

# STARTEC ICE

Resin bonded grinding wheels for HSS tool manufacturing



## STARTEC ICE

The new STARTEC ICE assortment was developed together with TYROLIT experts and is dedicated to all HSS precision cutting tool manufacturers. A new approach to development enables results to be achieved in terms of economic efficiency and "cool" grinding that were previously unheard of.

The new specifications cover the flute and relieve grinding on all types of round cutting tools and sets new standards throughout the industry.

# Application: Flute grinding, HSS step drill



- + Optimized economic efficiency: Longer dressing cycles and short grinding times significantly reduce the manufacturing costs per component.
- High stock removal rate: The innovative specification enables high stock removal rates and a good profile retention.

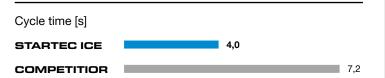


 Cool grinding: The use of new grain qualities and the new high strength bond system guarantees particularly cool grinding.

### **Example application**

#### Flute grinding process

Workpiece: HSS drill d=6mm, z=2, flute length=57mm Machine: CNC flute grinder, 30kW spindle power, oil coolant 10 bar



 $\textbf{Conclusion: 45\% \ reduction of the cycle time.} \ \text{Surface quality meets the customers requirements.}$ 

#### **Product range**

To meet the expectations on different performance levels TYROLIT offers two specifications for flute and relieve grinding.

	Standard Q'w ≤ 100 mm³/ s mm	High performance Q'w > 100 mm <sup>3</sup> / s mm
Flute grinding  Relieve grinding	STARTEC ICE SI95-A 60 Q4 B25	STARTEC ICE HY-A 30 R5 B109