

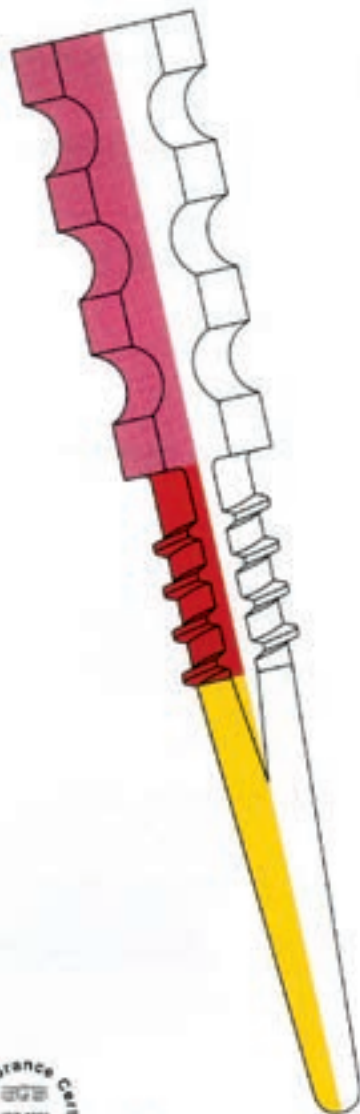
CYTCO™ - K

SYSTEM OF CYLINDRO - CONICAL
ROOT POSTS, TITANIUM

(USA / A27M
GRADE 5)



DEVELOPED BY THE SCHOOL
OF DENTAL MEDICINE
UNIVERSITY OF BERNE,
SWITZERLAND, WITH THE
SUPPORT OF THE CLINICAL
RESEARCH FOUNDATION
FOR THE PROMOTION OF
ORAL HEALTH



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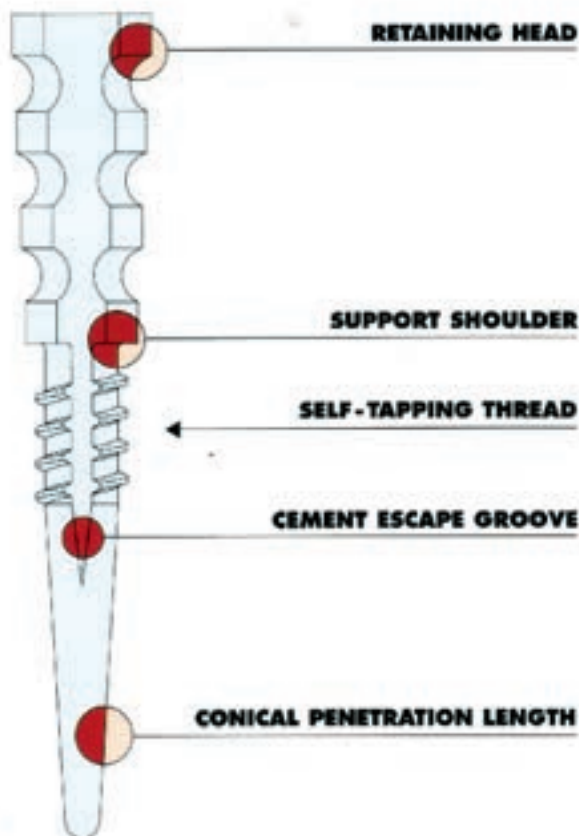
THE CYTCO - K SYSTEM : PROPERTIES AND ADVANTAGES

Most of the screwed root posts available today have a penetration length which is either conical or cylindrical. The CYTCO-K root post design presents the advantages of both types.

A CYTCO-K root post is tapered over the section which penetrates deepest into the root (i.e. where the root is narrowest and most fragile). Next is the cylindrical section which is divided into a smooth and a threaded section, the latter of which occupies only the upper third of the penetration length (Fig. 1).

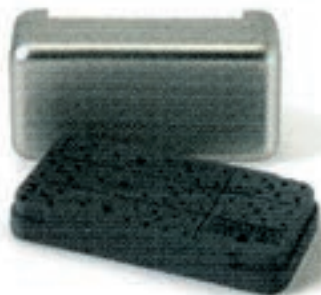
A fairly coarse-pitch thread is used, allowing the root post to be fully inserted in only $4\frac{1}{2}$ turns. Fixing is sufficiently firm, due to the relative strength of the root in this area, where the wall is thickest and strongest. The conical section of the post reinforces the extremity of the root and respects its anatomy. Unnecessarily thinning of the walls does not occur and, in addition, two longitudinal grooves allow excess cement to escape. The retention head gives a firm anchor to the restoration material, and the support shoulder at the base of the head seats firmly on the dentin, which is counterbored by means of a special combination precision drill.

1



CYTCO-K root posts are made in a grade 5 titanium alloy (USA/ASTM standards) that has proved extremely valuable in dentistry and bone surgery.

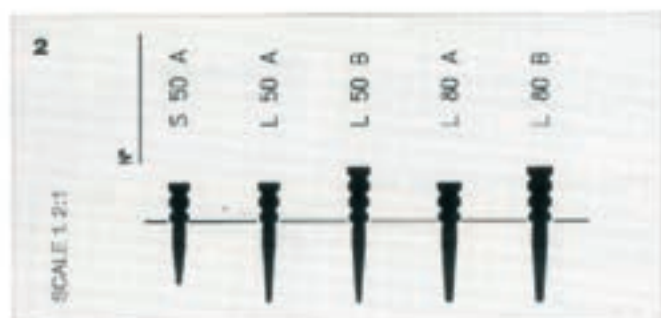
MOUNTING BLOCK



Sterilizable plastic mounting block, item #671930

THE POSTS

CYTCO-K root posts are available in five sizes (Fig. 2) with total lengths of 11.25, 13.25 and 15 mm, and diameters at the tip of the conical part of 0.5 and 0.8 mm. The retention heads are also of variable lengths, with either two or three retention notches. This range of sizes provides a post adequate for any situation.



THE SET Item #671940



The CYTCO - K system contains root posts and accessory tools arranged in their order of use.

TRIAL KIT



POSTS AND CORRESPONDING INSTRUMENTS

THE CYTCO-K SYSTEM

The chart on this page identifies all five sizes of CYTCO-K root posts with their respective tools.

MEANING OF ORDER NOS.

- first number : general reference

- first letter (S or L) : main penetration length

S (Short) = 7 mm
L (Long) = 9 mm

- second number : diameter of the conical part

50 = 0,5 mm
80 = 0,8 mm

- final letter : head length

A (short) = 4,25 mm
B (long) = 6,00 mm

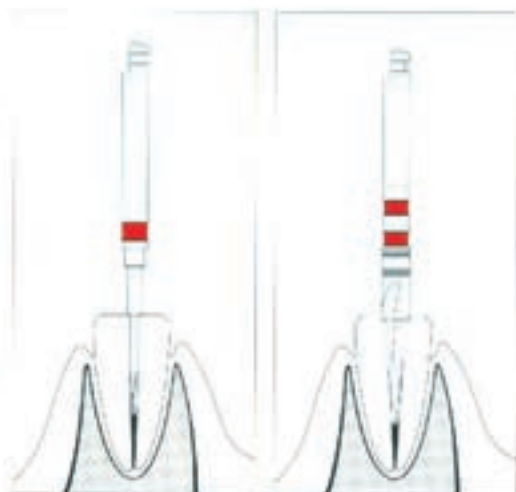
diameters of the heads :

S50A = 2,30 mm
L50A = 2,30 mm
L50B = 2,45 mm
L80A = 2,65 mm
L80B = 2,80 mm

	CYTCO-K post	671942 / L50A	671943 / L50B	671944 / L80A	671945 / L80B
penetration drill	 671946 / O50	 671947 / O50	 671948 / O80		
combination drill	 671949 / O550	 671950 / O50	 671951 / O80		
gauge	 671952 / O550	 671953 / O50	 671954 / O80		
wrench	 671955 / O550	 671956 / O50	 671957 / O80		

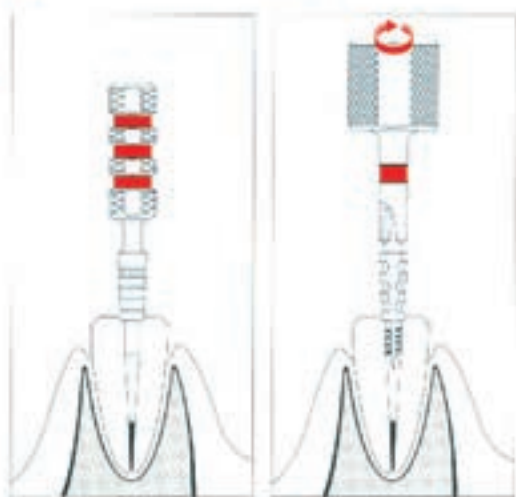
WORKING PROCEDURE

1. • **FINISHED ROOT TREATMENT**
 - X-RAY EXAMINATION
 - SELECTION OF ROOT POST COMPARING THE TRANSPARENT SHEET WITH THE X-RAY FILM
 - FIRST PREPARATION OF THE ROOT CANAL USING HAND-OR ROTATING INSTRUMENTS (GATES, LARGO/PEESO)
2. • **OPENING THE CANAL WITH PENETRATION DRILL (A)**
3. • **REAMING OF THE HOLE AND COUNTERBORING THE SEATING FOR THE SUPPORT SHOULDER WITH COMBINATION DRILL (B)**
 - FLUSHING AND DRYING THE CANAL
4. • **CHECKING THE PREPARATION WITH THE GAUGE (C)**
5. • **CEMENTING THE CYTCO-K POST WITH ROOT CANAL CEMENT OR ZINC-PHOSPHATE CEMENT (D)**
6. • **RESTORATION OF THE TOOTH WITH NONCORRODING AMALGAM**



(A)

(B)



(C)

(D)

INSTRUCTIONS FOR USE

1. ROOT PREPARATION AND SELECTION OF ROOT POST

After filling the root canal, the appropriate CYTCO-K root post is selected by comparing the outlines on the transparent sheet with the radiograph of the tooth. The scale adopted for these drawings (1:2:1) corresponds approximately to the enlargement, obtained in dental radiography.

Next, the root is prepared to a diameter slightly less than that of the root post selected, using, for example, a Maillefer LARGO drill. Using CYTCO-K root posts of 0.5 mm diameter (S50A, L50A or L50B), a LARGO N° 1 is selected whereas a LARGO N° 2 is used for root posts of 0.8 mm diameter (L80A and L80B).

2. PRELIMINARY DRILLING : CYTCO-K PENETRATION DRILL

(FIG. 3)

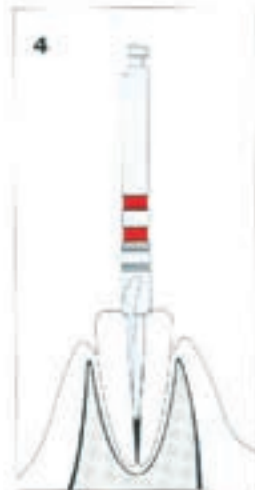
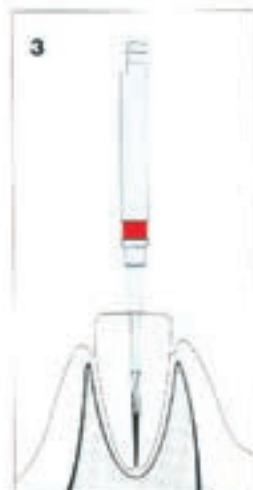
The CYTCO-K instruments and posts are available in an organized set or in a sterilizable set. The sets have a color/band identification system which matches the drills and post. The corresponding color bands must be compared to assure proper matching of the CYTCO-K penetrator drill to the correct root post.

Once the correct instruments have been selected, the penetration drill (with one band) is guided along the sides of the root canal. The shoulder (Fig. 3) limits drilling to an adequate depth, thus avoiding perforation.

3. PRECISION REAMING AND COUNTERBORING : CYTCO-K COMBINATION

(FIG. 4)

In a single operation, it reams the predilled hole to the correct form for the root post, and at the same time counterbores a perfect square seating to the main axis of the root post (see Fig. 4).

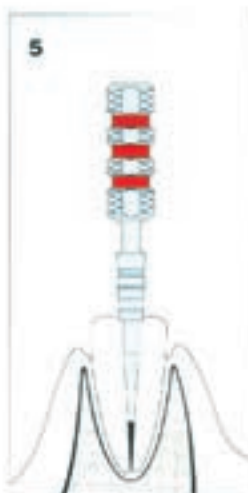


4. CHECKING THE REAMED SHAFT AND THE FUTURE POSITION OF THE ROOT POST : CYTCO-K GAUGE

[FIG. 5]

In order to facilitate proper positioning of the CYTCO-K root post and accurate preparation of the canal, the color-coded gauge (3 bands) may be used. The penetration length of the gauge has the same dimensions as the prepared pin hole. On the blank section between the support shoulder and grip, are indicators representing the dimensions and future position of the post head. The end of the short variant of root post sizes 50 and 80 is represented by a groove on the blank section of the gauge, while the end of the long variant is represented by the end of the blank section itself.

If the distance of the blank section from the dentin indicates that the root post will protrude excessively, the reaming/counterboring operation with the CYTCO-K combination drill is repeated to insert the root post slightly deeper into the root.



5. INSERTING AND CEMENTING THE CYTCO-K ROOT POST: WRENCH

[FIG. 6]

Although the CYTCO-K root post is a screwed component, it must be secured by means of an approved root canal cement, or a zinc-phosphate cement. First, the root post is held in the wrench, and sterilized by dipping it in alcohol. Then, in order to accelerate the setting time of the cement, the post is passed quickly through a flame. The root post is slowly screwed into the root canal until the support shoulder rests firmly on the dentin. Finally, excess cement is removed and the cavity cleaned and dried.

It may be found that when the post has been screwed in, the angular position of its head is not correct relative to the neighboring tooth. In this case, repeat the final drilling operation 3, but using the hand combination bur with mandrel. Remove just enough material to allow the post to be turned so as to take up the correct position when tight.



INSTRUCTIONS FOR USE

6. RESTORING THE TOOTH

If a crown is not to be considered, the only additional treatment is the restoration of the remaining crown with a noncorroding amalgam (nongamma 2). Such an amalgam has good sealing properties, because it shows excellent compressive strength, shearing forces and is hardly abrasive. The compressive, tensile and shear forces acting on the amalgam are evenly distributed over the CYTCO-K root post and the remaining parts of the tooth.

If, however, a core is to be built to accommodate a crown, a suitable amalgam or glass ionomer cement should be used, instead of a composite. The latter tends to crack, shrink and leak.

Important :
Rubberdam is mandatory for all endodontic procedures, including the use of the restoration with CYTCO-K anchors !
In case a crown is partially or entirely destroyed, a rubberdam can only be applied after lengthening the natural crown by means of a flap procedure, including osteotomy.

SPECIFICATIONS

REFERENCES	DESCRIPTION	PACKAGING
671940	complete set	single unit
671980	trial kit	single unit
671941-671945	posts	blister pack containing 12 pieces
671946-671948	penetration drill	box containing 6 pieces
671949-671951	combination drill	box containing 6 pieces
671952-671954	gauge	blister pack containing 1 piece
671955-671957	wrench	blister pack containing 1 piece
671930	sterilizable mounting block	single unit
671670	mandrel	blister pack containing 1 piece
671959	transparent sheet	single unit

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