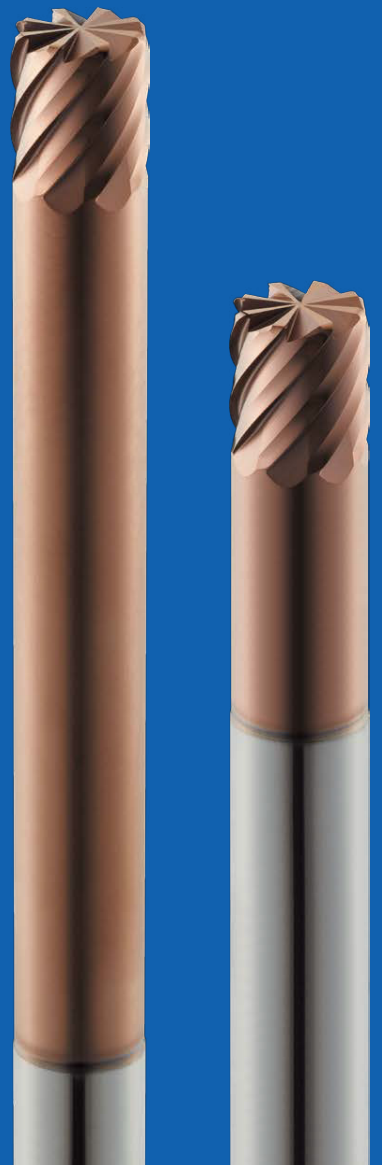


Epoch Wall Bottom 8-Flute

EPWB8-ATH

Radius End Mill for Vertical Wall/Bottom Face Finishing



MOLDINO Tool Engineering Europe GmbH

EPWB8-ATH | 2026-04 | Version 1.0 | PDF

The Zenith of Milling for Vertical Wall and Bottom Face Finishing with a single tool.

Features of EPWB8-ATH

01

Peripheral cutting edge design tailored for vertical wall milling, allows milling as intended with minimal deflection, reducing re-machining and re-working steps.

02

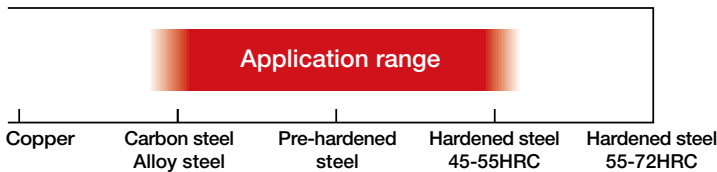
Incorporates MOLDINO's own corner radius edges to achieve high-quality bottom face milling.

Line-up: 48 items

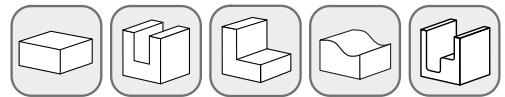
DC: 6–12 mm



Recommended usage

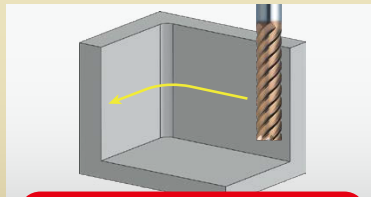


Application



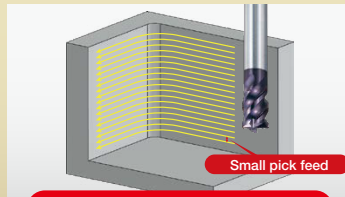
Task

1 Using long-flute end mills for vertical walls of molds reduces accuracy and generates the need for time-consuming remachining and reworking.



Task: Vertical wall machining accuracy

2 Reducing pick feed when contour milling achieves machining accuracy for vertical walls but increases machining time.

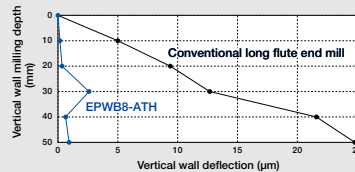
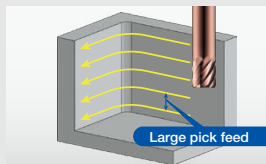


Task: Machining time

Proposal

Using the EPWB8-ATH reduces re-working such as zero cutting and correction, making unattended machining more practical.

The EPWB8-ATH allows contour milling with larger pick feed.



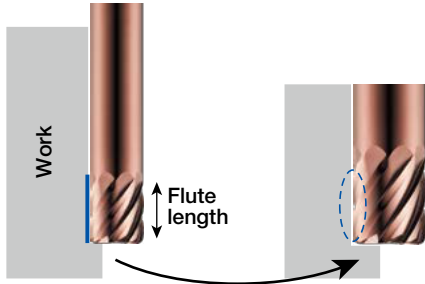
Work material: STAVAX (52HRC) | Machine: Vertical MC | Coolant: Air blow | Projection: 60 mm (L/D=5)

Conventional long-flute end mill
Cutting tool: DC 12 mm | Flute length 55 mm | 6 flutes
n 530 min⁻¹ | V_c 20m/min | V_f 93 mm/min | f_t 0.03 mm/t
a_p 50 mm a_e 0.05 mm

EPWB8-ATH
Cutting tool: DC 12 mm | Flute length 13 mm | 8 flutes
n 1,326 min⁻¹ | V_c 50m/min | V_f 636 mm/min | f_t 0.06 mm/t | a_p 6 mm | a_e 0.05 mm

Feature 01 Peripheral cutting edge design tailored for vertical wall milling

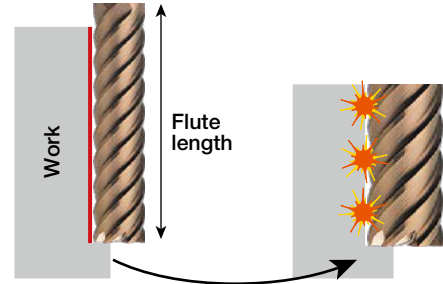
Vertical wall finishing using EPWB8-ATH



Solution

- Short flute gives high rigidity => **Minimizes deflection**
- Tool design with few contact points => **Minimizes vibration**

Vertical wall finishing with conventional long-flute end mill



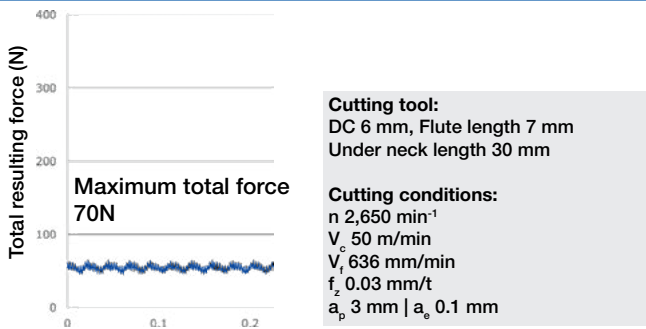
Task

- Extended projection length (flute length) => **Deflection**
- Multiple contact points => **Increased vibration**

Comparison of cutting force

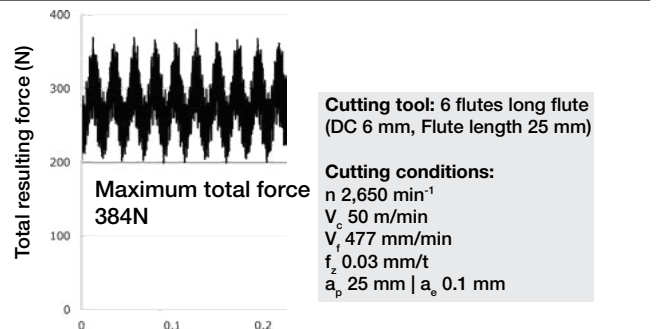
Work material: SKD61 (48HRC) | Machine: Vertical MC (BT40) | Coolant: Air blow | Projection: 30 mm (L/D=5)

EPWB8-ATH



Reduced cutting force and vibration

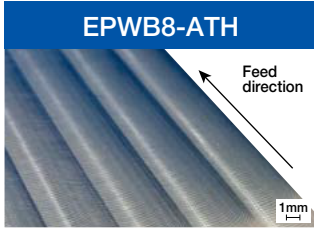
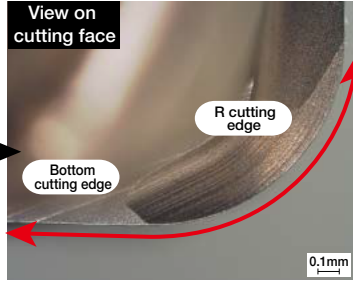
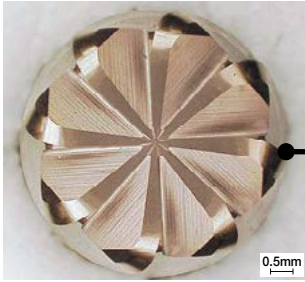
Conventional long flute end mill



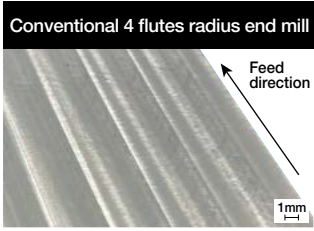
Large cutting force, resulting in vibration

This is the Point The unique design reducing cutting force and vibration allows milling as intended with minimal deflection.

Feature **02** MOLDINO's own corner radius cutting edge design



Shiny appearance with uniform cutter marks.

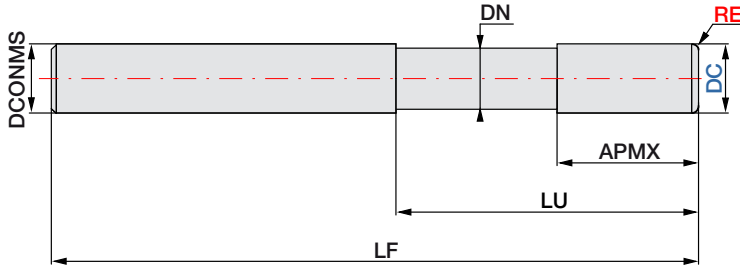
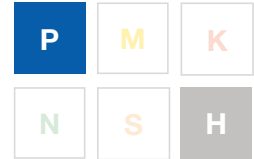


Milled surface appears cloudy with uneven cutter marks.

Smooth interface between bottom and radius cutting edges ensures high-quality bottom face milling.

Work material: S50C | **Machine:** Vertical MC (BT40)
Coolant: Air blow | **Projection:** 60 mm (L/D=5)
Cutting tool (DC 12 mm):
 • Conventional 4 flutes radius end mill
 • MOLDINO EPWB8-ATH
Cutting conditions:
 n 5,310 min⁻¹ | V_c 200 m/min | f_z 0.06 mm/t | a_p 0.05 mm | a_e 6 mm

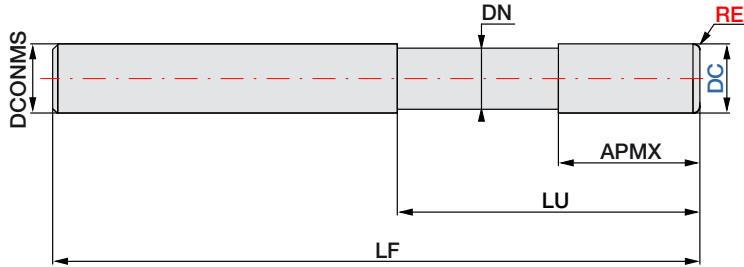
EPWB8-ATH Line-Up



Helix Angle	DC Tol. (mm)	DCONMS Tol.
38°	DC 6: 0/-0.015	h5
	DC 8-12: 0/-0.02	

ID Code	Item Code	NOF	Size (mm)						
			DC	RE	APMX	LU	DN	LF	DCONMS
EP2794	EPWB8060-20-02-ATH	6	6	0.2	7	7	5.88	58	6
EP2797	EPWB8060-20-05-ATH			0.5					
EP2800	EPWB8060-20-10-ATH			1					
EP2803	EPWB8060-30-02-ATH			0.2					
EP2795	EPWB8060-30-05-ATH			0.5					
EP2798	EPWB8060-30-10-ATH			1					
EP2801	EPWB8060-40-02-ATH			0.2					
EP2804	EPWB8060-40-05-ATH			0.5					
EP2796	EPWB8060-40-10-ATH			1					
EP2799	EPWB8060-50-02-ATH			0.2					
EP2802	EPWB8060-50-05-ATH			0.5					
EP2805	EPWB8060-50-10-ATH			1					
EP2806	EPWB8080-30-02-ATH	8	8	0.2	9	9	7.84	68	8
EP2809	EPWB8080-30-05-ATH			0.5					
EP2811	EPWB8080-30-10-ATH			1					
EP2814	EPWB8080-40-02-ATH			0.2					
EP2807	EPWB8080-40-05-ATH			0.5					
EP2810	EPWB8080-40-10-ATH			1					
EP2812	EPWB8080-50-02-ATH			0.2					
EP2815	EPWB8080-50-05-ATH			0.5					
EP2808	EPWB8080-50-10-ATH			1					
EP2889	EPWB8080-60-02-ATH			0.2					
EP2813	EPWB8080-60-05-ATH			0.5					
EP2816	EPWB8080-60-10-ATH			1					
EP2817	EPWB8100-35-02-ATH	10	10	0.2	11	11	9.8	77	10
EP2820	EPWB8100-35-05-ATH			0.5					
EP2823	EPWB8100-35-10-ATH			1					
EP2826	EPWB8100-50-02-ATH			0.2					
EP2818	EPWB8100-50-05-ATH			0.5					
EP2821	EPWB8100-50-10-ATH			1					
EP2824	EPWB8100-60-02-ATH			0.2					
EP2827	EPWB8100-60-05-ATH			0.5					
EP2819	EPWB8100-60-10-ATH			1					
EP2822	EPWB8100-80-02-ATH			0.2					
EP2825	EPWB8100-80-05-ATH			0.5					
EP2828	EPWB8100-80-10-ATH			1					

EPWB8-ATH Line-Up

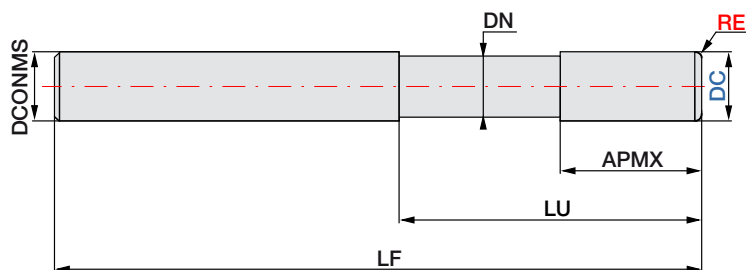


Helix Angle	DC Tol. (mm)	DCONMS Tol.
38°	DC 6: 0/-0.015	h5
	DC 8-12: 0/-0.02	

ID Code	Item Code	NOF	Size (mm)							
			DC	RE	APMX	LU	DN	LF	DCONMS	
EP2829	EPWB8120-40-02-ATH	8	12	0.2	13		40	11.8	87	12
EP2832	EPWB8120-40-05-ATH			0.5						
EP2835	EPWB8120-40-10-ATH			1						
EP2838	EPWB8120-60-02-ATH			0.2			60		107	
EP2830	EPWB8120-60-05-ATH			0.5						
EP2833	EPWB8120-60-10-ATH			1						
EP2836	EPWB8120-80-02-ATH			0.2			80		127	
EP2839	EPWB8120-80-05-ATH			0.5						
EP2831	EPWB8120-80-10-ATH			1						
EP2834	EPWB8120-100-02-ATH			0.2			100		147	
EP2837	EPWB8120-100-05-ATH			0.5						
EP2840	EPWB8120-100-10-ATH			1						

EPWB8-ATH General technical information

ISO 513 Symbol	Description	Examples
P	Non-alloy steel, low alloy steel, high alloy steel, ferritic/martensitic stainless steel, tool steel	1.2343 / X38CrMoV5-1; 1.2738 / 40CrMnNiMo8; 1.0503 / C45; 1.0570 / ST52-3; 1.1730 / C45W; 1.7131 / 16MnCr5; 1.7225 / 42CrMo4; 1.3343 / HS6-5-2; 1.0511 / C40; 1.2312 / 40CrMnMoS8-6; 1.2311 / 40CrMnMo7; 1.2344 / X40CrMoV5-1; 1.2767 / X45NiCrMo4; 1.2083 / X42Cr13; 1.2085 / X33CrS16; 1.2714 / 55NiCrMoV7; 1.2842 / 90MnCrV8;
M	Austenitic stainless steel	1.4301 / X5CrNi18-9; 1.4401 / X5CrNiMo17-12-2; 1.4404 / X2CrNiMo17-13-2; 1.4828 / X15CrNiSi20 12
K	Grey cast iron (GG), nodular cast iron (GGG), malleable cast iron	0.6025 / GG-25; GGG-40.3; 0.8155 / GTS-55-04
N	Aluminum wrought all, copper alloy, aluminum-cast, alloyed, non-metallic	2.0060 / E-Cu57; 2.0321 / CuZn37; 3.0255 / Al99.5; 3.5103 / MgSE3Zn27r1
S	High temperature alloys, titanium and Ti alloys	1.4864 / X12NiCrSi36 16; 2.4856 / NiCr22Mo9Nb; 1.4977 / X40CoCrNi20 20; 2.4669 / NiCr15Fe7TiAl
H	Hardened steel, chilled cast iron, cast iron	



Drawing Nomenclature	
DC	Diameter Cutting
RE	Radius Edge
APMX	Cutting Edge Length
DCONMS	Connection Diameter Machine Side
DN	Neck Diameter
LU	Usable Length
LF	Functional Length

 **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.

The diagrams and table data are examples of test results and are not guaranteed values.

For more details please check our digital tool database



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