



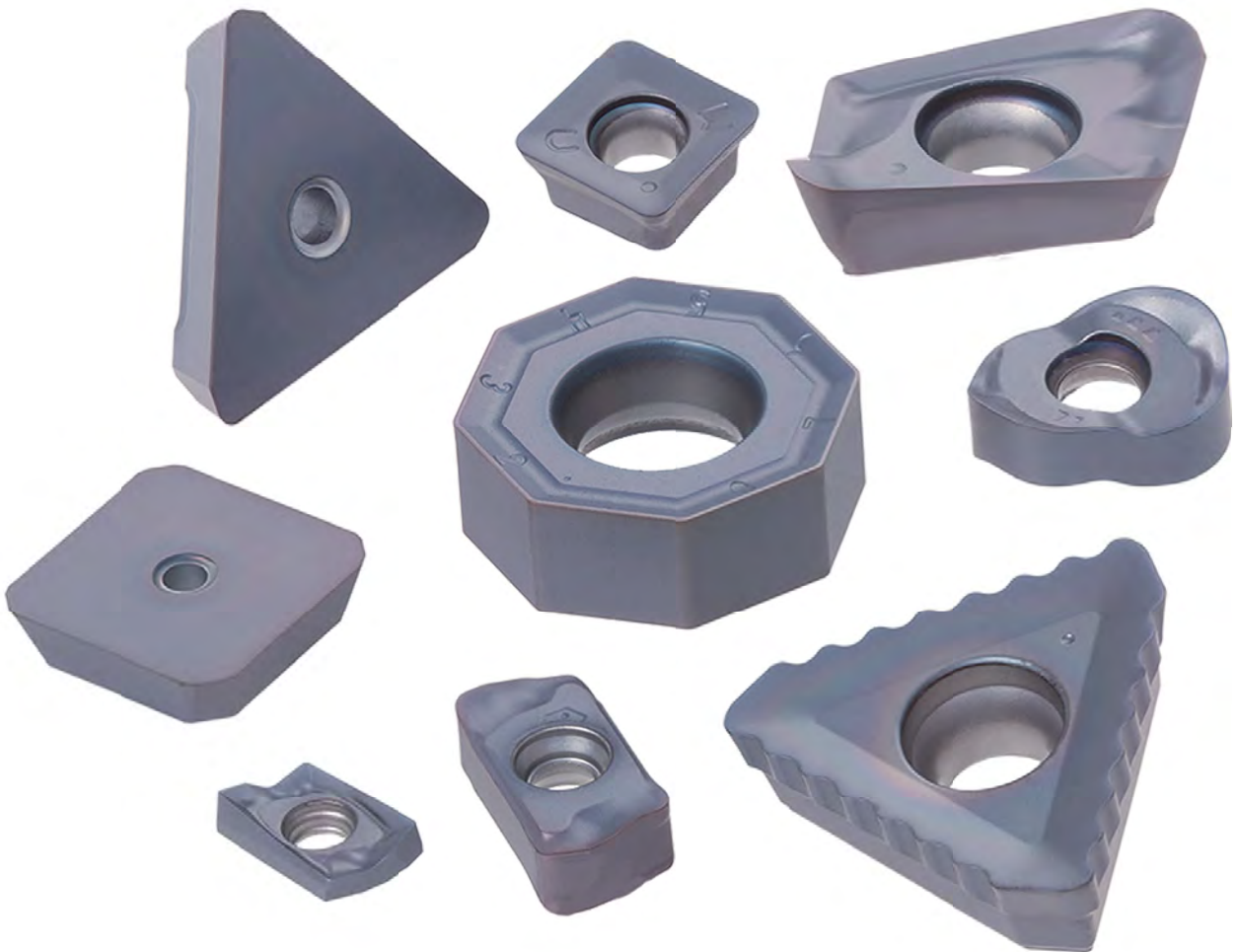
For more information

Grades for steel and stainless steel

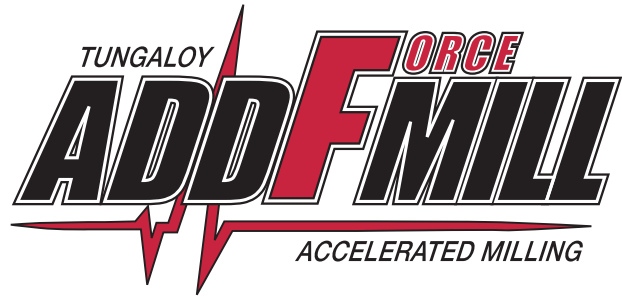
AH3225

Tungaloy Report No. 569-G

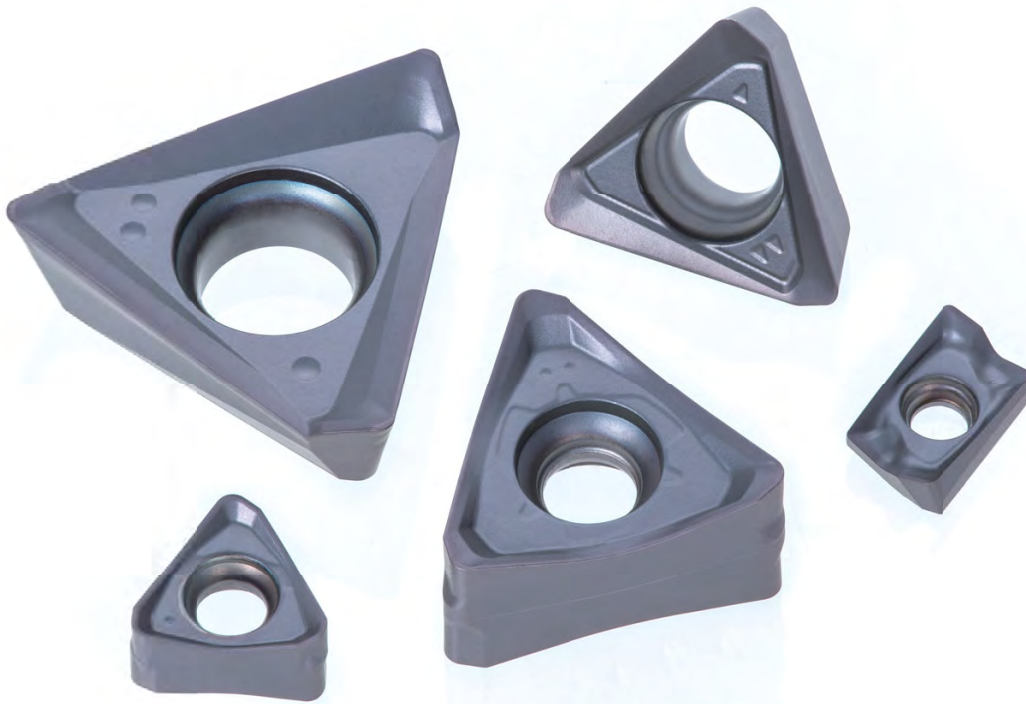
**PVD grade for steel and stainless steel
with excellent combination of wear and
fracture resistance.**







AH3225



PVD grade for various applications

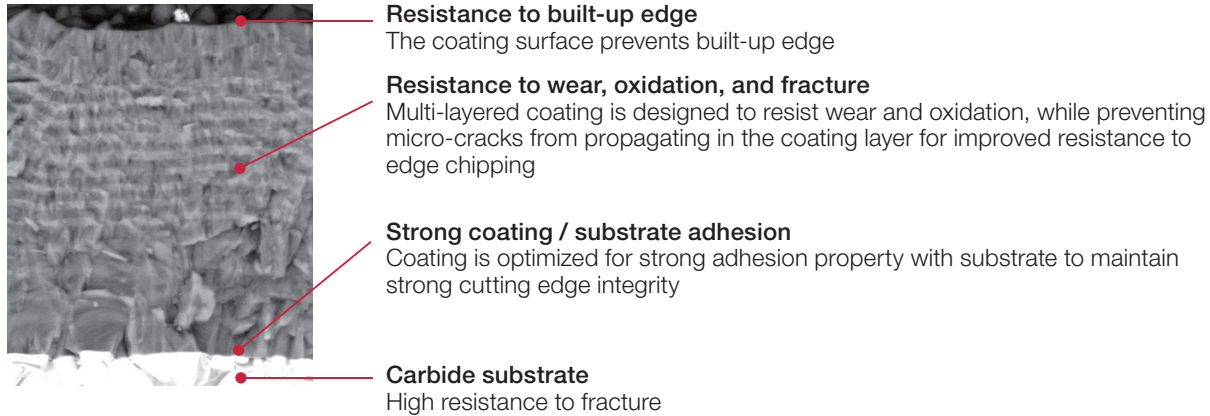
- High-feed milling, facing, shouldering, 3D machining, and more.

AH3225

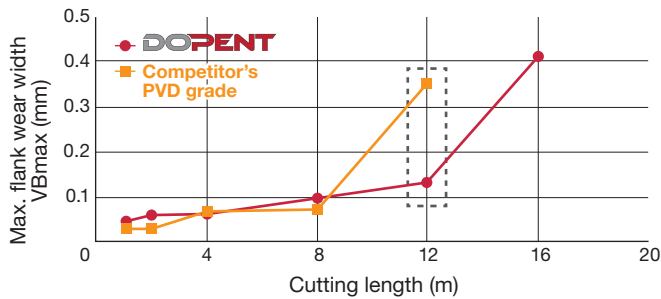
First choice grade in steel for long tool life and process reliability

AH3225 P M K

- 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



CUTTING PERFORMANCE



Cutter : **DOPENT**
TEN09R063M22.0-04 (ø63 mm, z = 1)

Insert : PNMU0905GNEN-MJ **AH3225**

Workpiece material : S55C / C55 (200HB)

Cutting speed : $V_c = 200$ m/min

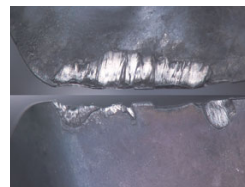
Feed per tooth : $f_z = 0.2$ mm/t

Depth of cut : $a_p = 2$ mm

Depth of width : $a_e = 50$ mm

Coolant : Dry

After 12 m



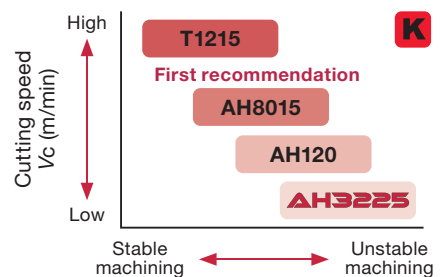
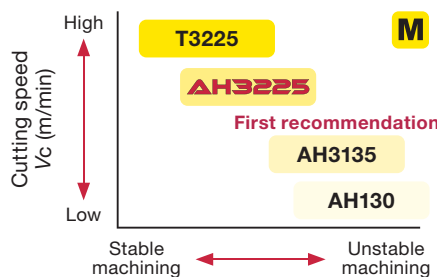
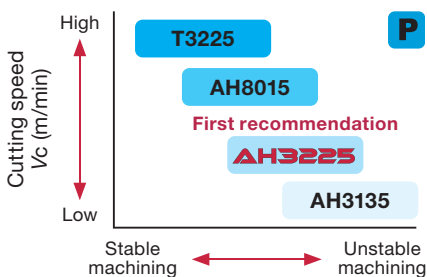
Competitor's PVD grade



Reduced crater wear

DOPENT

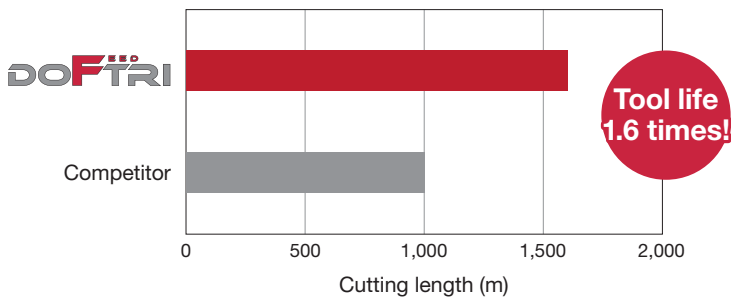
APPLICATION AREAS



TOOL LIFE

High-feed machining

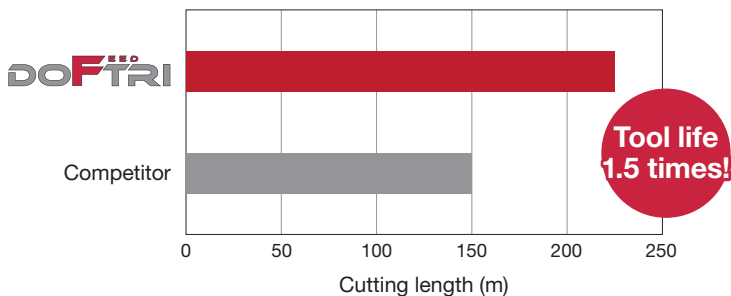
P S55C / C55 (200HB)



Cutter : **DOFTRI**
 EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-MM **AH3225**
 Cutting speed : $V_c = 200$ m/min
 Feed per tooth : $f_z = 1$ mm/t
 Depth of cut : $a_p = 0.6$ mm
 Width of cut : $a_e = 12$ mm
 Coolant : Dry
 Machine : Vertical M/C, BT40



M SUS304 / X5CrNi18-9 (170HB)

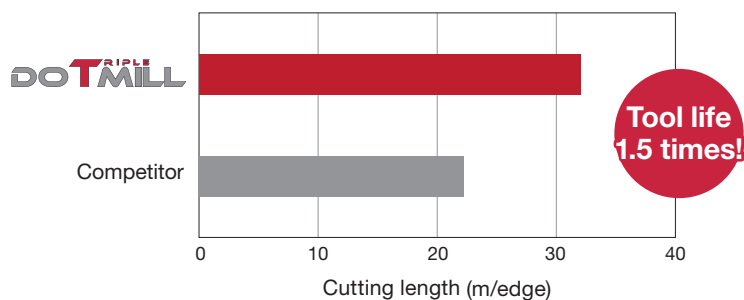


Cutter : **DOFTRI**
 EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
 Insert : WXMU0303ZER-MM **AH3225**
 Cutting speed : $V_c = 120$ m/min
 Feed per tooth : $f_z = 0.7$ mm/t
 Depth of cut : $a_p = 0.6$ mm
 Width of cut : $a_e = 12$ mm
 Coolant : Wet
 Machine : Vertical M/C, BT40



Face milling

P S55C / C55

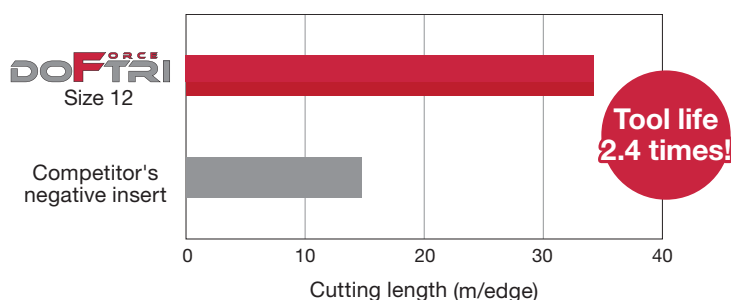


Cutter : **DOTMILL**
 TASN13J080B25.4R05 (ø80 mm, CICT = 5)
 Insert : SNMU1307ANEN-MJ **AH3225**
 Cutting speed : $V_c = 150$ m/min
 Feed per tooth : $f_z = 0.2$ mm/t
 Depth of cut : $a_p = 2$ mm
 Width of cut : $a_e = 50$ mm
 Coolant : Dry
 Machine : Vertical M/C, BT40



Shoulder milling

P S55C / C55



Cutter : **DOFTRI**
 TPTN12M050B22.0R05 (ø50 mm, CICT = 5)
 Insert : TNMU120708PER-MJ **AH3225**
 Cutting speed : $V_c = 200$ m/min
 Feed per tooth : $f_z = 0.15$ mm/t
 Depth of cut : $a_p = 3$ mm
 Width of cut : $a_e = 30$ mm
 Coolant : Dry
 Machine : Vertical M/C, BT40

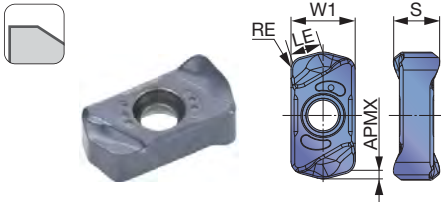


AH3225

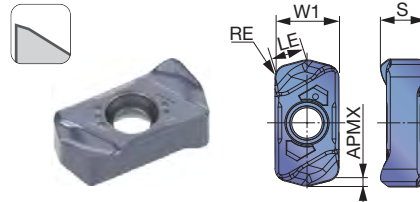
High-feed milling

DOFEED

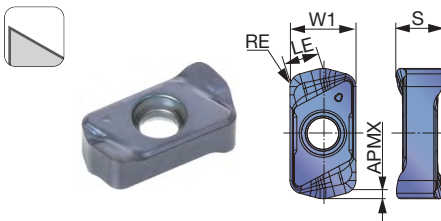
LNMU03ZER-MJ (for general purpose)



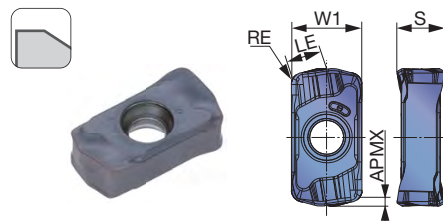
LNMU03ZER-ML (for low cutting force)



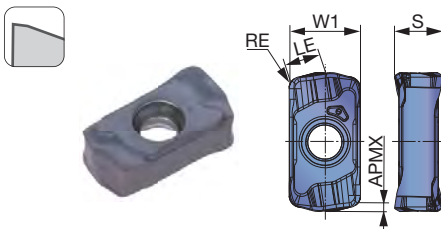
LNMU03ZER-MS (for stainless steel)



LNMU03UER-MJ (for general purpose, low approach angle)



LNMU03UER-ML (for low cutting force, low approach angle)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	W1	S
			AH3225				
LNMU0303ZER-MJ	1.2	1	●		3.2	6	4.3
LNMU0303ZER-ML	1.2	1	●		3.2	6	4.3
LNMU0303ZER-MS	1.2	1	●		3.2	6	4.3
LNMU0303UER-MJ	1	0.9	●		3.1	6	4.1
LNMU0303UER-ML	1	0.9	●		3.1	6	4.1

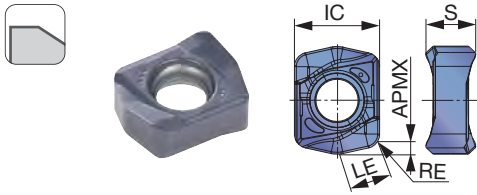
● : Line up



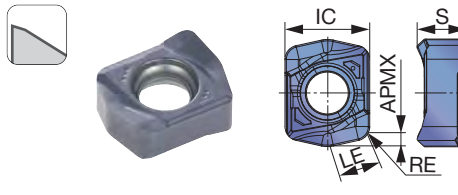
For more information



LNMU06-MJ (for general purpose)



LNMU06-ML (for low cutting force)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S	BS
			AH3225					
LNMU06X5ZER-MJ	2	1.5	●		6	12	7	-
LNMU06X5ZER-ML	2	1.5	●		6	12	7	-

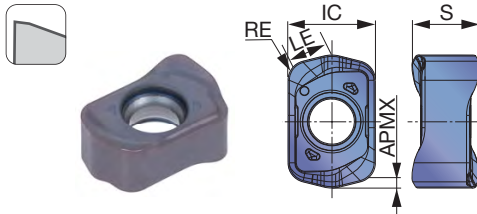


For more information



● : Line up

LNMU02-MM (for general purpose)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S
			AH3225				
LNMU0202ZER-MM	0.9	0.5	●		1.79	4	3.1



For more information

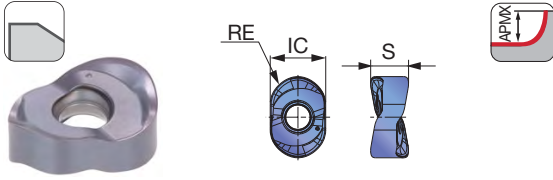


● : Line up

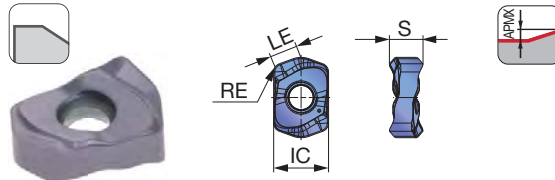
AH3225

DOTWIST BALL

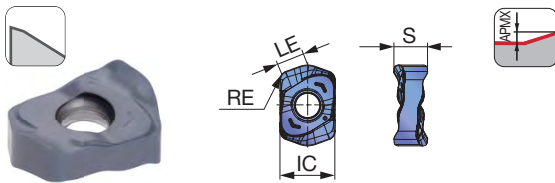
LNMX-MJ (Radius)



LNMX-HJ (High feed)



LNMX-HL (High feed)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S
			AH3225				
LNMX0405R4-MJ	4	4	●		-	8.2	5.6
LNMX0405ZER-HJ	1.3	1.3	●		4.36	8.2	5
LNMX0405ZER-HL	1.3	1.3	●		4.36	8.2	5
LNMX0506R5-MJ	5	5	●		-	10.4	6.1
LNMX0607R6-MJ	6	6	●		-	12.6	7.4
LNMX0607ZER-HJ	2	2	●		6.71	12.7	7.2

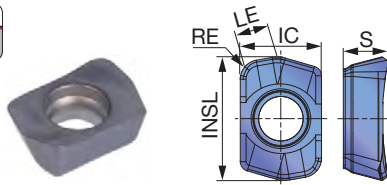
● : Line up



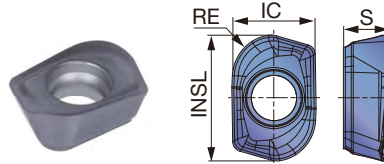
For more information



LSMT-HM (High feed)



LSMT-MM (Radius)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	INSL	IC	S
			AH3225					
LSMT0202ZER-HM	1	0.5	●		1.7	6.4	4.2	2.3
LSMT0202R2-MM	2	2	●		-	6.4	4.3	2.3

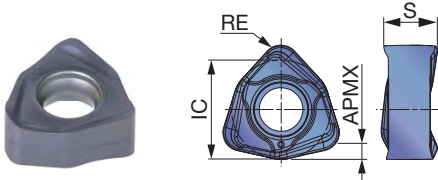


For more information



● : Line up

WXMU0303-MM



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		IC	S
			AH3225			
WXMU0303ZER-MM	1.2	1	●		6.35	3.63



For more information

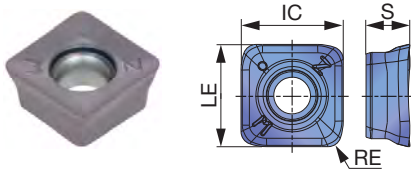


● : Line up

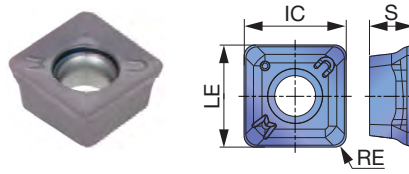
AH3225

MILLQ^{UP}FEED

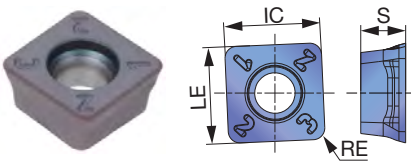
SWMT09/15ZER-MM



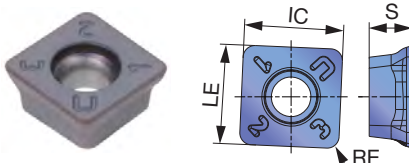
SWMT09/15UER-MM



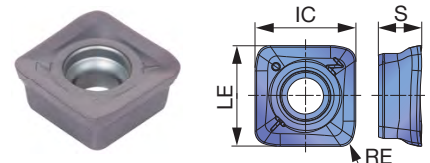
SWMW09ZSR



SWMW09/15USR



SWMT15ZER-MT



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

★ : First choice
☆ : Second choice



For more information



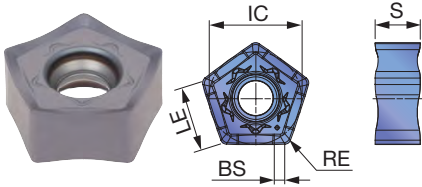
Designation	RE	APMX	Coated		LE	IC	S
			AH3225				
SWMT0904ZER-MM	1	1.5	●		8.605	8.605	4
SWMT0904UER-MM	1	1	●		9.05	9.05	4
SWMW0904ZSR	1	1.5	●		8.605	8.605	4
SWMW0904USR	1	1	●		9.05	9.05	4
New SWMT1506ZER-MM	2	2.5	●		16.01	16.01	6.8
New SWMT1506UER-MM	2	2	●		16.27	16.27	6.8
SWMW1506USR	2	2	●		16.14	16.14	6.8
New SWMT1506ZER-MT	2	2.5	●		15.925	15.925	6.8

● : New product
● : Line up

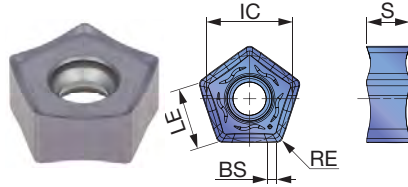
Face milling

DOPENT

PN*U0905GNEN-MJ (Neutral hand)



PNCU0905GNEN-ML (Neutral hand)



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
			AH3225					
PNMU0905GNEN-MJ	0.8	6.4	●		8.9	6	12.2	1.4
PNCU0905GNEN-MJ	0.8	6.4	●		8.9	6	12.2	1.4
PNCU0905GNEN-ML	0.8	6.4	●		8.9	5.96	12.2	1.4



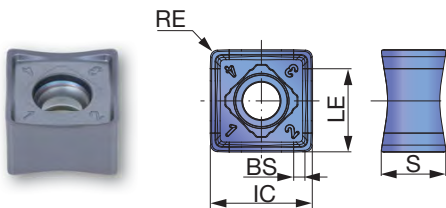
For more information



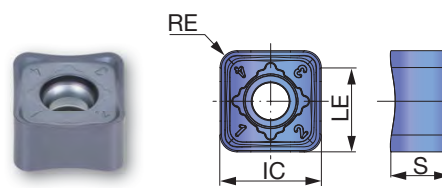
● : Line up

DOQ^{UAD}MILL

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
			AH3225					
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	-



For more information

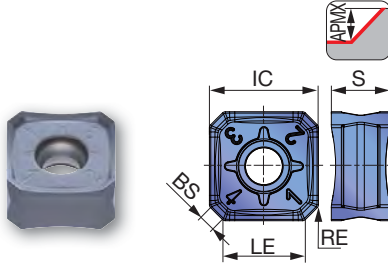


● : Line up

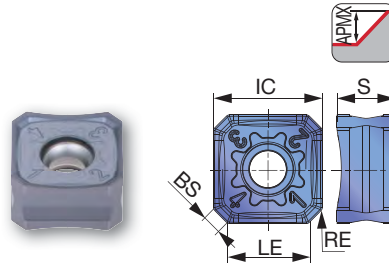
AH3225

DO TRIPLE MILL

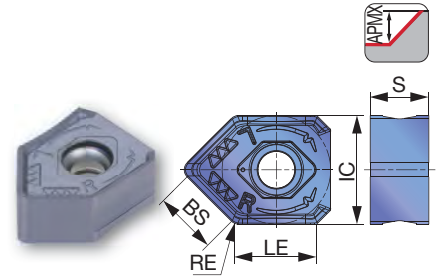
SNMU-MJ



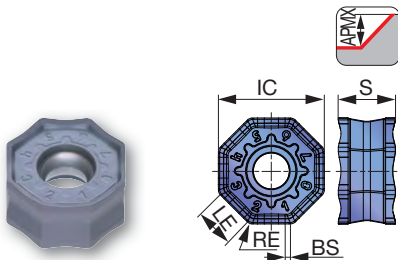
SNGU-MJ



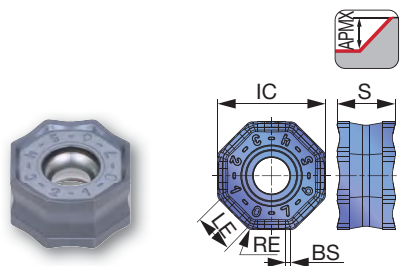
SNGU-W



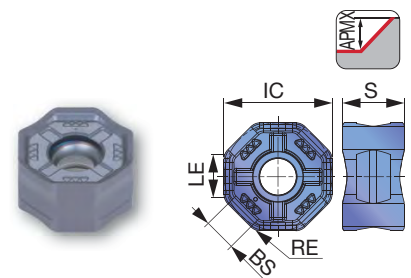
ONMU-MJ



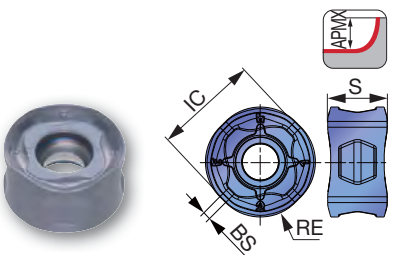
ONGU-MJ



ONGU-W



RNMU-MJ



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S	BS
			AH3225					
SNMU1307ANEN-MJ	0.5	6	●		9.4	13	7	2
SNGU1307ANEN-MJ	0.5	6	●		9.4	13	7	2
SNGU1307ANEN-W	1.2	6	●		9.6	13	7	7.5
ONMU0507ANEN-MJ	0.8	3.4	●		4.9	13	7	0.7
ONGU0507ANEN-MJ	0.8	3.4	●		4.9	13	7	0.7
ONGU0507ANEN-W	1.6	3.4	●		5	13	7.44	3.9
RNMU1307ZNER-MJ	6	6	●		-	13	7.26	1

● : Line up

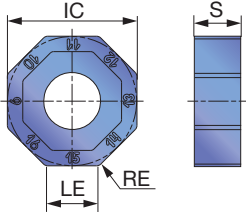


For more information

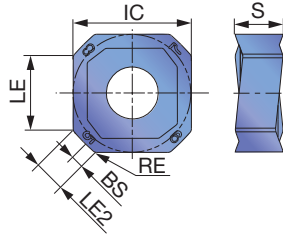


DOCTO

ONMU0705-MJ / -ML



SNMU1706 -MJ / -ML



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	LE2	IC	BS
			AH3225						
New ONMU0705ANPN-MJ	0.8	4.75	●		7.2	6.2	-	17.3	-
New ONMU0705ANPN-ML	0.8	4.75	●		7.2	6.2	-	17.3	-
New SNMU1706ANPR-MJ	0.8	7.5	●		11	6.98	4.4	17.3	1.8
New SNMU1706ANTR-ML	0.8	7.5	●		11	6.98	4.4	17.3	1.8

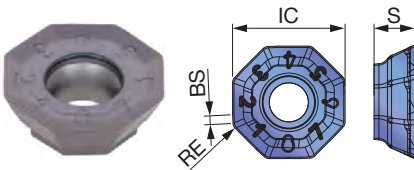
● : New lineup



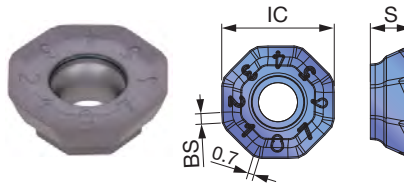
For more information

TUNGEMILL

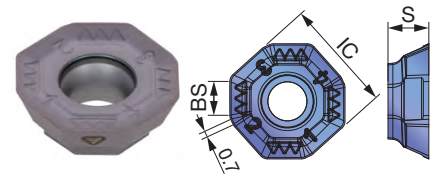
OWMT05T3AFER-MM



OWHT05T3C07AFER-MM



OWHT05T3C07AFER-MW



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		IC	S	BS
			AH3225				
New OWMT05T3AFER-MM	0.8	3	●		12.42	4.5	1
New OWHT05T3C07AFER-MM	-	3	●		12.4	4.5	1.15
New OWHT05T3C07AFER-MW	-	3	●		12.4	4.5	3.7

● : New product



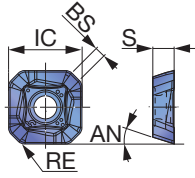
For more information



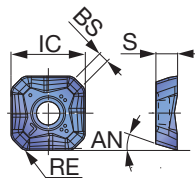
AH3225

TAW

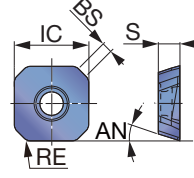
SWMT13T3-MJ



SWMT13T3-ML



SWMW13T3 (Flat)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		IC	S	AN	BS
			AH3225					
New SWMT13T3AFPR-MJ	1.5	4	●		13.9	4	18.5°	2
New SWMT13T3AFER-ML	1.5	2.5	●		13.9	4	18.5°	2
New SWMW13T3AFTR	1.5	5	●		13.9	4	18.5°	2

● : New lineup

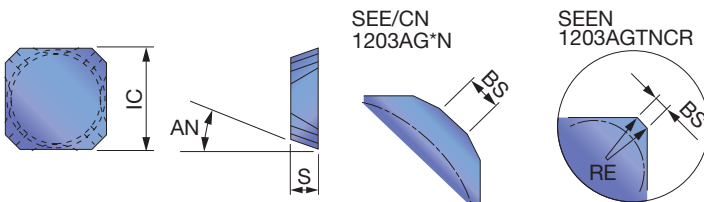


For more information



TME4400R/LI, EME4400

SEEN1203



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

★ : First choice
☆ : Second choice

Designation	APMX	Coated		IC	S	AN	BS
		AH3225					
New SEEN1203AGTN	4	●		12.7	3.18	20	2.4
New SEEN1203AGTNCR	4	●		12.7	3.18	20	1.6

● : New lineup



TME4400R/LI

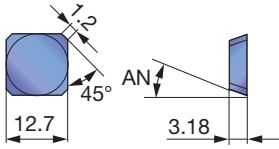


EME4400

TMD4400R/LI, EMD4400RI

SDKN42Z

Regular edge
SD*N42Z*N



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

★ : First choice
☆ : Second choice

Designation	APMX	Coated			IC	INSL	S	AN	BS
		AH3225							
New SDKN42ZTN	4	●			12.7	-	3.18	15°	1.2



TMD4400R/LI



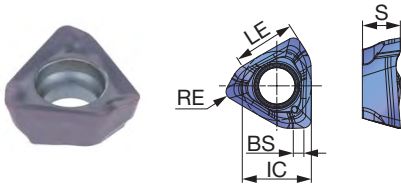
EMD4400RI

● : New lineup

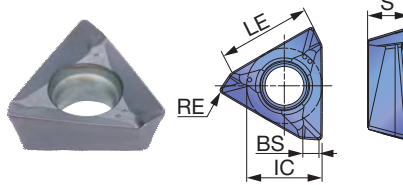
Shoulder milling

TUNG-TRI

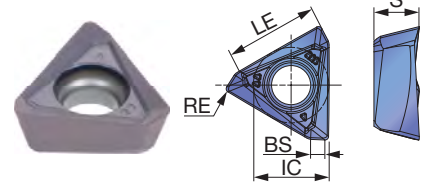
TOMT-MM



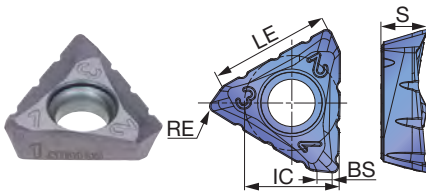
TOMT-MJ



TOET-MJ



TOMT-NMJ



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S	BS
			AH3225					
TOMT040204PXER-MM	0.4	3.5	●		3.6	4	2.2	0.6
TOMT040208PXER-MM	0.8	3.5	●		3.6	4	2.2	0.2
TOMT060302PDER-MJ	0.2	6	●		6.2	5.6	3.2	1.4
TOMT060304PDER-MJ	0.4	6	●		6.2	5.6	3.2	1.2
TOMT060308PDER-MJ	0.8	6	●		6.2	5.6	3.2	0.8
TOET060302PDER-MJ	0.2	6	●		6.2	5.6	3.3	1.3
TOET060304PDER-MJ	0.4	6	●		6.2	5.6	3.3	1.1
TOMT100404PDER-MJ	0.4	10	●		10.5	8.6	4.7	1.5
TOMT100408PDER-MJ	0.8	10	●		10.5	8.6	4.7	1.1
TOMT100416PDER-MJ	1.6	10	●		10.5	8.6	4.7	0.2
TOET100404PDER-MJ	0.4	10	●		10.5	8.6	5.1	1.5
TOET100408PDER-MJ	0.8	10	●		10.5	8.6	5.1	1.1
TOMT150604PDER-MJ	0.4	15	●		15.7	12.7	6	2.2
TOMT150608PDER-MJ	0.8	15	●		15.7	12.7	6	1.9
TOMT150616PDER-MJ	1.6	15	●		15.7	12.7	6	1.1
TOMT150620PDER-MJ	2	15	●		15.7	12.7	6	0.7
TOMT150608PDER-NMJ	0.8	15	●		15.7	12.7	6	1.9
TOET150604PDER-MJ	0.4	15	●		15.7	12.5	5.6	2.2
TOET150608PDER-MJ	0.8	15	●		15.7	12.5	5.6	1.9

● : Line up

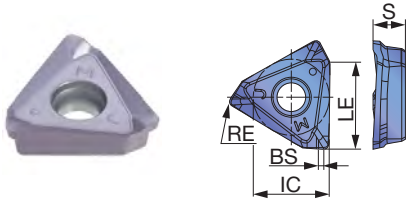


For more information

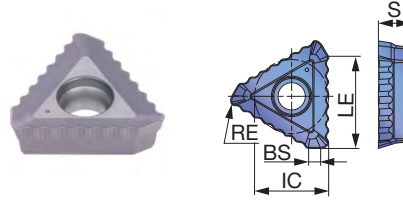


TUNG T^{AI}SHRED

TCGT-MJ



TCMT-NMJ



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S	BS
			AH3225					
New TCGT160608PDER-MJ	0.8	16	●		16	13.7	5.8	1
New TCMT160620PDER-NMJ	2	16	●		16	13.3	5.8	2



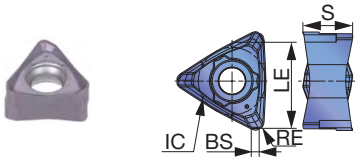
For more information



● : New lineup

DOF^{ORCE}TRI

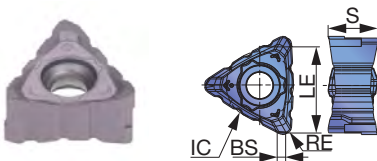
TNMU07-MJ



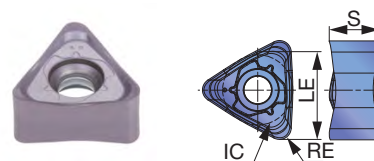
TNGU12-MJ/TNMU12-MJ



TNMU12-NMJ



TNMU12-R-MJ



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S	BS
			AH3225					
TNMU070304PER-MJ	0.4	6.5	●		6.5	5.7	4.1	0.6
TNMU070308PER-MJ	0.8	6.5	●		6.5	5.7	4.1	0.6
TNGU120708PER-MJ	0.8	11	●		12	9.525	7.04	1.16
TNMU120708PER-MJ	0.8	11	●		12	9.525	7.1	1.16
TNMU120708PER-NMJ	0.8	11	●		12	9.525	7.1	1.16
TNMU1207R16PER-MJ	1.6	11	●		12	9.525	6.88	-
TNMU1207R20PER-MJ	2	11	●		12	9.525	6.72	-

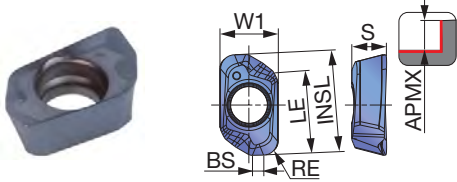


For more information

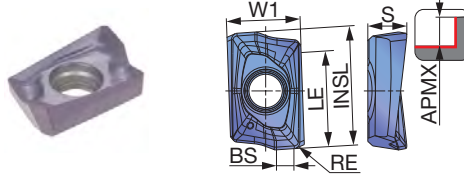


● : Line up

AVMT04-MM (for general purpose)



AVGT06-MJ (for general purpose)



AVMT12-MM (for general purpose)

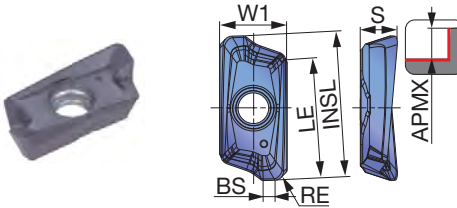


Fig. 1

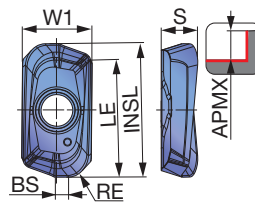
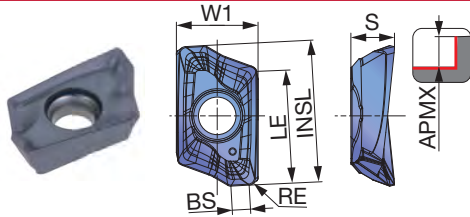
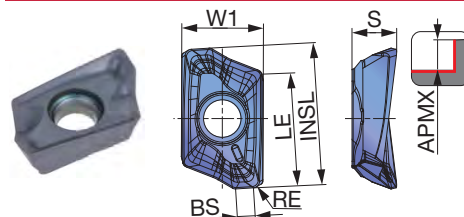


Fig. 2

AVMT18-MM (for general purpose)



AVMT18-MT (Robust chipbreaker)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		W1	INSL	S	BS	LE	Fig.
			AH3225							
AVMT040204PPER-MM	0.4	4	●		3.5	6.05	2.1	1	4.4	-
AVMT040208PPER-MM	0.8	4	●		3.5	6.05	2.1	0.6	4.4	-
AVGT060300PBER-MJ	0.0	6	●		5	8	2.7	1.6	6.5	-
AVGT060302PBER-MJ	0.2	6	●		5	8	2.7	1.5	6.5	-
AVGT060304PBER-MJ	0.4	6	●		5	8	2.7	1.3	6.5	-
AVGT060308PBER-MJ	0.8	6	●		5	8	2.6	0.9	6.5	-
AVMT120404PDER-MM	0.4	11.5	●		6.6	14.2	3.6	1.5	11.8	1
AVMT120408PDER-MM	0.8	11.5	●		6.6	14.2	3.6	1.1	11.8	1
AVMT120412PDER-MM	1.2	11.5	●		6.6	14.2	3.6	0.7	11.8	1
AVMT120416PDER-MM	1.6	11.5	●		6.6	14.2	3.6	0.3	11.8	1
AVMT120420PDER-MM	2	10.5	●		6.6	12.7	3.4	1.2	11.1	2
AVMT120430PDER-MM	3	10.5	●		6.6	12.7	3.4	0.2	11.1	2
AVMT180704PDER-MM	0.4	16.5	●		12.4	21.6	6.7	3.1	17.1	-
AVMT180708PDER-MM	0.8	16.5	●		12.4	21.6	6.6	2.7	17.1	-
AVMT180712PDER-MM	1.2	16.5	●		12.4	21.6	6.6	2.2	17.1	-
AVMT180716PDER-MM	1.6	16.5	●		12.4	21.6	6.5	1.8	17.1	-
AVMT180720PDER-MM	2	16.5	●		12.4	21.6	6.5	1.4	17.1	-
AVMT180724PDER-MM	2.4	16.5	●		12.4	21.6	6.5	1	17.1	-
AVMT180731PDER-MM	3.1	16.5	●		12.4	21.6	6.4	0.2	17.1	-
AVMT180704PDER-MT	0.4	16.5	●		12.4	21.6	6.7	3.1	17.1	-
AVMT180708PDER-MT	0.8	16.5	●		12.4	21.6	6.6	2.7	17.1	-

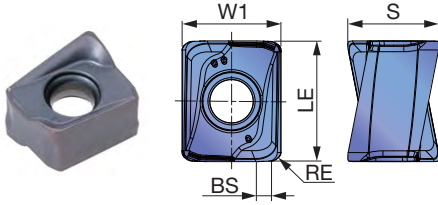
● : Line up



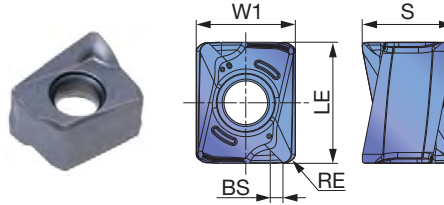
For more information



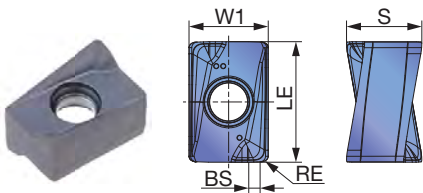
LQMU11-PXER-MJ (for general purpose)



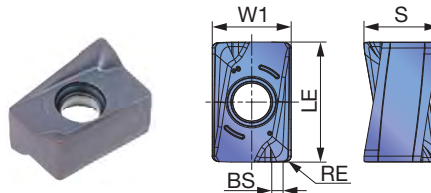
LQMU11-PXER-ML (for low cutting force)



LQMU11/18-PNER-MJ (for general purpose)



LQMU18-PNER-ML (for low cutting force)



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	W1	BS
			AH3225					
LQMU110704PXER-MJ	0.4	9	●		11	8.4	9	1.5
LQMU110708PXER-MJ	0.8	9	●		11	8.3	9	1.1
LQMU110716PXER-MJ	1.6	9	●		11	8.1	9	0.3
LQMU110720PXER-MJ	2	9	●		11	8.1	9	-
LQMU110704PXER-ML	0.4	9	●		11	8.4	9	1.5
LQMU110708PXER-ML	0.8	9	●		11	8.3	9	1.1
LQMU180804PNER-MJ	0.4	16	●		17.5	10.9	11.5	2
LQMU180808PNER-MJ	0.8	16	●		17.5	10.9	11.5	1.6
LQMU180816PNER-MJ	1.6	16	●		17.5	10.9	11.5	0.8
LQMU180804PNER-ML	0.4	16	●		17.5	10.9	11.5	2
LQMU180808PNER-ML	0.8	16	●		17.5	10.9	11.5	1.6



For more information

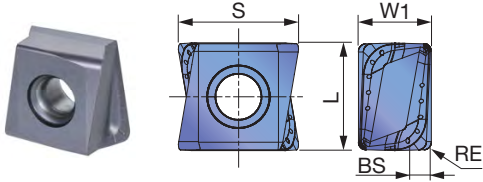


● : Line up

AH3225

TECMILL

LMMU11/16-MJ



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		S	L	W1	BS
			AH3225					
LMMU110708PNER-MJ	0.8	9.7	●		11.7	10.5	7.1	2
LMMU110716PNER-MJ	1.6	9.7	●		11.5	10.5	7.1	1.2
LMMU110732PNER-MJ	3.2	9.7	●		11.1	10.5	7.1	-
LMMU160908PNER-MJ	0.8	15.1	●		17.3	16	9.5	2.4
LMMU160916PNER-MJ	1.6	15.1	●		17.1	16	9.5	1.6

● : Line up

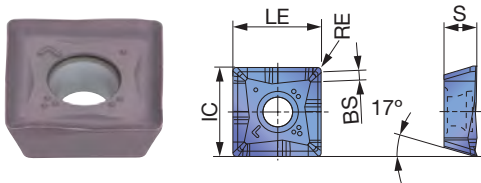


For more information

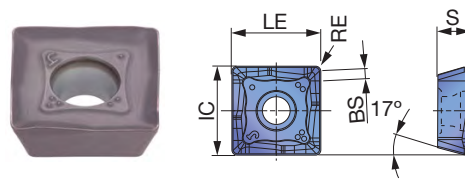


TPW

SWMT1304-ML



SWMT1304-MJ



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	IC	S	BS
			AH3225					
New SWMT1304PDPR-MJ	0.8	10	●		13.6	13.6	5	1.4
New SWMT1304PDER-ML	0.8	10	●		13.6	13.6	5	1.4

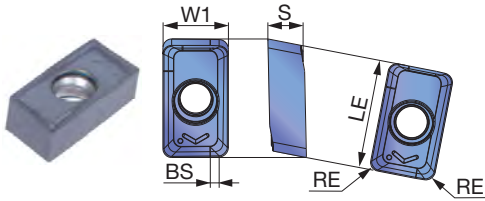
● : New product



For more information



LXMU-MM (for general purpose)



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		LE	W1	S	BS
			AH3225					
LXMU060204PER-MM	0.4	5	●		6	3.9	2.32	0.6
LXMU080304PER-MM	0.4	7	●		7.7	5	2.8	0.8
LXMU10T304PER-MM	0.4	9	●		10	6	3.2	1.2
LXMU10T308PER-MM	0.8	9	●		10	6	3.2	0.8
LXMU120404PER-MM	0.4	11	●		12.2	7.1	4.2	1.2
LXMU120408PER-MM	0.8	11	●		12.2	7.1	4.2	0.8
LXMU160504PER-MM	0.4	14.5	●		15.7	9.4	5.22	1.6
LXMU160508PER-MM	0.8	14.5	●		15.7	9.4	5.27	1.2
LXMU190608PER-MM	0.8	18	●		19	12.5	6.82	1.2

● : Line up

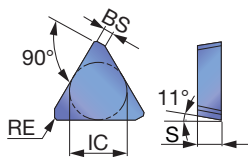


For more information



TSP4000RIA

TPKN 43Z



Right hand (R) shown.

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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		IC	LE	S	BS
			AH3225					
New TPKN43ZTR	C0.5	10	●		12.7	-	4.76	2

● : New product

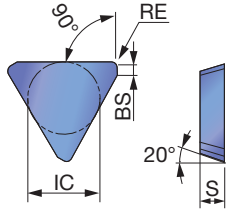


TSP4000RIA

AH3225

TSE3000R, ESE3000R

TEEN 32Z



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

★ : First choice
☆ : Second choice

Designation	RE	APMX	Coated		IC	S	BS
			AH3225				
New TEEN32ZTR	0.8	8	●		9.525	3.18	1



TSE3000R

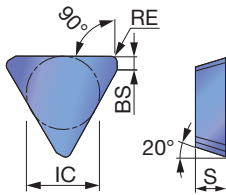


ESE3000R

● : New product

TSE4000RIA

TEEN 43Z



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

★ : First choice
☆ : Second choice





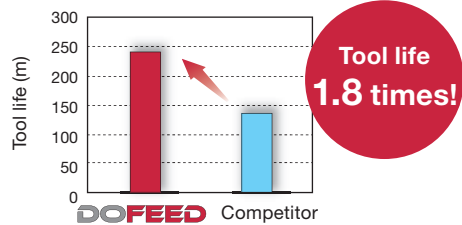
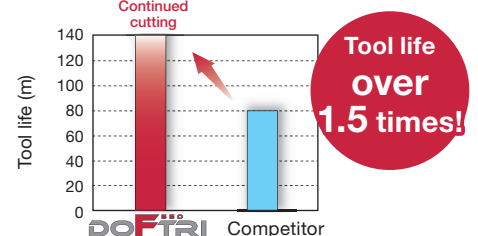




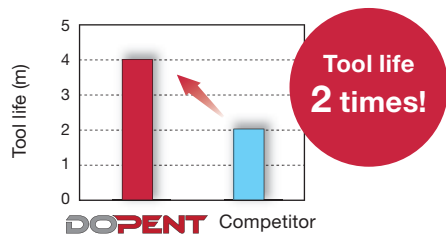
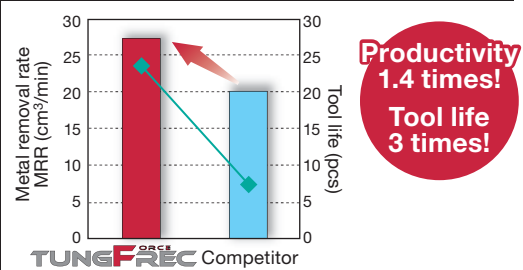
Designation	RE	APMX	Coated		IC	S	BS
			AH3225				
New TEEN43ZTR	1	10	●		12.7	4.76	1.31



TSE4000RIA

● : New product

PRACTICAL EXAMPLES

Workpiece type		Die & Mold	Bracket
Cutter		DOFEED HXN03R025MM12-05 (ø25 mm, CICT = 5)	DOFTRI EXWX03M020C20.0R03 (ø20 mm, CICT = 3)
Insert		LNMU0303UER-MJ 	WXMU0303ZER-MM 
Grade		AH3225	AH3225
Workpiece material		SKD61 / X40CrMoV5-1 (45HRC)	SUS316L / X2CrNiMo17-12-2
		 P	 M
Cutting conditions	Cutting speed : Vc (m/min)	118	94
	Feed per tooth : fz (mm/t)	0.4	0.6
	Feed speed : Vf (mm/min)	-	2,693
	Depth of cut : ap (mm)	0.5	0.6
	Width of cut : ae (mm)	- 25	- 20
	Machining	Contouring	Profiling
	Coolant	Dry	Wet (Internal)
	Machine	Vertical M/C, HSK63	Vertical M/C, BT50
Results		 <p>Tool life 1.8 times!</p> <p>UER inserts in AH3225 grade provided 180% tool life increase.</p>	 <p>Tool life over 1.5 times!</p> <p>With excellent chipping resistance, AH3225 eliminated edge chipping and provided over 1.5 times the tool life.</p>
Workpiece type		Case	Machine parts
Cutter		DOPENT TEN09R125M38.1-10 (ø125 mm, CICT = 10)	TUNGFRÆC EPAV06M014C12.0R03 (ø14 mm, CICT = 3)
Insert		PNMU0905GNEN-MJ 	AVGT060302PBER-MJ 
Grade		AH3225	AH3225
Workpiece material		SC450 / 230-450	SS400 / E275A
		 P	 P
Cutting conditions	Cutting speed : Vc (m/min)	314	264
	Feed per tooth : fz (mm/t)	0.08	0.125
	Feed speed : Vf (mm/min)	640	1,500
	Depth of cut : ap (mm)	0.5	6
	Width of cut : ae (mm)	90	3
	Machining	Face milling	Shoulder milling
	Coolant	Wet (External)	Wet (External)
	Machine	Horizontal M/C, BT50	Vertical M/C, BT40
Results		 <p>Tool life 2 times!</p> <p>DoPent AH3225 grade eliminated welding edge and edge chipping, providing 2 times increase in tool life.</p>	 <p>Productivity 1.4 times!</p> <p>Tool life 3 times!</p> <p>TungForce-Rec endmill achieves 3 times longer tool life and 140% productivity compared to the solid endmill, thanks to AH3225 grade with high wear resistance.</p>

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