HTS DFR™ • Metric

Metric											
Material Group		Condition	Pocket Seat	Geometry	Grade	Cutting Speed — vc Range — m/min			Recommended Feed Rate (f) by Diameter		
						min	Starting Value	max	Ø	DFR03... 40,00–46,00mm	DFR04 46,00–55,00mm
P	1	S	O	MD	KCU25	79	**190**	229	mm/r	0,10–0,14	0,12–0,18
			I	MD	KCU25						
		U	O	MD	KCU40	71	**130**	171	mm/r	0,10–0,14	0,12–0,18
			I	MD	KCU40						
		I	O	MD	KC7140	44	**80**	106	mm/r	0,10–0,14	0,12–0,18
			I	MD	KC7140						
	2	S	O	GD	KCU25	75	**180**	217	mm/r	0,10–0,14	0,12–0,18
			I	GD	KCU25						
		U	O	GD	KCU40	71	**120**	271	mm/r	0,10–0,14	0,12–0,18
			I	GD	KCU40						
		I	O	GD	KC7140	44	**70**	106	mm/r	0,10–0,14	0,12–0,18
			I	GD	KC7140						
	3	S	O	GD	KCU25	60	**140**	169	mm/r	0,10–0,14	0,12–0,18
			I	GD	KCU25						
		U	O	GD	KCU40	50	**100**	121	mm/r	0,10–0,14	0,12–0,18
			I	GD	KCU40						
		I	O	GD	KC7140	30	**60**	72	mm/r	0,10–0,14	0,12–0,18
			I	GD	KC7140						
	4	S	O	GD	KCU25	79	**120**	229	mm/r	0,10–0,14	0,12–0,18
			I	GD	KCU25						
		U	O	GD	KCU40	71	**100**	171	mm/r	0,10–0,14	0,12–0,18
			I	GD	KCU40						
		I	O	GD	KC7140	44	**80**	106	mm/r	0,10–0,14	0,12–0,18
			I	GD	KC7140						
	5	S	O	GD	KCU40	62	**100**	190	mm/r	0,06–0,11	0,07–0,14
			I	GD	KCU40						
		U	O	GD	KC7140	47	**60**	114	mm/r	0,06–0,11	0,07–0,14
			I	GD	KC7140						
		I	O	GD	KC7140	31	**40**	76	mm/r	0,06–0,11	0,07–0,14
			I	GD	KC7140						
	6	S	O	GD	KCU40	59	**95**	180	mm/r	0,07–0,11	0,08–0,13
			I	GD	KCU40						
		U	O	GD	KC7140	45	**57**	108	mm/r	0,07–0,11	0,08–0,13
			I	GD	KC7140						
		I	O	GD	KC7140	30	**38**	72	mm/r	0,07–0,11	0,08–0,13
			I	GD	KC7140						
M	1	S	O	MD	KCU40	40	**110**	134	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
		U	O	MD	KC7140	31	**70**	86	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
		I	O	MD	KC7140	22	**50**	61	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
	2	S	O	MD	KCU40	38	**99**	127	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
		U	O	MD	KC7140	31	**63**	86	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
		I	O	MD	KC7140	22	**45**	61	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
	3	S	O	MD	KCU40	32	**88**	107	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
		U	O	MD	KC7140	31	**56**	86	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						
		I	O	MD	KC7140	22	**40**	61	mm/r	0,07–0,11	0,12–0,18
			I	MD	KC7140						

Condition: S = Stable cutting conditions;
U = Unstable cutting conditions;
I = Interrupted cutting conditions

Pocket seat: I = Inboard insert;
O = Outboard insert

HTS DFR™ • Metric

Metric											
Material Group		Condition	Pocket Seat	Geometry	Grade	Cutting Speed — vc Range — m/min			Recommended Feed Rate (f) by Diameter		
						min	Starting Value	max	Ø	DFR03... 40,00–46,00mm	DFR04... 46,00–55,00mm
K	1	S	O	GD	KCPK10	79	**171**	229	mm/r	0,11–0,20	0,13–0,27
			I	GD	KCPK10						
		U	O	LD	KCU25	64	**117**	156	mm/r	0,11–0,20	0,13–0,27
			I	LD	KCU25						
		I	O	LD	KCU40	40	**72**	96	mm/r	0,11–0,20	0,13–0,27
			I	LD	KCU40						
	2	S	O	GD	KCPK10	75	**162**	217	mm/r	0,11–0,20	0,13–0,27
			I	GD	KCPK10						
		U	O	GD	KCU25	64	**111**	156	mm/r	0,11–0,20	0,13–0,27
			I	GD	KCU25						
		I	O	LD	KCU40	40	**68**	96	mm/r	0,11–0,20	0,13–0,27
			I	LD	KCU40						
	3	S	O	GD	KCPK10	68	**146**	195	mm/r	0,11–0,20	0,13–0,27
			I	GD	KCPK10						
		U	O	GD	KCU25	59	**100**	144	mm/r	0,11–0,20	0,13–0,27
			I	GD	KCU25						
		I	O	GD	KCU40	35	**62**	84	mm/r	0,11–0,20	0,13–0,27
			I	GD	KCU40						
N	1	S	O	ST	KD1425	128	**240**	358	mm/r	0,06–0,09	0,11–0,19
			I	ST	KD1425						
		U	O	LD	KCU40	102	**160**	239	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
		I	O	LD	KCU40	67	**104**	155	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
	2	S	O	ST	KD1425	119	**223**	333	mm/r	0,06–0,09	0,11–0,19
			I	ST	KD1425						
		U	O	LD	KCU40	102	**149**	239	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
		I	O	LD	KCU40	67	**97**	155	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
	3	S	O	ST	KD1425	110	**206**	308	mm/r	0,06–0,09	0,11–0,19
			I	ST	KD1425						
		U	O	LD	KCU40	102	**138**	239	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
		I	O	LD	KCU40	67	**89**	155	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
	4	S	O	ST	KD1425	119	**223**	333	mm/r	0,06–0,09	0,11–0,19
			I	ST	KD1425						
		U	O	LD	KCU40	102	**149**	239	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
		I	O	LD	KCU40	67	**97**	155	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
	5	S	O	ST	KD1425	92	**220**	262	mm/r	0,06–0,09	0,11–0,19
			I	ST	KD1425						
		U	O	LD	KCU40	72	**140**	167	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						
		I	O	LD	KCU40	46	**90**	107	mm/r	0,06–0,09	0,11–0,19
			I	LD	KCU40						

Condition: S = Stable cutting conditions;
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Pocket seat: I = Inboard insert;
O = Outboard insert

HTS DFR™ • Inch

Inch											
Material Group		Condition	Pocket Seat	Geometry	Grade	Cutting Speed — vc Range — SFM			Recommended Feed Rate (fz) by Diameter		
						min	Starting Value	max	Ø	DFR03... .688–.750"	DFR04... .813–1.00"
P	1	S	O	MD	KCU25	260	**623**	750	IPR	.004–.006	.005–.007
			I	MD	KCU25						
		U	O	MD	KCU40	231	**427**	561	IPR	.004–.006	.005–.007
			I	MD	KCU40						
		I	O	MD	KC7140	143	**262**	348	IPR	.003–.006	.004–.008
			I	MD	KC7140						
	2	S	O	GD	KCU25	247	**591**	712	IPR	.004–.006	.005–.007
			I	GD	KCU25						
		U	O	GD	KCU40	231	**394**	561	IPR	.004–.006	.005–.007
			I	GD	KCU40						
		I	O	GD	KC7140	143	**230**	348	IPR	.004–.006	.005–.007
			I	GD	KC7140						
	3	S	O	GD	KCU25	197	**459**	555	IPR	.004–.006	.005–.007
			I	GD	KCU25						
		U	O	GD	KCU40	163	**328**	396	IPR	.004–.006	.005–.007
			I	GD	KCU40						
		I	O	GD	KC7140	98	**197**	238	IPR	.004–.006	.005–.007
			I	GD	KC7140						
	4	S	O	GD	KCU25	260	**394**	750	IPR	.004–.006	.005–.007
			I	GD	KCU25						
		U	O	GD	KCU40	231	**328**	561	IPR	.004–.006	.005–.007
			I	GD	KCU40						
		I	O	GD	KC7140	143	**262**	348	IPR	.004–.006	.005–.007
			I	GD	KC7140						
	5	S	O	GD	KCU40	205	**328**	622	IPR	.002–.004	.003–.006
			I	GD	KCU40						
		U	O	GD	KC7140	154	**197**	373	IPR	.002–.004	.003–.006
			I	GD	KC7140						
		I	O	GD	KC7140	103	**131**	250	IPR	.002–.004	.003–.006
			I	GD	KC7140						
	6	S	O	GD	KCU40	195	**312**	591	IPR	.003–.004	.003–.005
			I	GD	KCU40						
		U	O	GD	KC7140	146	**187**	355	IPR	.003–.004	.003–.005
			I	GD	KC7140						
		I	O	GD	KC7140	98	**125**	238	IPR	.003–.004	.003–.005
			I	GD	KC7140						
M	1	S	O	MD	KCU40	130	**361**	439	IPR	.003–.004	.005–.007
			I	MD	KC7140						
		U	O	MD	KC7140	101	**230**	281	IPR	.003–.004	.005–.007
			I	MD	KC7140						
		I	O	MD	KC7140	72	**164**	199	IPR	.003–.004	.005–.007
			I	MD	KC7140						
	2	S	O	MD	KCU40	124	**325**	417	IPR	.003–.004	.005–.007
			I	MD	KC7140						
		U	O	MD	KC7140	101	**207**	281	IPR	.003–.004	.005–.007
			I	MD	KC7140						
		I	O	MD	KC7140	72	**148**	199	IPR	.003–.004	.005–.007
			I	MD	KC7140						
	3	S	O	MD	KCU40	104	**289**	351	IPR	.003–.004	.005–.007
			I	MD	KC7140						
		U	O	MD	KC7140	101	**184**	281	IPR	.003–.004	.005–.007
			I	MD	KC7140						
		I	O	MD	KC7140	72	**131**	199	IPR	.003–.004	.005–.007
			I	MD	KC7140						

Condition: S = Stable cutting conditions;
U = Unstable cutting conditions;
I = Interrupted cutting conditions

Pocket seat: I = Inboard insert;
O = Outboard insert

HTS DFR™ • Inch

Inch											
Material Group		Condition	Pocket Seat	Geometry	Grade	Cutting Speed — vc Range — SFM			Recommended Feed Rate (fz) by Diameter		
						min	Starting Value	max	Ø	DFR03... .688–.750"	DFR04... .813–1.00"
K	1	S	O	GD	KCPK10	260	**561**	750	IPR	.004–.008	.005–.011
			I	GD	KCPK10						
		U	O	LD	KCU25	211	**384**	510	IPR	.004–.008	.005–.011
			I	LD	KCU25						
		I	O	LD	KCU40	131	**236**	316	IPR	.004–.008	.005–.011
			I	LD	KCU40						
	2	S	O	GD	KCPK10	247	**533**	712	IPR	.004–.008	.005–.011
			I	GD	KCPK10						
		U	O	GD	KCU25	211	**365**	510	IPR	.004–.008	.005–.011
			I	GD	KCU25						
		I	O	LD	KCU40	131	**224**	316	IPR	.004–.008	.005–.011
			I	LD	KCU40						
	3	S	O	GD	KCPK10	222	**480**	641	IPR	.004–.008	.005–.011
			I	GD	KCPK10						
		U	O	GD	KCU25	195	**328**	473	IPR	.004–.008	.005–.011
			I	GD	KCU25						
		I	O	GD	KCU40	113	**202**	274	IPR	.004–.008	.005–.011
			I	GD	KCU40						
N	1	S	O	ST	KD1425	420	**787**	1176	IPR	.002–.004	.004–.007
			I	ST	KD1425						
		U	O	LD	KCU40	336	**525**	784	IPR	.002–.004	.004–.007
			I	LD	KCU40						
		I	O	LD	KCU40	218	**341**	510	IPR	.002–.004	.004–.007
			I	LD	KCU40						
	2	S	O	ST	KD1425	391	**732**	1094	IPR	.002–.004	.004–.007
			I	ST	KD1425						
		U	O	LD	KCU40	336	**488**	784	IPR	.002–.004	.004–.007
			I	LD	KCU40						
		I	O	LD	KCU40	218	**317**	510	IPR	.002–.004	.004–.007
			I	LD	KCU40						
	3	S	O	ST	KD1425	361	**677**	1011	IPR	.002–.004	.004–.007
			I	ST	KD1425						
		U	O	LD	KCU40	336	**451**	784	IPR	.002–.004	.004–.007
			I	LD	KCU40						
		I	O	LD	KCU40	218	**293**	510	IPR	.002–.004	.004–.007
			I	LD	KCU40						
	4	S	O	ST	KD1425	391	**732**	1094	IPR	.002–.004	.004–.007
			I	ST	KD1425						
		U	O	LD	KCU40	336	**488**	784	IPR	.002–.004	.004–.007
			I	LD	KCU40						
		I	O	LD	KCU40	218	**317**	510	IPR	.002–.004	.004–.007
			I	LD	KCU40						
	5	S	O	ST	KD1425	302	**722**	858	IPR	.002–.004	.004–.007
			I	ST	KD1425						
		U	O	LD	KCU40	235	**459**	549	IPR	.002–.004	.004–.007
			I	LD	KCU40						
		I	O	LD	KCU40	151	**295**	351	IPR	.002–.004	.004–.007
			I	LD	KCU40						

Condition: S = Stable cutting conditions;
U = Unstable cutting conditions;
I = Interrupted cutting conditions

Pocket seat: I = Inboard insert;
O = Outboard insert