

DM70X

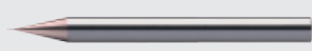
The High Performance Series for Die & Mold applications
materials from 50 up to 70 HRC



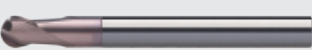
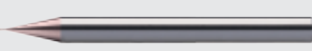
SE 70X - SQUARE ENDMILLS

	EDP No.	Type	Z	Diameter Range	Page
	A6F	DP Straight Shank	4	1 - 20	10
	A6M	DP Straight Shank with Recess	4	1 - 20	10
	A6D	Miniature Long Neck	2	0.1 - 3	12-13
	A6E	Miniature DP Long Neck	4	1 - 6	14

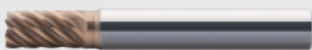
SE 70XR - TORUS ENDMILLS

	EDP No.	Type	Z	Diameter Range	Page
	A6H	DP Straight Shank	4	1 - 20	16
	A6J	DP Straight Shank with Recess	4	1 - 20	17-18
	A6G	Miniature Long Neck	2	0.2 - 0.9	20-21
	A6G	Miniature DP Long Neck	4	1 - 6	22-25

BN 70X - BALLNOSES

	EDP No.	Type	Z	Diameter Range	Page
	A6Q	Straight Shank	2	1 - 12	27
	A6R	Straight Shank with Recess	2	1 - 12	27
	A6S	Miniature Ballnose Long Neck	2	0.1 - 6	29-32

SE 70 - MULTIFLUTES

	EDP No.	Type	Z	Diameter Range	Page
	K73	DH Torus with Recess	6/7	3 - 20	36
	K76	DH Square with Recess	6/7	3 - 20	34
	K77	DH Square	6/7	3 - 20	34

OVERCOMING THE CHALLENGES OF HARD MATERIAL MACHINING IN DIE & MOLD MANUFACTURING

Are you having difficulty achieving superior surface finishes, long tool life, and consistent performance when machining hardened materials? The DM70X Series is engineered specifically for these demands, delivering a complete tooling solution optimized for materials in the 50–70 HRC range.

EXTENDED TOOL LIFE, MAXIMUM UPTIME

Built for endurance, DM70X features a reinforced structure and next-generation B0909X coating that withstands extreme heat and abrasion – delivering up to 3x longer tool life. Fewer tool changes mean reduced downtime and lower production costs.

SUPERIOR SURFACE FINISH, LESS POST-PROCESSING

Precision-engineered geometry and cutting-edge edge treatment enable surface roughness as fine as Ra 0.160 μm and Sa 0.165 μm . That means less polishing, faster turnaround, and higher-quality parts straight off the machine.

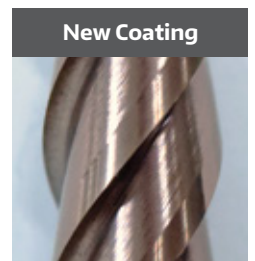
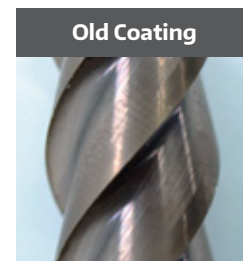
COMPLETE TOOLING COVERAGE FOR EVERY OPERATION

Whether it's roughing, profiling, semi-finishing, or finishing, DM70X provides the right tool. Choose from a wide range of Square, Torus, Ballnose, Multiflute, and Micro Tools – all optimized for hardened materials.

DM70X FEATURES & BENEFITS

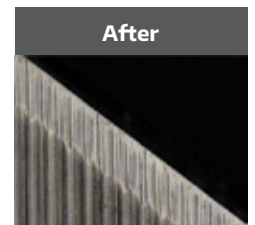
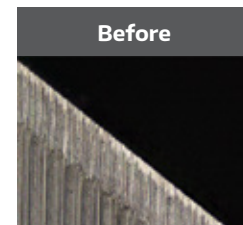
NEW B0909X COATING WITH HIGHER SILICON CONTENT

- High heat and wear resistance for longer tool life when machining hardened steels
- Maintains performance under high-speed conditions for stable machining



SUPREME EDGE TECHNOLOGY

- Uniform cutting edges ensure consistent machining
- Smooth edge surface enhances coating adhesion and chip flow for superior surface finishing
- Reduced friction and abrasion resistance contribute to longer tool life



DISCONTINUE LISTING



DM70X vs DM70 vs SE60 / BN60

TYPE		DM70X	DM70	SE60 / BN60
SQUARE ENDMILLS	Straight Shank	A6F	A5F	A35
	Straight Shank (Recess)	A6M	A5M	-
	Long Neck	A6D	A5D	A03
	Long Neck	A6E	A5E	-
TORUS ENDMILLS	Straight Shank	A6H	A5H	A50
	Straight Shank (Recess)	A6J	A5J	-
	Long Neck	A6G (Z2 & Z4)	A5G (Z2 & Z4)	A79
BALLNOSE CUTTERS	Straight Shank	A6Q	A5Q	A69
	Straight Shank (Recess)	A6R	A5R	A70
	Long Neck	A6S	A5S	A76
MULTIFLUTES	Straight Shank	K73	K73	-
	Straight Shank	K77	K77	A42
	Straight Shank (Recess)	K76	K76	A43

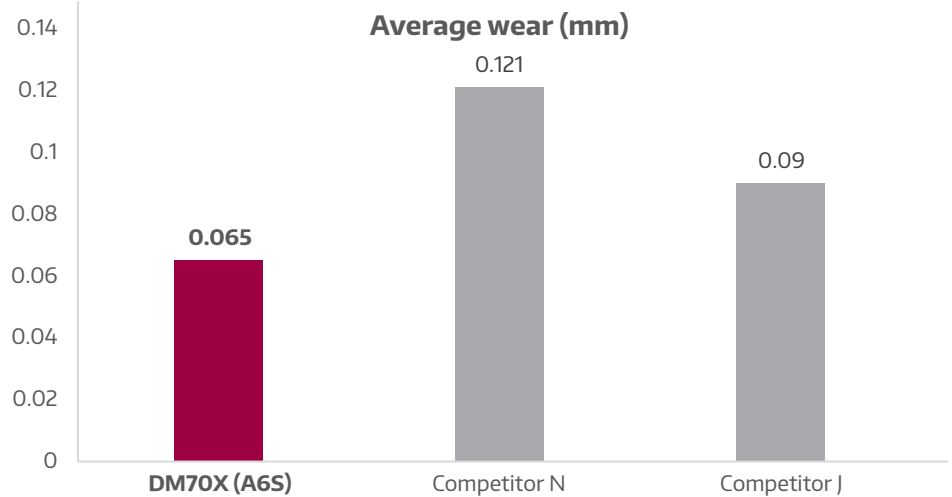
CASE STUDY 1

A6S

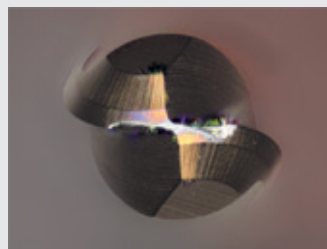


FACE MILLING

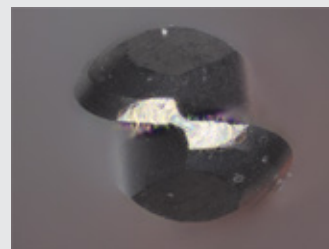
Tool Design	Miniature Long Neck, 2 Flute
Workpiece Material	SKD 11 (58 HRC)
Tool Diameter	Ø1 mm
Cutting Speed	30,000 rpm
Feed Rate	1,800 mm/min
Ap	0.02 mm
Ae	0.03 mm
Machining Time	2 hours 20 mins
Machine	Jing Diao



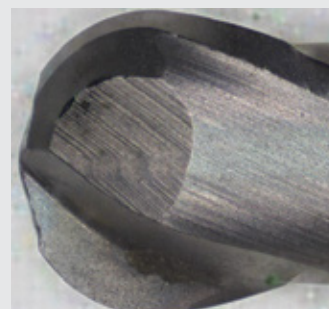
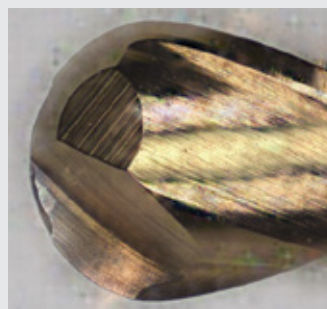
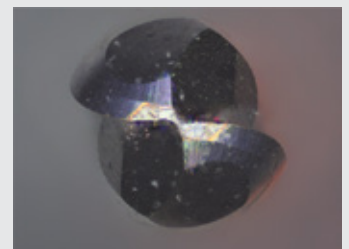
DM70X (A6S)



COMPETITOR N



COMPETITOR J



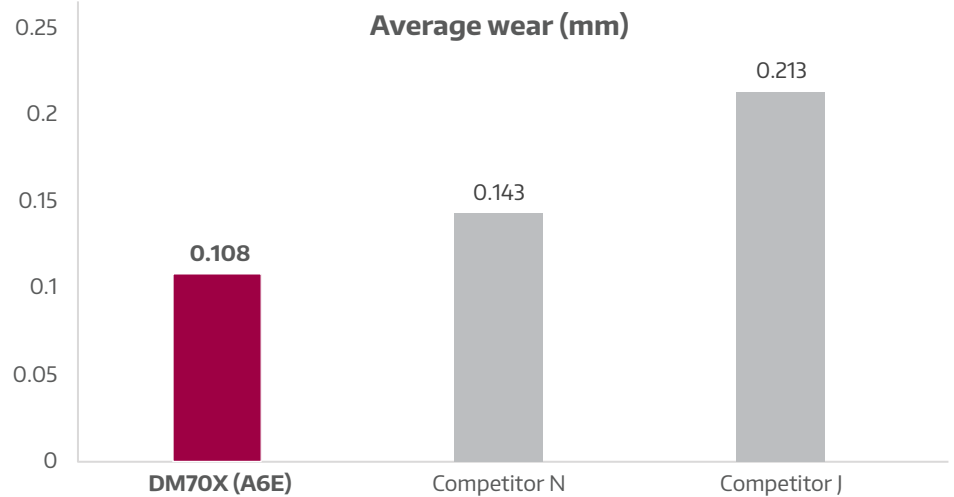
DM70X (A6S) has 40% longer tool life than Competitor J and 90% longer tool life than Competitor N.

A6E



FACE MILLING

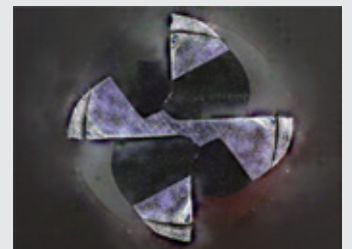
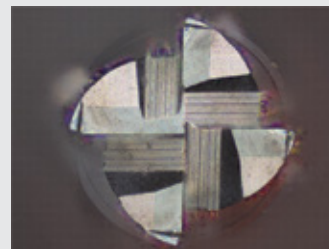
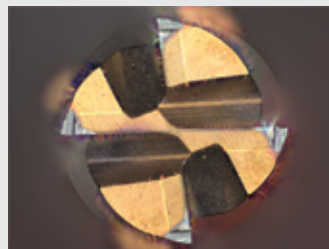
Tool Design	Miniature Long Neck, 4 Flute
Workpiece Material	STAVAX (52 HRC)
Tool Diameter	Ø1 mm
Cutting Speed	18,000 rpm
Feed Rate	1,500 mm/min
Ap	0.01 mm
Ae	0.25 mm
Machining Time	1 hour 9 mins
Machine	Jing Diao



DM70X (A6E)

COMPETITOR N

COMPETITOR J



DM70X (A6E) has 300% longer tool life than Competitor J and 30% longer tool life than Competitor N.

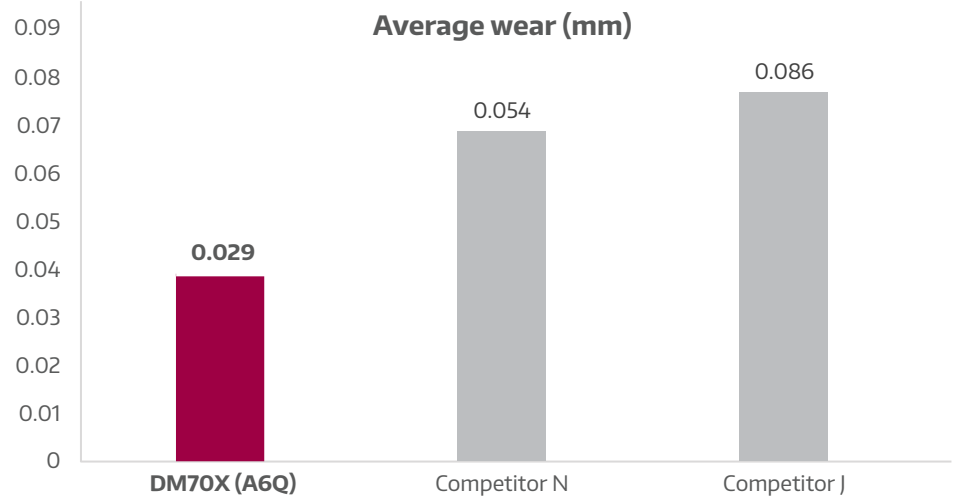
CASE STUDY 3

A6Q



FACE MILLING

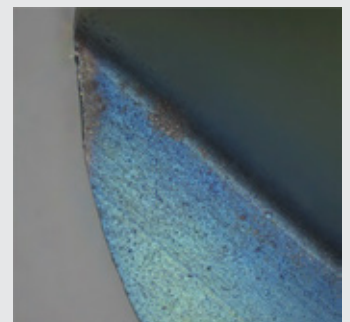
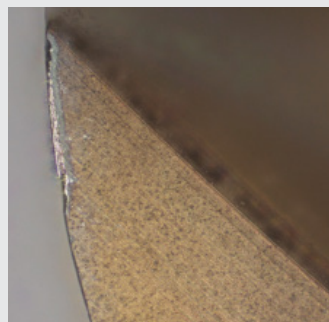
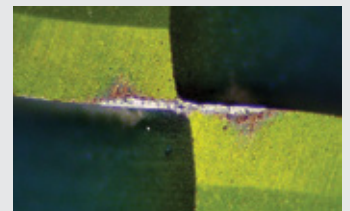
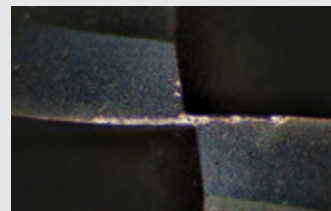
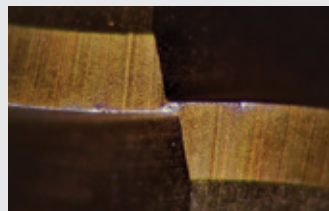
Tool Design	Ballnose Cutter, 2 Flute
Workpiece Material	SKD 11 (58 HRC)
Tool Diameter	Ø6 mm
Cutting Speed	9,000 rpm
Feed Rate	3,000 mm/min
Ap	0.028 mm
Ae	0.07 mm
Machining Time	1 hour 30 mins
Machine	Makino



DM70X (A6Q)

COMPETITOR N

COMPETITOR J



DM70X (A6Q) has 80% longer tool life than competitor N and 100% longer tool life than competitor J.

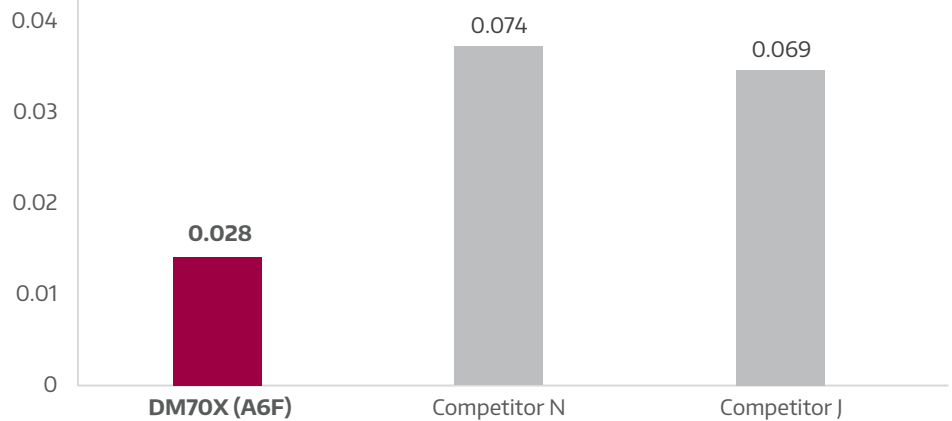
A6F



SIDE MILLING

Tool Design	Standard Endmill, 4 Flute
Workpiece Material	SKD 11 (58 HRC)
Tool Diameter	Ø6 mm
Cutting Speed	8,000 rpm
Feed Rate	4,000 mm/min
Ap	6.0 mm
Ae	0.1 mm
Machining Time	2 hours 46 mins
Machine	Makino

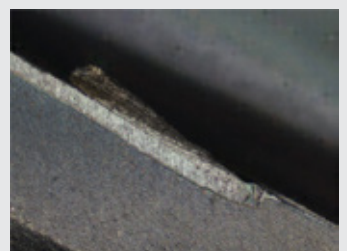
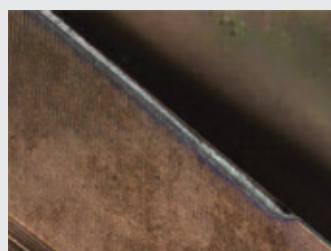
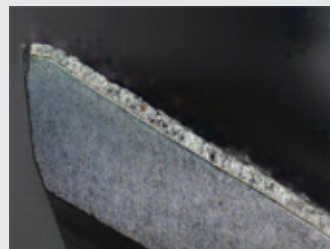
Average wear (mm)



DM70X (A6F)

COMPETITOR N

COMPETITOR J



DM70X (A6F) has 200% longer tool life compared to competitor N and 150% longer tool life compared to competitor J.

A6F



1 Differential Pitch (DP)

- Unequal flute spacing reduces vibration and chatter
- Delivers smoother cutting for superior surface finishing



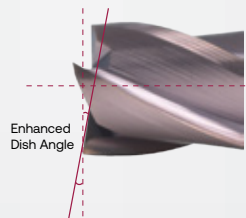
2 Enhanced Gash Land

- Reinforces corner strength to resist chipping and premature wear
- Increases mechanical strength for better performance under high cutting forces
- Improves cutting stability for longer tool life and reliable machining



3 Enhanced Dish Angle

- Minimizes irregular tool movement to reduce wear, ensuring longer tool life



A6F

DP
Straight Shank

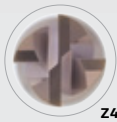


A6M

DP
Straight Shank
with Recess

A6F/A6M

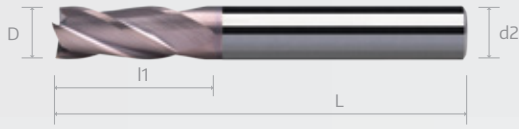
SE 70X DP ENDMILLS / WITH RECESS, 4 FLUTE



Z4



A6F (Straight Shank)



A6M (with Recess)



Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6F 0100 050 04	1	2.5		50	4	•	○
A6F 0100 050 06				50	6	○	
A6F 0150 050 04	1.5	4		50	4	•	○
A6F 0150 050 06				50	6	○	
A6F 0200 050 04	2	6		50	4	•	○
A6F 0200 050 06				50	6	•	
A6F 0250 050 04	2.5	8		50	4	•	○
A6F 0250 050 06				50	6	○	
A6F 0300 050 04	3	11		50	4	•	○
A6F 0300 050 06				50	6	•	
A6F 0400 050 04	4	15		50	4	•	○
A6F 0400 050 06				50	6	•	
A6F 0400 075 04	5	20		75	4	•	○
A6F 0500 060 06				60	6	•	
A6F 0600 060 06 13	6	25		60	6	•	○
A6F 0600 060 06 20				60	6	•	
A6F 0600 075 06	8	30		75	6	•	○
A6F 0600 100 06				75	6	•	
A6F 0800 075 08	10	35		100	6	○	○
A6F 0800 100 08				100	6	○	
A6F 1000 075 10	12	40		75	10	•	○
A6F 1000 100 10 25				100	10	○	
A6F 1000 100 10 30	16	50		100	10	○	○
A6F 1000 125 10				125	10	○	
A6F 1000 150 10	20	60		150	10	○	○
A6F 1200 075 12				150	10	○	
A6F 1200 100 12 30	25	70		75	12	•	○
A6F 1200 100 12 35				100	12	○	
A6F 1200 150 12	32	80		100	12	•	○
A6F 1600 090 16 32				150	12	○	
A6F 2000 100 20 40	40			90	16	•	○
				100	20	○	○

Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6M 0100 050 04	1	2.5	4	50		4	▲
A6M 0100 050 06			6	50		6	○
A6M 0150 050 04	1.5	4	6	50		4	▲
A6M 0150 050 06			9	50		6	○
A6M 0200 050 04	2	6	8	50		4	▲
A6M 0200 050 06			12	50		6	▲
A6M 0250 050 04	2.5	8	10	50		4	▲
A6M 0250 050 06			15	50		6	○
A6M 0300 050 04	3	11	12	50		4	▲
A6M 0300 050 06			15	50		6	▲
A6M 0400 050 04	4	15	16	50		4	▲
A6M 0400 050 06			20	50		6	▲
A6M 0400 075 04	5	20	20	75		4	▲
A6M 0500 060 06			22	60		6	▲
A6M 0600 060 06 13	6	25	22	60		6	▲
A6M 0600 060 06 20			24	60		6	▲
A6M 0600 075 06	8	30	15	75		6	▲
A6M 0600 100 06			24	100		6	○
A6M 0800 075 08	10	35	25	75		8	▲
A6M 0800 100 08			30	100		8	○
A6M 1000 075 10	12	40	22	30	75	10	▲
A6M 1000 100 10 25			25	30	100	10	○
A6M 1000 100 10 30	16	50	35	100		10	○
A6M 1000 125 10			35	125		10	○
A6M 1000 150 10	20	60	35	150		10	○
A6M 1200 075 12			35	75		12	▲
A6M 1200 100 12 30	25	70	30	35	100	12	○
A6M 1200 100 12 35			40	100		12	▲
A6M 1200 150 12	32	80	40	150		12	○
A6M 1600 090 16 32			48	90		16	▲
A6M 2000 100 20 40	40		60	100		20	○

	Germany	France	Italy	China
● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Tolerance
<1	-0.005 ~ +0
1 ≤ D ≤ 2.5	-0.010 ~ +0
2.5 ≤ D ≤ 6	-0.015 ~ +0
6 < D ≤ 10	-0.005 ~ -0.020
>10	-0.010 ~ -0.025

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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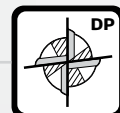
Cutting Parameters
Page 37

A6E



1 Differential Pitch (DP)

- Unequal flute spacing reduces vibration and chatter
- Delivers smoother cutting for superior surface finishing



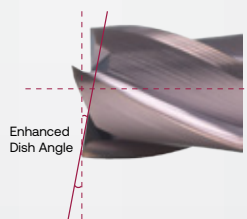
2 Enhanced Gash Land

- Reinforces corner strength to resist chipping and premature wear
- Increases mechanical strength for better performance under high cutting forces
- Improves cutting stability for longer tool life and reliable machining



3 Enhanced Dish Angle

- Minimizes irregular tool movement to reduce wear, ensuring longer tool life



A6D

Miniature
Long Neck
2 Flute



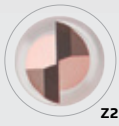
A6E

Miniature DP
Long Neck
4 Flute

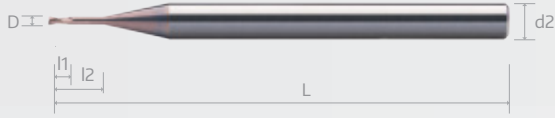


A6D

SE 70X MINIATURE ENDMILLS WITH LONG NECK, 2 FLUTE



A6D



Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6D 0010 050 0400	0.1	0.08	-	50	-	4	○
A6D 0010 050 0400 0030			0.3	50	0.085	4	○
A6D 0010 050 0400 0050			0.5	50	0.085	4	○
A6D 0010 050 0400 0075			0.75	50	0.085	4	○
A6D 0010 050 0400 0100	0.15	0.12	1	50	0.085	4	○
A6D 0015 050 0400			-	50	-	4	○
A6D 0015 050 0400 0030			0.3	50	0.13	4	○
A6D 0015 050 0400 0050			0.5	50	0.13	4	○
A6D 0015 050 0400 0075	0.2	0.15	0.75	50	0.13	4	○
A6D 0015 050 0400 0100			1	50	0.13	4	○
A6D 0015 050 0400 0150			1.5	50	0.13	4	○
A6D 0020 050 0400			-	50	-	4	○
A6D 0020 050 0400 0050	0.3	0.25	0.5	50	0.18	4	○
A6D 0020 050 0400 0075			0.75	50	0.18	4	○
A6D 0020 050 0400 0100			1	50	0.18	4	○
A6D 0020 050 0400 0150			1.5	50	0.18	4	○
A6D 0020 050 0400 0200	0.4	0.3	2	50	0.18	4	○
A6D 0020 050 0400 0250			2.5	50	0.18	4	▲
A6D 0020 050 0400 0300			3	50	0.18	4	●
A6D 0030 050 0400			-	50	-	4	▲
A6D 0030 050 0400 0100	0.5	0.4	1	50	0.28	4	▲
A6D 0030 050 0400 0150			1.5	50	0.28	4	●
A6D 0030 050 0400 0200			2	50	0.28	4	▲
A6D 0030 050 0400 0250			2.5	50	0.28	4	○
A6D 0030 050 0400 0300	0.6	0.5	3	50	0.28	4	○
A6D 0040 050 0400			-	50	-	4	○
A6D 0040 050 0400 0100			1	50	0.37	4	○
A6D 0040 050 0400 0150			1.5	50	0.37	4	○
A6D 0040 050 0400 0200	0.7	0.55	2	50	0.37	4	○
A6D 0040 050 0400 0250			2.5	50	0.37	4	○
A6D 0040 050 0400 0300			3	50	0.37	4	○
A6D 0040 050 0400 0350			3.5	50	0.37	4	○
A6D 0040 050 0400 0400	0.8	0.65	4	50	0.37	4	○
A6D 0040 050 0400 0500			5	50	0.37	4	○
A6D 0040 050 0400 0600			6	50	0.37	4	▲
A6D 0040 050 0400 0800			8	50	0.37	4	▲
A6D 0040 050 0400 1000	1	0.8	10	50	0.37	4	▲
A6D 0050 050 0400			-	50	-	4	●
A6D 0050 050 0400 0100			1	50	0.46	4	▲
A6D 0050 050 0400 0150			1.5	50	0.46	4	▲
A6D 0050 050 0400 0200	0.5	0.4	2	50	0.46	4	●
A6D 0050 050 0400 0250			2.5	50	0.46	4	▲
A6D 0050 050 0400 0300			3	50	0.46	4	▲
A6D 0050 050 0400 0350			3.5	50	0.46	4	▲

Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6D 0050 050 0400 0400	0.5	0.4	4	50	0.46	4	▲
A6D 0050 050 0400 0450			4.5	50	0.46	4	▲
A6D 0050 050 0400 0500			5	50	0.46	4	▲
A6D 0050 050 0400 0600			6	50	0.46	4	▲
A6D 0050 050 0400 0700	0.6	0.5	7	50	0.46	4	▲
A6D 0050 050 0400 0800			8	50	0.46	4	▲
A6D 0050 050 0400 0900			9	50	0.46	4	▲
A6D 0050 050 0400 1000			10	50	0.46	4	▲
A6D 0060 050 0400	0.7	0.55	-	50	-	4	▲
A6D 0060 050 0400 0150			1.5	50	0.56	4	●
A6D 0060 050 0400 0200			2	50	0.56	4	▲
A6D 0060 050 0400 0300			3	50	0.56	4	▲
A6D 0060 050 0400 0400	0.8	0.65	4	50	0.56	4	▲
A6D 0060 050 0400 0500			5	50	0.56	4	○
A6D 0060 050 0400 0600			6	50	0.56	4	○
A6D 0060 050 0400 0800			8	50	0.56	4	○
A6D 0070 050 0400	0.9	0.7	-	50	-	4	○
A6D 0070 050 0400 0200			2	50	0.66	4	○
A6D 0070 050 0400 0400			4	50	0.66	4	○
A6D 0070 050 0400 0600			6	50	0.66	4	▲
A6D 0070 050 0400 0800	1	0.8	8	50	0.66	4	▲
A6D 0070 050 0400 1000			10	50	0.66	4	●
A6D 0080 050 0400			-	50	-	4	▲
A6D 0080 050 0400 0300			3	50	0.76	4	▲
A6D 0080 050 0400 0400	1.2	0.9	4	50	0.76	4	▲
A6D 0080 050 0400 0500			5	50	0.76	4	▲
A6D 0080 050 0400 0600			6	50	0.76	4	▲
A6D 0080 050 0400 0800			8	50	0.76	4	▲
A6D 0080 050 0400 1000	1.5	1.0	10	50	0.76	4	▲
A6D 0080 050 0400 1200			12	50	0.76	4	▲
A6D 0100 050 0400			-	50	-	4	▲
A6D 0100 050 0400 0200			2	50	0.95	4	▲
A6D 0100 050 0400 0300	2	1.2	3	50	0.95	4	●
A6D 0100 050 0400 0400			4	50	0.95	4	▲
A6D 0100 050 0400 0500			5	50	0.95	4	●
A6D 0100 050 0400 0600			6	50	0.95	4	▲
A6D 0100 050 0400 0700	2.5	1.5	7	50	0.95	4	▲
A6D 0100 050 0400 0800			8	50	0.95	4	▲
A6D 0100 050 0400 0900			9	50	0.95	4	▲
A6D 0100 050 0400 1000			10	50	0.95	4	▲
A6D 0100 050 0400 1200	3	1.8	12	50	0.95	4	○
A6D 0100 050 0400 1400			14	50	0.95	4	○
A6D 0100 050 0400 1600			16	50	0.95	4	○
A6D 0100 060 0400 1800			-	60	0.95	4	○

cont'd ►

	Germany	France	Italy	China
● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Tolerance
<1	-0.005 ~ +0
1 ≤ D ≤ 2.5	-0.010 ~ +0
2.5 ≤ D ≤ 6	-0.015 ~ +0

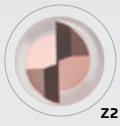
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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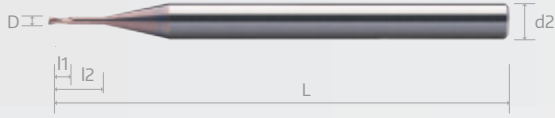
Cutting Parameters
Page 40-43

A6D

SE 70X MINIATURE ENDMILLS WITH LONG NECK, 2 FLUTE



A6D



Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6D 0100 060 0400 2000	1	0.8	20	60	0.95	4	○
A6D 0100 060 0400 2200			22	60	0.95	4	○
A6D 0120 050 0400	1.2	1	0	50	0	4	○
A6D 0120 050 0400 0600			6	50	1.15	4	○
A6D 0120 050 0400 0800			8	50	1.15	4	○
A6D 0120 050 0400 1000			10	50	1.15	4	○
A6D 0120 050 0400 1200			12	50	1.15	4	○
A6D 0120 050 0400 1600			16	50	1.15	4	○
A6D 0140 050 0400	1.4	1.1	0	50	0	4	▲
A6D 0140 050 0400 0600			6	50	1.35	4	▲
A6D 0140 050 0400 1200			12	50	1.35	4	●
A6D 0150 050 0400	1.5	1.2	0	50	0	4	●
A6D 0150 050 0400 0400			4	50	1.45	4	●
A6D 0150 050 0400 0600			6	50	1.45	4	▲
A6D 0150 050 0400 0800			8	50	1.45	4	▲
A6D 0150 050 0400 1000			10	50	1.45	4	▲
A6D 0150 050 0400 1200			12	50	1.45	4	○
A6D 0150 050 0400 1400			14	50	1.45	4	○
A6D 0150 050 0400 1600			16	50	1.45	4	○
A6D 0150 060 0400			0	60	0	4	○
A6D 0150 060 0400 1800			18	60	1.45	4	○
A6D 0150 060 0400 2000			20	60	1.45	4	○
A6D 0150 075 0400			0	75	0	4	○
A6D 0150 075 0400 2500			25	75	1.45	4	○
A6D 0150 075 0400 3000			30	75	1.45	4	○
A6D 0150 075 0400 3500			35	75	1.45	4	○
A6D 0160 050 0400	1.6	1.3	0	50	0	4	○
A6D 0160 050 0400 0600			6	50	1.55	4	○
A6D 0160 050 0400 0800			8	50	1.55	4	○
A6D 0180 050 0400	1.8	1.4	0	50	0	4	○
A6D 0180 050 0400 0600			6	50	1.75	4	○
A6D 0180 050 0400 0800			8	50	1.75	4	○
A6D 0180 050 0400 1000			10	50	1.75	4	○
A6D 0180 050 0400 1200			12	50	1.75	4	○
A6D 0180 050 0400 1400			14	50	1.75	4	○
A6D 0180 050 0400 1600			16	50	1.75	4	▲
A6D 0180 060 0400			0	60	0	4	▲
A6D 0180 060 0400 1800	2	1.6	18	60	1.75	4	▲
A6D 0200 050 0400			0	50	0	4	●
A6D 0200 050 0400 0400			4	50	1.94	4	▲
A6D 0200 050 0400 0600			6	50	1.94	4	▲
A6D 0200 050 0400 0800			8	50	1.94	4	▲
A6D 0200 050 0400 1000			10	50	1.94	4	▲
A6D 0200 050 0400 1200			12	50	1.94	4	○

Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6D 0200 050 0400 1400	2	1.6	14	50	1.94	4	○
A6D 0200 050 0400 1600			16	50	1.94	4	●
A6D 0200 060 0400			0	60	0	4	○
A6D 0200 060 0400 1800			18	60	1.94	4	○
A6D 0200 060 0400 2000			20	60	1.94	4	○
A6D 0200 075 0400			0	75	0	4	○
A6D 0200 075 0400 2500			25	75	1.94	4	○
A6D 0200 075 0400 3000			30	75	1.94	4	○
A6D 0200 075 0400 3500			35	75	1.94	4	○
A6D 0200 100 0400			0	100	0	4	○
A6D 0200 100 0400 4000			40	100	1.94	4	○
A6D 0200 100 0400 5000			50	100	1.94	4	○
A6D 0250 050 0400	2.5	2	0	50	0	4	○
A6D 0250 050 0400 0800			8	50	2.4	4	○
A6D 0250 050 0400 1200			12	50	2.4	4	○
A6D 0250 050 0400 1600			16	50	2.4	4	○
A6D 0250 060 0400			0	60	0	4	○
A6D 0250 060 0400 2000			20	60	2.4	4	○
A6D 0250 075 0400			0	75	0	4	○
A6D 0250 075 0400 3000			30	75	2.4	4	○
A6D 0250 100 0400			0	100	0	4	▲
A6D 0250 100 0400 4000			40	100	2.4	4	▲
A6D 0250 100 0400 5000			50	100	2.4	4	●
A6D 0300 050 0600	3	4.5	0	50	0	6	▲
A6D 0300 050 0600 0800			8	50	2.85	6	○
A6D 0300 050 0600 1200			12	50	2.85	6	○
A6D 0300 050 0600 1600			16	50	2.85	6	○
A6D 0300 060 0600			0	60	0	6	○
A6D 0300 060 0600 2000			20	60	2.85	6	○
A6D 0300 075 0600			0	75	0	6	○
A6D 0300 075 0600 2500			25	75	2.85	6	○
A6D 0300 075 0600 3000			30	75	2.85	6	○

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Tolerance
<1	-0.005 ~ +0
1 ≤ D ≤ 2.5	-0.010 ~ +0
2.5 ≤ D ≤ 6	-0.015 ~ +0

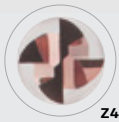
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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Cutting Parameters
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A6E

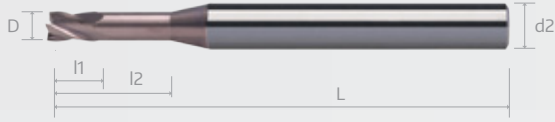
SE 70X MINIATURE DP ENDMILLS WITH LONG NECK, 4 FLUTE



Z4



A6E



Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6E 0100 050 0400	1	0.8	-	50	0	4	○
A6E 0100 050 0400 040			4	50	0.95	4	○
A6E 0100 050 0400 060			6	50	0.95	4	○
A6E 0100 050 0400 080			8	50	0.95	4	○
A6E 0100 050 0400 100			10	50	0.95	4	○
A6E 0120 050 0400	1.2	1	-	50	0	4	○
A6E 0120 050 0400 060			6	50	1.15	4	○
A6E 0120 050 0400 080			8	50	1.15	4	○
A6E 0120 050 0400 100			10	50	1.15	4	○
A6E 0120 050 0400 120			12	50	1.15	4	○
A6E 0150 050 0400	1.5	1.2	-	50	0	4	○
A6E 0150 050 0400 060			6	50	1.45	4	○
A6E 0150 050 0400 080			8	50	1.45	4	○
A6E 0150 050 0400 100			10	50	1.45	4	○
A6E 0150 050 0400 120			12	50	1.45	4	○
A6E 0150 050 0400 140			14	50	1.45	4	○
A6E 0150 050 0400 160			16	50	1.45	4	○
A6E 0180 050 0400	1.8	1.4	-	50	0	4	○
A6E 0180 050 0400 060			6	50	1.74	4	○
A6E 0180 050 0400 080			8	50	1.74	4	○
A6E 0180 050 0400 100			10	50	1.74	4	○
A6E 0180 050 0400 120			12	50	1.74	4	○
A6E 0180 050 0400 140			14	50	1.74	4	▲
A6E 0180 050 0400 160			16	50	1.74	4	●
A6E 0180 060 0400 180			18	60	1.74	4	▲
A6E 0200 050 0400	2	1.6	-	50	0	4	●
A6E 0200 050 0400 060			6	50	1.94	4	●
A6E 0200 050 0400 080			8	50	1.94	4	▲
A6E 0200 050 0400 100			10	50	1.94	4	●
A6E 0200 050 0400 120			12	50	1.94	4	○
A6E 0200 050 0400 140			14	50	1.94	4	○
A6E 0200 050 0400 160			16	50	1.94	4	▲
A6E 0200 060 0400 180			18	60	1.94	4	▲
A6E 0200 060 0400 200	2.5	2	20	60	1.94	4	●
A6E 0250 050 0400			-	50	0	4	▲
A6E 0250 050 0400 080			8	50	2.4	4	○
A6E 0250 050 0400 120			12	50	2.4	4	○
A6E 0250 050 0400 160			16	50	2.4	4	○
A6E 0250 060 0400			-	60	0	4	○
A6E 0250 060 0400 200			20	60	2.4	4	○
A6E 0250 075 0400			-	75	0	4	○
A6E 0250 075 0400 250			25	75	2.4	4	○

Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d1	d2(h5)	
A6E 0300 050 0600	3	4.5	-	50	-	6	▲
A6E 0300 050 0600 080			8	50	2.85	6	●
A6E 0300 050 0600 120			12	50	2.85	6	●
A6E 0300 060 0600			-	60	-	6	○
A6E 0300 060 0600 160			16	60	2.85	6	○
A6E 0300 060 0600 200	4	6	20	60	2.85	6	○
A6E 0300 075 0600			-	75	-	6	○
A6E 0300 075 0600 250			25	75	2.85	6	○
A6E 0300 075 0600 300			30	75	2.85	6	○
A6E 0400 050 0600			-	50	-	6	▲
A6E 0400 050 0600 120			12	50	3.8	6	●
A6E 0400 060 0600			-	60	-	6	●
A6E 0400 060 0600 160			16	60	3.8	6	▲
A6E 0400 060 0600 200			20	60	3.8	6	○
A6E 0400 075 0600			-	75	-	6	○
A6E 0400 075 0600 250	5	7.5	25	75	3.8	6	○
A6E 0400 075 0600 300			30	75	3.8	6	○
A6E 0400 075 0600 350			35	75	3.8	6	○
A6E 0400 100 0600			-	100	-	6	○
A6E 0400 100 0600 400			40	100	3.8	6	○
A6E 0500 060 0600	6	9	-	60	-	6	○
A6E 0500 060 0600 160			16	60	4.8	6	○
A6E 0500 075 0600			-	75	-	6	○
A6E 0500 075 0600 250			25	75	4.8	6	○
A6E 0500 075 0600 350			35	75	4.8	6	▲
A6E 0500 100 0600			-	100	-	6	●
A6E 0500 100 0600 500			50	100	4.8	6	○
A6E 0600 060 0600			-	60	-	6	○
A6E 0600 060 0600 200			20	60	5.8	6	○
A6E 0600 075 0600			-	75	-	6	○
A6E 0600 075 0600 300			30	75	5.8	6	○
A6E 0600 100 0600	6	9	-	100	-	6	○
A6E 0600 100 0600 400			40	100	5.8	6	○
A6E 0600 100 0600 500			50	100	5.8	6	○

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01 N02 N03 K01 K02 P01 P02 P03 M01 M02 S01 S02 S03 H01 H02 O01 O02

Cutting Parameters
Page 44-45

SE 70XR-TORUS ENDMILLS

HPMT

A6H



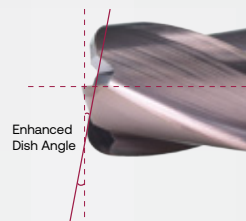
1 Differential Pitch (DP)

- Unequal flute spacing reduces vibration and chatter
- Delivers smoother cutting for superior surface finishing



2 Enhanced Dish Angle

- Minimizes irregular tool movement to reduce wear, ensuring longer tool life



A6H

DP

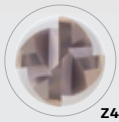


A6J

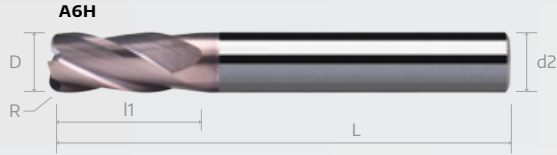
DP
with Recess

A6H

SE 70XR DP TORUS ENDMILLS, 4 FLUTE



Z4



Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6H 0100 050 0400 010	1	2.5		50		0.1	4	○
A6H 0100 050 0400 020				50		0.2	4	●
A6H 0100 050 0400 030				50		0.3	4	○
A6H 0150 050 0400 010	1.5	4		50		0.1	4	○
A6H 0150 050 0400 020				50		0.2	4	○
A6H 0150 050 0400 030				50		0.3	4	○
A6H 0150 050 0400 050	2	6		50		0.5	4	○
A6H 0200 050 0400 010				50		0.1	4	○
A6H 0200 050 0400 020				50		0.2	4	●
A6H 0200 050 0400 030	2.5	8		50		0.3	4	○
A6H 0200 050 0400 050				50		0.5	4	●
A6H 0250 050 0400 010				50		0.1	4	○
A6H 0250 050 0400 020	3	10		50		0.2	4	○
A6H 0250 050 0400 030				50		0.3	4	○
A6H 0250 050 0400 050				50		0.5	4	○
A6H 0300 050 0400 010	4	12		50		0.1	4	○
A6H 0300 050 0400 020				50		0.2	4	○
A6H 0300 050 0400 030				50		0.3	4	○
A6H 0300 060 0600 010	5	15		60		0.1	6	●
A6H 0300 060 0600 020				60		0.2	6	●
A6H 0300 060 0600 030				60		0.3	6	○
A6H 0300 060 0600 050	6	18		60		0.5	6	○
A6H 0300 060 0600 100				60		1	6	○
A6H 0300 060 0600 200				60		2	6	○
A6H 0400 060 0400 010	7	20		60		0.1	6	○
A6H 0400 060 0400 020				60		0.2	6	○
A6H 0400 060 0400 030				60		0.3	6	○
A6H 0400 060 0400 050	8	25		60		0.5	6	○
A6H 0400 060 0400 100				60		1	6	○
A6H 0400 060 0400 200				60		2	6	○
A6H 0400 075 0600 010	9	30		75		0.1	6	●
A6H 0400 075 0600 020				75		0.2	6	●
A6H 0400 075 0600 030				75		0.3	6	●
A6H 0400 075 0600 050	10	35		75		0.5	6	○
A6H 0400 075 0600 100				75		1	6	○
A6H 0400 075 0600 200				75		2	6	○
A6H 0600 060 0600 010	11	40		100		0.1	6	●
A6H 0600 060 0600 020				100		0.2	6	●
A6H 0600 060 0600 030				100		0.3	6	●
A6H 0600 060 0600 050	12	45		100		0.5	6	○
A6H 0600 060 0600 100				100		1	6	○
A6H 0600 060 0600 200				100		2	6	○
A6H 0600 075 0600 010	13	50		100		0.1	6	●
A6H 0600 075 0600 020				100		0.2	6	●
A6H 0600 075 0600 030				100		0.3	6	●
A6H 0600 075 0600 050	14	60		100		0.5	6	○
A6H 0600 075 0600 100				100		1	6	○
A6H 0600 075 0600 200				100		2	6	○
A6H 0600 060 0600 150	15	70		100		1.5	6	○
A6H 0600 060 0600 200				100		2	6	○
A6H 0600 075 0600 200				100		2	6	○

Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6H 0800 075 0800 020	8	16		75		0.2	8	▲
A6H 0800 075 0800 030				75		0.3	8	○
A6H 0800 100 0800 030				100		0.3	8	●
A6H 0800 075 0800 050 16	10	19		75		0.5	8	●
A6H 0800 075 0800 050 19				75		0.5	8	○
A6H 0800 075 0800 050 25				75		0.5	8	●
A6H 0800 100 0800 050	12	25		100		0.5	8	○
A6H 0800 075 0800 100				75		1	8	○
A6H 0800 100 0800 100				100		1	8	○
A6H 0800 075 0800 150	14	29		75		1.5	8	○
A6H 0800 100 0800 150				100		1.5	8	▲
A6H 0800 075 0800 200				75		2	8	○
A6H 0800 100 0800 200	16	33		100		2	8	○
A6H 1000 075 1000 030				75		0.3	10	○
A6H 1000 100 1000 030				100		0.3	10	○
A6H 1000 075 1000 050 19	18	37		75		0.5	10	●
A6H 1000 075 1000 050 25				75		0.5	10	○
A6H 1000 100 1000 050 22				100		0.5	10	○
A6H 1000 100 1000 050 30	20	41		100		0.5	10	●
A6H 1000 125 1000 050				125		0.5	10	○
A6H 1000 150 1000 050				150		0.5	10	○
A6H 1000 150 1000 050 30	22	45		150		0.5	10	●
A6H 1000 075 1000 100				75		1	10	○
A6H 1000 100 1000 100				100		1	10	○
A6H 1000 075 1000 150	24	49		75		1.5	10	○
A6H 1000 100 1000 150				100		1.5	10	○
A6H 1000 075 1000 200				75		2	10	○
A6H 1000 100 1000 200	26	53		100		2	10	○
A6H 1000 075 1000 250				75		2.5	10	○
A6H 1000 100 1000 250				100		2.5	10	○
A6H 1200 075 1200 030	28	57		75		0.3	12	○
A6H 1200 100 1200 030				100		0.3	12	○
A6H 1200 075 1200 050				75		0.5	12	●
A6H 1200 100 1200 050 26	30	61		100		0.5	12	○
A6H 1200 100 1200 050 35				100		0.5	12	○
A6H 1200 150 1200 050 26				150		0.5	12	○
A6H 1200 150 1200 050 35	32	65		150		0.5	12	○
A6H 1200 075 1200 100				75		1	12	○
A6H 1200 100 1200 100				100		1	12	○
A6H 1200 075 1200 150	34	69		75		1.5	12	○
A6H 1200 100 1200 150				100		1.5	12	▲
A6H 1200 075 1200 200				75		2	12	○
A6H 1200 100 1200 200	36	73		100		2	12	○
A6H 1200 075 1200 250				75		2.5	12	○
A6H 1200 100 1200 250				100		2.5	12	○
A6H 1200 075 1200 300	38	77		75		3	12	○
A6H 1200 100 1200 300				100		3	12	○
A6H 1600 090 1600 050	40	81		90		0.5	16	○
A6H 1600 090 1600 100				90		1	16	○
A6H 2000 100 2000 050				100		0.5	20	○
A6H 2000 100 2000 100	42	85		100		1	20	○

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

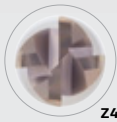
N01 N02 N03 K01 K02 P01 P02 P03 M01 M02 S01 S02 S03 H01 H02 O01 O02

Cutting Parameters
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A6J

SE 70XR DP TORUS ENDMILLS WITH RECESS, 4 FLUTE

HPMT



Z4



Order Number	Dimension (mm)							Stock	
	D	l1	l2	L	d1	R	d2(h5)		
A6J 0100 050 0400 010 015	1	1.5	3	50	0.95	0.1	4	○	
A6J 0100 050 0400 020 015			3	50	0.95	0.2	4	○	
A6J 0100 050 0400 030 015			3	50	0.95	0.3	4	○	
A6J 0100 050 0400 010		2.5	6	50	0.95	0.1	4	○	
A6J 0100 050 0400 020			6	50	0.95	0.2	4	▲	
A6J 0100 050 0400 030			6	50	0.95	0.3	4	○	
A6J 0150 050 0400 010 020	1.5	2	4.5	50	1.45	0.1	4	○	
A6J 0150 050 0400 020 020			4.5	50	1.45	0.2	4	○	
A6J 0150 050 0400 030 020			4.5	50	1.45	0.3	4	○	
A6J 0150 050 0400 050 020			4.5	50	1.45	0.5	4	○	
A6J 0150 050 0400 010		4	9	50	1.45	0.1	4	○	
A6J 0150 050 0400 020			9	50	1.45	0.2	4	○	
A6J 0150 050 0400 030			9	50	1.45	0.3	4	○	
A6J 0150 050 0400 050			9	50	1.45	0.5	4	○	
A6J 0200 050 0400 010 030		2	3	6	50	1.94	0.1	4	○
A6J 0200 050 0400 020 030				6	50	1.94	0.2	4	○
A6J 0200 050 0400 030 030				6	50	1.94	0.3	4	○
A6J 0200 050 0400 050 030			6	50	1.94	0.5	4	○	
A6J 0200 050 0400 010	6		12	50	1.94	0.1	4	○	
A6J 0200 050 0400 020			12	50	1.94	0.2	4	●	
A6J 0200 050 0400 030		12	50	1.94	0.3	4	○		
A6J 0200 050 0400 050	2.5	6	12	50	1.94	0.5	4	▲	
A6J 0250 050 0400 010			15	50	2.4	0.1	4	○	
A6J 0250 050 0400 020			15	50	2.4	0.2	4	○	
A6J 0250 050 0400 030		15	50	2.4	0.3	4	○		
A6J 0250 050 0400 050		15	50	2.4	0.5	4	○		
A6J 0300 050 0400 010 045		3	4.5	9	50	2.85	0.1	4	○
A6J 0300 060 0600 010 045	9			60	2.85	0.1	6	○	
A6J 0300 050 0400 020 045	9			50	2.85	0.2	4	○	
A6J 0300 060 0600 020 045	9			60	2.85	0.2	6	○	
A6J 0300 050 0400 030 045	9			50	2.85	0.3	4	○	
A6J 0300 060 0600 030 045	9			60	2.85	0.3	6	○	
A6J 0300 050 0400 050 045	8		9	50	2.85	0.5	4	○	
A6J 0300 060 0600 050 045			9	60	2.85	0.5	6	○	
A6J 0300 050 0400 100 045			9	50	2.85	1	4	○	
A6J 0300 060 0600 100 045			9	60	2.85	1	6	○	
A6J 0300 050 0400 010			12	50	2.85	0.1	4	○	
A6J 0300 060 0600 010			15	60	2.85	0.1	6	▲	
A6J 0300 050 0400 020	6		12	50	2.85	0.2	4	▲	
A6J 0300 060 0600 020			15	60	2.85	0.2	6	○	
A6J 0300 050 0400 030			12	50	2.85	0.3	4	▲	
A6J 0300 060 0600 030			15	60	2.85	0.3	6	○	
A6J 0300 050 0400 050			12	50	2.85	0.5	4	○	
A6J 0300 060 0600 050			15	60	2.85	0.5	6	●	
A6J 0300 050 0400 100	4	6	12	50	2.85	1	4	○	
A6J 0300 060 0600 100			15	60	2.85	1	6	○	
A6J 0400 060 0400 010 060			12	60	3.8	0.1	4	○	
A6J 0400 075 0600 010 060			12	75	3.8	0.1	6	○	
A6J 0400 060 0400 020 060			12	60	3.8	0.2	4	○	
A6J 0400 075 0600 020 060			12	75	3.8	0.2	6	○	
A6J 0400 060 0400 030 060	4	6	12	60	3.8	0.3	4	○	
A6J 0400 075 0600 030 060			12	75	3.8	0.3	4	○	
A6J 0400 060 0400 050 060			12	60	3.8	0.5	4	○	
A6J 0400 075 0600 050 060			12	75	3.8	0.5	4	○	

cont'd ►

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

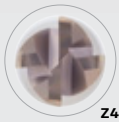
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Cutting Parameters
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A6J

SE 70XR DP TORUS ENDMILLS WITH RECESS, 4 FLUTE



Z4



Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6J 1000 150 1000 050	10	22	40	150	9.8	0.5	10	○
A6J 1000 150 1000 050 30		30	40	150	9.8	0.5	10	○
A6J 1000 075 1000 100		19	30	75	9.8	1	10	○
A6J 1000 100 1000 100		22	40	100	9.8	1	10	○
A6J 1000 075 1000 150		19	30	75	9.8	1.5	10	○
A6J 1000 100 1000 150		22	40	100	9.8	1.5	10	○
A6J 1000 075 1000 200		19	30	75	9.8	2	10	▲
A6J 1000 100 1000 200		22	40	100	9.8	2	10	○
A6J 1000 075 1000 250		19	30	75	9.8	2.5	10	○
A6J 1000 100 1000 250		22	40	100	9.8	2.5	10	○
A6J 1200 075 1200 030	12	22	35	75	11.7	0.3	12	○
A6J 1200 100 1200 030		26	48	100	11.7	0.3	12	○
A6J 1200 075 1200 050		22	35	75	11.7	0.5	12	○
A6J 1200 100 1200 050 26		26	48	100	11.7	0.5	12	○
A6J 1200 100 1200 050 35		35	48	100	11.7	0.5	12	○
A6J 1200 150 1200 050 26		26	48	150	11.7	0.5	12	○
A6J 1200 150 1200 050 35		35	48	150	11.7	0.5	12	○
A6J 1200 075 1200 100		22	35	75	11.7	1	12	▲
A6J 1200 100 1200 100		26	48	100	11.7	1	12	▲
A6J 1200 075 1200 150		22	35	75	11.7	1.5	12	○
A6J 1200 100 1200 150		26	48	100	11.7	1.5	12	○
A6J 1200 075 1200 200		22	35	75	11.7	2	12	○
A6J 1200 100 1200 200		26	48	100	11.7	2	12	○
A6J 1200 075 1200 250		22	35	75	11.7	2.5	12	○
A6J 1200 100 1200 250		26	48	100	11.7	2.5	12	○
A6J 1200 075 1200 300		22	35	75	11.7	3	12	○
A6J 1200 100 1200 300		26	48	100	11.7	3	12	○
A6J 1600 090 1600 050	16	32	48	90	15	0.5	16	○
A6J 1600 090 1600 100			48	90	15	1	16	○
A6J 2000 100 2000 050	20	40	60	100	19	0.5	20	○
A6J 2000 100 2000 100			60	100	19	1	20	○

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Material Group | Material-Gruppe | Groupe Matière | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Diameter (mm)	Radius Tolerance
D ≤ 2.5	±0.005
3 < D ≤ 6	±0.010
D > 6	±0.015

Diameter (mm)	Tolerance
<1	±0 ~ -0.005
1 ≤ D ≤ 2.5	±0 ~ -0.010
2.5 ≤ D ≤ 6	±0 ~ -0.015
6 < D ≤ 10	-0.005 ~ -0.020
>10	-0.010 ~ -0.025

Cutting Parameters
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A6G

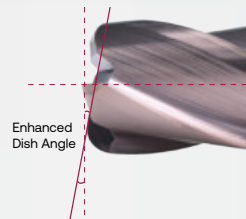
1 Differential Pitch (DP)

- Unequal flute spacing reduces vibration and chatter
- Delivers smoother cutting for superior surface finishing



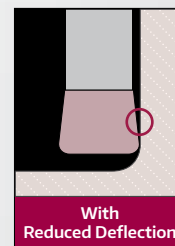
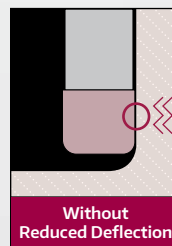
2 Enhanced Dish Angle

- Minimizes irregular tool movement to reduce wear, ensuring longer tool life



3 Back Taper Optimization (<Ø 4mm)

- Prevents unwanted contact between micro tools ($\leq \varnothing 4$ mm) and the workpiece in deep or narrow cavities, reducing vibration and ensuring better surface finishing by maintaining a safe clearance gap.
- Reduces tool deflection for tight tolerance and dimensional accuracy
- Minimizes vibration for superior surface finishing



A6G

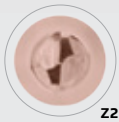
Miniature
Long Neck
2 Flute

A6G

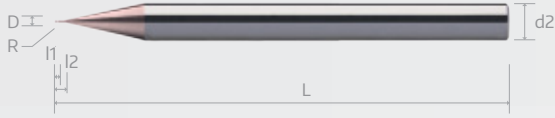
Miniature DP
Long Neck
4 Flute

A6G

SE 70XR MINIATURE TORUS ENDMILLS WITH LONG NECK, 2 FLUTE



A6G



Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0020 050 0400 R002	0.2	0.15	-	50	-	0.02	4	o
A6G 0020 050 0400 005 R002			0.5	50	0.18	0.02	4	o
A6G 0020 050 0400 010 R002			1	50	0.18	0.02	4	o
A6G 0020 050 0400 015 R002			1.5	50	0.18	0.02	4	o
A6G 0020 050 0400 020 R002			2	50	0.18	0.02	4	o
A6G 0020 050 0400 R005			-	50	-	0.05	4	o
A6G 0020 050 0400 005 R005			0.5	50	0.18	0.05	4	o
A6G 0020 050 0400 010 R005			1	50	0.18	0.05	4	o
A6G 0020 050 0400 015 R005			1.5	50	0.18	0.05	4	o
A6G 0020 050 0400 020 R005			2	50	0.18	0.05	4	o
A6G 0030 050 0400 R002	0.3	0.25	-	50	-	0.02	4	o
A6G 0030 050 0400 010 R002			1	50	0.28	0.02	4	o
A6G 0030 050 0400 015 R002			1.5	50	0.28	0.02	4	o
A6G 0030 050 0400 020 R002			2	50	0.28	0.02	4	o
A6G 0030 050 0400 025 R002			2.5	50	0.28	0.02	4	o
A6G 0030 050 0400 030 R002			3	50	0.28	0.02	4	o
A6G 0030 050 0400 R005			-	50	-	0.05	4	o
A6G 0030 050 0400 010 R005			1	50	0.28	0.05	4	o
A6G 0030 050 0400 015 R005			1.5	50	0.28	0.05	4	o
A6G 0030 050 0400 020 R005			2	50	0.28	0.05	4	o
A6G 0030 050 0400 025 R005	2.5	50	0.28	0.05	4	o		
A6G 0030 050 0400 030 R005	3	50	0.28	0.05	4	o		
A6G 0040 050 0400 R002	0.4	0.3	-	50	-	0.02	4	o
A6G 0040 050 0400 010 R002			1	50	0.37	0.02	4	o
A6G 0040 050 0400 015 R002			1.5	50	0.37	0.02	4	o
A6G 0040 050 0400 020 R002			2	50	0.37	0.02	4	o
A6G 0040 050 0400 025 R002			2.5	50	0.37	0.02	4	o
A6G 0040 050 0400 030 R002			3	50	0.37	0.02	4	o
A6G 0040 050 0400 040 R002			4	50	0.37	0.02	4	o
A6G 0040 050 0400 R005			-	50	-	0.05	4	o
A6G 0040 050 0400 010 R005			1	50	0.37	0.05	4	o
A6G 0040 050 0400 015 R005			1.5	50	0.37	0.05	4	o
A6G 0040 050 0400 020 R005	2	50	0.37	0.05	4	o		
A6G 0040 050 0400 025 R005	2.5	50	0.37	0.05	4	o		
A6G 0040 050 0400 030 R005	3	50	0.37	0.05	4	o		
A6G 0040 050 0400 040 R005	4	50	0.37	0.05	4	o		
A6G 0040 050 0400 R010	0.4	0.3	-	50	-	0.1	4	o
A6G 0040 050 0400 010 R010			1	50	0.37	0.1	4	o
A6G 0040 050 0400 015 R010			1.5	50	0.37	0.1	4	o
A6G 0040 050 0400 020 R010			2	50	0.37	0.1	4	o
A6G 0040 050 0400 025 R010			2.5	50	0.37	0.1	4	o
A6G 0040 050 0400 030 R010			3	50	0.37	0.1	4	o
A6G 0040 050 0400 040 R010			4	50	0.37	0.1	4	o
A6G 0040 050 0400 040 R010			4	50	0.37	0.1	4	o

Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0050 050 0400 R002	0.5	0.4	-	50	-	0.02	4	o
A6G 0050 050 0400 010 R002			1	50	0.46	0.02	4	o
A6G 0050 050 0400 020 R002			2	50	0.46	0.02	4	o
A6G 0050 050 0400 030 R002			3	50	0.46	0.02	4	o
A6G 0050 050 0400 040 R002			4	50	0.46	0.02	4	o
A6G 0050 050 0400 050 R002			5	50	0.46	0.02	4	o
A6G 0050 050 0400 060 R002			6	50	0.46	0.02	4	o
A6G 0050 050 0400 R005			-	50	-	0.05	4	o
A6G 0050 050 0400 010 R005			1	50	0.46	0.05	4	o
A6G 0050 050 0400 020 R005			2	50	0.46	0.05	4	o
A6G 0050 050 0400 030 R005	0.5	0.4	3	50	0.46	0.05	4	o
A6G 0050 050 0400 040 R005			4	50	0.46	0.05	4	o
A6G 0050 050 0400 050 R005			5	50	0.46	0.05	4	o
A6G 0050 050 0400 060 R005			6	50	0.46	0.05	4	o
A6G 0050 050 0400 R010			-	50	-	0.1	4	o
A6G 0050 050 0400 010 R010			1	50	0.46	0.1	4	o
A6G 0050 050 0400 020 R010			2	50	0.46	0.1	4	o
A6G 0050 050 0400 030 R010			3	50	0.46	0.1	4	o
A6G 0050 050 0400 040 R010			4	50	0.46	0.1	4	o
A6G 0050 050 0400 050 R010			5	50	0.46	0.1	4	o
A6G 0050 050 0400 060 R010	0.6	0.5	6	50	0.46	0.1	4	o
A6G 0060 050 0400 R002			-	50	-	0.02	4	o
A6G 0060 050 0400 020 R002			2	50	0.56	0.02	4	o
A6G 0060 050 0400 040 R002			4	50	0.56	0.02	4	o
A6G 0060 050 0400 060 R002			6	50	0.56	0.02	4	o
A6G 0060 050 0400 080 R002			8	50	0.56	0.02	4	o
A6G 0060 050 0400 100 R002			10	50	0.56	0.02	4	o
A6G 0060 050 0400 R005			-	50	-	0.05	4	o
A6G 0060 050 0400 020 R005			2	50	0.56	0.05	4	o
A6G 0060 050 0400 040 R005			4	50	0.56	0.05	4	o
A6G 0060 050 0400 060 R005	0.6	0.5	6	50	0.56	0.05	4	o
A6G 0060 050 0400 080 R005			8	50	0.56	0.05	4	o
A6G 0060 050 0400 100 R005			10	50	0.56	0.05	4	o
A6G 0060 050 0400 R010			-	50	-	0.1	4	o
A6G 0060 050 0400 020 R010			2	50	0.56	0.1	4	o
A6G 0060 050 0400 040 R010			4	50	0.56	0.1	4	o
A6G 0060 050 0400 060 R010			6	50	0.56	0.1	4	o
A6G 0060 050 0400 080 R010			8	50	0.56	0.1	4	o
A6G 0060 050 0400 100 R010			10	50	0.56	0.1	4	o
A6G 0070 050 0400 R002	0.7	0.55	-	50	-	0.02	4	o
A6G 0070 050 0400 020 R002			2	50	0.66	0.02	4	o
A6G 0070 050 0400 040 R002			4	50	0.66	0.02	4	o
A6G 0070 050 0400 060 R002			6	50	0.66	0.02	4	o

cont'd ►

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radies Tolerance	Diameter (mm)	Tolerance
D ≤ 2.5	±0.005	<1	±0 ~ -0.005
		1 ≤ D ≤ 2.5	±0 ~ -0.010

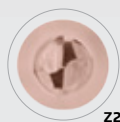
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01 N02 N03 K01 K02 P01 P02 P03 M01 M02 S01 S02 S03 H01 H02 O01 O02

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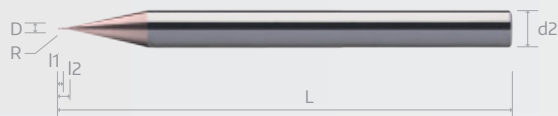
SE 70XR MINIATURE TORUS ENDMILLS WITH LONG NECK, 2 FLUTE



Z2



A6G



Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0070 050 0400 R005	0.7	0.55	-	50	0.66	0.05	4	o
A6G 0070 050 0400 020 R005			2	50	0.66	0.05	4	o
A6G 0070 050 0400 040 R005			4	50	0.66	0.05	4	o
A6G 0070 050 0400 060 R005			6	50	0.66	0.05	4	o
A6G 0070 050 0400 R010			-	50	0.66	0.1	4	o
A6G 0070 050 0400 020 R010			2	50	0.66	0.1	4	o
A6G 0070 050 0400 040 R010			4	50	0.66	0.1	4	o
A6G 0070 050 0400 060 R010			6	50	0.66	0.1	4	o
A6G 0080 050 0400 R002	0.8	0.65	-	50	-	0.02	4	o
A6G 0080 050 0400 020 R002			2	50	0.76	0.02	4	o
A6G 0080 050 0400 040 R002			4	50	0.76	0.02	4	o
A6G 0080 050 0400 060 R002			6	50	0.76	0.02	4	o
A6G 0080 050 0400 080 R002			8	50	0.76	0.02	4	o
A6G 0080 050 0400 R005			-	50	-	0.05	4	o
A6G 0080 050 0400 020 R005			2	50	0.76	0.05	4	o
A6G 0080 050 0400 040 R005			4	50	0.76	0.05	4	o
A6G 0080 050 0400 060 R005			6	50	0.76	0.05	4	o
A6G 0080 050 0400 080 R005			8	50	0.76	0.05	4	o
A6G 0080 050 0400 120 R005			12	50	0.76	0.05	4	o
A6G 0080 050 0400 R010			-	50	-	0.1	4	o
A6G 0080 050 0400 020 R010			2	50	0.76	0.1	4	o
A6G 0080 050 0400 040 R010			4	50	0.76	0.1	4	o
A6G 0080 050 0400 060 R010			6	50	0.76	0.1	4	o
A6G 0080 050 0400 080 R010			8	50	0.76	0.1	4	o
A6G 0080 050 0400 120 R010			12	50	0.76	0.1	4	o
A6G 0080 050 0400 R002			-	50	-	0.2	4	o
A6G 0080 050 0400 020 R020			2	50	0.76	0.2	4	o
A6G 0080 050 0400 040 R020			4	50	0.76	0.2	4	o
A6G 0080 050 0400 060 R020			6	50	0.76	0.2	4	o
A6G 0080 050 0400 080 R020			8	50	0.76	0.2	4	o
A6G 0080 050 0400 120 R020			12	50	0.76	0.2	4	o
A6G 0090 050 0400 R010	0.9	0.7	-	50	-	0.1	4	o
A6G 0090 050 0400 040 R010			4	50	0.85	0.1	4	o
A6G 0090 050 0400 080 R010			8	50	0.85	0.1	4	o

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Material Group | Material-Gruppe | Groupe Matière | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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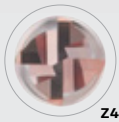
Diameter (mm)	Radius Tolerance	Diameter (mm)	Tolerance
D ≤ 2.5	±0.005	<1	±0 ~ -0.005
		1 ≤ D ≤ 2.5	±0 ~ -0.010

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SE 70XR MINIATURE DP TORUS ENDMILLS WITH LONG NECK, 4 FLUTE

HPMT



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Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0100 050 0400 R002	1	0.8	-	50	-	0.02	4	○
A6G 0100 050 0400 020 R002			2	50	0.95	0.02	4	○
A6G 0100 050 0400 030 R002			3	50	0.95	0.02	4	○
A6G 0100 050 0400 040 R002			4	50	0.95	0.02	4	○
A6G 0100 050 0400 050 R002			5	50	0.95	0.02	4	○
A6G 0100 050 0400 060 R002			6	50	0.95	0.02	4	○
A6G 0100 050 0400 080 R002			8	50	0.95	0.02	4	○
A6G 0100 050 0400 100 R002			10	50	0.95	0.02	4	○
A6G 0100 050 0400 R005			-	50	-	0.05	4	○
A6G 0100 050 0400 020 R005			2	50	0.95	0.05	4	○
A6G 0100 050 0400 030 R005			3	50	0.95	0.05	4	○
A6G 0100 050 0400 040 R005			4	50	0.95	0.05	4	○
A6G 0100 050 0400 050 R005			5	50	0.95	0.05	4	○
A6G 0100 050 0400 060 R005			6	50	0.95	0.05	4	▲
A6G 0100 050 0400 080 R005			8	50	0.95	0.05	4	▲
A6G 0100 050 0400 100 R005			10	50	0.95	0.05	4	▲
A6G 0100 050 0400 R010			-	50	-	0.1	4	●
A6G 0100 050 0400 020 R010			2	50	0.95	0.1	4	▲
A6G 0100 050 0400 030 R010			3	50	0.95	0.1	4	●
A6G 0100 050 0400 040 R010			4	50	0.95	0.1	4	▲
A6G 0100 050 0400 050 R010			5	50	0.95	0.1	4	▲
A6G 0100 050 0400 060 R010			6	50	0.95	0.1	4	▲
A6G 0100 050 0400 080 R010			8	50	0.95	0.1	4	▲
A6G 0100 050 0400 100 R010			10	50	0.95	0.1	4	▲
A6G 0100 050 0400 R020			-	50	-	0.2	4	▲
A6G 0100 050 0400 020 R020			2	50	0.95	0.2	4	▲
A6G 0100 050 0400 030 R020			3	50	0.95	0.2	4	●
A6G 0100 050 0400 040 R020			4	50	0.95	0.2	4	▲
A6G 0100 050 0400 050 R020			5	50	0.95	0.2	4	▲
A6G 0100 050 0400 060 R020			6	50	0.95	0.2	4	▲
A6G 0100 050 0400 080 R020			8	50	0.95	0.2	4	○
A6G 0100 050 0400 100 R020			10	50	0.95	0.2	4	○
A6G 0100 050 0400 120 R020			12	50	0.95	0.2	4	○
A6G 0100 050 0400 R030			-	50	-	0.3	4	○
A6G 0100 050 0400 020 R030			2	50	0.95	0.3	4	○
A6G 0100 050 0400 030 R030			3	50	0.95	0.3	4	○
A6G 0100 050 0400 040 R030			4	50	0.95	0.3	4	○
A6G 0100 050 0400 050 R030			5	50	0.95	0.3	4	○
A6G 0100 050 0400 060 R030			6	50	0.95	0.3	4	○
A6G 0100 050 0400 080 R030			8	50	0.95	0.3	4	○
A6G 0100 050 0400 100 R030			10	50	0.95	0.3	4	○
A6G 0120 050 0400 R010	1.2	1	-	50	-	0.1	4	○
A6G 0120 050 0400 050 R010			5	50	1.14	0.1	4	○

Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0120 050 0400 100 R010	1.2	1	10	50	1.14	0.1	4	○
A6G 0120 050 0400 R020			-	50	-	0.2	4	○
A6G 0120 050 0400 050 R020			5	50	1.14	0.2	4	○
A6G 0120 050 0400 100 R020			10	50	1.14	0.2	4	○
A6G 0120 050 0400 R030			-	50	-	0.3	4	○
A6G 0120 050 0400 050 R030			5	50	1.14	0.3	4	○
A6G 0120 050 0400 100 R030			10	50	1.14	0.3	4	○
A6G 0150 050 0400 R002			-	50	-	0.02	4	○
A6G 0150 050 0400 030 R002			3	50	1.43	0.02	4	○
A6G 0150 050 0400 040 R002			4	50	1.43	0.02	4	○
A6G 0150 050 0400 060 R002			6	50	1.43	0.02	4	○
A6G 0150 050 0400 080 R002			8	50	1.43	0.02	4	○
A6G 0150 050 0400 120 R002			12	50	1.43	0.02	4	○
A6G 0150 050 0400 150 R002			15	50	1.43	0.02	4	○
A6G 0150 050 0400 R005			-	50	-	0.05	4	○
A6G 0150 050 0400 030 R005			3	50	1.43	0.05	4	○
A6G 0150 050 0400 040 R005			4	50	1.43	0.05	4	○
A6G 0150 050 0400 060 R005			6	50	1.43	0.05	4	○
A6G 0150 050 0400 080 R005			8	50	1.43	0.05	4	▲
A6G 0150 050 0400 120 R005			12	50	1.43	0.05	4	▲
A6G 0150 050 0400 150 R005			15	50	1.43	0.05	4	▲
A6G 0150 050 0400 R010			-	50	-	0.1	4	▲
A6G 0150 050 0400 030 R010			3	50	1.43	0.1	4	●
A6G 0150 050 0400 040 R010			4	50	1.43	0.1	4	▲
A6G 0150 050 0400 060 R010			6	50	1.43	0.1	4	▲
A6G 0150 050 0400 080 R010			8	50	1.43	0.1	4	○
A6G 0150 050 0400 120 R010			12	50	1.43	0.1	4	○
A6G 0150 050 0400 150 R010			15	50	1.43	0.1	4	○
A6G 0150 050 0400 R020			-	50	-	0.2	4	○
A6G 0150 050 0400 030 R020			3	50	1.43	0.2	4	○
A6G 0150 050 0400 040 R020			4	50	1.43	0.2	4	○
A6G 0150 050 0400 060 R020			6	50	1.43	0.2	4	○
A6G 0150 050 0400 080 R020			8	50	1.43	0.2	4	○
A6G 0150 050 0400 100 R020			10	50	1.43	0.2	4	○
A6G 0150 050 0400 120 R020			12	50	1.43	0.2	4	○
A6G 0150 050 0400 150 R020			15	50	1.43	0.2	4	○
A6G 0150 050 0400 R030			-	50	-	0.3	4	○
A6G 0150 050 0400 030 R030			3	50	1.43	0.3	4	○
A6G 0150 050 0400 040 R030			4	50	1.43	0.3	4	○
A6G 0150 050 0400 060 R030			6	50	1.43	0.3	4	○
A6G 0150 050 0400 080 R030			8	50	1.43	0.3	4	○
A6G 0150 050 0400 120 R030			12	50	1.43	0.3	4	○
A6G 0150 050 0400 150 R030			15	50	1.43	0.3	4	○

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	Germany	France	Italy	China
● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radies Tolerance	Diameter (mm)	Tolerance
D ≤ 2.5	±0.005	<1	±0 ~ -0.005
3 < D ≤ 6	±0.010	1 ≤ D ≤ 2.5	±0 ~ -0.010
D > 6	±0.015	2.5 ≤ D ≤ 6	±0 ~ -0.015

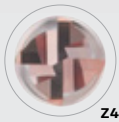
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01 N02 N03 K01 K02 P01 P02 P03 M01 M02 S01 S02 S03 H01 H02 O01 O02

Cutting Parameters
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A6G

SE 70XR MINIATURE DP TORUS ENDMILLS WITH LONG NECK, 4 FLUTE



Z4



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Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0150 050 0400 R050	1.5	1.2	-	50	-	0.5	4	○
A6G 0150 050 0400 030 R050			3	50	1.43	0.5	4	○
A6G 0150 050 0400 040 R050			4	50	1.43	0.5	4	○
A6G 0150 050 0400 060 R050			6	50	1.43	0.5	4	○
A6G 0150 050 0400 080 R050			8	50	1.43	0.5	4	▲
A6G 0150 050 0400 120 R050			12	50	1.43	0.5	4	▲
A6G 0150 050 0400 150 R050			15	50	1.43	0.5	4	▲
A6G 0200 050 0400 R002			-	50	-	0.02	4	▲
A6G 0200 050 0400 040 R002			4	50	1.91	0.02	4	●
A6G 0200 050 0400 060 R002			6	50	1.91	0.02	4	▲
A6G 0200 050 0400 080 R002			8	50	1.91	0.02	4	○
A6G 0200 050 0400 120 R002			12	50	1.91	0.02	4	○
A6G 0200 060 0400 R002	2	1.6	-	60	-	0.02	4	○
A6G 0200 060 0400 160 R002			16	60	1.91	0.02	4	○
A6G 0200 060 0400 200 R002			20	60	1.91	0.02	4	○
A6G 0200 050 0400 R005			-	50	-	0.05	4	○
A6G 0200 050 0400 040 R005			4	50	1.91	0.05	4	○
A6G 0200 050 0400 060 R005			6	50	1.91	0.05	4	○
A6G 0200 050 0400 080 R005			8	50	1.91	0.05	4	○
A6G 0200 050 0400 120 R005			12	50	1.91	0.05	4	○
A6G 0200 060 0400 R005			-	60	-	0.05	4	▲
A6G 0200 060 0400 160 R005			16	60	1.91	0.05	4	▲
A6G 0200 060 0400 200 R005			20	60	1.91	0.05	4	▲
A6G 0200 050 0400 R010			-	50	-	0.1	4	▲
A6G 0200 050 0400 040 R010			4	50	1.91	0.1	4	●
A6G 0200 050 0400 060 R010			6	50	1.91	0.1	4	○
A6G 0200 050 0400 080 R010			8	50	1.91	0.1	4	○
A6G 0200 050 0400 120 R010			12	50	1.91	0.1	4	○
A6G 0200 060 0400 R010			-	60	-	0.1	4	○
A6G 0200 060 0400 160 R010			16	60	1.91	0.1	4	○
A6G 0200 060 0400 200 R010			20	60	1.91	0.1	4	○
A6G 0200 050 0400 R020			-	50	-	0.2	4	●
A6G 0200 050 0400 040 R020			4	50	1.91	0.2	4	●
A6G 0200 050 0400 060 R020			6	50	1.91	0.2	4	●
A6G 0200 050 0400 080 R020			8	50	1.91	0.2	4	▲
A6G 0200 050 0400 100 R020			10	50	1.91	0.2	4	●
A6G 0200 050 0400 120 R020			12	50	1.91	0.2	4	●
A6G 0200 060 0400 R020			-	60	-	0.2	4	●
A6G 0200 060 0400 160 R020			16	60	1.91	0.2	4	○
A6G 0200 060 0400 200 R020			20	60	1.91	0.2	4	○
A6G 0200 050 0400 R030			-	50	-	0.3	4	○
A6G 0200 050 0400 040 R030			4	50	1.91	0.3	4	○
A6G 0200 050 0400 060 R030			6	50	1.91	0.3	4	○

Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0200 050 0400 080 R030	2	1.6	8	50	1.91	0.3	4	○
A6G 0200 050 0400 120 R030			12	50	1.91	0.3	4	○
A6G 0200 060 0400 R030			-	60	-	0.3	4	▲
A6G 0200 060 0400 160 R030			16	60	1.91	0.3	4	▲
A6G 0200 060 0400 200 R030			20	60	1.91	0.3	4	▲
A6G 0200 050 0400 R050			-	50	-	0.5	4	▲
A6G 0200 050 0400 040 R050			4	50	1.91	0.5	4	●
A6G 0200 050 0400 060 R050			6	50	1.91	0.5	4	○
A6G 0200 050 0400 080 R050			8	50	1.91	0.5	4	○
A6G 0200 050 0400 120 R050			12	50	1.91	0.5	4	○
A6G 0200 060 0400 R050			-	60	-	0.5	4	○
A6G 0200 060 0400 160 R050			16	60	1.91	0.5	4	○
A6G 0200 060 0400 200 R050	2.5	2	20	60	1.91	0.5	4	○
A6G 0250 050 0400 R010			-	50	-	0.1	4	○
A6G 0250 050 0400 100 R010			10	50	2.39	0.1	4	○
A6G 0250 060 0400 R010			-	60	-	0.1	4	○
A6G 0250 060 0400 200 R010			20	60	2.39	0.1	4	○
A6G 0250 075 0400 R010			-	75	-	0.1	4	○
A6G 0250 075 0400 300 R010			30	75	2.39	0.1	4	○
A6G 0250 050 0400 R020			-	50	-	0.2	4	○
A6G 0250 050 0400 100 R020			10	50	2.39	0.2	4	○
A6G 0250 060 0400 R020			-	60	-	0.2	4	○
A6G 0250 060 0400 200 R020			20	60	2.39	0.2	4	○
A6G 0250 075 0400 R020			-	75	-	0.2	4	○
A6G 0250 075 0400 300 R020			30	75	2.39	0.2	4	○
A6G 0250 050 0400 R030			-	50	-	0.3	4	○
A6G 0250 050 0400 100 R030			10	50	2.39	0.3	4	○
A6G 0250 060 0400 R030			-	60	-	0.3	4	○
A6G 0250 060 0400 200 R030			20	60	2.39	0.3	4	○
A6G 0250 075 0400 R030			-	75	-	0.3	4	○
A6G 0250 075 0400 300 R030			30	75	2.39	0.3	4	○
A6G 0250 050 0400 R050			-	50	-	0.5	4	○
A6G 0250 050 0400 100 R050			10	50	2.39	0.5	4	○
A6G 0250 060 0400 R050			-	60	-	0.5	4	○
A6G 0250 060 0400 200 R050			20	60	2.39	0.5	4	○
A6G 0250 075 0400 R050			-	75	-	0.5	4	○
A6G 0250 075 0400 300 R050			30	75	2.39	0.5	4	○
A6G 0300 050 0600 R005	3	2.5	-	50	-	0.05	6	○
A6G 0300 050 0600 040 R005			4	50	2.85	0.05	6	○
A6G 0300 050 0600 060 R005			6	50	2.85	0.05	6	○
A6G 0300 050 0600 080 R005			8	50	2.85	0.05	6	○
A6G 0300 050 0600 120 R005			12	50	2.85	0.05	6	○
A6G 0300 060 0600 R005			-	60	-	0.05	6	○

cont'd ►

	Germany	France	Italy	China
● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radies Tolerance	Diameter (mm)	Tolerance
D ≤ 2.5	±0.005	<1	±0 ~ -0.005
3 < D ≤ 6	±0.010	1 ≤ D ≤ 2.5	±0 ~ -0.010
D > 6	±0.015	2.5 ≤ D ≤ 6	±0 ~ -0.015

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

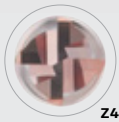
N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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Cutting Parameters
Page 48-49

A6G

SE 70XR MINIATURE DP TORUS ENDMILLS WITH LONG NECK, 4 FLUTE

HPMT



Z4



A6G



Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0300 060 0600 160 R005			16	60	2.85	0.05	6	○
A6G 0300 060 0600 200 R005			20	60	2.85	0.05	6	○
A6G 0300 050 0600 R010			-	50	-	0.1	6	○
A6G 0300 050 0600 040 R010			4	50	2.85	0.1	6	○
A6G 0300 050 0600 060 R010			6	50	2.85	0.1	6	○
A6G 0300 050 0600 080 R010			8	50	2.85	0.1	6	○
A6G 0300 050 0600 100 R010			10	50	2.85	0.1	6	○
A6G 0300 050 0600 120 R010			12	50	2.85	0.1	6	○
A6G 0300 060 0600 R010			-	60	-	0.1	6	○
A6G 0300 060 0600 160 R010			16	60	2.85	0.1	6	○
A6G 0300 060 0600 200 R010			20	60	2.85	0.1	6	○
A6G 0300 075 0600 R010			-	75	-	0.1	6	○
A6G 0300 075 0600 250 R010			25	75	2.85	0.1	6	○
A6G 0300 075 0600 300 R010			30	75	2.85	0.1	6	○
A6G 0300 075 0600 R020			-	50	-	0.2	6	○
A6G 0300 050 0600 040 R020			4	50	2.85	0.2	6	○
A6G 0300 050 0600 060 R020			6	50	2.85	0.2	6	○
A6G 0300 050 0600 080 R020			8	50	2.85	0.2	6	○
A6G 0300 050 0600 100 R020			10	50	2.85	0.2	6	○
A6G 0300 050 0600 120 R020			12	50	2.85	0.2	6	○
A6G 0300 060 0600 R020			-	60	-	0.2	6	○
A6G 0300 060 0600 160 R020	3	2.5	16	60	2.85	0.2	6	○
A6G 0300 060 0600 180 R020			18	60	2.85	0.2	6	○
A6G 0300 060 0600 200 R020			20	60	2.85	0.2	6	○
A6G 0300 075 0600 R020			-	75	-	0.2	6	○
A6G 0300 075 0600 250 R020			25	75	2.85	0.2	6	○
A6G 0300 075 0600 300 R020			30	75	2.85	0.2	6	○
A6G 0300 050 0600 R030			-	50	-	0.3	6	○
A6G 0300 050 0600 040 R030			4	50	2.85	0.3	6	○
A6G 0300 050 0600 060 R030			6	50	2.85	0.3	6	○
A6G 0300 050 0600 080 R030			8	50	2.85	0.3	6	○
A6G 0300 050 0600 120 R030			12	50	2.85	0.3	6	○
A6G 0300 060 0600 R030			-	60	-	0.3	6	○
A6G 0300 060 0600 160 R030			16	60	2.85	0.3	6	○
A6G 0300 060 0600 200 R030			20	60	2.85	0.3	6	○
A6G 0300 075 0600 R030			-	75	-	0.3	6	○
A6G 0300 075 0600 250 R030			25	75	2.85	0.3	6	○
A6G 0300 075 0600 300 R030			30	75	2.85	0.3	6	○
A6G 0300 050 0600 R050			-	50	-	0.5	6	○
A6G 0300 050 0600 040 R050			4	50	2.85	0.5	6	○
A6G 0300 050 0600 060 R050			6	50	2.85	0.5	6	○
A6G 0300 050 0600 080 R050			8	50	2.85	0.5	6	○
A6G 0300 050 0600 120 R050			12	50	2.85	0.5	6	○

Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0300 060 0600 R050			-	60	-	0.5	6	○
A6G 0300 060 0600 160 R050			16	60	2.85	0.5	6	○
A6G 0300 060 0600 200 R050			20	60	2.85	0.5	6	○
A6G 0300 075 0600 R050			-	75	-	0.5	6	○
A6G 0300 075 0600 250 R050			25	75	2.85	0.5	6	○
A6G 0300 075 0600 300 R050			30	75	2.85	0.5	6	○
A6G 0300 050 0600 R100			-	50	-	1	6	○
A6G 0300 050 0600 080 R100	3	2.5	8	50	2.85	1	6	○
A6G 0300 050 0600 120 R100			12	50	2.85	1	6	○
A6G 0300 060 0600 R100			-	60	-	1	6	○
A6G 0300 060 0600 160 R100			16	60	2.85	1	6	○
A6G 0300 060 0600 200 R100			20	60	2.85	1	6	○
A6G 0300 075 0600 R100			-	75	-	1	6	○
A6G 0300 075 0600 250 R100			25	75	2.85	1	6	○
A6G 0300 075 0600 300 R100			30	75	2.85	1	6	○
A6G 0400 050 0600 R010			-	50	-	0.1	6	○
A6G 0400 050 0600 080 R010			8	50	3.8	0.1	6	○
A6G 0400 050 0600 120 R010			12	50	3.8	0.1	6	○
A6G 0400 060 0600 R010			-	60	-	0.1	6	○
A6G 0400 060 0600 160 R010			16	60	3.8	0.1	6	○
A6G 0400 075 0600 R010			-	75	-	0.1	6	○
A6G 0400 075 0600 240 R010			24	75	3.8	0.1	6	○
A6G 0400 075 0600 320 R010			32	75	3.8	0.1	6	○
A6G 0400 050 0600 R020			-	50	3.8	0.2	6	▲
A6G 0400 050 0600 080 R020			8	50	3.8	0.2	6	●
A6G 0400 050 0600 120 R020			12	50	3.8	0.2	6	▲
A6G 0400 060 0600 R020			-	60	-	0.2	6	●
A6G 0400 060 0600 160 R020			16	60	3.8	0.2	6	○
A6G 0400 075 0600 R020			-	75	-	0.2	6	○
A6G 0400 075 0600 240 R020	4	3.2	24	75	3.8	0.2	6	○
A6G 0400 075 0600 320 R020			32	75	3.8	0.2	6	▲
A6G 0400 050 0600 R030			-	50	3.8	0.3	6	○
A6G 0400 050 0600 080 R030			8	50	3.8	0.3	6	○
A6G 0400 050 0600 120 R030			12	50	3.8	0.3	6	○
A6G 0400 060 0600 R030			-	60	-	0.3	6	○
A6G 0400 060 0600 160 R030			16	60	3.8	0.3	6	○
A6G 0400 075 0600 R030			-	75	-	0.3	6	○
A6G 0400 075 0600 240 R030			24	75	3.8	0.3	6	○
A6G 0400 075 0600 320 R030			32	75	3.8	0.3	6	○
A6G 0400 050 0600 R050			-	50	-	0.5	6	▲
A6G 0400 050 0600 080 R050			8	50	3.8	0.5	6	●
A6G 0400 050 0600 120 R050			12	50	3.8	0.5	6	○
A6G 0400 060 0600 R050			-	60	-	0.5	6	○

cont'd ►

	Germany	France	Italy	China
● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radies Tolerance	Diameter (mm)	Tolerance
D ≤ 2.5	±0.005	<1	±0 ~ -0.005
3 < D ≤ 6	±0.010	1 ≤ D ≤ 2.5	±0 ~ -0.010
D > 6	±0.015	2.5 ≤ D ≤ 6	±0 ~ -0.015

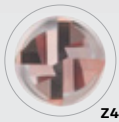
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01 N02 N03 K01 K02 P01 P02 P03 M01 M02 S01 S02 S03 H01 H02 O01 O02

Cutting Parameters
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A6G

SE 70XR MINIATURE DP TORUS ENDMILLS WITH LONG NECK, 4 FLUTE



A6G



Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0400 060 0600 160 R050	4	3.2	16	60	3.8	0.5	6	●
A6G 0400 075 0600 R050			-	75	-	0.5	6	○
A6G 0400 075 0600 240 R050			24	75	3.8	0.5	6	○
A6G 0400 075 0600 320 R050			32	75	3.8	0.5	6	○
A6G 0400 050 0600 R100			-	50	-	1	6	○
A6G 0400 050 0600 080 R100			8	50	3.8	1	6	○
A6G 0400 050 0600 120 R100			12	50	3.8	1	6	○
A6G 0400 060 0600 R100			-	60	-	1	6	○
A6G 0400 060 0600 160 R100			16	60	3.8	1	6	○
A6G 0400 075 0600 R100			-	75	-	1	6	○
A6G 0400 075 0600 240 R100			24	75	3.8	1	6	○
A6G 0400 075 0600 320 R100			32	75	3.8	1	6	○
A6G 0500 060 0600 R010	5	4	-	60	-	0.1	6	○
A6G 0500 060 0600 150 R010			15	60	4.75	0.1	6	○
A6G 0500 075 0600 R010			-	75	-	0.1	6	○
A6G 0500 075 0600 200 R010			20	75	4.75	0.1	6	○
A6G 0500 100 0600 R010			-	100	-	0.1	6	○
A6G 0500 100 0600 400 R010			40	100	4.75	0.1	6	○
A6G 0500 060 0600 R020			-	60	-	0.2	6	○
A6G 0500 060 0600 150 R020			15	60	4.75	0.2	6	○
A6G 0500 075 0600 R020			-	75	-	0.2	6	○
A6G 0500 075 0600 200 R020			20	75	4.75	0.2	6	○
A6G 0500 100 0600 R020			-	100	-	0.2	6	○
A6G 0500 100 0600 400 R020			40	100	4.75	0.2	6	○
A6G 0500 060 0600 R030			-	60	-	0.3	6	○
A6G 0500 060 0600 150 R030			15	60	4.75	0.3	6	○
A6G 0500 075 0600 R030			-	75	-	0.3	6	○
A6G 0500 075 0600 200 R030			20	75	4.75	0.3	6	○
A6G 0500 100 0600 R030			-	100	-	0.3	6	○
A6G 0500 100 0600 400 R030			40	100	4.75	0.3	6	○
A6G 0500 060 0600 R050			-	60	-	0.5	6	○
A6G 0500 060 0600 150 R050			15	60	4.75	0.5	6	○
A6G 0500 075 0600 R050			-	75	-	0.5	6	○
A6G 0500 075 0600 200 R050			20	75	4.75	0.5	6	○
A6G 0500 100 0600 R050			-	100	-	0.5	6	○
A6G 0500 100 0600 400 R050			40	100	4.75	0.5	6	○
A6G 0500 060 0600 R100			-	60	-	1	6	○
A6G 0500 060 0600 150 R100			15	60	4.75	1	6	○
A6G 0500 075 0600 R100			-	75	-	1	6	○
A6G 0500 075 0600 200 R100			20	75	4.75	1	6	○
A6G 0500 100 0600 R100			-	100	-	1	6	○
A6G 0500 100 0600 400 R100			40	100	4.75	1	6	○

Order Number	Dimension (mm)							Stock
	D	l1	l2	L	d1	R	d2(h5)	
A6G 0600 060 0600 R010	6	5	-	60	-	0.1	6	○
A6G 0600 060 0600 120 R010			12	60	5.7	0.1	6	○
A6G 0600 075 0600 R010			-	75	-	0.1	6	○
A6G 0600 075 0600 180 R010			18	75	5.7	0.1	6	○
A6G 0600 075 0600 240 R010			24	75	5.7	0.1	6	○
A6G 0600 100 0600 R010			-	100	-	0.1	6	○
A6G 0600 100 0600 480 R010			48	100	5.7	0.1	6	○
A6G 0600 060 0600 R020			-	60	-	0.2	6	○
A6G 0600 060 0600 120 R020			12	60	5.7	0.2	6	○
A6G 0600 075 0600 R020			-	75	-	0.2	6	○
A6G 0600 075 0600 180 R020			18	75	5.7	0.2	6	○
A6G 0600 075 0600 240 R020			24	75	5.7	0.2	6	○
A6G 0600 100 0600 R020			-	100	-	0.2	6	○
A6G 0600 100 0600 480 R020			48	100	5.7	0.2	6	▲
A6G 0600 060 0600 R030			-	60	-	0.3	6	▲
A6G 0600 060 0600 120 R030			12	60	5.7	0.3	6	●
A6G 0600 075 0600 R030			-	75	-	0.3	6	○
A6G 0600 075 0600 180 R030			18	75	5.7	0.3	6	○
A6G 0600 075 0600 240 R030			24	75	5.7	0.3	6	○
A6G 0600 100 0600 R030			-	100	-	0.3	6	○
A6G 0600 100 0600 480 R030			48	100	5.7	0.3	6	▲
A6G 0600 060 0600 R050			-	60	-	0.5	6	●
A6G 0600 060 0600 120 R050			12	60	5.7	0.5	6	▲
A6G 0600 075 0600 R050			-	75	-	0.5	6	○
A6G 0600 075 0600 180 R050			18	75	5.7	0.5	6	○
A6G 0600 075 0600 240 R050			24	75	5.7	0.5	6	○
A6G 0600 100 0600 R050			-	100	-	0.5	6	○
A6G 0600 100 0600 480 R050			48	100	5.7	0.5	6	▲
A6G 0600 060 0600 R100			-	60	-	1	6	▲
A6G 0600 060 0600 120 R100			12	60	5.7	1	6	▲
A6G 0600 075 0600 R100			-	75	-	1	6	○
A6G 0600 075 0600 180 R100			18	75	5.7	1	6	○
A6G 0600 075 0600 240 R100			24	75	5.7	1	6	●
A6G 0600 100 0600 R100			-	100	-	1	6	○
A6G 0600 100 0600 480 R100			48	100	5.7	1	6	○

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radius Tolerance	Diameter (mm)	Tolerance
D ≤ 2.5	±0.005	<1	±0 ~ -0.005
3 < D ≤ 6	±0.010	1 ≤ D ≤ 2.5	±0 ~ -0.010
D > 6	±0.015	2.5 ≤ D ≤ 6	±0 ~ -0.015

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01 N02 N03 K01 K02 P01 P02 P03 M01 M02 S01 S02 S03 H01 H02 O01 O02

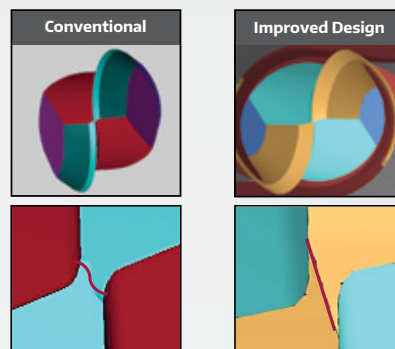
Cutting Parameters
Page 48-49

A6Q



1 Optimized Chisel Angle Design

- Smoother cutting action for superior surface finishing
- Improved wear resistance on the cutting face for longer tool life
- Stable cutting behavior for high precision and machining consistency in semi-finishing and finishing operations



A6Q / A6R

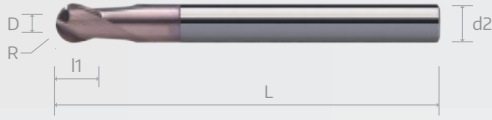
BN 70X BALLNOSE CUTTERS / WITH RECESS, 2 FLUTE



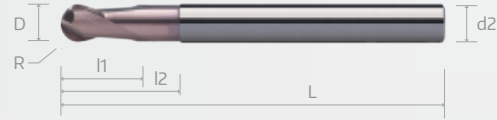
Z2



A6Q (Straight Shank)



A6R (with Recess)



Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6Q 0100 050 04	1	1	0.5		50		4	•
A6Q 0100 050 06					50		6	•
A6Q 0150 050 04	1.5	1.5	0.75		50		4	•
A6Q 0150 050 06					50		6	○
A6Q 0200 050 04	2	2	1		50		4	○
A6Q 0200 050 06					50		6	•
A6Q 0250 050 04	2.5	2.5	1.25		50		4	•
A6Q 0250 050 06					50		6	•
A6Q 0300 050 04	3	3	1.5		50		4	•
A6Q 0300 050 06					50		6	•
A6Q 0400 050 04	4	4	2		50		4	•
A6Q 0400 060 06					60		6	•
A6Q 0500 060 06	5	5	2.5		60		6	•
A6Q 0600 060					60		6	•
A6Q 0600 075	6	6	3		75		6	•
A6Q 0600 100					100		6	•
A6Q 0800 075	8	8	4		75		8	•
A6Q 0800 100					100		8	•
A6Q 1000 075	10	10	5		75		10	•
A6Q 1000 100					100		10	•
A6Q 1000 125					125		10	○
A6Q 1000 150					150		10	○
A6Q 1200 075	12	12	6		75		12	•
A6Q 1200 100					100		12	○
A6Q 1200 150					150		12	○

Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6R 0100 050 04	1	1	0.5	3	50	0.95	4	•
A6R 0100 050 06				5	50	0.95	6	•
A6R 0150 050 04 03	1.5	1.5	0.75	3	50	1.45	4	○
A6R 0150 050 04				4.5	50	1.45	4	▲
A6R 0150 050 06				7.5	50	1.45	6	▲
A6R 0200 050 04 04				4	50	1.94	4	○
A6R 0200 050 04	2	2	1	6	50	1.94	4	•
A6R 0200 050 06				10	50	1.94	6	▲
A6R 0250 050 04	2.5	2.5	1.25	7.5	50	2.4	4	○
A6R 0250 050 06				12.5	50	2.4	6	○
A6R 0300 050 04 06				6	50	2.85	4	○
A6R 0300 050 04	3	3	1.5	9	50	2.85	4	•
A6R 0300 050 06				15	50	2.85	6	▲
A6R 0400 050 04 08	4	4	2	8	50	3.8	4	○
A6R 0400 050 04				12	50	3.8	4	▲
A6R 0400 060 06				20	60	3.8	6	▲
A6R 0500 060 06	5	5	2.5	20	60	4.8	6	▲
A6R 0600 060 12				12	60	5.8	6	○
A6R 0600 060 18	6	6	3	18	60	5.8	6	○
A6R 0600 060				24	60	5.8	6	•
A6R 0600 075 12				12	75	5.8	6	○
A6R 0600 075				24	75	5.8	6	•
A6R 0600 100				24	100	5.8	6	•
A6R 0600 060 16				16	60	7.8	8	○
A6R 0800 075	8	8	4	24	75	7.8	8	•
A6R 0800 100				24	100	7.8	8	•
A6R 1000 075 24	10	10	5	24	75	9.8	10	○
A6R 1000 075				30	75	9.8	10	•
A6R 1000 100 24				24	100	9.8	10	○
A6R 1000 100				30	100	9.8	10	•
A6R 1000 125				30	125	9.8	10	○
A6R 1000 150				30	150	9.8	10	○
A6R 1200 075 30	12	12	6	30	75	11.7	12	○
A6R 1200 075				36	75	11.7	12	▲
A6R 1200 100				36	100	11.7	12	○
A6R 1200 150				36	150	11.7	12	○

	Germany	France	Italy	China
● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radius Tolerance
D ≤ 2.5	±0.005
3 < D ≤ 6	±0.010
D > 6	±0.015

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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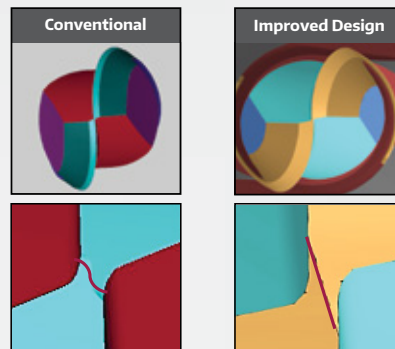
Cutting Parameters
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A6S



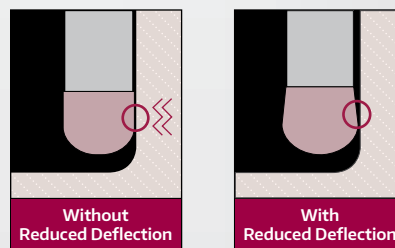
1 Optimized Chisel Angle Design

- Smoother cutting action for superior surface finishing
- Improved wear resistance on the cutting face for longer tool life
- Stable cutting behavior for high precision and machining consistency in semi-finishing and finishing operations



2 Back Taper Optimization (<Ø 4mm)

- Prevents unwanted contact between micro tools ($\leq \varnothing 4$ mm) and the workpiece in deep or narrow cavities, reducing vibration and ensuring better surface finishing by maintaining a safe clearance gap.
- Reduces tool deflection for tight tolerance and dimensional accuracy
- Minimizes vibration for superior surface finishing

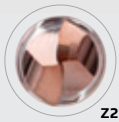


A6S

Miniature
Long Neck
2 Flute

A6S

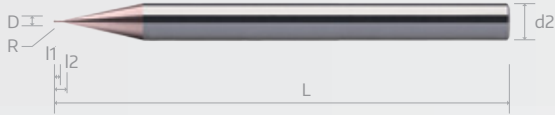
BN 70X BALLNOSE CUTTERS WITH LONG NECK, 2 FLUTE



Z2



A6S



Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6S 0010 050 0400	0.1	0.07	0.05	-	50	-	4	○
A6S 0010 050 0400 0020				0.2	50	0.085	4	○
A6S 0010 050 0400 0030				0.3	50	0.085	4	○
A6S 0010 050 0400 0050				0.5	50	0.085	4	○
A6S 0015 050 0400	0.15	0.1	0.75	-	50	-	4	○
A6S 0015 050 0400 0030				0.3	50	0.13	4	○
A6S 0015 050 0400 0050				0.5	50	0.13	4	○
A6S 0015 050 0400 0100				1	50	0.13	4	○
A6S 0020 050 0400	0.2	0.15	0.1	-	50	-	4	▲
A6S 0020 050 0400 0030				0.3	50	0.18	4	○
A6S 0020 050 0400 0050				0.5	50	0.18	4	●
A6S 0020 050 0400 0075				0.75	50	0.18	4	▲
A6S 0020 050 0400 0100				1	50	0.18	4	▲
A6S 0020 050 0400 0125				1.25	50	0.18	4	▲
A6S 0020 050 0400 0150				1.5	50	0.18	4	▲
A6S 0020 050 0400 0175				1.75	50	0.18	4	▲
A6S 0020 050 0400 0200				2	50	0.18	4	▲
A6S 0020 050 0400 0250				2.5	50	0.18	4	▲
A6S 0020 050 0400 0300				3	50	0.18	4	▲
A6S 0020 050 0600				-	50	-	4	○
A6S 0020 050 0600 0100				1	50	0.18	4	○
A6S 0030 050 0400				-	50	-	4	▲
A6S 0030 050 0400 0050				0.5	50	0.28	4	▲
A6S 0030 050 0400 0060				0.6	50	0.28	4	▲
A6S 0030 050 0400 0075	0.3	0.2	0.15	0.75	50	0.28	4	▲
A6S 0030 050 0400 0100				1	50	0.28	4	●
A6S 0030 050 0400 0125				1.25	50	0.28	4	▲
A6S 0030 050 0400 0150				1.5	50	0.28	4	▲
A6S 0030 050 0400 0175				1.75	50	0.28	4	▲
A6S 0030 050 0400 0200				2	50	0.28	4	▲
A6S 0030 050 0400 0225				2.25	50	0.28	4	▲
A6S 0030 050 0400 0250				2.5	50	0.28	4	●
A6S 0030 050 0400 0300				3	50	0.28	4	▲
A6S 0030 050 0400 0350				3.5	50	0.28	4	▲
A6S 0030 050 0400 0400				4	50	0.28	4	▲
A6S 0030 050 0600				-	50	-	4	○
A6S 0030 050 0600 0150	0.4	0.3	0.2	1.5	50	0.28	4	○
A6S 0040 050 0400				-	50	-	4	▲
A6S 0040 050 0400 0050				0.5	50	0.37	4	▲
A6S 0040 050 0400 0080				0.8	50	0.37	4	▲
A6S 0040 050 0400 0100				1	50	0.37	4	▲
A6S 0040 050 0400 0150				1.5	50	0.37	4	▲
A6S 0040 050 0400 0200				2	50	0.37	4	●
A6S 0040 050 0400 0250				2.5	50	0.37	4	▲

Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6S 0040 050 0400 0300	0.4	0.3	0.2	3	50	0.37	4	▲
A6S 0040 050 0400 0350				3.5	50	0.37	4	▲
A6S 0040 050 0400 0400				4	50	0.37	4	▲
A6S 0040 050 0400 0450				4.5	50	0.37	4	▲
A6S 0040 050 0400 0500				5	50	0.37	4	▲
A6S 0040 050 0400 0600				6	50	0.37	4	▲
A6S 0040 050 0600				-	50	-	6	○
A6S 0040 050 0600 0100				1	50	0.37	6	○
A6S 0040 050 0600 0200	0.5	0.35	0.25	2	50	0.37	6	○
A6S 0050 050 0400				-	50	-	4	▲
A6S 0050 050 0400 0100				1	50	0.46	4	▲
A6S 0050 050 0400 0150				1.5	50	0.46	4	▲
A6S 0050 050 0400 0200				2	50	0.46	4	▲
A6S 0050 050 0400 0250				2.5	50	0.46	4	▲
A6S 0050 050 0400 0300				3	50	0.46	4	●
A6S 0050 050 0400 0350				3.5	50	0.46	4	▲
A6S 0050 050 0400 0400				4	50	0.46	4	▲
A6S 0050 050 0400 0450				4.5	50	0.46	4	▲
A6S 0050 050 0400 0500				5	50	0.46	4	●
A6S 0050 050 0400 0550				5.5	50	0.46	4	▲
A6S 0050 050 0400 0600				6	50	0.46	4	▲
A6S 0050 050 0400 0800				8	50	0.46	4	▲
A6S 0050 050 0400 1000				10	50	0.46	4	▲
A6S 0060 050 0400	0.6	0.45	0.3	-	50	-	4	▲
A6S 0060 050 0400 0100				1	50	0.56	4	▲
A6S 0060 050 0400 0150				1.5	50	0.56	4	▲
A6S 0060 050 0400 0200				2	50	0.56	4	▲
A6S 0060 050 0400 0250				2.5	50	0.56	4	▲
A6S 0060 050 0400 0300				3	50	0.56	4	●
A6S 0060 050 0400 0350				3.5	50	0.56	4	▲
A6S 0060 050 0400 0400				4	50	0.56	4	●
A6S 0060 050 0400 0450				4.5	50	0.56	4	▲
A6S 0060 050 0400 0500				5	50	0.56	4	▲
A6S 0060 050 0400 0550				5.5	50	0.56	4	▲
A6S 0060 050 0400 0600				6	50	0.56	4	●
A6S 0060 050 0400 0700				7	50	0.56	4	▲
A6S 0060 050 0400 0800				8	50	0.56	4	●
A6S 0060 050 0400 0900				9	50	0.56	4	▲
A6S 0060 050 0400 1000				10	50	0.56	4	▲
A6S 0060 050 0400 1200				12	50	0.56	4	▲
A6S 0060 050 0600				-	50	-	6	○
A6S 0060 050 0600 0200				2	50	0.56	6	○
A6S 0060 050 0600 0300				3	50	0.56	6	○
A6S 0060 050 0600 0400				4	50	0.56	6	○

cont'd ►

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radius Tolerance
D ≤ 2.5	±0.005
3 < D ≤ 6	±0.010
D > 6	±0.015

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

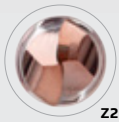
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Cutting Parameters
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BN 70X BALLNOSE CUTTERS WITH LONG NECK, 2 FLUTE

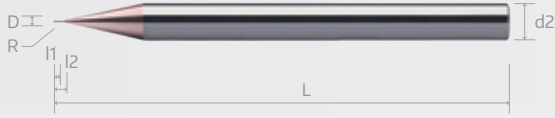
HPMT



Z2



A6S



Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6S 0070 050 0400	0.7	0.5	0.35	-	50	-	4	▲
A6S 0070 050 0400 0200				2	50	0.66	4	▲
A6S 0070 050 0400 0400				4	50	0.66	4	▲
A6S 0070 050 0400 0600				6	50	0.66	4	▲
A6S 0070 050 0400 0800				8	50	0.66	4	▲
A6S 0080 050 0400	0.8	0.6	0.4	-	50	-	4	▲
A6S 0080 050 0400 0200				2	50	0.76	4	●
A6S 0080 050 0400 0300				3	50	0.76	4	▲
A6S 0080 050 0400 0400				4	50	0.76	4	●
A6S 0080 050 0400 0500				5	50	0.76	4	▲
A6S 0080 050 0400 0600				6	50	0.76	4	●
A6S 0080 050 0400 0700				7	50	0.76	4	▲
A6S 0080 050 0400 0800				8	50	0.76	4	●
A6S 0080 050 0400 1000				10	50	0.76	4	▲
A6S 0080 050 0400 1200				12	50	0.76	4	▲
A6S 0080 050 0600				-	50	-	6	○
A6S 0080 050 0600 0200				2	50	0.76	6	○
A6S 0090 050 0400	0.9	0.65	0.45	-	50	-	4	○
A6S 0090 050 0400 0200				2	50	0.86	4	○
A6S 0090 050 0400 0400				4	50	0.86	4	○
A6S 0090 050 0400 0600				6	50	0.86	4	○
A6S 0090 050 0400 0800				8	50	0.86	4	○
A6S 0100 050 0400	1	0.75	0.5	-	50	-	4	▲
A6S 0100 050 0400 0200				2	50	0.95	4	▲
A6S 0100 050 0400 0250				2.5	50	0.95	4	▲
A6S 0100 050 0400 0300				3	50	0.95	4	●
A6S 0100 050 0400 0400				4	50	0.95	4	●
A6S 0100 050 0400 0500				5	50	0.95	4	●
A6S 0100 050 0400 0600				6	50	0.95	4	●
A6S 0100 050 0400 0700				7	50	0.95	4	▲
A6S 0100 050 0400 0800				8	50	0.95	4	●
A6S 0100 050 0400 0900				9	50	0.95	4	▲
A6S 0100 050 0400 1000				10	50	0.95	4	●
A6S 0100 050 0400 1200				12	50	0.95	4	▲
A6S 0100 050 0400 1300				13	50	0.95	4	▲
A6S 0100 050 0400 1400				14	50	0.95	4	▲
A6S 0100 050 0400 1600				16	50	0.95	4	●
A6S 0100 050 0400 1800				18	60	0.95	4	▲
A6S 0100 050 0600				-	50	0.95	6	▲
A6S 0100 050 0600 0300				3	50	0.95	6	▲
A6S 0100 050 0600 0400				4	50	0.95	6	▲
A6S 0100 050 0600 0500				5	50	0.95	6	▲
A6S 0100 050 0600 0600				6	50	0.95	6	▲
A6S 0100 050 0600 0700				7	50	0.95	6	▲

Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6S 0100 050 0600 0800	1	0.75	0.5	8	50	0.95	6	▲
A6S 0100 050 0600 1000				10	50	0.95	6	▲
A6S 0100 060 0400				-	60	-	4	○
A6S 0100 060 0400 2000				20	60	0.95	4	○
A6S 0100 060 0600				-	60	-	6	○
A6S 0100 060 0600 2200	1.2	0.9	0.6	22	60	0.95	6	○
A6S 0120 050 0400				0	50	-	4	○
A6S 0120 050 0400 0240				2.4	50	1.15	4	○
A6S 0120 050 0400 0400				4	50	1.15	4	○
A6S 0120 050 0400 0600				6	50	1.15	4	○
A6S 0120 050 0400 0800				8	50	1.15	4	○
A6S 0120 050 0400 1000				10	50	1.15	4	○
A6S 0120 050 0400 1200				12	50	1.15	4	○
A6S 0120 050 0400 1400				14	50	1.15	4	○
A6S 0120 050 0400 1600				16	50	1.15	4	○
A6S 0140 050 0400	1.4	1	0.7	-	50	-	4	○
A6S 0140 050 0400 0800				8	50	1.35	4	○
A6S 0140 050 0400 1200				12	50	1.35	4	○
A6S 0140 050 0400 1600				16	50	1.35	4	○
A6S 0150 050 0400	1.5	1.1	0.75	-	50	-	4	▲
A6S 0150 050 0400 0300				3	50	1.45	4	●
A6S 0150 050 0400 0400				4	50	1.45	4	▲
A6S 0150 050 0400 0600				6	50	1.45	4	●
A6S 0150 050 0400 0800				8	50	1.45	4	●
A6S 0150 050 0400 1000				10	50	1.45	4	●
A6S 0150 050 0400 1200				12	50	1.45	4	●
A6S 0150 050 0400 1400				14	50	1.45	4	▲
A6S 0150 050 0400 1600				16	50	1.45	4	●
A6S 0150 060 0400				-	60	-	4	○
A6S 0150 060 0400 2000				20	60	1.45	4	○
A6S 0150 060 0400 2200				22	60	1.45	4	○
A6S 0150 075 0400				-	75	-	4	○
A6S 0150 075 0400 3000				30	75	1.45	4	○
A6S 0150 050 0600				-	50	-	6	○
A6S 0150 050 0600 0600				6	50	1.45	6	○
A6S 0150 050 0600 0800				8	50	1.45	6	○
A6S 0160 050 0400	1.6	1.2	0.8	-	50	-	4	○
A6S 0160 050 0400 0800				8	50	1.55	4	○
A6S 0160 050 0400 1200				12	50	1.55	4	○
A6S 0160 050 0400 1600				16	50	1.55	4	○
A6S 0160 060 0400				-	60	-	4	○
A6S 0160 060 0400 2000				20	60	1.55	4	○
A6S 0200 050 0400				-	50	-	4	▲
A6S 0200 050 0400 0300	2	1.5	1	3	50	1.94	4	▲

cont'd ►

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radius Tolerance
D ≤ 2.5	±0.005
3 < D ≤ 6	±0.010
D > 6	±0.015

Material Group | Material-Gruppe | Groupe Matière | Gruppo Materiali | 材质主类

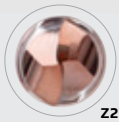
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Cutting Parameters
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BN 70X BALLNOSE CUTTERS WITH LONG NECK, 2 FLUTE

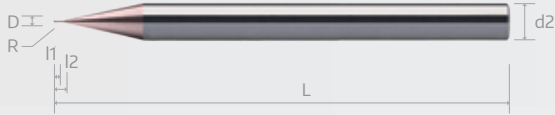
HPMT



Z2



A6S



Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6S 0200 050 0400 0400	2	150	1	4	50	1.94	4	▲
A6S 0200 050 0400 0600				6	50	1.94	4	●
A6S 0200 050 0400 0800				8	50	1.94	4	●
A6S 0200 050 0400 1000				10	50	1.94	4	●
A6S 0200 050 0400 1200				12	50	1.94	4	●
A6S 0200 050 0400 1300				13	50	1.94	4	▲
A6S 0200 050 0400 1400				14	50	1.94	4	▲
A6S 0200 050 0400 1600				16	50	1.94	4	●
A6S 0200 060 0400				-	60	-	4	▲
A6S 0200 060 0400 1800				18	60	1.94	4	▲
A6S 0200 060 0400 2000				20	60	1.94	4	●
A6S 0200 060 0400 2200				22	60	1.94	4	▲
A6S 0200 075 0400				-	75	-	4	○
A6S 0200 075 0400 2500				25	75	1.94	4	○
A6S 0200 075 0400 3000				30	75	1.94	4	○
A6S 0200 075 0400 3500				35	75	1.94	4	○
A6S 0200 075 0400 4000				40	75	1.94	4	○
A6S 0200 050 0600				-	50	-	6	▲
A6S 0200 050 0600 0400				4	50	1.94	6	▲
A6S 0200 050 0600 0600				6	50	1.94	6	●
A6S 0200 050 0600 0800				8	50	1.94	6	▲
A6S 0200 050 0600 1000				10	50	1.94	6	▲
A6S 0200 060 0600	2.5	230	1.25	-	60	-	6	○
A6S 0200 060 0600 1600				16	60	1.94	6	○
A6S 0200 075 0600				-	75	-	6	○
A6S 0200 075 0600 2500				25	75	1.94	6	○
A6S 0250 050 0400				-	50	-	4	○
A6S 0250 050 0400 0600				6	50	2.4	4	○
A6S 0250 050 0400 0800				8	50	2.4	4	○
A6S 0250 050 0400 1000				10	50	2.4	4	○
A6S 0250 050 0400 1500				15	50	2.4	4	○
A6S 0250 060 0400				-	60	-	4	○
A6S 0250 060 0400 2000				20	60	2.4	4	○
A6S 0250 075 0400				-	75	-	4	○
A6S 0250 075 0400 2500				25	75	2.4	4	○
A6S 0250 075 0400 3000				30	75	2.4	4	○
A6S 0250 075 0400 3500				35	75	2.4	4	○
A6S 0300 060 0600				-	60	-	6	▲
A6S 0300 060 0600 0600				6	60	2.85	6	●
A6S 0300 060 0600 0800				8	60	2.85	6	●
A6S 0300 060 0600 1000				10	60	2.85	6	●
A6S 0300 060 0600 1200				12	60	2.85	6	▲
A6S 0300 060 0600 1400				14	60	2.85	6	▲
A6S 0300 060 0600 1600				16	60	2.85	6	●

Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A6S 0300 060 0600 2000	3	2.5	1.5	20	60	2.85	6	●
A6S 0300 075 0600				-	75	-	6	▲
A6S 0300 075 0600 2500				25	75	2.85	6	●
A6S 0300 075 0600 3000				30	75	2.85	6	●
A6S 0300 075 0600 3500				35	75	2.85	6	▲
A6S 0300 100 0600				-	100	-	6	▲
A6S 0300 100 0600 4000				40	100	2.85	6	●
A6S 0350 060 0600				-	60	-	6	○
A6S 0350 060 0600 1500				15	60	3.35	6	○
A6S 0350 060 0600 2000				20	60	3.35	6	○
A6S 0350 075 0600	3.5	2.8	1.75	-	75	-	6	○
A6S 0350 075 0600 2500				25	75	3.35	6	○
A6S 0350 075 0600 3000				30	75	3.35	6	○
A6S 0350 075 0600 3500				35	75	3.35	6	○
A6S 0350 100 0600				-	100	-	6	○
A6S 0350 100 0600 4000				40	100	3.35	6	○
A6S 0350 100 0600 4500				45	100	3.35	6	○
A6S 0400 060 0400				-	60	-	4	○
A6S 0400 060 0400 0800				8	60	3.8	4	○
A6S 0400 060 0600				-	60	-	6	▲
A6S 0400 060 0600 0800	4	3	2	8	60	3.8	6	●
A6S 0400 060 0600 1000				10	60	3.8	6	●
A6S 0400 060 0600 1200				12	60	3.8	6	●
A6S 0400 060 0600 1400				14	60	3.8	6	▲
A6S 0400 060 0600 1600				16	60	3.8	6	●
A6S 0400 060 0600 2000				20	60	3.8	6	●
A6S 0400 075 0600				-	75	-	6	▲
A6S 0400 075 0600 2500				25	75	3.8	6	●
A6S 0400 075 0600 3000				30	75	3.8	6	●
A6S 0400 075 0600 3500				35	75	3.8	6	▲
A6S 0400 100 0600	5	3.5	2.5	-	100	-	6	○
A6S 0400 100 0600 4000				40	100	3.8	6	○
A6S 0400 100 0600 4500				45	100	3.8	6	○
A6S 0400 100 0600 5000				50	100	3.8	6	○
A6S 0500 060 0600				-	60	-	6	○
A6S 0500 060 0600 1000				10	60	4.8	6	○
A6S 0500 060 0600 1500				15	60	4.8	6	○
A6S 0500 060 0600 2000				20	60	4.8	6	○
A6S 0500 075 0600				-	75	-	6	○
A6S 0500 075 0600 2500				25	75	4.8	6	○
A6S 0500 075 0600 3000				30	75	4.8	6	○
A6S 0500 100 0600				-	100	-	6	○
A6S 0500 100 0600 4000				40	100	4.8	6	○

cont'd ►

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radius Tolerance
D ≤ 2.5	±0.005
3 < D ≤ 6	±0.010
D > 6	±0.015

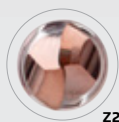
Material Group | Material-Gruppe | Groupe Matière | Gruppo Materiali | 材质主类

N01 N02 N03 K01 K02 P01 P02 P03 M01 M02 S01 S02 S03 H01 H02 O01 O02

Cutting Parameters
Page 50-54

A6S

BN 70X BALLNOSE CUTTERS WITH LONG NECK, 2 FLUTE

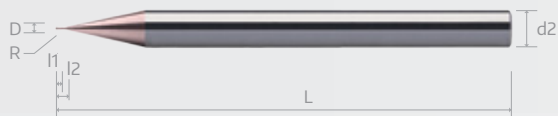


Z2



B0909X
TISIN

A6S



Order Number	Dimension (mm)							Stock
	D	l1	R	l2	L	d1	d2(h5)	
A5S 0600 060 0600	6	6	3	-	60	-	6	▲
A5S 0600 060 0600 1000				10	60	5.7	6	▲
A5S 0600 060 0600 1500				15	60	5.7	6	●
A5S 0600 060 0600 2000				20	60	5.7	6	▲
A5S 0600 075 0600				-	75	-	6	▲
A5S 0600 075 0600 2500				25	75	5.7	6	▲
A5S 0600 075 0600 3000				30	75	5.7	6	▲
A5S 0600 075 0600 3500				35	75	5.7	6	▲
A5S 0600 100 0600				-	100	-	6	○
A5S 0600 100 0600 4000				40	100	5.7	6	○
A5S 0600 100 0600 5000				50	100	5.7	6	○
A5S 0600 120 0600				-	120	-	6	○
A5S 0600 120 0600 6000				60	120	5.7	6	○

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Radies Tolerance
D ≤ 2.5	±0.005
3 < D ≤ 6	±0.010
D > 6	±0.015

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

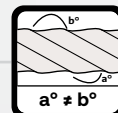
Cutting Parameters
Page 50-54

K76



1 Differential Helix (DH)

- Smoother cutting action for superior surface finishing
- Distributes cutting forces evenly for reduced tool wear and longer tool life
- Improves chip evacuation to prevent clogging and maintain stable cutting performance



2 High Helix Geometry

- Lowers radial forces to reduce vibration for more stable machining
- Enhances shearing efficiency for smoother surface finishes
- Promotes effective chip evacuation for cleaner cutting and improved tool life

3 Enhanced Gash Land

- Reinforces corner strength to resist chipping and premature wear
- Increases mechanical strength for better performance under high cutting forces
- Improves cutting stability for longer tool life and reliable machining



K76

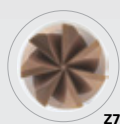
DH Square with Recess

K77

DH Square

K76 / K77

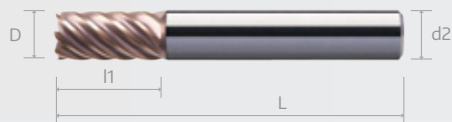
SE 70 DH MULTIFLUTE ENDMILLS / WITH RECESS, 6 - 7 FLUTES



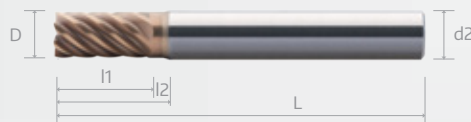
Z7



K77 (Straight Shank)



K76 (with Recess)



Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d2(h6)	Z	
K77 0300 057 06	3	8		57	6	6	•
K77 0400 057 06	4	11		57	6	6	•
K77 0500 057 06	5	12		57	6	6	•
K77 0600 057	6	15		57	6	7	•
K77 0800 064	8	20		64	8	7	•
K77 1000 072	10	22		72	10	7	•
K77 1200 083	12	25		83	12	7	•
K77 1600 092	16	30		92	16	7	•
K77 2000 104	20	38		104	20	7	•

Order Number	Dimension (mm)						Stock
	D	l1	l2	L	d2(h6)	Z	
K76 0300 057 06	3	8	20	57	6	6	•
K76 0400 057 06	4	11	20	57	6	6	•
K76 0500 057 06	5	12	20	57	6	6	•
K76 0600 057	6	15	20	57	6	7	•
K76 0800 064	8	20	26	64	8	7	•
K76 1000 072	10	22	30	72	10	7	•
K76 1200 083	12	25	36	83	12	7	•
K76 1600 092	16	30	42	92	16	7	•
K76 2000 104	20	38	52	104	20	7	•

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Tolerance
D ≤ 2.5	-0.015 ~ +0
2.5 ≤ D ≤ 5	-0.020 ~ +0
6 ≤ D ≤ 10	-0.025 ~ +0
10 < D ≤ 12	-0.005 ~ -0.030
D > 12	-0.010 ~ -0.035

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

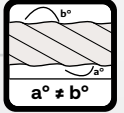
Cutting Parameters
Page 39

K73



1 Differential Helix (DH)

- Smoother cutting action for superior surface finishing
- Distributes cutting forces evenly for reduced tool wear and longer tool life
- Improves chip evacuation to prevent clogging and maintain stable cutting performance



2 High Helix Geometry

- Lowers radial forces to reduce vibration for more stable machining
- Enhances shearing efficiency for smoother surface finishes
- Promotes effective chip evacuation for cleaner cutting and improved tool life

3 S-Gash Radius Design

- Seamless radius-to-outer diameter transition for tight tolerance in radius profiling
- Reinforced corner design improves durability and extends tool life
- Delivers smoother finishes for superior surface quality



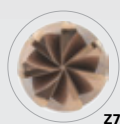
K73

DH Torus
with Recess

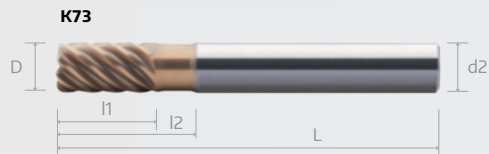
K73

SE 70 DH MULTIFLUTE TORUS ENDMILLS WITH RECESS, 6 - 7 FLUTES

HPMT



27



Order Number	Dimension (mm)							Stock
	D	l1	L2	L	d2(h6)	R	Z	
K73 0300 057 0600 020	3	8	20	57	6	0.2	6	•
K73 0400 057 0600 020	4	11	20	57	6	0.2	6	•
K73 0500 057 0600 030	5	12	20	57	6	0.3	6	•
K73 0600 057 0600 050	6	15	20	57	6	0.5	7	•
K73 0600 057 0600 100			20	57	6	1	7	•
K73 0800 064 0800 050	8	20	26	64	8	0.5	7	•
K73 0800 064 0800 080			26	64	8	0.8	7	•
K73 1000 072 1000 050	10	22	30	72	10	0.5	7	•
K73 1000 072 1000 080			30	72	10	0.8	7	•
K73 1000 072 1000 100			30	72	10	1	7	•
K73 1200 083 1200 050	12	25	36	83	12	0.5	7	•
K73 1200 083 1200 100			36	83	12	1	7	•
K73 1200 083 1200 150			36	83	12	1.5	7	•
K73 1600 092 1600 200	16	30	42	92	16	2	7	•
K73 1600 092 1600 300			42	92	16	3	7	•
K73 2000 104 2000 300	20	38	52	104	20	3	7	•

● Ex Stock	ab Lager	De Stock	Da Magazzino	有库存
○ Make to Order (4 weeks)	Auftragsfertigung (4 Wochen)	Fabrication sur commande (4 semaines)	Produzione su ordinazione (4 settimane)	定制生产 (4周)
▲ 2 Weeks	2 Wochen	2 semaines	2 settimane	2周

Diameter (mm)	Tolerance
D ≤ 2.5	-0.015 ~ +0
2.5 ≤ D ≤ 5	-0.020 ~ +0
6 ≤ D ≤ 10	-0.025 ~ +0
10 < D ≤ 12	-0.005 ~ -0.030
D > 12	-0.010 ~ -0.035

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

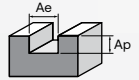
Cutting Parameters
Page 39

A6F, A6M

RECOMMENDED CUTTING DATA

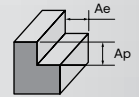


SE 70X Endmills, 4 Flutes - A6F, A6M



Slotting	H					
Working Material	Hardened Steel					
Properties	50 ≤ HRC ≤ 55		55 < HRC ≤ 65		65 < HRC ≤ 70	
Cutting Depth, Ap (mm)	0.02 × D		0.01 × D		0.01 × D	
Cutting Width, Ae (mm)	0.40 × D		0.40 × D		0.40 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
1	70	0.035	60	0.015	50	0.014
1.5		0.058		0.024		0.022
2		0.080		0.032		0.030
2.5		0.108		0.043		0.040
3		0.135		0.053		0.050
4		0.190		0.076		0.072
5		0.243		0.097		0.092
6		0.300		0.121		0.115
8		0.402		0.160		0.152
10		0.480		0.198		0.188
12	70	0.560	60	0.230	50	0.219
16		0.640		0.251		0.240
20		0.660		0.255		0.250

SE 70 Endmills, 4 Flutes - A6F, A6M



Side Milling	H					
Working Material	Hardened Steel					
Properties	50 ≤ HRC ≤ 55		55 < HRC ≤ 65		65 < HRC ≤ 70	
Cutting Depth, Ap (mm)	1.00 - 1.50 × D		1.00 - 1.50 × D		1.00 - 1.50 × D	
Cutting Width, Ae (mm)	0.030 × D		0.020 × D		0.015 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
1	200	0.006	150	0.006	100	0.005
2		0.014		0.012		0.011
3		0.022		0.020		0.019
4		0.031		0.029		0.026
5		0.047		0.045		0.040
6		0.073		0.064		0.058
8		0.094		0.085		0.078
10		0.113		0.103		0.092
12		0.125		0.114		0.103
16		0.157		0.143		0.129
20	200	0.188	150	0.171	100	0.155

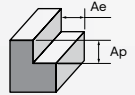
H

Recommended Cutting Data

Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

A6H, A6J

RECOMMENDED CUTTING DATA



SE 70XR Torus Endmills, 4 Flutes - A6H, A6J

Side Milling	H					
Working Material	Hardened Steel					
Properties	50 ≤ HRC ≤ 55		55 < HRC ≤ 65		65 < HRC ≤ 70	
Cutting Depth, Ap (mm)	0.18 × R		0.12 × R		0.09 × R	
Cutting Width, Ae (mm)	(D/2)-R		(D/2)-R		(D/2)-R	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
1	80	0.035	70	0.015	60	0.014
1.5		0.058		0.024		0.022
2		0.080		0.032		0.030
2.5		0.108		0.059		0.040
3		0.135		0.053		0.050
4		0.190		0.076		0.072
5		0.243		0.097		0.092
6		0.300		0.121		0.115
8		0.402		0.160		0.152
10		0.480		0.198		0.188
12		0.560		0.230		0.219
16		0.640		0.251		0.240
20		0.660		0.255		0.250

1. Suitable to use in down cutting or contour lines. Reduce the feed rate between 60% and 70% when cutting at an incline (incline angle: 1°) in Z direction.
2. It is recommended to reduce the speed for corners be set. The speed reduction is approximately 1/2 of the diameter tool, and the feed rate need to be reduced between 50% and 60%.
3. R = Corner Radius, D = Cutter Diameter.

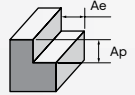
H

Recommended Cutting Data

Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

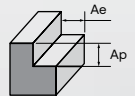
K73, K76, K77

RECOMMENDED CUTTING DATA



SE 70 Multiflute Endmills, 6 Flutes - K73, K76, K77

Side Milling	H			
Working Material	Hardened Steel			
Properties	45 ≤ HRC < 52		52 ≤ HRC < 68	
Cutting Depth, ap	1.00 × D		1.00 × D	
Cutting Width, ae	0.05 × D		0.05 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
3	150	0.011	110	0.01
4		0.016		0.015
5		0.021		0.019



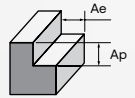
SE 70 Multiflute Endmills, 7 Flutes - K73, K76, K77

Side Milling	H			
Working Material	Hardened Steel			
Properties	45 ≤ HRC < 52		52 ≤ HRC < 68	
Cutting Depth, ap	1.00 × D		1.00 × D	
Cutting Width, ae	0.05 × D		0.05 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
6	150	0.027	110	0.025
8		0.038		0.035
10		0.050		0.046
12		0.066		0.059
16		0.085		0.075
20		0.099		0.09

H

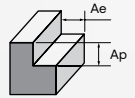
Recommended Cutting Data

Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.



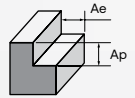
SE 70X Miniature Endmills With Long Neck, 2 Flutes - A6D

Side Milling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
0.1	-	0.05	0.003	44000	0.001	0.002	40000	0.001
	0.3	0.05	0.003	44000	0.001	0.002	40000	0.001
	0.5	0.05	0.003	44000	0.001	0.002	40000	0.001
	0.75	0.05	0.002	44000	0.001	0.001	40000	0.001
	1	0.05	0.001	44000	0.001	0.001	40000	0.001
0.15	-	0.075	0.003	44000	0.002	0.002	40000	0.001
	0.3	0.075	0.003	44000	0.002	0.002	40000	0.001
	0.5	0.075	0.003	44000	0.001	0.002	40000	0.001
	0.75	0.075	0.002	44000	0.001	0.001	40000	0.001
	1	0.075	0.001	44000	0.001	0.001	40000	0.001
	1.5	0.075	0.001	44000	0.001	0.001	40000	0.001
0.2	-	0.1	0.003	33000	0.003	0.003	30000	0.001
	0.5	0.1	0.003	33000	0.003	0.003	30000	0.001
	0.75	0.1	0.003	33000	0.002	0.003	30000	0.001
	1	0.1	0.003	33000	0.002	0.003	30000	0.001
	1.5	0.1	0.002	33000	0.001	0.002	30000	0.001
	2	0.1	0.002	33000	0.001	0.002	30000	0.001
	2.5	0.1	0.001	33000	0.001	0.001	25000	0.001
	3	0.1	0.001	27500	0.001	0.001	25000	0.001
0.3	-	0.15	0.003	33000	0.006	0.003	30000	0.005
	1	0.15	0.003	33000	0.005	0.003	30000	0.004
	1.5	0.15	0.003	33000	0.003	0.003	30000	0.003
	2	0.15	0.003	33000	0.002	0.003	30000	0.002
	2.5	0.15	0.002	27500	0.002	0.002	25000	0.001
	3	0.15	0.002	27500	0.001	0.002	25000	0.001
0.4	-	0.2	0.005	33000	0.006	0.005	30000	0.006
	1	0.2	0.005	33000	0.005	0.005	30000	0.005
	1.5	0.2	0.005	33000	0.005	0.005	30000	0.005
	2	0.2	0.005	33000	0.005	0.005	25000	0.005
	2.5	0.2	0.005	27500	0.005	0.004	25000	0.005
	3	0.2	0.004	27500	0.005	0.003	20000	0.006
	3.5	0.2	0.004	27500	0.004	0.003	20000	0.005
	4	0.2	0.003	27500	0.004	0.002	20000	0.004
	5	0.2	0.003	24200	0.004	0.002	20000	0.004
	6	0.2	0.002	24200	0.003	0.002	18000	0.004
	8	0.2	0.001	17600	0.003	0.001	14000	0.003
	10	0.2	0.001	14300	0.003	0.001	12000	0.002



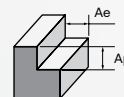
SE 70X Miniature Endmills With Long Neck, 2 Flutes - A6D

Side Milling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
0.5	-	0.25	0.01	27500	0.010	0.007	23000	0.011
	1	0.25	0.01	27500	0.009	0.007	23000	0.009
	1.5	0.25	0.01	27500	0.008	0.007	23000	0.009
	2	0.25	0.01	27500	0.008	0.007	23000	0.008
	2.5	0.25	0.008	27500	0.007	0.006	23000	0.008
	3	0.25	0.007	27500	0.006	0.005	23000	0.007
	3.5	0.25	0.006	27500	0.006	0.003	23000	0.006
	4	0.25	0.005	27500	0.005	0.003	23000	0.005
	4.5	0.25	0.004	27500	0.004	0.003	20000	0.005
	5	0.25	0.003	22000	0.005	0.003	18000	0.005
	6	0.25	0.003	22000	0.005	0.002	18000	0.004
	7	0.25	0.003	17600	0.005	0.002	14000	0.005
	8	0.25	0.002	17600	0.005	0.002	14000	0.005
	9	0.25	0.002	17600	0.004	0.001	14000	0.004
	10	0.25	0.002	14300	0.005	0.001	12000	0.005
0.6	-	0.3	0.01	27500	0.011	0.007	23000	0.010
	1.5	0.3	0.01	27500	0.010	0.007	23000	0.010
	2	0.3	0.01	27500	0.009	0.007	23000	0.008
	3	0.3	0.007	27500	0.008	0.005	23000	0.007
	4	0.3	0.005	27500	0.007	0.003	23000	0.006
	5	0.3	0.003	22000	0.008	0.003	18000	0.006
	6	0.3	0.002	22000	0.006	0.002	18000	0.005
	8	0.3	0.002	17600	0.006	0.002	18000	0.002
0.8	-	0.4	0.03	27500	0.017	0.02	23000	0.018
	3	0.4	0.03	27500	0.015	0.02	23000	0.016
	4	0.4	0.025	27500	0.013	0.015	23000	0.013
	5	0.4	0.02	25300	0.012	0.012	20000	0.013
	6	0.4	0.02	22000	0.012	0.01	18000	0.013
	8	0.4	0.007	17600	0.011	0.005	14000	0.010
	10	0.4	0.007	17600	0.011	0.005	12000	0.012
	12	0.4	0.005	14300	0.013	0.003	12000	0.011
1	-	0.5	0.06	23000	0.022	0.05	18000	0.025
	2	0.5	0.06	23000	0.022	0.05	18000	0.025
	3	0.5	0.05	23000	0.022	0.04	18000	0.025
	4	0.5	0.04	23000	0.020	0.03	18000	0.022
	5	0.5	0.03	20000	0.020	0.02	16000	0.022
	6	0.5	0.02	18000	0.019	0.01	14000	0.021
	7	0.5	0.02	18000	0.018	0.01	14000	0.020
	8	0.5	0.02	16000	0.019	0.01	12000	0.021
	9	0.5	0.015	16000	0.017	0.007	12000	0.019
	10	0.5	0.01	14000	0.018	0.007	10000	0.020
	12	0.5	0.01	13000	0.015	0.005	10000	0.015
	14	0.5	0.008	13000	0.014	0.005	10000	0.014
	16	0.5	0.006	12000	0.013	0.004	9000	0.014
	18	0.5	0.006	12000	0.010	0.004	8000	0.013
	20	0.5	0.005	10000	0.008	0.003	7000	0.009
	22	0.5	0.003	10000	0.008	0.002	6000	0.008



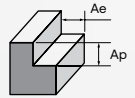
SE 70X Miniature Endmills With Long Neck, 2 Flutes - A6D

Side Milling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
1.2	-	0.6	0.03	18000	0.019	0.02	14000	0.021
	6	0.6	0.03	18000	0.019	0.02	14000	0.021
	8	0.6	0.02	16000	0.019	0.01	12000	0.021
	10	0.6	0.02	12000	0.021	0.01	10000	0.022
	12	0.6	0.01	10000	0.025	0.007	9000	0.022
	16	0.6	0.01	9000	0.017	0.005	8000	0.016
1.4	-	0.7	0.04	20000	0.020	0.03	18000	0.019
	6	0.7	0.04	20000	0.020	0.03	18000	0.019
	12	0.7	0.01	13000	0.019	0.007	11000	0.018
1.5	-	0.75	0.05	20000	0.023	0.04	18000	0.022
	4	0.75	0.05	20000	0.023	0.04	18000	0.022
	6	0.75	0.04	20000	0.020	0.03	18000	0.019
	8	0.75	0.03	18000	0.017	0.03	14000	0.021
	10	0.75	0.03	16000	0.016	0.02	14000	0.018
	12	0.75	0.02	14000	0.018	0.02	12000	0.018
	14	0.75	0.02	12000	0.017	0.01	10000	0.019
	16	0.75	0.01	10000	0.018	0.007	9000	0.017
	18	0.75	0.008	9000	0.018	0.005	8000	0.016
	20	0.75	0.005	8000	0.018	0.004	7000	0.014
	25	0.75	0.004	7000	0.014	0.003	6000	0.013
	30	0.75	0.003	6000	0.013	0.002	5000	0.011
	35	0.75	0.002	5000	0.011	0.002	4500	0.010
1.6	-	0.8	0.04	19000	0.022	0.03	17000	0.022
	6	0.8	0.04	19000	0.022	0.03	17000	0.022
	8	0.8	0.03	17000	0.022	0.03	14000	0.021
1.8	-	0.9	0.05	18000	0.025	0.04	15000	0.025
	6	0.9	0.05	18000	0.025	0.04	15000	0.025
	8	0.9	0.04	16000	0.025	0.03	12000	0.025
	10	0.9	0.04	14000	0.025	0.03	12000	0.021
	12	0.9	0.03	12000	0.025	0.02	10000	0.025
	14	0.9	0.03	12000	0.025	0.02	10000	0.022
	16	0.9	0.02	10000	0.025	0.01	9200	0.022
	18	0.9	0.02	9200	0.022	0.01	8500	0.022
2	-	1	0.08	18000	0.028	0.06	15000	0.027
	4	1	0.08	18000	0.028	0.06	15000	0.027
	6	1	0.06	18000	0.025	0.05	15000	0.025
	8	1	0.05	16000	0.025	0.04	12000	0.025
	10	1	0.05	14000	0.025	0.04	12000	0.021
	12	1	0.04	12000	0.025	0.03	10000	0.025
	14	1	0.03	12000	0.025	0.02	10000	0.022
	16	1	0.03	10000	0.025	0.02	9200	0.022
	18	1	0.02	9200	0.022	0.01	8500	0.022
	20	1	0.02	9200	0.021	0.01	8500	0.020
	25	1	0.015	8500	0.019	0.008	8000	0.019
	30	1	0.01	7500	0.019	0.006	7000	0.018
	35	1	0.008	6500	0.018	0.005	6000	0.017
	40	1	0.005	5500	0.016	0.004	5000	0.015
	50	1	0.004	4500	0.011	0.003	4000	0.010



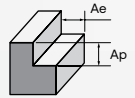
SE 70X Miniature Endmills With Long Neck, 2 Flutes - A6D

Side Milling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
2.5	-	1.25	0.07	14000	0.029	0.05	10000	0.035
	8	1.25	0.07	14000	0.029	0.05	10000	0.035
	12	1.25	0.06	12000	0.029	0.04	9600	0.031
	16	1.25	0.05	10000	0.030	0.02	8500	0.029
	20	1.25	0.05	8200	0.030	0.02	7500	0.033
	30	1.25	0.025	7000	0.021	0.015	6000	0.021
	40	1.25	0.012	5500	0.018	0.01	5000	0.018
	50	1.25	0.008	4500	0.013	0.005	4000	0.013
3	-	1.5	0.1	14000	0.032	0.07	10000	0.040
	8	1.5	0.1	14000	0.032	0.07	10000	0.040
	12	1.5	0.08	12000	0.033	0.06	9200	0.038
	16	1.5	0.07	10000	0.035	0.05	8500	0.035
	20	1.5	0.07	9000	0.039	0.04	7800	0.038
	25	1.5	0.06	8200	0.037	0.03	7000	0.036
	30	1.5	0.03	7000	0.043	0.02	6500	0.038



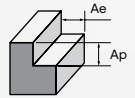
SE 70X Miniature Endmills With Long Neck, 4 Flutes - A6E

Side Milling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
1	-	0.5	0.04	25300	0.043	0.03	18000	0.056
	4	0.5	0.04	25300	0.036	0.03	18000	0.044
	6	0.5	0.02	19800	0.035	0.01	14000	0.045
	8	0.5	0.02	17600	0.034	0.01	12000	0.044
	10	0.5	0.01	15400	0.032	0.007	10000	0.040
1.2	-	0.6	0.03	19800	0.045	0.02	14000	0.054
	6	0.6	0.03	19800	0.035	0.02	14000	0.043
	8	0.6	0.02	17600	0.034	0.01	12000	0.042
	10	0.6	0.02	13200	0.038	0.01	10000	0.043
	12	0.6	0.01	11000	0.045	0.007	9000	0.044
1.5	-	0.75	0.04	22000	0.048	0.03	18000	0.053
	6	0.75	0.04	22000	0.036	0.03	18000	0.039
	8	0.75	0.03	19800	0.033	0.03	14000	0.043
	10	0.75	0.03	17600	0.031	0.02	14000	0.036
	12	0.75	0.02	15400	0.032	0.02	12000	0.035
	14	0.75	0.02	13200	0.030	0.01	10000	0.038
	16	0.75	0.01	11000	0.033	0.007	9000	0.033
1.8	-	0.9	0.05	19800	0.053	0.04	15000	0.060
	6	0.9	0.05	19800	0.045	0.04	15000	0.050
	8	0.9	0.04	17600	0.045	0.03	12000	0.050
	10	0.9	0.04	15400	0.045	0.03	12000	0.042
	12	0.9	0.03	13200	0.045	0.02	10000	0.050
	14	0.9	0.03	13200	0.045	0.02	10000	0.043
	16	0.9	0.02	11000	0.045	0.01	9200	0.043
	18	0.9	0.02	10120	0.041	0.01	8500	0.044
2	-	1	0.06	19800	0.056	0.05	15000	0.060
	6	1	0.06	19800	0.045	0.05	15000	0.050
	8	1	0.05	17600	0.045	0.04	12000	0.054
	10	1	0.05	15400	0.045	0.04	12000	0.050
	12	1	0.04	13200	0.049	0.03	10000	0.055
	14	1	0.03	13200	0.045	0.02	10000	0.048
	16	1	0.03	11000	0.045	0.02	9200	0.046
	18	1	0.02	10120	0.041	0.01	8500	0.044
	20	1	0.02	10120	0.038	0.01	8500	0.040
2.5	-	1.25	0.07	15400	0.065	0.05	10000	0.088
	8	1.25	0.07	15400	0.052	0.05	10000	0.070
	12	1.25	0.06	13200	0.053	0.04	9600	0.063
	16	1.25	0.05	11000	0.055	0.02	8500	0.059
	20	1.25	0.05	9020	0.055	0.02	7500	0.067
	25	1.25	0.03	7700	0.052	0.01	6500	0.052



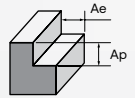
SE 70X Miniature Endmills With Long Neck, 4 Flutes - A6E

Side Milling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
3	-	15	0.1	15400	0.065	0.07	10000	0.090
	8	15	0.1	15400	0.058	0.07	10000	0.080
	12	15	0.08	13200	0.061	0.06	9200	0.076
	16	15	0.07	11000	0.068	0.05	8500	0.076
	20	15	0.07	9900	0.071	0.04	7800	0.077
	25	15	0.06	9020	0.072	0.03	7000	0.079
	30	15	0.03	7700	0.078	0.02	6500	0.077
4	-	2	0.15	10450	0.110	0.08	8000	0.131
	12	2	0.15	10450	0.096	0.08	8000	0.100
	16	2	0.1	8800	0.085	0.06	7000	0.100
	25	2	0.07	6600	0.106	0.04	5200	0.115
	30	2	0.05	5280	0.095	0.03	4200	0.101
	35	2	0.04	4620	0.095	0.02	3800	0.095
	40	2	0.03	3960	0.091	0.01	3000	0.100
5	-	2.5	0.12	7700	0.149	0.08	5500	0.182
	16	2.5	0.12	7700	0.117	0.08	5500	0.145
	25	2.5	0.07	6380	0.110	0.05	4200	0.143
	35	2.5	0.05	4620	0.097	0.03	3500	0.114
	50	2.5	0.03	3080	0.101	0.02	2500	0.100
6	-	3	0.18	7150	0.147	0.08	4500	0.211
	20	3	0.18	7150	0.112	0.08	4500	0.156
	30	3	0.12	4950	0.121	0.06	3500	0.143
	40	3	0.08	3300	0.152	0.03	2500	0.160
	50	3	0.05	2750	0.127	0.02	2000	0.125



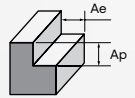
SE 70XR Miniature Endmills With Long Neck, 2 Flutes - A6G

Side Milling		H					
Working Material		Hardened Steel					
Properties		45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
0.2	-	0.003	30,000	0.003	0.003	30,000	0.001
	0.5	0.003	30,000	0.003	0.003	30,000	0.001
	1	0.003	30,000	0.002	0.002	30,000	0.001
	1.5	0.002	30,000	0.001	0.002	30,000	0.001
	2	0.002	30,000	0.001	0.001	30,000	0.001
0.3	-	0.003	30,000	0.007	0.003	30,000	0.005
	1	0.003	30,000	0.005	0.003	30,000	0.004
	1.5	0.003	30,000	0.003	0.003	30,000	0.003
	2	0.003	30,000	0.002	0.003	30,000	0.002
	2.5	0.002	25,000	0.002	0.002	25,000	0.001
	3	0.002	25,000	0.001	0.002	25,000	0.001
0.4	-	0.005	30,000	0.007	0.005	28,000	0.006
	1	0.005	30,000	0.006	0.005	28,000	0.005
	1.5	0.005	30,000	0.006	0.005	28,000	0.005
	2	0.005	30,000	0.005	0.005	25,000	0.005
	2.5	0.004	28,000	0.005	0.004	25,000	0.005
	3	0.004	25,000	0.005	0.003	23,000	0.004
	4	0.003	25,000	0.004	0.002	20,000	0.004
0.5	-	0.008	25,000	0.011	0.006	23,000	0.011
	1	0.008	25,000	0.010	0.006	23,000	0.009
	2	0.007	25,000	0.008	0.005	23,000	0.008
	3	0.006	25,000	0.007	0.004	23,000	0.007
	4	0.004	25,000	0.006	0.002	23,000	0.005
	5	0.003	20,000	0.006	0.002	18,000	0.005
	6	0.002	20,000	0.005	0.001	18,000	0.004
0.6	-	0.012	25,000	0.012	0.006	23,000	0.010
	2	0.012	25,000	0.010	0.006	23,000	0.008
	4	0.007	23,000	0.009	0.004	20,000	0.007
	6	0.005	20,000	0.007	0.003	18,000	0.005
	8	0.003	16,000	0.006	0.001	14,000	0.003
	10	0.001	14,000	0.003	0.001	12,000	0.003
0.7	-	0.012	25,000	0.013	0.006	23,000	0.011
	2	0.012	25,000	0.012	0.006	23,000	0.009
	4	0.008	25,000	0.010	0.005	23,000	0.008
	6	0.005	20,000	0.010	0.003	18,000	0.008
0.8	-	0.030	25,000	0.020	0.020	23,000	0.019
	2	0.030	25,000	0.017	0.020	23,000	0.016
	4	0.025	25,000	0.014	0.015	23,000	0.013
	6	0.020	20,000	0.013	0.010	18,000	0.012
	8	0.010	16,000	0.012	0.005	14,000	0.010
	12	0.005	14,000	0.014	0.003	12,000	0.012
0.9	-	0.030	25,000	0.017	0.020	20,000	0.018
	4	0.030	25,000	0.014	0.020	20,000	0.014
	8	0.010	16,000	0.015	0.008	14,000	0.013



SE 70XR Miniature Endmills With Long Neck, 4 Flutes - A6G

Side Milling		H					
Working Material		Hardened Steel					
Properties		45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
1	-	0.050	25000	0.023	0.040	21,000	0.025
	2	0.050	25000	0.020	0.040	21,000	0.021
	3	0.050	23000	0.021	0.040	20,000	0.022
	4	0.040	21000	0.021	0.030	18,000	0.022
	5	0.030	19000	0.021	0.020	16,000	0.022
	6	0.020	16000	0.024	0.010	14,000	0.023
	8	0.015	15000	0.020	0.008	13,000	0.020
	10	0.010	13000	0.018	0.006	11,000	0.018
	12	0.010	11000	0.020	0.006	9,000	0.020
1.2	-	0.045	20,000	0.023	0.030	17,000	0.022
	5	0.045	20,000	0.017	0.030	17,000	0.017
	10	0.030	13,000	0.018	0.010	11,000	0.019
1.5	-	0.050	23000	0.023	0.040	20,000	0.024
	3	0.050	23000	0.020	0.040	20,000	0.021
	4	0.050	21000	0.021	0.040	18,000	0.021
	6	0.045	19000	0.021	0.030	16,000	0.021
	8	0.040	16000	0.021	0.025	14,000	0.021
	10	0.035	14500	0.019	0.023	12,500	0.021
	12	0.030	13000	0.018	0.020	11,000	0.019
	15	0.020	11000	0.015	0.007	9,000	0.015
2	-	0.060	20000	0.028	0.050	17,000	0.026
	4	0.060	20000	0.024	0.050	17,000	0.023
	6	0.060	18000	0.025	0.050	15,000	0.025
	8	0.050	16000	0.025	0.040	14,000	0.024
	10	0.045	14500	0.025	0.035	12,500	0.025
	12	0.040	13000	0.026	0.030	11,000	0.025
	16	0.030	11000	0.024	0.020	9,500	0.023
	20	0.020	8000	0.023	0.010	7,000	0.024
2.5	-	0.070	15,000	0.033	0.050	11,000	0.040
	10	0.070	13,000	0.030	0.050	11,000	0.032
	20	0.040	9000	0.028	0.020	7,500	0.033
	30	0.010	5500	0.027	0.010	4,500	0.033
3	-	0.100	15000	0.034	0.070	13,000	0.035
	4	0.100	15000	0.032	0.070	13,000	0.032
	6	0.100	13000	0.036	0.070	11,000	0.037
	8	0.100	11000	0.041	0.070	9,500	0.042
	10	0.090	11000	0.039	0.065	9,500	0.040
	12	0.080	11000	0.038	0.060	9,500	0.039
	16	0.070	10000	0.039	0.050	8,500	0.040
	18	0.060	9000	0.042	0.045	7,500	0.043
	20	0.050	8000	0.045	0.040	7,000	0.045
	25	0.040	7500	0.044	0.020	6,500	0.043
	30	0.030	6500	0.045	0.020	5,500	0.045



SE 70XR Miniature Endmills With Long Neck, 4 Flutes - A6G

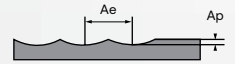
Side Milling		H					
Working Material		Hardened Steel					
Properties		45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
4	-	0.150	10000	0.059	0.080	8,500	0.064
	8	0.150	10000	0.049	0.080	8,500	0.053
	12	0.150	10000	0.043	0.080	8,500	0.047
	16	0.100	8000	0.048	0.060	7,000	0.050
	24	0.080	6500	0.043	0.050	5,500	0.045
	32	0.040	5500	0.032	0.020	4,500	0.033
5	-	0.150	8,000	0.073	0.080	7,000	0.074
	15	0.150	8,000	0.056	0.080	7,000	0.057
	20	0.100	6500	0.062	0.070	5,500	0.065
	40	0.050	4,000	0.056	0.020	3,500	0.057
6	-	0.180	6500	0.082	0.080	5,500	0.087
	12	0.180	6500	0.068	0.080	5,500	0.071
	18	0.180	5,500	0.072	0.080	4,500	0.077
	24	0.150	5000	0.070	0.070	4,000	0.076
	48	0.050	2,500	0.070	0.030	2,000	0.062

A6Q, A6R

RECOMMENDED CUTTING DATA

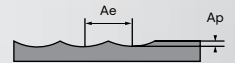


BN 70X Ballnose Cutters, 2 Flutes - A6Q, A6R



Roughing	H					
Working Material	Hardened Steel					
Properties	50 ≤ HRC ≤ 55		55 < HRC ≤ 65		65 < HRC ≤ 70	
Cutting Depth, Ap (mm)	0.08 × D		0.05 × D		0.05 × D	
Cutting Width, Ae (mm)	0.24 × D		0.15 × D		0.15 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
1	240	0.014	180	0.012	120	0.012
1.5		0.019		0.018		0.017
2		0.025		0.023		0.023
2.5		0.032		0.029		0.030
3		0.039		0.036		0.037
4		0.054		0.049		0.052
5		0.068		0.061		0.064
6		0.084		0.075		0.074
8		0.116		0.099		0.100
10		0.136		0.124		0.124
12		0.146		0.132		0.134

BN 70X Ballnose Cutters, 2 Flutes - A6Q, A6R



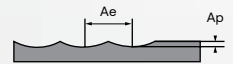
Finishing	H					
Working Material	Hardened Steel					
Properties	50 ≤ HRC ≤ 55		55 < HRC ≤ 65		65 < HRC ≤ 70	
Cutting Depth, Ap (mm)	0.05 - 0.10		0.05 - 0.10		0.05 - 0.10	
Cutting Width, Ae (mm)	0.02 × D		0.02 × D		0.02 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
1	250	0.038	200	0.024	150	0.024
2		0.038		0.043		0.043
3		0.052		0.056		0.057
4		0.076		0.072		0.072
5		0.089		0.086		0.085
6		0.097		0.099		0.095
8		0.111		0.104		0.104
10		0.119		0.114		0.114
12		0.123		0.119		0.119

H

Recommended Cutting Data

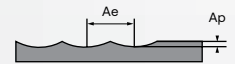
Note: These recommended cutting data indicators are just for reference. They should be adjusted according to the different cutting condition.

BN 70X Miniature Ballnose Cutters With Long Neck, 2 Flutes - A6S



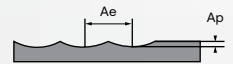
Profiling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
0.1	-	0.005	0.003	40,000	0.003	0.002	40,000	0.001
	0.2	0.005	0.003	40,000	0.002	0.002	40,000	0.001
	0.3	0.005	0.003	40,000	0.002	0.002	40,000	0.001
	0.5	0.005	0.002	40,000	0.001	0.001	40,000	0.001
0.15	-	0.008	0.003	40,000	0.003	0.002	40,000	0.002
	0.3	0.008	0.003	40,000	0.002	0.002	40,000	0.001
	0.5	0.008	0.003	40,000	0.002	0.002	40,000	0.001
	1	0.008	0.002	40,000	0.001	0.001	40,000	0.000
0.2	-	0.010	0.010	40,000	0.005	0.003	40,000	0.003
	0.3	0.010	0.010	40,000	0.004	0.003	40,000	0.003
	0.5	0.010	0.008	40,000	0.004	0.003	40,000	0.002
	0.75	0.010	0.005	40,000	0.004	0.002	40,000	0.002
	1	0.010	0.003	40,000	0.003	0.001	40,000	0.002
	1.25	0.010	0.003	40,000	0.003	0.001	40,000	0.002
	1.5	0.010	0.003	40,000	0.003	0.001	40,000	0.002
	1.75	0.010	0.002	40,000	0.002	0.001	40,000	0.001
	2	0.010	0.002	40,000	0.002	0.001	40,000	0.001
	2.5	0.010	0.001	40,000	0.001	0.001	40,000	0.001
	3	0.010	0.001	40,000	0.001	0.001	40,000	0.000
0.3	-	0.015	0.010	40,000	0.005	0.003	40,000	0.004
	0.5	0.015	0.010	40,000	0.004	0.003	40,000	0.004
	0.6	0.015	0.007	40,000	0.004	0.003	40,000	0.003
	0.75	0.015	0.007	40,000	0.004	0.003	40,000	0.003
	1	0.015	0.007	40,000	0.004	0.003	40,000	0.003
	1.25	0.015	0.005	40,000	0.004	0.002	40,000	0.003
	1.5	0.015	0.005	40,000	0.003	0.002	40,000	0.003
	1.75	0.015	0.003	40,000	0.003	0.002	40,000	0.002
	2	0.015	0.003	40,000	0.003	0.002	40,000	0.002
	2.25	0.015	0.002	40,000	0.003	0.001	40,000	0.002
	2.5	0.015	0.002	40,000	0.002	0.001	40,000	0.002
	3	0.015	0.001	40,000	0.002	0.001	40,000	0.001
	3.5	0.015	0.001	40,000	0.001	0.001	40,000	0.001
	4	0.015	0.001	40,000	0.001	0.001	40,000	0.001
0.4	-	0.020	0.030	40,000	0.011	0.009	40,000	0.008
	0.5	0.020	0.030	40,000	0.010	0.009	40,000	0.007
	0.8	0.020	0.020	40,000	0.009	0.008	40,000	0.007
	1	0.020	0.020	40,000	0.009	0.008	40,000	0.007
	1.5	0.020	0.010	40,000	0.008	0.005	40,000	0.006
	2	0.020	0.010	40,000	0.007	0.005	40,000	0.005
	2.5	0.020	0.007	40,000	0.007	0.003	40,000	0.005
	3	0.020	0.007	40,000	0.006	0.003	40,000	0.004
	3.5	0.020	0.005	40,000	0.005	0.002	40,000	0.004
	4	0.020	0.005	30,000	0.005	0.002	30,000	0.004
	4.5	0.020	0.003	30,000	0.004	0.001	30,000	0.003
	5	0.020	0.002	30,000	0.003	0.001	30,000	0.002
	6	0.020	0.001	30,000	0.001	0.001	30,000	0.001

BN 70X Miniature Ballnose Cutters With Long Neck, 2 Flutes - A6S



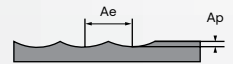
Profiling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
0.5	-	0.025	0.030	40,000	0.014	0.010	40,000	0.009
	1	0.025	0.030	40,000	0.013	0.010	40,000	0.008
	1.5	0.025	0.020	40,000	0.012	0.007	40,000	0.008
	2	0.025	0.020	40,000	0.011	0.007	40,000	0.007
	2.5	0.025	0.010	40,000	0.011	0.005	40,000	0.007
	3	0.025	0.010	40,000	0.010	0.005	40,000	0.006
	3.5	0.025	0.007	40,000	0.009	0.003	40,000	0.006
	4	0.025	0.007	40,000	0.009	0.003	40,000	0.006
	4.5	0.025	0.005	40,000	0.008	0.002	40,000	0.005
	5	0.025	0.005	33,000	0.009	0.002	33,000	0.006
	5.5	0.025	0.003	30,000	0.009	0.001	30,000	0.006
	6	0.025	0.002	30,000	0.008	0.001	30,000	0.005
	8	0.025	0.002	30,000	0.004	0.001	30,000	0.003
	10	0.025	0.001	20,000	0.001	0.001	20,000	0.001
0.6	-	0.030	0.050	40,000	0.019	0.020	30,000	0.013
	1	0.030	0.050	40,000	0.018	0.020	30,000	0.012
	1.5	0.030	0.050	40,000	0.017	0.020	30,000	0.011
	2	0.030	0.050	40,000	0.016	0.020	30,000	0.011
	2.5	0.030	0.030	40,000	0.015	0.020	30,000	0.010
	3	0.030	0.030	40,000	0.015	0.020	30,000	0.010
	3.5	0.030	0.020	40,000	0.014	0.010	30,000	0.009
	4	0.030	0.020	40,000	0.013	0.010	30,000	0.009
	4.5	0.030	0.020	35,000	0.014	0.008	30,000	0.008
	5	0.030	0.010	30,000	0.015	0.007	30,000	0.008
	5.5	0.030	0.010	30,000	0.014	0.005	30,000	0.007
	6	0.030	0.007	30,000	0.013	0.004	30,000	0.007
	7	0.030	0.005	25,000	0.014	0.003	20,000	0.009
	8	0.030	0.003	25,000	0.011	0.002	20,000	0.007
	9	0.030	0.003	25,000	0.009	0.001	20,000	0.006
	10	0.030	0.002	20,000	0.008	0.001	18,000	0.005
	12	0.030	0.002	20,000	0.002	0.001	18,000	0.001
0.7	-	0.035	0.070	40,000	0.025	0.030	30,000	0.021
	2	0.035	0.070	40,000	0.020	0.030	30,000	0.017
	4	0.035	0.040	40,000	0.016	0.015	30,000	0.013
	6	0.035	0.010	30,000	0.015	0.006	25,000	0.010
	8	0.035	0.006	25,000	0.010	0.004	20,000	0.006
0.8	-	0.040	0.100	40,000	0.029	0.050	30,000	0.023
	2	0.040	0.100	40,000	0.025	0.050	30,000	0.020
	3	0.040	0.100	40,000	0.023	0.050	30,000	0.018
	4	0.040	0.050	40,000	0.021	0.030	30,000	0.017
	5	0.040	0.050	40,000	0.019	0.020	30,000	0.015
	6	0.040	0.030	30,000	0.022	0.010	25,000	0.016
	7	0.040	0.020	30,000	0.019	0.007	25,000	0.014
	8	0.040	0.010	30,000	0.017	0.005	25,000	0.012
	10	0.040	0.005	25,000	0.013	0.002	20,000	0.010
	12	0.040	0.003	20,000	0.008	0.002	20,000	0.005

BN 70X Miniature Ballnose Cutters With Long Neck, 2 Flutes - A6S



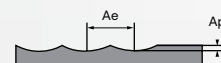
Profiling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
0.9	-	0.045	0.100	40,000	0.033	0.060	30,000	0.023
	2	0.045	0.100	40,000	0.028	0.060	30,000	0.022
	4	0.045	0.050	40,000	0.023	0.030	25,000	0.024
	6	0.045	0.035	30,000	0.023	0.015	20,000	0.028
	8	0.045	0.025	30,000	0.017	0.008	20,000	0.025
1	-	0.050	0.100	40,000	0.034	0.080	25,000	0.031
	2	0.050	0.100	40,000	0.031	0.080	25,000	0.028
	2.5	0.050	0.100	40,000	0.030	0.080	25,000	0.027
	3	0.050	0.100	40,000	0.030	0.080	25,000	0.027
	4	0.050	0.100	40,000	0.028	0.050	25,000	0.025
	5	0.050	0.050	30,000	0.036	0.030	20,000	0.030
	6	0.050	0.050	30,000	0.034	0.020	20,000	0.028
	7	0.050	0.040	30,000	0.031	0.020	20,000	0.026
	8	0.050	0.040	30,000	0.029	0.020	20,000	0.025
	9	0.050	0.030	25,000	0.033	0.010	18,000	0.026
	10	0.050	0.030	25,000	0.030	0.010	18,000	0.024
	12	0.050	0.010	20,000	0.032	0.005	16,000	0.022
	13	0.050	0.008	20,000	0.029	0.003	16,000	0.020
	14	0.050	0.005	20,000	0.026	0.002	16,000	0.018
	16	0.050	0.005	18,000	0.022	0.002	14,000	0.016
	18	0.050	0.003	18,000	0.015	0.002	14,000	0.011
	20	0.050	0.003	16,000	0.009	0.002	12,000	0.007
	22	0.050	0.002	14,000	0.002	0.001	10,000	0.002
1.2	-	0.060	0.100	30,000	0.048	0.050	25,000	0.037
	2.4	0.060	0.100	30,000	0.042	0.050	25,000	0.032
	4	0.060	0.100	30,000	0.037	0.050	25,000	0.029
	6	0.060	0.070	30,000	0.032	0.030	20,000	0.030
	8	0.060	0.050	30,000	0.027	0.020	20,000	0.025
	10	0.060	0.030	20,000	0.032	0.010	18,000	0.022
	12	0.060	0.020	20,000	0.025	0.007	18,000	0.016
	14	0.060	0.020	18,000	0.019	0.005	16,000	0.011
	16	0.060	0.010	16,000	0.011	0.003	14,000	0.005
1.4	-	0.070	0.120	30,000	0.059	0.030	20,000	0.039
	8	0.070	0.120	30,000	0.042	0.030	20,000	0.025
	12	0.070	0.070	20,000	0.044	0.015	18,000	0.020
	16	0.070	0.020	17,000	0.030	0.008	16,000	0.014
1.5	-	0.075	0.150	30,000	0.055	0.100	25,000	0.044
	3	0.075	0.150	30,000	0.050	0.100	25,000	0.040
	4	0.075	0.150	30,000	0.048	0.100	25,000	0.039
	6	0.075	0.150	30,000	0.045	0.100	25,000	0.036
	8	0.075	0.100	25,000	0.049	0.050	20,000	0.041
	10	0.075	0.100	25,000	0.045	0.050	20,000	0.037
	12	0.075	0.050	20,000	0.051	0.020	18,000	0.037
	14	0.075	0.050	20,000	0.045	0.020	18,000	0.033
	16	0.075	0.030	18,000	0.044	0.010	16,000	0.033
	20	0.075	0.010	16,000	0.036	0.007	14,000	0.027
	22	0.075	0.010	14,000	0.034	0.007	12,000	0.026
	30	0.075	0.005	10,000	0.004	0.003	8,000	0.003

BN 70X Miniature Ballnose Cutters With Long Neck, 2 Flutes - A6S



Profiling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
1.6	-	0.080	0.100	25,000	0.077	0.050	18,000	0.069
	8	0.080	0.100	25,000	0.050	0.050	18,000	0.044
	12	0.080	0.070	20,000	0.045	0.030	14,000	0.042
	16	0.080	0.030	16,000	0.023	0.015	12,000	0.031
	20	0.080	0.010	14,000	0.018	0.010	10,000	0.015
2	-	0.100	0.200	25,000	0.065	0.150	20,000	0.054
	3	0.100	0.200	25,000	0.060	0.150	20,000	0.050
	4	0.100	0.200	25,000	0.058	0.150	20,000	0.049
	6	0.100	0.200	25,000	0.055	0.150	20,000	0.046
	8	0.100	0.200	20,000	0.065	0.100	16,000	0.054
	10	0.100	0.100	18,000	0.068	0.100	14,000	0.058
	12	0.100	0.100	16,000	0.072	0.050	12,000	0.064
	13	0.100	0.080	16,000	0.069	0.040	12,000	0.061
	14	0.100	0.070	16,000	0.067	0.030	12,000	0.059
	16	0.100	0.070	16,000	0.062	0.030	12,000	0.055
	18	0.100	0.050	14,000	0.065	0.020	10,000	0.060
	20	0.100	0.050	14,000	0.060	0.020	10,000	0.055
	22	0.100	0.030	14,000	0.054	0.020	10,000	0.050
	25	0.100	0.030	12,000	0.053	0.010	8,500	0.049
	30	0.100	0.020	12,000	0.037	0.008	8,500	0.034
	35	0.100	0.010	10,000	0.025	0.005	6,800	0.023
	40	0.100	0.005	10,000	0.005	0.002	6,800	0.004
2.5	-	0.125	0.300	20,000	0.082	0.150	18,000	0.065
	6	0.125	0.300	20,000	0.070	0.150	18,000	0.056
	8	0.125	0.250	20,000	0.066	0.120	18,000	0.052
	10	0.125	0.200	20,000	0.062	0.100	18,000	0.049
	15	0.125	0.100	18,000	0.058	0.050	14,000	0.053
	20	0.125	0.070	16,000	0.052	0.030	10,000	0.059
	25	0.125	0.050	14,000	0.045	0.020	8,000	0.056
	30	0.125	0.030	12,000	0.036	0.010	7,000	0.044
	35	0.125	0.020	10,000	0.023	0.007	6,200	0.026
3	-	0.150	0.200	20,000	0.086	0.200	14,000	0.082
	6	0.150	0.200	20,000	0.075	0.200	14,000	0.071
	8	0.150	0.200	20,000	0.071	0.200	14,000	0.068
	10	0.150	0.200	20,000	0.068	0.100	14,000	0.064
	12	0.150	0.200	20,000	0.064	0.100	14,000	0.060
	14	0.150	0.100	18,000	0.067	0.100	12,000	0.066
	16	0.150	0.100	18,000	0.063	0.100	12,000	0.062
	20	0.150	0.100	18,000	0.054	0.100	12,000	0.053
	25	0.150	0.100	16,000	0.049	0.050	10,000	0.051
	30	0.150	0.070	14,000	0.043	0.030	8,600	0.045
	35	0.150	0.050	12,000	0.034	0.020	7,200	0.036
	40	0.150	0.030	10,000	0.023	0.010	6,400	0.020

BN 70X Miniature Ballnose Cutters With Long Neck, 2 Flutes - A6S



Profiling			H					
Working Material			Hardened Steel					
Properties			45 ≤ HRC < 52			52 ≤ HRC < 68		
D (mm)	Effective Length	Ae (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)	Ap (mm)	n (min ⁻¹)	Fz (mm)
3.5	-	0.175	0.250	20,000	0.095	0.130	14,000	0.075
	15	0.175	0.250	20,000	0.075	0.130	14,000	0.054
	20	0.175	0.180	18,000	0.073	0.100	12,000	0.054
	25	0.175	0.120	16,000	0.070	0.060	10,000	0.055
	30	0.175	0.100	14,000	0.066	0.050	9,000	0.051
	35	0.175	0.080	13,000	0.056	0.030	7,500	0.048
	40	0.175	0.070	11,000	0.049	0.020	7,000	0.037
	45	0.175	0.060	10,000	0.035	0.015	6,000	0.027
4	-	0.200	0.300	20,000	0.087	0.200	12,000	0.096
	8	0.200	0.300	20,000	0.075	0.200	12,000	0.083
	10	0.200	0.300	20,000	0.072	0.200	12,000	0.080
	12	0.200	0.300	20,000	0.069	0.200	12,000	0.077
	14	0.200	0.300	20,000	0.066	0.200	12,000	0.074
	16	0.200	0.200	16,000	0.079	0.100	10,000	0.085
	20	0.200	0.200	16,000	0.072	0.100	10,000	0.077
	25	0.200	0.200	16,000	0.063	0.100	10,000	0.068
	30	0.200	0.100	14,000	0.061	0.050	8,200	0.071
	35	0.200	0.100	14,000	0.051	0.050	8,200	0.060
	40	0.200	0.070	12,000	0.047	0.030	6,800	0.059
	45	0.200	0.070	12,000	0.035	0.030	6,800	0.045
	50	0.200	0.050	10,000	0.028	0.020	5,500	0.038
5	-	0.250	0.300	18,000	0.100	0.200	9,200	0.133
	10	0.250	0.300	18,000	0.083	0.200	9,200	0.109
	15	0.250	0.300	18,000	0.075	0.200	9,200	0.096
	20	0.250	0.300	15,000	0.080	0.150	8,000	0.097
	25	0.250	0.200	15,000	0.070	0.100	7,200	0.092
	30	0.250	0.200	12,000	0.075	0.100	6,400	0.086
	40	0.250	0.100	10,000	0.060	0.050	5,500	0.059
6	-	0.300	0.300	16,000	0.109	0.200	7,000	0.167
	10	0.300	0.300	16,000	0.094	0.200	7,000	0.143
	15	0.300	0.300	16,000	0.086	0.200	7,000	0.131
	20	0.300	0.300	16,000	0.079	0.200	7,000	0.119
	25	0.300	0.300	16,000	0.071	0.150	7,000	0.106
	30	0.300	0.200	14,000	0.073	0.150	6,500	0.102
	35	0.300	0.200	13,000	0.069	0.120	5,800	0.099
	40	0.300	0.200	12,000	0.065	0.100	5,200	0.094
	50	0.300	0.100	8,200	0.066	0.050	4,000	0.080
	60	0.300	0.070	6,000	0.050	0.030	2,500	0.060

Certificate

Standard **ISO 14001:2015**

Certificate Registr. No. **01 104 2435871**

Certificate Holder: **HPMT Industries Sdn. Bhd.**
No. 5, Jalan Sungai Kayu Ara 32/39,
Taman Berjaya, Seksyen 32,
40460 Shah Alam, Selangor Darul Ehsan,
Malaysia

Scope: Design and Manufacturing of Standard and Custom-made Metal
Removing Cutting Tools

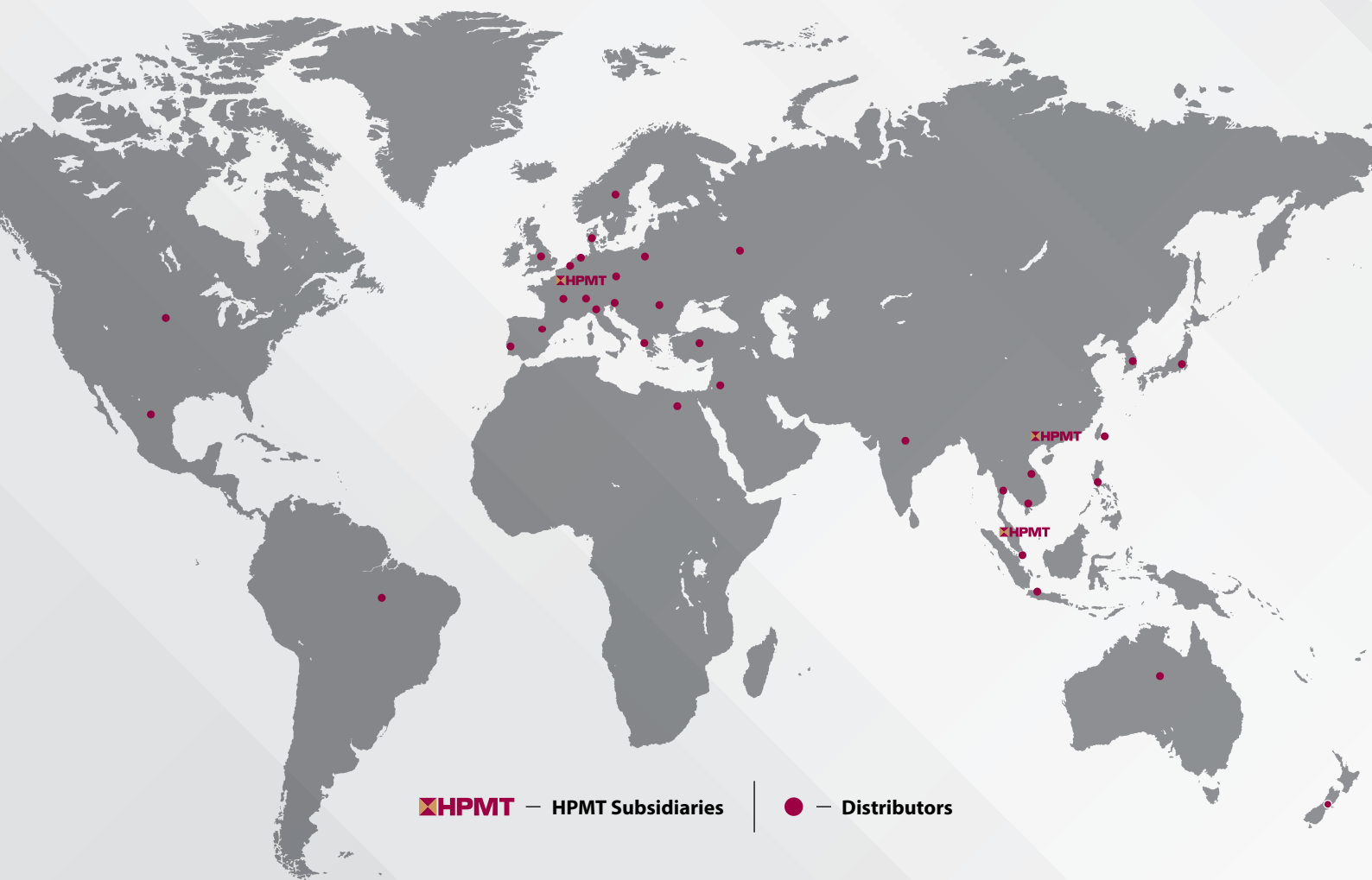
Proof has been furnished by means of an audit that the
requirements of ISO 14001:2015 are met.

Validity: The certificate is valid from 2025-01-15 until 2028-01-14.
First certification 2025

2025-01-17



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