

EMM *Epoch Micro Mill*

Ultra Small Diameter End Mill

2-Flute Square End Mill for Micro Rib Applications

D0.03mm ~ D0.5mm
• For Materials $\leq 69\text{HRC}$
• l_n up to $3.5 \times D$

0.5mm



MICRO EPOCH

Micro Grain Carbide End Mills · Nano PVD Coated

μm

EMM | Epoch Micro End Mill

V max
High Speed

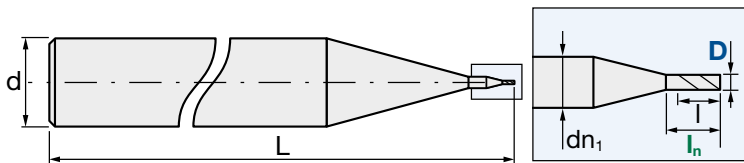
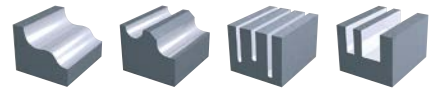
▽▽
Semi Finishing

▽▽▽
Finishing

HRC
69

▮
Rib. Miniature

No. of Teeth
2



Carbide
Micro Grain

TH45+
Nano-PVD Coating

Rake Angle
Positive

D Tol. [mm]	d Tol.
D 0.03~D 0.1: +/-0.002	h4
D 0.2~D 0.5: 0/-0.007	

ID Code	Item Code	Z	D	ln	l	dn1	L	d
MM014	EMM-20003TH	2	0.03	0.105	0.045	0.5	40	4
MM015	EMM-20004TH		0.04	0.12	0.06			
MM016	EMM-20005TH		0.05	0.15	0.075			
MM017	EMM-20006TH		0.06	0.17	0.09			
MM019	EMM-20008TH		0.08	0.21	0.12			
MM021	EMM-20010TH		0.10	0.26	0.15			
MM033	EMM-20020TH		0.20	0.60	0.30	0.625		
MM034	EMM-20030TH		0.30	0.75	0.45	0.75		
MM035	EMM-20040TH		0.40	0.90	0.60	0.875		
MM036	EMM-20050TH		0.50	1.05	0.75	1		

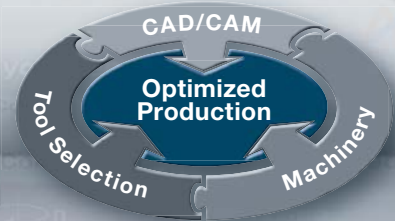


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Function Buttons
Funktions-Schaltflächen

QuickFinder Help:
Details of tools etc.
QuickFinder Hilfe:
Werkzeugdetails usw.

Filtering by contour shape
Gefiltert nach Bearbeitungs-Kontur

Additional search parameters
Zusätzliche Parameter-Suche

Selected product
Ausgewähltes Produkt

ID code	Item code	Z	ØD	ØH	CH	Ln	s	I	Ødn	L	Ød	Grade	Inserts1	Inserts2	Inserts3
EP697	ETMP-4040-40-10	4	4	1	40	1	10	6		90	8				
EP370	ETMP-4050-12	4	5	1.2	15			10		70	6				
EP598	ETMP-4050-30-12	4	5	1.2	30	1	7.5	90	6						
EP599	ETMP-4050-40-12	4	5	1.2	40	1	7.5	100	8						
EP600	ETMP-4050-50-12	4	5	1.2	50	1	7.5	110	8						
EP371	ETMP-4050-15	4	6	1.5				12		90	6				
EP379	ETMLN-4050-30-15	4	6	1.5	30		9	5.7	75	6					
EP380	ETMLN-4050-42-15	4	6	1.5	42		9	5.7	90	6					
EP381	ETMLN-4050-54-15	4	6	1.5	54		9	5.7	100	6					
EP601	ETMP-4050-40-15	4	6	1.5	40	1	9	100	9						
EP602	ETMP-4050-55-15	4	6	1.5	55	1	9	110	8						
EP603	ETMP-4050-67-15	4	6	1.5	67	1	9	125	8						
EP372	ETMP-4050-20	4	8	2			16	100	8						
EP382	ETMLN-4050-40-20	4	8	2	40		12	7.6	85	8					
EP383	ETMLN-4050-58-20	4	8	2	58		12	7.6	100	8					
EP384	ETMLN-4080-72-20	4	8	2	72		12	7.6	120	8					
EP373	ETMP-4100-20	4	10	2			20			110	10				

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Attentions on Safety

1. Cautions regarding handling

- (1) When removing the tool from its case (packaging), be careful that the tool does not pop out or is dropped. Be particularly careful regarding contact with the tool flutes.
- (2) When handling tools with sharp cutting flutes, be careful not to touch the cutting flutes directly with your bare hands.

2. Cautions regarding mounting

- (1) Before use, check the outside appearance of the tool for scratches, cracks, etc. and that it is firmly mounted in the collet chuck, etc.
- (2) When preparing for use, be sure that the inserts are firmly mounted in place and that they are firmly mounted on the arbor, etc.
- (3) If abnormal chattering, etc. occurs during use, stop the machine immediately and remove the cause of the chattering.

3. Cautions during use

- (1) Before use, confirm the dimensions and direction of rotation of the tool and milling work material.
- (2) The numerical values in the standard cutting conditions table should be used as criteria when starting new work. The cutting conditions should be adjusted as appropriate when the cutting depth is large, the rigidity of the machine being used is low, or according to the conditions of the work material.
- (3) Cutting tools are made of a hard material. During use, they may break and fly off. In addition, cutting chips may also fly off. Since there is a danger of injury to workers, fire, or eye damage from such flying pieces, a safety cover should be attached when work is performed and safety equipment such as safety goggles should be worn to create a safe environment for work.
- (4) There is a risk of fire or inflammation due to sparks, heat due to breakage, and cutting chips. Do not use where there is a risk of fire or explosion. Please caution of fire while using oil base coolant, fire prevention is necessary.
- (5) Do not use the tool for any purpose other than that for which it is intended.

4. Cautions regarding regrinding

- (1) If regrinding is not performed at the proper time, there is a risk of the tool breaking. Replace the tool with one in good condition, or perform regrinding.
- (2) Grinding dust will be created when regrinding a tool. When regrinding, be sure to attach a safety cover over the work area and wear safety clothes such as safety goggles, etc.
- (3) This product contains the specified chemical substance cobalt and its inorganic compounds. When performing regrinding or similar processing, be sure to handle the processing in accordance with the local laws and regulations regarding prevention of hazards due to specified chemical substances.

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Specifications for the products listed in this catalog are subject to change without notice due to replacement or modification.

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