

GM

series general end mills

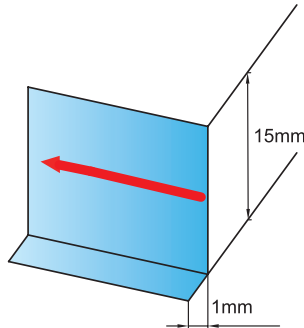
Wide application High efficiency machining can be achieved ranging from common steel to pre-hardened steel machining.

Optimized structure Appropriate combination of sharp cutting edge and tool strength makes cutting easier and faster, extending tool life.

Versatile product series Suitable for rough machining with high metal removal rate to finish machining with high surface quality.

Complete diameter range Minimum diameter of 0.3mm for machining of the smallest parts.

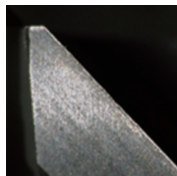
Tool type: GM-4E-D10.0
 Dimensions: Ø10.0mm
 Workpiece material: NAK80(40HRC)
 Rotating speed: 3200r/min (100m/min)
 Feed rate: 640mm/min(0.2mm/r)
 Axial cutting depth: $a_p=15\text{mm}$
 Radial cutting depth: $a_e=1.0\text{mm}$
 Cutting style: side milling (down milling)
 Cooling system: air blow
 Machine tool: MIKRON UCP 1000



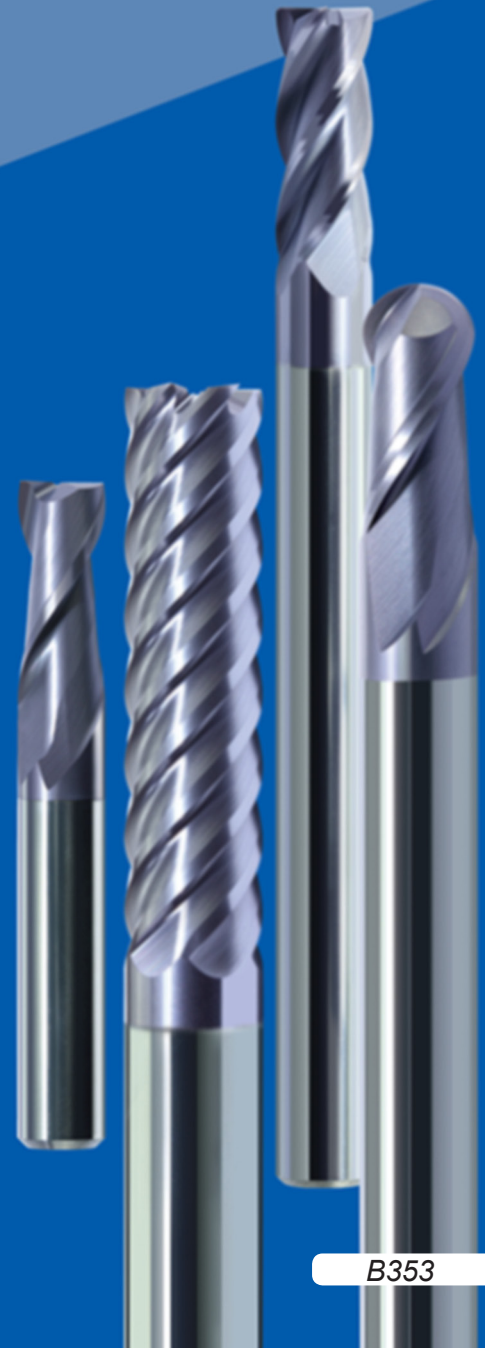
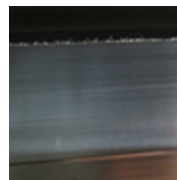
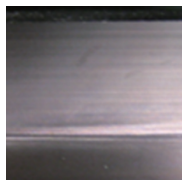
Cutting edge abrasion and workpiece surface quality

End mill	GM-4E-D10.0	Similar product of company A	Similar product of company B
Cutting length	60m	20m	60m

Cutting edge abrasion



Workpiece surface quality

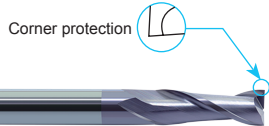


Excellent performance, super cost-effective!

The series are further completed specification, which better meet various machining needs.

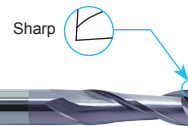
Flattened end mills series with sharp corner or corner protection

GM-2E(Corner protection)



GM-□E

GM-2F(Sharp)



GM-□F

4-flute unequal helical angle flattened end mills (30° or 45° helical angle end mills for various work conditions and machined materials)



GM-4E-G



GM-4E

Super short flutes and long neck series (provide various kinds neck length end mills for cavity, straight slot etc. work conditions)



GM-□EFP



GM-2BFP

Super long flutes series (Only one step for high side wall machining, without cutting steps mark)



GM-2EX



GM-4EX-G

3-flute flattened end mills (3-flute flattened end mills with excellent vibration resistance, which are available to realize slotting, side milling etc. various machining processing.)



GM-3E



GM-3EL

Long shank series (suitable for deep cavity machining)



GM-2EBL/X

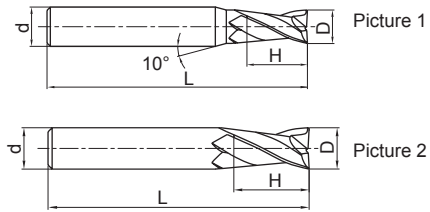
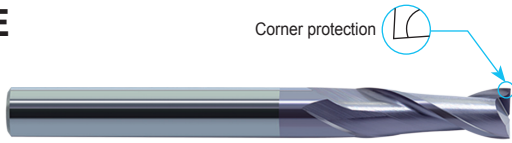


GM-4EBL/X

2-flute flattened end mills with straight shank



GM-2E



- Very suitable for slot milling.
- Wide application.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-2E-D1.0F	1.0	3	3	50	2	Picture 1	○
GM-2E-D1.0S	1.0	4	3	50	2	Picture 1	●
GM-2E-D1.0	1.0	6	3	50	2	Picture 1	●
GM-2E-D1.5F	1.5	3	4	50	2	Picture 1	○
GM-2E-D1.5S	1.5	4	4	50	2	Picture 1	●
GM-2E-D1.5	1.5	6	4	50	2	Picture 1	●
GM-2E-D2.0F	2.0	3	6	50	2	Picture 1	○
GM-2E-D2.0S	2.0	4	6	50	2	Picture 1	●
GM-2E-D2.0	2.0	6	6	50	2	Picture 1	●
GM-2E-D2.5S	2.5	4	8	50	2	Picture 1	●
GM-2E-D2.5	2.5	6	8	50	2	Picture 1	●
GM-2E-D3.0F	3.0	3	8	50	2	Picture 2	○
GM-2E-D3.0S	3.0	4	8	50	2	Picture 1	●
GM-2E-D3.0	3.0	6	8	50	2	Picture 1	●
GM-2E-D3.5S	3.5	4	10	50	2	Picture 1	○
GM-2E-D3.5	3.5	6	10	50	2	Picture 1	●
GM-2E-D4.0S	4.0	4	11	50	2	Picture 2	●
GM-2E-D4.0	4.0	6	11	50	2	Picture 1	●
GM-2E-D4.5	4.5	6	11	50	2	Picture 1	●
GM-2E-D5.0	5.0	6	13	50	2	Picture 1	●
GM-2E-D5.5	5.5	6	16	50	2	Picture 1	●
GM-2E-D6.0	6.0	6	16	50	2	Picture 2	●
GM-2E-D7.0	7.0	8	20	60	2	Picture 1	●
GM-2E-D8.0	8.0	8	20	60	2	Picture 2	●
GM-2E-D9.0	9.0	10	22	75	2	Picture 1	●
GM-2E-D10.0	10.0	10	25	75	2	Picture 2	●
GM-2E-D11.0	11.0	12	26	75	2	Picture 1	●
GM-2E-D12.0	12.0	12	30	75	2	Picture 2	●
GM-2E-D14.0	14.0	14	32	75	2	Picture 2	●
GM-2E-D16.0	16.0	16	45	100	2	Picture 2	●
GM-2E-D18.0	18.0	18	45	100	2	Picture 2	●
GM-2E-D20.0	20.0	20	45	100	2	Picture 2	●

● Stock available ○ Make-to-order

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						
○	○	○	○	○	○	○	○				



Indexable milling tools
Solid carbide end mills
GM series



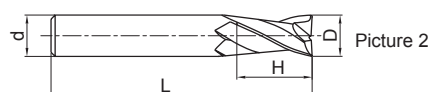
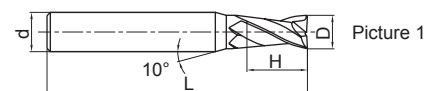
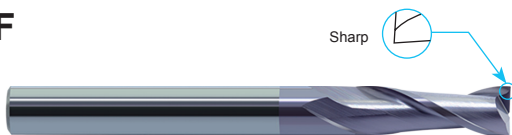
MILLING Solid Carbide End Mills

GM series for general machining

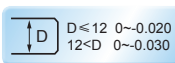
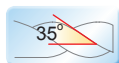
2-flute flattened end mills with straight shank



GM-2F



- Slot milling.
- Wide application.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-2F-D1.0S	1.0	4	3	50	2	Picture 1	○
GM-2F-D1.0	1.0	6	3	50	2	Picture 1	○
GM-2F-D1.5S	1.5	4	4	50	2	Picture 1	○
GM-2F-D1.5	1.5	6	4	50	2	Picture 1	○
GM-2F-D2.0S	2.0	4	6	50	2	Picture 1	○
GM-2F-D2.0	2.0	6	6	50	2	Picture 1	○
GM-2F-D2.5S	2.5	4	8	50	2	Picture 1	○
GM-2F-D2.5	2.5	6	8	50	2	Picture 1	○
GM-2F-D3.0S	3.0	4	8	50	2	Picture 1	○
GM-2F-D3.0	3.0	6	8	50	2	Picture 1	○
GM-2F-D3.5	3.5	6	10	50	2	Picture 1	○
GM-2F-D4.0S	4.0	4	11	50	2	Picture 2	○
GM-2F-D4.0	4.0	6	11	50	2	Picture 1	○
GM-2F-D4.5	4.5	6	11	50	2	Picture 1	○
GM-2F-D5.0	5.0	6	13	50	2	Picture 1	○
GM-2F-D5.5	5.5	6	16	50	2	Picture 1	○
GM-2F-D6.0	6.0	6	16	50	2	Picture 2	○
GM-2F-D7.0	7.0	8	20	60	2	Picture 1	○
GM-2F-D8.0	8.0	8	20	60	2	Picture 2	○
GM-2F-D9.0	9.0	10	22	75	2	Picture 1	○
GM-2F-D10.0	10.0	10	25	75	2	Picture 2	○
GM-2F-D11.0	11.0	12	26	75	2	Picture 1	○
GM-2F-D12.0	12.0	12	30	75	2	Picture 2	○
GM-2F-D14.0	14.0	14	32	75	2	Picture 2	○
GM-2F-D16.0	16.0	16	45	100	2	Picture 2	○
GM-2F-D18.0	18.0	18	45	100	2	Picture 2	○
GM-2F-D20.0	20.0	20	45	100	2	Picture 2	○

● Stock available ○ Make-to-order

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

B501

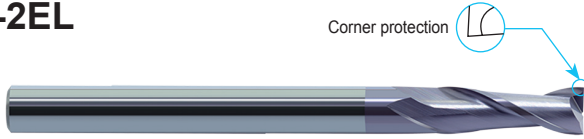
Non-standard customization

B570-B571

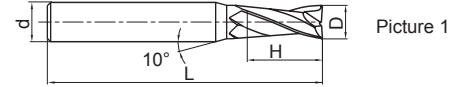
2-flute flattened end mills with straight shank and long cutting edge



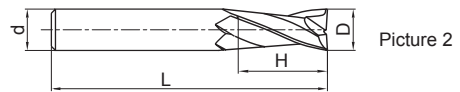
GM-2EL



Corner protection

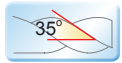


Picture 1



Picture 2

● GM-2E series with long cutting edge.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-2EL-D3.0	3.0	6	12	75	2	Picture 1	●
GM-2EL-D4.0	4.0	6	15	75	2	Picture 1	●
GM-2EL-D5.0	5.0	6	20	75	2	Picture 1	●
GM-2EL-D6.0	6.0	6	20	75	2	Picture 2	●
GM-2EL-D8.0	8.0	8	25	100	2	Picture 2	●
GM-2EL-D10.0	10.0	10	30	100	2	Picture 2	●
GM-2EL-D12.0	12.0	12	35	100	2	Picture 2	●
GM-2EL-D14.0	14.0	14	40	100	2	Picture 2	●
GM-2EL-D16.0	16.0	16	50	150	2	Picture 2	●
GM-2EL-D20.0	20.0	20	55	150	2	Picture 2	●

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○		○	○					

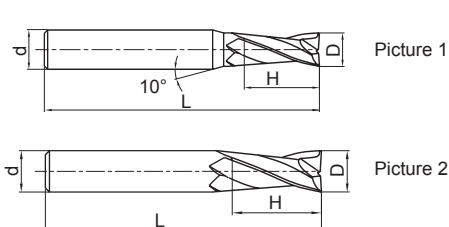
Code key **B258** Graphics category and identification **B259** Cutting parameters **B500** Non-standard customization **B570-B571**

GM series for general machining

2-flute flattened end mills with straight shank and long cutting edge



GM-2FL



● GM-2F series with long cutting edge.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-2FL-D3.0	3.0	6	12	75	2	Picture 1	○
GM-2FL-D4.0	4.0	6	15	75	2	Picture 1	○
GM-2FL-D5.0	5.0	6	20	75	2	Picture 1	○
GM-2FL-D6.0	6.0	6	20	75	2	Picture 2	○
GM-2FL-D8.0	8.0	8	25	100	2	Picture 2	○
GM-2FL-D10.0	10.0	10	30	100	2	Picture 2	○
GM-2FL-D12.0	12.0	12	35	100	2	Picture 2	○
GM-2FL-D14.0	14.0	14	40	100	2	Picture 2	○
GM-2FL-D16.0	16.0	16	50	150	2	Picture 2	○
GM-2FL-D20.0	20.0	20	55	150	2	Picture 2	○

● Stock available ○ Make-to-order

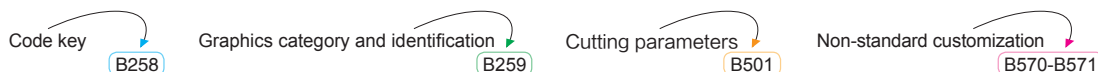
Indexable milling tools

Solid carbide end mills

GM 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						
○	○	○	○		○	○					

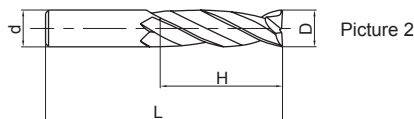
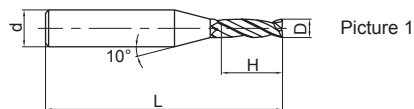


GM series for general machining

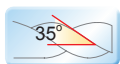
2-flute flattened end mills with straight shank and extra long cutting edge



GM-2EX



- Extra long cutting edge, for deep side wall machining.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-2EX-D3.0	3.0	6	20	75	2	Picture 1	○
GM-2EX-D4.0	4.0	6	25	75	2	Picture 1	○
GM-2EX-D5.0	5.0	6	30	75	2	Picture 1	○
GM-2EX-D6.0	6.0	6	30	75	2	Picture 2	○
GM-2EX-D8.0	8.0	8	40	100	2	Picture 2	○
GM-2EX-D10.0	10.0	10	50	110	2	Picture 2	○
GM-2EX-D12.0	12.0	12	50	110	2	Picture 2	○
GM-2EX-D16.0	16.0	16	70	150	2	Picture 2	○
GM-2EX-D20.0	20.0	20	75	150	2	Picture 2	○

● Stock available ○ Make-to-order

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 **B502** Non-standard customization **B570-B571**

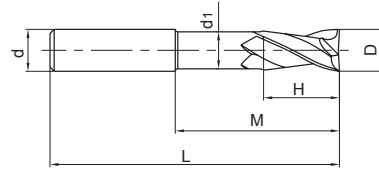
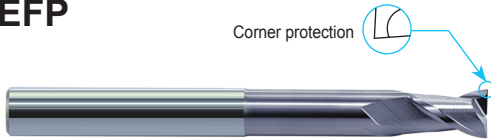
Indexable milling tools
Solid carbide end mills
GM series

GM series for general machining

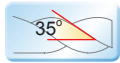
2-flute flattened end mills with straight shank, long neck and short cutting edge



GM-2EFP



● High-rigidity short cutting edge, suitable for heavy cutting and also deep cavity milling.



Type	Basic dimension(mm)						Number of teeth Z	Stock
	D	d	H	M	d ₁	L		
GM-2EFP-D6.0	6.0	6	9	30	5.8	75	2	○
GM-2EFP-D8.0	8.0	8	12	40	7.8	100	2	○
GM-2EFP-D10.0	10.0	10	15	50	9.6	100	2	○
GM-2EFP-D12.0	12.0	12	18	50	11.5	100	2	○
GM-2EFP-D16.0	16.0	16	24	50	15.5	150	2	○
GM-2EFP-D20.0	20.0	20	30	60	19.5	150	2	○

● Stock available ○ Make-to-order

Indexable
milling tools

Solid carbide
end mills

GM 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

B503

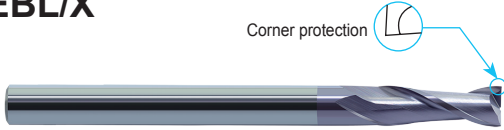
Non-standard customization

B570-B571

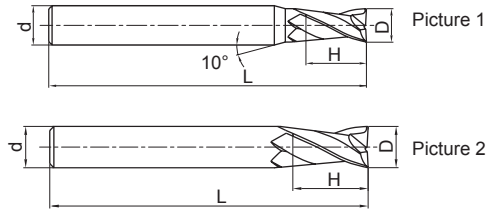
2-flute flattened end mills with long shank



GM-2EBL/X



Corner protection



● GM-2E series with long shank.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-2EBL-D3.0S	3.0	4	8	75	2	Picture 1	○
GM-2EBL-D3.0	3.0	6	8	75	2	Picture 1	○
GM-2EBL-D4.0S	4.0	4	11	75	2	Picture 2	○
GM-2EBL-D4.0	4.0	6	11	75	2	Picture 1	○
GM-2EBL-D6.0	6.0	6	16	75	2	Picture 2	○
GM-2EBX-D6.0	6.0	6	16	100	2	Picture 2	○
GM-2EBL-D8.0	8.0	8	20	75	2	Picture 2	○
GM-2EBX-D8.0	8.0	8	20	100	2	Picture 2	○
GM-2EBL-D10.0	10.0	10	25	100	2	Picture 2	○
GM-2EBX-D10.0	10.0	10	25	150	2	Picture 2	○
GM-2EBL-D12.0	12.0	12	30	100	2	Picture 2	○
GM-2EBX-D12.0	12.0	12	30	150	2	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○		○	○					

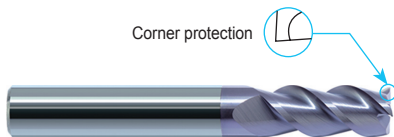


GM series for general machining

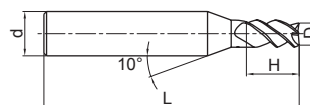
3-flute flattened end mills with straight shank



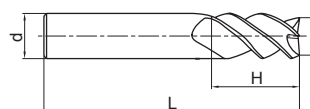
GM-3E



Corner protection

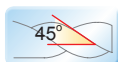


Picture 1



Picture 2

● Excellent vibration resistance, able to achieve various machining operations such as slot milling, side milling, drilling, etc.



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

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B504

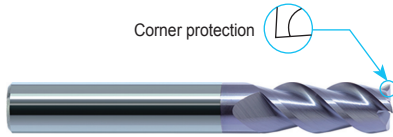
Non-standard customization

B570-B571

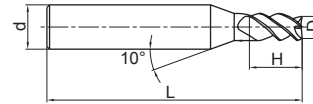
3-flute flattened end mills with straight shank



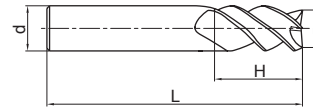
GM-3E



Corner protection

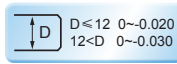
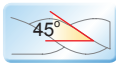


Picture 1



Picture 2

● Excellent vibration resistance, able to achieve various machining operations such as slot milling, side milling, drilling, etc.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-3E-D5.5	5.5	6	16	50	3	Picture 1	○
GM-3E-D6.0	6.0	6	16	50	3	Picture 2	○
GM-3E-D7.0	7.0	8	20	60	3	Picture 1	○
GM-3E-D8.0	8.0	8	20	60	3	Picture 2	○
GM-3E-D9.0	9.0	10	22	75	3	Picture 1	○
GM-3E-D10.0	10.0	10	25	75	3	Picture 2	○
GM-3E-D11.0	11.0	12	26	75	3	Picture 1	○
GM-3E-D12.0	12.0	12	30	75	3	Picture 2	○
GM-3E-D14.0	14.0	14	32	75	3	Picture 2	○
GM-3E-D16.0	16.0	16	45	100	3	Picture 2	○
GM-3E-D18.0	18.0	18	45	100	3	Picture 2	○
GM-3E-D20.0	20.0	20	45	100	3	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○			○	○				

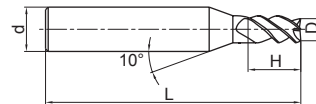
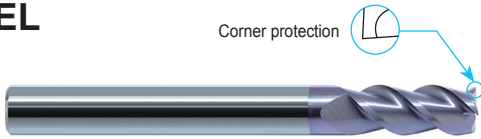


GM series for general machining

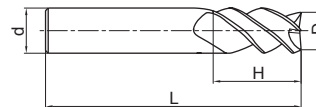
3-flute flattened end mills with straight shank and long cutting edge



GM-3EL

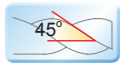


Picture 1



Picture 2

● GM-3E series with long cutting edge.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-3EL-D3.0	3.0	6	12	75	3	Picture 1	○
GM-3EL-D4.0	4.0	6	15	75	3	Picture 1	○
GM-3EL-D5.0	5.0	6	20	75	3	Picture 1	○
GM-3EL-D6.0	6.0	6	20	75	3	Picture 2	○
GM-3EL-D8.0	8.0	8	25	100	3	Picture 2	○
GM-3EL-D10.0	10.0	10	30	100	3	Picture 2	○
GM-3EL-D12.0	12.0	12	35	100	3	Picture 2	○
GM-3EL-D14.0	14.0	14	40	100	3	Picture 2	○
GM-3EL-D16.0	16.0	16	50	150	3	Picture 2	○
GM-3EL-D20.0	20.0	20	55	150	3	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B504

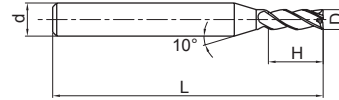
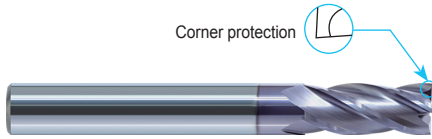
Non-standard customization

B570-B571

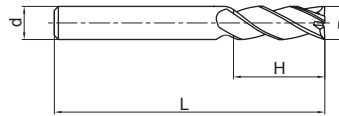
4-flute flattened end mills with straight shank



GM-4E-G

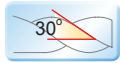


Picture 1



Picture 2

- Very suitable for side milling.
- Wide application.



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

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○	○	○	○	○				

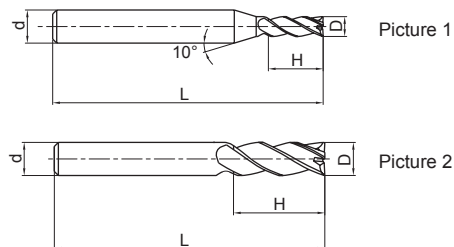
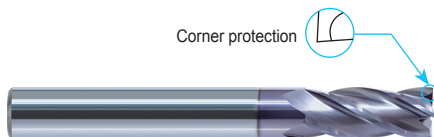


GM series for general machining

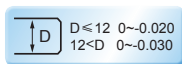
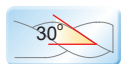
4-flute flattened end mills with straight shank



GM-4E-G



- Very suitable for side milling.
- Wide application.



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

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B505

Non-standard customization

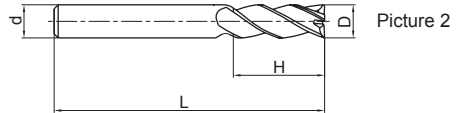
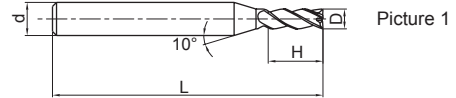
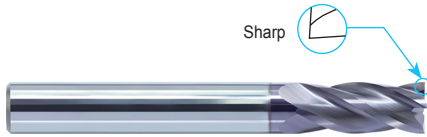
B570-B571

GM series for general machining

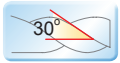
4-flute unequal pitch flattened end mill with straight shank



GM-4F-G



- Very suitable for side milling.
- Wide application.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4F-D1.0S-G	1.0	4	3	50	4	Picture 1	○
GM-4F-D1.0-G	1.0	6	3	50	4	Picture 1	○
GM-4F-D1.5S-G	1.5	4	4	50	4	Picture 1	○
GM-4F-D1.5-G	1.5	6	4	50	4	Picture 1	○
GM-4F-D2.0S-G	2.0	4	6	50	4	Picture 1	○
GM-4F-D2.0-G	2.0	6	6	50	4	Picture 1	○
GM-4F-D2.5S-G	2.5	4	8	50	4	Picture 1	○
GM-4F-D2.5-G	2.5	6	8	50	4	Picture 1	○
GM-4F-D3.0S-G	3.0	4	8	50	4	Picture 1	○
GM-4F-D3.0-G	3.0	6	8	50	4	Picture 1	○
GM-4F-D3.5-G	3.5	6	10	50	4	Picture 1	○
GM-4F-D4.0S-G	4.0	4	11	50	4	Picture 2	○
GM-4F-D4.0-G	4.0	6	11	50	4	Picture 1	○
GM-4F-D4.5-G	4.5	6	11	50	4	Picture 1	○
GM-4F-D5.0-G	5.0	6	13	50	4	Picture 1	○
GM-4F-D5.5-G	5.5	6	16	50	4	Picture 1	○
GM-4F-D6.0-G	6.0	6	16	50	4	Picture 2	○
GM-4F-D7.0-G	7.0	8	20	60	4	Picture 1	○
GM-4F-D8.0-G	8.0	8	20	60	4	Picture 2	○
GM-4F-D9.0-G	9.0	10	22	75	4	Picture 1	○
GM-4F-D10.0-G	10.0	10	25	75	4	Picture 2	○
GM-4F-D11.0-G	11.0	12	26	75	4	Picture 1	○
GM-4F-D12.0-G	12.0	12	30	75	4	Picture 2	○
GM-4F-D14.0-G	14.0	14	32	75	4	Picture 2	○
GM-4F-D16.0-G	16.0	16	45	100	4	Picture 2	○
GM-4F-D18.0-G	18.0	18	45	100	4	Picture 2	○
GM-4F-D20.0-G	20.0	20	45	100	4	Picture 2	○

● Stock available ○ Make-to-order

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 **B506** Non-standard customization **B570-B571**

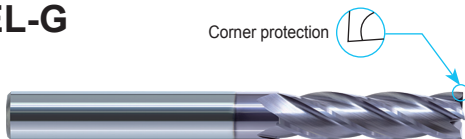
Indexable milling tools
Solid carbide end mills
GM series

GM series for general machining

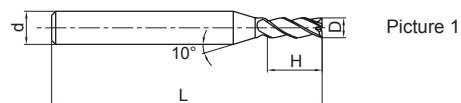
4-flute flattened end mills with straight shank and long cutting edge



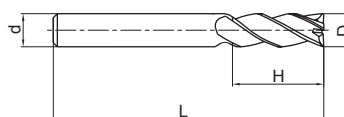
GM-4EL-G



Corner protection

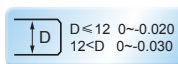
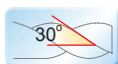


Picture 1



Picture 2

● GM-4E-G series with long cutting edge.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4EL-D3.0-G	3.0	6	12	75	4	Picture 1	○
GM-4EL-D4.0-G	4.0	6	15	75	4	Picture 1	○
GM-4EL-D5.0-G	5.0	6	20	75	4	Picture 1	○
GM-4EL-D6.0-G	6.0	6	20	75	4	Picture 2	○
GM-4EL-D8.0-G	8.0	8	25	100	4	Picture 2	○
GM-4EL-D10.0-G	10.0	10	30	100	4	Picture 2	○
GM-4EL-D12.0-G	12.0	12	35	100	4	Picture 2	○
GM-4EL-D14.0-G	14.0	14	40	100	4	Picture 2	○
GM-4EL-D16.0-G	16.0	16	50	150	4	Picture 2	○
GM-4EL-D20.0-G	20.0	20	55	150	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B505

Non-standard customization

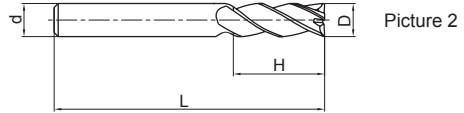
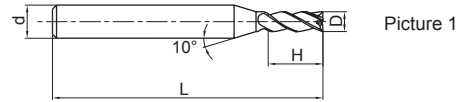
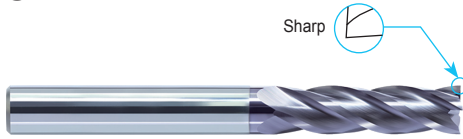
B570-B571

GM series for general machining

4-flute flattened end mills with straight shank and long cutting edge



GM-4FL-G



● GM-4FL-G series with long cutting edge.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4FL-D3.0-G	3.0	6	12	75	4	Picture 1	○
GM-4FL-D4.0-G	4.0	6	15	75	4	Picture 1	○
GM-4FL-D5.0-G	5.0	6	20	75	4	Picture 1	○
GM-4FL-D6.0-G	6.0	6	20	75	4	Picture 2	○
GM-4FL-D8.0-G	8.0	8	25	100	4	Picture 2	○
GM-4FL-D10.0-G	10.0	10	30	100	4	Picture 2	○
GM-4FL-D12.0-G	12.0	12	35	100	4	Picture 2	○
GM-4FL-D14.0-G	14.0	14	40	100	4	Picture 2	○
GM-4FL-D16.0-G	16.0	16	50	150	4	Picture 2	○
GM-4FL-D20.0-G	20.0	20	55	150	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○		○	○					

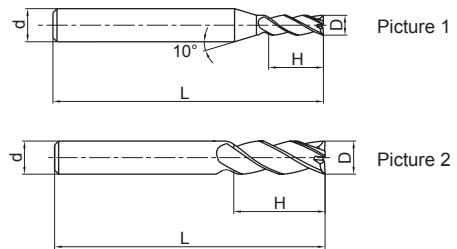
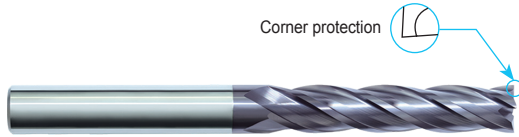


GM series for general machining

4-flute flattened end mills with straight shank and extra long cutting edge



GM-4EX-G



- Extra long cutting edge, for deep side wall machining.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4EX-D3.0-G	3.0	6	20	75	4	Picture 1	○
GM-4EX-D4.0-G	4.0	6	25	75	4	Picture 1	○
GM-4EX-D5.0-G	5.0	6	30	75	4	Picture 1	○
GM-4EX-D6.0-G	6.0	6	30	75	4	Picture 2	○
GM-4EX-D8.0-G	8.0	8	40	100	4	Picture 2	○
GM-4EX-D10.0-G	10.0	10	50	110	4	Picture 2	○
GM-4EX-D12.0-G	12.0	12	50	110	4	Picture 2	○
GM-4EX-D16.0-G	16.0	16	70	150	4	Picture 2	○
GM-4EX-D20.0-G	20.0	20	75	150	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM series

Applicable workpiece material table ○Very suitable ○Suitable

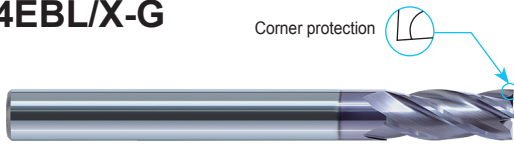
Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○			○	○				



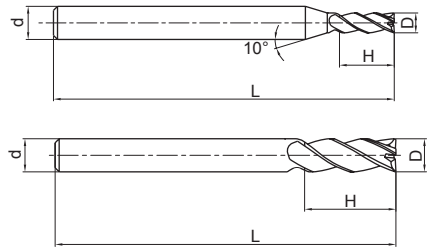
4-flute flattened end mills with long shank



GM-4EBL/X-G



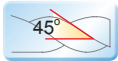
Corner protection



Picture 1

Picture 2

● GM-4E-G series with long shank.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4EBL-D3.0S-G	3.0	4	8	75	4	Picture 1	○
GM-4EBL-D3.0-G	3.0	6	8	75	4	Picture 1	○
GM-4EBL-D4.0S-G	4.0	4	11	75	4	Picture 2	○
GM-4EBL-D4.0-G	4.0	6	11	75	4	Picture 1	○
GM-4EBL-D6.0-G	6.0	6	16	75	4	Picture 2	○
GM-4EBX-D6.0-G	6.0	6	16	100	4	Picture 2	○
GM-4EBL-D8.0-G	8.0	8	24	75	4	Picture 2	○
GM-4EBX-D8.0-G	8.0	8	24	100	4	Picture 2	○
GM-4EBL-D10.0-G	10.0	10	30	100	4	Picture 2	○
GM-4EBX-D10.0-G	10.0	10	30	150	4	Picture 2	○
GM-4EBL-D12.0-G	12.0	12	36	100	4	Picture 2	○
GM-4EBX-D12.0-G	12.0	12	36	150	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM series

Applicable workpiece material table ● Very suitable ○ Suitable

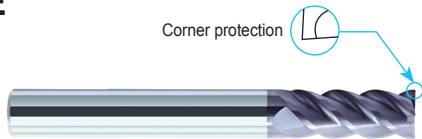
Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○		○	○					



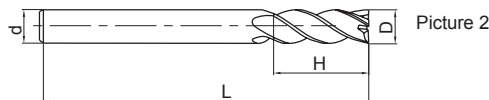
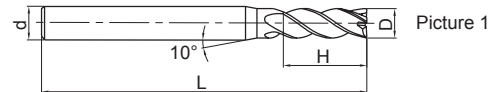
4-flute flattened end mills with straight shank



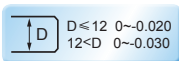
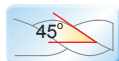
GM-4E



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			
GM-4E-D1.0F	1.0	3	3	50	4	Picture 1	○
GM-4E-D1.0S	1.0	4	3	50	4	Picture 1	●
GM-4E-D1.0	1.0	6	3	50	4	Picture 1	●
GM-4E-D1.5F	1.5	3	4	50	4	Picture 1	○
GM-4E-D1.5S	1.5	4	4	50	4	Picture 1	●
GM-4E-D1.5	1.5	6	4	50	4	Picture 1	●
GM-4E-D2.0F	2.0	3	6	50	4	Picture 1	○
GM-4E-D2.0S	2.0	4	6	50	4	Picture 1	●
GM-4E-D2.0	2.0	6	6	50	4	Picture 1	●
GM-4E-D2.5F	2.5	3	8	50	4	Picture 1	○
GM-4E-D2.5S	2.5	4	8	50	4	Picture 1	●
GM-4E-D2.5	2.5	6	8	50	4	Picture 1	●
GM-4E-D3.0F	3.0	3	8	50	4	Picture 2	○
GM-4E-D3.0S	3.0	4	8	50	4	Picture 1	●
GM-4E-D3.0	3.0	6	8	50	4	Picture 1	●
GM-4E-D3.5S	3.5	4	10	50	4	Picture 1	○
GM-4E-D3.5	3.5	6	10	50	4	Picture 1	●
GM-4E-D4.0S	4.0	4	11	50	4	Picture 2	●
GM-4E-D4.0	4.0	6	11	50	4	Picture 1	●
GM-4E-D4.5	4.5	6	11	50	4	Picture 1	●
GM-4E-D5.0	5.0	6	13	50	4	Picture 1	●

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B508

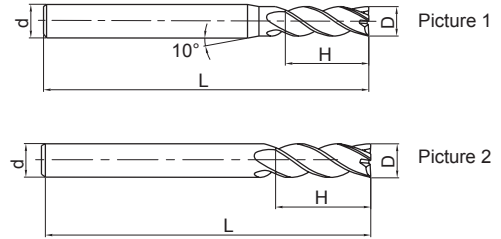
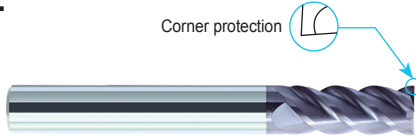
Non-standard customization

B570-B571

4-flute flattened end mills with straight shank



GM-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			
GM-4E-D5.5	5.5	6	16	50	4	Picture 1	●
GM-4E-D6.0	6.0	6	16	50	4	Picture 2	●
GM-4E-D7.0	7.0	8	20	60	4	Picture 1	●
GM-4E-D8.0	8.0	8	20	60	4	Picture 2	●
GM-4E-D9.0	9.0	10	22	75	4	Picture 1	●
GM-4E-D10.0	10.0	10	25	75	4	Picture 2	●
GM-4E-D11.0	11.0	12	26	75	4	Picture 1	●
GM-4E-D12.0	12.0	12	30	75	4	Picture 2	●
GM-4E-D14.0	14.0	14	32	75	4	Picture 2	●
GM-4E-D16.0	16.0	16	45	100	4	Picture 2	●
GM-4E-D18.0	18.0	18	45	100	4	Picture 2	●
GM-4E-D20.0	20.0	20	45	100	4	Picture 2	●

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○		○	○					

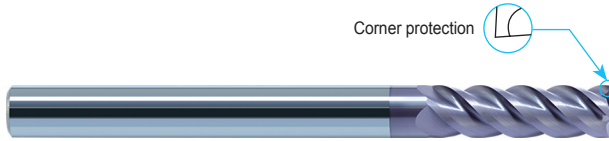


GM series for general machining

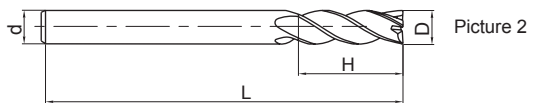
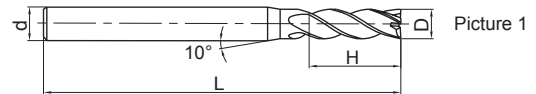
4-flute flattened end mills with straight shank and long cutting edge



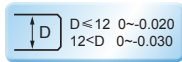
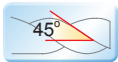
GM-4EL



Corner protection



● GM-4E series with long cutting edge.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4EL-D3.0	3.0	6	12	75	4	Picture 1	●
GM-4EL-D4.0	4.0	6	15	75	4	Picture 1	●
GM-4EL-D5.0	5.0	6	20	75	4	Picture 1	●
GM-4EL-D6.0	6.0	6	20	75	4	Picture 2	●
GM-4EL-D8.0	8.0	8	25	100	4	Picture 2	●
GM-4EL-D10.0	10.0	10	30	100	4	Picture 2	●
GM-4EL-D12.0	12.0	12	35	100	4	Picture 2	●
GM-4EL-D14.0	14.0	14	40	100	4	Picture 2	●
GM-4EL-D16.0	16.0	16	50	150	4	Picture 2	●
GM-4EL-D20.0	20.0	20	55	150	4	Picture 2	●

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B508

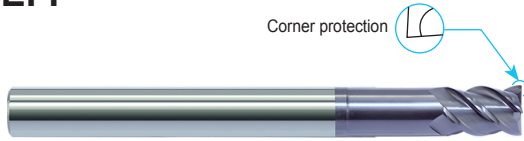
Non-standard customization

B570-B571

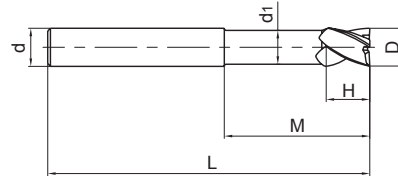
4-flute flattened end mills with straight shank, long neck and short cutting edge



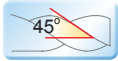
GM-4EFP



Corner protection



● High-rigidity short cutting edge, suitable for heavy cutting and also deep cavity milling.



Type	Basic dimension(mm)						Number of teeth Z	Stock
	D	d	H	M	d ₁	L		
GM-4EFP-D6.0	6.0	6	9	30	5.8	75	4	○
GM-4EFP-D8.0	8.0	8	12	40	7.8	100	4	○
GM-4EFP-D10.0	10.0	10	15	50	9.6	100	4	○
GM-4EFP-D12.0	12.0	12	18	50	11.5	100	4	○
GM-4EFP-D16.0	16.0	16	24	50	15.5	150	4	○
GM-4EFP-D20.0	20.0	20	30	60	19.5	150	4	○

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM series

Applicable workpiece material table ● Very suitable ○ Suitable

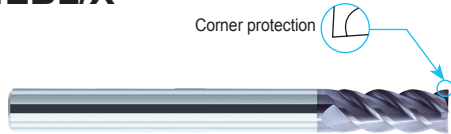
Workpiece material											
Carbon steel	Alloy steel	Pre-hardened steel, Hardened steel				Stainless steel	Cast iron, Nodular cast iron	Copper alloy	Aluminum alloy	Titanium alloy	Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○		○	○					



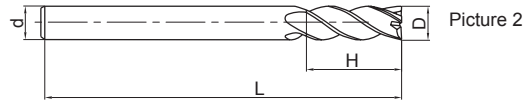
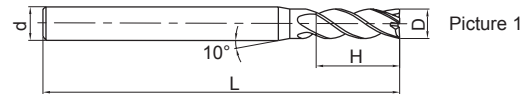
4-flute flattened end mills with long shank



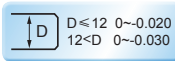
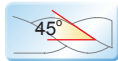
GM-4EBL/X



Corner protection



● GM-4E series with long shank.



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4EBL-D3.0S	3.0	4	8	75	4	Picture 1	○
GM-4EBL-D3.0	3.0	6	8	75	4	Picture 1	○
GM-4EBL-D4.0S	4.0	4	11	75	4	Picture 2	○
GM-4EBL-D4.0	4.0	6	11	75	4	Picture 1	○
GM-4EBL-D6.0	6.0	6	16	75	4	Picture 2	○
GM-4EBX-D6.0	6.0	6	16	100	4	Picture 2	○
GM-4EBL-D8.0	8.0	8	24	75	4	Picture 2	○
GM-4EBX-D8.0	8.0	8	24	100	4	Picture 2	○
GM-4EBL-D10.0	10.0	10	30	100	4	Picture 2	○
GM-4EBX-D10.0	10.0	10	30	150	4	Picture 2	○
GM-4EBL-D12.0	12.0	12	36	100	4	Picture 2	○
GM-4EBX-D12.0	12.0	12	36	150	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B508

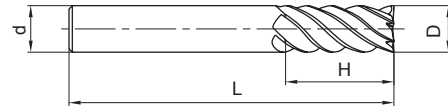
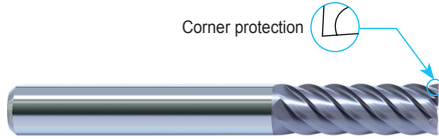
Non-standard customization

B570-B571

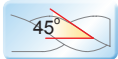
6-flute flattened end mills with straight shank



GM-6E



- Perfect rigidity, very suitable for side finish machining.
- High speed, high feed rate machining applicable.



Type	Basic dimension(mm)				Number of teeth Z	Stock
	D	d	H	L		
GM-6E-D6.0	6.0	6	18	60	6	●
GM-6E-D8.0	8.0	8	20	60	6	●
GM-6E-D10.0	10.0	10	30	75	6	●
GM-6E-D12.0	12.0	12	32	75	6	●
GM-6E-D16.0	16.0	16	40	100	6	●
GM-6E-D20.0	20.0	20	45	100	6	●

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM series

Applicable workpiece material ○ 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						
○	○	○	○		○	○					

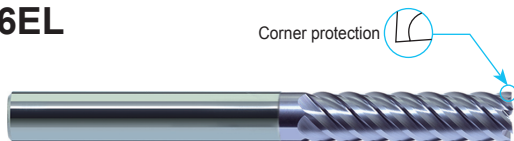


GM series for general machining

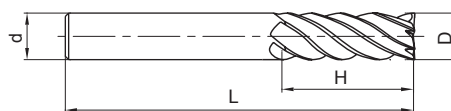
6-flute flattened end mills with straight shank and long cutting edge



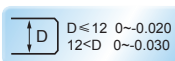
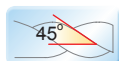
GM-6EL



Corner protection



● GM-6E series with long cutting edge.



Type	Basic dimension(mm)				Number of teeth Z	Stock
	D	d	H	L		
GM-6EL-D6.0	6.0	6	24	75	6	●
GM-6EL-D8.0	8.0	8	32	75	6	●
GM-6EL-D10.0	10.0	10	40	100	6	●
GM-6EL-D12.0	12.0	12	45	100	6	●
GM-6EL-D16.0	16.0	16	64	150	6	●
GM-6EL-D20.0	20.0	20	75	150	6	●

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B511

Non-standard customization

B570-B571

2-flute flattened end mills with straight shank, long neck and short cutting edge

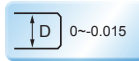
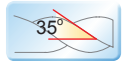
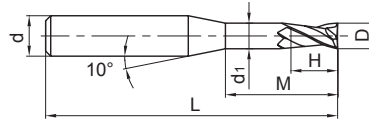


Deep flattened slot

GM-2EP



● Suitable for narrow slot milling or milling of fine parts that could generate interference.



Type	Basic dimension(mm)						Number of teeth Z	Stock
	D	d	H	M	d ₁	L		
GM-2EP-D0.3-M02	0.3	4	0.4	2	0.25	50	2	●
GM-2EP-D0.3-M04	0.3	4	0.4	4	0.25	50	2	●
GM-2EP-D0.4-M02	0.4	4	0.6	2	0.35	50	2	●
GM-2EP-D0.4-M04	0.4	4	0.6	4	0.35	50	2	●
GM-2EP-D0.5-M04	0.5	4	0.7	4	0.45	50	2	●
GM-2EP-D0.5-M06	0.5	4	0.7	6	0.45	50	2	●
GM-2EP-D0.5-M08	0.5	4	0.7	8	0.45	50	2	●
GM-2EP-D0.6-M04	0.6	4	0.9	4	0.55	50	2	●
GM-2EP-D0.6-M06	0.6	4	0.9	6	0.55	50	2	●
GM-2EP-D0.7-M04	0.7	4	1.0	4	0.65	50	2	●
GM-2EP-D0.7-M06	0.7	4	1.0	6	0.65	50	2	●
GM-2EP-D0.7-M08	0.7	4	1.0	8	0.65	50	2	●
GM-2EP-D0.8-M04	0.8	4	1.2	4	0.75	50	2	●
GM-2EP-D0.8-M06	0.8	4	1.2	6	0.75	50	2	●
GM-2EP-D0.8-M08	0.8	4	1.2	8	0.75	50	2	●
GM-2EP-D0.8-M10	0.8	4	1.2	10	0.75	50	2	●
GM-2EP-D1.0-M04	1.0	4	1.5	4	0.95	50	2	●
GM-2EP-D1.0-M06	1.0	4	1.5	6	0.95	50	2	●
GM-2EP-D1.0-M08	1.0	4	1.5	8	0.95	50	2	●
GM-2EP-D1.0-M10	1.0	4	1.5	10	0.95	50	2	●
GM-2EP-D1.0-M12	1.0	4	1.5	12	0.95	50	2	●
GM-2EP-D1.0-M14	1.0	4	1.5	14	0.95	50	2	●
GM-2EP-D1.2-M06	1.2	4	1.8	6	1.15	50	2	●
GM-2EP-D1.2-M08	1.2	4	1.8	8	1.15	50	2	●
GM-2EP-D1.2-M10	1.2	4	1.8	10	1.15	50	2	●
GM-2EP-D1.2-M12	1.2	4	1.8	12	1.15	50	2	●
GM-2EP-D1.5-M06	1.5	4	2.3	6	1.45	50	2	●
GM-2EP-D1.5-M08	1.5	4	2.3	8	1.45	50	2	●

● Stock available ○ Make-to-order

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 **B512-B513** Non-standard customization **B570-B571**

Indexable milling tools
Solid carbide end mills
GM series



B MILLING / Solid Carbide End Mills

GM series for general machining

2-flute flattened end mills with straight shank, long neck and short cutting edge

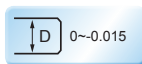
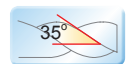
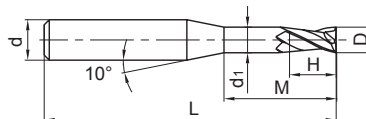


Deep flattened slot

GM-2EP



● Suitable for narrow slot milling or milling of fine parts that could generate interference.



Indexable milling tools
Solid carbide end mills
GM series

Type	Basic dimension(mm)						Number of teeth Z	Stock
	D	d	H	M	d1	L		
GM-2EP-D1.5-M10	1.5	4	2.3	10	1.45	50	2	●
GM-2EP-D1.5-M12	1.5	4	2.3	12	1.45	50	2	●
GM-2EP-D1.5-M14	1.5	4	2.3	14	1.45	50	2	●
GM-2EP-D2.0-M06	2.0	4	3.0	6	1.95	50	2	●
GM-2EP-D2.0-M08	2.0	4	3.0	8	1.95	50	2	●
GM-2EP-D2.0-M10	2.0	4	3.0	10	1.95	50	2	●
GM-2EP-D2.0-M12	2.0	4	3.0	12	1.95	50	2	●
GM-2EP-D2.0-M14	2.0	4	3.0	14	1.95	50	2	●
GM-2EP-D2.0-M16	2.0	4	3.0	16	1.95	50	2	●
GM-2EP-D2.5-M08	2.5	4	3.7	8	2.4	50	2	●
GM-2EP-D2.5-M10	2.5	4	3.7	10	2.4	50	2	●
GM-2EP-D2.5-M12	2.5	4	3.7	12	2.4	50	2	●
GM-2EP-D2.5-M14	2.5	4	3.7	14	2.4	50	2	●
GM-2EP-D2.5-M16	2.5	4	3.7	16	2.4	60	2	●
GM-2EP-D2.5-M18	2.5	4	3.7	18	2.4	60	2	●
GM-2EP-D2.5-M20	2.5	4	3.7	20	2.4	60	2	●
GM-2EP-D3.0-M06	3.0	6	4.5	6	2.85	50	2	●
GM-2EP-D3.0-M08	3.0	6	4.5	8	2.85	50	2	●
GM-2EP-D3.0-M10	3.0	6	4.5	10	2.85	50	2	●
GM-2EP-D3.0-M12	3.0	6	4.5	12	2.85	50	2	●
GM-2EP-D3.0-M14	3.0	6	4.5	14	2.85	60	2	●
GM-2EP-D3.0-M16	3.0	6	4.5	16	2.85	60	2	●
GM-2EP-D3.0-M18	3.0	6	4.5	18	2.85	60	2	●
GM-2EP-D3.0-M20	3.0	6	4.5	20	2.85	60	2	●
GM-2EP-D4.0-M12	4.0	6	6.0	12	3.85	50	2	●
GM-2EP-D4.0-M16	4.0	6	6.0	16	3.85	60	2	●
GM-2EP-D4.0-M20	4.0	6	6.0	20	3.85	60	2	●
GM-2EP-D4.0-M25	4.0	6	6.0	25	3.85	60	2	●
GM-2EP-D5.0-M16	5.0	6	7.5	16	4.85	60	2	●
GM-2EP-D5.0-M25	5.0	6	7.5	25	4.85	70	2	●

➤ Applicable workpiece material table ● Very suitable ○ Suitable

● Stock available ○ Make-to-order

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

B512-B513

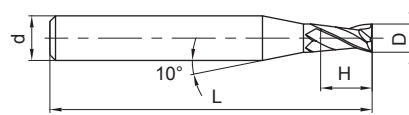
Non-standard customization

B570-B571

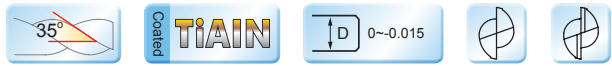
2-flute flattened end mills with straight shank and tiny diameter



GM-2ES



Tiny diameter end mills can fully display high speed and high precision performances of machining center, often used for machining of precision components such as electronic part etc.



Type	Basic dimension(mm)				Number of teeth Z	Stock
	D	d	H	L		
GM-2ES-D0.3	0.3	4	0.6	50	2	●
GM-2ES-D0.4	0.4	4	0.8	50	2	●
GM-2ES-D0.5	0.5	4	1.0	50	2	●
GM-2ES-D0.6	0.6	4	1.2	50	2	●
GM-2ES-D0.7	0.7	4	1.4	50	2	●
GM-2ES-D0.8	0.8	4	1.6	50	2	●
GM-2ES-D0.9	0.9	4	1.8	50	2	●
GM-2ES-D1.0	1.0	4	2.0	50	2	●
GM-2ES-D1.1	1.1	4	2.0	50	2	●
GM-2ES-D1.2	1.2	4	2.5	50	2	●
GM-2ES-D1.3	1.3	4	2.5	50	2	●
GM-2ES-D1.4	1.4	4	3.0	50	2	●
GM-2ES-D1.5	1.5	4	3.0	50	2	●
GM-2ES-D1.6	1.6	4	3.5	50	2	●
GM-2ES-D1.7	1.7	4	3.5	50	2	●
GM-2ES-D1.8	1.8	4	4.0	50	2	●
GM-2ES-D1.9	1.9	4	4.0	50	2	●
GM-2ES-D2.0	2.0	4	4.0	50	2	●
GM-2ES-D2.1	2.1	4	4.0	50	2	●
GM-2ES-D2.2	2.2	4	4.5	50	2	●
GM-2ES-D2.3	2.3	4	4.5	50	2	●
GM-2ES-D2.4	2.4	4	5.0	50	2	●
GM-2ES-D2.5	2.5	4	5.0	50	2	●
GM-2ES-D2.6	2.6	4	5.0	50	2	●
GM-2ES-D2.7	2.7	4	5.5	50	2	●
GM-2ES-D2.8	2.8	4	5.5	50	2	●
GM-2ES-D2.9	2.9	4	6.0	50	2	●
GM-2ES-D3.0	3.0	4	6.0	50	2	●

● Stock available ○ Make-to-order

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 **B514** Non-standard customization **B570-B571**

Indexable milling tools
Solid carbide end mills
GM series

GM series for general machining

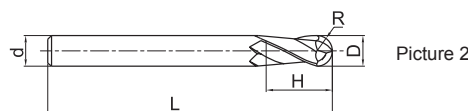
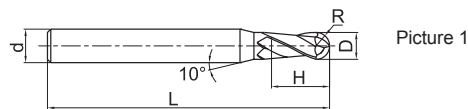
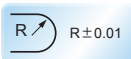
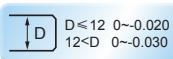
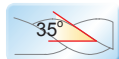
2-flute ball nose end mills with straight shank



GM-2B



- For profile milling, high speed machining applicable.
- Wide application.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-2B-R0.5S	1.0	0.5	4	2	50	2	Picture 1	●
GM-2B-R0.5	1.0	0.5	6	2	50	2	Picture 1	●
GM-2B-R0.75S	1.5	0.75	4	3	50	2	Picture 1	●
GM-2B-R0.75	1.5	0.75	6	3	50	2	Picture 1	●
GM-2B-R1.0F	2.0	1.0	3	4	50	2	Picture 1	●
GM-2B-R1.0S	2.0	1.0	4	4	50	2	Picture 1	●
GM-2B-R1.0	2.0	1.0	6	4	50	2	Picture 1	●
GM-2B-R1.25F	2.5	1.25	3	5	50	2	Picture 1	●
GM-2B-R1.25S	2.5	1.25	4	5	50	2	Picture 1	●
GM-2B-R1.25	2.5	1.25	6	5	50	2	Picture 1	●
GM-2B-R1.5F	3.0	1.5	3	6	50	2	Picture 2	●
GM-2B-R1.5S	3.0	1.5	4	6	50	2	Picture 1	●
GM-2B-R1.5	3.0	1.5	6	6	50	2	Picture 1	●
GM-2B-R1.75S	3.5	1.75	4	8	50	2	Picture 1	●
GM-2B-R1.75	3.5	1.75	6	8	50	2	Picture 1	●
GM-2B-R2.0S	4.0	2.0	4	8	50	2	Picture 2	●
GM-2B-R2.0	4.0	2.0	6	8	50	2	Picture 1	●
GM-2B-R2.5	5.0	2.5	6	10	50	2	Picture 1	●
GM-2B-R2.75	5.5	2.75	6	12	50	2	Picture 1	●
GM-2B-R3.0	6.0	3.0	6	12	50	2	Picture 2	●
GM-2B-R3.5	7.0	3.5	8	14	60	2	Picture 1	●
GM-2B-R4.0	8.0	4.0	8	16	60	2	Picture 2	●
GM-2B-R4.5	9.0	4.5	10	18	75	2	Picture 1	●
GM-2B-R5.0	10.0	5.0	10	20	75	2	Picture 2	●
GM-2B-R6.0	12.0	6.0	12	24	75	2	Picture 2	●
GM-2B-R7.0	14.0	7.0	14	28	75	2	Picture 2	●
GM-2B-R8.0	16.0	8.0	16	32	100	2	Picture 2	●
GM-2B-R10.0	20.0	10.0	20	40	100	2	Picture 2	●

Applicable workpiece material table ● Very suitable ○ Suitable

● Stock available ○ Make-to-order

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

B515

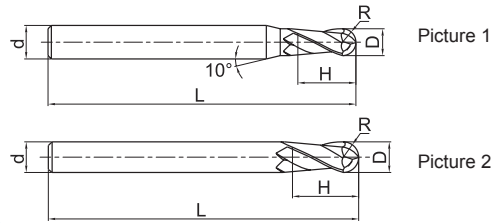
Non-standard customization

B570-B571

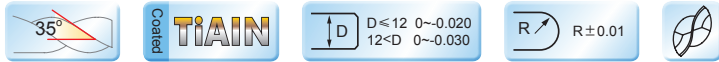
2-flute ball nose end mills with long shank



GM-2BL/M/X



● GM-2B series with long shank.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-2BL-R1.0S	2.0	1.0	4	4	75	2	Picture 1	●
GM-2BL-R1.0	2.0	1.0	6	4	75	2	Picture 1	●
GM-2BL-R1.25F	2.5	1.25	3	5	50	2	Picture 1	●
GM-2BL-R1.25S	2.5	1.25	4	5	75	2	Picture 1	●
GM-2BL-R1.25	2.5	1.25	6	5	75	2	Picture 1	●
GM-2BL-R1.5F	3.0	1.5	3	6	50	2	Picture 2	●
GM-2BL-R1.5S	3.0	1.5	4	6	75	2	Picture 1	●
GM-2BL-R1.5	3.0	1.5	6	6	75	2	Picture 1	●
GM-2BL-R1.75S	3.5	1.75	4	8	75	2	Picture 1	●
GM-2BL-R1.75	3.5	1.75	6	8	75	2	Picture 1	●
GM-2BL-R2.0S	4.0	2.0	4	8	75	2	Picture 2	●
GM-2BL-R2.0	4.0	2.0	6	8	75	2	Picture 1	●
GM-2BL-R2.5	5.0	2.5	6	10	75	2	Picture 1	●
GM-2BL-R2.75	5.5	2.75	6	12	75	2	Picture 1	●
GM-2BL-R3.0	6.0	3.0	6	12	75	2	Picture 2	●
GM-2BX-R3.0	6.0	3.0	6	12	100	2	Picture 2	●
GM-2BL-R3.5	7.0	3.5	8	14	75	2	Picture 1	●
GM-2BM-R4.0	8.0	4.0	8	16	75	2	Picture 2	●
GM-2BL-R4.0	8.0	4.0	8	16	100	2	Picture 2	●
GM-2BL-R4.5	9.0	4.5	10	18	100	2	Picture 1	●
GM-2BL-R5.0	10.0	5.0	10	20	100	2	Picture 2	●
GM-2BX-R5.0	10.0	5.0	10	20	150	2	Picture 2	●
GM-2BL-R6.0	12.0	6.0	12	24	100	2	Picture 2	●
GM-2BX-R6.0	12.0	6.0	12	24	150	2	Picture 2	●
GM-2BL-R7.0	14.0	7.0	14	28	100	2	Picture 2	●
GM-2BL-R8.0	16.0	8.0	16	32	150	2	Picture 2	●
GM-2BL-R10.0	20.0	10.0	20	40	150	2	Picture 2	●

Applicable workpiece material table ● Very suitable ○ Suitable

● Stock available ○ Make-to-order

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 B515 Non-standard customization B570-B571

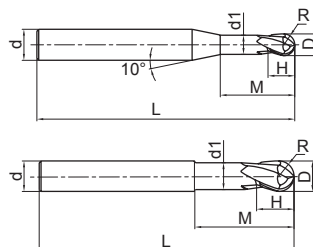
Indexable milling tools
Solid carbide end mills
GM series

GM series for general machining

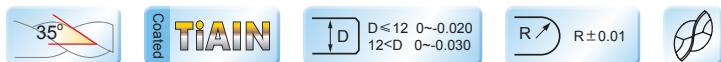
2-flute ballnose end mills with long neck and short cutting edge



GM-2BFP

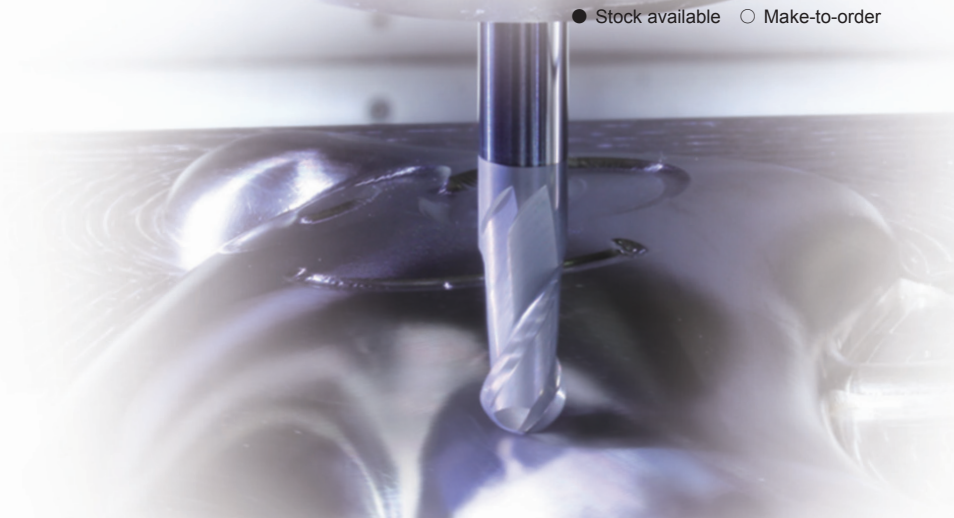


● High rigidity short cutting edge, suitable for heavy cutting.



Type	Basic dimension(mm)							Number of teeth Z	Geometry	Stock
	D	R	H	d ₁	M	d	L			
GM-2BFP-R0.5	1.0	0.5	1	0.95	2.5	6	75	2	Picture 1	○
GM-2BFP-R0.75	1.5	0.75	1	1.45	3.0	6	75	2	Picture 1	○
GM-2BFP-R1.0	2.0	1.0	2	1.95	4.0	6	75	2	Picture 1	○
GM-2BFP-R1.5	3.0	1.5	3	2.85	6.0	6	75	2	Picture 1	○
GM-2BFP-R2.0	4.0	2.0	4	3.85	8.0	6	75	2	Picture 1	○
GM-2BFP-R2.5	5.0	2.5	5	4.85	10.0	6	75	2	Picture 1	○
GM-2BFP-R3.0	6.0	3.0	6	5.8	12.0	6	75	2	Picture 2	○
GM-2BFP-R4.0	8.0	4.0	8	7.8	16.0	8	100	2	Picture 2	○
GM-2BFP-R5.0	10.0	5.0	10	9.6	20.0	10	100	2	Picture 2	○
GM-2BFP-R6.0	12.0	6.0	12	11.5	24.0	12	100	2	Picture 2	○
GM-2BFP-R8.0	16.0	8.0	16	15.5	32.0	16	150	2	Picture 2	○
GM-2BFP-R10.0	20.0	10.0	20	19.5	40.0	20	150	2	Picture 2	○

● Stock available ○ Make-to-order



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

B515

Non-standard customization

B570-B571

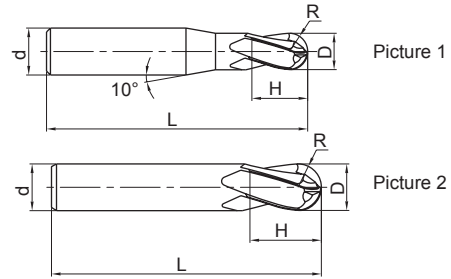
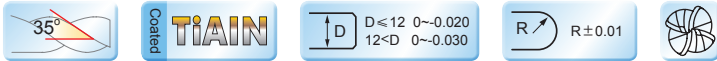
4-flute ball nose end mills with straight shank



GM-4B



4-flute ball nose end mill can operate with higher feed speed and machining efficiency, extending too life in machining high-hardness workpiece.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-4B-R1.5S	3.0	1.5	4	6	50	4	Picture 1	●
GM-4B-R1.5	3.0	1.5	6	6	50	4	Picture 1	●
GM-4B-R2.0S	4.0	2.0	4	8	50	4	Picture 2	●
GM-4B-R2.0	4.0	2.0	6	8	50	4	Picture 1	●
GM-4B-R2.5	5.0	2.5	6	10	50	4	Picture 1	●
GM-4B-R3.0	6.0	3.0	6	12	50	4	Picture 2	●
GM-4B-R4.0	8.0	4.0	8	16	60	4	Picture 2	●
GM-4B-R5.0	10.0	5.0	10	20	75	4	Picture 2	●
GM-4B-R6.0	12.0	6.0	12	24	75	4	Picture 2	●
GM-4B-R7.0	14.0	7.0	14	28	75	4	Picture 2	●
GM-4B-R8.0	16.0	8.0	16	32	100	4	Picture 2	●
GM-4B-R9.0	18.0	9.0	18	36	100	4	Picture 2	●
GM-4B-R10.0	20.0	10.0	20	40	100	4	Picture 2	●

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○		○	○					



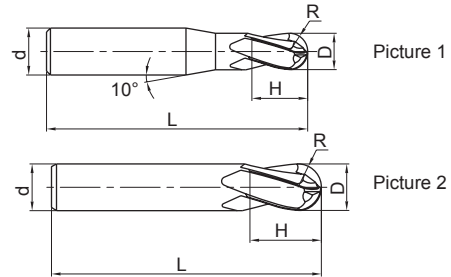
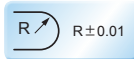
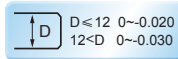
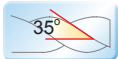
4-flute ball nose end mills with long shank



GM-4BL/M/X



● GM-4B series with long shank.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-4BL-R1.5S	3.0	1.5	4	6	75	4	Picture 1	○
GM-4BL-R1.5	3.0	1.5	6	6	75	4	Picture 1	○
GM-4BL-R2.0S	4.0	2.0	4	8	75	4	Picture 2	○
GM-4BL-R2.0	4.0	2.0	6	8	75	4	Picture 1	○
GM-4BL-R2.5	5.0	2.5	6	10	75	4	Picture 1	○
GM-4BL-R3.0	6.0	3.0	6	12	75	4	Picture 2	○
GM-4BX-R3.0	6.0	3.0	6	12	100	4	Picture 2	○
GM-4BM-R4.0	8.0	4.0	8	16	75	4	Picture 2	○
GM-4BL-R4.0	8.0	4.0	8	16	100	4	Picture 2	○
GM-4BL-R5.0	10.0	5.0	10	20	100	4	Picture 2	○
GM-4BX-R5.0	10.0	5.0	10	20	150	4	Picture 2	○
GM-4BL-R6.0	12.0	6.0	12	24	100	4	Picture 2	○
GM-4BX-R6.0	12.0	6.0	12	24	150	4	Picture 2	○
GM-4BL-R7.0	14.0	7.0	14	28	100	4	Picture 2	○
GM-4BL-R8.0	16.0	8.0	16	32	150	4	Picture 2	○
GM-4BL-R9.0	18.0	9.0	18	36	150	4	Picture 2	○
GM-4BL-R10.0	20.0	10.0	20	40	150	4	Picture 2	○

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B516

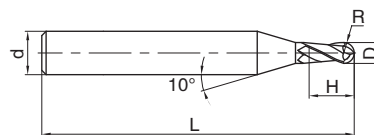
Non-standard customization

B570-B571

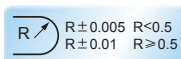
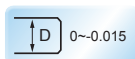
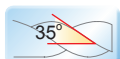
2-flute tiny ball nose end mills with straight shank



GM-2BS



● Tiny diameter end mills can fully display high speed and high precision performances of machining center, often used for machining of precision components such as electronic part etc.



Type	Basic dimension(mm)					Number of teeth Z	Stock
	D	R	d	H	L		
GM-2BS-R0.15	0.30	0.15	4	0.5	50	2	●
GM-2BS-R0.20	0.40	0.20	4	0.6	50	2	●
GM-2BS-R0.25	0.50	0.25	4	0.8	50	2	●
GM-2BS-R0.30	0.60	0.30	4	0.9	50	2	●
GM-2BS-R0.35	0.70	0.35	4	1.0	50	2	●
GM-2BS-R0.40	0.80	0.40	4	1.2	50	2	●
GM-2BS-R0.45	0.90	0.45	4	1.3	50	2	●
GM-2BS-R0.50	1.00	0.50	4	1.5	50	2	●
GM-2BS-R0.60	1.20	0.60	4	1.8	50	2	●
GM-2BS-R0.70	1.40	0.70	4	2.0	50	2	●
GM-2BS-R0.75	1.50	0.75	4	2.3	50	2	●
GM-2BS-R0.80	1.60	0.80	4	2.5	50	2	●
GM-2BS-R0.90	1.80	0.90	4	2.7	50	2	●
GM-2BS-R1.00	2.00	1.00	4	3.0	50	2	●
GM-2BS-R1.25	2.50	1.25	4	3.7	50	2	●
GM-2BS-R1.50	3.00	1.50	4	4.5	50	2	●

● Stock available ○ Make-to-order

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 **B517** Non-standard customization **B570-B571**

Indexable milling tools

Solid carbide end mills

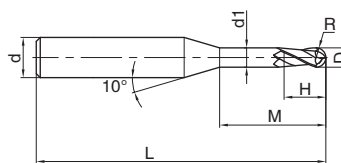
GM series

2-flute ball nose end mills with straight shank, long neck and short cutting edge

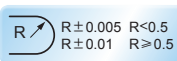
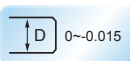
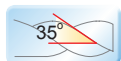


Deep ball nose slot

GM-2BP



● Suitable for machining narrow slot and free-form surface.



Type	Basic dimension(mm)							Number of teeth Z	Stock
	D	R	H	d1	M	d	L		
GM-2BP-R0.15-M02	0.3	0.15	0.4	0.25	2	4	50	2	●
GM-2BP-R0.15-M04	0.3	0.15	0.4	0.25	4	4	50	2	●
GM-2BP-R0.2-M02	0.4	0.2	0.6	0.35	2	4	50	2	●
GM-2BP-R0.2-M04	0.4	0.2	0.6	0.35	4	4	50	2	●
GM-2BP-R0.25-M04	0.5	0.25	0.7	0.45	4	4	50	2	●
GM-2BP-R0.25-M06	0.5	0.25	0.7	0.45	6	4	50	2	●
GM-2BP-R0.3-M04	0.6	0.3	0.9	0.55	4	4	50	2	●
GM-2BP-R0.3-M06	0.6	0.3	0.9	0.55	6	4	50	2	●
GM-2BP-R0.3-M08	0.6	0.3	0.9	0.55	8	4	50	2	●
GM-2BP-R0.4-M04	0.8	0.4	1.2	0.75	4	4	50	2	●
GM-2BP-R0.4-M06	0.8	0.4	1.2	0.75	6	4	50	2	●
GM-2BP-R0.4-M08	0.8	0.4	1.2	0.75	8	4	50	2	●
GM-2BP-R0.4-M10	0.8	0.4	1.2	0.75	10	4	50	2	●
GM-2BP-R0.5-M04	1.0	0.5	1.5	0.95	4	4	50	2	●
GM-2BP-R0.5-M06	1.0	0.5	1.5	0.95	6	4	50	2	●
GM-2BP-R0.5-M08	1.0	0.5	1.5	0.95	8	4	50	2	●
GM-2BP-R0.5-M10	1.0	0.5	1.5	0.95	10	4	50	2	●
GM-2BP-R0.5-M12	1.0	0.5	1.5	0.95	12	4	50	2	●
GM-2BP-R0.6-M06	1.2	0.6	1.8	1.15	6	4	50	2	●
GM-2BP-R0.6-M08	1.2	0.6	1.8	1.15	8	4	50	2	●
GM-2BP-R0.6-M12	1.2	0.6	1.8	1.15	12	4	50	2	●
GM-2BP-R0.6-M16	1.2	0.6	1.8	1.15	16	4	50	2	●
GM-2BP-R0.75-M08	1.5	0.75	2.3	1.45	8	4	50	2	●
GM-2BP-R0.75-M12	1.5	0.75	2.3	1.45	12	4	50	2	●
GM-2BP-R0.75-M16	1.5	0.75	2.3	1.45	16	4	50	2	●

● Stock available ○ Make-to-order

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

B518-B519

Non-standard customization

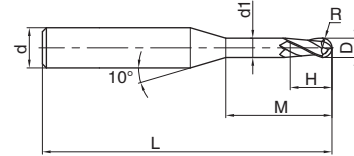
B570-B571

2-flute ball nose end mills with straight shank, long neck and short cutting edge

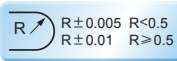
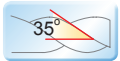


Deep ball nose slot

GM-2BP



● Suitable for machining narrow slot and free-form surface.



Type	Basic dimension(mm)							Number of teeth Z	Stock
	D	R	H	d ₁	M	d	L		
GM-2BP-R1.0-M06	2.0	1.0	3.0	1.95	6	4	50	2	●
GM-2BP-R1.0-M08	2.0	1.0	3.0	1.95	8	4	50	2	●
GM-2BP-R1.0-M10	2.0	1.0	3.0	1.95	10	4	50	2	●
GM-2BP-R1.0-M12	2.0	1.0	3.0	1.95	12	4	50	2	●
GM-2BP-R1.0-M16	2.0	1.0	3.0	1.95	16	4	50	2	●
GM-2BP-R1.0-M20	2.0	1.0	3.0	1.95	20	4	50	2	●
GM-2BP-R1.25-M08	2.5	1.25	3.7	2.4	8	4	50	2	●
GM-2BP-R1.25-M12	2.5	1.25	3.7	2.4	12	4	50	2	●
GM-2BP-R1.25-M16	2.5	1.25	3.7	2.4	16	4	60	2	●
GM-2BP-R1.25-M20	2.5	1.25	3.7	2.4	20	4	60	2	●
GM-2BP-R1.5-M08	3.0	1.5	4.5	2.85	8	6	50	2	●
GM-2BP-R1.5-M10	3.0	1.5	4.5	2.85	10	6	50	2	●
GM-2BP-R1.5-M12	3.0	1.5	4.5	2.85	12	6	50	2	●
GM-2BP-R1.5-M16	3.0	1.5	4.5	2.85	16	6	60	2	●
GM-2BP-R1.5-M20	3.0	1.5	4.5	2.85	20	6	60	2	●
GM-2BP-R2.0-M10	4.0	2.0	6.0	3.85	10	6	60	2	●
GM-2BP-R2.0-M16	4.0	2.0	6.0	3.85	16	6	60	2	●
GM-2BP-R2.0-M20	4.0	2.0	6.0	3.85	20	6	60	2	●
GM-2BP-R2.0-M25	4.0	2.0	6.0	3.85	25	6	60	2	●
GM-2BP-R2.5-M16	5.0	2.5	7.5	4.85	16	6	60	2	●
GM-2BP-R2.5-M25	5.0	2.5	7.5	4.85	25	6	70	2	●

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○	○	○	○	○				

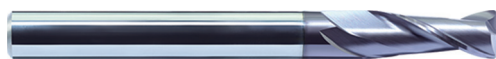


GM series for general machining

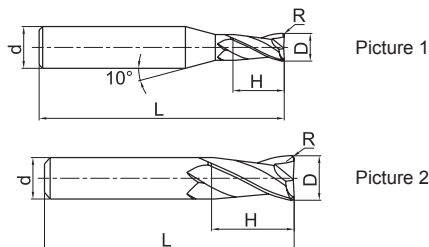
2-flute R end mills with straight shank



GM-2R



Wide applications, applicable for several machining styles.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-2R-D1.0R0.2	1.0	0.2	4	3	50	2	Picture 1	●
GM-2R-D1.5R0.2	1.5	0.2	4	4	50	2	Picture 1	●
GM-2R-D2.0R0.2	2.0	0.2	4	6	50	2	Picture 1	●
GM-2R-D2.0R0.5	2.0	0.5	4	6	50	2	Picture 1	●
GM-2R-D2.5R0.2	2.5	0.2	4	8	50	2	Picture 1	●
GM-2R-D2.5R0.5	2.5	0.5	4	8	50	2	Picture 1	●
GM-2R-D3.0R0.2	3.0	0.2	4	8	50	2	Picture 1	●
GM-2R-D3.0R0.3	3.0	0.3	4	8	50	2	Picture 1	●
GM-2R-D3.0R0.5	3.0	0.5	4	8	50	2	Picture 1	●
GM-2R-D4.0R0.2	4.0	0.2	4	11	50	2	Picture 2	●
GM-2R-D4.0R0.3	4.0	0.3	4	11	50	2	Picture 2	●
GM-2R-D4.0R0.5	4.0	0.5	4	11	50	2	Picture 2	●
GM-2R-D4.0R1.0	4.0	1.0	4	11	50	2	Picture 2	●
GM-2R-D5.0R0.3	5.0	0.3	6	13	50	2	Picture 1	●
GM-2R-D5.0R0.5	5.0	0.5	6	13	50	2	Picture 1	●
GM-2R-D5.0R1.0	5.0	1.0	6	13	50	2	Picture 1	●
GM-2R-D6.0R0.3	6.0	0.3	6	16	50	2	Picture 2	●
GM-2R-D6.0R0.5	6.0	0.5	6	16	50	2	Picture 2	●
GM-2R-D6.0R1.0	6.0	1.0	6	16	50	2	Picture 2	●
GM-2R-D8.0R0.3	8.0	0.3	8	20	60	2	Picture 2	●
GM-2R-D8.0R0.5	8.0	0.5	8	20	60	2	Picture 2	●
GM-2R-D8.0R1.0	8.0	1.0	8	20	60	2	Picture 2	●
GM-2R-D10.0R0.5	10.0	0.5	10	25	75	2	Picture 2	●
GM-2R-D10.0R1.0	10.0	1.0	10	25	75	2	Picture 2	●
GM-2R-D10.0R1.5	10.0	1.5	10	25	75	2	Picture 2	●
GM-2R-D10.0R2.0	10.0	2.0	10	25	75	2	Picture 2	●
GM-2R-D12.0R0.5	12.0	0.5	12	30	75	2	Picture 2	●
GM-2R-D12.0R1.0	12.0	1.0	12	30	75	2	Picture 2	●
GM-2R-D12.0R1.5	12.0	1.5	12	30	75	2	Picture 2	●
GM-2R-D12.0R2.0	12.0	2.0	12	30	75	2	Picture 2	●

● Stock available ○ Make-to-order

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

B520

Non-standard customization

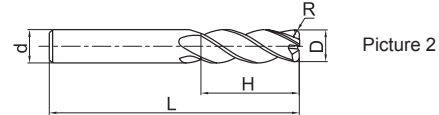
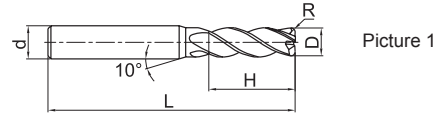
B570-B571

GM series for general machining

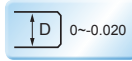
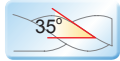
4-flute R end mills with straight shank



GM-4R



Wide applications, applicable for several machining styles.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-4R-D1.0R0.2	1.0	0.2	4	3	50	4	Picture 1	○
GM-4R-D1.5R0.2	1.5	0.2	4	4	50	4	Picture 1	○
GM-4R-D2.0R0.2	2.0	0.2	4	6	50	4	Picture 1	○
GM-4R-D2.0R0.5	2.0	0.5	4	6	50	4	Picture 1	○
GM-4R-D2.5R0.2	2.5	0.2	4	8	50	4	Picture 1	○
GM-4R-D2.5R0.5	2.5	0.5	4	8	50	4	Picture 1	○
GM-4R-D3.0R0.2	3.0	0.2	4	8	50	4	Picture 1	●
GM-4R-D3.0R0.5	3.0	0.5	4	8	50	4	Picture 1	○
GM-4R-D4.0R0.2	4.0	0.2	4	10	50	4	Picture 2	○
GM-4R-D4.0R0.3	4.0	0.3	4	10	50	4	Picture 2	●
GM-4R-D4.0R0.5	4.0	0.5	4	10	50	4	Picture 2	●
GM-4R-D5.0R0.2	5.0	0.2	6	13	50	4	Picture 2	○
GM-4R-D5.0R0.5	5.0	0.5	6	13	50	4	Picture 1	●
GM-4R-D5.0R1.0	5.0	1.0	6	13	50	4	Picture 1	●
GM-4R-D6.0R0.3	6.0	0.3	6	16	50	4	Picture 2	○
GM-4R-D6.0R0.5	6.0	0.5	6	16	50	4	Picture 2	●
GM-4R-D6.0R1.0	6.0	1.0	6	16	50	4	Picture 2	●
GM-4R-D8.0R0.3	8.0	0.3	8	20	60	4	Picture 2	○
GM-4R-D8.0R0.5	8.0	0.5	8	20	60	4	Picture 2	●
GM-4R-D8.0R1.0	8.0	1.0	8	20	60	4	Picture 2	●
GM-4R-D10.0R0.3	10.0	0.3	10	25	75	4	Picture 2	○
GM-4R-D10.0R0.5	10.0	0.5	10	25	75	4	Picture 2	●
GM-4R-D10.0R1.0	10.0	1.0	10	25	75	4	Picture 2	●
GM-4R-D10.0R2.0	10.0	2.0	10	25	75	4	Picture 2	●
GM-4R-D10.0R3.0	10.0	3.0	10	25	75	4	Picture 2	●
GM-4R-D12.0R0.3	12.0	0.3	12	30	75	4	Picture 2	○
GM-4R-D12.0R0.5	12.0	0.5	12	30	75	4	Picture 2	●
GM-4R-D12.0R1.0	12.0	1.0	12	30	75	4	Picture 2	●
GM-4R-D12.0R2.0	12.0	2.0	12	30	75	4	Picture 2	●
GM-4R-D12.0R3.0	12.0	3.0	12	30	75	4	Picture 2	●

● Stock available ○ Make-to-order

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 B521

Non-standard customization B570-B571

Indexable milling tools
Solid carbide end mills
GM series

GM series for general machining

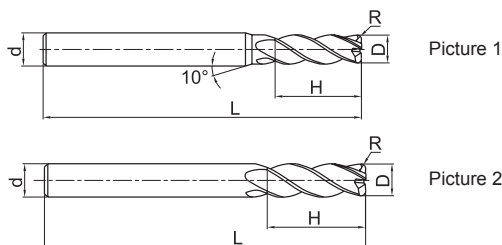
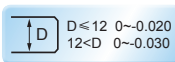
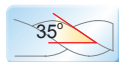
4-flute R end mills with long shank



GM-4RL/M/X



● GM-4R series with long shank.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-4RL-D4.0R0.2S	4.0	0.2	4	10	75	4	Picture 2	●
GM-4RL-D4.0R0.2	4.0	0.2	6	10	75	4	Picture 1	●
GM-4RL-D4.0R0.5S	4.0	0.5	4	10	75	4	Picture 2	●
GM-4RL-D4.0R0.5	4.0	0.5	6	10	75	4	Picture 1	●
GM-4RL-D6.0R0.2	6.0	0.2	6	16	75	4	Picture 2	●
GM-4RX-D6.0R0.2	6.0	0.2	6	16	100	4	Picture 2	●
GM-4RL-D6.0R0.5	6.0	0.5	6	16	75	4	Picture 2	●
GM-4RX-D6.0R0.5	6.0	0.5	6	16	100	4	Picture 2	●
GM-4RL-D6.0R1.0	6.0	1.0	6	16	75	4	Picture 2	●
GM-4RX-D6.0R1.0	6.0	1.0	6	16	100	4	Picture 2	●
GM-4RM-D8.0R0.2	8.0	0.2	8	20	75	4	Picture 2	●
GM-4RL-D8.0R0.2	8.0	0.2	8	20	100	4	Picture 2	●
GM-4RM-D8.0R0.5	8.0	0.5	8	20	75	4	Picture 2	●
GM-4RL-D8.0R0.5	8.0	0.5	8	20	100	4	Picture 2	●
GM-4RM-D8.0R1.0	8.0	1.0	8	20	75	4	Picture 2	●
GM-4RL-D8.0R1.0	8.0	1.0	8	20	100	4	Picture 2	●
GM-4RL-D10.0R0.2	10.0	0.2	10	25	100	4	Picture 2	●
GM-4RX-D10.0R0.2	10.0	0.2	10	25	150	4	Picture 2	●
GM-4RL-D10.0R0.5	10.0	0.5	10	25	100	4	Picture 2	●
GM-4RX-D10.0R0.5	10.0	0.5	10	25	150	4	Picture 2	●
GM-4RL-D10.0R1.0	10.0	1.0	10	25	100	4	Picture 2	●
GM-4RX-D10.0R1.0	10.0	1.0	10	25	150	4	Picture 2	●

● Stock available ○ Make-to-order

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

B521

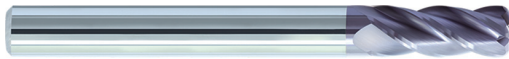
Non-standard customization

B570-B571

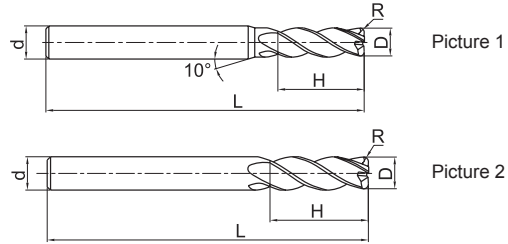
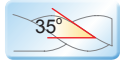
4-flute R end mills with long shank



GM-4RL/M/X



● GM-4R series with long shank.



Type	Basic dimension(mm)					Number of teeth Z	Geometry	Stock
	D	R	d	H	L			
GM-4RL-D10.0R2.0	10.0	2.0	10	25	100	4	Picture 2	●
GM-4RX-D10.0R2.0	10.0	2.0	10	25	150	4	Picture 2	●
GM-4RL-D12.0R0.2	12.0	0.2	12	30	100	4	Picture 2	●
GM-4RX-D12.0R0.2	12.0	0.2	12	30	150	4	Picture 2	●
GM-4RL-D12.0R0.5	12.0	0.5	12	30	100	4	Picture 2	●
GM-4RX-D12.0R0.5	12.0	0.5	12	30	150	4	Picture 2	●
GM-4RL-D12.0R1.0	12.0	1.0	12	30	100	4	Picture 2	●
GM-4RX-D12.0R1.0	12.0	1.0	12	30	150	4	Picture 2	●
GM-4RL-D12.0R2.0	12.0	2.0	12	30	100	4	Picture 2	●
GM-4RX-D12.0R2.0	12.0	2.0	12	30	150	4	Picture 2	●
GM-4RL-D16.0R1.0	16.0	1.0	16	45	150	4	Picture 2	●
GM-4RL-D16.0R2.0	16.0	2.0	16	45	150	4	Picture 2	●

● Stock available ○ Make-to-order

Indexable milling tools
Solid carbide end mills
GM 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						
○	○	○	○			○	○				

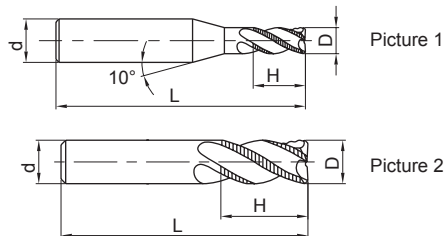
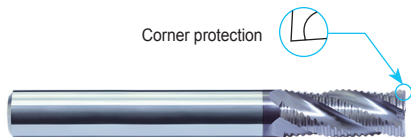


GM series for general machining

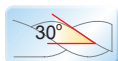
4-flute flattened end mills with straight shank and corrugated edges



GM-4W



● Very suitable for high-efficiency rough machining.



D	D < 6	0 ~ -0.048	6 < D ≤ 10	0 ~ -0.058
D	10 < D ≤ 18	0 ~ -0.07	18 < D	0 ~ -0.084



Type	Basic dimension(mm)				Number of teeth Z	Geometry	Stock
	D	d	H	L			
GM-4W-D6.0	6.0	6	16	50	4	Picture 2	●
GM-4W-D7.0	7.0	8	20	60	4	Picture 1	●
GM-4W-D8.0	8.0	8	20	60	4	Picture 2	●
GM-4W-D9.0	9.0	10	22	75	4	Picture 1	●
GM-4W-D10.0	10.0	10	25	75	4	Picture 2	●
GM-4W-D11.0	11.0	12	26	75	4	Picture 1	●
GM-4W-D12.0	12.0	12	30	75	4	Picture 2	●
GM-4W-D16.0	16.0	16	45	100	4	Picture 2	●
GM-4W-D20.0	20.0	20	45	100	4	Picture 2	●

● Stock available ○ Make-to-order

Indexable milling tools

Solid carbide end mills

GM 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

B522-B523

Non-standard customization

B570-B571