

推荐切削条件

负角刀片

断屑槽： Std：无代号 Flat：无断屑槽

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)				
软钢 (SS400, S10C等)	≤180HB		●	F 1	FY	VP25N	285-445	0.09-0.23	0.20-0.80			
			●	F 2	FS	NX2525	270-385	0.09-0.23	0.20-0.70			
			●	L 1	SY	VP25N	260-405	0.16-0.33	0.50-1.20			
			●	F 1	FY	MP3025	275-420	0.09-0.23	0.20-0.80			
			●	F 2	FY	NX3035	260-370	0.09-0.23	0.20-0.80			
			●	F 3	FS	NX2525	270-385	0.09-0.23	0.20-0.70			
			●	L 1	SY	MP3025	250-385	0.16-0.33	0.50-1.20			
			●	L 2	SY	NX3035	235-335	0.16-0.33	0.50-1.20			
			✳	F 1	FY	UE6020	285-460	0.09-0.23	0.20-0.80			
			✳	F 2	FS	UE6020	285-460	0.09-0.23	0.20-0.70			
			✳	L 1	SY	UE6020	260-420	0.16-0.33	0.50-1.20			
			碳钢、合金钢 (S45C, SCM440等)	180 280HB		●	F 1	FH	AP25N	215-340	0.08-0.20	0.20-1.00
						●	F 2	FH	NX2525	205-295	0.08-0.20	0.20-1.00
						●	F 3	R/L-F	MP3025	210-325	0.05-0.15	0.10-0.50
●	F 4	PK				NX2525	195-280	0.10-0.30	0.20-1.00			
●	L 1	LP				UE6105	220-405	0.10-0.40	0.30-2.00			
●	L 2	SH				UE6105	220-405	0.10-0.40	0.30-2.00			
●	L 3	LP				MP3025	195-295	0.10-0.40	0.30-2.00			
●	L 4	SH				AP25N	200-315	0.10-0.40	0.30-2.00			
●	L 5	SH				NX2525	190-270	0.10-0.40	0.30-2.00			
●	L 6	SA				UE6105	220-405	0.10-0.40	0.30-2.00			
●	L 7	SW				UE6105	220-405	0.10-0.50	0.30-2.50			
●	L 8	SW				MP3025	195-295	0.10-0.50	0.30-2.50			
●	L 9	SW				NX2525	190-270	0.10-0.50	0.30-2.50			
●	L 10	R/L-K				MP3025	195-295	0.08-0.20	0.30-1.20			
●	M 1	MP				UE6105	200-370	0.16-0.50	0.30-4.00			
●	M 2	MP				MP3025	175-270	0.16-0.50	0.30-4.00			
●	M 3	MA				UE6105	200-370	0.20-0.50	0.30-4.00			
●	M 4	MH				UE6105	200-370	0.20-0.55	1.00-4.00			
●	M 5	Std				UE6105	200-370	0.25-0.60	1.50-5.00			
●	M 6	Std				MP3025	175-270	0.25-0.60	1.50-5.00			
●	M 7	Std				NX2525	170-245	0.25-0.60	1.50-5.00			
●	M 8	Std				UTi20T	85-125	0.25-0.60	1.50-5.00			
●	M 9	MW				UE6105	200-370	0.20-0.60	0.90-4.00			
●	M 10	R/L				MP3025	175-270	0.15-0.32	0.40-2.00			
●	R 1	RP				UE6105	190-350	0.25-0.60	1.50-6.00			
●	R 2	GH				UE6105	190-350	0.25-0.60	1.50-6.00			
●	H 1	HX				UE6110	160-275	0.50-1.26	3.00-11.00			
●	H 2	HV				UE6110	135-225	0.70-1.30	4.00-12.00			
●	F 1	FH				MP3025	210-325	0.08-0.20	0.20-1.00			
●	F 2	FH				NX3035	200-285	0.08-0.20	0.20-1.00			
●	F 3	FH				UE6110	230-390	0.08-0.20	0.20-1.00			
●	L 1	LP				UE6110	210-355	0.10-0.40	0.30-2.00			
●	L 2	SH				UE6110	210-355	0.10-0.40	0.30-2.00			
●	L 3	SA				UE6110	210-355	0.10-0.40	0.30-2.00			
●	L 4	LP				MP3025	195-295	0.10-0.40	0.30-2.00			
●	L 5	SH				NX3035	185-260	0.10-0.40	0.30-2.00			
●	L 6	SA				NX3035	185-260	0.10-0.40	0.30-2.00			
●	L 7	SW				UE6110	210-355	0.10-0.50	0.30-2.50			
●	L 8	SW				NX3035	185-260	0.10-0.50	0.30-2.50			
●	M 1	MP				UE6110	190-325	0.16-0.50	0.30-4.00			
●	M 2	MA				UE6110	190-325	0.20-0.50	0.30-4.00			
●	M 3	MA				NX3035	165-235	0.20-0.50	0.30-4.00			
●	M 4	MH				UE6110	190-325	0.20-0.55	1.00-4.00			
●	M 5	Std				UE6110	190-325	0.25-0.60	1.50-5.00			
●	M 6	Std	NX3035	165-235	0.25-0.60	1.50-5.00						
●	M 7	MW	UE6110	190-325	0.20-0.60	0.90-4.00						
●	R 1	RP	UE6110	180-310	0.25-0.60	1.50-6.00						
●	R 2	GH	UE6110	180-310	0.25-0.60	1.50-6.00						

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)				
碳钢、合金钢 (S45C, SCM440等)	180 280HB		●	H 1	HX	UE6020	155-250	0.50-1.26	3.00-11.00			
			●	H 2	HV	UE6020	125-205	0.70-1.30	4.00-12.00			
			●	H 3	HZ	UE6110	160-275	0.40-1.20	2.00-10.00			
			✳	F 1	FH	UE6110	230-390	0.08-0.20	0.20-1.00			
			✳	F 2	FH	UE6020	215-355	0.08-0.20	0.20-1.00			
			✳	L 1	LP	MC6025	210-340	0.10-0.40	0.30-2.00			
			✳	L 2	SH	UE6020	200-325	0.10-0.40	0.30-2.00			
			✳	L 3	SA	UE6020	200-325	0.10-0.40	0.30-2.00			
			✳	M 1	MP	MC6025	190-310	0.16-0.50	0.30-4.00			
			✳	M 2	MA	MC6025	190-310	0.20-0.50	0.30-4.00			
			✳	M 3	MP	UE6020	180-295	0.16-0.50	0.30-4.00			
			✳	M 4	MA	UE6020	180-295	0.20-0.50	0.30-4.00			
			✳	M 5	MA	UE6035	170-235	0.20-0.50	0.30-4.00			
			✳	M 6	MH	UE6020	180-295	0.20-0.55	1.00-4.00			
✳	M 7	MH	UE6035	170-235	0.20-0.55	1.00-4.00						
奥氏体类不锈钢 (SUS304, SUS316等)	≤200HB		✳	M 8	Std	UE6020	180-295	0.25-0.60	1.50-5.00			
			✳	M 9	Std	UE6035	170-235	0.25-0.60	1.50-5.00			
			✳	M 10	MW	MC6025	190-310	0.20-0.60	0.90-4.00			
			✳	M 11	MW	UE6020	180-295	0.20-0.60	0.90-4.00			
			✳	R 1	RP	MC6025	180-295	0.25-0.60	1.50-6.00			
			✳	R 2	GH	UE6020	170-280	0.25-0.60	1.50-6.00			
			✳	H 1	HX	UH6400	135-195	0.50-1.26	3.00-11.00			
			✳	H 2	HV	UH6400	110-160	0.70-1.30	4.00-12.00			
			✳	H 3	HZ	UH6400	135-195	0.40-1.20	2.00-10.00			
			✳	H 4	HZ	UE6020	155-250	0.40-1.20	2.00-10.00			
			M			●	L 1	LM	MC7015	180-285	0.10-0.30	0.30-2.00
						●	L 2	SH	US735	95-185	0.10-0.40	0.30-2.00
						●	L 3	SH	NX2525	65-135	0.10-0.40	0.30-2.00
						●	L 4	SW	US7020	105-270	0.10-0.50	0.30-2.50
●	M 1	MM				MC7015	160-255	0.15-0.45	0.70-5.00			
●	M 2	GM				MC7015	160-255	0.16-0.50	0.50-4.00			
●	M 3	MS				US7020	95-245	0.16-0.50	0.50-4.00			
●	M 4	MA				US7020	95-245	0.20-0.50	0.30-4.00			
●	M 5	MH				US7020	95-245	0.20-0.55	1.00-4.00			
●	M 6	MW				US7020	95-245	0.20-0.60	0.90-4.00			
●	R 1	RM				MC7015	155-245	0.25-0.55	1.50-6.00			
●	R 2	GH				US7020	90-235	0.25-0.60	1.50-6.00			
●	L 1	LM				MC7025	160-215	0.10-0.30	0.30-2.00			
●	L 2	SH				US735	95-185	0.10-0.40	0.30-2.00			
●	M 1	MM	MC7025	145-195	0.15-0.45	0.70-5.00						
●	M 2	GM	MC7025	145-195	0.16-0.50	0.50-4.00						
●	M 3	MA	MC7025	145-195	0.20-0.50	0.30-4.00						
●	M 4	MS	US735	85-165	0.16-0.50	0.50-4.00						
●	M 5	MA	US735	85-165	0.20-0.50	0.30-4.00						
●	R 1	RM	MC7025	140-185	0.25-0.55	1.50-6.00						
●	R 2	GH	US735	85-160	0.25-0.60	1.50-6.00						
✳	L 1	LM	MP7035	95-155	0.10-0.30	0.30-2.00						
✳	L 2	SH	US735	95-185	0.10-0.40	0.30-2.00						
✳	M 1	MM	MP7035	85-140	0.15-0.45	0.70-5.00						
✳	M 2	GM	MP7035	85-140	0.16-0.50	0.50-4.00						
✳	M 3	MA	MP7035	85-140	0.20-0.50	0.30-4.00						
✳	M 4	MS	US735	85-165	0.16-0.50	0.50-4.00						
✳	M 5	MS	VP15TF	75-130	0.16-0.50	0.50-4.00						
✳	M 6	MS	UT20M	95-145	0.16-0.50	0.50-4.00						
✳	M 7	MS	UTi20T	75-110	0.16-0.50	0.50-4.00						
✳	M 8	MA	VP15TF	75-130	0.20-0.50	0.30-4.00						

加工形态： ●：稳定切削 ●：一般切削 ✳：不稳定切削
 切削范围： F：精加工范围 L：轻切削范围 M：中切削范围 R：准重切削范围 H：重切削范围

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)	
M									
奥氏体类不锈钢 (SUS304, SUS316等)	≤200HB	✚	M 9	Std	VP15TF	75-130	0.25-0.60	1.50-5.00	
			R 1	RM	MP7035	85-135	0.25-0.55	1.50-6.00	
			R 2	GH	US735	85-160	0.25-0.60	1.50-6.00	
奥氏体类不锈钢 (SUS304LN, SUS316LN等)	>200HB	●	L 1	LM	MC7015	150-240	0.10-0.30	0.30-2.00	
			L 2	SH	US735	80-155	0.10-0.40	0.30-2.00	
			L 3	SH	NX2525	55-115	0.10-0.40	0.30-2.00	
			L 4	SW	US7020	90-230	0.10-0.50	0.30-2.50	
			M 1	MM	MC7015	135-215	0.15-0.45	0.70-5.00	
			M 2	GM	MC7015	135-215	0.16-0.50	0.50-4.00	
			M 3	MS	US7020	80-205	0.16-0.50	0.50-4.00	
			M 4	MA	US7020	80-205	0.20-0.50	0.30-4.00	
			M 5	MH	US7020	80-205	0.20-0.55	1.00-4.00	
			M 6	MW	US7020	80-205	0.20-0.60	0.90-4.00	
			R 1	RM	MC7015	130-205	0.25-0.55	1.50-6.00	
			R 2	GH	US7020	75-195	0.25-0.60	1.50-6.00	
			●	L 1	LM	MC7025	135-180	0.10-0.30	0.30-2.00
			●	L 2	SH	US735	80-155	0.10-0.40	0.30-2.00
			●	M 1	MM	MC7025	125-165	0.15-0.45	0.70-5.00
			●	M 2	GM	MC7025	125-165	0.16-0.50	0.50-4.00
			●	M 3	MA	MC7025	125-165	0.20-0.50	0.30-4.00
			●	M 4	MS	US735	75-140	0.16-0.50	0.50-4.00
			●	M 5	MA	US735	75-140	0.20-0.50	0.30-4.00
			●	R 1	RM	MC7025	115-155	0.25-0.55	1.50-6.00
			●	R 2	GH	US735	70-135	0.25-0.60	1.50-6.00
			✚	L 1	LM	MP7035	80-130	0.10-0.30	0.30-2.00
			✚	L 2	SH	US735	80-155	0.10-0.40	0.30-2.00
			✚	M 1	MM	MP7035	75-120	0.15-0.45	0.70-5.00
			✚	M 2	GM	MP7035	75-120	0.16-0.50	0.50-4.00
			✚	M 3	MA	MP7035	75-120	0.20-0.50	0.30-4.00
			✚	M 4	MS	US735	75-140	0.16-0.50	0.50-4.00
✚	M 5	MS	VP15TF	65-110	0.16-0.50	0.50-4.00			
✚	M 6	MS	UP20M	80-125	0.16-0.50	0.50-4.00			
✚	M 7	MS	UTi20T	65-95	0.16-0.50	0.50-4.00			
✚	M 8	MA	VP15TF	65-110	0.20-0.50	0.30-4.00			
✚	M 9	Std	VP15TF	65-110	0.25-0.60	1.50-5.00			
✚	R 1	RM	MP7035	70-115	0.25-0.55	1.50-6.00			
✚	R 2	GH	US735	70-135	0.25-0.60	1.50-6.00			
二相系不锈钢 (SUS329J1等)	≤280HB	●	L 1	LM	MC7015	120-195	0.10-0.30	0.30-2.00	
			L 2	SH	US735	65-125	0.10-0.40	0.30-2.00	
			L 3	SH	NX2525	45-90	0.10-0.40	0.30-2.00	
			L 4	SW	US7020	75-185	0.10-0.50	0.30-2.50	
			M 1	MM	MC7015	110-175	0.15-0.45	0.70-5.00	
			M 2	GM	MC7015	110-175	0.16-0.50	0.50-4.00	
			M 3	MS	US7020	65-170	0.16-0.50	0.50-4.00	
			M 4	MA	US7020	65-170	0.20-0.50	0.30-4.00	
			M 5	MH	US7020	65-170	0.20-0.55	1.00-4.00	
			M 6	MW	US7020	65-170	0.20-0.60	0.90-4.00	
			●	R 1	RM	MC7015	105-165	0.25-0.55	1.50-6.00
			●	R 2	GH	US7020	60-160	0.25-0.60	1.50-6.00
			●	L 1	LM	MC7025	110-150	0.10-0.30	0.30-2.00
			●	L 2	SH	US735	65-125	0.10-0.40	0.30-2.00
			●	M 1	MM	MC7025	100-135	0.15-0.45	0.70-5.00
			●	M 2	GM	MC7025	100-135	0.16-0.50	0.50-4.00
			●	M 3	MA	MC7025	100-135	0.20-0.50	0.30-4.00
			●	M 4	MS	US735	60-115	0.16-0.50	0.50-4.00
			●	M 5	MA	US735	60-115	0.20-0.50	0.30-4.00
			●	R 1	RM	MC7025	95-125	0.25-0.55	1.50-6.00
			●	R 2	GH	US735	55-110	0.25-0.60	1.50-6.00
			✚	L 1	LM	MP7035	65-105	0.10-0.30	0.30-2.00

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)			
M											
二相系不锈钢 (SUS329J1等)	≤280HB	✚	L 2	SH	US735	65-125	0.10-0.40	0.30-2.00			
			M 1	MM	MP7035	60-95	0.15-0.45	0.70-5.00			
			M 2	GM	MP7035	60-95	0.16-0.50	0.50-4.00			
			M 3	MA	MP7035	60-95	0.20-0.50	0.30-4.00			
			M 4	MS	US735	60-115	0.16-0.50	0.50-4.00			
			M 5	MS	VP15TF	50-90	0.16-0.50	0.50-4.00			
			M 6	MS	UP20M	65-100	0.16-0.50	0.50-4.00			
			M 7	MS	UTi20T	50-75	0.16-0.50	0.50-4.00			
			M 8	MA	VP15TF	50-90	0.20-0.50	0.30-4.00			
			M 9	Std	VP15TF	50-90	0.25-0.60	1.50-5.00			
			R 1	RM	MP7035	55-90	0.25-0.55	1.50-6.00			
			R 2	GH	US735	55-110	0.25-0.60	1.50-6.00			
			铁素体、析出硬化类不锈钢 (SUS410, SUS430等)	≤200HB	●	L 1	LM	MC7015	180-285	0.10-0.30	0.30-2.00
						L 2	SH	US735	95-185	0.10-0.40	0.30-2.00
						L 3	SH	NX2525	65-135	0.10-0.40	0.30-2.00
L 4	SW	US7020				105-270	0.10-0.50	0.30-2.50			
M 1	MM	MC7015				160-255	0.15-0.45	0.70-5.00			
M 2	GM	MC7015				160-255	0.16-0.50	0.50-4.00			
M 3	MS	US7020				95-245	0.16-0.50	0.50-4.00			
M 4	MA	US7020				95-245	0.20-0.50	0.30-4.00			
M 5	MW	US7020				95-245	0.20-0.55	1.00-4.00			
M 6	MH	US7020				95-245	0.20-0.60	0.90-4.00			
●	R 1	RM				MC7015	155-245	0.25-0.55	1.50-6.00		
●	R 2	GH				US7020	90-235	0.25-0.60	1.50-6.00		
●	L 1	LM				MC7025	160-215	0.10-0.30	0.30-2.00		
●	L 2	SH				US735	95-185	0.10-0.40	0.30-2.00		
●	M 1	MM				MC7025	145-195	0.15-0.45	0.70-5.00		
●	M 2	GM				MC7025	145-195	0.16-0.50	0.50-4.00		
●	M 3	MA				MC7025	145-195	0.20-0.50	0.30-4.00		
●	M 2	MS				US735	85-165	0.16-0.50	0.50-4.00		
●	M 4	MA				US735	85-165	0.20-0.50	0.30-4.00		
●	R 1	RM				MC7025	140-185	0.25-0.55	1.50-6.00		
●	R 2	GH				US735	85-160	0.25-0.60	1.50-6.00		
✚	L 1	LM				MP7035	95-155	0.10-0.30	0.30-2.00		
✚	L 2	SH				US735	95-185	0.10-0.40	0.30-2.00		
✚	M 1	MM				MP7035	85-140	0.15-0.45	0.70-5.00		
✚	M 2	GM				MP7035	85-140	0.16-0.50	0.50-4.00		
✚	M 3	MA				MP7035	85-140	0.20-0.50	0.30-4.00		
✚	M 4	MS				US735	85-165	0.16-0.50	0.50-4.00		
✚	M 5	MS	VP15TF	75-130	0.16-0.50	0.50-4.00					
✚	M 6	MS	UP20M	95-145	0.16-0.50	0.50-4.00					
✚	M 7	MS	UTi20T	75-110	0.16-0.50	0.50-4.00					
✚	M 8	MA	VP15TF	75-130	0.20-0.50	0.30-4.00					
✚	M 9	Std	VP15TF	75-130	0.25-0.60	1.50-5.00					
✚	R 1	RM	MP7035	85-135	0.25-0.55	1.50-6.00					
✚	R 2	GH	US735	85-160	0.25-0.60	1.50-6.00					
铁素体、析出硬化类不锈钢 (SUS431, SUS420J2等)	>200HB	●	L 1	LM	MC7015	150-240	0.10-0.30	0.30-2.00			
			L 2	SH	US735	80-155	0.10-0.40	0.30-2.00			
			L 3	SH	NX2525	55-115	0.10-0.40	0.30-2.00			
			L 4	SW	US7020	90-230	0.10-0.50	0.30-2.50			
			M 1	MM	MC7015	135-215	0.15-0.45	0.70-5.00			
			M 2	GM	MC7015	135-215	0.16-0.50	0.50-4.00			
			M 3	MS	US7020	80-205	0.16-0.50	0.50-4.00			
			M 4	MA	US7020	80-205	0.20-0.50	0.30-4.00			
			M 5	MH	US7020	80-205	0.20-0.55	1.00-4.00			
			M 6	MW	US7020	80-205	0.20-0.60	0.90-4.00			
			●	R 1	RM	MC7015	130-205	0.25-0.55	1.50-6.00		
			●	R 2	GH	US7020	75-195	0.25-0.60	1.50-6.00		
			●	L 1	LM	MC7025	135-180	0.10-0.30	0.30-2.00		

推荐切削条件

负角刀片

断屑槽： Std：无代号 Flat：无断屑槽

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)			
M											
铁素体、析出硬化类 不锈钢 (SUS431, SUS420J2等)	>200HB	●	L	2	SH	US735	80-155	0.10-0.40	0.30-2.00		
			M	1	MM	MC7025	125-165	0.15-0.45	0.70-5.00		
			M	2	MS	MC7025	125-165	0.16-0.50	0.50-4.00		
	>200HB	●	M	3	MA	MC7025	125-165	0.20-0.50	0.30-4.00		
			M	3	MS	US735	75-140	0.16-0.50	0.50-4.00		
			M	4	MA	US735	75-140	0.20-0.50	0.30-4.00		
		●	R	1	RM	MC7025	115-155	0.25-0.55	1.50-6.00		
		●	R	2	GH	US735	70-135	0.25-0.60	1.50-6.00		
		✦	L	1	LM	MP7035	80-130	0.10-0.30	0.30-2.00		
		✦	L	2	SH	US735	80-155	0.10-0.40	0.30-2.00		
		✦	M	1	MM	MP7035	75-120	0.15-0.45	0.70-5.00		
		✦	M	2	GM	MP7035	75-120	0.16-0.50	0.50-4.00		
		✦	M	3	MA	MP7035	75-120	0.20-0.50	0.30-4.00		
		✦	M	4	MS	US735	75-140	0.16-0.50	0.50-4.00		
		✦	M	5	MS	VP15TF	65-110	0.16-0.50	0.50-4.00		
		✦	M	6	MS	UP20M	80-125	0.16-0.50	0.50-4.00		
		✦	M	7	MS	UTI20T	65-95	0.16-0.50	0.50-4.00		
		✦	M	8	MA	VP15TF	65-110	0.20-0.50	0.30-4.00		
		✦	M	9	Std	VP15TF	65-110	0.25-0.60	1.50-5.00		
		✦	R	1	RM	MP7035	70-115	0.25-0.55	1.50-6.00		
		✦	R	2	GH	US735	70-135	0.25-0.60	1.50-6.00		
		析出硬化类不锈钢 (SUS630, SUS631等)	<450HB	●	L	1	LM	MC7015	100-160	0.10-0.30	0.30-2.00
					L	2	SH	US735	55-105	0.10-0.40	0.30-2.00
					L	3	SH	NX2525	35-75	0.10-0.40	0.30-2.00
					L	4	SW	US7020	60-155	0.10-0.50	0.30-2.50
					M	1	MM	MC7015	90-145	0.15-0.45	0.70-5.00
					M	2	GM	MC7015	90-145	0.16-0.50	0.50-4.00
					M	3	MS	US7020	55-140	0.16-0.50	0.50-4.00
M					4	MA	US7020	55-140	0.20-0.50	0.30-4.00	
M					5	MH	US7020	55-140	0.20-0.55	1.00-4.00	
M					6	MW	US7020	55-140	0.20-0.60	0.90-4.00	
●	R				1	RM	MC7015	85-135	0.25-0.55	1.50-6.00	
●	R				2	GH	US7020	50-130	0.25-0.60	1.50-6.00	
●	L				1	LM	MC7025	90-120	0.10-0.30	0.30-2.00	
●	L				2	SH	US735	55-105	0.10-0.40	0.30-2.00	
●	M				1	MM	MC7025	80-110	0.15-0.45	0.70-5.00	
●	M				2	GM	MC7025	80-110	0.16-0.50	0.50-4.00	
●	M				3	MA	MC7025	80-110	0.20-0.50	0.30-4.00	
●	M				3	MS	US735	50-95	0.16-0.50	0.50-4.00	
●	M				4	MA	US735	50-95	0.20-0.50	0.30-4.00	
●	R				1	RM	MC7025	80-105	0.25-0.55	1.50-6.00	
●	R		2	GH	US735	45-90	0.25-0.60	1.50-6.00			
✦	L		1	LM	MP7035	55-85	0.10-0.30	0.30-2.00			
✦	L		2	SH	US735	55-105	0.10-0.40	0.30-2.00			
✦	M		1	MM	MP7035	50-80	0.15-0.45	0.70-5.00			
✦	M		2	GM	MP7035	50-80	0.16-0.50	0.50-4.00			
✦	M		3	MA	MP7035	50-80	0.20-0.50	0.30-4.00			
✦	M		4	MS	US735	50-95	0.16-0.50	0.50-4.00			
✦	M		5	MS	VP15TF	45-75	0.16-0.50	0.50-4.00			
✦	M		6	MS	UP20M	55-80	0.16-0.50	0.50-4.00			
✦	M		7	MS	UTI20T	45-60	0.16-0.50	0.50-4.00			
✦	M		8	MA	VP15TF	45-75	0.20-0.50	0.30-4.00			
✦	M		9	Std	VP15TF	45-75	0.25-0.60	1.50-5.00			
✦	R		1	RM	MP7035	45-75	0.25-0.55	1.50-6.00			
✦	R		2	GH	US735	45-90	0.25-0.60	1.50-6.00			
K											
灰铸铁 (FC300等)	≤350MPa		●	L	1	MA	UC5105	170-315	0.20-0.50	0.30-4.00	
				M	1	Std	UC5105	170-315	0.25-0.60	1.50-5.00	
				M	2	Std	NX2525	155-210	0.25-0.60	1.50-5.00	

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)				
K												
灰铸铁 (FC300等)	≤350MPa	●	M	3	MW	UC5105	170-315	0.20-0.60	0.90-4.00			
			R	1	GH	UC5105	165-300	0.25-0.60	1.50-6.00			
			R	2	Flat	UC5105	165-300	0.20-0.60	2.50-6.00			
			R	3	Flat	HTi10	100-145	0.20-0.60	2.50-6.00			
			R	4	Flat	HTi05T	110-185	0.20-0.60	2.50-6.00			
			H	1	Flat	UC5105	165-300	0.20-0.60	2.50-6.00			
			●	L	1	MA	UC5115	165-305	0.20-0.50	0.30-4.00		
			●	L	2	MP	UC5115	165-305	0.16-0.50	0.30-4.00		
			●	L	3	SW	UC5115	185-335	0.10-0.50	0.30-2.50		
			●	M	1	Std	UC5115	165-305	0.25-0.60	1.50-5.00		
			●	M	2	Std	HTi10	105-150	0.25-0.60	1.50-5.00		
			●	M	3	MH	UC5115	165-305	0.20-0.55	1.00-4.00		
			●	M	4	MW	UC5115	165-305	0.20-0.60	0.90-4.00		
			●	R	1	GH	UC5115	160-290	0.25-0.60	1.50-6.00		
			●	R	2	Flat	UC5115	160-290	0.20-0.60	2.50-6.00		
			●	H	1	Flat	UC5115	160-290	0.20-0.60	2.50-6.00		
			✦	L	1	MA	UC5115	165-305	0.20-0.50	0.30-4.00		
			✦	M	1	Std	UC5115	165-305	0.25-0.60	1.50-5.00		
			✦	M	2	Std	UTI20T	85-120	0.25-0.60	1.50-5.00		
			✦	R	1	GH	UC5115	160-290	0.25-0.60	1.50-6.00		
			✦	R	2	Flat	UC5115	160-290	0.20-0.60	2.50-6.00		
			✦	R	3	Flat	UTI20T	80-115	0.20-0.60	2.50-6.00		
			✦	H	1	Flat	UC5115	160-290	0.20-0.60	2.50-6.00		
			球墨铸铁 (FCD450等)	≤450MPa	●	L	1	MA	UC5105	160-295	0.20-0.50	0.30-4.00
						M	1	Std	UC5105	160-295	0.25-0.60	1.50-5.00
						M	2	Std	NX2525	145-200	0.25-0.60	1.50-5.00
						R	1	GH	UC5105	155-280	0.25-0.60	1.50-6.00
						R	2	Flat	UC5105	155-280	0.20-0.60	2.50-6.00
R	3	Flat				HTi10	95-135	0.20-0.60	2.50-6.00			
R	4	Flat				HTi05T	105-175	0.20-0.60	2.50-6.00			
H	1	Flat				UC5105	155-280	0.20-0.60	2.50-6.00			
●	L	1				MA	UC5115	155-285	0.20-0.50	0.30-4.00		
●	L	2				MP	UC5115	155-285	0.16-0.50	0.30-4.00		
●	L	3				SW	UC5115	175-315	0.10-0.50	0.30-2.50		
●	M	1				Std	UC5115	155-285	0.25-0.60	1.50-5.00		
●	M	2				Std	HTi10	100-140	0.25-0.60	1.50-5.00		
●	R	1				GH	UC5115	150-275	0.25-0.60	1.50-6.00		
●	R	2				Flat	UC5115	150-275	0.20-0.60	2.50-6.00		
●	H	1				Flat	UC5115	150-275	0.20-0.60	2.50-6.00		
✦	L	1				MA	UC5115	155-285	0.20-0.50	0.30-4.00		
✦	M	1				Std	UC5115	155-285	0.25-0.60	1.50-5.00		
✦	M	2				Std	UTI20T	80-115	0.25-0.60	1.50-5.00		
✦	R	1				GH	UC5115	150-275	0.25-0.60	1.50-6.00		
✦	R	2				Flat	UC5115	150-275	0.20-0.60	2.50-6.00		
✦	R	3				Flat	UTI20T	75-110	0.20-0.60	2.50-6.00		
✦	H	1				Flat	UC5115	150-275	0.20-0.60	2.50-6.00		
球墨铸铁 (FCD700等)	≤800MPa	●				L	1	MA	UC5105	145-265	0.20-0.50	0.30-4.00
						M	1	Std	UC5105	145-265	0.25-0.60	1.50-5.00
						M	2	Std	NX2525	130-175	0.25-0.60	1.50-5.00
						R	1	GH	UC5105	135-250	0.25-0.60	1.50-6.00
						R	2	Flat	UC5105	135-250	0.20-0.60	2.50-6.00
			R	3	Flat	HTi10	85-120	0.20-0.60	2.50-6.00			
			R	4	Flat	HTi05T	90-155	0.20-0.60	2.50-6.00			
			H	1	Flat	UC5105	135-250	0.20-0.60	2.50-6.00			
			●	L	1	MA	UC5115	140-255	0.20-0.50	0.30-4.00		
			●	L	2	MP	UC5115	140-255	0.16-0.50	0.30-4.00		
			●	L	3	SW	UC5115	155-280	0.10-0.50	0.30-2.50		
			●	M	1	Std	UC5115	140-255	0.25-0.60	1.50-5.00		
			●	M	2	Std	HTi10	85-125	0.25-0.60	1.50-5.00		

加工形态： ●：稳定切削 ●：一般切削 ✦：不稳定切削
 切削范围： F：精加工范围 L：轻切削范围 M：中切削范围 R：准重切削范围 H：重切削范围

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)		
K										
球墨铸铁 (FCD700等)	≤800MPa	●	R	1	GH	UC5115	130-240	0.25-0.60	1.50-6.00	
		●	R	2	Flat	UC5115	130-240	0.20-0.60	2.50-6.00	
		●	H	1	Flat	UC5115	130-240	0.20-0.60	2.50-6.00	
		✚	L	1	MA	UC5115	140-255	0.20-0.50	0.30-4.00	
		✚	M	1	Std	UC5115	140-255	0.25-0.60	1.50-5.00	
		✚	M	2	Std	UTi20T	70-100	0.25-0.60	1.50-5.00	
		✚	R	1	GH	UC5115	130-240	0.25-0.60	1.50-6.00	
		✚	R	2	Flat	UC5115	130-240	0.20-0.60	2.50-6.00	
		✚	R	3	Flat	UTi20T	65-95	0.20-0.60	2.50-6.00	
		✚	H	1	Flat	UC5115	130-240	0.20-0.60	2.50-6.00	
S										
钛合金 (Ti-6Al-4V等)		●	F	1	FJ	RT9010	45-95	0.07-0.20	0.10-1.00	
		●	L	1	MJ(M)	RT9010	40-80	0.07-0.25	0.40-1.50	
		●	M	1	MS	RT9010	40-80	0.10-0.25	0.50-4.00	
		●	R	1	GJ	RT9010	35-75	0.16-0.35	1.00-3.00	
		●	F	1	FJ	RT9010	45-95	0.07-0.20	0.10-1.00	
		●	L	1	MJ(M)	RT9010	40-80	0.07-0.25	0.40-1.50	
		●	L	2	MJ(G)	RT9010	40-80	0.07-0.25	0.40-1.50	
		●	M	1	MS	RT9010	40-80	0.10-0.25	0.50-4.00	
		●	R	1	GJ	RT9010	35-75	0.16-0.35	1.00-3.00	
		✚	F	1	FJ	RT9010	45-95	0.07-0.20	0.10-1.00	
		✚	L	1	MJ(M)	RT9010	40-80	0.07-0.25	0.40-1.50	
		✚	L	2	MJ(G)	RT9010	40-80	0.07-0.25	0.40-1.50	
		✚	M	1	MS	RT9010	40-80	0.10-0.25	0.50-4.00	
		✚	R	1	GJ	RT9010	35-75	0.16-0.35	1.00-3.00	
		S								
		耐热合金 (Inconel718等)		●	F	1	FJ	VP10RT	30-60	0.07-0.20
●	L			1	MJ(M)	VP05RT	30-60	0.07-0.25	0.40-1.50	
●	L			2	MJ(M)	US905	50-100	0.07-0.25	0.40-1.50	
●	L			3	MJ(G)	VP10RT	25-50	0.07-0.25	0.40-1.50	
●	M			1	MS	VP05RT	30-60	0.10-0.25	0.50-4.00	
●	M			2	MS	US905	50-100	0.10-0.25	0.50-4.00	
●	R			1	GJ	VP10RT	20-45	0.16-0.35	1.00-3.00	
●	R			2	GJ	US905	45-95	0.16-0.35	1.00-3.00	
●	F			1	FJ	VP10RT	30-60	0.07-0.20	0.10-1.00	
●	L			1	MJ(M)	VP10RT	25-50	0.07-0.25	0.40-1.50	
●	M			1	MS	VP10RT	25-50	0.10-0.25	0.50-4.00	
●	R			1	GJ	VP10RT	20-45	0.16-0.35	1.00-3.00	
✚	F			1	FJ	VP15TF	20-40	0.07-0.20	0.10-1.00	
✚	L			1	MJ(M)	VP15TF	20-35	0.07-0.25	0.40-1.50	
✚	L			2	MJ(G)	VP15TF	20-35	0.07-0.25	0.40-1.50	
✚	M			1	MS	VP15TF	20-35	0.10-0.25	0.50-4.00	
✚	R	1	GJ	VP15TF	15-30	0.16-0.35	1.00-3.00			

推荐切削条件

7° 正角刀片

断屑槽： Std：无代号 Flat：无断屑槽

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)			
P											
软钢 (SS400, S10C等)	≤180HB		●	F 1	FP NX2525	225-320	0.04-0.20	0.20-0.90			
			●	F 2	FV NX2525	225-320	0.04-0.20	0.20-0.90			
			●	F 3	R/L-F MP3025	230-350	0.05-0.12	0.10-0.50			
			●	L 1	LP NX2525	225-320	0.06-0.25	0.20-1.00			
			●	L 2	Std UE6110	205-350	0.08-0.30	0.30-2.00			
			●	L 3	MV MP3025	190-295	0.08-0.30	0.30-2.00			
			●	L 4	Std MP3025	190-295	0.08-0.30	0.30-2.00			
			●	M 1	MP NX2525	185-265	0.08-0.30	0.30-2.00			
			●	F 1	FP UE6110	250-425	0.04-0.20	0.20-0.90			
			●	F 2	FP MP3025	230-350	0.04-0.20	0.20-0.90			
			●	F 3	FV MP3025	230-350	0.04-0.20	0.20-0.90			
			●	F 4	FV NX3035	215-305	0.04-0.20	0.20-0.90			
			●	L 1	LP UE6110	250-425	0.06-0.25	0.20-1.00			
			●	L 2	LP MP3025	230-350	0.06-0.25	0.20-1.00			
			●	L 3	Std UE6110	205-350	0.08-0.30	0.30-2.00			
			●	M 1	MP UE6110	205-350	0.08-0.30	0.30-2.00			
			●	M 2	MP MP3025	190-295	0.08-0.30	0.30-2.00			
			✳	F 1	FP MC6025	250-405	0.04-0.20	0.20-0.90			
			✳	F 2	FV UE6020	235-385	0.04-0.20	0.20-0.90			
			✳	L 1	LP MC6025	250-405	0.06-0.25	0.20-1.00			
			✳	L 2	Std UE6020	195-320	0.08-0.30	0.30-2.00			
			✳	M 1	MP MC6025	205-335	0.08-0.30	0.30-2.00			
			碳钢、合金钢 (S45C, SCM440等)	180 280HB		●	F 1	FP NX2525	165-235	0.04-0.20	0.20-0.90
						●	F 2	FV NX2525	165-235	0.04-0.20	0.20-0.90
●	F 3	R/L-F MP3025				170-260	0.05-0.12	0.10-0.50			
●	L 1	LP NX2525				165-235	0.06-0.25	0.20-1.00			
●	L 2	Std UE6110				150-260	0.08-0.30	0.30-2.00			
●	L 3	MV MP3025				140-215	0.08-0.30	0.30-2.00			
●	L 4	Std MP3025				140-215	0.08-0.30	0.30-2.00			
●	L 5	SV MP3025				170-260	0.06-0.25	0.20-1.00			
●	L 6	MW MP3025				140-215	0.10-0.35	0.80-2.50			
●	M 1	MP NX2525				135-195	0.08-0.30	0.30-2.00			
●	F 1	FP UE6110				185-310	0.04-0.20	0.20-0.90			
●	F 2	FP MP3025				170-260	0.04-0.20	0.20-0.90			
●	F 3	FV MP3025				170-260	0.04-0.20	0.20-0.90			
●	F 4	FV NX3035				160-225	0.04-0.20	0.20-0.90			
●	F 5	SW MP3025				170-260	0.06-0.24	0.20-1.50			
●	L 1	LP UE6110				185-310	0.06-0.25	0.20-1.00			
●	L 2	LP MP3025				170-260	0.06-0.25	0.20-1.00			
●	L 3	Std UE6110				150-260	0.08-0.30	0.30-2.00			
●	M 1	MP UE6110				150-260	0.08-0.30	0.30-2.00			
●	M 2	MP MP3025				140-215	0.08-0.30	0.30-2.00			
✳	F 1	FP MC6025				185-295	0.04-0.20	0.20-0.90			
✳	F 2	FV UE6020				175-285	0.04-0.20	0.20-0.90			
✳	L 1	LP MC6025				185-295	0.06-0.25	0.20-1.00			
✳	L 2	Std UE6020				145-235	0.08-0.30	0.30-2.00			
✳	M 1	MP MC6025	150-245	0.08-0.30	0.30-2.00						
碳钢、合金钢 (SNCM439等)	280 350HB		●	M 1	MP NX2525	95-140	0.08-0.30	0.30-2.00			
			●	M 1	MP UE6110	110-185	0.08-0.30	0.30-2.00			
			●	M 2	MP MP3025	100-155	0.08-0.30	0.30-2.00			
			✳	M 1	MP MC6025	110-175	0.08-0.30	0.30-2.00			

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)			
M											
奥氏体类不锈钢 (SUS304, SUS316等)	≤200HB		●	S 1	LM MC7025	140-190	0.06-0.25	0.20-1.00			
			●	S 2	Std US735	70-135	0.08-0.30	0.30-2.00			
			●	M 1	MM MC7025	115-155	0.08-0.30	0.30-2.00			
			✳	F 1	FM VP15TF	75-125	0.04-0.20	0.20-0.90			
			✳	F 2	Std US735	70-135	0.08-0.30	0.30-2.00			
			✳	S 1	LM MP7035	85-135	0.06-0.25	0.20-1.00			
			✳	S 2	LM VP15TF	75-125	0.06-0.25	0.20-1.00			
			✳	S 3	Std US735	70-135	0.08-0.30	0.30-2.00			
			✳	M 1	MM MP7035	70-115	0.08-0.30	0.30-2.00			
			✳	M 2	MM VP15TF	60-105	0.08-0.30	0.30-2.00			
			奥氏体类不锈钢 (SUS304LN, SUS316LN等)	>200HB		●	F 1	FM VP15TF	60-105	0.04-0.20	0.20-0.90
						●	F 2	Std US735	60-110	0.08-0.30	0.30-2.00
●	S 1	LM MC7025				120-160	0.06-0.25	0.20-1.00			
●	S 2	Std US735				60-110	0.08-0.30	0.30-2.00			
●	M 1	MM MC7025				100-130	0.08-0.30	0.30-2.00			
●	F 1	FM VP15TF				60-105	0.04-0.20	0.20-0.90			
●	F 2	Std US735				60-110	0.08-0.30	0.30-2.00			
●	S 1	LM MC7025				120-160	0.06-0.25	0.20-1.00			
●	S 2	Std US735				60-110	0.08-0.30	0.30-2.00			
●	M 1	MM MC7025				100-130	0.08-0.30	0.30-2.00			
✳	F 1	FM VP15TF				60-105	0.04-0.20	0.20-0.90			
二相系不锈钢 (SUS329J1等)	≤280HB					✳	S 1	LM MP7035	70-115	0.06-0.25	0.20-1.00
			✳	S 2	LM VP15TF	60-105	0.06-0.25	0.20-1.00			
			✳	S 3	Std US735	60-110	0.08-0.30	0.30-2.00			
			✳	M 1	MM MP7035	60-95	0.08-0.30	0.30-2.00			
			✳	M 2	MM VP15TF	50-90	0.08-0.30	0.30-2.00			
			●	F 1	FM VP15TF	50-85	0.04-0.20	0.20-0.90			
			●	F 2	Std US735	45-90	0.08-0.30	0.30-2.00			
			●	S 1	LM MC7025	95-130	0.06-0.25	0.20-1.00			
			●	S 2	Std US735	45-90	0.08-0.30	0.30-2.00			
			●	M 1	MM MC7025	80-105	0.08-0.30	0.30-2.00			
			●	F 1	FM VP15TF	50-85	0.04-0.20	0.20-0.90			
			●	F 2	Std US735	45-90	0.08-0.30	0.30-2.00			
铁素体、析出硬化类不锈钢 (SUS410, SUS430等)	≤200HB		●	F 1	FM VP15TF	75-125	0.04-0.20	0.20-0.90			
			●	F 2	Std US735	70-135	0.08-0.30	0.30-2.00			
			●	S 1	LM MC7025	140-190	0.06-0.25	0.20-1.00			
			●	S 2	Std US735	70-135	0.08-0.30	0.30-2.00			
			●	M 1	MM MC7025	115-155	0.08-0.30	0.30-2.00			
			●	F 1	FM VP15TF	75-125	0.04-0.20	0.20-0.90			
			●	F 2	Std US735	70-135	0.08-0.30	0.30-2.00			
			●	S 1	LM MC7025	140-190	0.06-0.25	0.20-1.00			
			●	S 2	Std US735	70-135	0.08-0.30	0.30-2.00			
			●	M 1	MM MC7025	115-155	0.08-0.30	0.30-2.00			
			✳	F 1	FM VP15TF	75-125	0.04-0.20	0.20-0.90			

加工形态： ●：稳定切削 ●：一般切削 ✳：不稳定切削
 切削范围： F：精加工范围 L：轻切削范围 M：中切削范围 R：准重切削范围 H：重切削范围

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)		
M										
铁素体、析出硬化类 不锈钢 (SUS410, SUS430等)	≤200HB	✚	S	2	LM	VP15TF	75-125	0.06-0.25	0.20-1.00	
			S	3	Std	US735	70-135	0.08-0.30	0.30-2.00	
			M	1	MM	MP7035	70-115	0.08-0.30	0.30-2.00	
			M	2	MM	VP15TF	60-105	0.08-0.30	0.30-2.00	
铁素体、析出硬化类 不锈钢 (SUS431, SUS420J2等)	>200HB	●	F	1	FM	VP15TF	60-105	0.04-0.20	0.20-0.90	
			F	2	Std	US735	60-110	0.08-0.30	0.30-2.00	
			S	1	LM	MC7025	120-160	0.06-0.25	0.20-1.00	
			S	2	Std	US735	60-110	0.08-0.30	0.30-2.00	
			M	1	MM	MC7025	100-130	0.08-0.30	0.30-2.00	
			●	F	1	FM	VP15TF	60-105	0.04-0.20	0.20-0.90
			●	F	2	Std	US735	60-110	0.08-0.30	0.30-2.00
			●	S	1	LM	MC7025	120-160	0.06-0.25	0.20-1.00
			●	S	2	Std	US735	60-110	0.08-0.30	0.30-2.00
			●	M	1	MM	MC7025	100-130	0.08-0.30	0.30-2.00
			●	F	1	FM	VP15TF	60-105	0.04-0.20	0.20-0.90
			●	F	2	Std	US735	60-110	0.08-0.30	0.30-2.00
			●	S	1	LM	MC7025	120-160	0.06-0.25	0.20-1.00
			●	S	2	Std	US735	60-110	0.08-0.30	0.30-2.00
			●	M	1	MM	MC7025	100-130	0.08-0.30	0.30-2.00
			●	F	1	FM	VP15TF	60-105	0.04-0.20	0.20-0.90
			●	F	2	Std	US735	60-110	0.08-0.30	0.30-2.00
			●	S	1	LM	MP7035	70-115	0.06-0.25	0.20-1.00
			●	S	2	LM	VP15TF	60-105	0.06-0.25	0.20-1.00
			●	S	3	Std	US735	60-110	0.08-0.30	0.30-2.00
●	M	1	MM	MP7035	60-95	0.08-0.30	0.30-2.00			
●	M	2	MM	VP15TF	50-90	0.08-0.30	0.30-2.00			
析出硬化类不锈钢 (SUS630, SUS631等)	<450HB	●	F	1	FM	VP15TF	40-70	0.04-0.20	0.20-0.90	
			F	2	Std	US735	40-75	0.08-0.30	0.30-2.00	
			S	1	LM	MC7025	80-105	0.06-0.25	0.20-1.00	
			S	2	Std	US735	40-75	0.08-0.30	0.30-2.00	
			M	1	MM	MC7025	65-90	0.08-0.30	0.30-2.00	
			●	F	1	FM	VP15TF	40-70	0.04-0.20	0.20-0.90
			●	F	2	Std	US735	40-75	0.08-0.30	0.30-2.00
			●	S	1	LM	MC7025	80-105	0.06-0.25	0.20-1.00
			●	S	2	Std	US735	40-75	0.08-0.30	0.30-2.00
			●	M	1	MM	MC7025	65-90	0.08-0.30	0.30-2.00
			●	F	1	FM	VP15TF	40-70	0.04-0.20	0.20-0.90
			●	F	2	Std	US735	40-75	0.08-0.30	0.30-2.00
			●	S	1	LM	MP7035	45-75	0.06-0.25	0.20-1.00
			●	S	2	LM	VP15TF	40-70	0.06-0.25	0.20-1.00
			●	S	3	Std	US735	40-75	0.08-0.30	0.30-2.00
			●	M	1	MM	MP7035	40-65	0.08-0.30	0.30-2.00
			●	M	2	MM	VP15TF	35-60	0.08-0.30	0.30-2.00

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)		
K										
球墨铸铁 (FCD700等)	≤800MPa	●	F	1	Std	UC5115	110-205	0.08-0.30	0.30-2.00	
			S	1	Std	UC5115	110-205	0.08-0.30	0.30-2.00	
			M	1	Flat	UC5115	110-205	0.08-0.30	0.30-2.00	
			F	1	Std	UC5115	110-205	0.08-0.30	0.30-2.00	
			●	S	1	Std	UC5115	110-205	0.08-0.30	0.30-2.00
			●	M	1	Flat	UC5115	110-205	0.08-0.30	0.30-2.00
			✚	F	1	Std	UC5115	110-205	0.08-0.30	0.30-2.00
			✚	S	1	Std	UC5115	110-205	0.08-0.30	0.30-2.00
N										
铝合金 (A6061, A7075等)	Si<5%	●	F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00	
			F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00	
			✚	F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00
铝合金 (AC4B等)	5%≤Si≤10%	●	F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00	
			F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00	
			✚	F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00
铝合金 (ADC12, A390等)	Si>10%	●	F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00	
			F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00	
			✚	F	1	AZ	HT110	300-700	0.10-0.40	0.20-3.00
S										
钛合金 (Ti-6Al-4V等)	Si>10%	●	F	1	FJ	RT9010	35-75	0.04-0.12	0.20-1.40	
			F	1	FJ	RT9010	35-75	0.04-0.12	0.20-1.40	
			✚	F	1	FJ	RT9010	35-75	0.04-0.12	0.20-1.40
S										
耐热合金 (Inconel718等)	Si>10%	●	F	1	FJ	VP10RT	20-45	0.04-0.12	0.20-1.40	
			F	1	FJ	VP10RT	20-45	0.04-0.12	0.20-1.40	
			✚	F	1	FJ	VP10RT	20-45	0.04-0.12	0.20-1.40

推荐切削条件

11°正角刀片

断屑槽： Std：无代号 Flat：无断屑槽

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)			
P											
软钢 (SS400, S10C等)	≤180HB		●	F 1	R-R/L NX2525	225-320	0.05-0.12	0.20-0.60			
			●	L 1	R-Std NX2525	185-265	0.08-0.30	0.30-2.00			
			●	M 1	R-Std NX2525	185-265	0.08-0.30	0.30-2.00			
			●	F 1	R-R/L NX2525	225-320	0.05-0.12	0.20-0.60			
			●	L 1	R-Std UE6110	205-350	0.08-0.30	0.30-2.00			
			●	L 2	R-Std MP3025	190-295	0.08-0.30	0.30-2.00			
			●	L 3	R-Std NX3035	180-255	0.08-0.30	0.30-2.00			
			●	M 1	R-Std UE6110	205-350	0.08-0.30	0.30-2.00			
			●	M 2	R-Std MP3025	190-295	0.08-0.30	0.30-2.00			
			●	M 3	R-Std NX3035	180-255	0.08-0.30	0.30-2.00			
			✦	F 1	R-R/L UTi20T	115-165	0.05-0.12	0.20-0.60			
			✦	L 1	R-Std UE6020	195-320	0.08-0.30	0.30-2.00			
			✦	L 2	N-Flat UE6020	195-320	0.08-0.30	0.30-2.00			
			✦	L 3	N-Flat UP20M	105-160	0.08-0.30	0.30-2.00			
			✦	M 1	R-Std UE6020	195-320	0.08-0.30	0.30-2.00			
			✦	M 2	N-Flat UE6020	195-320	0.08-0.30	0.30-2.00			
			✦	M 3	N-Flat UP20M	105-160	0.08-0.30	0.30-2.00			
			碳钢、合金钢 (S45C, SCM440等)	180 280HB		●	F 1	R-R/L NX2525	165-235	0.05-0.12	0.20-0.60
						●	L 1	R-Std NX2525	135-195	0.08-0.30	0.30-2.00
						●	M 1	R-Std NX2525	135-195	0.08-0.30	0.30-2.00
●	F 1	R-R/L NX2525				165-235	0.05-0.12	0.20-0.60			
●	L 1	R-Std UE6110				150-260	0.08-0.30	0.30-2.00			
●	L 2	R-Std MP3025				140-215	0.08-0.30	0.30-2.00			
●	L 3	R-Std NX3035				130-190	0.08-0.30	0.30-2.00			
●	M 1	R-Std UE6110				150-260	0.08-0.30	0.30-2.00			
●	M 2	R-Std MP3025				140-215	0.08-0.30	0.30-2.00			
●	M 3	R-Std NX3035				130-190	0.08-0.30	0.30-2.00			
✦	F 1	R-R/L UTi20T				85-120	0.05-0.12	0.20-0.60			
✦	L 1	R-Std UE6020				145-235	0.08-0.30	0.30-2.00			
✦	L 2	N-Flat UE6020				145-235	0.08-0.30	0.30-2.00			
✦	L 3	N-Flat UP20M				75-115	0.08-0.30	0.30-2.00			
✦	M 1	R-Std UE6020				145-235	0.08-0.30	0.30-2.00			
✦	M 2	N-Flat UE6020				145-235	0.08-0.30	0.30-2.00			
✦	M 3	N-Flat UP20M				75-115	0.08-0.30	0.30-2.00			
K											
灰铸铁 (FC300等)	≤350MPa					●	F 1	R-R/L NX2525	150-205	0.05-0.12	0.20-0.60
						●	L 1	N-Flat UC5105	135-250	0.08-0.30	0.30-2.00
			●	L 2	N-Flat NX2525	125-170	0.08-0.30	0.30-2.00			
			●	L 3	R-Std NX2525	125-170	0.08-0.30	0.30-2.00			
			●	M 1	N-Flat UC5105	135-250	0.08-0.30	0.30-2.00			
			●	M 2	N-Flat NX2525	125-170	0.08-0.30	0.30-2.00			
			●	M 3	R-Std NX2525	125-170	0.08-0.30	0.30-2.00			
			●	F 1	R-R/L NX2525	150-205	0.05-0.12	0.20-0.60			
			●	F 2	R-R/L HTi10	100-145	0.05-0.12	0.20-0.60			
			●	L 1	N-Flat UC5115	130-245	0.08-0.30	0.30-2.00			
			●	L 2	N-Flat UE6110	130-200	0.08-0.30	0.30-2.00			
			●	M 1	N-Flat UC5115	130-245	0.08-0.30	0.30-2.00			
			●	M 2	N-Flat UE6110	130-200	0.08-0.30	0.30-2.00			
			✦	F 1	R-R/L UTi20T	80-115	0.05-0.12	0.20-0.60			
			✦	L 1	N-Flat VP15TF	115-160	0.08-0.30	0.30-2.00			
✦	M 1	N-Flat VP15TF	115-160	0.08-0.30	0.30-2.00						
球墨铸铁 (FCD450等)	≤450MPa		●	F 1	R-R/L NX2525	140-190	0.05-0.12	0.20-0.60			
			●	L 1	N-Flat UC5105	130-235	0.08-0.30	0.30-2.00			
			●	L 2	N-Flat NX2525	115-160	0.08-0.30	0.30-2.00			
			●	L 3	R-Std NX2525	115-160	0.08-0.30	0.30-2.00			
			●	M 1	N-Flat UC5105	130-235	0.08-0.30	0.30-2.00			
			●	M 2	N-Flat NX2525	115-160	0.08-0.30	0.30-2.00			
			●	M 3	R-Std NX2525	115-160	0.08-0.30	0.30-2.00			
			●	F 1	R-R/L NX2525	140-190	0.05-0.12	0.20-0.60			

工件材料	硬度	切削范围	优先	断屑槽	刀片材料	切削速度 (m/min)	进给量 (mm/rev)	切削深度 (mm)			
K											
球墨铸铁 (FCD450等)	≤450MPa		●	F 2	R-R/L HTi10	95-135	0.05-0.12	0.20-0.60			
			●	L 1	N-Flat UC5115	125-230	0.08-0.30	0.30-2.00			
			●	L 2	N-Flat UE6110	120-190	0.08-0.30	0.30-2.00			
			●	M 1	N-Flat UC5115	125-230	0.08-0.30	0.30-2.00			
			●	M 2	N-Flat UE6110	120-190	0.08-0.30	0.30-2.00			
			✦	F 1	R-R/L UTi20T	75-110	0.05-0.12	0.20-0.60			
			✦	L 1	N-Flat VP15TF	110-150	0.08-0.30	0.30-2.00			
			✦	M 1	N-Flat VP15TF	110-150	0.08-0.30	0.30-2.00			
			球墨铸铁 (FCD700等)	≤800MPa		●	F 1	R-R/L NX2525	125-170	0.05-0.12	0.20-0.60
						●	L 1	N-Flat UC5105	115-210	0.08-0.30	0.30-2.00
●	L 2	N-Flat NX2525				105-140	0.08-0.30	0.30-2.00			
●	L 3	R-Std NX2525				105-140	0.08-0.30	0.30-2.00			
●	M 1	N-Flat UC5105				115-210	0.08-0.30	0.30-2.00			
●	M 2	N-Flat NX2525				105-140	0.08-0.30	0.30-2.00			
●	M 3	R-Std NX2525				105-140	0.08-0.30	0.30-2.00			
●	F 1	R-R/L NX2525				125-170	0.05-0.12	0.20-0.60			
●	F 2	R-R/L HTi10				85-120	0.05-0.12	0.20-0.60			
●	L 1	N-Flat UC5115				110-205	0.08-0.30	0.30-2.00			
●	L 2	N-Flat UE6110				105-170	0.08-0.30	0.30-2.00			
●	M 1	N-Flat UC5115				110-205	0.08-0.30	0.30-2.00			
●	M 2	N-Flat UE6110				105-170	0.08-0.30	0.30-2.00			
✦	F 1	R-R/L UTi20T				65-95	0.05-0.12	0.20-0.60			
✦	L 1	N-Flat VP15TF				95-135	0.08-0.30	0.30-2.00			
✦	M 1	N-Flat VP15TF				95-135	0.08-0.30	0.30-2.00			

加工形态： ●：稳定切削 ●：一般切削 ✦：不稳定切削
 切削范围： F：精加工范围 L：轻切削范围 M：中切削范围 R：准重切削范围 H：重切削范围