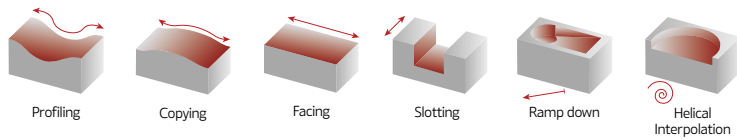


Super performance on Superalloy machining



palbit®
TOOLING SOLUTIONS EXPERTS

TURBOMILL
34190 | 34290

NEW

TOROMILL
33890

PHP

NEW
GRADE

PHH

NEW
GRADE



RPHT 10 | 12
16



NEW

SINCE **1916**

NEW MILLING GRADES

NEW

Novos graus de fresagem | Nuevos grados de fresado

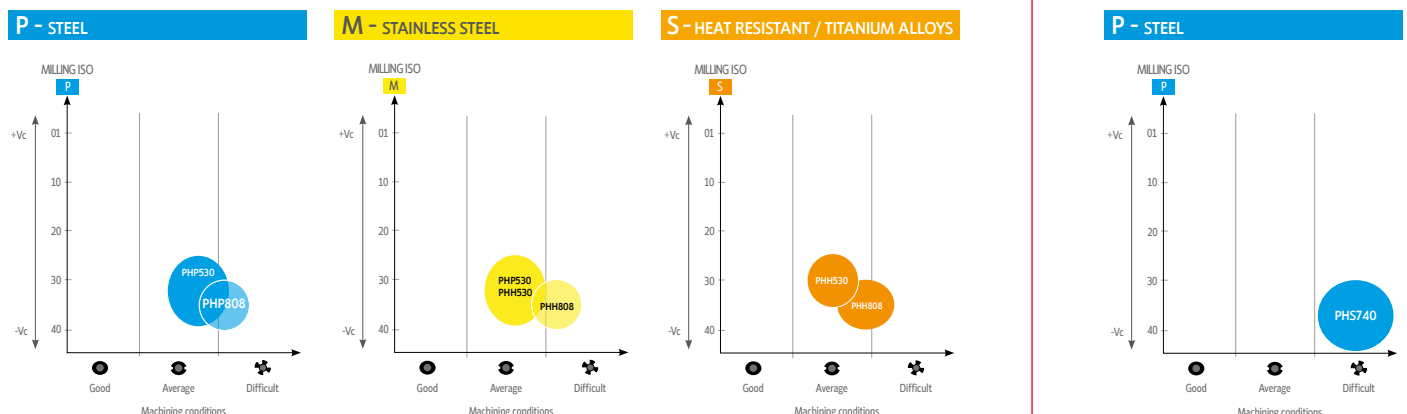
With the new PHP and PHH PVD coating technology, Palbit has developed special grades for steel and superalloy machining. With these new grades we guarantee that our inserts will last longer.

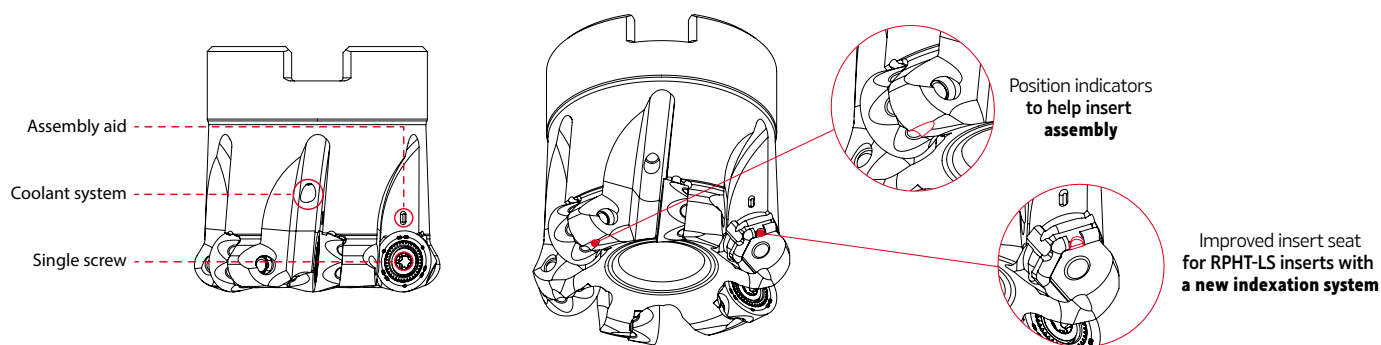
Test results show an improvement of 180% in tool life in comparison with our previous grades when machining Stainless steel.

		Materials	Applications	Characteristics
NEW PVD GRADES	PHP530	P25-P40 M25-M40	Exceptional solution for Alloy Steels and ferritic stainless steels	Extreme heat resistance
	PHP808	P30-P40	Great solution for Steel milling	
	PHH530	M25-M40 S25-S35	First choice for Stainless steel and HRSA milling	Extreme heat resistance
	PHH808	M30-M40 S30-S40	Great solution for stainless steel milling	
CVD GRADE	PHS740	P30-P50	CVD alternative when increased wear resistance is needed	Suited for removal of oxide layer

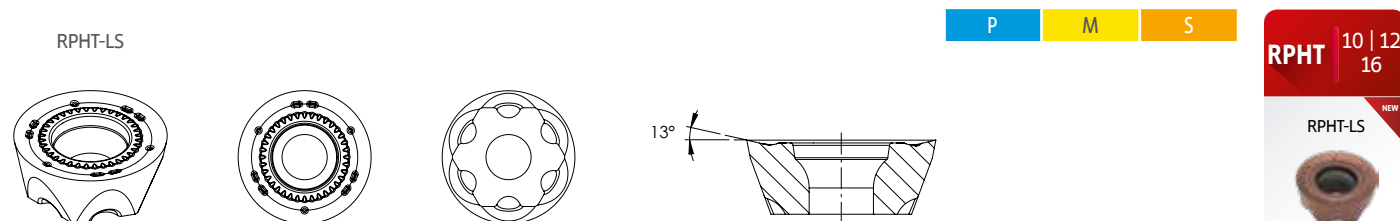
PVD grades

CVD grade





RPHT-LS



INSERT INFORMATION | Informação de pastilha | Información del inserto

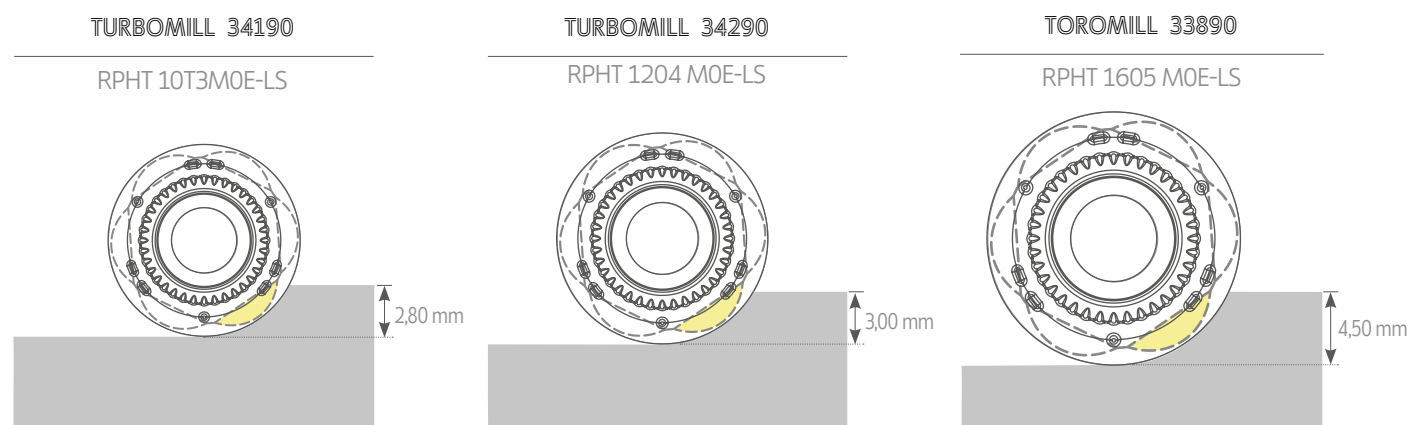
6 cutting edges insert

- Insert with 6 cutting edges for a better performance.

Insert Geometry

- Improved geometry for low cutting force;
- Positive insert with a brand new edge positioning system.

The maximum depth of cut using 6 cutting edges



GEOMETRY FEATURES | Características geométricas | Características geométricas

Geometry	Features Características Características
Geometry LS General machining	Optimized geometry for stainless steel and HRSA. Suitable for alloy steel machining.

TURBOMILL 34190

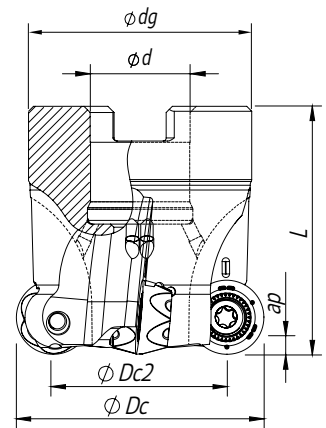
NEW

Proprietary milling line



Arbor Mounting

$$\gamma_p = 5^\circ$$



Order code Código	Reference Referência Referencia		Dimensions Dimensões Dimensiones (mm)					Kg	Specifications		Insert	Stock
			ϕDc	$\phi Dc2$	$\phi d/M$	ϕdg	L		Arbor Type	A_p max (mm)		
181160100	042A34190-06-05-016040	6	42	32	16	36	40	0,16	A	5	RPHT 10T3M0E-LS	⊗
181160200	050A34190-06-05-022039	6	50	40	22	42	40	0,26	A	5	RPHT 10T3M0E-LS	⊗
181160700	052 A34190-07-05-022040	7	52	42	22	42	40	0,30	A	5	RPHT 10T3M0E-LS	⊗

⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta

TURBOMILL 34290

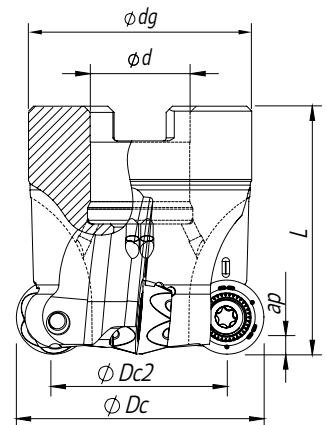
NEW

Proprietary milling line



Arbor Mounting

$$\gamma_p = 5^\circ$$



Order code Código	Reference Referência Referencia		Dimensions Dimensões Dimensiones (mm)					Kg	Specifications		Insert	Stock
			ϕDc	$\phi Dc2$	$\phi d/M$	ϕdg	L		Arbor Type	A_p max (mm)		
181159600	040A34290-04-05-016040	4	40	28	16	36	40	0,15	A	6	RPHT 1204 M0E-LS	⊗
181159500	052A34290-05-05-022040	5	52	40	22	42	40	0,25	A	6	RPHT 1204 M0E-LS	⊗
181160400	063A34290-06-05-022040	6	63	51	22	48	40	0,36	A	6	RPHT 1204 M0E-LS	⊗
181160500	066A34290-06-05-027050	6	66	54	27	48	50	0,40	A	6	RPHT 1204 M0E-LS	⊗
181160600	080A34290-07-05-027050	7	80	68	27	60	50	0,68	A	6	RPHT 1204 M0E-LS	⊗

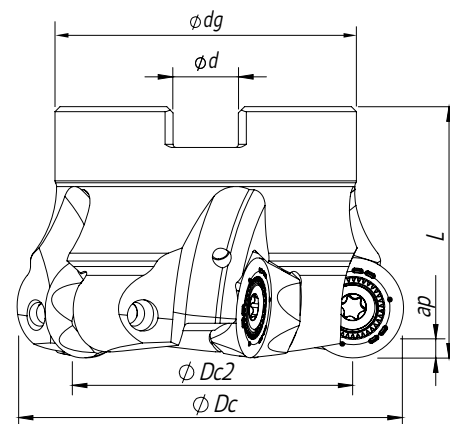
⊗ Stock item | Produto de stock | Itens de stock

○ Available under request | Disponível sobre consulta | Disponible bajo consulta



Arbor Mounting

$$\gamma_p = 5^\circ$$



Order code Código	Reference Referência Referencia		Dimensions Dimensões Dimensiones (mm)					Kg	Specifications		Insert Pastilha Inserto	Stock
			ϕDc	$\phi Dc2$	$\phi d/M$	ϕdg	L		Arbor Type	Ap max (mm)		
181124500	050A33890-04-05-022040	4	50	34	22	42	40	0,21	A	8,0	RPHT 1605 M0E-LS	
181124600	052A33890-04-05-022040	4	52	36	22	42	40	0,25	A	8,0	RPHT 1605 M0E-LS	
181114900	063A33890-05-05-022040	5	63	47	22	48	40	0,37	A	8,0	RPHT 1605 M0E-LS	
181124700	066A33890-05-05-027050	5	66	54	27	48	50	0,46	A	8,0	RPHT 1605 M0E-LS	
181124800	080A33890-06-05-027052	6	80	64	27	60	52	0,85	A	8,0	RPHT 1605 M0E-LS	
181124900	100A33890-07-05-032052	7	100	84	32	80	52	1,57	A	8,0	RPHT 1605 M0E-LS	
181122200	125A33890-08-05-040052	8	125	109	40	90	52	2,12	A	8,0	RPHT 1605 M0E-LS	

Stock item | Produto de stock | Itens de stock

Available under request | Disponível sobre consulta | Disponible bajo consulta

RPHT-LS | Inserts | Pastilhas | Plaquetas

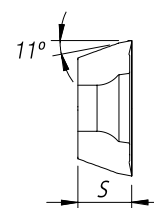
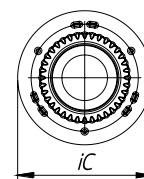
NEW

RPHT-LS
(PHP grade)

RPHT-LS
(PHH grade)



RPHT-LS



		P			M				K		N		S				H		Dimensions Dimensões Dimensiones (mm)				
		PVD		CVD	PVD		CVD	PVD		UNC	PCD	PVD				PVD							
		Z1	Z2	T9	Z2	Y2	Z3	T9	Z1	Z2	10	D6	Z1	Z2	Y2	Z3	X4	X6					
⁽¹⁾ Geometry code	⁽²⁾ Grade code ISO Reference	PHP808	PHP530	PHS740	PHP530	PHH808	PHH530	PHS740	PHP808	PHP530	PH0910	PDP410	PHP808	PHP530	PHH808	PHH530	PHH603	PHH910	iC	S	I	R	F
1112772	RPHT 10T3M0E-LS																		10,00	3,97	-	-	-
1112766	RPHT 1204 M0E-LS																		12,00	4,76	-	-	-
1112951	RPHT 1605 M0E-LS																		16,00	5,56	-	-	-

First choice | Primeira opção | 1ª opción

Stock item | Produto de stock | Itens de stock

Available under request | Disponível sobre consulta | Disponible bajo consulta

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

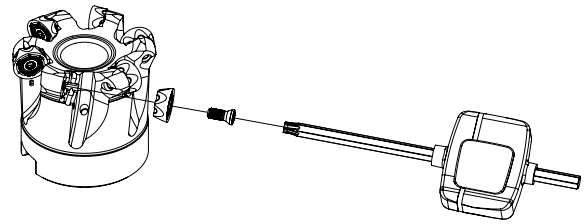
Note: TURBOMILL 34190 and TURBOMILL 34290 cutters can only be mounted with inserts RPHT-LS. However, inserts RPHT 10T3M0E-LS and RPHT 1204 M0E-LS are suitable with TOROMILL 33690 and TOROMILL 33790 Milling program.

TURBOMILL 34190 | 34290 & TOROMILL 33890

Proprietary milling line

SPARE PARTS Complementos | Repuestos

Cutter ØDc	Order separately			
	Insert Screw	Key (Torx)	Key (Torx - Nm)	Torque Value
34190	P0300800	XT09	DT0914	1,4
34290	P0350800	XT15	DT1530	3,0
33890	P0451100	XT20	DT2050	5,0



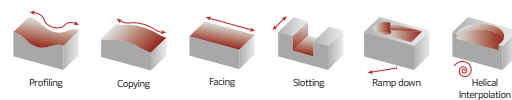
GRADES SELECTION GUIDE | Guia para selecção de graus | Tabla para selección de calidades

ISO	PSM	Material	HB (Brinell)	Grades				
				← Wear Resistance		Toughness →		
				PHP530	PHH530	PHP808	PHH808	PHS740
P	1	Unalloyed Steel	125-220	✓		✓		✓
	2	Low-Alloyed Steel	220-280	✓		✓		✓
	3	High-Alloyed Steel	280-380	✓		✓		✓
M	4	SS - Ferritic / Martensitic	200-330	✓	✓		✓	
	5	SS - Austenitic	200-330		✓		✓	
	6	SS - Austenitic-ferritic (Duplex)	230-260		✓		✓	
S	11	Heat Resistant Super Alloys	200-320		✓		✓	

- 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 →					
				PHP530	PHH530	PHP808	PHH808	PHS740	RPHT 10... LS	RPHT 12... LS	RPHT 16... LS
P	1	Unalloyed Steel	125-220	180-340	-	180-340	-	180-350	0,05-0,40	0,05-0,45	0,08-0,55
	2	Low-Alloyed Steel	220-280	180-340	-	180-340	-	180-340	0,05-0,40	0,05-0,45	0,08-0,55
	3	High-Alloyed Steel	280-380	180-330	-	180-330	-	180-340	0,05-0,35	0,05-0,40	0,08-0,50
M	4	SS - Ferritic / Martensitic	200-330	150-270	170-280	-	160-270	-	0,05-0,30	0,05-0,35	0,08-0,45
	5	SS - Austenitic	200-330	-	160-280	-	160-270	-	0,05-0,30	0,05-0,35	0,08-0,45
	6	SS - Austenitic-ferritic (Duplex)	230-260	-	150-260	-	150-250	-	0,05-0,30	0,05-0,35	0,08-0,45
S	11	Heat Resistant Super Alloys	200-320	-	30-150	-	30-140	-	0,05-0,25	0,05-0,30	0,08-0,35



TEST REPORT || Relatório de teste | Informe de prueba

Cutter: 052A34290-05-05-022040

Insert: RPHT 1204 M0E-LS

Grade: PHH530

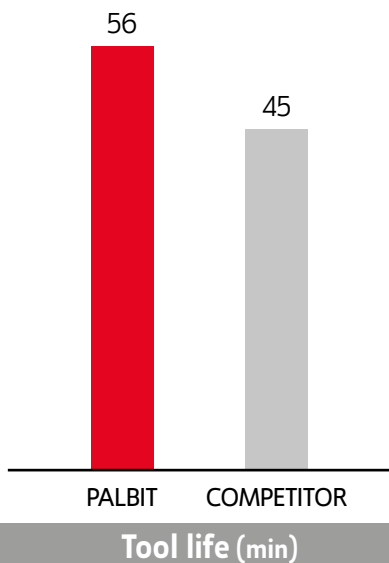


Palbit Insert



Competitor Insert

Workpiece material: AISI 316L - After 45 mins



Cutting speed: V_c	200 m/min
Feed per tooth: f_z	0,2 mm/tooth
Depth of cut: a_p	2,0 mm
Stepover : a_e	60%
Operation	Face milling
Coolant	Air

Cutter: 052A34290-05-05-022040

Insert: RPHT 1204 M0E-LS

Grade: PHP530

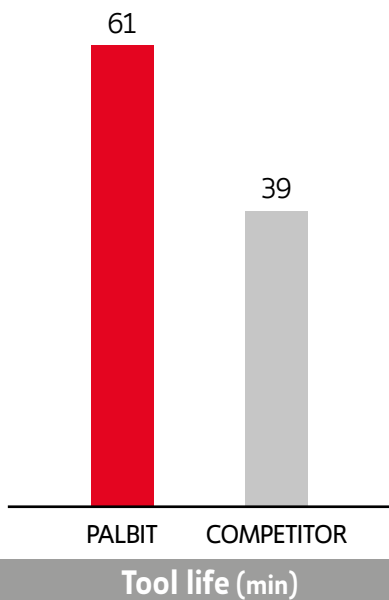


Palbit Insert



Competitor Insert

Workpiece material: X22CrMoV12-1 (1.4923) - After 39 mins



Cutting speed: V_c	315 m/min
Feed per tooth: f_z	0,2 mm/tooth
Depth of cut: a_p	2,0 mm
Stepover : a_e	60%
Operation	Face milling
Coolant	Air



TURBOMILL
34190 | 34290

NEW

TOROMILL
33890

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SINCE **1916**