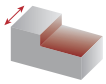


Double-sided shoulder milling for higher productivity



Shouldering



HEXAPLUS
49590

NEW



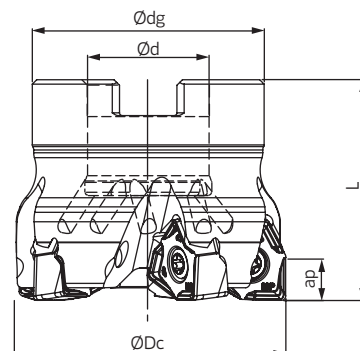
PDF



VIDEO



SINCE 1916



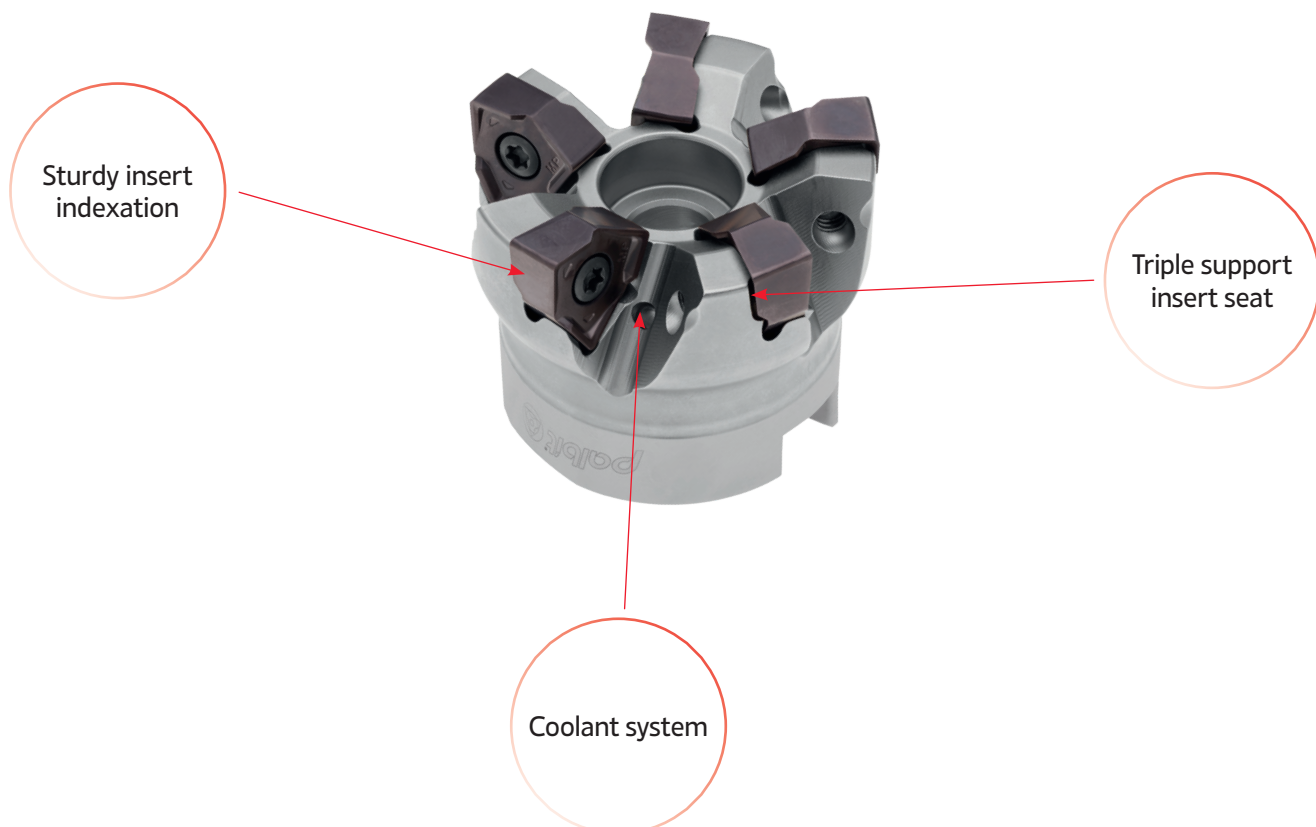
Arbor Mounting

$K_r = 90^\circ$ | $\gamma_p = -6^\circ$

(1) Geometry code	Reference Referência Referencia		Dimensions Dimensões Dimensiones (mm)				Kg	Specifications		Insert Pastilha Inserto	Stock
			ØDc	Ød	Ødg	L		Arbor Type	Ap max (mm)		
181174900	040A49590-03-06-016040	3	40	16	32	40	0,15	A	7,5	WNXT 0806...	
181175000	040A49590-04-06-016040	4	40	16	32	40	0,13	A	7,5	WNXT 0806...	
181173400	050A49590-04-06-022040	4	50	22	42	40	0,39	A	7,5	WNXT 0806...	
181165600	050A49590-05-06-022040	5	50	22	42	40	0,38	A	7,5	WNXT 0806...	
181173500	063A49590-05-06-022040	5	63	22	52	40	0,5	A	7,5	WNXT 0806...	
181173600	063A49590-06-06-022040	6	63	22	52	40	0,49	A	7,5	WNXT 0806...	
181173700	080A49590-07-06-027050	7	80	27	60	50	1,18	B	7,5	WNXT 0806...	
181173800	080A49590-09-06-027050	9	80	27	60	50	1,16	B	7,5	WNXT 0806...	
181173900	100A49590-08-06-032050	8	100	32	80	50	1,62	B	7,5	WNXT 0806...	
181174000	100A49590-11-06-032050	11	100	32	80	50	1,55	B	7,5	WNXT 0806...	
181174100	125A49590-11-06-040063	11	125	40	90	63	2,82	B	7,5	WNXT 0806...	
181174200	125A49590-14-06-040063	14	125	40	90	63	2,76	B	7,5	WNXT 0806...	

Stock item | Produto de stock | Itens de stock

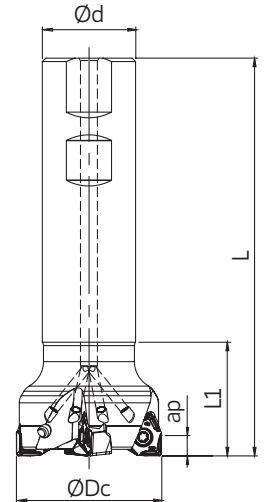
Available under request | Disponível sobre consulta
Disponível bajo consulta





Weldon Shank

$K_r = 90^\circ$ | $\gamma_p = -6^\circ$



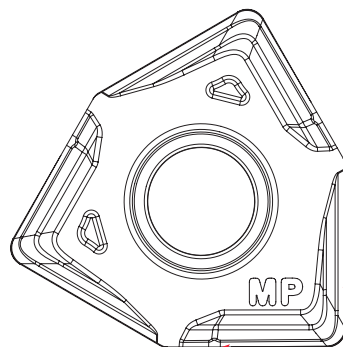
(1) Geometry code	Reference Referência Referencia		Dimensions Dimensões Dimensiones (mm)				Kg	Specifications	Insert Pastilha Inserto	Stock
			ØDc	Ød	L	L1		ap max (mm)		
181174300	032W49590-02-06-032125	2	32	32	125	40	0,65	7,5	WNXT 0806...	
181174400	032W49590-03-06-032125	3	32	32	125	40	0,60	7,5	WNXT 0806...	
181174500	040W49590-03-06-032130	3	40	32	130	40	0,70	7,5	WNXT 0806...	
181174600	040W49590-04-06-032130	4	40	32	130	40	0,65	7,5	WNXT 0806...	
181174700	050W49590-04-06-032140	4	50	32	140	45	0,86	7,5	WNXT 0806...	
181174800	050W49590-05-06-032140	5	50	32	140	45	0,81	7,5	WNXT 0806...	

Stock item | Produto de stock | Itens de stock

Available under request | Disponível sobre consulta
Disponível bajo consulta

INSERTS

WNXT | Inserts | Pastilhas | Plaquetas



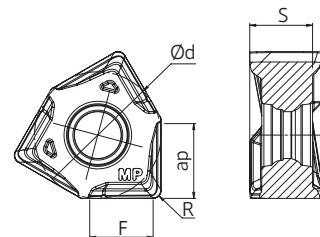
High rake cutting edge

Wide secondary edge:
- Improved base surface finish;
- Ramping, helical interp. and plunging capabilities;

INSERTS

NEW

WNXT | Inserts | Pastilhas | Plaquetas



		P		K		Dimensions Dimensões Dimensiones (mm)		
		PVD		PVD				
(1) Geometry code	(2) Grade code	T1	P4	T1	P4	iC	S	R
Reference Referência Referencia		PHP920	PHP930	PHP920	PHP930			
1113000	WNXT 080608 PNSR-MP					12,7	6,3	0,8

First choice | Primeira opção | 1ª opción

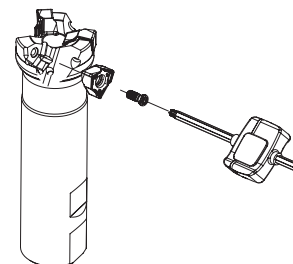
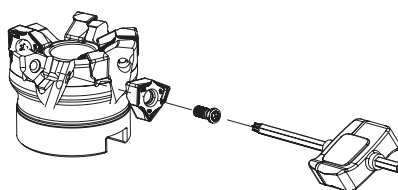
Stock item | Produto de stock | Itens de stock

Available under request | Disponível sobre consulta
Disponível bajo consulta

Insert order code = (1) Geometry Code + (2) Grade Code




SPARE PARTS Complementos | Repuestos

Cutter ØDc	Insert Screw	Key (Torx)	Order separately		Order separately		
			Key (Torx - Nm)	Torque Value	Screw	DIN 6368 Wrench	Retaining Screw
W49590 - 32 - 50	P0401200	XT15	DT1530	3,0	-	-	-
A49590 - 40	P0401200	XT15	DT1530	3,0	-	-	290087600
A49590 - 50 - 63	P0401200	XT15	DT1530	3,0	-	-	-
A49590 - 80	P0401200	XT15	DT1530	3,0	J0123510	SD6368-12	-
A49590 - 100	P0401200	PT15	DT1530	3,0	J0164110	SD6368-16	-
A49590 - 125	P0401200	PT15	DT1530	3,0	J0204610	SD6368-20	-



GRADES SELECTION GUIDE | Guia para selecção de graus | Tabla para selección de calidades

ISO	PSM	Material	HB (Brinell)	Grades	
				← Wear Resistance	Toughness →
				PHP920	PHP930
P	1	Unalloyed Steel	125-220	✓	✓
	2	Low-Alloyed Steel	220-280	✓	✓
	3	High-Alloyed Steel	280-380	✓	✓
K	7	Malleable Cast Iron	130-230	✓	✓
	8	Grey Cast Iron	180-245	✓	✓
	9	Nodular Cast iron	160-250	✓	✓

 Good Conditions
 Average Conditions
 Difficult Conditions

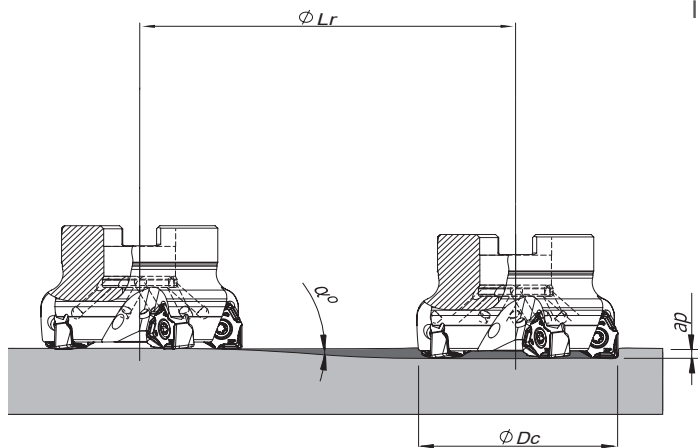
RECOMMENDED CUTTING CONDITIONS | Condições de corte recomendadas | Condiciones de corte recomendables

ISO	PSM	Material	HB (Brinell)	Vc (m/min)		Feed fz (mm/t)
				← Wear Resistance	Toughness →	
				PHP920	PHP930	WNXT 0806...-MP
P	1	Unalloyed Steel	125-220	180-250	160-230	0,08 - 0,25
	2	Low-Alloyed Steel	220-280	160-230	140-210	0,08 - 0,25
	3	High-Alloyed Steel	280-380	140-220	120-200	0,08 - 0,20
K	7	Malleable Cast Iron	130-230	130-230	150-250	0,08 - 0,25
	8	Grey Cast Iron	180-245	180-245	140-230	0,08 - 0,25
	9	Nodular Cast iron	160-250	120-210	100-200	0,08 - 0,20

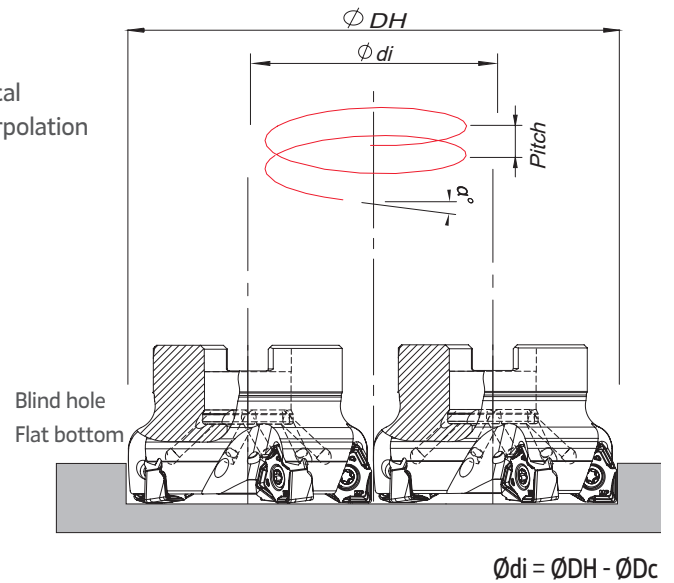
RAMPING AND HELICAL INTERPOLATION

Descida em rampa e interpolação helicoidal | Bajada en rampa e interpolación circular

Ramping



Helical Interpolation



ØDc	Ramping			Helical Interpolation		
	Max Ramp α°	Max a_p	Min Lr	ØDHmin	ØDHmax	Max Pitch/Rev.
32	4,0	7,5	107,3	52 -	- 62	4,3 6,6
40	3,8	7,5	112,9	68 -	- 78	5,8 8
50	3,5	7,5	122,6	88 -	- 98	7,3 9,2
63	3,5	7,5	122,6	114 -	- 124	9 11,7
80	3,0	7,5	143,1	148 -	- 158	11,1 12,9
100	2,1	7,5	204,5	188 -	- 198	10,1 11,3
125	1,4	7,5	306,9	238 -	- 248	8,6 9,4

Note: During helical interpolation do not exceed max Pitch.

(*) Down cutting is recommended, tool pass rotation should be counter-clockwise.

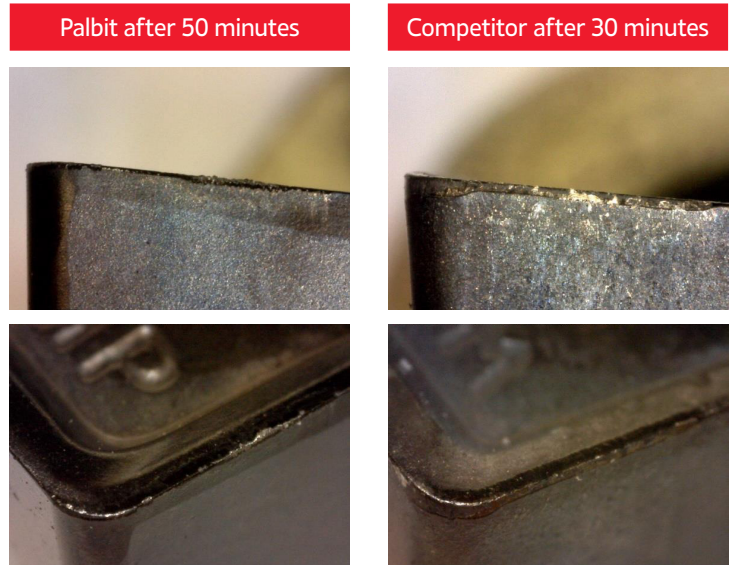
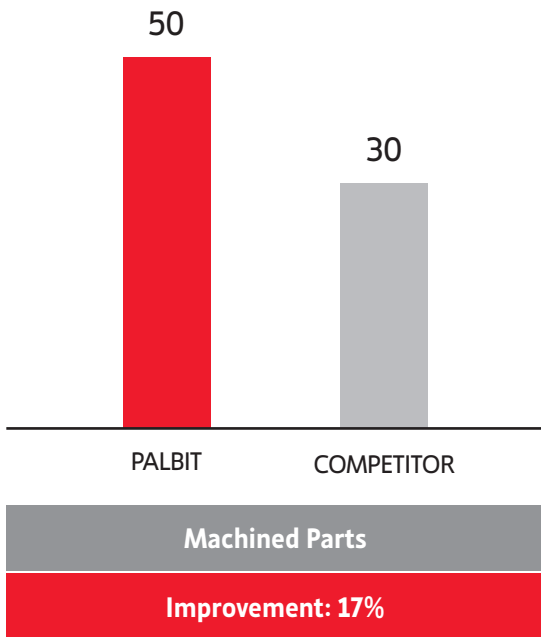
(*) In case of ramping and helical interpolation, apply 70% or less feed (fz) from recommended cutting conditions table.

TEST REPORT | Relatório de teste | Informes de prueba

Operation: Shoulder milling

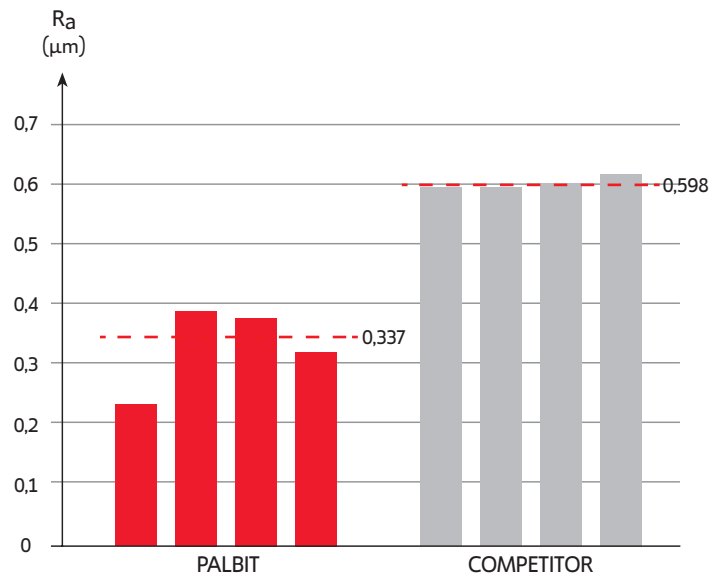
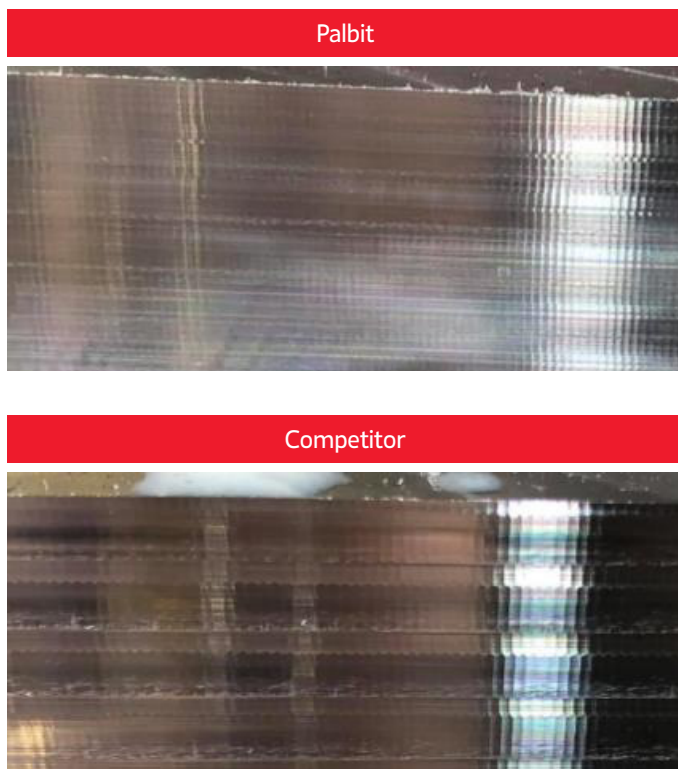
Cutter: 050A49590 05-06-022040

Insert: WNXT 080608 PNSR-MP PHP920



Workpiece Material: 40CrMnNiMo7 (1.2738) - (34 - 36 HRC)

Cutting speed: V_c	200 m/min
Feed per tooth: f_z	0,15 mm/t
Depth of cut: a_p	4,0 mm
Stepover : a_e	10 mm (20%)
Operation	Shoulder milling
Coolant	Air





HEXAPLUS NEW 49590

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