

NEW

非铁金属加工用DLC铣刀 3刃短刃型
DLC Coated for Non-Ferrous Materials-3 Flute-Short Type

The A Brand

AE-TS-N

切削条件 Cutting Conditions | P200



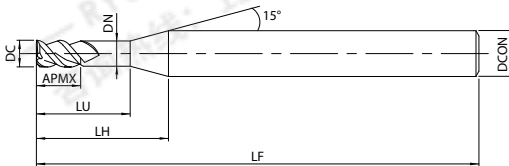
涂层可能会有颜色不均的情况，但这并不影响刀具的性能。
End mills may have some discoloration, but it does not cause any performance problems.



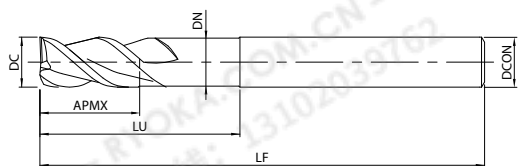
(单位:mm) (Unit:mm)

商品号 EDP No.	外径×颈长 DC×LU	全长 LF	刃长 APMX	LH	柄径 DCON	颈径 DN	形状 Type	库存 Stock	重量 (g)
8557330	3 × 9	55	4.5	14.9	6	2.85	1	A	● —
8557331	4 × 12	55	6	16	6	3.8	1		● —
8557332	5 × 15	55	7.5	17.1	6	4.8	1		● —
8557333	6 × 18	60	9	—	6	5.8	2		● —
8557334	8 × 24	70	12	—	8	7.7	2		● —
8557335	10 × 30	75	15	—	10	9.7	2		● —
8557336	12 × 36	80	18	—	12	11.7	2		● —

Type 1



Type 2



加工材料 Work Material	碳素钢 Carbon Steel	合金钢 Alloy Steel	预硬钢 Prehardened Steel	不锈钢 Stainless Steel	铸铁 Cast Iron	铜合金 Copper Alloy	铝合金 Aluminum Alloy	石墨 Graphite	钛合金 Titanium Alloy	耐热合金 Heat Resistant Alloy	塑料 Plastic
商品记号 Abbreviation	预硬钢 Prehardened Steel	工具钢 Tool Steel	淬火钢 Hardened Steel		球墨铸铁 Ductile Cast Iron						
AE-TS-N	~ 40HRC		~ 45HRC ~ 55HRC ~ 60HRC ~ 65HRC	~ 35HRC	~ 350HB	◎	◎				○

库存记号 Inventory symbols

● = 标准库存品 Standard stock item
○ = 准标准库存品 (请确认库存。) Limited standard stock item

▲ = 由新产品及后续产品替代 (请确认库存。)

Scheduled to be replaced by new product or successor item

□ = 特定代理店库存品

Stocked by specific distributors. Contact us for price & availability.

△ = 停产产品 (请确认库存。)

Discontinued item

CUTTING CONDITIONS FOR CARBIDE END MILLS 硬质合金铣刀切削条件基准表

非铁金属加工用DLC3刃短刃型 AE-TS-N
槽铣

DLC COATED FOR NON-FERROUS MATERIALS-3 FLUTE-SHORT TYPE
SLOTTING

加工材料 Work Material	铝合金延伸材·镁合金 Aluminum Alloy Expanding Material·Magnesium Alloy A5052·A7075·AZ91·AZ80A		铝合金铸件 Aluminum Alloy Casting AC4C·ADC		铜合金 Copper Alloy C1100	
切削速度 Cutting Speed (m/min)	300		300		150	
外径×颈长 DC×LU	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)
3 × 9	32,000	1,720	32,000	1,720	16,000	960
4 × 12	24,000	1,780	24,000	1,780	12,000	1,030
5 × 15	19,200	1,840	19,200	1,840	9,600	1,090
6 × 18	16,000	1,900	16,000	1,900	8,000	1,160
8 × 24	12,000	2,030	12,000	2,030	6,000	1,300
10 × 30	9,600	2,150	9,600	2,150	4,800	1,430
12 × 36	8,000	2,270	8,000	2,270	4,000	1,560
切削深度 Depth of Cut	a_p 1D		a_p 1D		a_p 0.5D	

1. 上表是在悬伸量为刀具4倍情况下的参考值。
2. 请使用高刚性、高精度的机械、刀柄。
3. 此切削条件表适用于使用水溶性切削油剂的加工。
4. 请根据切削深度、机械刚性等使用状况，调整转速和进给速度。
5. 对加工精度有要求的情况下，请适当下调转速，进给速度及切削深度。
6. 悬伸较长的情况下，请参考“根据悬伸量变化的切削条件调整参考值”来调整转速及进给速度。（参照p.202）
7. 加工镁合金时，请务必使用切削油剂厂家推荐的切削油剂。另外，请注意切屑的处理与管理，以免造成火灾。

1. The above milling condition is a guideline for the overhang length is 4 × D.
2. Use a rigid and precise machine and holder.
3. The indicated speeds and feeds are for milling with water-soluble coolant.
4. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used.
5. Reduce speed and feed as well as depth of cut when high precision is required.
6. Adjust the speed and feed accordingly when the overhang length is longer than specified (refer to p.202).
7. Please always use the appropriate cutting fluid recommended by the cutting fluid manufacturer in the machining of magnesium alloys. Be cautious with the cutting chips as they are highly flammable and may pose a serious fire risk if not properly handled.

硬质合金铣刀切削条件基准表

CUTTING CONDITIONS FOR CARBIDE END MILLS

非铁金属加工用DLC3刃短刃型 **AE-TS-N**
侧铣

DLC COATED FOR NON-FERROUS MATERIALS·3 FLUTE·SHORT TYPE
SIDE MILLING

加工材料 Work Material	铝合金延伸材·镁合金 Aluminum Alloy Expanding Material· Magnesium Alloy A5052·A7075·AZ91·AZ80A		铝合金铸件 Aluminum Alloy Casting AC4C·ADC		铜合金 Copper Alloy C1100	
切削速度 Cutting Speed (m/min)	300		300		150	
外径×颈长 DC×LU	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)
3 × 9	32,000	2,150	32,000	2,150	16,000	640
4 × 12	24,000	2,230	24,000	2,230	12,000	690
5 × 15	19,200	2,300	19,200	2,300	9,600	740
6 × 18	16,000	2,380	16,000	2,380	8,000	800
8 × 24	12,000	2,540	12,000	2,540	6,000	940
10 × 30	9,600	2,690	9,600	2,690	4,800	1,070
12 × 36	8,000	2,840	8,000	2,840	4,000	1,150
切削深度 Depth of Cut			a_p			
			1.5D		a_e	
					0.2D	

1. 上表是在悬伸量为刀具径4倍情况下的参考值。
2. 请使用高刚性、高精度的机械、刀柄。
3. 此切削条件表适用于使用水溶性切削油剂的加工。
4. 请根据切削深度、机械刚性等使用状况，调整转速和进给速度。
5. 对加工精度有要求的情况下，请适当下调转速，进给速度及切削深度。
6. 悬伸较长的情况下，请参考“根据悬伸量变化的切削条件调整参考值”来调整转速及进给速度。（参照p.202）
7. 加工镁合金时，请务必使用切削油剂厂家推荐的切削油剂。另外，请注意切屑的处理与管理，以免造成火灾。

1. The above milling condition is a guideline for the overhang length is 4 × D.
2. Use a rigid and precise machine and holder.
3. The indicated speeds and feeds are for milling with water-soluble coolant.
4. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used.
5. Reduce speed and feed as well as depth of cut when high precision is required.
6. Adjust the speed and feed accordingly when the overhang length is longer than specified (refer to p.202).
7. Please always use the appropriate cutting fluid recommended by the cutting fluid manufacturer in the machining of magnesium alloys. Be cautious with the cutting chips as they are highly flammable and may pose a serious fire risk if not properly handled.

CUTTING CONDITIONS FOR CARBIDE END MILLS 硬质合金铣刀切削条件基准表

非铁金属加工用DLC3刃短刃型 AE-TS-N
钴削加工

DLC COATED FOR NON-FERROUS MATERIALS-3 FLUTE-SHORT TYPE
PLUNGING

加工材料 Work Material	铝合金延伸材·镁合金 Aluminum Alloy Expanding Material·Magnesium Alloy A5052·A7075·AZ91·AZ80A		铝合金铸件 Aluminum Alloy Casting AC4C·ADC		铜合金 Copper Alloy C1100	
切削速度 Cutting Speed (m/min)	80		80		60	
外径×颈长 DC×LU	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)
3 × 9	8,500	400	8,500	400	6,400	120
4 × 12	6,400	400	6,400	400	4,800	120
5 × 15	5,100	400	5,100	400	3,800	120
6 × 18	4,200	450	4,200	450	3,100	130
8 × 24	3,200	500	3,200	500	2,400	150
10 × 30	2,550	500	2,550	500	1,900	150
12 × 36	2,100	500	2,100	500	1,600	150
切削深度 Depth of Cut	a_p 1D		a_p 1D		a_p 0.5D	

1. 上表是在悬伸量为刀具直径4倍情况下的参考值。
2. 请使用高刚性、高精度的机械、刀柄。
3. 此切削条件表适用于使用水溶性切削油剂的加工。
4. 请根据切削深度、机械刚性等使用状况，调整转速和进给速度。
5. 对加工精度有要求的情况下，请适当下调转速，进给速度及切削深度。
6. 悬伸较长的情况下，请参考“根据悬伸量变化的切削条件调整参考值”来调整转速及进给速度。（参照下表）。
7. 切屑缠绕时，请下调转速和进给速度。
8. 加工镁合金时，请务必使用切削油剂厂家推荐的切削油剂。另外，请注意切屑的处理与管理，以免造成火灾。

1. The above milling condition is a guideline for the overhang length is 4 × D.
2. Use a rigid and precise machine and holder.
3. The indicated speeds and feeds are for milling with water-soluble coolant.
4. Please adjust the speed and feed when the cutting depth is large or when machines with low rigidity are used.
5. Reduce speed and feed as well as depth of cut when high precision is required.
6. Adjust the speed and feed accordingly when the overhang length is longer than specified (see table below).
7. When the chips wind around the end mill, reduce the speed and feed.
8. Please always use the appropriate cutting fluid recommended by the cutting fluid manufacturer in the machining of magnesium alloys. Be cautious with the cutting chips as they are highly flammable and may pose a serious fire risk if not properly handled.

根据悬伸量变化的切削条件调整参考值 (DC ≥ φ6)

CUTTING CONDITION GUIDE FOR CHANGES IN OVERHANG LENGTH

	加工材料 Work Material	铝合金延伸材·镁合金 Aluminum Alloy Expanding Material·Magnesium Alloy A5052·A7075·AZ91·AZ80A		铝合金铸件 Aluminum Alloy Casting AC4C·ADC		铜合金 Copper Alloy C1100	
	悬伸量 L/D	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)
槽铣 Slot Milling	5	70%	70%	70%	70%	70%	70%
	6	50%	50%	50%	50%	50%	50%
侧铣 Side Milling	5	70%	70%	70%	70%	70%	70%
	6	50%	50%	50%	50%	50%	50%
钻削加工 Plunging	5	80%	80%	80%	80%	80%	80%
	6	60%	60%	60%	60%	60%	60%