



## **STARTEC XP-P+**

Diamond cup wheels with highest edge stability  
for universal use in tool manufacturing

# STARTEC XP-P+ CUP WHEELS

The new STARTEC XP-P+ diamond cup wheels feature the use of innovative metal bonds combined with the highest diamond qualities and state-of-the-art production processes. This greatly enhances the edge retention of the grinding tools, surface results and feed speed. An extensive stock range ensures high flexibility in tool production.

**Application:**  
Grinding of clearance surfaces and face geometries on milling tools



**+ Maximum edge stability:**

The combination of innovative metal bond, high diamond quality and adapted grit sizes extends the dressing interval of the cup wheel. At the same time, it guarantees outstanding quality of the workpiece to be machined, even with large batches.

**+ Low grinding forces:**

The reduction in grinding forces enables an increase of around 40% in the feed speed and simultaneously guards against tool breakage due to overloading during the grinding process.



**+ System solution:**

The STARTEC XP-P+ product line makes it possible to equip the grinding spindle with efficient cup and flute grinding wheels.

**+ Extremely rapid availability:**

A carefully selected assortment of STARTEC XP-P+ cup wheels is kept in stock and can therefore be supplied extremely quickly.

## Application example:

Workpiece: end mill  $d = 20\text{mm}$ , number of teeth  $z = 4$   
 Tool: 11V9 100×35×20  
 3-10 D64-M-4XPP+ STARTEC XP-P+  
 Task: Gashing  $a_e = 4\text{ mm}$   
 Cutting speed: 28 m/s  
 Machine: ANCA TGX  
 Cooling: Oil  
 Feed rate:  $v_t = 150\text{ mm/min}$

**Result:**

The STARTEC XP-P+ cup wheel can achieve a 30% lower wear on the edge, a 25% lower normal force and a 15% lower energy consumption than comparable competitor products.

Edge radius after 250 workpieces [mm]



Max. normal force [N]



Max. power consumption [W]

