



STARTEC PRO

Resin bonded grinding wheels for HSS tool manufacturing

STARTEC PRO

In the development of the new generation of flute grinding wheels for HSS tools, our product specialists particularly focused on the use of new grain mixtures. In combination with a revised resin-based bonding system, a high-performance tool for standard machines with limited feed rates was developed. An optimal price-performance ratio is a special feature of the new STARTEC PRO.

The STARTEC PRO specification is particularly suitable for flute and back grinding on standard machines with feed rates of less than 4,000 mm/min at 80 m/s cutting speed. For high-performance machines we recommend the flute grinding wheels of the STARTEC ICE line.

Application:

Flute grinding process - reamer made of HSS



- + **Cool grinding:** The combination of innovative grain quality and adapted bonding system reduces the grinding forces and thus the temperature.



- + **High abrasive performance:** The new specification guarantees a high material removal rate and best profile retention.

- + **Optimised economic efficiency:** Long dressing intervals and the attractive grinding wheel price reduce the unit costs considerably.

Application example

Flute grinding process

Workpiece: HSS drill, $d = 11,5 \text{ mm}$, $Z = 2$, Slot length = 94 mm
Machine: CNC tool grinding machine, 30 kW spindle power, oil cooling 15 bar
Used grinding wheel: TN 34527533 STARTEC PRO 1NUT 406x10,5x304,8
SP-A 90 S4 B111
Parameter flute grinding: $v_c = 80 \text{ m/s}$, $a_e \text{ tot.} = 4,75 \text{ mm}$, $v_t = 2200 \text{ mm/min}$

Cycle time [s]

STARTEC PRO	11
COMPETITION	17

CONCLUSION: Cycle time is reduced by 35%. The workpiece quality meets the customer specifications.

Product assortment

The specification of the STARTEC PRO grinding wheels is used for flute and back grinding.

	Standard $Q'_w \leq 100 \text{ mm}^3/\text{s mm}$
Flute grinding	STARTEC PRO
Back grinding	SP-A 90 S4 B111

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