

APKT 1604 PDTR & APKT 160424 PDTR

Cutting Conditions

Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/tooth]		V _c [m/min]	
				min	max	min	max	min	max
Low Carbon Steel	1	Ck 15 9SMnPb28	150	0.5	15.0	0.18	0.32	180	300
			180		15.0		0.32		260
			210		15.0		0.32		220
Alloy Steel	2	42 CrMo 4 100 Cr 6 32 NiCrMo 14.5	180	0.5	15.0	0.15	0.25	130	200
			230		15.0		0.25		180
			280	0.5	15.0	0.15	0.22	100	160
			320		15.0		0.22		140
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12 X90 CrMoV 8	220	0.5	12.0	0.12	0.22	90	130
			280		12.0		0.22		110
			320	0.5	12.0	0.12	0.18	60	95
			350		12.0		0.18		80
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.5	15.0	0.15	0.25	170	270
	5	316 / 316 L	230 to 270	0.5	15.0	0.12	0.22	120	210
	6	316 Ti 630 (F16PH)	-----	0.5	12.0	0.12	0.18	70	120
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.5	15.0	0.15	0.25	150	230
Martensitic Stainless Steel	8	410 / 420	Annealed	0.5	15.0	0.15	0.25	130	210
			Treated	0.5	15.0	0.15	0.20	90	150
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.5	15.0	0.18	0.32	150	240
		EN - GJL 250							220
		EN - GJL 300							190
Nodular Cast Iron	10	EN - GJS 400	210	0.5	15.0	0.15	0.28	100	200
		EN - GJS 600	260						160
		EN - GJS 800	310						130
Nickel Based Alloys	11	Inconel 625	-----	0.5	12.0	0.12	0.18	25	35
		Inconel 718						28	38
		Hastelloy C						40	65
Titanium Based Alloys	12	TiAl 6 V4	-----	0.5	12.0	0.12	0.20	35	60
		T40					0.18	28	40

*For all material types and standards, see pages 240 to 245.

APKT 160432 PDTR & Cutting Conditions

APKT 160440 PDTR

Material Group	Group No	Material Examples*	Brinell hardness	d.o.c [mm]		feed [mm/tooth]		V _c [m/min]	
				min	max	min	max	min	max
Low Carbon Steel	1	Ck 15 9SMnPb28	150	0.5	15.0	0.18	0.32	180	300
			180		15.0		0.32		260
			210		15.0		0.32		220
Alloy Steel	2	42 CrMo 4 100 Cr 6	180	0.5	15.0	0.15	0.25	130	200
			230		15.0		0.25		180
	3	32 NiCrMo 14.5	280	0.5	15.0	0.15	0.22	100	160
			320		15.0		0.22		140
High Alloy Steel	3	X38 CrMoV 5 X210 CrW 12	220	0.5	12.0	0.12	0.22	90	130
			280		12.0		0.22		110
	4	X90 CrMoV 8	320	0.5	12.0	0.12	0.18	60	95
			350		12.0		0.18		80
Austenitic Stainless Steel	4	303 / 304 304 L	210 to 250	0.5	15.0	0.15	0.25	170	270
	5	316 / 316 L	230 to 270	0.5	15.0	0.12	0.22	160	210
	6	316 Ti 630 (F16PH)	-----	0.5	12.0	0.12	0.18	70	120
Ferritic Stainless Steel	7	430 / 439 / 444	Annealed	0.5	15.0	0.15	0.25	150	230
Martensitic Stainless Steel	8	410 / 420	Annealed	0.5	15.0	0.15	0.25	130	210
			Treated	0.5	15.0	0.15	0.20	90	150
Grey Cast Iron	9	EN - GJL 200	140 to 230	0.5	15.0	0.18	0.32	150	240
		EN - GJL 250							220
		EN - GJL 300							190
Nodular Cast Iron	10	EN - GJS 400	210	0.5	15.0	0.15	0.28	100	200
		EN - GJS 600	260						160
		EN - GJS 800	310						130
Nickel Based Alloys	11	Inconel 625	-----	0.5	12.0	0.12	0.18	25	35
		Inconel 718						28	38
		Hastelloy C						40	65
Titanium Based Alloys	12	TiAl 6 V4	-----	0.5	12.0	0.12	0.20	35	60
		T40					0.18	28	40

*For all material types and standards, see pages 240 to 245.