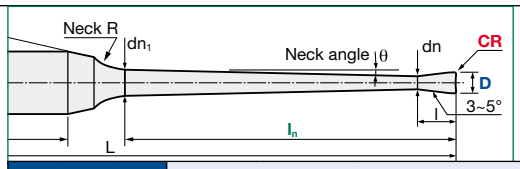
EPDRP | Recommended Cutting Conditions



Workpiece Material			I				II				III			
			Carbon Steels, Alloy Steels (180~250HB)				Tool Steels (25~35HRC)				Tool Steels (35~45HRC)			
			Copper (Cu): n + 20% / f_z + 20%											
D	CR	l_n	a_p mm	n min^{-1}	f_z mm/t	V_f mm/min	a_p mm	n min^{-1}	f_z mm/t	V_f mm/min	a_p mm	n min^{-1}	f_z mm/t	V_f mm/min
0.2	0.05	2	0.007	49,500	0.016	1,540	0.006	44,550	0.016	1,386	0.006	42,075	0.016	1,309
0.4	0.1	4	0.007	39,600	0.021	1,642	0.008	35,640	0.021	1,478	0.007	33,660	0.021	1,396
		5	0.007	35,200	0.018	1,298	0.006	31,680	0.018	1,168	0.006	29,920	0.016	965
0.5			0.013	38,016	0.025	1,892	0.012	34,214	0.025	1,703	0.010	32,314	0.020	1,307
		8	0.008	30,413	0.019	1,177	0.007	27,372	0.019	1,059	0.006	25,851	0.016	813
		10	0.007	22,810	0.019	883	0.006	20,529	0.019	795	0.006	19,388	0.016	610
0.6		12	0.010	25,471	0.027	1,373	0.009	22,924	0.027	1,236	0.008	21,650	0.022	948
		15	0.006	20,909	0.027	1,127	0.005	18,818	0.027	1,015	0.005	17,772	0.022	779
0.8	0.2	6	0.045	39,600	0.024	1,882	0.041	35,640	0.024	1,694	0.036	33,660	0.024	1,600
		12	0.020	35,200	0.023	1,622	0.018	31,680	0.023	1,460	0.016	29,920	0.020	1,206
1		8	0.040	35,640	0.036	2,540	0.036	32,076	0.036	2,286	0.032	30,294	0.036	2,159
		10	0.035	35,640	0.039	2,771	0.032	32,076	0.039	2,494	0.028	30,294	0.039	2,356
		15	0.028	31,680	0.035	2,190	0.025	28,512	0.035	1,971	0.022	26,928	0.030	1,629
		20	0.020	23,760	0.030	1,437	0.018	21,384	0.030	1,293	0.016	20,196	0.028	1,134
		25	0.017	19,800	0.030	1,198	0.015	17,820	0.030	1,078	0.014	16,830	0.028	945
		30	0.017	19,800	0.030	1,198	0.015	17,820	0.030	1,078	0.014	16,830	0.028	945
		35	0.010	19,800	0.030	1,198	0.009	17,820	0.030	1,078	0.008	16,830	0.028	945
1.5		15	0.045	24,640	0.035	1,703	0.041	22,176	0.035	1,533	0.036	20,944	0.030	1,267
		25	0.032	18,480	0.030	1,118	0.029	16,632	0.030	1,006	0.026	15,708	0.028	882
		30	0.028	15,400	0.030	931	0.025	13,860	0.030	838	0.022	13,090	0.028	735
2			0.045	16,800	0.065	2,177	0.041	15,120	0.065	1,960	0.036	14,280	0.057	1,619
	0.5		0.045	16,800	0.072	2,419	0.041	15,120	0.072	2,177	0.036	14,280	0.063	1,799
	0.2	40	0.035	12,600	0.057	1,429	0.032	11,340	0.057	1,286	0.028	10,710	0.053	1,128
	0.5		0.035	12,600	0.063	1,588	0.032	11,340	0.063	1,429	0.028	10,710	0.059	1,253
	0.2	50	0.017	10,500	0.057	1,191	0.015	9,450	0.057	1,072	0.014	8,925	0.053	940
	0.5		0.017	10,500	0.063	1,323	0.015	9,450	0.063	1,191	0.014	8,925	0.059	1,044
3	0.2	40	0.070	12,800	0.065	1,659	0.063	11,520	0.065	1,493	0.056	10,880	0.057	1,234
	0.5		0.070	12,800	0.072	1,843	0.063	11,520	0.072	1,659	0.056	10,880	0.063	1,371
	0.2	50	0.050	9,600	0.057	1,089	0.045	8,640	0.057	980	0.040	8,160	0.053	859
	0.5		0.050	9,600	0.063	1,210	0.045	8,640	0.063	1,089	0.040	8,160	0.059	955
	0.2	60	0.030	8,000	0.057	907	0.027	7,200	0.057	816	0.024	6,800	0.053	716
	0.5		0.030	8,000	0.063	1,008	0.027	7,200	0.063	907	0.024	6,800	0.059	796

Note: For finishing and precise tool definition for the CAM system please download DXF data (QuickFinder), or contact your local Hitachi Tool staff for more details.

Nota: Per lavorazioni di finitura e per una precisa e corretta definizione del profilo dell'utensile per l'utilizzo CAM si prega di richiedere file DXF tramite QuickFinder o rivolgendosi al personale Hitachi Tool.

Remarque : Pour les opérations de finition et une définition précise de l'outil dans votre système FAO, demandez nous le fichier DXF des outils, téléchargez les via notre logiciel QuickFinder, ou contactez votre interlocuteur commercial pour plus de détails.

Achtung: Bitte laden Sie sich für die Schlichtbearbeitung und die präzise Definition der Werkzeuge die DXF Daten herunter (QuickFinder) oder wenden Sie sich an Ihren Hitachi Anwendungstechniker.

Nota: En procesos de acabado y para una más precisa definición de la herramienta en el sistema de CAM por favor solicite los ficheros DXF (QuickFinder), o póngase en contacto con Hitachi Tool para obtener más detalles.

Nota: Para o acabamento e precisão assim como melhor definição da ferramenta para o sistema CAM por favor solicitar dados DXF (QuickFinder), ou entre em contato com sua equipe de ferramentas Hitachi local para obter mais detalhes.

EPDRP | Recommended Cutting Conditions

IV				V				Workpiece Material		
Hardened Steels (45~55HRC)				Hardened Steels (55~70HRC)						
a_p mm	n min^{-1}	f_z mm/t	V_f mm/min	a_p mm	n min^{-1}	f_z mm/t	V_f mm/min	D	CR	l_n
0.005	37,125	0.014	1,026	0.004	34,650	0.012	838	0.2	0.05	2
0.006	29,700	0.018	1,095	0.005	27,720	0.016	894	0.4	0.1	4
0.005	26,400	0.016	852	0.004	24,640	0.014	681			5
0.008	28,512	0.017	976	0.008	26,611	0.015	786	0.5		
0.005	22,810	0.013	607	0.005	21,289	0.011	489			8
0.005	17,107	0.013	455	0.004	15,967	0.011	367			10
0.007	19,103	0.019	708	0.006	17,830	0.016	571	0.6		12
0.004	15,682	0.019	581	0.004	14,636	0.016	469			15
0.029	29,700	0.021	1,255	0.027	27,720	0.018	1,025	0.8	0.2	6
0.013	26,400	0.020	1,064	0.012	24,640	0.017	852			12
0.026	26,730	0.032	1,694	0.024	24,948	0.028	1,383	1		8
0.023	26,730	0.035	1,848	0.021	24,948	0.030	1,509			10
0.018	23,760	0.030	1,437	0.017	22,176	0.026	1,150			15
0.013	17,820	0.026	924	0.012	16,632	0.022	719			20
0.011	14,850	0.026	770	0.010	13,860	0.022	599			25
0.011	14,850	0.026	770	0.010	13,860	0.022	599			30
0.007	14,850	0.026	770	0.006	13,860	0.022	599			35
0.029	18,480	0.030	1,118	0.027	17,248	0.026	894	1.5		15
0.021	13,860	0.026	719	0.019	12,936	0.022	559			25
0.018	11,550	0.026	599	0.017	10,780	0.022	466			30
0.029	12,600	0.057	1,429	0.027	11,760	0.049	1,143	2		
0.029	12,600	0.063	1,588	0.027	11,760	0.054	1,270		0.5	
0.023	9,450	0.049	919	0.021	8,820	0.041	714		0.2	40
0.023	9,450	0.054	1,021	0.021	8,820	0.045	794		0.5	
0.011	7,875	0.049	765	0.010	7,350	0.041	595		0.2	50
0.011	7,875	0.054	851	0.010	7,350	0.045	662		0.5	
0.046	9,600	0.057	1,089	0.042	8,960	0.049	871	3	0.2	40
0.046	9,600	0.063	1,210	0.042	8,960	0.054	968		0.5	
0.033	7,200	0.049	700	0.030	6,720	0.041	544		0.2	50
0.033	7,200	0.054	778	0.030	6,720	0.045	605		0.5	
0.020	6,000	0.049	583	0.018	5,600	0.041	454		0.2	60
0.020	6,000	0.054	648	0.018	5,600	0.045	504		0.5	

A modification of the cutting conditions is possible at following rules: Rotation (n/r.p.m.) and feed (V_f) increasing in same ratio, but feed per tooth (f_z) should be kept.

E' possibile modificare le condizioni di taglio seguendo le seguenti regole: aumentare rotazione (n/r.p.m.) ed avanzamento con la stessa proporzione mantenendo fisso l'avanzamento al dente f_z

Il est possible de modifier les paramètres de coupe en suivant la règle suivante : Rotation (n/r.p.m.) et avance (V_f) augmentées du même ratio, cependant, l'avance par dent (f_z) doit être conservée à l'identique.

Die Modifizierung der Schnittwerte ist nach folgender Regel möglich: Umdrehung (n) und Vorschub (V_f) im gleichen Verhältnis steigern, jedoch den Vorschub pro Zahn (f_z) beibehalten.

Modificar las condiciones de corte es posible si respetamos la siguiente regla: Las revoluciones (rpm) y el avance (V_f) se pueden incrementar o reducir en igual proporción, manteniendo el avance por diente (f_z).

A modificação das condições de corte é possível nas seguintes regras: Rotação (n/ r.p.m) e avanço (V_f) incrementar na mesma proporção, mas o avanço por dente (f_z) deve ser mantido.