



# Jongen Werkzeugtechnik GmbH & Co. KG

## Internal product information



### 1. TECHNICAL DESCRIPTION

Peripheral surface ground, with chip breaker, available in quality HT35, HT50 and K15M.  
Applicable in our face mills, type 140.

### 2. APPLICATION AREAS

Key aspects of application: Roughing and finishing of almost all materials, such as tool steel, structural steel, heat-treatable steels, unalloyed steels, low alloyed steels and high alloyed steels, as well as stainless steels, cast iron with globular graphite and aluminium as well as non-ferrous metals.

### 3. COATING QUALITIES

#### **HT35<sup>®</sup>**

Application Areas: 3, 4

Code 19, Iso-code M20-M30

Hard wearing and tough, finest-grain carbide type with further developed multiple TiAlN coating. Especially for high grade, stainless-, austenitic, ferritic and martensitic steels.

#### **HT50<sup>®</sup>**

Application Areas: 1, 2, 3, 4, 5

Code 22, Iso-code P30-P35

Very tough carbide type with a new developed TiAlN-coating for middle up to high cutting speeds for high tooth feed rates. Suitable for dry and wet milling. Application areas are roughing and finishing of almost all materials, such as tool steel, structural steel, heat-treatable steels, unalloyed steels, low alloyed steels and high alloyed steels, as well as stainless steels, cast iron with globular graphite and grey cast iron etc.

#### **K15M**

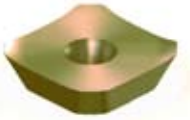
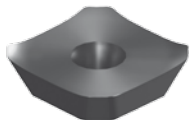
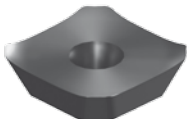
Application Areas: 6

Code 8, Iso-code K10

Very hard wearing carbide type for machining aluminium up to approx. 8% Si, and all non-ferrous metals and plastics.



### 4. TECHNICAL DATA

	<p><b>FP 146 HT35</b> <b>9,90 €/pcs.</b></p>	<p>Measures: 14,3 x 14,3 x 4,0 - Insert seat: A13 Peripheral surface ground, with chip-breaker, rounded cutting edge, supporting surface ground. Packed in boxes of 10 pcs.</p>
	<p><b>FP 146 HT50</b> <b>9,90 €/pcs.</b></p>	<p>Measures: 14,3 x 14,3 x 4,0 - Insert seat: A13 Peripheral surface ground, with chip-breaker, rounded cutting edge, supporting surface ground. Packed in boxes of 10 pcs.</p>
	<p><b>FP 146 K15M</b> <b>9,90 €/pcs.</b></p>	<p>Measures: 14,3 x 14,3 x 4,0 - Insert seat: A13 Peripheral surface ground, with chip-breaker, polished rake angle, supporting surface ground. Packed in boxes of 10 pcs.</p>

\*net prices

### 5. CUTTING DATA RECOMMENDATIONS

Appl. area	Material	Hardness	Coating Type	Cutting speed $v_c$ (m/min)	FP 529 $f_z$ (mm)
1	Unalloyed steel, structural steel	$\leq 280$ HB	HT50	300 (180-350)	0,2 (0,1-0,4)
2	Low alloy steel	$\leq 35$ HRC	HT50	250 (150-300)	0,2 (0,1-0,4)
3	High alloyed steel	$\leq 43$ HRC	HT50 HT35	250 (150-300)	0,2 (0,1-0,4)
4	Stainless steel, high grade steel	$\leq 800$ N/mm <sup>2</sup>	HT50 HT35	220 (150-320)	0,2 (0,1-0,3)
5	Cast Iron with globular graphite	$\leq 800$ N/mm <sup>2</sup>	HT50	200 (180-250)	0,2 (0,1-0,4)
6	Aluminium Plastics		K15M	750 (500-1000)	0,2 (0,1-0,4)

The above indicated figures are starting parameters.

Adjustments top-down as well as bottom-up with regard to  $v_c$  and  $f_z$  can be necessary depending on milling operation and holding fixture types.