

## TIP EVALUATION

1ST 3mm

SIZE .....	S2	
FLUTES .....	3 (convex)	
SPIRALS PER 16MM .....	3	
HELIX ANGLE .....	20°	●
CUTTING ANGLE .....	(-) 31°	●
DEBRIS REMOVING AREA .....	35.8%	●
X-SEC. AS % OF CUTTING DIA. ....	54%	
CORE AS % OF X-SEC. AREA .....	83%	
ROTATION TO FAILURE .....	358°	
PEAK TORQUE AT FAILURE .....	11 gf/cm	
60° DEFLECTION .....	1.42 g	
PLASTIC DEFORMATION .....	0°	

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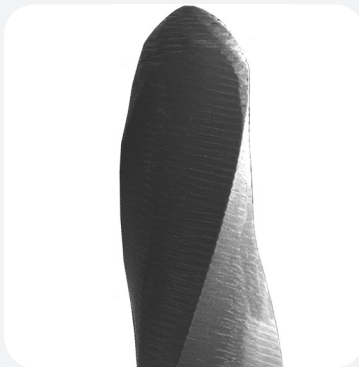
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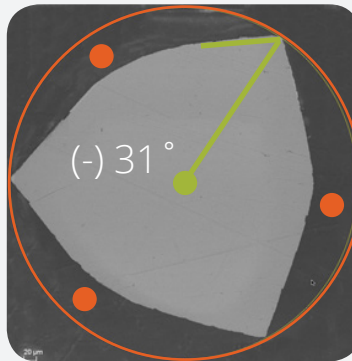
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## SEM IMAGES

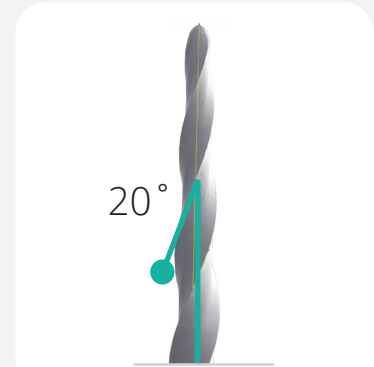
COURTESY OF UT MEMPHIS



TIP



TIP X-SECTION



## DISCUSSION:

- The resistance to torsional failure was relatively high compared to triangular x-sections. This is due to the greater x-sectional area of convex flutes. The cutting angle is less aggressive and requires greater torsion during performance.

SEMs are provided by Dr. Franklin Garcia-Godoy, Professor and Senior Executive Associate Dean for Research Director, Bioscience Research Center University of Tennessee Health Science Center