For information call:

ESSENTIAL DENTAL SYSTEMS

1-800-22-FLEXI

Or contact your local Essential Dental Systems, Inc. dealer.

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Made in U.S.A.

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CE 2797

ESSENTIAL DENTAL SYSTEMS

CE 2797

Caution: Federal law restricts this device to sale by or on the order of a licensed dentist.

IMPORTANT:
Read pages 7 through 12 for Technique first.

Instruction Booklet for Flexi-Post Titanium Posts.

Anweisungen auf Deutsch
Instrucciones en francés
Instrucciones en italiano
Instrucciones en español

Flexi-Post®

Made in U.S.A.

Flexi-Post® is the only prefabricated post system that delivers maximum retention of the post and core with minimum stress to the root.

This post system is color-coded, easy to insert and is compatible with amalgam or composite buildups. Flexi-Post safely simplifies the procedures involved in both creating original abutments and salvaging existing bridgework!

Essential Dental Systems recommends the use of:

Flexi-Flange® (Stainless Steel Cat. # 410-00 & Titanium Cat. # 415-00) incorporating a wider flange to provide essential stability in cases where there is little or no coronal dentin.

Flexi-Overdenture® (Stainless Steel Cat. # 211-00, 210-00 & Titanium Cat. # 212-00, 215-00, 212-01, 215-01), utilizing the patented Flexi-Post® split-shank, offers the highest retention with minimal stress.

EZ-Change® (Cat. No. 250-00), A patented keeper and cap insert system allows for "quick and easy" nylon cap replacement in the Flexi-Overdenture System. A metal keeper is **permanently** cold cured into the denture to hold a threaded nylon cap. When worn, this cap may be easily removed, requiring only seconds for replacement and considerably shortening chair time.

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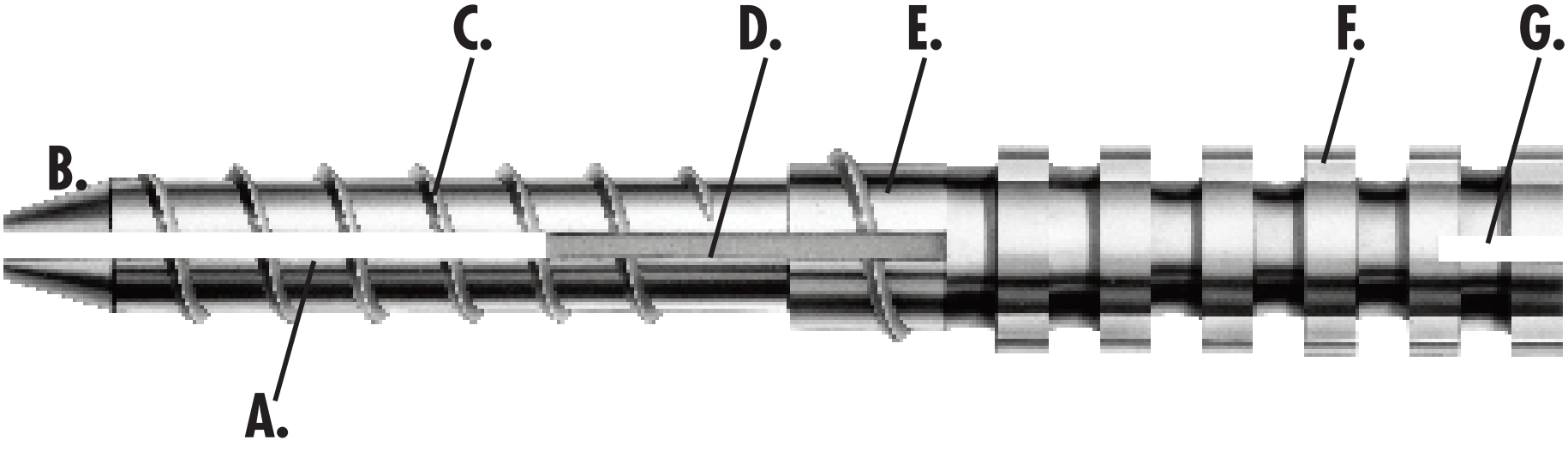
Flexi-Post Characteristics



A. THE UNIQUE SPLIT SHANK DESIGN OF THE FLEXI-POST

- redirects all stresses of insertion and cementation safely to the post, not the root.
- creates vertical blades which remove all dentinal debris from the thread line during insertion, further enhancing the ease of placement.
- creates a threaded post-hole in a gradual fashion, once again minimizing stress to the root.

B. TAPERED TIP permits deep seating (an additional 1-2 mm into the canal) of Flexi-Post without the risk of tooth fracture. Non-threaded, this tip offers the advantage of self-limiting insertion, further protecting the root from potential fracture.

C. PARALLEL-SIDED SUPER SHARP THREADS cut into the dentin rather than push it aside. Flexi-Post's construction maximizes post retention without contributing to the production of tensile stresses.* Flexi-Post requires no separate tapping and may be trial seated prior to final insertion.

D. THE FLEXI-POST VENT releases internal hydrostatic pressure upon cementation.

E. THE SECOND TIER OF THE SHANK increases the intimacy of fit between the post and the natural point at which the canal widens, thereby reducing destructive long lever arms.

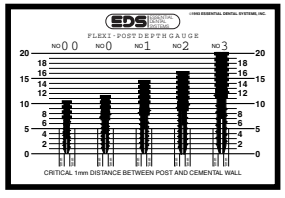
F. FLEXI-POST may be used for existing bridge work and for new abutments. The expanded surface area of the serrated head permits greater retention of composite material and is suitable, as well, for amalgam buildups.

G. CROSS SLOTS used with internal wrench which fits within the post diameter for post placement in tight areas.

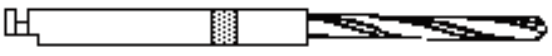
*Research has shown that under function, the Flexi-Post distributes the stresses evenly throughout the length of the post in the root. In comparison with passively seated posts, these studies conclude that the Flexi-Post produced fewer fractures.

For more information, ask for a free copy of the Essential Dental Systems Research Abstract (available in English only).

Components and Their Uses

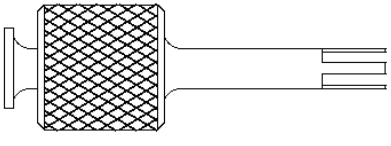


Depth Gauge - used in conjunction with a radiograph, it facilitates the proper choice of post size, placed within the root. (see p. 7)

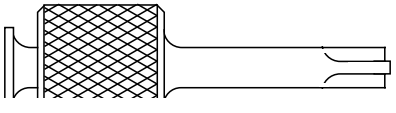


Primary Reamer - used to create the primary post-hole after use of the Peeso or Gates Glidden reamer. (Essential Gates Glidden drills are recommended.) The Primary Reamer is self limiting within each size.

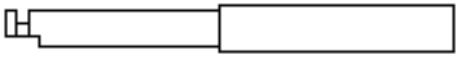
Secondary Drills - used to create the countersink space for the second tier of Flexi-Post sizes 0 thru 3. The second tier of the post allows better adaptation of the post to the normal anatomic flare of the post-hole.



External Wrench - fits snugly over the post and drives the post into place; one wrench fits all serrated post sizes.



Internal Wrench - fits inside the cross slots of the head of the post and drives it into place. One wrench fits all serrated post sizes.



Extender - allows the primary reamer or secondary drill to fit within it to gain 19 mm additional length; extra length may be needed when lack of space prevents the placement of the contra-angle between teeth.

Flexi-Post Facts

The Flexi-Post is part of a color coded system containing posts of five sizes to optimally accommodate the vast majority of your requirements. All five sizes come with a serrated head which the dentist may use with either amalgam or composite. Because of the geometry of the head, coronal dentin may be kept, if desired, rather than flattening the occlusal surface.

Post Number	00	0	1	2	3
Color Code	WHITE	YELLOW	RED	BLUE	GREEN
Length of Head	3.50mm	3.50mm	5.00mm	6.00mm	7.00mm
Length of Shaft	7.00mm	8.00mm	9.50mm	10.50mm	13.00mm
Total Length of Post	10.50mm	11.50mm	14.50mm	16.50mm	20.00mm
Diameter of Shaft (Without Threads)	0.75mm	0.79mm	1.00mm	1.25mm	1.50mm
Diameter of Shaft (With Threads)	0.95mm	1.07mm	1.40mm	1.65mm	1.90mm
Diameter of Primary Reamer	0.78mm	0.90mm	1.20mm	1.45mm	1.70mm
Length of Primary Reamer	8.00mm	9.00mm	11.00mm	12.00mm	14.50mm

Recommended uses for Flexi-Post

#00 (White)

- very thin buccal or mesial roots of molars
- very thin roots of maxillary first premolars

#0 (Yellow)

- thin to average buccal of mesial roots of molars
- thin to average roots of maxillary first premolars
- thin roots of lower anteriors

#1 (Red)

- average to large buccal of mesial roots of molars
- normal to large roots of maxillary first premolars
- average roots of anteriors
- thin roots of premolars
- thin roots of maxillary laterals
- thin distal and palatal roots of molars

#2 (Blue)

- average roots of all maxillary anteriors
- average roots of premolars
- large roots of mandibular anteriors
- large distal and palatal roots of molars

#3 (Green)

- large maxillary centrals
- large maxillary canines

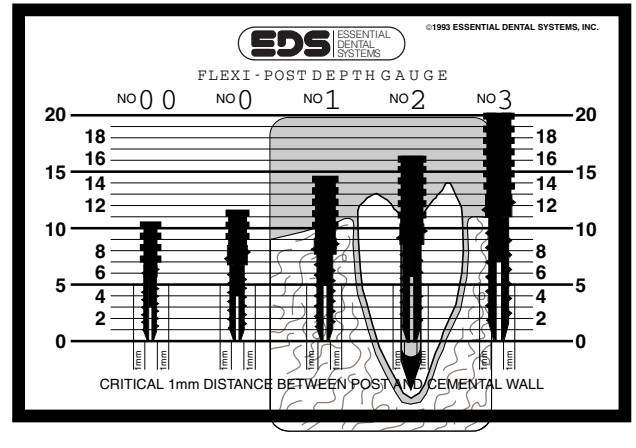
Technique: Use of the Depth Gauge in Post Selection

Research shows that parallel, solid shanked* posts should have at least 1 mm of tooth structure lateral to the most apical placement of the post. To aid in this placement, Flexi-Post uses a transparent plastic depth gauge with silhouettes of the different sizes of the posts. Lateral and parallel to each silhouette are vertical lines spaced 1 mm from the threads. By placing the gauge over an accurate radiograph of a tooth, the dentist may easily determine if the 1 mm of lateral clearance exists. If the lines fall outside the root on the x-ray there is potentially not enough lateral tooth structure for safe placement.

In the latter case, the dentist should either go to a smaller post or remove enough apical post length for the post to fit at least 1 mm within the external borders of the root. Most importantly, *the second tier of the post must always be fully seated*. The dentist should *never* allow the second tier of the post not to seat. This would allow a loose coronal fit that would increase the chances of the post loosening over time!

If the dentist chooses to remove apical length of the post, either because the full length of the placed post would thin out the lateral tooth structure too much or because the post-hole is too short for placement of the complete post length, he should follow the steps listed below:

1) Trial seat the post, thus creating the internal thread in the root.
2) Unthread the post from the root.
3) Cut off the necessary apical post length, *allowing the second tier to seat fully.*
4) Cement the post as usual.



**The split-shank Flexi-Post is inherently safer than any solid shanked post and, therefore, less lateral tooth structure is necessary to prevent fracture.*

Post Hole Preparation

The post-hole preparation begins with the removal of the root filling material using either a Peeso or Gates Glidden reamer. Then, in sequence, a non-end cutting drill (Peeso or Gates Glidden reamer) is used until 100% of the post-hole length and 90% of the post-hole width have been established. The following chart indicates which non-end cutting drill will produce 90% of the post-hole width for the various Flexi-Post sizes.

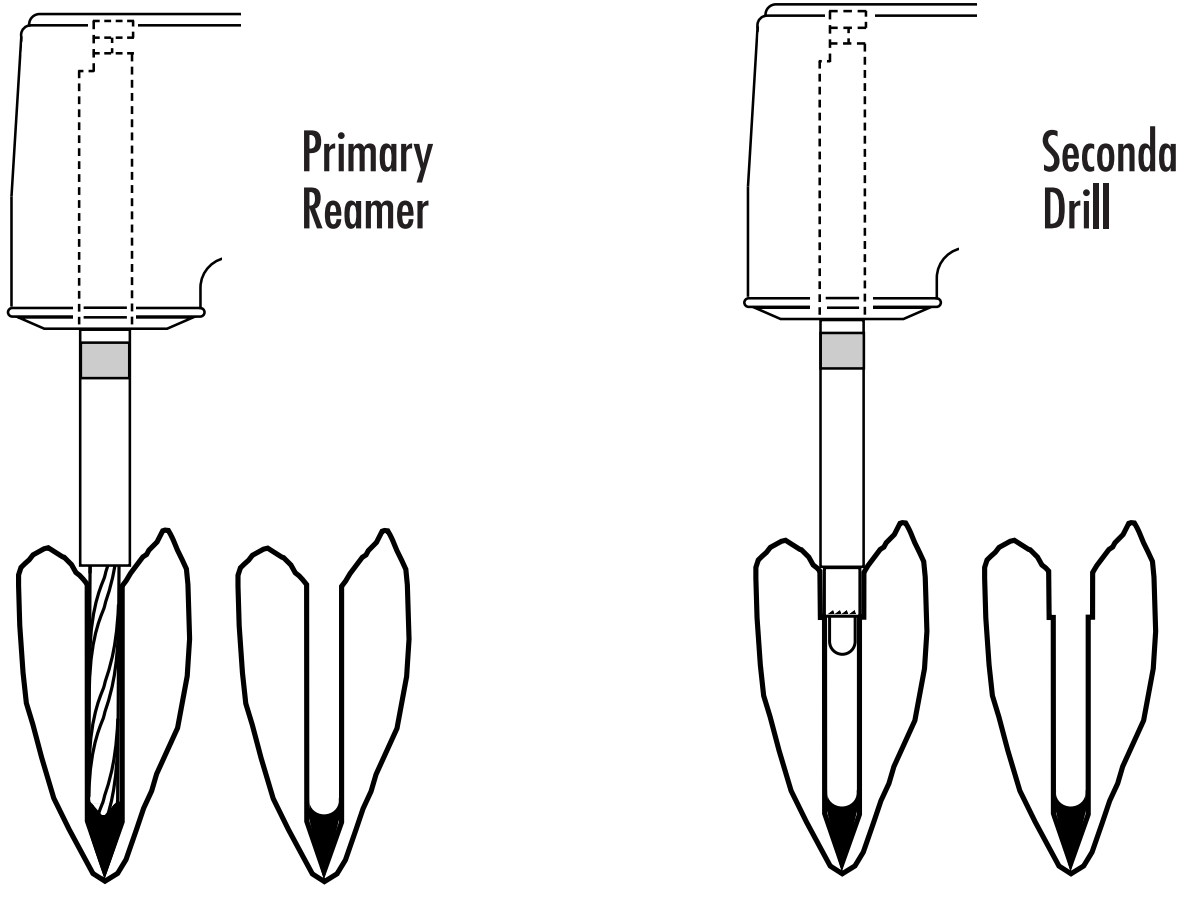
Peeso		Gates Glidden		EDS Gates Glidden		Flexi-Post Primary Reamer
-	or	1	or	white	then	**00** (white)
1	or	2	or	yellow	then	**0** (yellow)
3	or	4	or	red	then	**1** (red)
4	or	5	or	blue	then	**2** (blue)
5	or	6	or	green	then	**3** (green)

When 100% of the post-hole length and 90% of the width have been achieved, the primary reamer is used. Since the Flexi-Post will fit optimally if a more concentric hole is maintained, *the number of entries into the post-hole with the primary reamer should be limited*. It is much easier to prepare the post-hole when the canal is lubricated with

either water or an anesthetic solution, or with any suitable wetting agent.

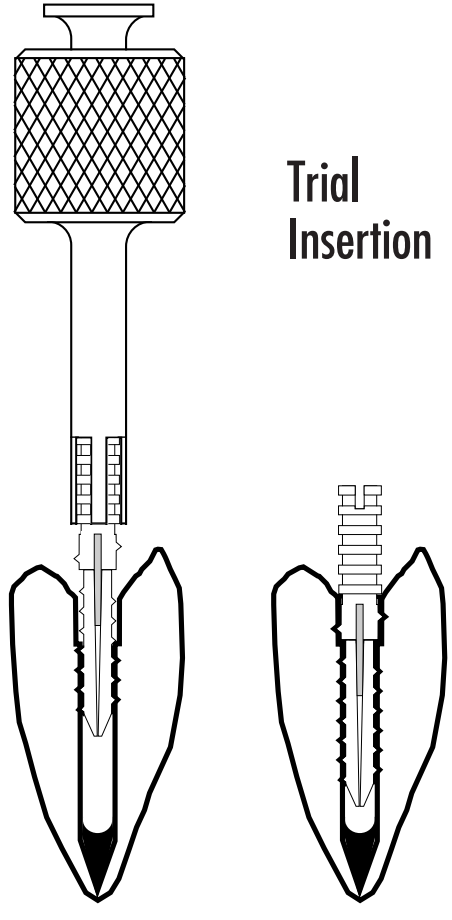
The secondary drill prepares a countersink in the coronal post-hole preparation. The second tier of the post *must* always fit completely within this countersink preparation. *If the dentist does not seat the post completely, he is reducing Flexi-Post's tremendous retention and increasing its chances of fracture under function.* To satisfy this requirement, in post-hole preparations shorter than the length of the shank of the post to be placed, the dentist must remove enough apical post length to allow full seating of the post's second tier.

Flexi-Post sizes 0 thru 3 have secondary drills. Flexi-Post size 00 has *no* second tier and, therefore, no secondary drill. The smooth extension on the secondary drill is simply a lead to facilitate parallelism between the primary post-hole and the countersink preparation.



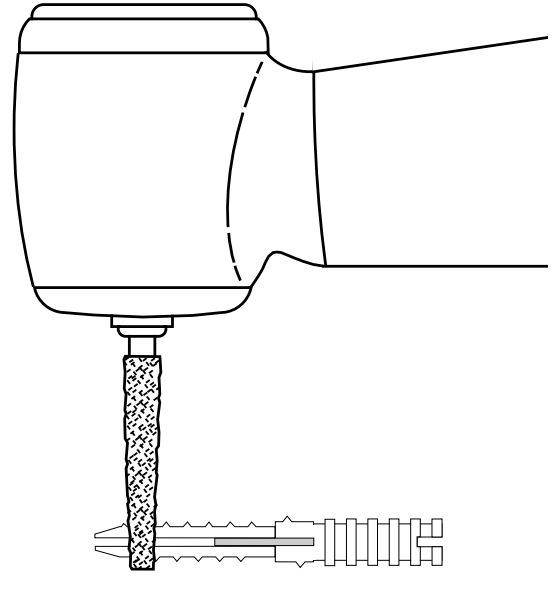
Post Insertion

The selected Flexi-Post is inserted with the appropriate wrench. It is important to note that the Flexi-Post is designed to be seated on a trial basis in order to ensure accurate fit and position. During the trial-seating, if moderate resistance is felt, the post may be backed off 1/4 to 1/2 turn and then advanced again. Advancing while backing off 1/4 turn when moderate resistance occurs is repeated until the post is fully inserted and the thread is created inside the root canal for the post. This procedure will remove debris from the thread line and facilitate insertion.



Trial Insertion

Post Adjustment (if necessary)

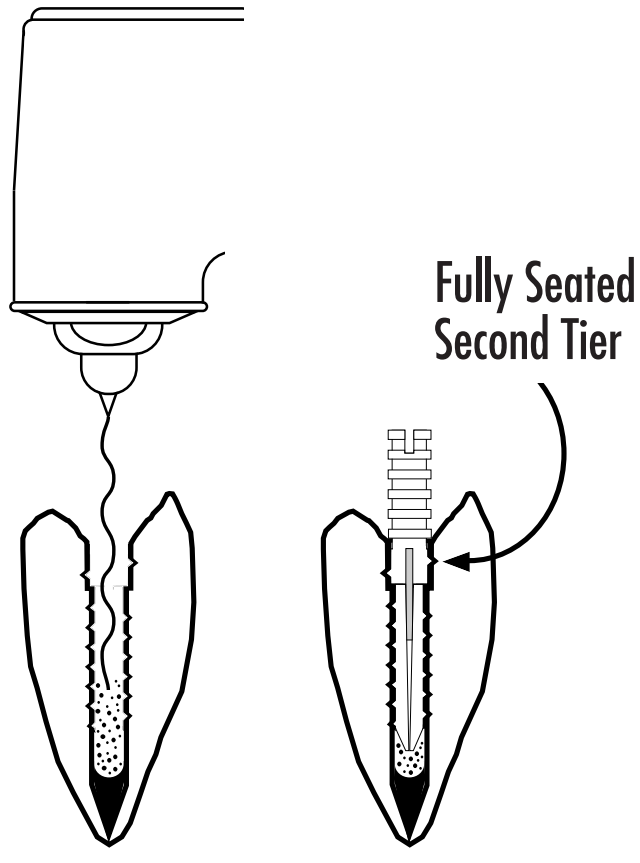


The trial seating creates the thread inside the root canal for the post. The post is now unthreaded out of the root. At this point, alterations to the post may be made. It is extremely important to note that the second tier *must always fully seat.* Therefore, alteration should be made to the apical end of the post. Be sure to remove all dentinal debris from the split with an air syringe at this time.

Cement is now placed in the post-hole and on the post. The post is inserted into the post-hole and threaded in with light pressure. The post will seat completely with minimal resistance. Excess cement is now removed. The Flexi-Post has now been inserted and cemented with minimal stress being transmitted to the root.

Post Cementation

*For the greatest post retention we recommend the use of auto mixing **Flexi-Flow Auto™, Flexi-Flow Auto™ E** (Cat. # 870-00, Cat. # 880-00) or **Flexi-Flow®** (Cat. # 850-00) or **Flexi-Flow Natural®** (Cat. # 860-00).
All Flexi-Flow cements are titanium or lanthanide self curing, fluoridated, reinforced composite resin cements.



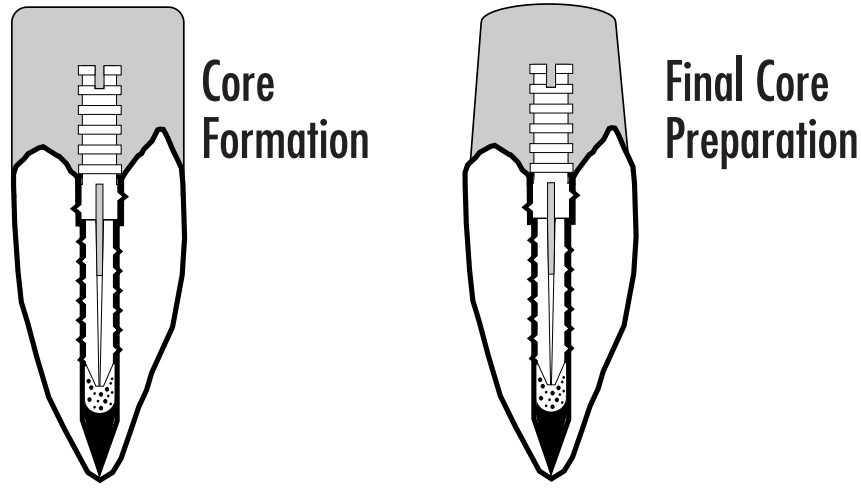
Core Formation

Composite Cores - Any core form may be used with composite materials. The composite should be placed in the core form and seated over the post, using moderate pressure to ensure close adaptation of the composite to the core. For core formation with the strength of dentin we recommend the use of **Ti-Core® Auto E (Auto Mix, Dual Cured)** (Cat. # 830-00), **Ti-Core®** (Cat. # 800-00), **Ti-Core® Natural** (Cat. # 810-00), **Ti-Core® Fast Set** (Cat. # 805-00), or **Ti-Core® Natural Fast Set** (Cat. # 815-00) fluoridated composite core material.

Amalgam Cores - Any matrix may be used with amalgam buildup. The amalgam should be condensed around the Flexi-Post in the standard manner used for restorations. A high copper spherical amalgam is recommended for easy condensing and rapid set.

All excess core material, especially that within the sulcus, must be removed.

The abutment is now ready for crown preparation.



Multilingual Instructions: German, French, Italian, Spanish

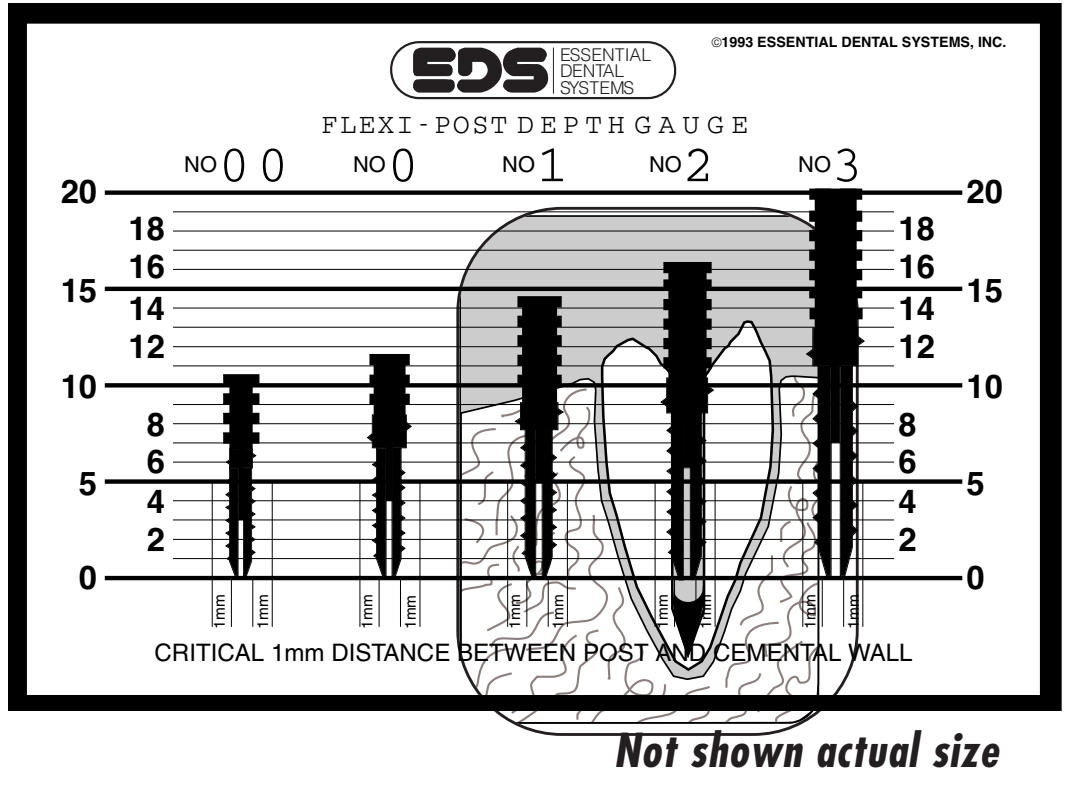
1.

DEUTSCH: Röntgenschablone zur Festlegung der optimalen Stiftlänge. Die zweite stufe des kanalauflage muß unbedingt *fest aufliegen* (in der Schulterpräoaration), um eine maximale Stabilität, Retention und Fraktursicherheit zu gewährleisten.

FRANCAIS: Jauge de profondeur pour mesurer la profondeur optimale du pivot. Le deuxiéme tiers du pivot *doit obligatoirement être en appui à fond* pour assurer la stabilité, la rétention, et la maximum de résistance aux ruptures.

ITALIANO: Sonda di profondità per stabilire la lunghezza ottimale del perno. Il secondo ordine del perno *deve essere perfettamente a battuta nella sua sede* per ottenere il massimo effetto di stabilità, tenuta e resistenza all incrinatura.

ESPAÑOL: Calibrador de profundidad para determinar la profundidad óptima de la espiga. El tope de la espiga *radicular debe estar ompletamente asentado* para obtener màxima estabilidad, retención y resistencia a fracuturaciones.



Not shown actual size

2.

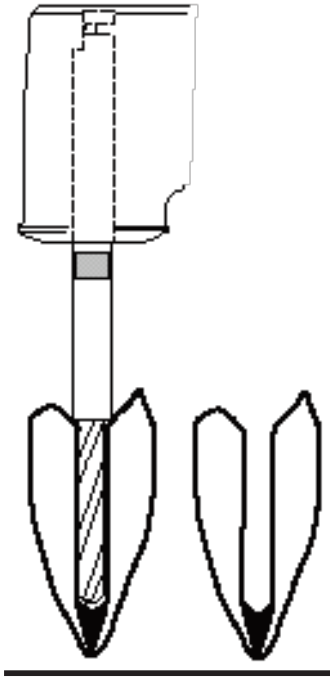
DEUTSCH: Mit Peeso-oder Gates Glidden Bohrern wird die Guttapercha entfernt und der Kanal für die Stiftbohrung vorbereitet. (*Gates Glidden Bohrer von EDS haben die Flexi-Post Farbcodierung*.) Anschließend den Vorbohrer benutzen.

FRANCAIS: Mèche Peeso ou Gates Glidden pour enlever le gutta percha, et pour assurer un alésage grossier du canal. (*Les mèches Gates Glidden d EDS sont préconisées*.) Apres, Utilisé le alésoir primaire.

ITALIANO: Punte da trapano Peeso ò Gates Glidden per asportare la guttaperca, e per il dimensionamento preliminare del canale. (*Si raccomandano le punte Gates Glidden di fabbricazione della EDS*.) Allora se puo usare l alesatore primaria.

ESPAÑOL: Use el ensanchador para conductos radiculares Peeso o Gates Glidden para remover la gutapercha y para calibrar el tamaño preliminar del canal. (*Se recomiendan Fresas Gates Glidden de EDS*.) Luego use el ensanchador primario.

Peeso	Gates Glidden	EDS Gates Glidden	Primary Reamer Vorbohrer Alésoir primaire Punta alesatrice primaria Ensanchador Primario
-	1	00 (WHT)	00 (WHT)
1	2	0 (YEL)	0 (YEL)
3	4	1 (RED)	1 (RED)
4	5	2 (BLU)	2 (BLU)
5	6	3 (GRE)	3 (GRE)



3.

DEUTSCH: Mit dem Spiral-Vorbohrer wird anschließend die Stiftbohrung in voller Länge gebohrt (Spraykühlung benutzen).

FRANCAIS: Alésoir primaire pour préparer la longueur du trou de pivot (Lubrifier à l eau).

ITALIANO: Punta alesatrice primaria usata per rifinire l intera lunghezza del foro che accoglie il perno (Alesare in condizioni umide).

ESPAÑOL: Use el ensanchador primario para preparar el largo total del canal de la espiga (Corte en húmedo).

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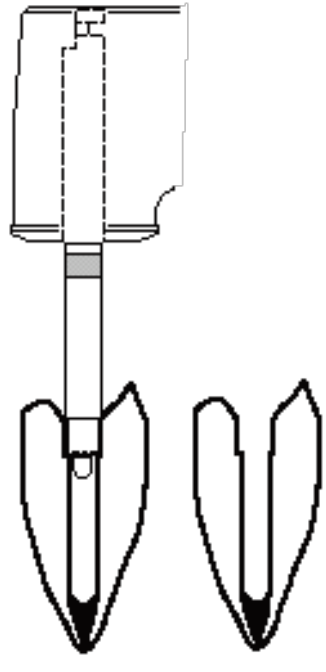
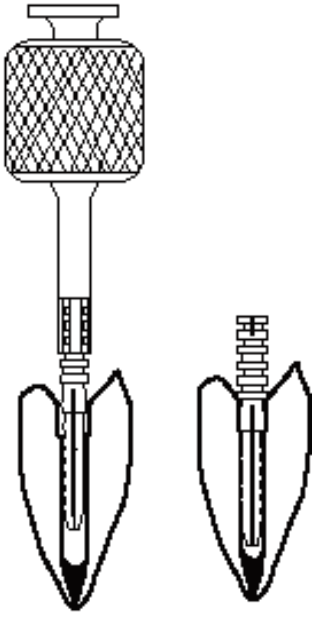
4. DEUTSCH: Mit dem Versenkbohrer wird die Präparation die Schulter für die zweite Stufe des Stiftes präpariert. (*Die Schulterauflage der zweiten Stufe des Stiftes muß völlig versenkt sein. Andernfalls ist die Stabilität und Retention des Stiftes in der Wurzel reduziet und das Risiko einer Fraktur unter Funktion erhöht sich.*)

FRANCAIS: Mèche secondaire pour la préparation du siège pour le deuxième tiers. (*La deuxième tiers doit obligatoirement être en appui à fond. Dans le cas contraire, il y a diminution de la rétention du Flexi-Post, et augmente les risques de rupture.*)

ITALIANO: Seconda punta per preparare la sede della collare (*Il collare deve essere perfettamente assestati. In caso contratio, la stabilità e la tenuta del perno Flexi-Post viene ridotta, e si aumenta il rischio di inrinature nel corso della funzione naturale del dente.*)

ESPAÑOL: Fresa secundaria para preparar el asiento para el tope. (*El tope de la espiga debe estar completamente asentado. Si no es así, se reduce la esetabilidad y retención de la espiga, aumentando la posibilidad de fracturas bajo función.*)





5. DEUTSCH: Stift wird probeweises eingeschraubt, um die Passgenauigkeit zu prüfen und um das Gewinde schonend zu schneiden.

FRANCAIS: Insertion à blanc pour déterminer l ajustage.

ITALIANO: Inserimento di prova per verificare la precisione di assestamento.

ESPAÑOL: Inserción de prueba para determinar el encaje.

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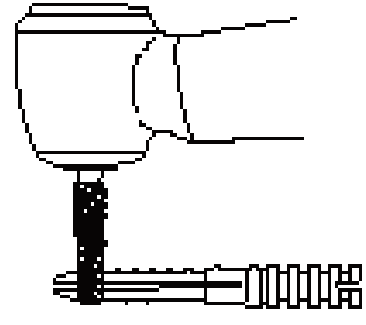
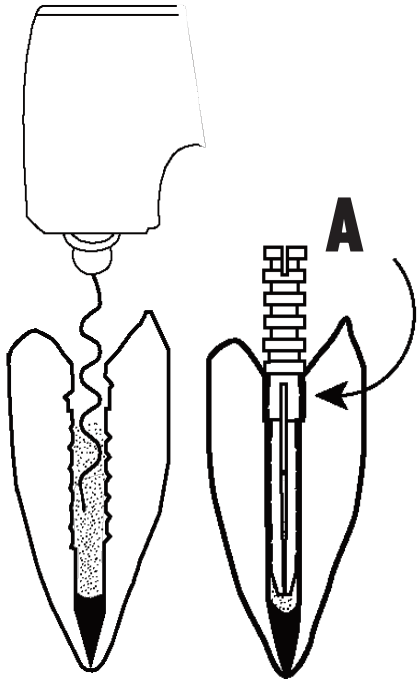
6. DEUTSCH: Stifteinpassung: Apikales Kürzen des Stiftes, um beim Einschrauben des Stiftes in jedem Fall ein völliges Versenken der zweiten Stufe sicherzustellen. (*Beide Stiftspitzen gleichzeitig abtrennen*.) Hinweis: Stift immer erst nach dem probeweisen Einschrauben kürzen.

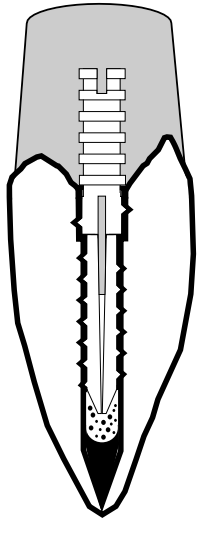
FRANCAIS: Ajustage du pivot: Sectionner l apex, le cas échéant, pour assurer le bon positionnement du deuxième tiers. (*Sectionner les deux pointes simultanément*.) Remarque: Un éventuel ajustement de l apex ne doit être effectué qu'après mise en place à blanc.

ITALIANO: Ritocco del perno: accorciare l estremità apicale, se necessario, per assicurare l insediamento a battuta del collare. (*Tagliare entrambe le punte contemporaneamente*.) Nota: La correzione apicale viene sempre eseguite successivamente all inserimento di prova.



ESPAÑOL: Ajuste de la espiga: Si fuese necesario, corte el extremo apical para asegurar el asentamiento del tope. (*Corte ambas piernas al mismo tiempo*.)
Nota: el ajuste apical siempre debe ser realizado después de la inserción de prueba.





7. DEUTSCH: Zementieren des Stiftes: **Völlig versenkte Schulterauflage beachten (A).** (*Wir empfehlen Flexi-Flow® Zement von EDS zum Zementieren.*) Anschließend wird der Stumpf aufgebaut und präpariert. (*Wir empfehlen Ti-Core® von EDS für den Stumpfaufbau).*

FRANCAIS: Scellement du pivot. **Noter le 2º tiers enfoncé à fond (A).** (*Préconisation: ciment Flexi-Flow d EDS*.) Continuer par la formation et la préparation du core. (*Préconisation: composite de reconstitutionde faux-moignon Ti-Core® d EDS*.)

ITALIANO: Cementazione del perno. **Notare il collare perfettamente abattuta nella sua seda (A).** (*Si raccomanda l uso del cemento Flexi-Flow della EDS*.) Proseguire con la formazione e preparazione del nucleo. (*Si raccomanda l uso del composito per ricostruzione Ti-Core® della EDS*.)

ESPAÑOL: Cementación de la espiga. **Note: el completo asentamiento del tope (A).** (*Se recomienda usar el cemento Flexi-Flow ambos de la compañia EDS*.) Continúe con la preparación y formación del muñón.
(*Se recomienda usar el material compuesto o para la preparación del muñón Ti-Core® ambos de la compañia EDS*.)

Notes:

Flexi-Post Kits and Their Contents

To order Flexi-Post and Flexi-Post accessories and for information on contract sales, contact your authorized EDS dealer or call **1-800-22-FLEXI**.

		Stainless Steel	Titanium
Introductory Kits:			
(4 posts each of sizes 0, 1, 2, and accessories)		Cat. No. 110-00	115-00
(4 posts eacf of sizes 1, 2, 3, and accessories)		Cat. No. 110-01	115-01
Refills:			
(10 posts, reamer, drill)	#00	Cat. No. 130-00	135-00
	#0	Cat. No. 130-0	135-0
	#1	Cat. No. 130-01	135-01
	#2	Cat. No. 130-02	135-02
	#3	Cat. No. 130-03	135-03
Economy Refills:			
(30 posts, reamer, drill)	#00	Cat. No. 140-00	145-00
	#0	Cat. No. 140-0	145-0
	#1	Cat. No. 140-01	145-01
	#2	Cat. No. 140-02	145-02
	#3	Cat. No. 140-03	145-03
Sterilization Box:			
(10 posts each of sizes 00, 0, 1, 2, 3 and accessories)		Cat. No. 197-01	197-02
Mini Sterilization Box:			
(2 posts each of sizes 00, 0, 1, 2, 3 and accessories)		Cat. No. 197-05	197-06

Important Sterilization Procedures:

Endodontic Instruments, Posts, Drills and Wrenches are non-sterile.

Prior to use, bag materials in an autoclave safe pouch and sterilize with a gravity displacement autoclave for 15 minutes at 132°C with a minimum drying time of 30 minutes. When reprocessing instruments, drills, wrenches, or taps, remove debris and dry before sterilization. Remove debris/soil using the EDS recommended cleaning protocol. Disinfect using a thermal disinfector unit (washer-disinfector) at 90°C for 1 minute.

For complete instructions see website.

EDS® ESSENTIAL DENTAL SYSTEMS

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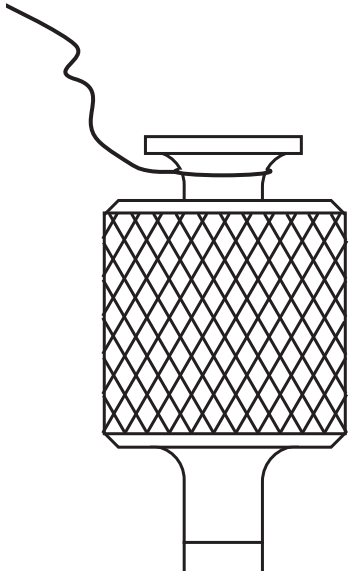
Non-Sterile (OVER)

NONST-4

Post Wrench Procedures:



In addition to the placement of a rubber dam, attach/tie a piece of dental floss (24 inch minimum) to the groove on the top of the wrench handle to allow for retrieval of the wrench.