Quantec™ System

The Quantec™ System is designed to set the new standard in efficient and effective root canal preparation with continuous taper from orifice to apex. At SybronEndo we've combined all the critical elements to achieve levels of predictability and performance unmatched in the dental industry.

Critical to the success of any rotary nickel-titanium preparation technique is the quality of the file. Advanced design in conjunction with proven micro-instrument manufacturing capabilities ensure that, file-to-file, Quantec fulfills the demands of the most exacting clinician. From revolutionary flute design to progressive technique sequence, the Quantec System makes even the most challenging canal an extraordinary experience.

Of course, the Quantec System is available exclusively from SybronEndo where comprehensive endodontic solutions are our passion.

The attributes of the Quantec file and the Graduating Tapers Technique, together, create the complete canal shaping system.

Graduating Tapers

File tapers of .02 through .06 are incorporated to maximize the cutting efficiency and minimize the stress on the instrument. The increasing tapers change the point at which the file engages the canal wall.

Tip Geometry

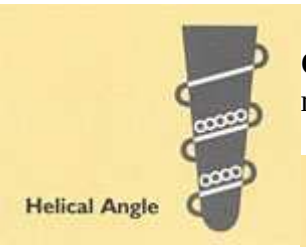
Two geometries are available:
LX Non-Cutting – The LX pilot tip maintains a central axis and deflects around severe curvatures. Ideal for:

- Routine cases
- Severe curvatures
- Delicate apical regions

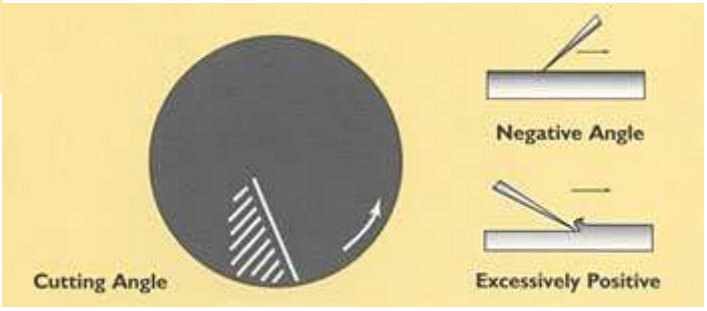
SC Safe-Cutting – The Quantec SC features a negotiating tip that cuts as it moves apically, following canal pathways and minimizing stress. Ideal for:

- Small, tight canals
- Calcified canals
- Constricted canals

Flute Design



Cuts Dentin – The Quantec file has a slightly positive cutting angle which shaves, rather than scrapes, dentin.



Debris Removal – The helical angle of the flute is ideally configured to quickly and efficiently channel debris out of the canal.

File Strength – The cutting portion of the file is supported by increased mass which strengthens the file and decreases the risk of breakage.

Reduced Rotational Friction – By recessing the large radial lands behind the blade, the rotational friction is greatly reduced.

The next advance in the geometry of success…

The Quantec Flare Series.

Complementing the standard Quantec tapers, the Flare Series, with increased tapers of .08, .10 and .12, were designed to quickly and safely shape the coronal portion of the canal. Replacing Gate-Gliddens, the Flare Series produces a smoother, more consistent and highly predictable taper. And with an ISO tip size of 25, the Flare Series mates perfectly with the standard Quantec tapers.

Axxess LineThe Axxess Line

The Axxess Line was designed for those difficult, hard-to-reach cases. The new Axxess Contra Angle, in combination with the new Axxess handle for our Quantec files, results in an overall height reduction of over 7 millimeters.

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Crown Down Technique

While Quantec files are available in a wide enough array of tips and tapers to be used in any technique, many clinicians prefer the following sequence.

Open the Orifice

This will open the orifice and allow irrigants to permeate the canal.

- Begin shaping with a Quantec #25 tip/.06 taper/17 mm length orifice shaper file to a depth just short of the apical third.

Establish a Glide Path

This will clear a path for the files used in the shaping sequence.

- Irrigate with EDTA.
- Take an ISO standard .02 taper #10 and then #15 hand file to working length.
- Irrigate with sodium hypochlorite. At this point your glide path should be easily established with minimum resistance. If working length is not easily achieved, begin the shaping process.

Shaping

You are now ready to begin the Quantec four-file sequence. Quantec files maintain a tip size of .25 mm throughout the shaping sequence. These steps should result in a canal that is smoothly tapered from apex to orifice, creating a shape that can be easily obturated.

The Quantec four-file sequence begins with a .12 taper file, which is followed by tapers of .10, .08 and finally .06. These files are positioned in their sequence such that each instrument strategically removes dentin along only a portion of the file. The larger tapers work toward the orifice, allowing the smaller tapers to more easily work toward the apex. These files are passively carried in succession down the canal, repeating the sequence until the .06 file reaches working length.

Apical Preparation (optional)

- Gauge foramen or working length diameter by establishing the first standard .02 taper hand file that binds at the length required.
- If a larger apical resistance form is required, complete preparation using Quantec standard .02 taper #40 or #45 rotary instruments.

Accessory Files

Often clinicians prefer to finish in a taper other than .06. SybronEndo carries accessory files that facilitate this while still using the crown-down sequence. They are as follows: .05/ .04/ .03/ .02/ .02 –.15 tip. If more information on shaping is required, request our instructional video produced by Dr. L. Ronald Martin and Kato Video Productions.

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Part Numbers

Quantec LX (non-cutting) Tip

Axxess Handle

Engine Graduated Tapers .25mm Tip

Taper	17mm	21mm	25mm
.03		815-2100	815-2101
.04		815-2102	815-2103
.05		815-2104	815-2105
.06	815-2128	815-2106	815-2107
.08	815-2129	815-2130	815-2135
.10	815-2131	815-2132	
.12	815-2133	815-2134	
Assorted		815-1321	815-1325

Engine ISO (.02 Taper)

Tip	21mm	25mm
.15	815-2108	815-2109
.20	815-2110	815-2111
.25	815-2112	815-2113
.30	815-2114	815-2115
.35	815-2116	815-2117
.40	815-2118	815-2119
.45	815-2120	815-2121
.50	815-2122	815-2123
.55	815-2124	815-2125
.60	815-2126	815-2127

Standard Handle

Engine Graduated Tapers .25mm Tip

Taper	17mm	21mm	25mm
.03		815-1100	815-1101
.04		815-1102	815-1103
.05		815-1104	815-1105
.06	815-1128	815-1106	815-1107

Engine ISO (.02 Taper)

Tip	21mm	25mm
.15	815-1108	815-1109
.20	815-1110	815-1111
.25	815-1112	815-1113
.30	815-1114	815-1115
.35	815-1116	815-1117
.40	815-1118	815-1119
.45	815-1120	815-1121
.50	815-1122	815-1123
.55	815-1124	815-1125
.60	815-1126	815-1127

Quantec SC (Cutting) Tip

Axxess Handle

Engine Graduated Tapers .25mm Tip

Taper	17mm	21mm	25mm
0.03		815-2000	815-2001
0.04		815-2002	815-2003
0.05		815-2004	815-2005
0.06	815-2028	815-2006	815-2007

Engine ISO (.02 Taper)

Tip	21mm	25mm
0.15	815-2008	815-2009
0.20	815-2010	815-2011
0.25	815-2012	815-2013
0.30	815-2014	815-2015
0.35	815-2016	815-2017
0.40	815-2018	815-2019
0.45	815-2020	815-2021
0.50	815-2022	815-2023
0.55	815-2024	815-2025
0.60	815-2026	815-2027

Standard Handle

Engine Graduated Tapers .25mm Tip

Taper	17mm	21mm	25mm
0.03		815-1000	815-1001
0.04		815-1002	815-1003
0.05		815-1004	815-1005
0.06	815-1028	815-1006	815-1007

Engine ISO (.02 Taper)

Tip	21mm	25mm
0.15	815-1008	815-1009
0.20	815-1010	815-1011
0.25	815-1012	815-1013
0.30	815-1014	815-1015
0.35	815-1016	815-1017
0.40	815-1018	815-1019
0.45	815-1020	815-1021
0.50	815-1022	815-1023
0.55	815-1024	815-1025
0.60	815-1026	815-1027