

WINTER



ROUND TOOL GRINDING

PARADIGM®

DIAMOND WHEELS FOR GASHING AND END TEETH



Break Carbide Gashing and End Teeth Performance Barriers

The Norton Winter Paradigm patented bond system allows dress-free gashing and end-teeth work

FEATURES & BENEFITS

- Porous bond structure reduces cycle time
- Low bond-to-work interaction reduces or eliminates dressing
- · High diamond concentration increases form holding
- · Truable online and offline for maximum productivity

ONLINE TRUING & DRESSING CAPABILITY LOWER TOOLING COST | BETTER EDGE QUALITY

A PARADIGM SHIFT IN CUTTING TOOL MANUFACTURING™







DIAMOND WHEELS FOR GASHING AND END TEETH



THE PARADIGM SHIFT

Increase productivity/decrease costs:

- Up to 46% porosity
- +> 2:1 diamond to bond ratio
- + Metal matrix forms an ionic bond with the diamond particles
- + Finer grits and more working particles with higher exposure
- = Lower cutting energies with highest quality part edges and finish

MADE-TO-ORDER AVAILABILITY

All Norton Winter Paradigm diamond wheels are made to your precise requirements.

Available for Anca®, Makino®, Rollomatic®, Star®, Walter®, and other grinding systems. Paradigm wheels for gashing and end teeth are available up to 8" diameters in 1B1 and 1E1 wheel shapes, and up to 5" diameters for the new 11B9 cup wheel shape.

The 11B9 shape is new to the end teeth world and brings the superior performance of Paradigm wheels to applications that would normally use an 11V9 cup.

GENERAL APPLIC	ATION PARAMETERS
Wheel Speed:	3,000-5,000 SFPM
Infeed Rate:	Up to 8" per minute
Depth of Cut:	Up to 0.350"
Coolant:	Oil or water soluble

DIAMOND STARTING SPECIFICATIONS FOR CARBIDE AND CERAMICS				
DIAMOND STANTING OF CONTIONS FOR CANDIDL AND CLIMATICS				
SD320-E168-P200C	Gash/end teeth			
SD400-E168-P200C	Gash/end teeth			

Prior to order entry, please contact your Norton representative for specification recommendations to ensure maximum grinding performance, quotations, and current lead-times.

Case Study - Tungsten Carbide APPLICATION: Gashing 1" diameter square-end 4-flute end mill MACHINE: 5-axis CNC grinder NORTON WINTER 1B1 wheel shape PRODUCT: 6" x 1/2" x 1-1/4" Paradigm SD240-E168-P100C **INCUMBENT** 240 grit hybrid polyimide wheel The Paradigm wheel reduced the cycle time for the gashing operation by 65%. GASHING



BEST - NORTON WINTER Paradigm

BETTER - NORTON WINTER G-Force

GOOD - NORTON WINTER B610 / B80

INCUMBENT

PARADIGM

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