**TCI Cutters - Segments** 



Bringing innovative materials and design tecniques to a field-proven design configuration, the sintered tungsgten carbide delivers improved ROP, durability, and bit life in a wide range of horizontal directional drilling applications.

# 17 1/2" (444.5 mm) Sintered TCI Cutter (IADC 435) Features

## **Engineered Cutting Structure**

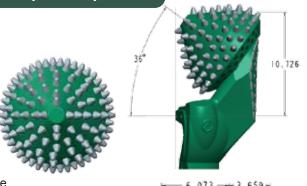
Maximum extension inserts provide for ultra high rates of penetration. Reinforced double back row provides enhanced gage holding

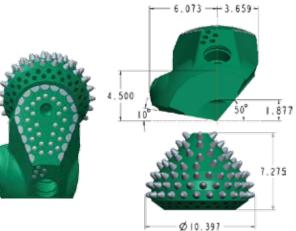
### **Premium Bearing Package**

High performance bearing with crowned rollers and thrust buttons, advanced lubricant, and HSN O-ring seal provide a robust bearing package for both motor and standard rotary applications.

#### **Shirttail Protection**

Includes Varel's unique, patented EdgeGuard technology on leading and trailing edges. This technology puts the wear resistance of sintered tungsten carbide at the most critical point of the shirttail, protecting the edge from wear to better exclude drilling fines from the critical seal area.





### **Specifications**

Gage Inserts:	23	Hydraulic Design:	None	Operating Parameters
Total Inserts:	113	Nozzle Part No.:	As requested	Cutter (RPM):
Back Row:	Flat	Center Jet Part No.:		250-300 rpm
Gage Row:	Conical	Pin Connection:	None	Max weight per cutter:
Inner Row:	Conical	Make-up Torque:	0 - 0 ft-1bs.	23,000 lbs (10,231 daN)
Bearing Type:	Sealed Journal		(0 - 0 Nm)	Cutter:
Seal Type:	HSN O-Ring	Approx. Weight:	180 lbs. (82 kg)	-

<sup>\*</sup>Operating parameters shown are typical for the bit type specified. For recommendations on your specific application, please contact our DownHole representative.