



AME | Recommended Cutting Conditions | Standard Pitch

Work piece material	Recommended grade & Target hardness (HRC)			Emulsion	Mist	Air	D			32			40			50			63				
	30	40	50				Z	3			4			4			6						
							OH/Dia. ratio	3-5D	5-7D	> 7D	3-5D	5-7D	> 7D	3-5D	5-7D	> 7D	3-5D	5-7D	> 7D	3-5D	5-7D	> 7D	
Carbon-Steel Alloy-Steel < 200HB							$V_c$	m/min	140	130	110	140	130	110	140	130	110	140	130	110	140	130	110
	JX1060			•	•	•	$n$	min <sup>-1</sup>	1390	1290	1090	1110	1030	880	890	830	700	710	660	560	660	560	
	JS4060			•	•	•	$f_z$	feed/tooth	0.25	0.21	0.17	0.19	0.16	0.13	0.19	0.16	0.13	0.21	0.17	0.14	0.17	0.14	
							$V_f$	mm/min	1040	810	560	840	660	460	680	530	360	890	670	470	890	670	
							$a_p$	mm	41	41	41	62	62	62	41	41	41	41	41	41	41	41	
							$a_e$	mm	6	4	3	4	3	2	7	5	4	9	7	4	9	7	
							$Q$	mm/min	255.8	132.8	68.9	208.3	122.8	57.0	195.2	108.7	59.0	328.4	192.3	77.1	328.4	192.3	
Carbon steel Alloy steel < 30HRC	JX1060			•	•	•	$V_c$	m/min	130	110	100	130	110	100	130	110	100	130	110	100	130	110	
	JS4060			•	•	•	$n$	min <sup>-1</sup>	1290	1090	990	1030	880	800	830	700	640	660	560	510	660	510	
							$f_z$	feed/tooth	0.20	0.18	0.15	0.15	0.14	0.11	0.15	0.13	0.11	0.17	0.15	0.13	0.17	0.15	
							$V_f$	mm/min	770	590	450	620	490	350	500	360	280	670	500	400	670	500	
							$a_p$	mm	41	41	41	62	62	62	41	41	41	41	41	41	41	41	
							$a_e$	mm	6	4	3	4	3	2	7	5	4	9	7	4	9	7	
							$Q$	mm/min	189.4	96.8	55.4	153.8	91.1	43.4	143.5	73.8	45.9	247.2	143.5	65.6	247.2	143.5	
Pre-Hardened Steel 30 - 40HRC				•	•	•	$V_c$	m/min	100	80	60	100	80	60	100	80	60	100	80	60	100	80	
	JS4060			•	•	•	$n$	min <sup>-1</sup>	990	800	600	800	640	480	640	510	380	510	400	300	510	400	
							$f_z$	feed/tooth	0.16	0.13	0.10	0.12	0.10	0.07	0.12	0.10	0.07	0.13	0.11	0.08	0.13	0.11	
							$V_f$	mm/min	480	310	180	380	260	130	310	200	110	400	260	140	400	260	
							$a_p$	mm	41	41	41	62	62	62	41	41	41	41	41	41	41	41	
							$a_e$	mm	6	4	3	4	3	2	7	5	4	9	7	4	9	7	
							$Q$	mm/min	118.1	50.8	22.1	94.2	48.4	16.1	89.0	41.0	18.0	147.6	74.6	23.0	147.6	74.6	
Stainless Steels SUS	JX1060			•	•	•	$V_c$	m/min	100	80	60	100	80	60	100	80	60	100	80	60	100	80	
	JS4060			•	•	•	$n$	min <sup>-1</sup>	990	800	600	800	640	480	640	510	380	510	400	300	510	400	
							$f_z$	feed/tooth	0.16	0.13	0.10	0.12	0.10	0.07	0.12	0.10	0.07	0.13	0.11	0.08	0.13	0.11	
							$V_f$	mm/min	480	310	180	380	260	130	310	200	110	400	260	140	400	260	
							$a_p$	mm	41	41	41	62	62	62	41	41	41	41	41	41	41	41	
							$a_e$	mm	6	4	3	4	3	2	7	5	4	9	7	4	9	7	
							$Q$	mm/min	118.1	50.8	22.1	94.2	48.4	16.1	89.0	41.0	18.0	147.6	74.6	23.0	147.6	74.6	
Cast-Iron GG EN-JL10** EN-GJL***	JX1060			•	•	•	$V_c$	m/min	140	130	110	140	130	110	140	130	110	140	130	110	140	130	
	JS4060			•	•	•	$n$	min <sup>-1</sup>	1390	1290	1090	1110	1030	880	890	830	700	710	660	560	660	560	
							$f_z$	feed/tooth	0.25	0.21	0.17	0.19	0.16	0.13	0.19	0.16	0.13	0.21	0.17	0.14	0.17	0.14	
							$V_f$	mm/min	1040	810	560	840	660	460	680	530	360	890	670	470	890	670	
							$a_p$	mm	41	41	41	62	62	62	41	41	41	41	41	41	41	41	
							$a_e$	mm	6	4	3	4	3	2	7	5	4	9	7	4	9	7	
							$Q$	mm/min	255.8	132.8	68.9	208.3	122.8	57.0	195.2	108.7	59.0	328.4	192.3	77.1	328.4	192.3	
Cast-Iron GGG EN-JS10** EN-GJS***	JX1060			•	•	•	$V_c$	m/min	110	100	80	110	100	80	110	100	80	110	100	80	110	100	
	JS4060			•	•	•	$n$	min <sup>-1</sup>	1090	990	800	880	800	640	700	640	510	560	510	400	560	510	
							$f_z$	feed/tooth	0.20	0.18	0.15	0.15	0.13	0.11	0.15	0.13	0.11	0.17	0.15	0.12	0.17	0.15	
							$V_f$	mm/min	650	530	360	530	420	280	420	330	220	570	460	290	570	460	
							$a_p$	mm	41	41	41	62	62	62	41	41	41	41	41	41	41	41	
							$a_e$	mm	6	4	3	4	3	2	7	5	4	9	7	4	9	7	
							$Q$	mm/min	159.9	86.9	44.3	131.4	78.1	34.7	120.5	67.7	36.1	210.3	132.0	47.6	210.3	132.0	
Titanium				•	•	•	$V_c$	m/min	40	30	30	40	40	30	40	40	30	40	40	30	40	40	
				•	•	•	$n$	min <sup>-1</sup>	400	300	300	320	320	240	250	250	190	200	200	150	200	200	
							$f_z$	feed/tooth	0.12	0.10	0.08	0.11	0.09	0.08	0.10	0.09	0.08	0.12	0.10	0.08	0.12	0.10	
	JS1025			•	•	•	$V_f$	mm/min	140	90	70	140	120	80	100	90	60	140	120	70	140	120	
							$a_p$	mm	41	41	41	62	62	62	41	41	41	41	41	41	41	41	
							$a_e$	mm	4	4	2	4	3	2	7	6	4	10	8	6	10	8	
							$Q$	mm/min	23.0	14.8	5.7	34.7	22.3	9.9	28.7	22.1	9.8	57.4	39.4	17.2	57.4	39.4	

**NOTE: NOT RECOMMENDED FOR FULL SLOTTING!**      **NOTA: NO SE RECOMIENDA PARA EL RANURADO!**  
**ACHTUNG: NICHT FÜR DIREKTES VOLLNUTEN GEEIGNET!**      **N.B.: NON RACCOMANDA EN RAINURE PLEINE MATIÈRE**  
**NOTA: È SCONSIGLIATO L'UTILIZZO IN CAVA DAL PIENO!**      **NÃO RECOMENDADO PARA CORTE RANHURAS!**

**For AME-1240MT5-126-4NT(-F) – Due to the length of body, parameters are recommended as follows:**  
 $V_c$  &  $f_z$  : Please start with lower parameters of standard D40.  $a_p$  max : 4mm (0.1 x D)

**1. Max.  $a_p$  recommendation**

To decrease cutting force and vibration, gradually reduce the depth of cut ( $a_p$ ) when approaching the bottom.

**2. Caution:** This cutter is recommended for side milling. Please adjust the tool path to avoid contact with the side and bottom at the same time.