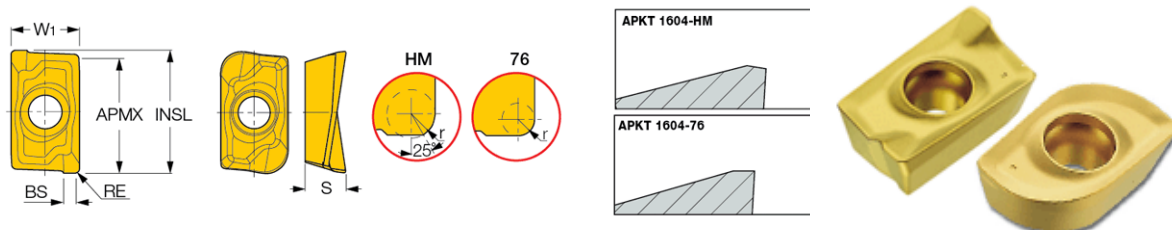




APKT 1604 : Milling inserts with a 16 mm cutting edge length and positive rake angle for general use.



Non ISO

ISO 13399

Designation	RE	W1	INSL	S	BS	APMX	fz (min)	fz (max)	Tough ←————→ Hard Grade & Vc
APKT 1604PDL- HM	0.80	9.45	17.20	5.25	1.70	14.00	0.08	0.15	IC328
APKT 1604PDR- HM	0.80	9.45	17.20	5.25	1.78	14.00	0.08	0.15	IC328 IC250 IC30N IC910 IC20
APKT 1604PDR-76	0.80	9.45	17.30	5.30	1.80	14.00	0.10	0.20	IC328 IC928 IC950
APKT 160416R- HM	1.60	9.45	16.70	5.30	0.00	14.00	0.08	0.15	IC328 IC950
APKT 160424R- HM	2.40	9.45	16.70	5.30	0.00	14.00	0.08	0.15	IC520M
APKT 160432L-HM	3.10	9.45	16.60	5.30	0.00	14.00	0.08	0.15	IC328
APKT 160432R- HM	3.20	9.45	16.60	5.30	0.00	14.00	0.08	0.15	IC328
APKT 160448R- HM	4.80	9.45	16.40	5.20	0.00	14.00	0.08	0.15	IC250

Grade : IC910

PVD AlTiN (AL-TEC) coated grade. First choice for milling of grey and nodular cast iron at medium to high cutting speed.

ISO Range - P/M/K	(P15-P30)(K15-K35)
ISO Range - H/S/N	
Grade or Coating Type	PVD
Coating Layers	AlTiN

[Find group of specific workpiece material \(opens in a new window\)](#)

Cutting Speed for: APKT 1604PDR-HM IC910 - 5601913

ISO	Material	Material Designation	Material Condition	Cutting Speed Recommendations (Vc)
P	1	Non-alloy steel and cast steel, free cutting steel <0.25%C	Annealed :125	190-260 m/min
P	2	Non-alloy steel and cast steel, free cutting steel >=0.25%C	Annealed :190	170-240 m/min
P	3	Non-alloy steel and cast steel, free cutting steel <0.55%C	Quench and tempered :250	160-230 m/min
P	4	Non-alloy steel and cast steel, free cutting steel >=0.55%C	Annealed :220	140-220 m/min
P	5	Non-alloy steel and cast steel, free cutting steel >=0.55%C	Quenched & tempered :300	140-210 m/min
P	6	Low alloy & cast steel (less than 5% of alloying elements)	Annealed :200	130-210 m/min
P	7	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered :275	120-200 m/min
P	8	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered :300	110-200 m/min
P	9	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered :350	100-190 m/min
P	10	High alloyed steel, cast steel and tool steel	Annealed :200	90-180 m/min
P	11	High alloyed steel, cast steel and tool steel	Quenched & tempered :325	80-160 m/min
K	15	Grey cast iron (GG)	Pearlitic/ferritic :180	220-320 m/min
K	16	Grey cast iron (GG)	Pearlitic/martensitic :260	200-300 m/min
K	17	Nodular cast iron (GGG)	Ferritic :160	180-250 m/min
K	18	Nodular cast iron (GGG)	Pearlitic :250	160-220 m/min
K	19	Malleable cast iron	Ferritic :130	200-300 m/min
K	20	Malleable cast iron	Pearlitic :230	170-280 m/min

Grade : IC20

Used for semifinishing, finishing and semiroughing of aluminum, cast iron and stainless steel. An uncoated carbide grade.

ISO Range - P/M/K	(M10-M25)(K10-K20)
ISO Range - H/S/N	(H05-H15)(S05-S20)(N05-N25)
Grade or Coating Type	Uncoated
Coating Layers	Uncoated

[Find group of specific workpiece material \(opens in a new window\)](#)

Cutting Speed for: APKT 1604PDR-HM IC20 - 5600441

ISO	Material	Material Designation	Material Condition	Cutting Speed Recommendations (Vc)
K	15	Grey cast iron (GG)	Pearlitic/ferritic :180	100-140 m/min
K	16	Grey cast iron (GG)	Pearlitic/martensitic :260	90-130 m/min
K	17	Nodular cast iron (GGG)	Ferritic :160	110-150 m/min
K	18	Nodular cast iron (GGG)	Pearlitic :250	90-130 m/min
K	19	Malleable cast iron	Ferritic :130	100-140 m/min
K	20	Malleable cast iron	Pearlitic :230	90-130 m/min
N	21	Aluminum-wrought alloy	Not cureable : 60	600-800 m/min
N	22	Aluminum-wrought alloy	Cured :100	500-700 m/min
N	23	Aluminum-cast, alloyed <12% Si	Not cureable : 75	600-800 m/min
N	24	Aluminum-cast, alloyed	Cured : 90	500-700 m/min
N	25	Aluminum-cast, alloyed >12% Si	High temperature :130	300-400 m/min
N	26	Copper alloys >1% Pb	Free cutting :110	300-400 m/min
N	27	Copper alloys	Brass : 90	300-400 m/min
N	28	Copper alloys	Electrolitic copper :100	200-300 m/min
S	31	High temp. alloys Fe based	Annealed :200	50-60 m/min
S	32	High temp. alloys Fe based	Cured :280	40-45 m/min
S	33	High temp. alloys. Ni or Co based	Annealed :250	50-55 m/min
S	34	High temp. alloys. Ni or Co based	Cured :350	30-35 m/min
S	35	High temp. alloys. Ni or Co based	Cast :320	40-45 m/min
S	36	Titanium (pure)	Pure :310	105-125 m/min
S	37	Titanium Ti alloys	Alpha+beta alloys cu :310	45-55 m/min

Grade : IC328

A thin PVD coated TiCN layer on a tough substrate, for milling, parting and grooving on stainless and alloy steels at low to medium cutting speeds and for unstable machining conditions.

ISO Range - P/M/K	(P25-P40)(M30-M40)
ISO Range - H/S/N	(S20-S30)
Grade or Coating Type	PVD
Coating Layers	TiCN

[Find group of specific workpiece material \(opens in a new window\)](#)

Cutting Speed for: APKT 1604PDR-HM IC328 - 5601332

ISO	Material	Material Designation	Material Condition	Cutting Speed Recommendations (Vc)
P	1	Non-alloy steel and cast steel, free cutting steel <0.25%C	Annealed :125	140-200 m/min
P	2	Non-alloy steel and cast steel, free cutting steel >=0.25%C	Annealed :190	130-190 m/min
P	3	Non-alloy steel and cast steel, free cutting steel <0.55%C	Quench and tempered :250	130-190 m/min
P	4	Non-alloy steel and cast steel, free cutting steel >=0.55%C	Annealed :220	120-180 m/min
P	5	Non-alloy steel and cast steel, free cutting steel >=0.55%C	Quenched & tempered :300	120-170 m/min
P	6	Low alloy & cast steel (less than 5% of alloying elements)	Annealed :200	120-160 m/min
P	7	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered :275	110-150 m/min
P	8	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered :300	100-140 m/min
P	9	Low alloy & cast steel (less than 5% of alloying elements)	Quenched & tempered :350	90-150 m/min
P	10	High alloyed steel, cast steel and tool steel	Annealed :200	80-130 m/min
P	11	High alloyed steel, cast steel and tool steel	Quenched & tempered :325	80-120 m/min
P	12	Stainless steel and cast steel	Ferritic/martensitic :200	100-140 m/min
P	13	Stainless steel and cast steel	Martensitic :240	90-130 m/min
M	14	Stainless steel and cast steel	Austenitic :180	80-120 m/min
S	31	High temp. alloys Fe based	Annealed :200	35-50 m/min
S	32	High temp. alloys Fe based	Cured :280	30-40 m/min