INфильтрированные высокой плотности диамантовые лезвия

Долгая жизнь
Быстрый рез
Увеличенная безопасность
Низкое энергопотребление
Патентованная технология
THE BIGGEST BREAKTHROUGH IN DIAMOND TOOL TECHNOLOGY

Norton’s Infiltrated High Density technology (iHD) combined with its patented diamond blades laser-welding process is the biggest breakthrough in Diamond Tools this century. Through many years of research and development this revolutionary process provides our customers with unrivalled performance, increased safety, lower energy manufacturing and a wider choice of segment design.

APPLICATIONS FOR THE BUILDING & CONSTRUCTION MARKET

- CUTTING
- GRINDING
- DRILLING

MATERIALS

- CONCRETE
- ASPHALT
- BUILDING MATERIALS
- TILES
- STONE
- REFRACTORY MATERIALS
- DUCTILE IRON
- METALS

A STREAMLINED 2-STEP PROCESS

1. Form the segment core structure
2. Infiltrate the segment pores with unique bonding agent.

RESULT

A composite material with enhanced properties for limitless segment design.

UNIQUE PATENTED LASER WELDING OF INFILTRATED SEGMENTS

Infiltration achieves high uniform density across each whole segment without applying high pressure (like the standard process). This allows Norton to manufacture very robust segments which wear evenly, remain intact and perform faster at higher cutting speeds.

The diamond grit is an integral part of the segment structure. During the patented process a special bond impregnates the core structure and binds the diamond grit into the segment. This ensures optimum use of the diamond grit, giving the diamond tools a longer life.

Norton’s optimized process also means increased segment design flexibility resulting in greater diversification of diamond blade shapes to best suit applications and materials being cut.

RELATIVE TOOL LIFE COMPARISON

- CUTTING APPLICATIONS: iHD 120 vs Standard 100, 20% improvement
- GRINDING APPLICATIONS: iHD 140 vs Standard 100, 40% improvement
<table>
<thead>
<tr>
<th>FEATURE</th>
<th>BENEFIT</th>
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<tbody>
<tr>
<td><strong>LONGER LIFE</strong></td>
<td>An increased retention of diamond grits</td>
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<td>A much longer tool life, by at least +20%</td>
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<td></td>
<td>Greater performance</td>
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<td>Best possible return on investment</td>
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<td><strong>FASTER CUT</strong></td>
<td>New and innovative structures allow a very well balanced and steady bond</td>
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<td>wear for the whole life of the product</td>
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<td>A much faster tool cutting speed, by +30% on average</td>
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<td><strong>INCREASED SAFETY</strong></td>
<td>Very high and very uniform density across the whole segment, makes it</td>
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<tr>
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<td>almost unbreakable</td>
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<td>A much higher bending resistance, resulting in 60% higher torque</td>
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<td>resistance for laser welded segments</td>
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<td>An advanced safety breakthrough from the inventor of the laser-welded</td>
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<td>diamond blade</td>
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<td>100% warranty against segment loss</td>
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<td><strong>GREATER COMFORT</strong></td>
<td>The iHD manufacturing process enables many different segment shapes to</td>
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<td>be produced, resulting in innovative designs for smoother cutting</td>
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<td>Reduced vibrations and effort while cutting</td>
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<td>Greater comfort for the end-user</td>
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<td><strong>LOWER ENERGY</strong></td>
<td>The streamlined manufacturing process requires lower energy consumption</td>
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<td>More environment friendly</td>
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<tr>
<td><strong>WIDER CHOICE</strong></td>
<td>iHD enables mass production of any segment shape, with no design</td>
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<td>restriction</td>
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<td>New and unique diamond tool with greater differentiation between high</td>
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<td>performance diamond tools</td>
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<td>Greater selection of products for specific applications</td>
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<td>Clearer identification of Norton products</td>
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<td>Ensures versatility - for applications and of materials to be cut</td>
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<td><strong>ADVANCED INNOVATION</strong></td>
<td>All types of tool specification can be designed with iHD – from very</td>
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<td>abrasive to very hard materials</td>
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<td>Many innovation awards highlight the benefits of this new process</td>
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### Relative Speed Comparison

- **Granite**
  - iHD: 1.24 (20% Faster)
  - Standard: 1.00

- **Concrete**
  - iHD: 1.32 (30% Faster)
  - Standard: 1.00

### Torque Resistance Comparison

- **125mm 10mm HIGH SEGMENT**
  - iHD: 1645
  - Standard: 1020

- **350mm 10mm HIGH SEGMENT**
  - iHD: 1308
  - Standard: 607

**Improved Safety - Over 60% Better Torque Resistance**
# HIGH DENSITY PRODUCTS

## NORTON SILENCIO

The new generation of silent diamond blades

**LONGER LIFE**
- Up to 17mm high segments, with a bespoke specification for each different application

**FASTER CUT**
- Newly developed specification with corrugations to reduce frictions

**GREATER COMFORT**
- Patented offset gullets prevent air from flowing through the steel-centre gullets
- Sandwich steel-centre with newly developed absorbing material

**BENEFIT**
- Amongst the best cutting in the Norton Clipper range, specifically designed for each machine type for best cutting performance
- Norton Silencio is among the fastest cutting Norton diamond blades
- The blade does not whistle at all while running idle, for a much better operator comfort
- Features unprecedented noise-dampening effect reaching reductions of up to 15dB – 30 times less noise

## DUO BS-15

**FEATURE**
- 15mm segment height with innovative segment shape
- New segment specification
- High density segments

**BENEFIT**
- U-shape slanted segment increases the cutting speed, while the 15mm segment height enhances the product life.
- Fastest cutting block saw blade. Can cut in granite
- Up to +60% stronger laser-welding torque resistance

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**DUO BS-15**

**FEATURE**

- **SPEED**
  - DUO BS-15
  - Standard
  - +10% SPEED

- **LIFE**
  - DUO BS-15
  - Standard
  - +11% LIFE
LONGER LIFE
Enhanced specification for improved life, especially for floor sawing
12mm high segments
High density and improved retention of diamond grits in segment

FASTER CUT
The trapezoid shape segments provide a narrow, constant space between the segments
The serrations on the segment face contribute to the cutting speed

INCREASED SAFETY
Very high uniform density across the whole segment
Up to +60% stronger laser-welding torque resistance vs. traditional process
100% warranty against segment loss

GREATER COMFORT
The trapezoid shape segments provide a constant & narrow space between the segment during the whole product life
Better comfort, less vibrations and efforts while cutting, better quality of cut

WIDER CHOICE
Segment specification works perfectly for all kinds of building materials and all type of light equipment types
Cuts all-purpose materials like granite, natural stones, reinforced concrete, blocks, bricks, green concrete and asphalt, as well as steel parts up to 5mm thickness