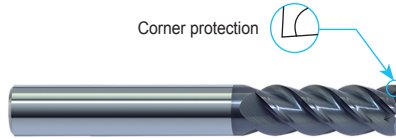


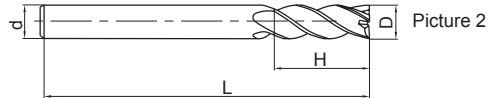
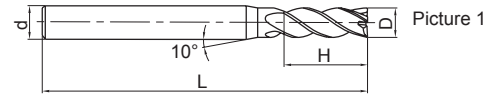
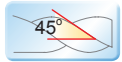
4-flute flattened end mills with straight shank



PM-4E



- Very suitable for side milling and shallow slot machining.
- Wide application.



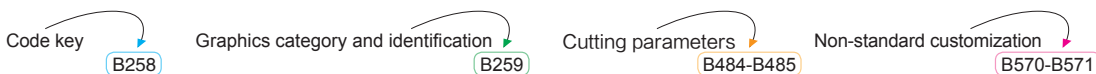
Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
PM-4E-D1.0F	1.0	3	3	50	4	Picture 1	○
PM-4E-D1.0S	1.0	4	3	50	4	Picture 1	○
PM-4E-D1.0	1.0	6	3	50	4	Picture 1	○
PM-4E-D1.5F	1.5	3	4	50	4	Picture 1	○
PM-4E-D1.5S	1.5	4	4	50	4	Picture 1	○
PM-4E-D1.5	1.5	6	4	50	4	Picture 1	○
PM-4E-D2.0F	2.0	3	6	50	4	Picture 1	○
PM-4E-D2.0S	2.0	4	6	50	4	Picture 1	○
PM-4E-D2.0	2.0	6	6	50	4	Picture 1	○
PM-4E-D2.5F	2.5	3	8	50	4	Picture 1	○
PM-4E-D2.5S	2.5	4	8	50	4	Picture 1	○
PM-4E-D2.5	2.5	6	8	50	4	Picture 1	○
PM-4E-D3.0F	3.0	3	8	50	4	Picture 2	○
PM-4E-D3.0S	3.0	4	8	50	4	Picture 1	○
PM-4E-D3.0	3.0	6	8	50	4	Picture 1	○
PM-4E-D3.5S	3.5	4	10	50	4	Picture 1	○
PM-4E-D4.0S	4.0	4	11	50	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools  
Solid carbide end mills  
PM series

Applicable workpiece material table ●Very suitable ○Suitable

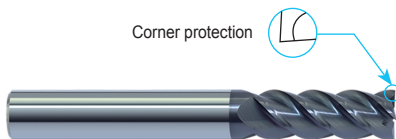
Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel、Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○	○	○	○	○	○	○	○	



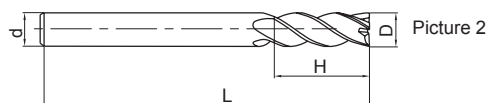
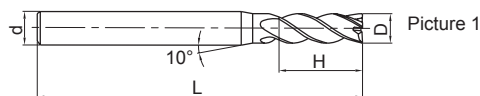
### 4-flute flattened end mills with straight shank



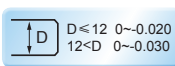
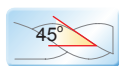
#### PM-4E



Corner protection



- Very suitable for side milling and shallow slot machining.
- Wide application.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
PM-4E-D3.5	3.5	6	10	50	4	Picture 1	○
PM-4E-D4.0	4.0	6	11	50	4	Picture 1	○
PM-4E-D4.5	4.5	6	11	50	4	Picture 1	○
PM-4E-D5.0	5.0	6	13	50	4	Picture 1	○
PM-4E-D5.5	5.5	6	16	50	4	Picture 1	○
PM-4E-D6.0	6.0	6	16	50	4	Picture 2	○
PM-4E-D7.0	7.0	8	20	60	4	Picture 1	○
PM-4E-D8.0	8.0	8	20	60	4	Picture 2	○
PM-4E-D9.0	9.0	10	22	75	4	Picture 1	○
PM-4E-D10.0	10.0	10	25	75	4	Picture 2	○
PM-4E-D11.0	11.0	12	26	75	4	Picture 1	○
PM-4E-D12.0	12.0	12	30	75	4	Picture 2	○
PM-4E-D14.0	14.0	14	32	75	4	Picture 2	○
PM-4E-D16.0	16.0	16	45	100	4	Picture 2	○
PM-4E-D18.0	18.0	18	45	100	4	Picture 2	○
PM-4E-D20.0	20.0	20	45	100	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

PM series

### Applicable workpiece material table

Workpiece material

Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○	○	○	○			○	○	

Code key

B258

Graphics category and identification

B259

Cutting parameters

B484-B485

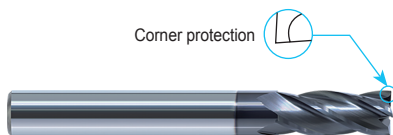
Non-standard customization

B570-B571

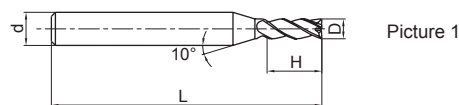
### 4-flute flattened end mills with straight shank



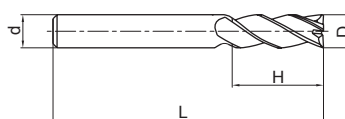
#### PM-4E-G



Corner protection

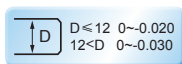
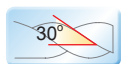


Picture 1



Picture 2

- Very suitable for side milling.
- Wide application.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
PM-4E-D1.0F-G	1.0	3	3	50	4	Picture 1	○
PM-4E-D1.0S-G	1.0	4	3	50	4	Picture 1	●
PM-4E-D1.0-G	1.0	6	3	50	4	Picture 1	●
PM-4E-D1.5F-G	1.5	3	4	50	4	Picture 1	○
PM-4E-D1.5S-G	1.5	4	4	50	4	Picture 1	●
PM-4E-D1.5-G	1.5	6	4	50	4	Picture 1	●
PM-4E-D2.0F-G	2.0	3	6	50	4	Picture 1	○
PM-4E-D2.0S-G	2.0	4	6	50	4	Picture 1	●
PM-4E-D2.0-G	2.0	6	6	50	4	Picture 1	●
PM-4E-D2.5F-G	2.5	3	8	50	4	Picture 1	○
PM-4E-D2.5S-G	2.5	4	8	50	4	Picture 1	●
PM-4E-D2.5-G	2.5	6	8	50	4	Picture 1	●
PM-4E-D3.0F-G	3.0	3	8	50	4	Picture 2	○
PM-4E-D3.0S-G	3.0	4	8	50	4	Picture 1	●
PM-4E-D3.0-G	3.0	6	8	50	4	Picture 1	●
PM-4E-D3.5S-G	3.5	4	10	50	4	Picture 1	○
PM-4E-D3.5-G	3.5	6	10	50	4	Picture 1	●
PM-4E-D4.0S-G	4.0	4	11	50	4	Picture 2	●
PM-4E-D4.0-G	4.0	6	11	50	4	Picture 1	●
PM-4E-D4.5-G	4.5	6	11	50	4	Picture 1	●
PM-4E-D5.0-G	5.0	6	13	50	4	Picture 1	●

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

PM series

### Applicable workpiece material table ● Very suitable ○ Suitable

Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○	○	○	○	○	○	○	○	

Code key

B258

Graphics category and identification

B259

Cutting parameters

B479-B480

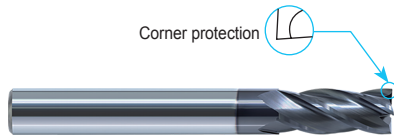
Non-standard customization

B570-B571

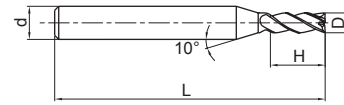
### 4-flute flattened end mills with straight shank



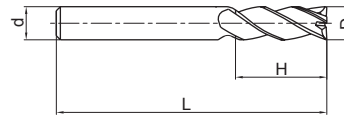
#### PM-4E-G



Corner protection

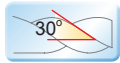


Picture 1



Picture 2

- Very suitable for side milling.
- Wide application.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
PM-4E-D5.5-G	5.5	6	16	50	4	Picture 1	●
PM-4E-D6.0-G	6.0	6	16	50	4	Picture 2	●
PM-4E-D7.0-G	7.0	8	20	60	4	Picture 1	●
PM-4E-D8.0-G	8.0	8	20	60	4	Picture 2	●
PM-4E-D9.0-G	9.0	10	22	75	4	Picture 1	●
PM-4E-D10.0-G	10.0	10	25	75	4	Picture 2	●
PM-4E-D10.0-G	10.0	10	25	75	4	Picture 2	●
PM-4E-D11.0-G	11.0	12	26	75	4	Picture 1	●
PM-4E-D12.0-G	12.0	12	30	75	4	Picture 2	●
PM-4E-D14.0-G	14.0	14	32	75	4	Picture 2	●
PM-4E-D16.0-G	16.0	16	45	100	4	Picture 2	●
PM-4E-D18.0-G	18.0	18	45	100	4	Picture 2	●
PM-4E-D20.0-G	20.0	20	45	100	4	Picture 2	●

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

PM series

### Applicable workpiece material table

● Very suitable ○ Suitable

Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○	○	○	○	○	○	○	○	

Code key

B258

Graphics category and identification

B259

Cutting parameters

B479-B480

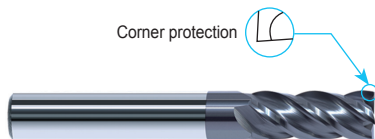
Non-standard customization

B570-B571

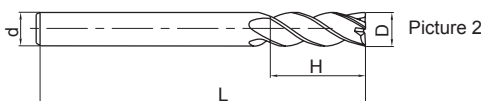
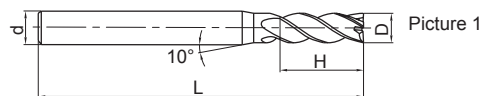
### 4-flute flattened end mills with straight shank



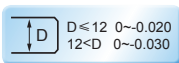
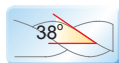
#### PM-4E-H



Corner protection



- Most suitable for slot milling.
- Wide application.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
PM-4E-D3.0S-H	3.0	4	8	50	4	Picture 1	○
PM-4E-D3.0-H	3.0	6	8	50	4	Picture 1	○
PM-4E-D3.5-H	3.5	6	10	50	4	Picture 1	○
PM-4E-D4.0S-H	4.0	4	11	50	4	Picture 2	○
PM-4E-D4.0-H	4.0	6	11	50	4	Picture 1	○
PM-4E-D4.5-H	4.5	6	11	50	4	Picture 1	○
PM-4E-D5.0-H	5.0	6	13	50	4	Picture 1	○
PM-4E-D5.5-H	5.5	6	16	50	4	Picture 1	○
PM-4E-D6.0-H	6.0	6	16	50	4	Picture 2	○
PM-4E-D7.0-H	7.0	8	20	60	4	Picture 1	○
PM-4E-D8.0-H	8.0	8	20	60	4	Picture 2	○
PM-4E-D9.0-H	9.0	10	22	75	4	Picture 1	○
PM-4E-D10.0-H	10.0	10	25	75	4	Picture 2	○
PM-4E-D11.0-H	11.0	12	26	75	4	Picture 1	○
PM-4E-D12.0-H	12.0	12	30	75	4	Picture 2	○
PM-4E-D14.0-H	14.0	14	32	75	4	Picture 2	○
PM-4E-D16.0-H	16.0	16	45	100	4	Picture 2	○
PM-4E-D18.0-H	18.0	18	45	100	4	Picture 2	○
PM-4E-D20.0-H	20.0	20	45	100	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

PM series

### Applicable workpiece material table ○ Very suitable ○ Suitable

Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○	○	○	○	○	○	○	○	

Code key

B258

Graphics category and identification

B259

Cutting parameters

B479-B480

Non-standard customization

B570-B571