MIRA ICE
VITRIFIED BONDED WORM GRINDING WHEELS FOR CONTINUOUS GENERATING GRINDING OF GEARS

A Company of the SWAROVSKI Group
www.tyrolit.com
MIRA ICE

The MIRA ICE product line has been specially developed for the continuous generating grinding of gears. A new kind of development approach enables unprecedented results to be achieved in terms of economic efficiency and cool grinding.

+ **Shorter grinding times:**
  Due to the significantly higher stock removal rates and fewer rough grinding passes, grinding times can be cut by up to 50%.

+ **Longer tool life:** Due to reduced shift travel and increased dressing cycles, the tool life of each wheel can be lengthened by up to 100%.

+ **Highest process stability:** The best quality standards and a completely homogeneous grinding wheel structure ensures consistent tooth profile quality of the highest standard.

**Example application**

Worm grinding wheel measuring 280 x 160 x 115 mm / 3-starts
Gearing with size 4 module / No. of teeth 34 / Tooth width 22 mm / Involute toothing 20°

**Grinding time reduced by 50%**

<table>
<thead>
<tr>
<th>MIRA ICE</th>
<th>STANDARD SINTERED ALUMINIUM OXIDE</th>
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<tbody>
<tr>
<td>60 seconds</td>
<td>119 seconds</td>
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**Tool life increased by 70%**

<table>
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<tr>
<th>MIRA ICE</th>
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<tbody>
<tr>
<td>Dressing cycle 95</td>
<td>Dressing cycle 56</td>
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</tbody>
</table>

**Application**

Continuous generating grinding of gears

**New approach to development**

- New grain qualities and geometry
- New high-strength bond system
- Increased porosity of grinding wheel

**New precision pre-profiling:**

Pre-profiling for module sizes 1 – 12 with one or more starts in maximum quality. Pre-profiling for high-quality and special gears is tailored specifically to customer requirements.

TYROLIT SCHLEIFMITTELWERKE SWAROVSKI K.G.
Swarovskistraße 33 | 6130 Schwaz | Austria | Tel +43 5242 606-0 | Fax +43 5242 63398