



PERFORMANCE. PRECISION. PASSION. with ICe-Carb internal coolant drills

The design of the SGS ICe-Carb was created to bring to the end user the ability to achieve high performance results with high production demands. The internal coolant design allows for better control of machining temperatures during these types of applications, while the geometry features provide effective and efficient chip creation and removal. The results of the ICe-Carb design are reduced cutting loads, increased operating parameters and improved tool life.

A COOLANT THROUGH DESIGN

promotes controlled and consistent operating temperatures
improves coolant flow to the cut while maintaining strength
increases tool life at increased operating parameters

B1 HIGH PERFORMANCE FLUTE DESIGN

optimized open flute design offers more room for chip movement
engineered flute profile to reduce tool pressure from chip congestion
improved surface finish through effective chip evacuation

B2 POLISHED Ti-NAMITE A COATING

reduces friction between the chip and tool preventing the impediment of chip flow
decreased machine loads associated with chip clogging
reduced friction reduces heat and abrasion wear

C HIGH PENETRATION 140° POINT GEOMETRY

split point geometry for improved drill penetration and accuracy
cam relief drill point creates stronger more symmetrical end geometry
self centering design with high penetration capabilities

D ENGINEERED CUTTING EDGES

precisely ground with a curvature that allows efficient chip creation and control
edge honing designed for longevity through wear resistance, strength through a resistance to chip under load and efficient shearing through controlled hone dimensions
engineered radial grind along the edge of the flute results in a negative corner position to strengthen and protect

PERFORMANCE

The cutting edges of the SGS ICe-Carb are designed to allow the tool to achieve high penetration rates, while the highly polished Ti-NAMITE A tool coating allows the chips to move smoothly along the flute and out of the cut. This helps to avoid chip clogging often associated with elevated penetration rates. Through efficient chip creation and movement, the drill operates at lower loads under identical conditions.

TORQUE COMPARISON
8620 Carbon Steel @ 175 BHN
3/8" Diameter 1.125" Deep
350 sfm / 29 ipm

