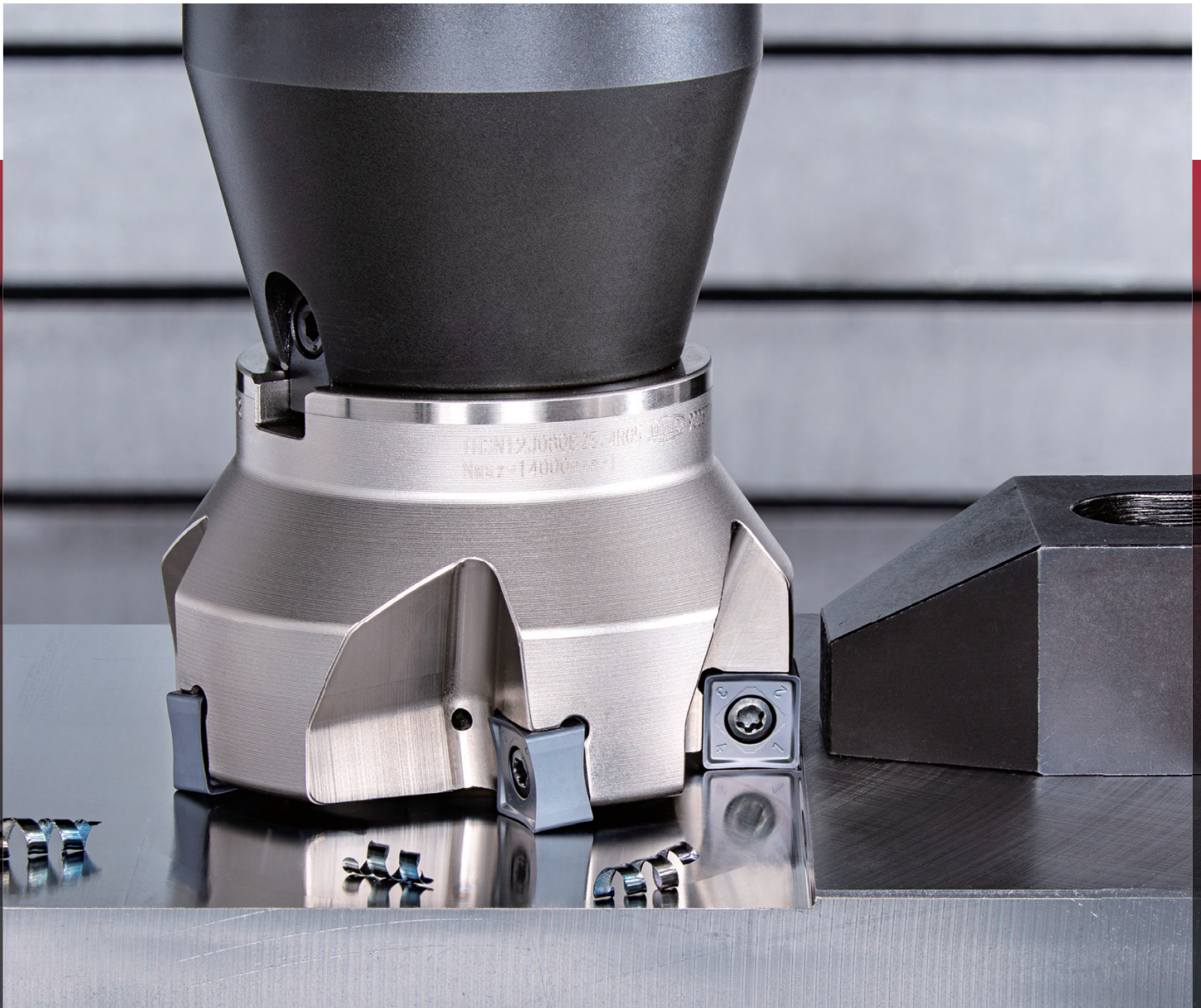


Face milling cutter

DOQ^{UAD}MILL

Tungaloy Report No. 522S1-G

Face milling cutter with 8 cornered inserts
— now includes AH3225 grade





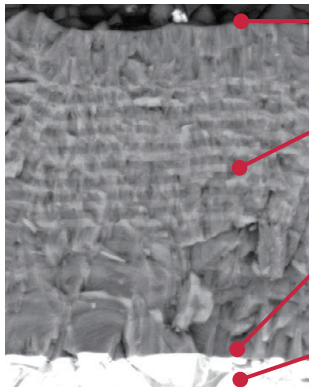
First choice grade in steel for long tool life and process reliability

New

AH3225

P

- Nano multi-layer coating technology with three major properties for optimal cutting edge integrity
- Increased resistance to wear, fracture, oxidation, built-up edge, and delamination



Resistance to built-up edge

The coating surface prevents built-up edge

Resistance to wear, oxidation, and fracture

Multi-layered coating is designed to resist wear and oxidation, while preventing micro-cracks from propagating in the coating layer for improved resistance to edge chipping

Strong coating / substrate adhesion

Coating is optimized for strong adhesion property with substrate to maintain strong cutting edge integrity

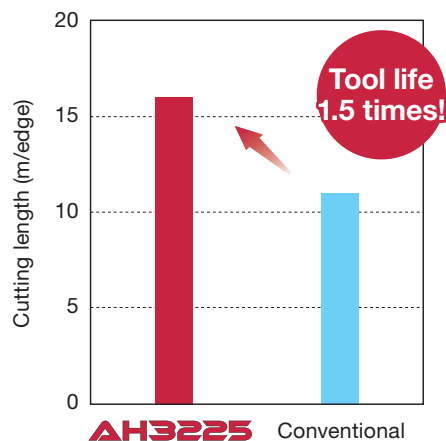
Carbide substrate

High resistance to fracture

Long tool life

P

S55C / C55

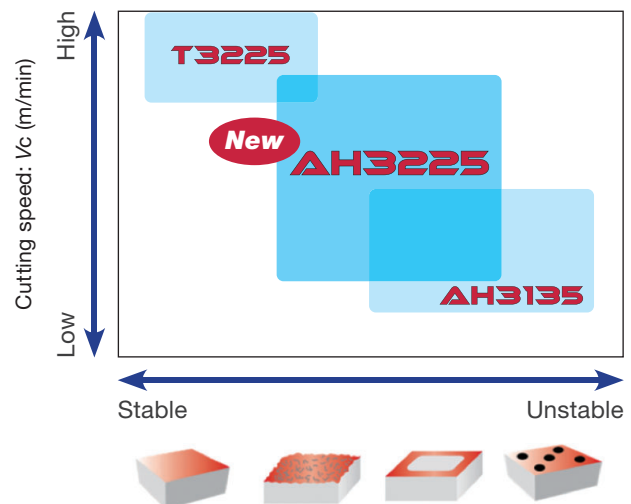


Cutter : THSN12J080B25.4R05
(ø80 mm, z = 5)
Insert : SNMU120608HNEN-MM AH3225
Cutting speed : $V_c = 150$ m/min
Feed per tooth : $f_z = 0.2$ mm/t
Depth of cut : $a_p = 2$ mm
Width of cut : $a_e = 50$ mm
Coolant : Dry
Machine : Vertical M/C, BT40

Application area

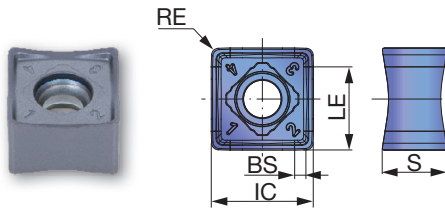
P

Steel

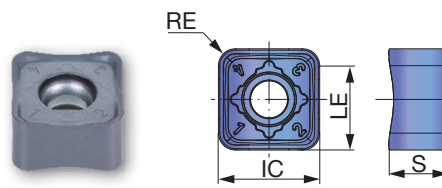


INSERTS

SNMU120608HNEN-MM



SNMU120612/20EN-MM



P Steel	☆	★	☆	★
M Stainless		☆	★	★
K Cast iron	★	☆		★
N Non-ferrous				
S Superalloys	★	☆		
H Hard materials				

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated					LE	S	IC	BS
			AH120	AH3225	AH3135	T1215	T3225				
SNMU120608HNEN-MM	0.8	9.5	●	●	●	●	●	9.8	7.5	12	1.4
SNMU120612EN-MM	1.2	9.5		●	●	●		10.8	7.25	12	-
SNMU120620EN-MM	2	9.5		●	●	●		10	7	12	-

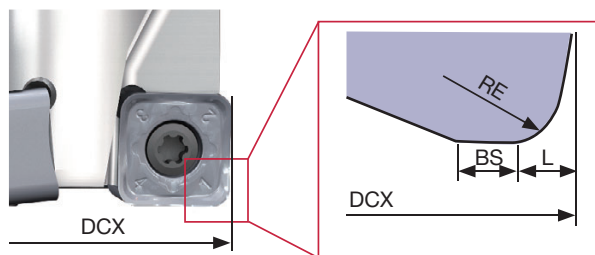
● : New product
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Hardness	Priority	Grades	Chip-breaker	Cutting speed Vc (m/min)	Feed per tooth fz (mm/t)
P	Low carbon steels S15C, etc. C15E4, etc., C15E, etc.	- 200HB	First choice	AH3225	MM	100 - 250	0.06 - 0.3
		- 200HB	For wear resistance	T3225	MM	200 - 350	0.06 - 0.25
	High carbon and alloy steel S55C, SCM440, etc. C55, 42CrMo4, etc.	- 300HB	First choice	AH3225	MM	100 - 250	0.06 - 0.3
		- 300HB	For wear resistance	T3225	MM	180 - 300	0.06 - 0.25
	Prehardened steel NAK80, PX5, etc.	30 - 40HRC	First choice	AH3225	MM	100 - 200	0.06 - 0.25
		30 - 40HRC	For wear resistance	T3225	MM	150 - 250	0.06 - 0.2
M	Austenitic stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	- 200HB	First choice	AH3135	MM	100 - 200	0.06 - 0.25
		- 200HB	For wear resistance	T3225	MM	100 - 250	0.06 - 0.2
	Stainless cast steel SCH20XNb, 1.4849, etc.	-	First choice	T3225	MM	60 - 120	0.06 - 0.2
		-	For fracture resistance	AH3135	MM	60 - 120	0.06 - 0.2
K	Grey cast iron FC250, etc. 250, etc., GGG25, etc.	150 - 250HB	First choice	T1215	MM	100 - 350	0.06 - 0.3
		150 - 250HB	For fracture resistance	AH120	MM	100 - 250	0.06 - 0.3
	Ductile cast iron FCD600, etc. 600-3, etc., GGG60, etc.	150 - 250HB	First choice	T1215	MM	100 - 350	0.06 - 0.25
		150 - 250HB	For fracture resistance	AH120	MM	80 - 200	0.06 - 0.3
S	Titanium alloys Ti-6Al-4V, etc.	- 40HRC	First choice	AH3135	MM	30 - 60	0.06 - 0.2
	Heat-resistant alloys Inconel718, etc.	- 40HRC	First choice	AH120	MM	10 - 40	0.04 - 0.16
H	Hardened steel SKD61, etc., X40CrMoV5-1, etc.	40 - 50HRC	First choice	AH3225	MM	80 - 130	0.04 - 0.16
	Hardened steel SKD11, etc., X153CrMoV12, etc.	50 - 60HRC	First choice	AH120	MM	50 - 70	0.02 - 0.08

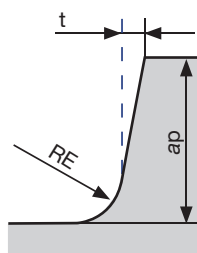
■ Tool offset

To eliminate uncut amount in face milling operation, adjust the programming according to the offset (L) listed below.



Designation	RE	BS	L
SNMU120608HNEN-MM	0.8	1.4	1.3
SNMU120612EN-MM	1.2	-	1.7
SNMU120620EN-MM	2	-	2.5

The following table shows the amount overcut (t) when the cutter is used as a shoulder milling cutter.



Designation / ap (mm)	1	2	3	4	5	6	7	8	9	9.5
SNMU120608HNEN-MM	0.01	0.04	0.05	0.05	0.07	0.09	0.14	0.2	0.27	0.27
SNMU120612EN-MM	-	0	0	0.01	0.02	0.05	0.09	0.15	0.22	0.25
SNMU120620EN-MM	-	0	0	0	0.02	0.05	0.09	0.15	0.22	0.25



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