



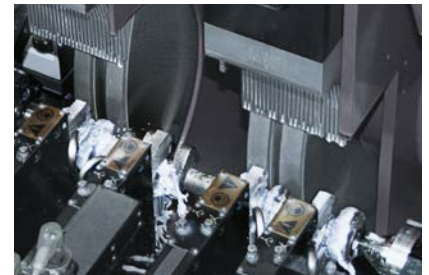
## **GENIS 2**

VITRIFIED-BONDED CBN  
GRINDING TOOLS FOR  
EXTERNAL CYLINDRICAL GRINDING

# GENIS 2

With the GENIS 2 product line, TYROLIT defines a new performance level and a wider range of applications for external cylindrical grinding with vitrified-bonded CBN tools. GENIS 2 is characterised by a high-strength bond with excellent moistening properties, which securely binds the CBN grain. Low bond volumes enable very porous, cool-grinding and extremely easy-cutting specifications with a long lifetime.

**Application:** External cylindrical grinding and peel grinding of shafts



**+ Optimum grain utilisation:**

The blue neutral zone creates a visual separation between grinding layer and the core. This provides for optimum utilisation of the CBN grain and protection of the core.



**+ High running precision:** The ground bores and contact surfaces in conjunction with finely balanced wheels increase running precision and reduce tool changing times.

**+ High economic efficiency:** The new GENIS 2 specifications guarantee maximum stock removal performance and increase production capacity.

**+ Wide range of applications:** The range of applications extends from highly porous specifications for sensitive components through to ultra-hard, dense layers for extreme applications such as peel grinding.

## Example application

Workpiece: Motor vehicle camshaft (cam contour grinding) / 100Cr6 55-60HRC / 8 flutes  
Machine: Landis LT1 / cooling emulsion

Improvement of **dressing cycle** in number of shafts



Reduction of **cycle time** in seconds



**High bond strength:**

Due to the increased bond strength, grain fracturing instead of grain break-out occurs under optimum process parameters (see figure). This prolongs the good cutting ability and improves utilisation of the CBN grain. The improved utilisation of the CBN grain in turn increases the tool life of the GENIS 2 wheels.

