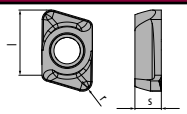
THE CUTTING MATERIALS FOR SLOTWORX®HP HAVE BEEN EXPANDED TO INCLUDE A SQUARE SHOULDER MILLING INSERT WITH A RADIUS OF 0.8 MM

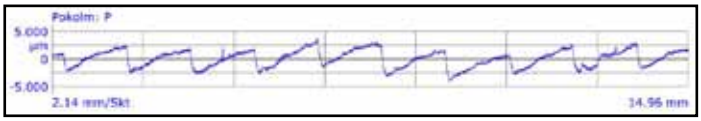
- A square shoulder milling insert for finishing vertical and planar surfaces
- A tried and tested carbide grade and an extremely smooth and wear resistant coating ensure a long tool life
- The positive angle of twist in the installation position ensures a low level of drifting
- As a result of the positive chamfer and the positive angle of rake. both soft materials and hardened steels can be chipped. It is possible to machine high temperature alloys such as titanium and inconel.

Square shoulder milling insert for „SLOTWORX®HP" cutters	Catalogue No.	DIN-Specification	Carbide grade	Coating	l	s	r	M
	02 66 835 R08	XCHT 062208 SR	HSC05	PVTi	6.2	2.2	0.8	M 2

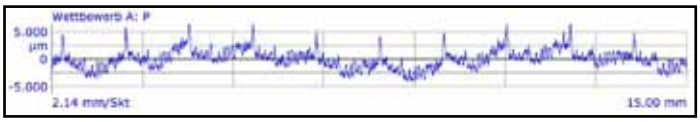
Machining example: Finishing of a vertical surface of material 1.2379 (soft) to be machined

Milling cutter body	3 36 12 166 G
Arbor	50 ER20 A63
Cooling	Air
Insert	**02 66 835 R08**
Carbide grade / Coating	PVTi
v_c [m/min]	325
v_f [mm/min]	3103
n(s) [min^{-1}]	8620
d_c [mm]	12
f_z [mm]	0.12
a_p [mm]	1.5
a_e [mm]	0.15
Deviation measured [mm]	0.007
Deflection measured [mm]	max. 0.014

Contour plot in comparison



SLOTWORX®HP with square shoulder milling insert 02 66 835 R08



Competitors product

The contour diagrams reveal at first glance: With the new 02 66 835 R08 square shoulder milling insert from the **SLOTWORX®HP** series, premium surface qualities are attained.

As such, the combination is optimally suited for

- machining components where the standard working depth of Solid carbide end mill flanging radius tools is limited
- planed side surfaces and and bases in small pockets and moulds
- the finishing of mould inserts

TECHNICAL INFORMATION

Cutting speed (V_c in m/min) | Feed per tooth (f_z in mm/tooth) | d.o.c. (a_p in mm)

Material		Finishing																					
		vertical surface			plain surface D10			plain surface D12			plain surface D16			plain surface D20			plain surface D25			plain surface D32		
		up to 3xD	up to 5xD	> 5xD	up to 3xD	up to 5xD	> 5xD	up to 3xD	up to 5xD	> 5xD	up to 3xD	up to 5xD	> 5xD	up to 3xD	up to 5xD	> 5xD	up to 3xD	up to 5xD	> 5xD	up to 3xD	up to 5xD	> 5xD
Steel	V_c	500	300	300	200	150	130	200	150	130	200	150	130	200	150	130	200	150	130	200	150	130
	f_z	0.15	0.1	0.07	0.2	0.15	0.1	0.166	0.12	0.1	0.125	0.12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.07	0.07	0.07
	a_e	<0.15	<0.15	<0.1	-8.2	-8.2	6	-10.2	-10.2	7	-14.2	-14.2	9	-18.2	-18.2	11	-23.2	-23.2	13	-30.2	-30.2	17
	a_p	2	1.5	1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Stainless Steel	V_c	400	250	250	180	130	100	180	130	100	180	130	100	180	130	100	180	130	100	180	130	100
	f_z	0.15	0.1	0.07	0.15	0.12	0.1	0.15	0.12	0.1	0.125	0.12	0.1	0.1	0.08	0.08	0.1	0.08	0.08	0.07	0.07	0.07
	a_e	<0.15	<0.15	<0.1	-8.2	-8.2	6	-10.2	-10.2	7	-14.2	-14.2	9	-18.2	-18.2	11	-23.2	-23.2	13	-30.2	-30.2	17
	a_p	2	1.5	1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cast Iron	V_c	500	300	300	200	150	130	200	150	130	200	150	130	200	150	130	200	150	130	200	150	130
	f_z	0.15	0.1	0.07	0.2	0.15	0.1	0.166	0.12	0.1	0.125	0.12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.07	0.07	0.07
	a_e	<0.15	<0.15	<0.1	-8.2	-8.2	6	-10.2	-10.2	7	-14.2	-14.2	9	-18.2	-18.2	11	-23.2	-23.2	13	-30.2	-30.2	17
	a_p	2	1.5	1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Non-ferrous Materials	V_c	800	500	500	800	500	500	800	500	500	800	500	500	800	500	500	800	500	500	800	500	500
	f_z	0.15	0.12	0.07	0.225	0.15	0.1	0.166	0.12	0.1	0.125	0.12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.07	0.07	0.07
	a_e	<0.15	<0.15	<0.1	-8.2	-8.2	6	-10.2	-10.2	7	-14.2	-14.2	9	-18.2	-18.2	11	-23.2	-23.2	13	-30.2	-30.2	17
	a_p	2	1.5	1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
High-temperature Alloys	V_c	100	80	60	60	40	30	60	40	30	60	40	30	60	40	30	60	40	30	60	40	30
	f_z	0.12	0.1	0.07	0.12	0.1	0.07	0.12	0.1	0.07	0.12	0.1	0.07	0.1	0.1	0.07	0.1	0.1	0.07	0.07	0.07	0.07
	a_e	<0.15	<0.15	<0.1	-8.2	-8.2	6	-10.2	-10.2	7	-14.2	-14.2	9	-18.2	-18.2	11	-23.2	-23.2	13	-30.2	-30.2	17
	a_p	2	1.5	1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Hardened Steel < 55 HRC	V_c	200	150	130	120	100	80	120	100	80	120	100	80	120	100	80	120	100	80	120	100	80
	f_z	0.1	0.07	0.05	0.1	0.1	0.07	0.1	0.1	0.07	0.1	0.1	0.07	0.1	0.1	0.07	0.1	0.1	0.07	0.07	0.07	0.07
	a_e	<0.12	<0.1	<0.1	-8.2	-8.2	6	-10.2	-10.2	7	-14.2	-14.2	9	-18.2	-18.2	11	-23.2	-23.2	13	-30.2	-30.2	17
	a_p	1.5	1	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Hardened Steel > 55 HRC	V_c	150	130	120	70	50	50	70	50	50	70	50	50	70	50	50	70	50	50	70	50	50
	f_z	0.1	0.07	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05	0.07	0.05	0.05
	a_e	<0.12	<0.1	<0.1	-8.2	-8.2	6	-10.2	-10.2	7	-14.2	-14.2	9	-18.2	-18.2	11	-23.2	-23.2	13	-30.2	-30.2	17
	a_p	1.5	1	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

FL-305-EN 032016

Technical notes, please follow:

- Start values for using the square shoulder milling insert, Catalogue no.: 02 66 835 R08
- The values up to 3xD apply to both straight shank tools as well as screw-in milling cutters in connection with solid carbide adapters
- For optimum surface quality and tool lives, we recommend the use of cooling air. If possible, this should be supplied through the machine spindle or at least from external sources.
- The machining of high temperature compounds must take place with emulsion in order to counteract possible burning of the swarf.
- The initial values are worked out on the basis of the overhangs mentioned above as well as the spindle size HSK63 Form A. In the case of instable spindles, values such as feed per tooth, cutting depth and cutting width should be adjusted.

Pokolm Frästechnik GmbH & Co. KG

Adam-Opel-Straße 5
33428 Harsewinkel
Germany

Telefon: +49 5247 9361-0
Telefax: +49 5247 9361-99

info@pokolm.de
www.pokolm.de