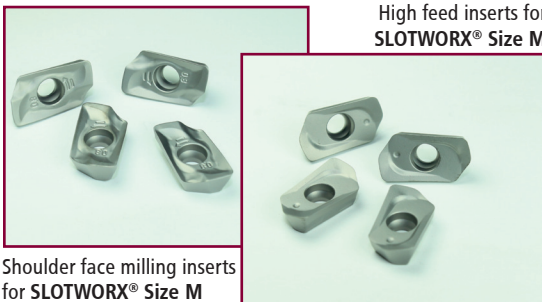


# INDEXABLE INSERTS „M35 PCTC” - MADE OF A NEW CARBIDE GRADE WITH A NEW COATING - ESPECIALLY FOR MACHINING TITANIUM AND HIGH TEMPERATURE ALLOYS

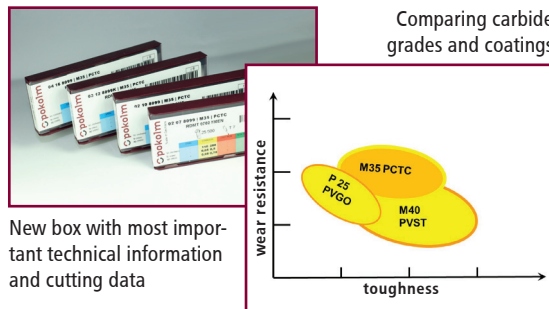


Round inserts



Shoulder face milling inserts for SLOTWORX® Size M

High feed inserts for SLOTWORX® Size M



New box with most important technical information and cutting data

Comparing carbide grades and coatings

- ⊕ „M35” is characterized by a very high temperature stability - this means longer cutting edge sharpness at high temperatures
- ⊕ the new CVD coating „PCTC” with its innovative structure guarantees a high wear resistance
- ⊕ with its extremely smooth surface the inserts are suitable for dry machining operations too
- ⊕ the combination of carbide grade and coating stands for high cutting speeds such as high feed rates
- ⊕ the sum of characteristics are qualifying the new inserts for machining titanium and high temperature alloys
- ⊕ available as
  - round inserts r 3.5, 5, 6 and 8 mm
  - high feed inserts r<sub>p</sub> 1.4 mm for SLOTWORX® Size M
  - shoulder face milling inserts r 0.8 mm for SLOTWORX® Size M
- ⊕ comparing carbide grades and coatings

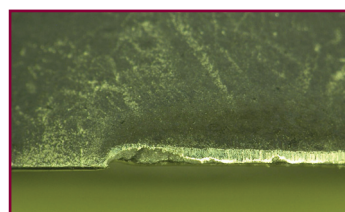
Carbide grade	Coating	Machining
M 40	PVST	dry machining operations with high cutting speeds
P 25	PVGO	wet machining up to 120 m/min, dry machining from 150 m/min
M 35	PCTC	machining wet or dry with high cutting speeds and high feed rates

## Practical test: INCONEL 718

Tool	42 200
Arbor	50 16 710
Overhang [mm]	83
Cooling	emulsion
Inserts	03 12 896K / 03 12 8099K
Carbide grade / coating	PVST / PCTC
V <sub>c</sub> speed [m/min]	44
V <sub>f</sub> feed rate [mm/min]	200
S (revolutions) [min <sup>-1</sup> ]	333
D <sub>c</sub> [mm]	42
f <sub>z</sub> feed per tooth [mm]	0.15
a <sub>p</sub> depth of cut [mm]	1.5
a <sub>e</sub> width of cut [mm]	28
Tool life [min]	40 / 50 (+ 25%!)
Life length [m]	8 / 10
Stock removal rate [cm <sup>3</sup> /min]	8.4

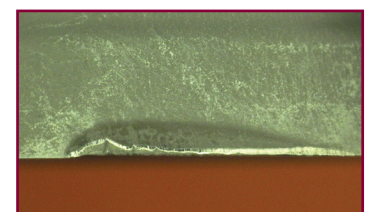
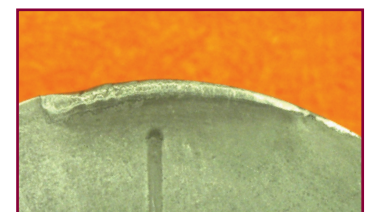
## Comparing the wear patterns

03 12 896K



40 minutes

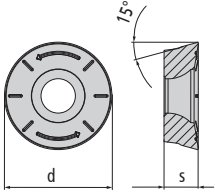
03 12 8099K



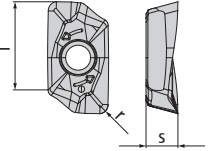
similar wear patterns - 50 minutes (+ 25%!)

# INSERTS OVERVIEW

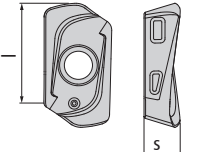
## Round inserts

Inserts	Catalogue no.	DIN specification	Carbide grade	Coating	d	s	r	M
	02 07 8099	RDMT 0702 MOEN	M 35	PCTC	7	2.38	3.5	M 2.5
	02 10 8099	RDMT 1003 MOEN	M 35	PCTC	10	3.18	5	M3.5
	03 12 8099K	RDMT 12T3 MOEN	M 35	PCTC	12	3.97	6	M3.5
	04 16 8099	RDMT 1604 MOEN	M 35	PCTC	16	4.76	8	M4.5

## Shoulder face milling insert for **SLOTWORX®** Size M

Insert	Catalogue no.	DIN specification	Carbide grade	Coating	l	s	r	M
	04 67 8099 R08	XDMT 10T308 ER	M35	PCTC	10	3.58	0.8	M 2.5

## High feed milling insert for **SLOTWORX®** Size M

Insert	Catalogue no.	DIN specification	Carbide grade	Coating	l	s	rp	M
	04 67 8099 HF	XDMT 10T3 ER	M35	PCTC	10	3.58	1.4	M 2.5

