal | - |
| 2.0mm from Apex Thinnest Danger Zone 1 D | 0.66 |
| 2.0mm from Apex Thinnest Danger Zone DB | - |
| 2.0mm from Apex Thinnest Danger Zone DL | - |
| 2.0mm from Apex 1 D Width B/L | 0.51 |
| 2.0mm from Apex 1 D Width M/D | 0.53 |
| 2.0mm from Apex DL Width B/L | - |
| 2.0mm from Apex DL Width M/D | - |
| 2.0mm from Apex DB Width B/L | - |
| 2.0mm from Apex DB Width M/D | - |
| 2.0mm from Apex D Isthmus Width | - |
| 2.0mm from Apex D Isthmus Length | - |
| 2.0mm from Apex D Isthmus Type | - |
| 2.5mm from Apex Thinnest Danger Zone 1 M | - |
| 2.5mm from Apex Thinnest Danger Zone MB | 0.66 |
| 2.5mm from Apex Thinnest Danger Zone ML | 0.69 |
| 2.5mm from Apex 1 M Width B/L | - |
| 2.5mm from Apex 1 M width M/D | - |
| 2.5mm from Apex ML Width B/L | 0.37 |
| 2.5mm from Apex ML Width M/D | 0.30 |
| 2.5mm from Apex MB Width B/L | 0.44 |
| 2.5mm from Apex MB Width M/D | 0.36 |

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|---|---|
| 2.5mm from Apex M Isthmus Width | 0.25 |
| 2.5mm from Apex M Isthmus Length | 0.75 |
| 2.5mm from Apex M Isthmus Type | 5.00 |
| 2.5mm from Apex M 3rd Canal | - |
| 2.5mm from Apex Thinnest Danger Zone 1 D | 0.66 |
| 2.5mm from Apex Thinnest Danger Zone DB | - |
| 2.5mm from Apex Thinnest Danger Zone DL | - |
| 2.5mm from Apex 1 D Width B/L | 0.61 |
| 2.5mm from Apex 1 D Width M/D | 0.58 |
| 2.5mm from Apex DL Width B/L | - |
| 2.5mm from Apex DL Width M/D | - |
| 2.5mm from Apex DB Width B/L | - |
| 2.5mm from Apex DB Width M/D | - |
| 2.5mm from Apex D Isthmus Width | - |
| 2.5mm from Apex D Isthmus Length | - |
| 2.5mm from Apex D Isthmus Type | - |
| 3.0mm from Apex Thinnest Danger Zone 1 M | - |
| 3.0mm from Apex Thinnest Danger Zone MB | 0.69 |
| 3.0mm from Apex Thinnest Danger Zone ML | 0.67 |
| 3.0mm from Apex 1 M Width B/L | - |
| 3.0mm from Apex 1 M Width M/D | - |
| 3.0mm from Apex ML Width B/L | 0.27 |
| 3.0mm from Apex ML Width M/D | 0.30 |
| 3.0mm from Apex MB Width B/L | 0.43 |
| 3.0mm from Apex MB Width M/D | 0.31 |
| 3.0mm from Apex M Isthmus Width | 0.24 |
| 3.0mm from Apex M Isthmus Length | 0.75 |
| 3.0mm from Apex M Isthmus Type | 5.00 |
| 3.0mm from Apex M 3rd Canal | - |
| 3.0mm from Apex Thinnest Danger Zone 1 D | 0.70 |
| 3.0mm from Apex Thinnest Danger Zone DB | - |
| 3.0mm from Apex Thinnest Danger Zone DL | - |
| 3.0mm from Apex 1 D Width B/L | 0.68 |
| 3.0mm from Apex 1 D Width M/D | 0.57 |
| 3.0mm from Apex DL Width B/L | - |
| 3.0mm from Apex DL Width M/D | - |
| 3.0mm from Apex DB Width B/L | - |
| 3.0mm from Apex DB Width M/D | - |
| 3.0mm from Apex D Isthmus Width | - |
| 3.0mm from Apex D Isthmus Length | - |
| 3.0mm from Apex D Isthmus Type | - |
| 3.5mm from Apex Thinnest Danger Zone 1 M | 0.60 |
| 3.5mm from Apex Thinnest Danger Zone MB | - |
| 3.5mm from Apex Thinnest Danger Zone ML | - |
| 3.5mm from Apex 1 M Width B/L | 0.46 |
| 3.5mm from Apex 1 M Width M/D | 0.32 |
| 3.5mm from Apex ML Width B/L | - |
| 3.5mm from Apex ML Width M/D | - |
| 3.5mm from Apex MB Width B/L | - |

| | |
|---|---|
| 3.5mm from Apex MB Width M/D | - |
| 3.5mm from Apex Isthmus Width | - |
| 3.5mm from Apex Isthmus Length | - |
| 3.5mm from Apex Isthmus Type | - |
| 3.5mm from Apex M 3rd Canal | - |
| 3.5mm from Apex Thinnest Danger Zone 1 D | 0.67 |
| 3.5mm from Apex Thinnest Danger Zone DB | - |
| 3.5mm from Apex Thinnest Danger Zone DL | - |
| 3.5mm from Apex 1 D Width B/L | 0.94 |
| 3.5mm from Apex 1 D Width M/D | 0.59 |
| 3.5mm from apex DL width B/L dimension | - |
| 3.5mm from Apex DL Width M/D | - |
| 3.5mm from Apex DB Width B/L | - |
| 3.5mm from Apex DB Width M/D | - |
| 3.5mm from Apex D Isthmus Width | - |
| 3.5mm from Apex D Isthmus Length | - |
| 3.5mm from Apex D Isthmus Type | - |
| 4.0mm from Apex Thinnest Danger Zone 1 M | - |
| 4.0mm from Apex Thinnest Danger Zone MB | 0.65 |
| 4.0mm from Apex Thinnest Danger Zone ML | 0.66 |
| 4.0mm from Apex 1 M Width B/L | - |
| 4.0mm from Apex 1 M Width M/D | - |
| 4.0mm from Apex ML Width B/L | 0.50 |
| 4.0mm from Apex ML Width M/D | 0.33 |
| 4.0mm from Apex MB Width B/L | 0.66 |
| 4.0mm from Apex MB Width M/D | 0.43 |
| 4.0mm from Apex M Isthmus Width | 0.25 |
| 4.0mm from Apex M Isthmus Length | 0.76 |
| 4.0mm from Apex M Isthmus Type | 5.00 |
| 4.0mm from Apex M 3rd Canal | - |
| 4.0mm from Apex Thinnest Danger Zone 1 D | 0.72 |
| 4.0mm from Apex Thinnest Danger Zone DB | - |
| 4.0mm from Apex Thinnest Danger Zone DL | - |
| 4.0mm from Apex 1 D Width B/L | 1.11 |
| 4.0mm from Apex 1 D Width M/D | 0.53 |
| 4.0mm from Apex DL Width B/L | - |
| 4.0mm from Apex DL Width M/D | - |
| 4.0mm from Apex DB Width B/L | - |
| 4mm from Apex DB width M/D | - |
| 4mm from Apex D Isthmus Width | - |
| 4mm from Apex D Isthmus Length | - |
| 4mm from Apex D Isthmus Type | - |
| 4.5mm from Apex Thinnest Danger Zone 1 M | - |
| 4.5mm from Apex Thinnest Danger Zone MB | 0.78 |
| 4.5mm from Apex Thinnest Danger Zone ML | 0.78 |
| 4.5mm from Apex 1 M Width B/L | - |
| 4.5mm from Apex 1 M Width M/D | - |
| 4.5mm from Apex ML Width B/L | 0.56 |
| 4.5mm from Apex ML Width M/D | 0.37 |

| | |
|---|---|
| 4.5mm from Apex MB Width B/L | 0.44 |
| 4.5mm from Apex MB Width M/D | 0.45 |
| 4.5mm from Apex M Isthmus Width | 0.25 |
| 4.5mm from Apex M Isthmus Length | 1.39 |
| 4.5mm from Apex M Isthmus Type | 5.00 |
| 4.5mm from Apex M 3rd Canal | - |
| 4.5mm from Apex Thinnest Danger Zone 1 D | 0.85 |
| 4.5mm from Apex Thinnest Danger Zone DB | - |
| 4.5mm from Apex Thinnest Danger Zone DL | - |
| 4.5mm from Apex 1 D Width B/L | 1.21 |
| 4.5mm from apex 1 D width M/D | 0.61 |
| 4.5mm from Apex DL Width B/L | - |
| 4.5mm from Apex DL Width M/D | - |
| 4.5mm from Apex DB Width B/L | - |
| 4.5mm from Apex DB Width M/D | - |
| 4.5mm from Apex D Isthmus Width | - |
| 4.5mm from Apex D Isthmus Length | - |
| 4.5mm from Apex D Isthmus Type | - |
| 5.0mm from Apex Thinnest Danger Zone 1 M | - |
| 5.0mm from Apex Thinnest Danger Zone MB | 0.78 |
| 5.0mm from Apex Tinnest Danger Zone ML | 0.78 |
| 5.0mm from Apex 1 M Width B/L | - |
| 5.0mm from Apex 1 M Width M/D | - |
| 5.0mm from Apex ML Width B/L | 0.44 |
| 5.0mm from Apex ML Width M/D | 0.48 |
| 5.0mm from Apex MB Width B/L | 0.44 |
| 5.0mm from Apex MB Width M/D | 0.50 |
| 5.0mm from Apex M Isthmus Width | 0.24 |
| 5.0mm from Apex M Isthmus Length | 1.39 |
| 5.0mm from Apex M Isthmus Type | 5.00 |
| 5.0mm from Apex Thinnest Danger Zone 1 D | 0.93 |
| 5.0mm from Apex Thinnest Danger Zone DB | - |
| 5.0mm from Apex Thinnest Danger Zone DL | - |
| 5.0mm from Apex 1 D Width B/L | 1.34 |
| 5.0mm from Apex 1 D Width M/D | 0.64 |
| 5.0mm from Apex DL Width B/L | - |
| 5.0mm from Apex DL Width M/D | - |
| 5.0mm from Apex DB Width B/L | - |
| 5.0mm from Apex DB Width M/D | - |
| 5.0mm from Apex D Isthmus Width | - |
| 5.0mm from Apex D Isthmus Length | - |
| 5.0mm from Apex D Isthmus Type | - |
| 5.5mm from Apex Thinnest Danger Zone 1 M | - |
| 5.5mm from Apex Thinnest Danger Zone MB | 0.85 |
| 5.5mm from Apex Thinnest Danger zone ML | 0.91 |
| 5.5mm from Apex 1 M Width B/L | - |
| 5.5mm from Apex 1 M Width M/D | - |
| 5.5mm from Apex ML Width B/L | 0.51 |
| 5.5mm from Apex ML Width M/D | 0.45 |

| | |
|---|---|
| 5.5mm from Apex MB Width B/L | 0.60 |
| 5.5mm from Apex MB Width M/D | 0.49 |
| 5.5mm from Apex M Isthmus Width | 0.19 |
| 5.5mm from Apex M Isthmus Length | 1.30 |
| 5.5mm from Apex M Isthmus Type | 4.00 |
| 5.5mm from Apex M 3rd Canal | - |
| 5.5mm from Apex Thinnest Danger Zone 1 D | 1.00 |
| 5.5mm from Apex Thinnest Danger Zone DB | - |
| 5.5mm from Apex Thinnest Danger Zone DL | - |
| 5.5mm from Apex 1 D Width B/L | 1.53 |
| 5.5mm from Apex 1 D Width M/D | 0.71 |
| 5.5mm from Apex DL Width B/L | - |
| 5.5mm from Apex DL Width M/D | - |
| 5.5mm from Apex DB Width B/L | - |
| 5.5mm from Apex DB Width M/D | - |
| 5.5mm from Apex D Isthmus Width | - |
| 5.5mm from Apex D Isthmus Length | - |
| 5.5mm from Apex D Isthmus Type | - |
| 6.0mm from Apex Thinnest Danger Zone 1 M | - |
| 6.0mm from Apex Thinnest Danger Zone MB | 0.79 |
| 6.0mm from Apex Thinnest Danger Zone ML | 0.91 |
| 6.0mm from Apex 1 M Width B/L | - |
| 6.0mm from Apex 1 M Width M/D | - |
| 6.0mm from Apex ML Width B/L | 0.42 |
| 6.0mm from Apex ML Width M/D | 0.49 |
| 6.0mm from Apex MB Width B/L | 0.68 |
| 6.0mm from Apex MB Width M/D | 0.53 |
| 6.0mm from Apex M Isthmus Width | 0.23 |
| 6.0mm from Apex M Isthmus Length | 1.53 |
| 6.0mm from Apex M Isthmus Type | 4.00 |
| 6.0mm from Apex M 3rd Canal | - |
| 6.0mm from Apex Thinnest Danger Zone 1 D | 1.08 |
| 6.0mm from Apex Thinnest Danger Zone DB | - |
| 6.0mm from Apex Thinnest Danger Zone DL | - |
| 6.0mm from Apex 1 D Width B/L | 1.44 |
| 6.0mm from Apex 1 D Width M/D | 0.67 |
| 6.0mm from Apex DL Width B/L | - |
| 6.0mm from Apex DL Width M/D | - |
| 6.0mm from Apex DB Width B/L | - |
| 6.0mm from Apex DB Width M/D | - |
| 6.0mm from Apex D Isthmus Width | - |
| 6.0mm from Apex D Isthmus Length | - |
| 6.0mm from Apex D Isthmus Type | - |
| 7.0mm from Apex Thinnest Danger Zone MB | 0.94 |
| 7.0mm from Apex Thinnest Danger Zone ML | 1.09 |
| 7.0mm from Apex ML Width B/L | 0.57 |
| 7.0mm from Apex ML Width M/D | 0.51 |
| 7.0mm from Apex MB Width B/L | 0.71 |
| 7.0mm from Apex MB width M/D | 0.49 |

| | |
|---|---|
| 7.0mm from Apex M Isthmus Width | 0.16 |
| 7.0mm from Apex M Isthmus Length | 1.44 |
| 7.0mm from Apex M Isthmus Type | 4.00 |
| 7.0mm from Apex M 3rd Canal | - |
| Longest Distance MB to ML Orifice 1.5mm from Furcation | 2.41 |
| Shortest Distance MB to ML Orifice 1.5mm from Furcation | - |
| ML to Middle Mesial to MB | - |
| Longest Distance DB to DL Orifice 1.5mm from Furcation | 1.18 |
| Shortest Distance DB to DL Orifice 1.5mm from Furcation | - |
| Longest Distance M to D Orifice | 3.97 |
| Mesial Canal Type from Orifice to Apex | 1-2 (Type 5) |
| Distal Canal Type from Orifice to Apex | 1-1 (Type 1) |
| Middle Mesial (Start/Stop) | - |
| Middle Distal (Start/Stop) | - |
| D Level of Lateral Canal Exit | - |
| M Level of Lateral Canal Exit | - |