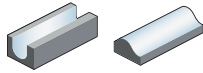


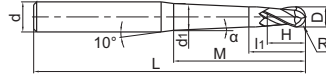
Ball nose cutter conical neck

High-performance machining

PM-2BC



- Straight shank
- Centre cutting
- Helix angle 30°



Article	*	Dimensions [mm]										Teeth	Grade
		R	D	d (h6)	d ₁	M	H	L	α	I ₁	KMG405		
PM-2BC05-R0.25-M03		0.25	0.5	4	0.49	3	0.5	50	0.5	1.5	2	○	
PM-2BC05-R0.25-M05		0.25	0.5	4	0.53	5	0.5	50	0.5	1.5	2	○	
PM-2BC10-R0.25-M03		0.25	0.5	4	0.52	3	0.5	50	1	1.5	2	○	
PM-2BC10-R0.25-M05		0.25	0.5	4	0.59	5	0.5	50	1	1.5	2	○	
PM-2BC15-R0.25-M03		0.25	0.5	4	0.54	3	0.5	50	1.5	1.5	2	○	
PM-2BC15-R0.25-M05		0.25	0.5	4	0.65	5	0.5	50	1.5	1.5	2	○	
PM-2BC05-R0.30-M05		0.3	0.6	4	0.62	5	0.6	50	0.5	1.6	2	○	
PM-2BC05-R0.30-M08		0.3	0.6	4	0.68	8	0.6	50	0.5	1.6	2	○	
PM-2BC10-R0.30-M05		0.3	0.6	4	0.68	5	0.6	50	1	1.6	2	○	
PM-2BC10-R0.30-M08		0.3	0.6	4	0.79	8	0.6	50	1	1.6	2	○	
PM-2BC10-R0.30-M10		0.3	0.6	4	0.86	10	0.6	50	1	1.6	2	○	
PM-2BC10-R0.30-M12		0.3	0.6	4	0.93	12	0.6	50	1	1.6	2	○	
PM-2BC10-R0.30-M15		0.3	0.6	4	1.03	15	0.6	50	1	1.6	2	○	
PM-2BC15-R0.30-M05		0.3	0.6	4	0.74	5	0.6	50	1.5	1.6	2	○	
PM-2BC15-R0.30-M08		0.3	0.6	4	0.9	8	0.6	50	1.5	1.6	2	○	
PM-2BC05-R0.40-M08		0.4	0.8	4	0.87	8	0.8	50	0.5	1.8	2	○	
PM-2BC10-R0.40-M08		0.4	0.8	4	0.98	8	0.8	50	1	1.8	2	○	
PM-2BC15-R0.40-M08		0.4	0.8	4	1.09	8	0.8	50	1.5	1.8	2	○	
PM-2BC05-R0.40-M12		0.4	0.8	4	0.94	12	0.8	60	0.5	1.8	2	○	
PM-2BC10-R0.40-M12		0.4	0.8	4	1.12	12	0.8	60	1	1.8	2	○	
PM-2BC15-R0.40-M12		0.4	0.8	4	1.3	12	0.8	60	1.5	1.8	2	○	
PM-2BC05-R0.50-M10		0.5	1	6	1.08	10	1	60	0.5	2.5	2	○	
PM-2BC05-R0.50-M15		0.5	1	6	1.16	15	1	60	0.5	2.5	2	○	
PM-2BC10-R0.50-M10		0.5	1	6	1.21	10	1	60	1	2.5	2	○	
PM-2BC10-R0.50-M15		0.5	1	6	1.38	15	1	60	1	2.5	2	○	
PM-2BC15-R0.50-M10		0.5	1	6	1.34	10	1	60	1.5	2.5	2	○	
PM-2BC15-R0.50-M15		0.5	1	6	1.6	15	1	60	1.5	2.5	2	○	
PM-2BC20-R0.50-M15		0.5	1	6	1.82	15	1	60	2	2.5	2	○	
PM-2BC05-R0.50-M20		0.5	1	6	1.25	20	1	70	0.5	2.5	2	○	
PM-2BC05-R0.50-M25		0.5	1	6	1.34	25	1	70	0.5	2.5	2	○	
PM-2BC05-R0.50-M30		0.5	1	6	1.42	30	1	70	0.5	2.5	2	○	
PM-2BC10-R0.50-M20		0.5	1	6	1.56	20	1	70	1	2.5	2	○	
PM-2BC10-R0.50-M25		0.5	1	6	1.73	25	1	70	1	2.5	2	○	
PM-2BC10-R0.50-M30		0.5	1	6	1.91	30	1	70	1	2.5	2	○	
PM-2BC15-R0.50-M20		0.5	1	6	1.86	20	1	70	1.5	2.5	2	○	
PM-2BC20-R0.50-M20		0.5	1	6	2.17	20	1	70	2	2.5	2	○	
PM-2BC30-R0.50-M20		0.5	1	6	2.78	20	1	70	3	2.5	2	○	

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
✓	✓	✓			✓

✓ Very suitable

✓ Suitable

System code > B268

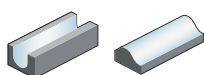
Cutting data > B436

Nonstandard order > B477

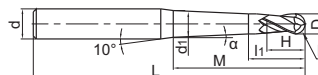
Ball nose cutter conical neck

High-performance machining

PM-2BC



- Straight shank
- Centre cutting
- Helix angle 30°



Article	*	Dimensions [mm]										Teeth	Grade KMG405
		R	D	d (h6)	d _i	M	H	L	α	l ₁			
PM-2BC50-R0.50-M20		0.5	1	6	4.01	20	1	70	5	2.5	2	○	
PM-2BC10-R0.50-M35		0.5	1	6	2.08	35	1	80	1	2.5	2	○	
PM-2BC05-R0.60-M12		0.6	1.2	6	1.31	12	1.2	60	0.5	2.7	2	○	
PM-2BC10-R0.60-M12		0.6	1.2	6	1.47	12	1.2	60	1	2.7	2	○	
PM-2BC15-R0.60-M12		0.6	1.2	6	1.63	12	1.2	60	1.5	2.7	2	○	
PM-2BC05-R0.60-M24		0.6	1.2	6	1.52	24	1.2	70	0.5	2.7	2	○	
PM-2BC10-R0.60-M24		0.6	1.2	6	1.89	24	1.2	70	1	2.7	2	○	
PM-2BC15-R0.60-M24		0.6	1.2	6	2.26	24	1.2	70	1.5	2.7	2	○	
PM-2BC05-R0.75-M10		0.75	1.5	6	1.57	10	1.5	60	0.5	3	2	○	
PM-2BC05-R0.75-M15		0.75	1.5	6	1.65	15	1.5	60	0.5	3	2	○	
PM-2BC10-R0.75-M10		0.75	1.5	6	1.69	10	1.5	60	1	3	2	○	
PM-2BC10-R0.75-M15		0.75	1.5	6	1.86	15	1.5	60	1	3	2	○	
PM-2BC15-R0.75-M10		0.75	1.5	6	1.81	10	1.5	60	1.5	3	2	○	
PM-2BC15-R0.75-M15		0.75	1.5	6	2.07	15	1.5	60	1.5	3	2	○	
PM-2BC05-R0.75-M30		0.75	1.5	6	1.92	30	1.5	70	0.5	3	2	○	
PM-2BC10-R0.75-M20		0.75	1.5	6	2.04	20	1.5	70	1	3	2	○	
PM-2BC10-R0.75-M30		0.75	1.5	6	2.39	30	1.5	70	1	3	2	○	
PM-2BC15-R0.75-M30		0.75	1.5	6	2.86	30	1.5	70	1.5	3	2	○	
PM-2BC05-R1.0-M20		1	2	6	2.18	20	2	60	0.5	4	2	○	
PM-2BC10-R1.0-M20		1	2	6	2.46	20	2	60	1	4	2	○	
PM-2BC10-R1.0-M25		1	2	6	2.64	25	2	60	1	4	2	○	
PM-2BC15-R1.0-M20		1	2	6	2.74	20	2	60	1.5	4	2	○	
PM-2BC05-R1.0-M30		1	2	6	2.36	30	2	70	0.5	4	2	○	
PM-2BC10-R1.0-M30		1	2	6	2.81	30	2	70	1	4	2	○	
PM-2BC15-R1.0-M30		1	2	6	3.27	30	2	70	1.5	4	2	○	
PM-2BC20-R1.0-M30		1	2	6	3.72	30	2	70	2	4	2	○	
PM-2BC30-R1.0-M30		1	2	6	4.63	30	2	70	3	4	2	○	
PM-2BC05-R1.0-M40		1	2	6	2.53	40	2	80	0.5	4	2	○	
PM-2BC10-R1.0-M35		1	2	6	2.99	35	2	80	1	4	2	○	
PM-2BC10-R1.0-M40		1	2	6	3.16	40	2	80	1	4	2	○	
PM-2BC15-R1.0-M40		1	2	6	3.79	40	2	80	1.5	4	2	○	
PM-2BC20-R1.0-M40		1	2	6	4.42	40	2	80	2	4	2	○	
PM-2BC30-R1.0-M40		1	2	6	5.68	40	2	80	3	4	2	○	
PM-2BC10-R1.0-M50		1	2	6	3.51	50	2	90	1	4	2	○	
PM-2BC05-R1.5-M30		1.5	3	6	3.32	30	3	70	0.5	6	2	○	
PM-2BC10-R1.5-M30		1.5	3	6	3.74	30	3	70	1	6	2	○	
PM-2BC15-R1.5-M30		1.5	3	6	4.16	30	3	70	1.5	6	2	○	

● Ex stock ○ On demand

* With internal cooling

Application field					
P	M	K	N	S	H
✓	✓	✓			✓

✓ Very suitable

✓ Suitable

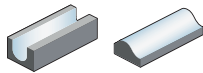
System code > B268 Cutting data > B436 Nonstandard order > B477



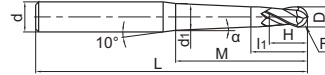
A

Ball nose cutter conical neck High-performance machining

PM-2BC



- Straight shank
- Centre cutting
- Helix angle 30°



Turning

B

Article	*	Dimensions [mm]										Teeth	Grade
		R	D	d (h6)	d ₁	M	H	L	α	I ₁	KMG405		
PM-2BC05-R1.5-M40		1.5	3	6	3.5	40	3	80	0.5	6	2	○	
PM-2BC10-R1.5-M40		1.5	3	6	4.09	40	3	80	1	6	2	○	
PM-2BC15-R1.5-M40		1.5	3	6	4.69	40	3	80	1.5	6	2	○	
PM-2BC05-R1.5-M50		1.5	3	6	3.67	50	3	90	0.5	6	2	○	
PM-2BC10-R1.5-M50		1.5	3	6	4.44	50	3	90	1	6	2	○	
PM-2BC15-R1.5-M50		1.5	3	6	5.21	50	3	90	1.5	6	2	○	
PM-2BC05-R2.0-M60		2	4	6	4.83	60	4	110	0.5	7	2	○	
PM-2BC10-R2.0-M60		2	4	6	5.76	60	4	110	1	7	2	○	

● Ex stock ○ On demand

* With internal cooling

Milling

C

Application field						
P	M	K	N	S	H	
✓	✓	✓				✓ Very suitable
					✓ Suitable	

Drilling

D

Technical Information

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System code > B268

Cutting data > B436

Nonstandard order > B477

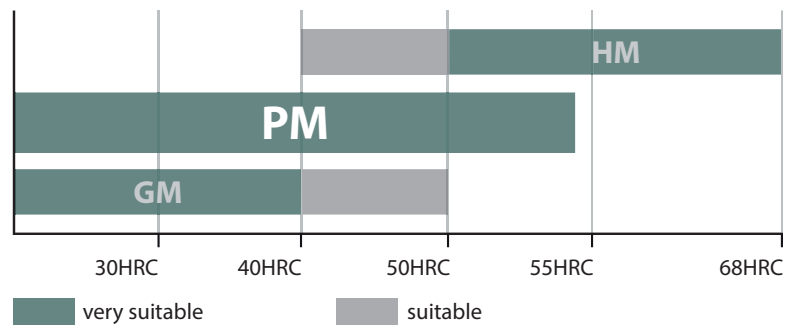


PM series

For demanding applications

- For machining of steel to max. 55 HRC and cast iron to heat-resistant alloys.
- Very solid cutting edge with high stiffness for higher cutting speeds and feed rates.
- End mills, ball nose cutters, torus mills and high feed mills
- Diameter range 3.0–20.0 mm

Application fields for machining of steel



GM – 2 E L P – D12 R0.5 – M08 – W

1 2 3 4 5 6 7 8 9

Application	
Code	Description
GR	General roughing
GM	Semi-finishing
GF	Finishing
PM	High-performance machining
HM	Hard machining
HH	High-speed hard machining
NM	General machining of non-ferrous metals
AL	General machining of Al and Al alloys
ALP	High-performance machining of Al and Al alloys
ALG	General machining of Al and Al alloys
UM	HSC/HPC machining
VSM	General machining of heat-resistant alloys

Number of teeth

1
2

Cutting edge type		Cutting edge length	
Code	Description	Code	Description
E	Square shoulder mill with protective chamfer	L	Long
F	Square shoulder mill with sharp cutting edges	X	Extra long
B	Ball nose cutter	F	Short
R	Torus mill		
W	Ripper		
H	High-feed mill		

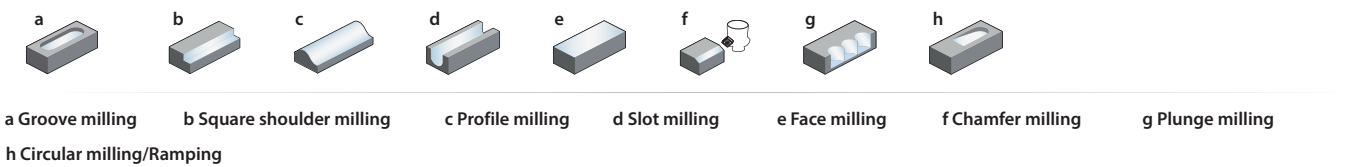
3
4

Type		Diameter [mm]	
Code	Description	Code	Description
S	Mini diameter	D3.0	3,0
P	Ground neck	D8.0	8,0
C	Conical neck	D20.0	20,0
		...	

5
6

Radius [mm]		Features		Weldon shank
Code	Description	Code	Description	
R0.5	0,5	G	Spiral angle 30°	
R1.0	1,5	M	Neck length [mm]	
R3.0	3,0	S	Thin shank	
...		AIR	For aerospace industry	

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A

Turning

Coated cemented carbide PVD

Grade	Grade description
KMD401	PVD coated carbide substrate for high performance milling application of non-ferrous metals, CFRP and GFRP and organic materials. The DLC layer has very good wear protection and high thermal stability.

B

Milling

KMG303	PVD coated carbide substrate for universal milling application of steel (up to HRC<=48), stainless steel and cast iron.
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KMG405	PVD coated carbide substrate for high performance milling application of steel (up to HRC <55), stainless steel, super alloy material and cast iron. High wear resistance and toughness for a wide application field.
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C

Drilling

KMG555	PVD coated carbide substrate for hard milling application of steel (HRC 55–68), highest wear resistance and toughness for best cutting result.
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KMG309	PVD coated carbide substrate for non ferrous materials. High wear resistance even in abrasive materials.
---------------	--

D

Technical Information

Uncoated cemented carbide





















Grade	Grade description
YK30F	Uncoated K30 carbide substrate for steel, stainless steel, cast iron and non ferrous materials.

E

Index

YK40F	Uncoated K20–K30/N20–N30 carbide substrate for cast iron and non ferrous materials.
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High performance milling

Products	Solid carbide cutters	Teeth	Ø	Application						Type	Page
				P	M	K	N	S	H		
PM-2E		2	1.0-20.0	✓	✓	✓			✓	End mills	B330
PM-2EL		2	3.0-20.0	✓	✓	✓			✓	End mills	B331
PM-4E-G		4	1.0-20.0	✓	✓	✓			✓	End mills	B332
PM-4EL-G		4	3.0-20.0	✓	✓	✓			✓	End mills	B333
PM-4EX-G		4	3.0-20.0	✓	✓	✓			✓	End mills	B334
PM-4E		4	1.0-20.0	✓	✓	✓			✓	End mills	B335
PM-4EL		4	3.0-20.0	✓	✓	✓			✓	End mills	B336
PM-6E		6	6.0-20.0	✓	✓	✓			✓	End mills	B337
PM-6EL		6	6.0-20.0	✓	✓	✓			✓	End mills	B338
PM-2B		2	1.0-20.0	✓	✓	✓			✓	Ball nose cutters	B339
PM-2BL		2	2.0-20.0	✓	✓	✓			✓	Ball nose cutters	B340
PM-2BFP		2	1.0-20.0	✓	✓	✓			✓	Ball nose cutters	B341
PM-2BC		2	0.5-4.0	✓	✓	✓			✓	Ball nose cutter with conical neck	B342
PM-4B		4	3.0-20.0	✓	✓	✓			✓	Ball nose cutters	B345
PM-4BL		4	3.0-20.0	✓	✓	✓			✓	Ball nose cutters	B346
PM-2R		2	1.0-12.0	✓	✓	✓			✓	Torus mills	B347
PM-4R		4	3.0-12.0	✓	✓	✓			✓	Torus mills	B350
PM-4RL		4	6.0-16.0	✓	✓	✓			✓	Torus mills	B351
PM-4H		4	3.0-12.0	✓	✓	✓			✓	High-feed mills	B348
PM-4HL		4	4.0-12.0	✓	✓	✓			✓	High-feed mills	B349

✓ Very suitable ✓ Suitable

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