SWISS BLUE
TECHNOLOGIES

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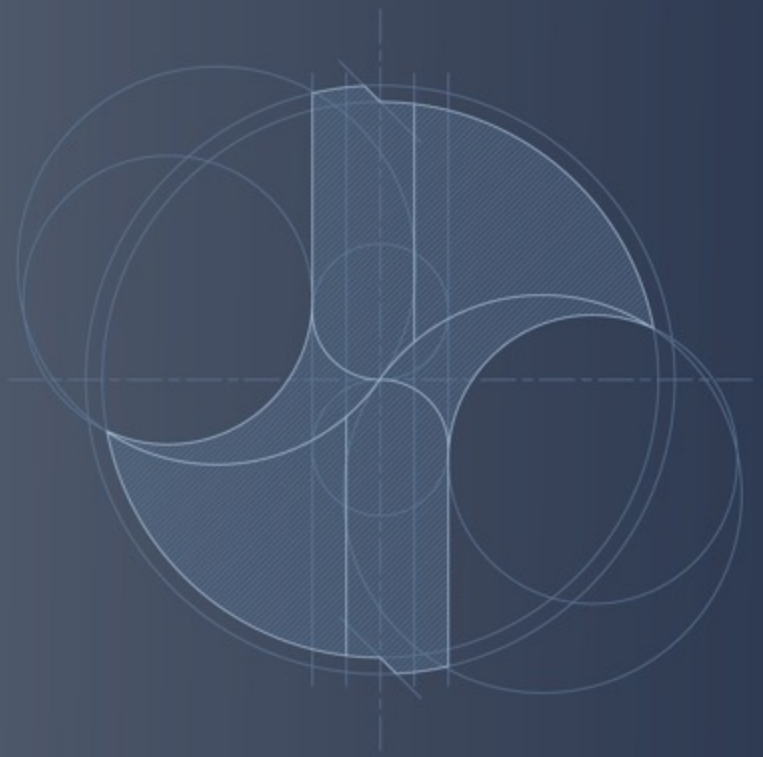
PRODUCT CATALOG 2022



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MILLING TURNING DRILLING

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SWISS BLUE
TECHNOLOGIES

PRODUCT

www.SwissBlue-Tech.com

CATALOG

2022

THE COMPANY

SWISS PRODUCER

All our products are designed and developed in Switzerland… and more Than 75% of our line is also produced in Switzerland.

25 YEARS EXPERIENCE

Our team of Industry Experts have been developing Grades and products all over the world. We have designed and produced cutting tools in: Israel, Switzerland and Korea.

FULL RANGE

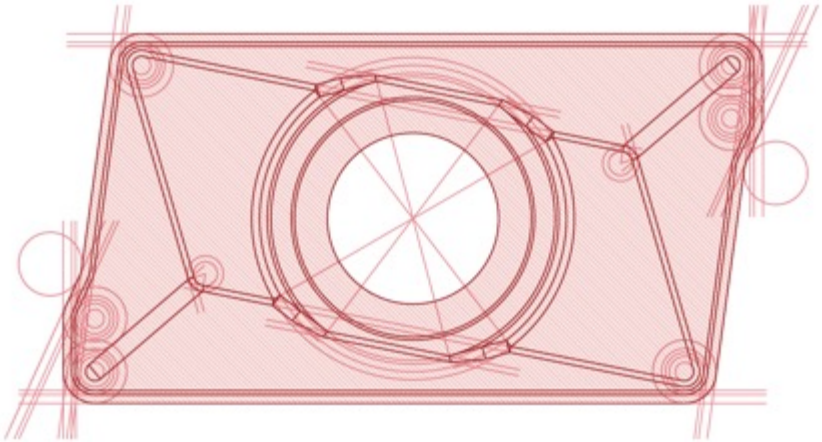
We make a full range of cutting tools, made of Sub micron and over micron grades combined with Latest CVD Alumina coating and Patented PVD coatings.

HIGHEST QUALITY

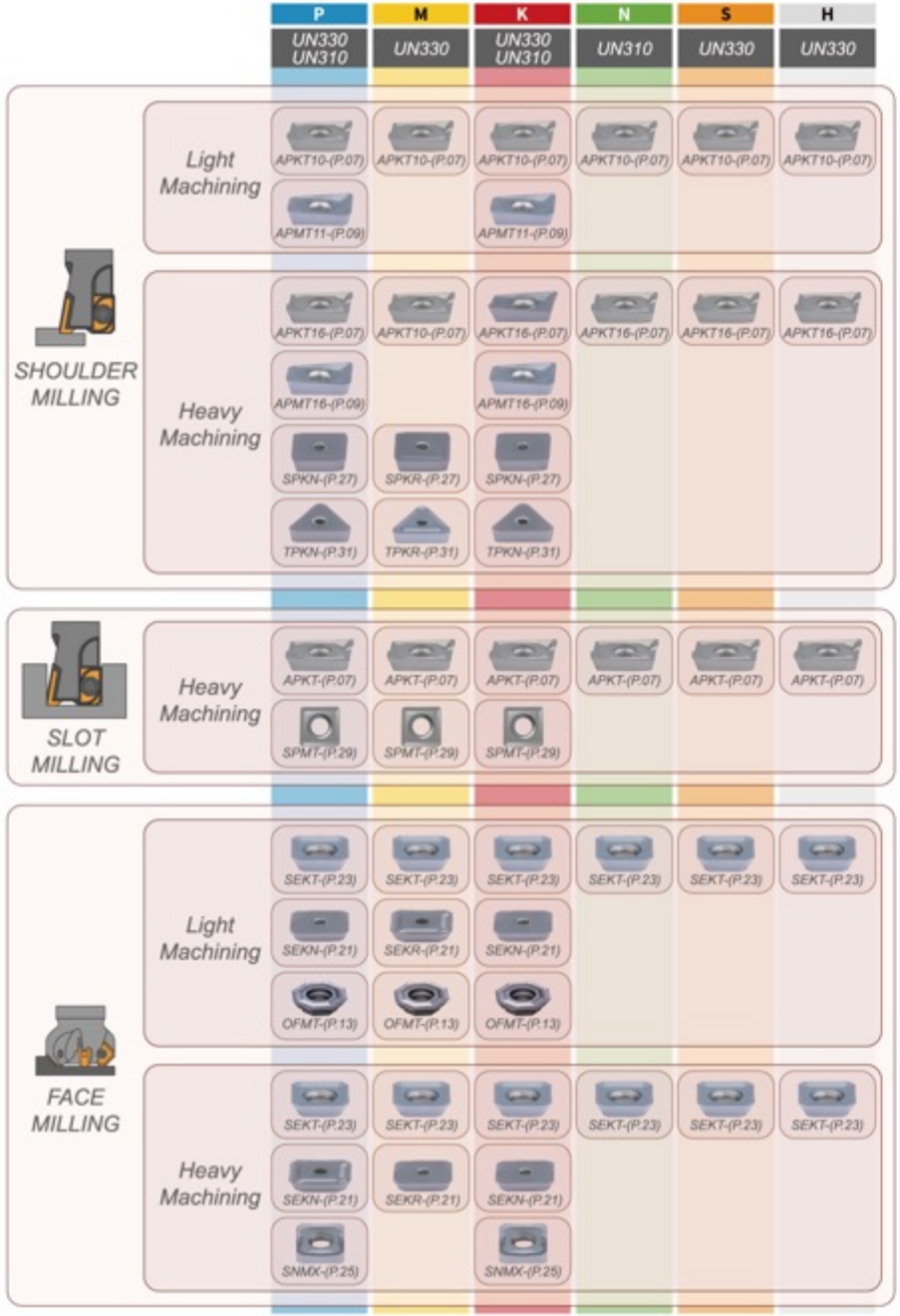
We keep the highest quality standards, as you might expect from a swiss producer….but our prices are uniquely affordable.

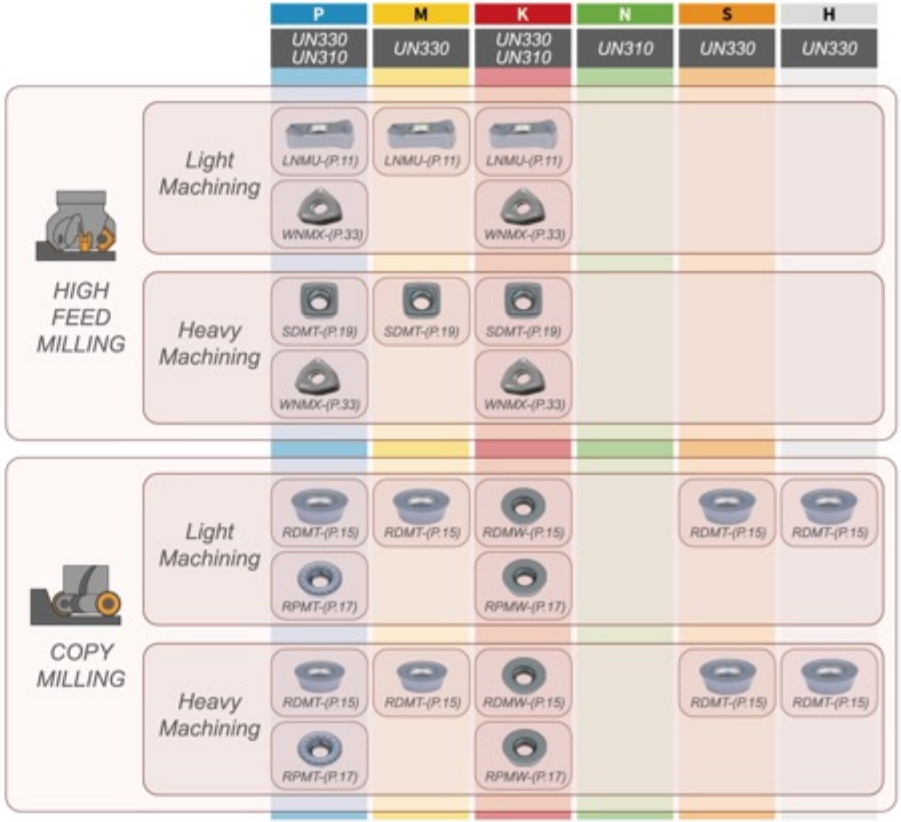
MOUDON, SWITZERLAND

MILLING



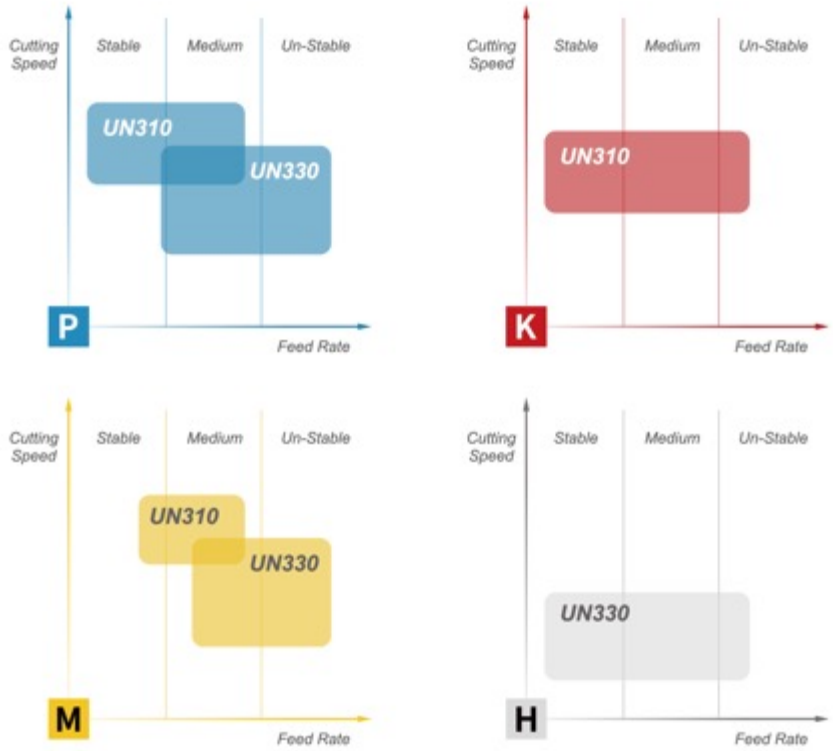
SELECTION GUIDE



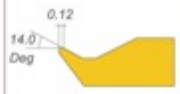
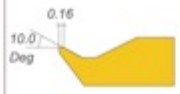
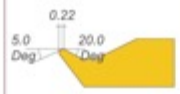
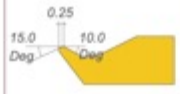


GRADES

GRADE	ISO			Features & Applications
UN310	P05	-	P15	For high wear resistance, and Extended tool life
	M15	-	M25	Also For high speed milling
Sub micron PVD coated	K10	-	K20	Stable conditions, low vibrations, and low depth of cut
				In most applications should be used without coolant
UN330	P15	-	P30	For General Milling machining
	M20	-	M40	Aplicable for Alloy Steel, Stainless steel, hardened material and Aerospace (HRSA)
Sub micron PVD Coated	S20	-	S35	Extremely versatile grade for all conditions of cutting
	H10		H20	In most applications should be used without coolant



CHIP BREAKERS

Chip Breaker name and Geometry			Applications and Features
PF			• Sharp chip breaker • For finishing operations • Also addopted for sticky material and Stainless steel • in APKT , "Athens line " , with original cutters create true 90 walls
PM			• Semi Finishing chip breaker for General machining • First choice for stable machining and light-Mid. cutting pressure • Smooth cutting due to to positive chip breaker angles * in APKT , "Athens line " , with original cutters create true 90 walls
(STD)			• Mid. cutting conditions - chip breaker for General machining • First choice for Un-stable machining with reasonable cutting pressure • Smooth cutting due to to positive chip breaker angles • Is not intended to create 90 deg walls in shoulder machining
PR			• Roughing. chip breaker mostly used in high-feed machining • First choice for very Un-stable machining or for thick casting "skin" • Tough and reinforced cutting edge and chip breaker angles
(W)			• Flat top insert design • used mostly for high hardness die& Mold applications • Also addopted for cast iron machining • Tough and reinforced cutting edge

APKT

FAMILY

			W1	LE	RE	S	BS
2100000140	APKT 100308 PDTR PF	UN330	6.72	11.05	0.80	3.52	1.00
2100000100	APKT 100308 PDTR PM	UN330	6.72	11.05	0.80	3.52	1.00
2100000200	APKT 100305 PDTR PF	UN330	6.70	10.95	0.50	3.50	0.90
2100000184	APKT 1604 PDTR PF	UN330	9.40	16.00	0.80	4.76	1.80
2100000182	APKT 1604 PDTR PM	UN330	9.40	16.00	0.80	4.76	1.80
2100000102	APKT 160408 PDTR	UN330	9.52	17.00	0.80	5.30	1.60

PRODUCT - LINE UP

Chip Breakers

PF

- Sharp Chip-breaker
- for Finishing and sticky material
- **Recommended Feed (Fz) : 0.15** (mm/tooth)

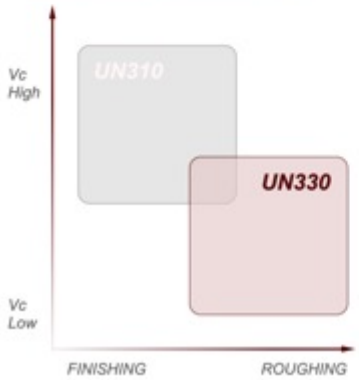
PM

- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions
- **Recommended Feed (Fz) : 0.20** (mm/tooth)

(STD)

- Mid & Roughing conditions Chip-Breaker
- for General-tough or unstable machining conditions
- **Recommended Feed (Fz) : 0.28** (mm/tooth)

GRADES



UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating .
- General Purpose MILLING Applications.
- Where a good balance of wear resistance and toughness is required.
- First Choice for Milling in all condition.

Cutting Conditions

APKT 100308 PDTR PF UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.11 - 0.18	Fz	0.13 - 0.21	Fz	0.13 - 0.22
Ap	0.5 - 9.0	Ap	0.5 - 9.0	Ap	0.5 - 9.0

CUTTER COMPATIBLE Iscar

APKT 100308 PDTR PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.16 - 0.28	Fz	0.17 - 0.26	Fz	0.15 - 0.26
Ap	0.5 - 9.0	Ap	0.5 - 9.0	Ap	0.5 - 9.0

CUTTER COMPATIBLE Iscar

APKT 100305 PDTR PF UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 180	Vc	150 - 220
Fz	0.11 - 0.18	Fz	0.12 - 0.18	Fz	0.13 - 0.26
Ap	0.3 - 8.0	Ap	0.3 - 8.0	Ap	0.3 - 8.0

CUTTER COMPATIBLE Iscar

APKT 1604 PDTR PF UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	120 - 180	Vc	130 - 220
Fz	0.12 - 0.20	Fz	0.12 - 0.18	Fz	0.12 - 0.22
Ap	0.5 - 15.0	Ap	0.5 - 15.0	Ap	0.5 - 15.0

CUTTER COMPATIBLE KORLOY、ZCC

APKT 1604 PDTR PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.17 - 0.28	Fz	0.19 - 0.29	Fz	0.15 - 0.26
Ap	0.5 - 15.0	Ap	0.5 - 15.0	Ap	0.5 - 15.0

CUTTER COMPATIBLE KORLOY、ZCC

APKT 160408 PDTR (STD) UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.22 - 0.35	Fz	0.24 - 0.35	Fz	0.2 - 0.32
Ap	0.5 - 15.0	Ap	0.5 - 15.0	Ap	0.5 - 15.0

CUTTER COMPATIBLE Iscar

APKT

APMT

FAMILY

			W1	LE	RE	S	BS
2100000104	APMT 1135 PDTR PF	UN330	6.21	11.27	0.80	3.52	1.00
2100000160	APMT 1135 PDTR PM	UN330	6.15	11.29	0.80	3.52	1.00
2100000188	APMT 1135 PDTR PM	UN310	6.15	11.29	0.80	3.52	1.00
2100000186	APMT 1604 PDTR PF	UN330	9.30	17.30	0.80	4.76	1.60
2100000106	APMT 1604 PDTR (STD)	UN330	9.33	17.25	0.80	4.76	1.60
2100000190	APMT 1604 PDTR (STD)	UN310	9.33	17.25	0.80	4.76	1.60

PRODUCT - LINE UP

Chip Breakers

PF

- Sharp Chip-breaker
- for Finishing and sticky material
- **Recommended Feed (Fz) : 0.15** (mm/tooth)

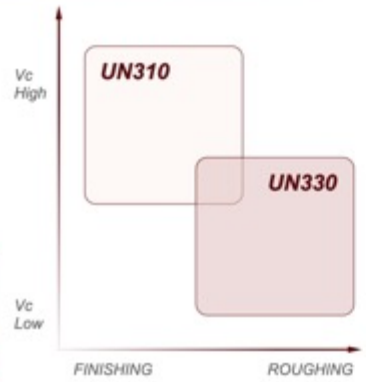
PM

- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions
- **Recommended Feed (Fz) : 0.20** (mm/tooth)

(STD)

- Mid & Roughing conditions Chip-Breaker
- for General-tough or unstable machining conditions
- **Recommended Feed (Fz) : 0.28** (mm/tooth)

GRADES



UN310

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Suitable for Medium to High Cutting Speed in MILLING Application with a focus on wear resistance
- An excellent option for Milling in stable condition.

UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating
- General Purpose MILLING Applications
- Where a good balance of wear resistance and toughness is required.
- First Choice for Milling in all condition

Cutting Conditions

APMT 1135 PDTR PF UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.16 - 0.24	Fz	0.16 - 0.24	Fz	0.16 - 0.24
Ap	0.5 - 10.0	Ap	0.5 - 10.0	Ap	0.5 - 10.0

CUTTER COMPATIBLE Mistubishi

APMT 1135 PDTR PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.22 - 0.28	Fz	0.24 - 0.30	Fz	0.20 - 0.28
Ap	0.5 - 10.0	Ap	0.5 - 10.0	Ap	0.5 - 10.0

CUTTER COMPATIBLE Mistubishi

APMT 1135 PDTR PM UN310

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	130 - 180	Vc	130 - 220
Fz	0.22 - 0.28	Fz	0.24 - 0.30	Fz	0.20 -0 .28
Ap	0.5 - 10.0	Ap	0.5 - 10.0	Ap	0.5 - 10.0

CUTTER COMPATIBLE Mistubishi

APMT 1604 PDTR PF UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.10 - 0.22	Fz	0.12 - 0.20	Fz	0.08 - 0.22
Ap	0.5 - 15.0	Ap	0.5 - 15.0	Ap	0.5 - 15.0

CUTTER COMPATIBLE Mistubishi

APMT 1604 PDTR (STD) UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.22 - 0.32	Fz	0.24 - 0.32	Fz	0.20 - 0.32
Ap	0.5 - 15.0	Ap	0.5 - 15.0	Ap	0.5 - 15.0

CUTTER COMPATIBLE Mistubishi

APMT 1604 PDTR (STD) UN310

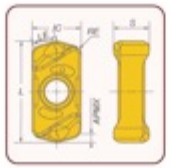
STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.22 - 0.32	Fz	0.24 - 0.32	Fz	0.20 - 0.32
Ap	0.3 - 15.0	Ap	0.3 - 15.0	Ap	0.3 - 15.0

CUTTER COMPATIBLE Mistubishi

LNMU

FAMILY

			L	IC	RE	S
2100000164	LNMU 0303	UN330	11.60	6.00	1.20	4.30

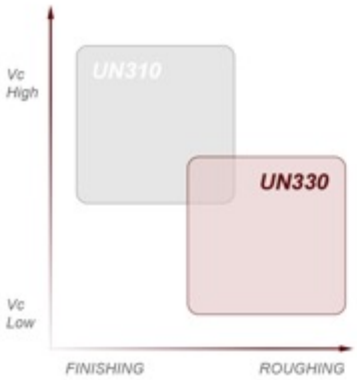


PRODUCT - LINE UP

Chip Breakers

- *Sharp Chip-breaker*
- *for Finishing and sticky material*
- ***Recommended Feed (Fz) : 0.15** (mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *Excellent for high-Feed MILLING Applications*
- *Where wear resistance is required.*
- *First Choice for Milling all materials*

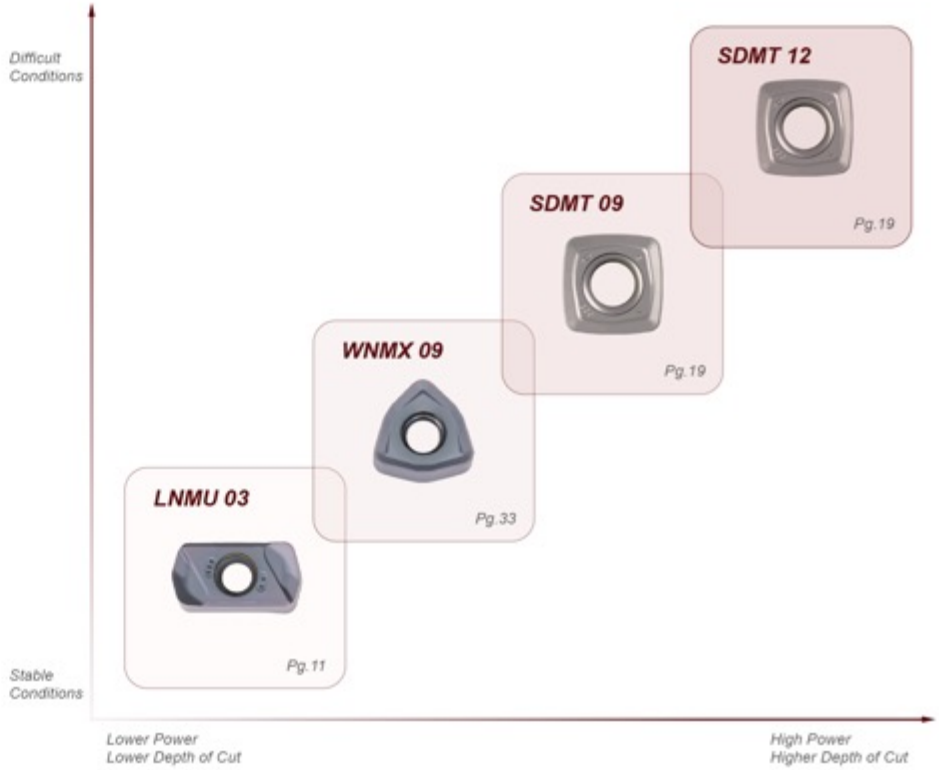
Cutting Conditions

LNMU 0303 UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	100 - 200	Vc	120 - 180	Vc	100 - 220
Fz	0.15 - 0.70	Fz	0.20 - 0.70	Fz	0.20 - 0.80
Ap	0.2 - 1.0	Ap	0.2 - 0.8	Ap	0.2 - 1.0

CUTTER COMPATIBLE *TUNGALOY*

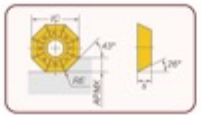
High Feed Line – Over View



OFMT

FAMILY

			IC	RE	S
2100000206	OFMT 05T3 TN	UN330	5.25	0.80	3.96

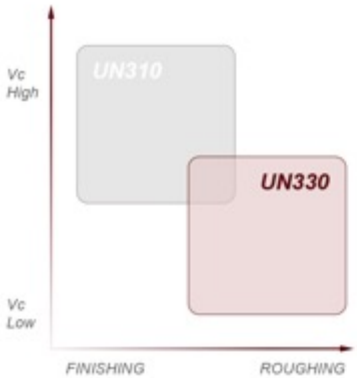


PRODUCT - LINE UP

Chip Breakers

- *Semi Finishing chip Breaker for General Machining*
- *First Choice for stable conditions*
- ***Recommended Feed (Fz) : 0.24*** *(mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *Excellent for high-Feed MILLING Applications*
- *Where wear resistance is required.*
- *First Choice for Milling all materials*

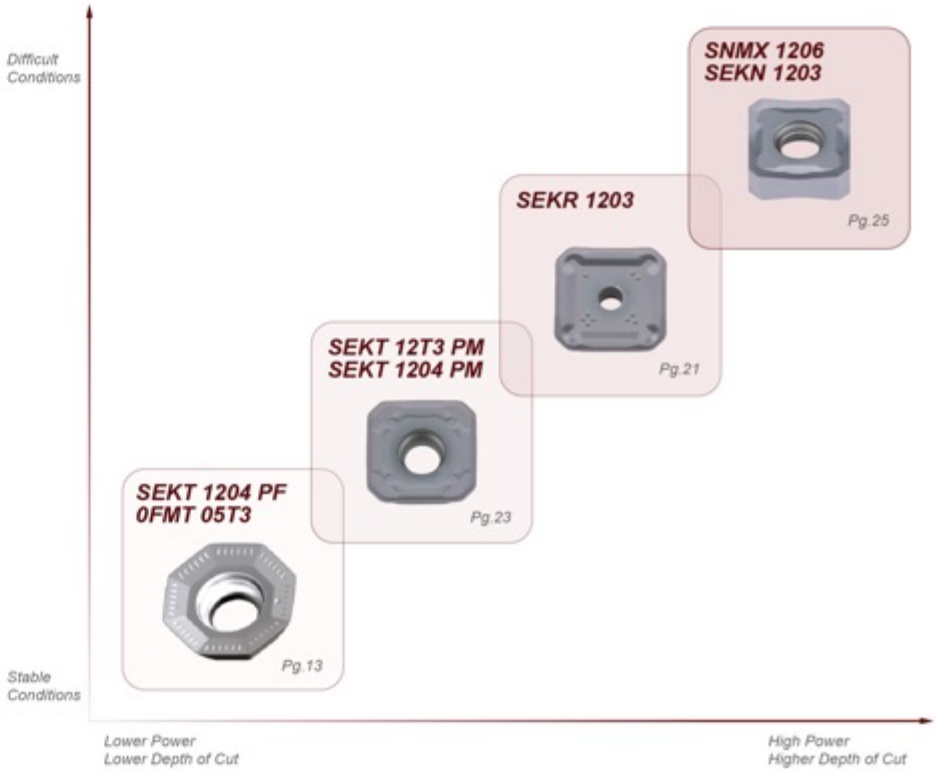
Cutting Conditions

OFMT 05T308 TR UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190	Vc	150 - 180	Vc	130 - 220
Fz	0.14 - 0.28	Fz	0.16 - 0.28	Fz	0.14 - 0.28
Ap	0.5 - 6.0	Ap	0.5 - 6.0	Ap	0.5 - 6.0

CUTTER COMPATIBLE *WALTER、ISCAR*

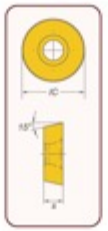
45 Degree Machining - Over View



RDMT & RDMW

FAMILY

			IC	S
2100000210	RDMT 0802 M0 PM	UN330	8.00	2.38
2100000212	RDMW 0802 M0	UN330	8.00	2.38
2100000114	RDMT 10T3 M0 PM	UN330	10.00	3.97
2100000176	RDMW 10T3 M0	UN330	10.00	3.97
2100000116	RDMT 1204 M0 PM	UN330	12.00	4.76
2100000170	RDMW 1204 M0	UN330	12.00	4.76



PRODUCT - LINE UP

Chip Breakers

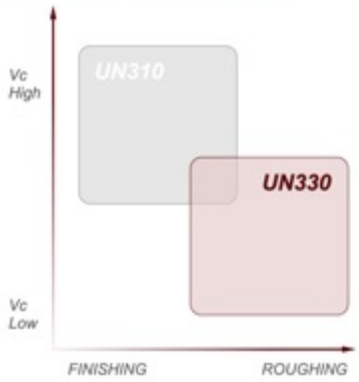
PM

- *Semi Finishing chip Breaker for General Machining*
- *First Choice for stable conditions*
- ***Recommended Feed (Fz) : 0.20** (mm/tooth)*

(W)

- *Flat top - no chip breaker*
- *for General-tough or for hardened material*
- ***Recommended Feed (Fz) : 0.28** (mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *General Purpose MILLING Applications*
- *Where a good balance of wear resistance and toughness is required.*
- *First Choice for Milling in all condition*

Cutting Conditions

RDMT 0802 M0 PM UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.15 - 0.40	Fz	0.12 - 0.40	Fz	0.18 - 0.58
Ap	0.5 - 2.0	Ap	0.5 - 2.0	Ap	0.5 - 2.0

CUTTER COMPATIBLE — WALTER

RDMW 0802 M0 UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 220			Vc	150 - 220
Fz	0.18 - 0.58			Fz	0.18 - 0.58
Ap	0.5 - 2.0			Ap	0.5 - 2.0

CUTTER COMPATIBLE — WALTER

RDMT 10T3 M0 PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.15 - 0.44	Fz	0.15 - 0.50	Fz	0.18 - 0.64
Ap	0.5 - 2.5	Ap	0.5 - 2.5	Ap	0.5 - 2.5

CUTTER COMPATIBLE — WALTER

RDMW 10T3 M0 UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 220			Vc	150 - 220
Fz	0.18 - 0.64			Fz	0.18 - 0.64
Ap	0.5 - 2.5			Ap	0.5 - 2.5

CUTTER COMPATIBLE — WALTER

RDMT 1204 M0 PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.21 - 0.51	Fz	0.21 - 0.58	Fz	0.50 -0 .74
Ap	0.5 - 3.0	Ap	0.5 - 3.0	Ap	0.5 - 3.0

CUTTER COMPATIBLE — WALTER

RDMW 1204 M0 UN330

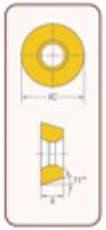
STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 220			Vc	150 - 220
Fz	0.25 - 0.74			Fz	0.25 - 0.74
Ap	0.5 - 3.0			Ap	0.5 - 3.0

CUTTER COMPATIBLE — WALTER

RPMT & RPMW

FAMILY

			IC	S
2100000142	RPMT 08T2 M0 PF	UN330	8.00	2.76
2100000192	RPMT 10T3 M0 PM	UN310	10.00	3.97
2100000118	RPMT 10T3 M0 PM	UN330	10.00	3.97
2100000172	RPMW 10T3 M0	UN330	10.00	3.97
2100000194	RPMT 1204 M0 PM	UN310	12.00	4.76
2100000120	RPMT 1204 M0 PM	UN330	12.00	4.76
2100000144	RPMW 1204 M0	UN330	12.04	4.76



PRODUCT - LINE UP

Chip Breakers

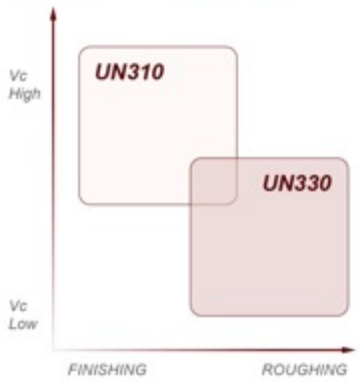
PM

- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions
- **Recommended Feed (Fz) : 0.20** (mm/tooth)

(W)

- Flat top - no chip breaker
- for General-tough or for hardened material
- **Recommended Feed (Fz) : 0.28** (mm/tooth)

GRADES



UN310

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Suitable for Medium to High Cutting Speed in MILLING Application with a focus on wear resistance
- An excellent option for Milling under stable condition which are not too aggresive.

UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating
- General Purpose MILLING Application where a good balance of wear resistance and toughness is required.
- First Choise for Milling in all condition

Cutting Conditions

RPMT 08T2 M0 PF UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.12 - 0.38	Fz	0.12 - 0.38	Fz	0.10 - 0.45
Ap	0.5 - 2.0	Ap	0.5 - 2.0	Ap	0.5 - 2.0

CUTTER COMPATIBLE MITSUBISHI

RPMT 10T3 M0 PM UN310

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.15 - 0.44	Fz	0.15 - 0.50	Fz	0.18 - 0.64
Ap	0.5 - 2.5	Ap	0.5 - 2.0	Ap	0.5 - 2.0

CUTTER COMPATIBLE MITSUBISHI

RPMT 10T3 M0 PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.15 - 0.44	Fz	0.15 - 0.50	Fz	0.18 -0 .64
Ap	0.5 - 2.0	Ap	0.5 - 2.0	Ap	0.5 - 2.0

CUTTER COMPATIBLE MITSUBISHI

RPMW 10T3 M0 UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 220			Vc	150 - 220
Fz	0.18 - 0.72			Fz	0.18 - 0.72
Ap	0.5 - 2.0			Ap	0.5 - 2.0

CUTTER COMPATIBLE MITSUBISHI

RPMT 1204 M0 PM UN310

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.21 - 0.51	Fz	0.21 - 0.58	Fz	0.25 - 0.74
Ap	0.5 - 3.0	Ap	0.5 - 3.0	Ap	0.5 - 3.0

CUTTER COMPATIBLE MITSUBISHI

RPMT 1204 M0 PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.21 - 0.51	Fz	0.21 - 0.58	Fz	0.25 - 0.74
Ap	0.5 - 3.0	Ap	0.5 - 3.0	Ap	0.5 - 3.0

CUTTER COMPATIBLE MITSUBISHI

RPMW 1204 M0 UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 220			Vc	150 - 220
Fz	0.25 - 0.82			Fz	0.25 - 0.82
Ap	0.5 - 3.0			Ap	0.5 - 3.0

CUTTER COMPATIBLE MITSUBISHI

SDMT

FAMILY

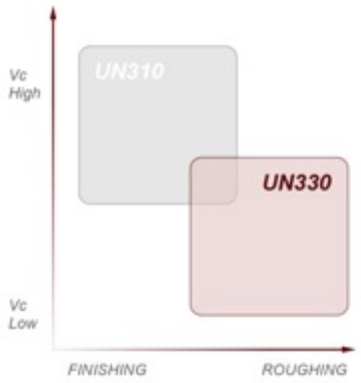
			IC	RE	S
2100000132	SDMT 09T312 PR	UN330	9.53	1.20	3.97
2100000134	SDMT 1205 PR	UN330	12.70	1.20	5.56

PRODUCT - LINE UP

Chip Breakers

- Flat Top chip breaker
- for For aggressive high feed and for hardened material
- **Recommended Feed (Fz) : 0.80** (mm/tooth)

GRADES



UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Excellent for high-Feed MILLING Applications
- where wear resistance is required.
- First Choice for Milling all materials

Cutting Conditions

SDMT 09T312 PR UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	100 - 200	Vc	120 - 180	Vc	100 - 220
Fz	0.50 - 1.20	Fz	0.50 - 1.20	Fz	0.50 - 1.20
Ap	0.5 - 3.0	Ap	0.8 - 2.4	Ap	0.50 - 3.0

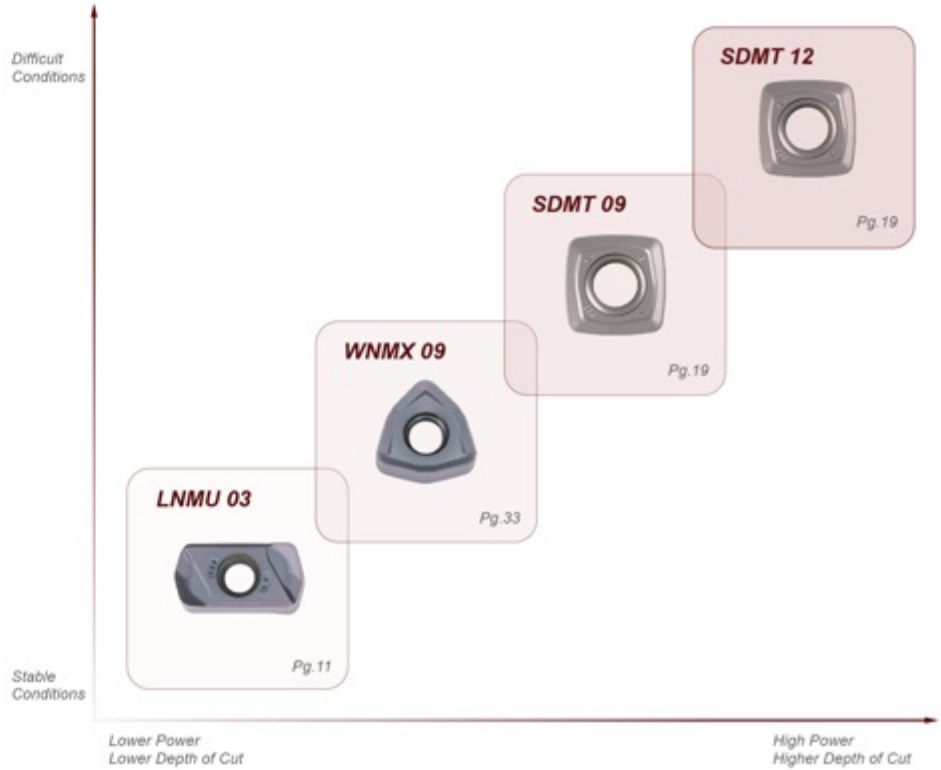
CUTTER COMPATIBLE MITSUBISHI、HITACHI

SDMT 1205 PR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 200	Vc	120 - 180	Vc	100 - 200
Fz	0.70 - 1.50	Fz	0.70 - 1.50	Fz	0.70 - 1.50
Ap	0.5 - 3.0	Ap	0.8 - 2.4	Ap	0.5 - 3.0

CUTTER COMPATIBLE MITSUBISHI、HITACHI

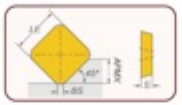
High Feed Line – Over view



SEKN & SEKR

FAMILY

			LE	RE	S	BS
2100000150	SEKN 1203 AFTN	UN330	12.70	1.00	3.18	1.1
2100000154	SEKR 1203 AFTN	UN330	12.70	1.00	3.18	1.1



PRODUCT - LINE UP

Chip Breakers

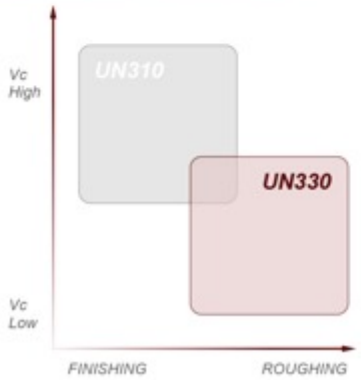
(R)

- *Semi Finishing chip Breaker for General Machining*
- *First Choice for stable conditions*
- ***Recommended Feed (Fz) : 0.20** (mm/tooth)*

(N)

- *Mid. conditions - flat top*
- *for General-tough or unstable machining conditions*
- ***Recommended Feed (Fz) : 0.25** (mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *Excellent for high-Feed MILLING Applications*
- *Where wear resistance is required.*
- *First Choice for Milling all materials*

Cutting Conditions

SEKN 1203 AFTN UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190			Vc	150 - 220
Fz	0.15 - 0.32			Fz	0.15 - 0.46
Ap	0.5 - 7.0			Ap	0.5 - 7.0

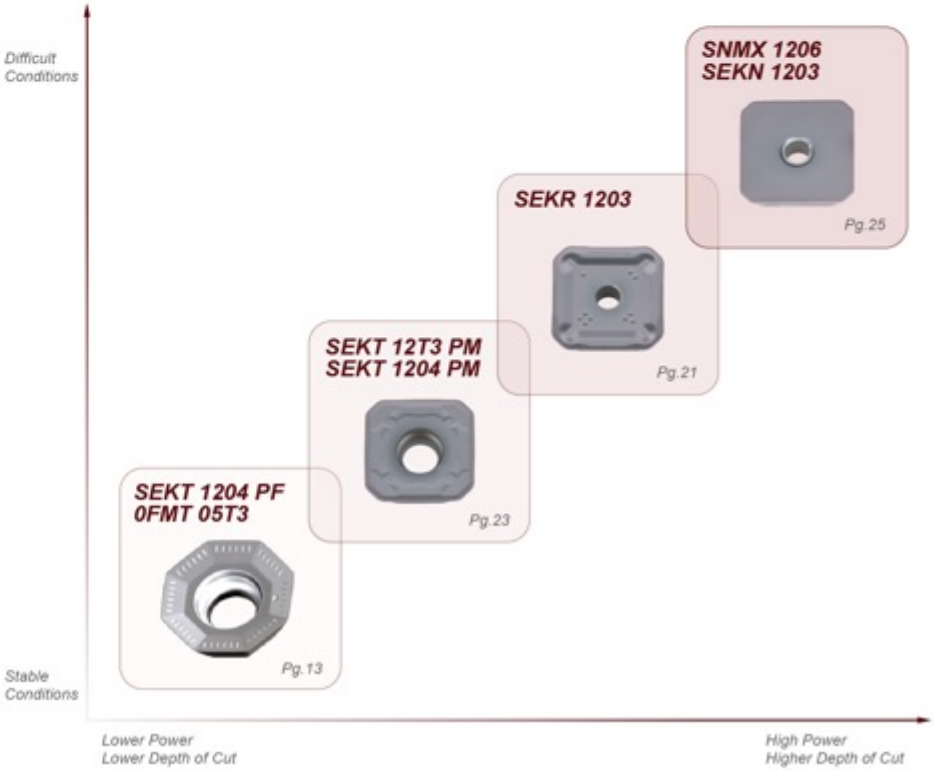
CUTTER COMPATIBLE — ISO Standard

SEKR 1203 AFTN UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.15 - 0.32	Fz	0.15 - 0.32	Fz	0.18 - 0.46
Ap	0.5 - 7.0	Ap	0.5 - 7.0	Ap	0.5 - 7.0

CUTTER COMPATIBLE — ISO Standard

45Deg machining – Over view



SEKT

FAMILY

			IC	RE	S	BS
2100000126	SEKT 1204 AFTN PF	UN330	12.70	1.00	4.85	1.00
2100000162	SEKT 1204 AFTN PM	UN330	12.70	1.00	4.85	1.20
2100000196	SEKT 1204 AFTN PM	UN310	12.70	1.00	4.85	1.20
2100000128	SEKT 12T3 AGSN PM	UN330	13.40	0.90	3.97	1.20

PRODUCT - LINE UP

Chip Breakers

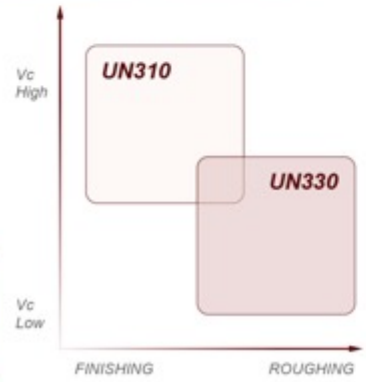
PF

- Sharp Chip-breaker
- for Finishing and sticky material
- **Recommended Feed (Fz) : 0.20** (mm/tooth)

PM

- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions
- **Recommended Feed (Fz) : 0.28** (mm/tooth)

GRADES



UN310

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Suitable for Medium to High Cutting Speed in MILLING Application with a focus on wear resistance
- An excellent option for Milling in stable condition

UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Excellent for high-Feed MILLING Applications
- where wear resistance is required.
- First Choice for Milling all materials

Cutting Conditions

SEKT 1204 AFTN PF UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190	Vc	150 - 180	Vc	130 - 220
Fz	0.14 - 0.28	Fz	0.16 - 0.28	Fz	0.14 - 0.28
Ap	0.5 - 6.0	Ap	0.5 - 6.0	Ap	0.5 - 6.0

CUTTER COMPATIBLE — SECO、ISCAR

SEKT 1204 AFTN PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.18 - 0.38	Fz	0.20 - 0.38	Fz	0.16 - 0.46
Ap	0.5 - 6.0	Ap	0.5 - 6.0	Ap	0.5 - 6.0

CUTTER COMPATIBLE — SECO、ISCAR

SEKT 1204 AFTN PM UN310

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.18 - 0.38	Fz	0.20 - 0.38	Fz	0.16 - 0.46
Ap	0.2 - 4.0	Ap	0.2 - 4.0	Ap	0.2 - 4.0

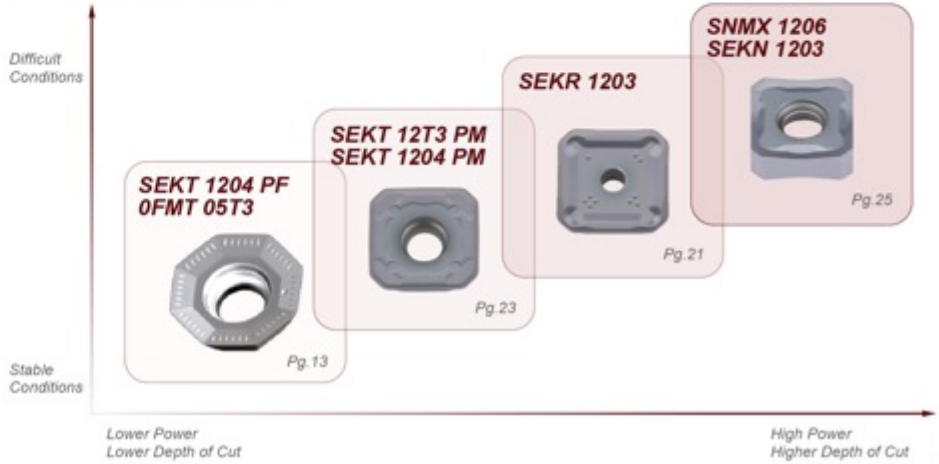
CUTTER COMPATIBLE — SECO、ISCAR

SEKT 12T3 AGSN PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 200	Vc	150 - 220
Fz	0.15 - 0.32	Fz	0.15 - 0.32	Fz	0.18 - 0.46
Ap	0.5 - 6.0	Ap	0.5 - 6.0	Ap	0.5 - 6.0

CUTTER COMPATIBLE — MITSUBISHI、SANDVIK

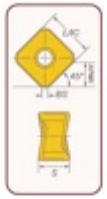
45Deg machining – Over view



SNMX

FAMILY

			IC	RE	S	BS
2100000218	SNKX 1205 PM	UN330	12.70	0.90	3.97	1.80
2100000158	SNMX 1206 ANN	UN330	12.70	1.00	4.85	1.80
2100000228	SNMX 1206 ANN	UN310	12.70	1.00	4.85	1.80



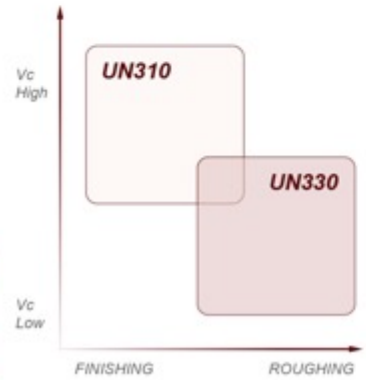
PRODUCT - LINE UP

Chip Breakers

PM

- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions
- **Recommended Feed (Fz) : 0.20** (mm/tooth)

GRADES



UN310

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Suitable for Medium to High Cutting Speed in MILLING Application with a focus on wear resistance
- An excellent option for Milling in stable condition .

UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Excellent for high-Feed MILLING Applications
- Where wear resistance is required.
- First Choice for Milling all materials

Cutting Conditions

SNKX 1205 PM UN330

(P) STEEL		(M) STAINLESS STEEL	(K) CAST IRON	
Vc	130 - 190		Vc	150 - 220
Fz	0.14 - 0.26		Fz	0.17 - 0.34
Ap	0.5 - 5.0		Ap	0.5 - 5.0
CUTTER COMPATIBLE	SECO、ISCAR			

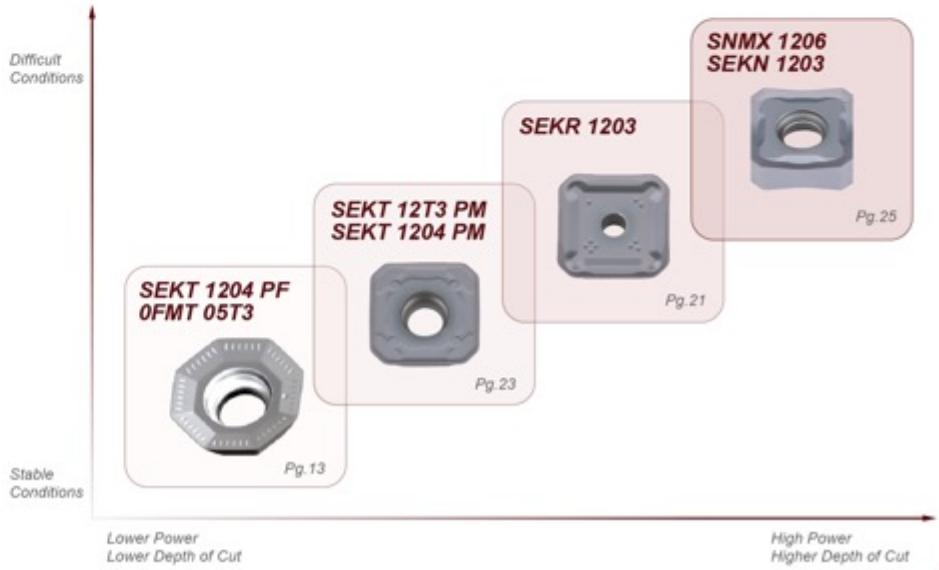
SNMX 1206ANN UN330

STEEL		STAINLESS STEEL	CAST IRON	
Vc	130 - 220		Vc	130 - 220
Fz	0.11 - 0.32		Fz	0.10 - 0.38
Ap	0.5 - 6.0		Ap	0.5 - 6.0
CUTTER COMPATIBLE	KORLOY			

SNMX 1206ANN UN310

STEEL		STAINLESS STEEL	CAST IRON	
Vc	130 - 220		Vc	130 - 220
Fz	0.11 - 0.32		Fz	0.10 - 0.38
Ap	0.3 - 5.0		Ap	0.3 - 5.0
CUTTER COMPATIBLE	KORLOY			

45Deg machining – Over view



SPKN & SPKR

FAMILY

			L	RE	S	BS
2100000122	SPKN 1203 EDTR	UN330	12.70	0.80	3.18	1.10
2100000124	SPKR 1203 EDTR	UN330	12.70	0.80	3.18	1.10
2100000216	SPKN 1504 EDTR	UN330	15.88	1.00	4.76	1.40

PRODUCT - LINE UP

Chip Breakers

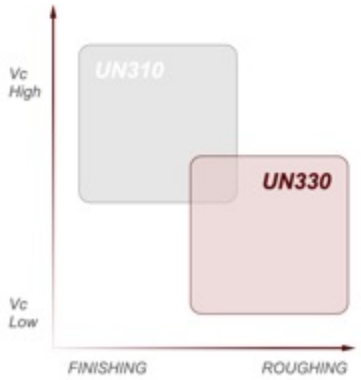
(R)

- *Semi Finishing chip Breaker for General Machining*
- *First Choice for stable conditions*
- ***Recommended Feed (Fz) : 0.20** (mm/tooth)*

(N)

- *Mid. conditions - flat top*
- *for General-tough or unstable machining conditions*
- ***Recommended Feed (Fz) : 0.25** (mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *Excellent for high-Feed MILLING Applications*
- *Where wear resistance is required*
- *First Choice for Milling all materials*

Cutting Conditions

SPKN 1203 EDTR UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 190			Vc	150 - 220
Fz	0.15 - 0.30			Fz	0.18 - 0.43
Ap	0.5 - 7.0			Ap	0.5 - 7.0
CUTTER COMPATIBLE		ISO Standard			

SPKR 1203 EDTR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	150 - 210	Vc	150 - 220
Fz	0.15 - 0.30	Fz	0.15 - 0.30	Fz	0.18 - 0.43
Ap	0.5 - 7.0	Ap	0.5 - 7.0	Ap	0.5 - 7.0
CUTTER COMPATIBLE		ISO Standard			

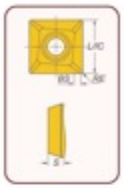
SPKN 1504 EDTR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 240			Vc	150 - 240
Fz	0.15 - 0.34			Fz	0.18 - 0.43
Ap	0.3 - 9.0			Ap	0.5 - 9.0
CUTTER COMPATIBLE		ISO Standard			

SPMT

FAMILY

			IC	RE	S	BS
2100000220	SPMT 060304 TN	UN330	6.00	0.40	3.25	0.70
2100000222	SPMT 09T308	UN330	9.54	0.80	3.97	1.00
2100000224	SPMT 12T308	UN330	13.29	0.80	3.96	1.00

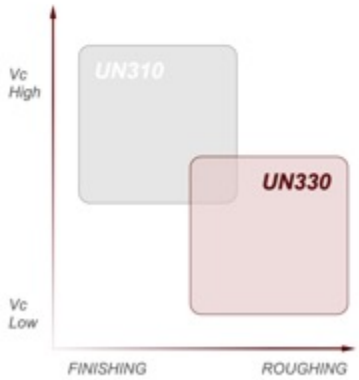


PRODUCT - LINE UP

Chip Breakers

- Mid Conditions – Tough Chip breaker
- Optimized for slot machining and similar tough applications
- **Recommended Feed (Fz) : 0.11** (mm/tooth)

GRADES



UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Excellent for high-Feed MILLING Applications
- Where wear resistance is required.
- First Choice for Milling all materials

Cutting Conditions

SPMT 060304 TN

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	150 - 240	Vc	150 - 240	Vc	150 - 240
Fz	0.06 - 0.12	Fz	0.06 - 0.08	Fz	0.05 - 0.14
Ap	0.3 - 6.0	Ap	0.5 - 6.0	Ap	0.3 - 6.0
CUTTER COMPATIBLE		LAMINA			

SPMT 09T308

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 210	Vc	150 - 240	Vc	150 - 240
Fz	0.06 - 0.15	Fz	0.05 - 0.11	Fz	0.06 - 0.22
Ap	0.3 - 6.0	Ap	0.3 - 6.0	Ap	0.3 - 6.0
CUTTER COMPATIBLE		WALTER			

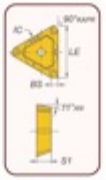
SPMT 12T308

STEEL		STAINLESS STEEL		CAST IRON	
Vc	150 - 210	Vc	160 - 210	Vc	150 - 240
Fz	0.07 - 0.18	Fz	0.09 - 0.12	Fz	0.10 - 0.28
Ap	0.5 - 12.0	Ap	0.5 - 12.0	Ap	0.5 - 12.0
CUTTER COMPATIBLE		SANDVIK			

TPKN & TPKR

FAMILY

			IC	LE	RE	S	BS
2100000110	TPKN 1603 PDR PM	UN330	9.52	13.90	0.50	3.18	0.90
2100000112	TPKR 1603 PPR PM	UN330	9.52	13.90	0.50	3.18	0.90
2100000146	TPKN 2204 PDR PM	UN330	12.70	19.12	0.80	4.76	1.20
2100000148	TPKR 2204 PDR PM	UN330	12.70	19.12	0.80	4.76	1.20



PRODUCT - LINE UP

Chip Breakers

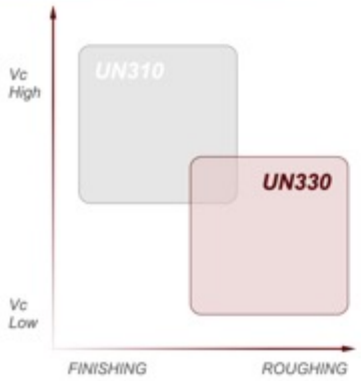
(R)

- *Semi Finishing chip Breaker for General Machining*
- *First Choice for stable conditions*
- ***Recommended Feed (Fz) : 0.20** (mm/tooth)*

(N)

- *Mid. conditions - flat top*
- *for General-tough or unstable machining conditions*
- ***Recommended Feed (Fz) : 0.25** (mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *Excellent for high-Feed MILLING Applications*
- *Where wear resistance is required*
- *First Choice for Milling all materials*

Cutting Conditions

TPKN 1603 PDR PM UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	130 - 170			Vc	150 - 220
Fz	0.16 - 0.25			Fz	0.15 - 0.27
Ap	0.5 - 12.0			Ap	0.5 - 12.0

CUTTER COMPATIBLE — ISO Standard

TPKR 1603 PPR PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	140 - 200	Vc	150 - 220
Fz	0.12 - 0.19	Fz	0.13 - 0.19	Fz	0.14 - 0.27
Ap	0.5 - 12.0	Ap	0.5 - 12.0	Ap	0.5 - 12.0

CUTTER COMPATIBLE — ISO Standard

TPKN 2204 PDR PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190			Vc	150 - 220
Fz	0.18 - 0.30			Fz	0.18 - 0.32
Ap	0.5 - 18.0			Ap	0.5 - 18.0

CUTTER COMPATIBLE — ISO Standard

TPKR 2204 PDR PM UN330

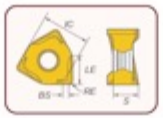
STEEL		STAINLESS STEEL		CAST IRON	
Vc	130 - 190	Vc	140 - 200	Vc	150 - 220
Fz	0.16 - 0.25	Fz	0.16 - 0.25	Fz	0.16 - 0.27
Ap	0.5 - 18.0	Ap	0.5 - 18.0	Ap	0.5 - 18.0

CUTTER COMPATIBLE — ISO Standard

WNMX

FAMILY

			IC	LE	RE	BS
2100000178	WNMX 09T316 ZNN	UN330	9.525	3.60	1.60	1.70

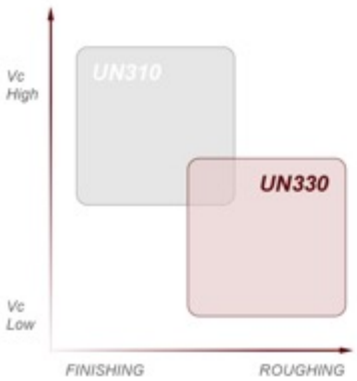


PRODUCT - LINE UP

Chip Breakers

- MID. CONDITIONS Chip-breaker
- For Semi- Finishing High feed applications
- **Recommended Feed (Fz) : 1.10** (mm/tooth)

GRADES



UN330

- Sub Micron Substrate & Hyper Pulsed PVD coating
- Excellent for high-Feed MILLING Applications
- Where wear resistance is required.
- First Choice for Milling all materials

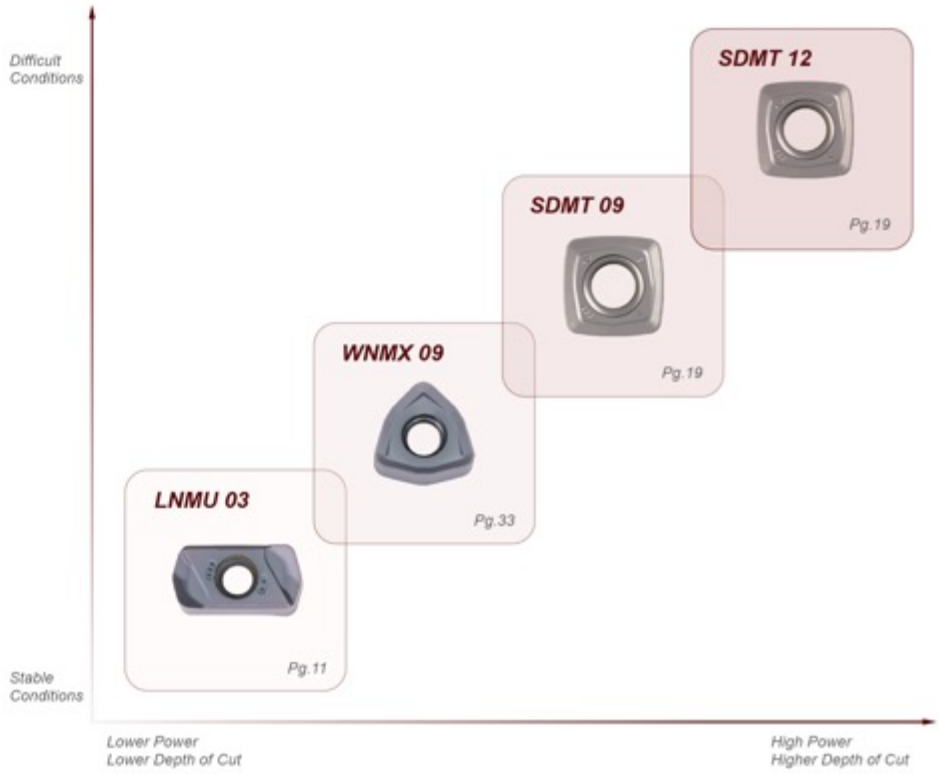
Cutting Conditions

WNMX 09T316 ZNN UN330

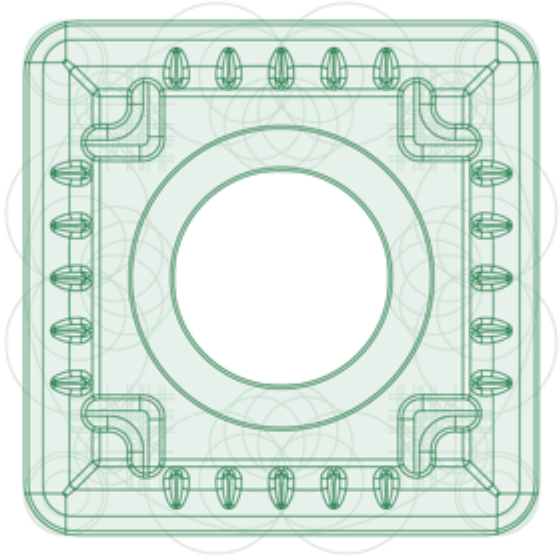
(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	100 - 200	Vc	120 - 180	Vc	100 - 220
Fz	0.40 - 1.50	Fz	0.40 - 1.20	Fz	0.40 - 1.50
Ap	0.5 - 1.3	Ap	0.5 - 1.0	Ap	0.5 - 1.3

CUTTER COMPATIBLE KORLOY

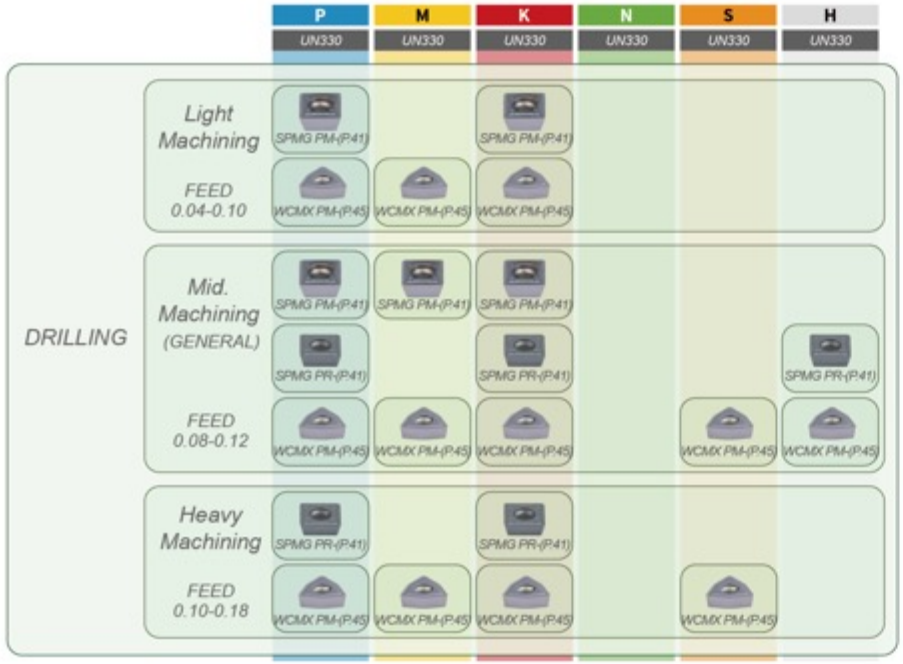
High Feed Line – Over view



DRILLING



INSERTS SELECTION



CHIP BREAKERS

PM

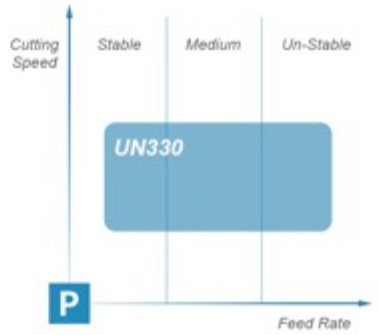
- *Semi Finishing chip Breaker for General Machining*
- *First Choice for all conditions*
- ***Recommended Feeds (Fz) are between: 0.05 - 0.13** (mm/tooth)*

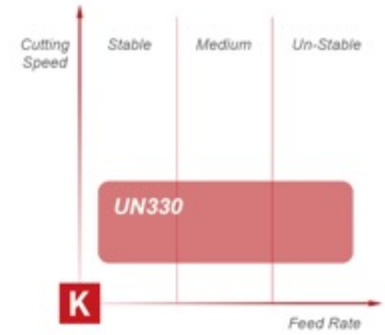
PR

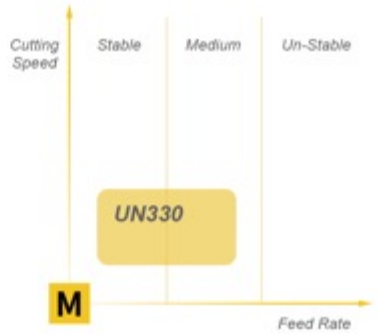
- *Mid. to Roughing chip Breaker*
- *First choice for aggressive and unstable drilling conditions*
- ***Recommended Feeds (Fz) are between: 0.09 - 0.18** (mm/tooth)*

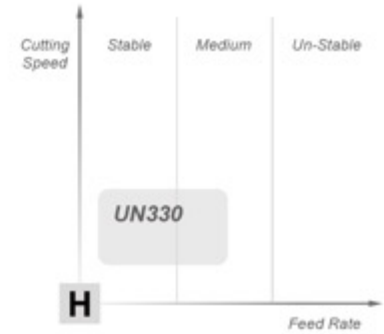
GRADES

GRADE	ISO			Features & Applications
UN330	P15	-	P30	For All Drilling Applications (internal and External Inserts)
	M20	-	M40	Aplicable for Alloy Steel, Stainless steel, hardened material and Aerospace
Sub micron PVD coated	S20	-	S35	Extremely versatile grade for all conditions of cutting
	H10	-	H20	Should be used for all Drilling operations - with coolant





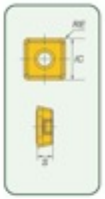




SPMG

FAMILY

			IC	RE	S
3100000024	SPMG 050204 PM	UN330	5.00	0.40	2.37
3100000012	SPMG 050204 PR	UN330	5.00	0.40	2.37
3100000026	SPMG 060204 PM	UN330	6.00	0.40	2.38
3100000014	SPMG 060204 PR	UN330	6.00	0.40	2.38
3100000028	SPMG 07T308 PM	UN330	7.94	0.80	3.97
3100000016	SPMG 07T308 PR	UN330	7.94	0.80	3.97
3100000030	SPMG 090408 PM	UN330	9.78	0.80	4.30
3100000018	SPMG 090408 PR	UN330	9.78	0.80	4.30
3100000032	SPMG 110408 PM	UN330	11.50	0.80	4.76
3100000020	SPMG 110408 PR	UN330	11.50	0.80	4.76
3100000022	SPMG 140512 PM	UN330	14.30	1.20	5.20



PRODUCT - LINE UP

Chip Breakers

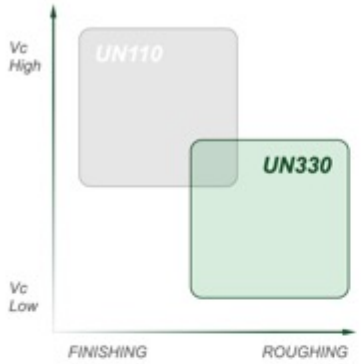
PM

- *Semi Finishing chip Breaker for General Machining*
- *First Choice for for all conditions*
- ***Recommended Feeds (Fz) are between: 0.05 - 0.13** (mm/tooth)*

PR

- *Mid. to Roughing chip Breaker*
- *First choice for aggressive and unstable drilling conditions*
- ***Recommended Feeds (Fz) are between: 0.09 - 0.18** (mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *General Purpose DRILLING Applications*
- *An exceptional grade ensuring long tool life and high toughness for both internal insert and the external ones..*
- *First Choice for Drilling in all condition*

SPMG 050204 PM UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.04 - 0.09	Fz	0.04 - 0.09	Fz	0.07 - 0.10
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 050204 PR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.08 - 0.12	Fz	0.08 - 0.12	Fz	0.07 - 0.14
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 060204 PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.04 - 0.09	Fz	0.04 - 0.09	Fz	0.07 - 0.10
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 060204 PR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.10 - 0.16	Fz	0.10 - 0.16	Fz	0.10 - 0.16
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 07T308 PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.05 - 0.10	Fz	0.05 - 0.10	Fz	0.10 - 0.11
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 07T308 PR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.16 - 0.22	Fz	0.17 - 0.22	Fz	0.16 - 0.22
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 090408 PM UN330

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.06 - 0.11	Fz	0.06 - 0.11	Fz	0.10 - 0.12
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 090408 PR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.15 - 0.22	Fz	0.16 - 0.22	Fz	0.15 - 0.22
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 110408 PM UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.07 - 0.14	Fz	0.06 - 0.11	Fz	0.10 - 0.15
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 110408 PR UN330

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.20 - 0.26	Fz	0.21 - 0.26	Fz	0.18 - 0.26
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

SPMG 140512 PM UN330

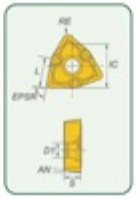
STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 170	Vc	170 - 230	Vc	150 - 210
Fz	0.12 - 0.18	Fz	0.13 - 0.18	Fz	0.12 - 0.18
Ap		Ap		Ap	

DRILLING BODY COMPATABILITY TaeguTec

WCMX

FAMILY

			IC	L	RE	S
3100000002	WCMX 030208 PM	UN330	5.56	3.50	0.80	2.38
3100000004	WCMX 040208 PM	UN330	6.35	4.30	0.80	2.38
3100000006	WCMX 050308 PM	UN330	7.94	5.40	0.80	3.18
3100000008	WCMX 06T308 PM	UN330	9.52	6.50	0.80	3.97
3100000010	WCMX 080412 PM	UN330	12.70	8.70	1.20	4.76



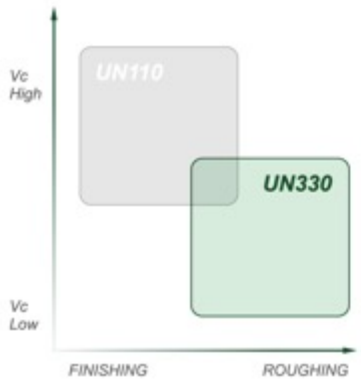
PRODUCT - LINE UP

Chip Breakers

PM

- *Semi Finishing chip Breaker for General Machining*
- *First Choice for FOR all conditions*
- ***Recommended Feeds (Fz) are between: 0.05 - 0.13** (mm/tooth)*

GRADES



UN330

- *Sub Micron Substrate & Hyper Pulsed PVD coating*
- *General Purpose DRILLING Applications*
- *An exceptional grade ensuring long tool life and high toughness for both internal insert and the external ones*
- *First Choice for Drilling in all condition*

Cutting Conditions

WCMX 030208 PM UN330

(P) STEEL	(M) STAINLESS STEEL	(K) CAST IRON
Vc 100 - 170	Vc 170 - 230	Vc 150 - 210
Fz 0.04 - 0.09	Fz 0.04 - 0.09	Fz 0.07 - 0.10
Ap	Ap	Ap

DRILLING BODY COMPATABILITY ISCAR、COMET

WCMX 040208 PM UN330

STEEL	STAINLESS STEEL	CAST IRON
Vc 100 - 170	Vc 170 - 230	Vc 150 - 210
Fz 0.04 - 0.09	Fz 0.04 - 0.09	Fz 0.07 - 0.10
Ap	Ap	Ap

DRILLING BODY COMPATABILITY ISCAR、COMET

WCMX 050308 PM UN330

STEEL	STAINLESS STEEL	CAST IRON
Vc 100 - 170	Vc 170 - 230	Vc 150 - 210
Fz 0.05 - 0.10	Fz 0.05 - 0.10	Fz 0.10 -0 .11
Ap	Ap	Ap

DRILLING BODY COMPATABILITY ISCAR、COMET

WCMX 06T308 PM UN330

STEEL	STAINLESS STEEL	CAST IRON
Vc 100 - 170	Vc 170 - 230	Vc 150 - 210
Fz 0.06 - 0.11	Fz 0.06 - 0.11	Fz 0.10 - 0.12
Ap	Ap	Ap

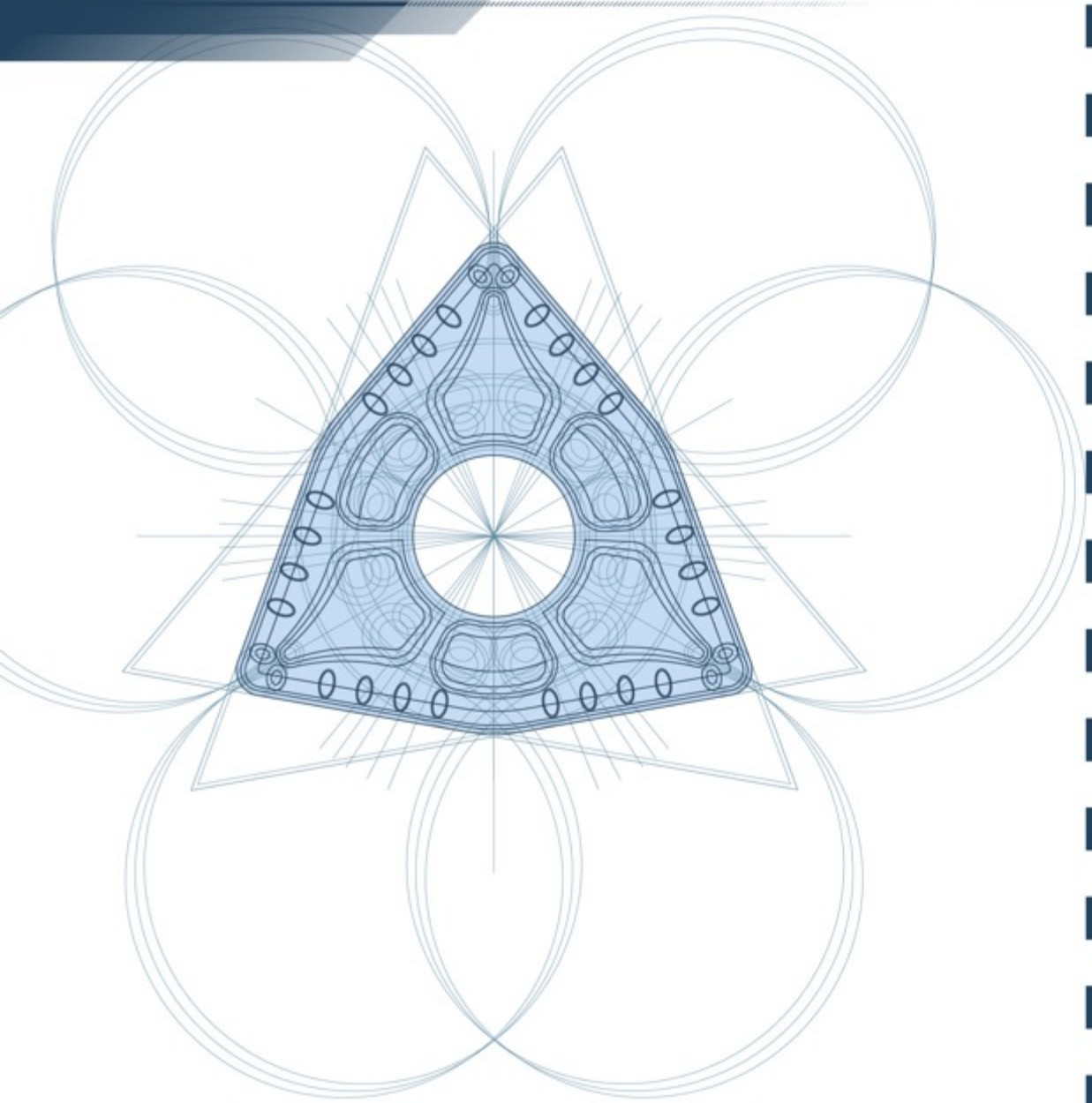
DRILLING BODY COMPATABILITY ISCAR、COMET

WCMX 080412 PM UN330

STEEL	STAINLESS STEEL	CAST IRON
Vc 100 - 170	Vc 170 - 230	Vc 150 - 210
Fz 0.07 - 0.14	Fz 0.06 - 0.11	Fz 0.10 - 0.15
Ap	Ap	Ap

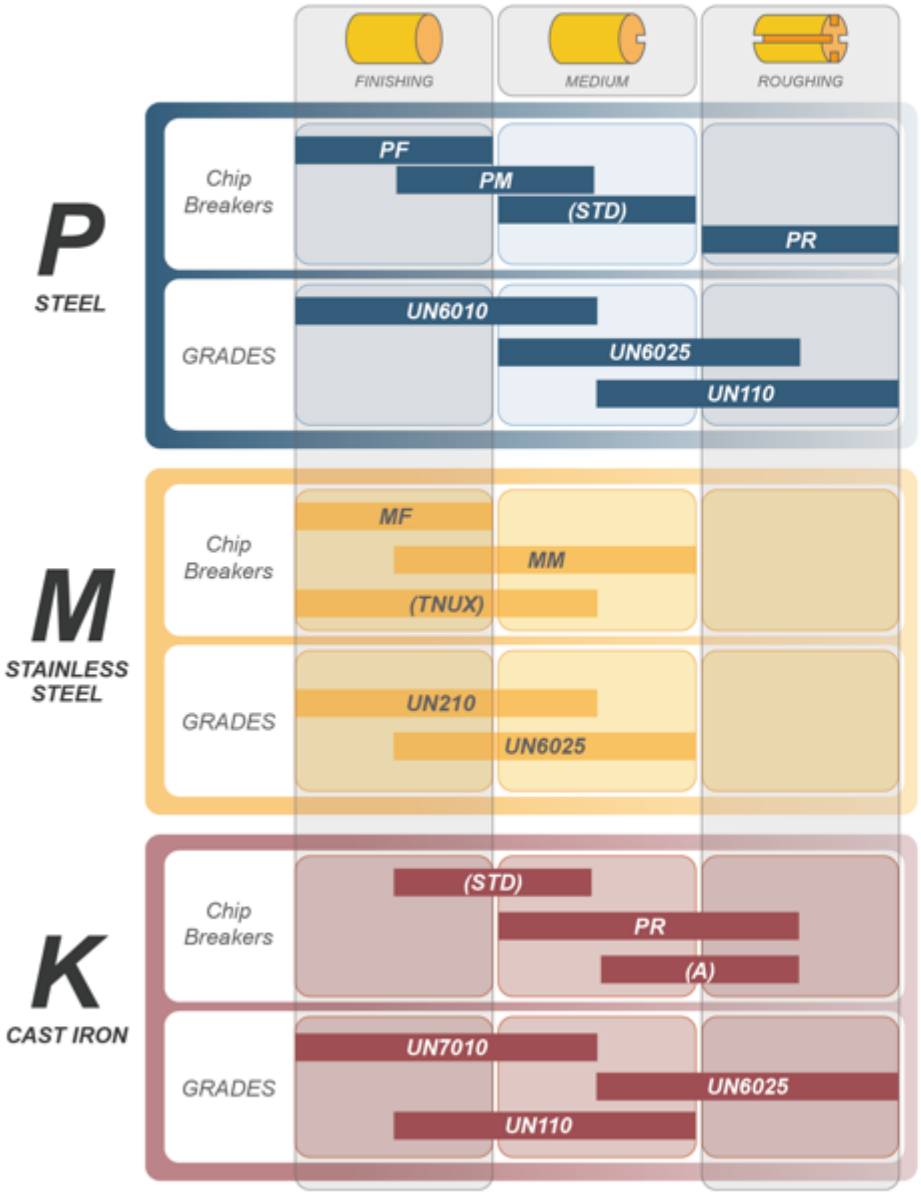
DRILLING BODY COMPATABILITY ISCAR、COMET

TURNING

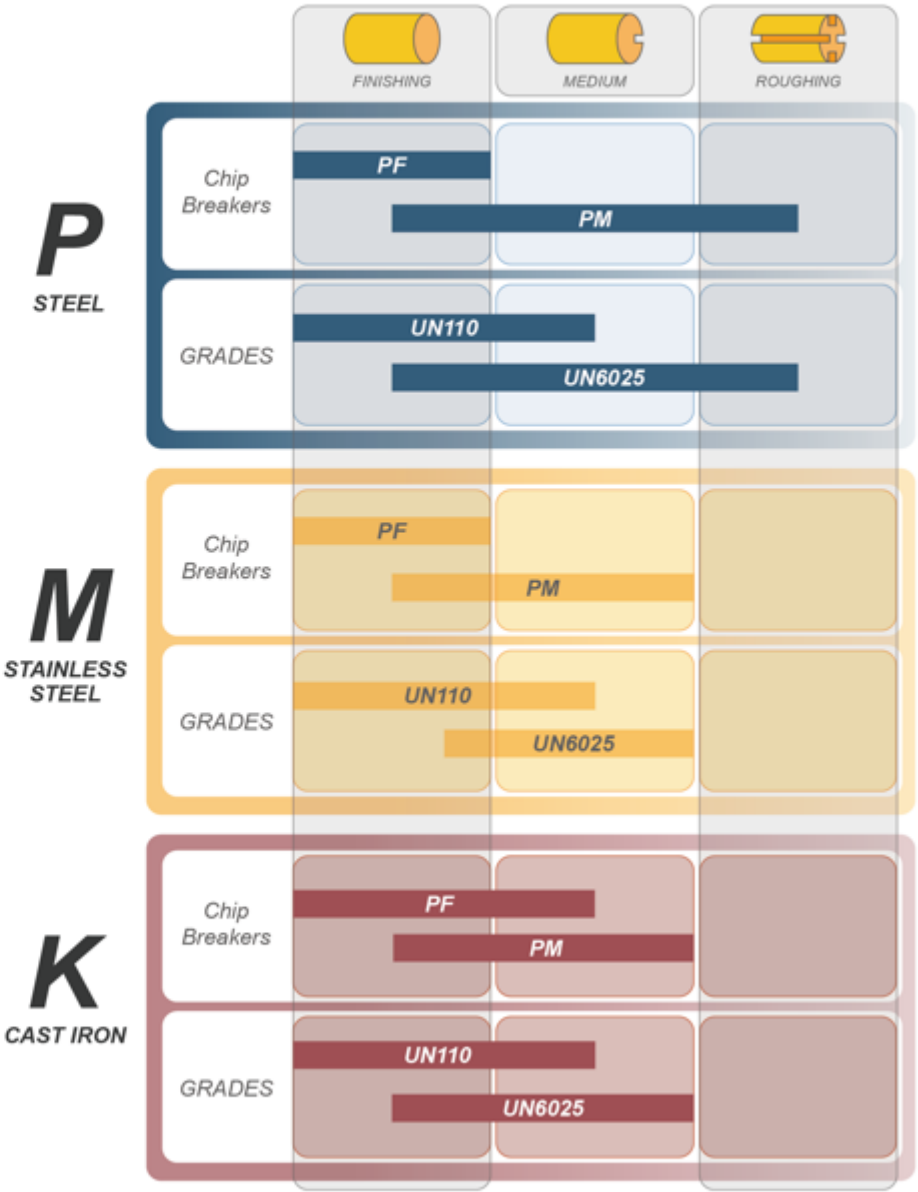


CHIP BREAKERS & GRADES SELECTION

NEGATIVE



POSITIVE



GRADES

PVD Grades - Explained

3 X numbers - PVD

UN | **3** | **30**

Material:
- *1 - Multi Material (Turning)*
- *2 - Stainless*
- *3 - Multi Material (Milling)*
- *5 - Aerospace*
- *6 - Alloy steel*
- *7 - cast Iron*

Application:
- *05 - Supper finishing*
- *10 - Finishing*
- *15 - Semi Finishing*
- *25 - Mid. Conditions*
- *30 - Mid & Tough Conditions*
- *35 - Roughing*

CVD Grades - Explained

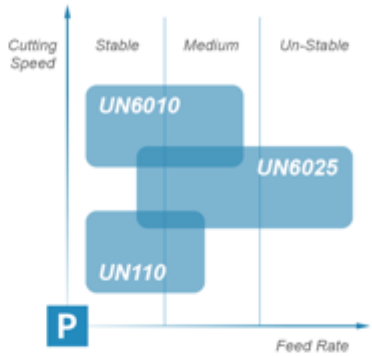
4 X numbers - CVD

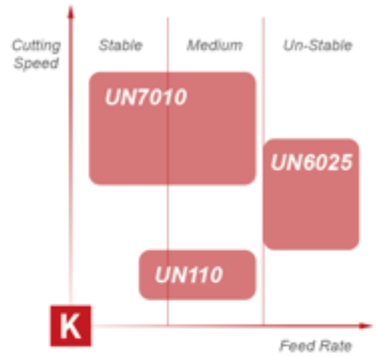
UN | **6** | **0** | **25**

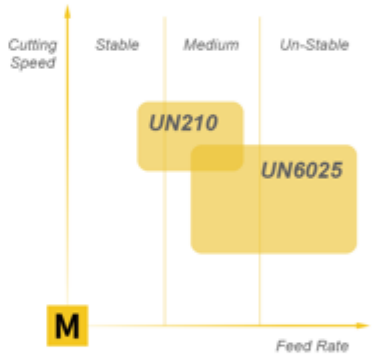
Material :
- *2 - Stainless*
- *5 - Aerospace*
- *6 - Alloy steel*
- *7 - cast Iron*

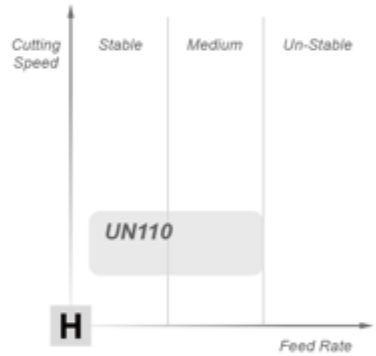
Version

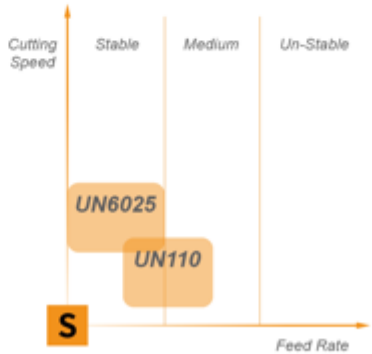
Application :
- *05 - Supper finishing*
- *10 - Finishing*
- *15 - Semi Finishing*
- *25 - Mid. Conditions*
- *35 - Roughing*











GRADES

GRADE	ISO			Features & Applications
UN110 Sub micron PVD coated	P05	-	P15	A very tough PVD grade with excellent wear resitance
	M15	-	M25	For cutting speeds (Vc) - up to 180 m/min
	K10	-	K20	Developed for Internal Turning and Turning of Aerospace material
	S20	-	S35	In all applications should be used with coolant
UN210 Sub Micron PVD Coated	M10	-	M25	Unique PVD grade, using patented deposition technology
				Especially developed for Stainless steel machining, in Turning Negative inserts
UN6010 K10 Grade Very Thick CVD Coated	P15	-	P30	Modern CVD grade with very thick Alpha Alumina For high wear resistance Turning machining
	K10	-	K20	Aplicable for Alloy Steel
				Extremely wear resistant grade for stable conditions of cutting, up to cutting speed (Vc) of 450 m/min
				In most applications should be used with coolant
UN6025 Cobalt Enriched CVD Coated	P15	-	P30	Cobalt Enriched Substrate & CVD coated grade with Alpha Alumina For General Turning machining
	M20	-	M40	Aplicable for Alloy Steel, Stainless steel, cast Iron and some Aerospace material
	K15	-	K25	Extremely versatile grade for all conditions of cutting, upto cutting speed (Vc) of 300 m/min
				In most applications should be used with coolant
UN7010 K10 Grade Very Thick CVD Coated	P15	-	P30	Modern CVD grade with very thick Alpha Alumina For high wear resistance Turning machining
	K10	-	K20	Aplicable for cast Iron material
				Extremely wear resistant grade for stable conditions of cutting, up to cutting speed (Vc) of 450 m/min
				In most applications should be used with coolant

UN110

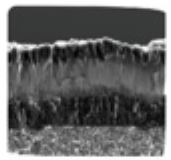
Hyper Pulsed - Extremly Thick PVD coating & submicron substrate

- *Unique coating composition, with ground breaking deposition technology*
- *Thickest PVD coating in comercial use, with over 7mic of deposition*

UN210

Hyper Pulsed PVD coating & submicron substrate

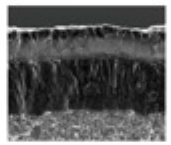
- *Unique coating composition, with ground breaking deposition technology*
- *Especially developed for Stainless steel machining*



UN6010

P10 substrate & modern CVD Coating

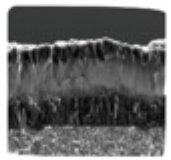
- *Extremly wear resistant Turning grade*
- *With CVD coating based of very thick Alpha Alumina*
- *Excellent wear resistance and hot hardness parameters*



UN6025

Cobalt Enriched substrate & modern CVD Coating

- *Extremly versetile Turning grade*
- *With (MT) TiCN layer and Alpha Alumina*
- *Excellent combination of Toughness and wear resistance*



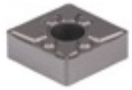
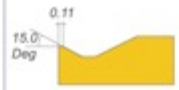
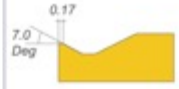
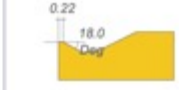
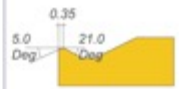
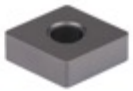
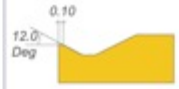
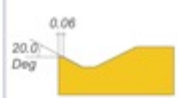
UN7010

K10 substrate & modern CVD Coating

- *Extremly wear resistant Turning grade*
- *With CVD coating based of very thick Alpha Alumina*
- *Excellent wear resistance and hot hardness parameters*

CHIP BREAKERS

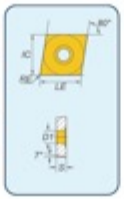
PF	• Sharp Chip-breaker • for Finishing and sticky material	• **Fz min: 0.12** (mm/Rev)	P M K
PM	• for Semi- Finishing • General Machining	• **Fz min: 0.18** (mm/Rev)	P M K
(STD)	• Tough Chip-breaker • for Mid-tough machining	• **Fz min: 0.24** (mm/Rev)	P K
PR	• Tough Chip-breaker • for General-tough machining	• **Fz min: 0.35** (mm/Rev)	P K
MF	• Sharp Chip-breaker • Stainless Steel - Finishing	• **Fz min: 0.12** (mm/Rev)	M S
MM	• for Semi- Finishing • Stainless steel -General Machining	• **Fz min: 0.18** (mm/Rev)	M S
CNM(A)	• Flat top Chip Breaker • for Cast iron machining	• **Fz min: 0.15** (mm/Rev)	K
TNU(X)	• Very sharp chip breaker like KNUX • for Low carbon steel & Stainless Steel	• **Fz min: 0.10** (mm/Rev)	P M

Chip Breaker name and Geometry			Applications and Features
PF			• Sharp chip breaker • For finishing operations • Also addopted for sticky material and Stainless steel • Chip Control starts at Fz: 0.12
PM			• Semi Finishing chip breaker for General machining • First choice for stable machining and light-Mid. cutting pressure • Smooth cutting due to to very positive chip breaker angles • Chip Control starts at Fz: 0.18
(STD)			• Mid. cutting conditions - chip breaker for General machining • First choice for Un-stable machining with reasonable cutting pressure • Reenforced chipbreaker allows for high shock resistance • Chip Control starts at Fz: 0.25
PR			• Roughing. chip breaker mostly used in tough machining applications • First choice for very Un-stable machining or for thick casting "skin" • Tough and reinforced cutting edge and chip breaker angles • Chip Control starts at Fz: 0.35
(A)			• Flat top insert design • used mostly for Cast iron applications • Chip Control starts at Fz: 0.15 • Use with UN 7010 grade for best results
(X)			• Sharp chip breaker • For finishing operations with performance similar to KNUX • Also addopted for sticky material, Stainless steel and Aerospace Material • Chip Control starts at Fz: 0.10
MF			• Sharp chip breaker - especially developed for stainless Applications • For finishing operations • Also addopted for very soft or sticky material • Chip Control starts at Fz: 0.10
MM			• Semi Finishing chip breaker - especially developed for stainless Applications • First choice for all stainless steel applications • Also addopted for very soft , sticky material and some Aerospace material • Chip Control starts at Fz: 0.14

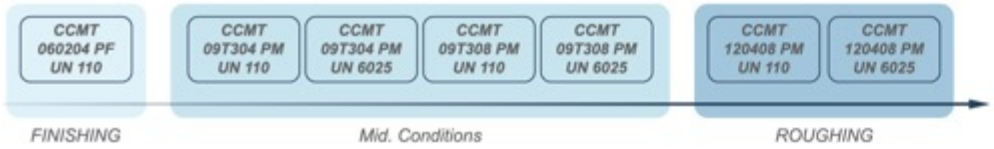
CCMT

FAMILY

			IC	LE	RE	S
5100000106	CCMT 060204 PF	UN110	6.35	6.35	0.40	2.38
5100000110	CCMT 09T304 PM	UN110	9.53	9.53	0.40	3.97
5100000112	CCMT 09T304 PM	UN6025	9.53	9.53	0.40	3.97
5100000114	CCMT 09T308 PM	UN110	9.53	9.53	0.80	3.97
5100000116	CCMT 09T308 PM	UN6025	9.53	9.53	0.80	3.97
5100000118	CCMT 120408 PM	UN110	12.70	12.70	0.80	4.76
5100000120	CCMT 120408 PM	UN6025	12.70	12.70	0.80	4.76



PRODUCT - LINE UP



Chip Breakers

PF

- Sharp Chip-breaker
- for Finishing and sticky material

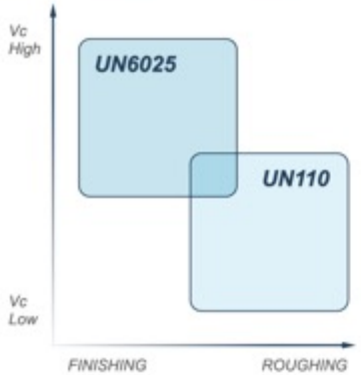
• Starting Feed (Fz) : 0.12 (mm/Rev) P M K

PM

- Semi Finishing chip Breaker for General Machining
- First Choice for ALL conditions

• Starting Feed (Fz) : 0.18 (mm/Rev) P M K

GRADES



UN6025

- Cobalt Enriched & Alpha Alumina CVD
- General Purpose internal and external TURNING Applications
- Where a good balance of wear resistance and toughness is required

UN110

- Sub Micron Substrate & thick Hyper Pulsed PVD coating
- Suitable for Low to Mid Cutting Speeds in INTERNAL TURNING
- An excellent option for tough, aggresive and non stable condition

Cutting Conditions

CCMT 060204 PF UN110

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.12 - 0.18	Fz	0.12 - 0.18	Fz	0.12 - 0.18
Ap	0.3 - 1.0	Ap	0.3 - 1.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

CCMT 09T304 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.14 - 0.22	Fz	0.14 - 0.22	Fz	0.14 - 0.22
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

CCMT 09T304 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 170	Vc	120 - 230
Fz	0.14 - 0.22	Fz	0.14 - 0.22	Fz	0.14 - 0.22
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

CCMT 09T308 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	120 - 170	Vc	100 - 180
Fz	0.14 - 0.22	Fz	0.14 - 0.22	Fz	0.14 - 0.22
Ap	0.5 - 3.0	Ap	0.5 - 4.0	Ap	0.5 - 4.0

TOOL HOLDER COMPATABILITY — ISO Standard

CCMT 09T308 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 170	Vc	120 - 230
Fz	0.14 - 0.22	Fz	0.14 - 0.22	Fz	0.14 - 0.22
Ap	0.5 - 3.0	Ap	0.5 - 4.0	Ap	0.5 - 4.0

TOOL HOLDER COMPATABILITY — ISO Standard

CCMT 120408 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	120 - 170	Vc	100 - 180
Fz	0.18 - 0.30	Fz	0.18 - 0.30	Fz	0.18 - 0.30
Ap	0.5 - 4.0	Ap	0.5 - 5.0	Ap	0.5 - 5.0

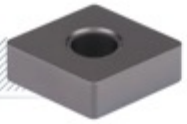
TOOL HOLDER COMPATABILITY — ISO Standard

CCMT 120408 PM UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	120 - 210	Vc	120 - 270	Vc	120 - 230
Fz	0.18 - 0.30	Fz	0.18 - 0.30	Fz	0.18 - 0.30
Ap	0.5 - 4.0	Ap	0.5 - 5.0	Ap	0.5 - 5.0

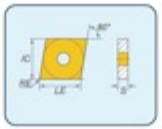
TOOL HOLDER COMPATABILITY — ISO Standard

CNMA

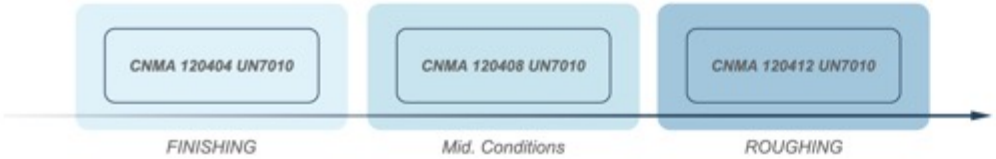


FAMILY

			IC	LE	RE	S
5100000238	CNMA 120404	UN7010	12.70	12.70	0.40	4.76
5100000090	CNMA 120408	UN7010	12.70	12.70	0.80	4.76
5100000092	CNMA 120412	UN7010	12.70	12.70	1.20	4.76



PRODUCT - LINE UP



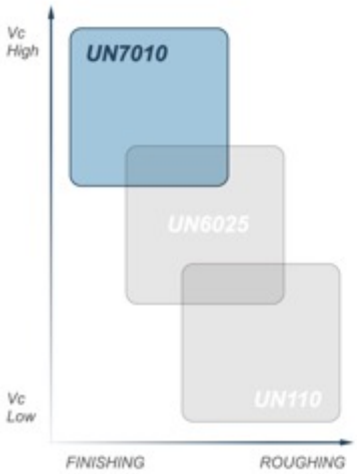
Chip Breakers

A

- Flat top chip breaker
- For all cast iron application

- **Starting Feed (Fz) : 0.15** (mm/Rev) K

GRADES



UN7010

- Hard K10 substrate with Thick Alumina (Alpha) CVD coating
- For high speed CAST IRON TURNING Applications
- Where the focus is on very high abrasive wear resistance and high speed machining.
- First Choice for cast iron application

Cutting Conditions

CNMA 120404 UN7010

(P) STEEL	(M) STAINLESS STEEL	(K) CAST IRON
		Vc 140 - 300 Fz 0.15 - 0.60 Ap 0.2 - 4.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMA 120408 UN7010

STEEL	STAINLESS STEEL	CAST IRON
		Vc 140 - 300 Fz 0.15 - 0.60 Ap 0.3 - 6.0

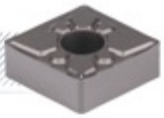
TOOL HOLDER COMPATABILITY ISO Standard

CNMA 120412 UN7010

STEEL	STAINLESS STEEL	CAST IRON
		Vc 140 - 300 Fz 0.15 - 0.60 Ap 0.4 - 8.0

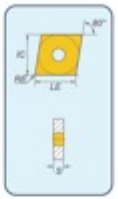
TOOL HOLDER COMPATABILITY ISO Standard

CNMG

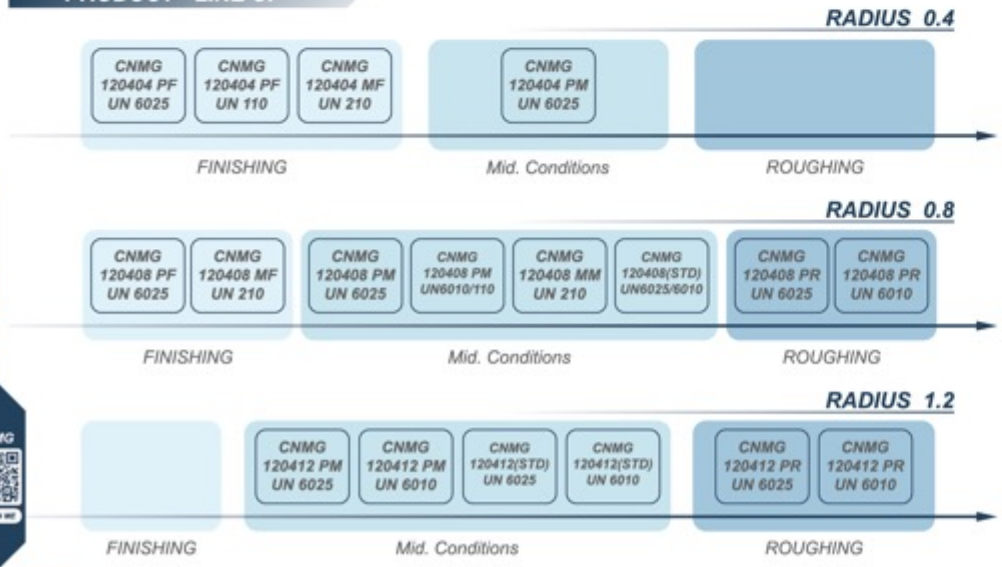


FAMILY

			IC	LE	RE	S
5100000004	CNMG 120404 PF	UN6025	12.70	12.70	0.40	4.76
5100000162	CNMG 120404 PM	UN6025	12.70	12.70	0.40	4.76
5100000234	CNMG 120404 PF	UN110	12.70	12.70	0.40	4.76
5100000006	CNMG 120404 MF	UN210	12.70	12.70	0.40	4.76
5100000008	CNMG 120408 PF	UN6025	12.70	12.70	0.80	4.76
5100000014	CNMG 120408 MF	UN210	12.70	12.70	0.80	4.76
5100000012	CNMG 120408 PM	UN6025	12.70	12.70	0.80	4.76
5100000010	CNMG 120408 PM	UN6010	12.70	12.70	0.80	4.76
5100000236	CNMG 120408 PM	UN110	12.70	12.70	0.80	4.76
5100000020	CNMG 120408 MM	UN210	12.70	12.70	0.80	4.76
5100000160	CNMG 120408	UN6025	12.70	12.70	0.80	4.76
5100000158	CNMG 120408	UN6010	12.70	12.70	0.80	4.76
5100000018	CNMG 120408 PR	UN6025	12.70	12.70	0.80	4.76
5100000016	CNMG 120408 PR	UN6010	12.70	12.70	0.80	4.76
5100000024	CNMG 120412 PM	UN6025	12.70	12.70	1.20	4.76
5100000022	CNMG 120412 PM	UN6010	12.70	12.70	1.20	4.76
5100000194	CNMG 120412	UN6025	12.70	12.70	1.20	4.76
5100000096	CNMG 120412	UN6010	12.70	12.70	1.20	4.76
5100000030	CNMG 120412 PR	UN6025	12.70	12.70	1.20	4.76
5100000028	CNMG 120412 PR	UN6010	12.70	12.70	1.20	4.76



PRODUCT - LINE UP



Chip Breakers

PF
- *Sharp Chip-breaker* — **Starting Feed (Fz) : 0.12** (mm/Rev) — P M K
- *for Finishing and sticky material*

PM
- *Semi Finishing chip Breaker for General Machining* — **Starting Feed (Fz) : 0.18** (mm/Rev) — P M K
- *First Choice for stable conditions*

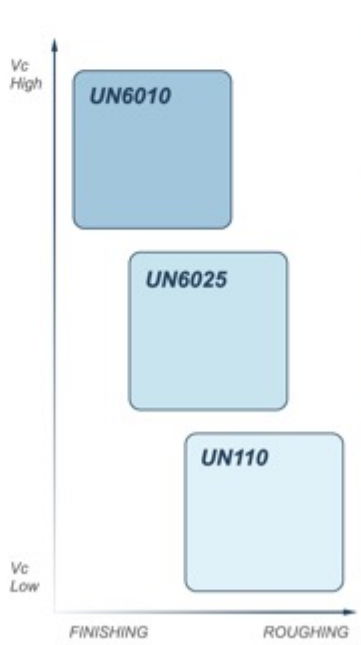
(STD)
- *Mid. conditions Chip-breaker* — **Starting Feed (Fz) : 0.25** (mm/Rev) — P K
- *for General-tough or unstable machining conditions*

PR
- *Tough Chip-breaker* — **Starting Feed (Fz) : 0.35** (mm/Rev) — P K
- *for tough, Interrupted or very unstable conditions*

MF
- *Unique and very Sharp Chip-breaker* — **Starting Feed (Fz) : 0.11** (mm/Rev) — M S
- *for Finishing of Stainless steel and Aerospace material*

MM
- *Unique and Mid. conditions Chip-breaker* — **Starting Feed (Fz) : 0.15** (mm/Rev) — M S
- *First Choice for Stainless steel and Aerospace material*

GRADES



UN6010
- *Hard P10 substrate with Thick Alumina (Alpha) CVD coating*
- *For high speed TURNING and Cast Iron Applications*
- *where a focus id on wear resistance and and high speed machining*
- *First Choice for Turning in stable condition*

UN6025
- *Cobalt Enriched & Alpha Alumina CVD*
- *General Purpose TURNING Applications*
- *where a good balance of wear resistance and toughness is required*
- *First Choice for Turning in all condition*

UN110
- *Sub Micron Substrate & Extrimly thick Hyper Pulsed PVD coating*
- *Suitable for Low to Mid Cutting Speeds in TURNING Application*
- *An excellent option for Turning at low speeds and non stable condition*

RADIUS 0.4

CNMG 120404 PF UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.3 - 1.0	Ap	0.3 - 1.0	Ap	0.3 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120404 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.14 - 0.30	Fz	0.14 - 0.30	Fz	0.14 - 0.30
Ap	0.2 - 4.0	Ap	0.3 - 3.0	Ap	0.2 - 4.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120404 PF UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	100 - 180	Vc	140 - 170	Vc	100 - 180
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 -0 .40
Ap	0.3 - 1.0	Ap	0.3 - 1.0	Ap	0.3 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120404 MF UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	120 - 160		
Fz	0.08 - 0.18	Fz	0.08 - 0.18		
Ap	0.2 - 4.0	Ap	0.2 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

RADIUS 0.8

CNMG 120408 PF UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.4 - 1.0	Ap	0.4 - 1.0	Ap	0.4 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 MF UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	120 - 160		
Fz	0.08 - 0.18	Fz	0.08 - 0.18		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 PM UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.18 - 0.30	Fz	0.18 - 0.30	Fz	0.18 - 0.30
Ap	0.4 - 5.0	Ap	0.4 - 5.0	Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 PM UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 300			Vc	150 - 290
Fz	0.18 - 0.30			Fz	0.18 - 0.30
Ap	0.4 - 5.0			Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	160 - 270
Fz	0.18 - 0.30	Fz	0.18 - 0.30	Fz	0.16 -0 .30
Ap	0.4 - 5.0	Ap	0.4 - 5.0	Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 MM UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	120 - 160		
Fz	0.12 - 0.24	Fz	0.12 - 0.24		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 PR UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.34 - 0.50	Fz	0.34 - 0.50	Fz	0.34 - 0.50
Ap	0.7 - 7.0	Ap	0.7 - 7.0	Ap	0.7 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 PR UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.34 - 0.50			Fz	0.34 - 0.50
Ap	0.7 - 7.0			Ap	0.7 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.24 - 0.45	Fz	0.24 - 0.45	Fz	0.24 - 0.45
Ap	0.5 - 7.0	Ap	0.5 - 7.0	Ap	0.5 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120408 UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.24 - 0.45			Fz	0.24 - 0.45
Ap	0.5 - 7.0			Ap	0.5 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

RADIUS 1.2

CNMG 120412 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.14 - 0.30	Fz	0.14 - 0.30	Fz	0.14 - 0.30
Ap	0.7 - 5.0	Ap	0.7 - 5.0	Ap	0.7 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120412 PM UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 300			Vc	150 - 290
Fz	0.14 - 0.30			Fz	0.14 - 0.30
Ap	0.7 - 5.0			Ap	0.7 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120412 PR UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.34 - 0.50	Fz	0.34 - 0.50	Fz	0.34 - 0.50
Ap	0.1 - 7.0	Ap	0.1 - 7.0	Ap	0.1 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120412 PR UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.34 - 0.50			Fz	0.34 - 0.50
Ap	0.1 - 7.0			Ap	0.1 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120412 STD UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.24 - 0.45	Fz	0.24 - 0.45	Fz	0.24 - 0.45
Ap	0.8 - 7.0	Ap	0.8 - 7.0	Ap	0.8 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

CNMG 120412 UN6010

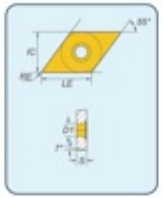
STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.24 - 0.45			Fz	0.24 - 0.45
Ap	0.8 - 7.0			Ap	0.8 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

DCMT

FAMILY

			IC	LE	RE	S
5100000122	DCMT 070204 PF	UN110	6.35	7.75	0.40	2.38
5100000126	DCMT 11T304 PF	UN110	9.53	11.60	0.40	3.97
5100000128	DCMT 11T304 PF	UN6025	9.53	11.60	0.40	3.97
5100000130	DCMT 11T308 PM	UN110	9.53	11.60	0.80	3.97
5100000132	DCMT 11T308 PM	UN6025	9.53	11.60	0.80	3.97



PRODUCT - LINE UP

Chip Breakers

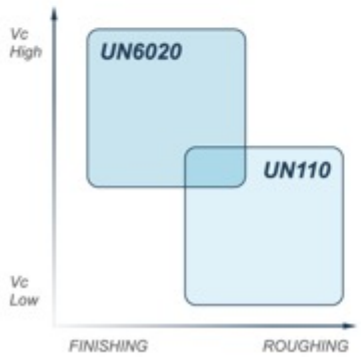
PF
- Sharp Chip-breaker
- for Finishing and sticky material

• **Starting Feed (Fz) : 0.12** (mm/Rev) P M K

PM
- Semi Finishing chip Breaker for General Machining
- First Choice for ALL conditions

• **Starting Feed (Fz) : 0.18** (mm/Rev) P M K

GRADES



UN6020
- Cobalt Enriched & Alpha Alumina CVD
- General Purpose internal and external TURNING Applications
- where a good balance of wear resistance and toughness is required

UN110
- Sub Micron Substrate & thick Hyper Pulsed PVD coating
- Suitable for Low to Mid Cutting Speeds in INTERNAL TURNING
- An excellent option for tough, aggresive and non stable condition

Cutting Conditions

DCMT 070204 PF UN110

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	80 - 180	Vc	120 - 170	Vc	100 - 180
Fz	0.08 - 0.15	Fz	0.08 - 0.15	Fz	0.06 - 0.17
Ap	0.3 - 1.0	Ap	0.3 - 1.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

DCMT11T304 PF UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	140 - 170	Vc	100 - 180
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.02
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

DCMT11T304 PF UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 170	Vc	120 - 230
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.02
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

DCMT 11T308 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	120 - 170	Vc	100 - 180
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.02
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

DCMT 11T308 PM UN6025

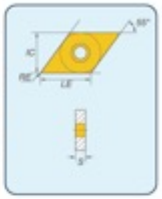
STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 170	Vc	120 - 230
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.02
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

DNMG

FAMILY

			IC	LE	RE	S
5100000038	DNMG 150608 PF	UN6025	12.70	15.50	0.80	6.35
5100000026	DNMG 150608 MF	UN210	12.70	15.50	0.80	6.35
5100000040	DNMG 150608 PM	UN6025	12.70	15.50	0.80	6.35
5100000124	DNMG 150608 MM	UN210	12.70	15.50	0.80	6.35
5100000002	DNMG 150608	UN6010	12.70	15.50	0.80	6.35
5100000222	DNMG 150612 PM	UN6025	12.70	15.50	1.20	6.35
5100000244	DNMG 150612	UN6025	12.70	15.50	1.20	6.35



PRODUCT - LINE UP

Chip Breakers

PF
- Sharp Chip-breaker
- for Finishing and sticky material

• **Starting Feed (Fz) : 0.12** (mm/Rev) — P M K

PM
- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions

• **Starting Feed (Fz) : 0.18** (mm/Rev) — P M K

(STD)
- Mid. conditions Chip-breaker
- for General-tough or unstable machining conditions

• **Starting Feed (Fz) : 0.25** (mm/Rev) — P K

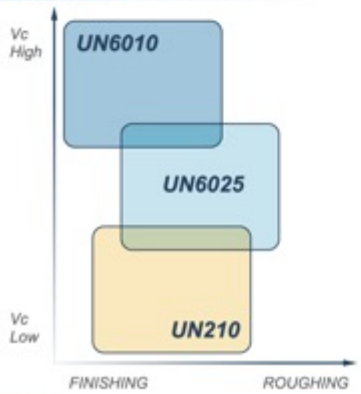
MF
- Unique and very Sharp Chip-breaker
- for Finishing of Stainless steel and Aerospace material

• **Starting Feed (Fz) : 0.11** (mm/Rev) — M S

MM
- Unique and Mid. conditions Chip-breaker
- First Choice for Stainless steel and Aerospace material

• **Starting Feed (Fz) : 0.15** (mm/Rev) — M S

GRADES



UN6010
- Hard P10 substrate with Thick Alumina (Alpha) CVD coating
- For high speed CAST IRON TURNING Applications
- where the focus is on very high abrasive wear resistance and high speed machining.
- First Choice for cast iron application

UN6025
- Cobalt Enriched & Alpha Alumina CVD
- General Purpose internal and external TURNING Applications
- where a good balance of wear resistance and toughness is required

UN210
- Sub Micron Substrate & unique and Patented Hyper Pulsed PVD Coating
- Suitable for all STAINLESS STEEL applications
- Especially developed to delay Notch wear damage

SWISS BLUE

Cutting Conditions

DNMG 150608 PF UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

DNMG 150608 MF UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	140 - 160		
Fz	0.06 - 0.18	Fz	0.07 - 0.18		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY — ISO Standard

DNMG 150608 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.14 - 0.42	Fz	0.16 - 0.42	Fz	0.14 - 0.42
Ap	0.5 - 4.0	Ap	0.5 - 4.0	Ap	0.5 - 4.0

TOOL HOLDER COMPATABILITY — ISO Standard

DNMG 150608 MM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	140 - 160		
Fz	0.14 - 0.22	Fz	0.15 - 0.22		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY — ISO Standard

DNMG 150608 UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240			Vc	120 - 250
Fz	0.18 - 0.42			Fz	0.16 - 0.42
Ap	0.5 - 4.0			Ap	0.5 - 4.0

TOOL HOLDER COMPATABILITY — ISO Standard

DNMG 150612 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.18 - 0.50	Fz	0.20 - 0.50	Fz	0.18 - 0.50
Ap	0.6 - 5.0	Ap	0.6 - 5.0	Ap	0.6 - 5.0

TOOL HOLDER COMPATABILITY — ISO Standard

DNMG 150612 UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.18 - 0.50	Fz	0.20 - 0.50	Fz	0.18 - 0.50
Ap	0.6 - 5.0	Ap	0.6 - 5.0	Ap	0.6 - 5.0

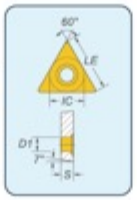
TOOL HOLDER COMPATABILITY — ISO Standard

SWISS BLUE

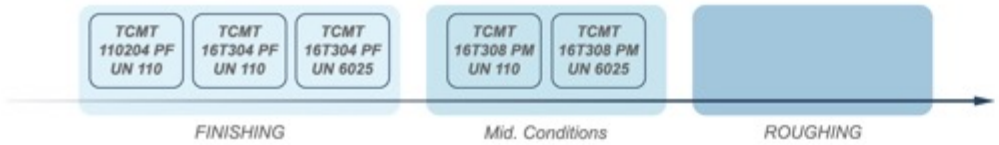
TCMT

FAMILY

			IC	LE	RE	S
5100000138	TCMT 110204 PF	UN110	6.35	11.00	0.40	2.41
5100000142	TCMT 16T304 PF	UN110	9.53	16.50	0.40	4.02
5100000144	TCMT 16T304 PF	UN6025	9.53	16.50	0.40	4.02
5100000146	TCMT 16T308 PM	UN110	9.53	16.50	0.80	4.02
5100000148	TCMT 16T308 PM	UN6025	9.53	16.50	0.80	4.02



PRODUCT - LINE UP



Chip Breakers

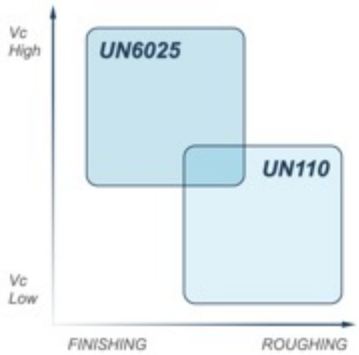
PF
- Sharp Chip-breaker
- for Finishing and sticky material

• **Starting Feed (Fz) : 0.12** (mm/Rev) P M K

PM
- Semi Finishing chip Breaker for General Machining
- First Choice for ALL conditions

• **Starting Feed (Fz) : 0.18** (mm/Rev) P M K

GRADES



UN6025
- Cobalt Enriched & Alpha Alumina CVD
- General Purpose internal and external TURNING Applications
- where a good balance of wear resistance and toughness is required

UN110
- Sub Micron Substrate & thick Hyper Pulsed PVD coating
- Suitable for Low to Mid Cutting Speeds in INTERNAL TURNING
- An excellent option for tough, aggresive and non stable condition

Cutting Conditions

TCMT 110204 PF UN110

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.10 - 0.15	Fz	0.12 - 0.15	Fz	0.08 - 0.17
Ap	0.3 - 1.0	Ap	0.3 - 1.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

TCMT 16T304 PF UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.02
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

TCMT 16T304 PF UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 170	Vc	120 - 230
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.02
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

TCMT 16T308 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.12 - 0.24	Fz	0.14 - 0.24	Fz	0.12 - 0.35
Ap	0.5 - 4.0	Ap	0.5 - 5.0	Ap	0.5 - 5.0

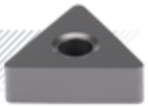
TOOL HOLDER COMPATABILITY — ISO Standard

TCMT 16T308 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 170	Vc	120 - 230
Fz	0.12 - 0.24	Fz	0.14 - 0.24	Fz	0.12 - 0.35
Ap	0.5 - 4.0	Ap	0.5 - 5.0	Ap	0.5 - 5.0

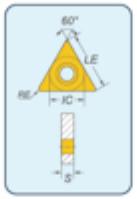
TOOL HOLDER COMPATABILITY — ISO Standard

TNMA

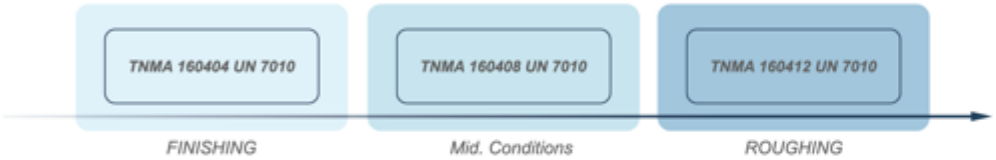


FAMILY

			IC	LE	RE	S
5100000196	TNMA 160404	UN7010	9.53	16.50	0.40	4.76
5100000098	TNMA 160408	UN7010	9.53	16.50	0.80	4.76
5100000100	TNMA 160412	UN7010	9.53	16.50	1.20	4.76



PRODUCT - LINE UP



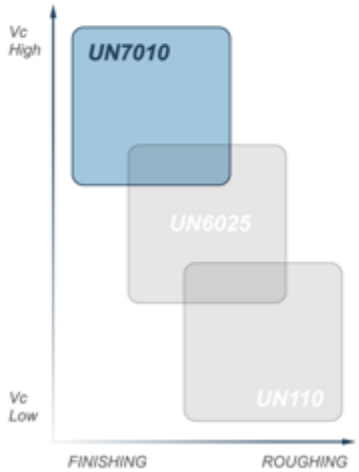
Chip Breakers

A

- *Flat top chip breaker*
- *For all cast iron application*

- ***Starting Feed (Fz) : 0.15** (mm/Rev)* K

GRADES



UN7010

- *Hard K10 substrate with Thick Alumina (Alpha) CVD coating*
- *For high speed CAST IRON TURNING Applications*
- *Where the focus is on very high abrasive wear resistance and high speed machining.*
- *First Choice for cast iron application*

Cutting Conditions

TNMA 160404 UN 7010

(P) STEEL	(M) STAINLESS STEEL	(K) CAST IRON
		Vc 150 - 230 Fz 0.15 - 0.60 Ap 0.2 - 7.0
TOOL HOLDER COMPATABILITY	ISO Standard	

TNMA 160408 UN7010

STEEL	STAINLESS STEEL	CAST IRON
		Vc 150 - 230 Fz 0.15 - 0.60 Ap 0.4 - 7.0
TOOL HOLDER COMPATABILITY	ISO Standard	

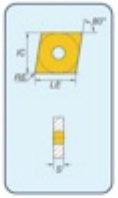
TNMA 160412 UN7010

STEEL	STAINLESS STEEL	CAST IRON
		Vc 150 - 230 Fz 0.15 - 0.60 Ap 0.6 - 7.0
TOOL HOLDER COMPATABILITY	ISO Standard	

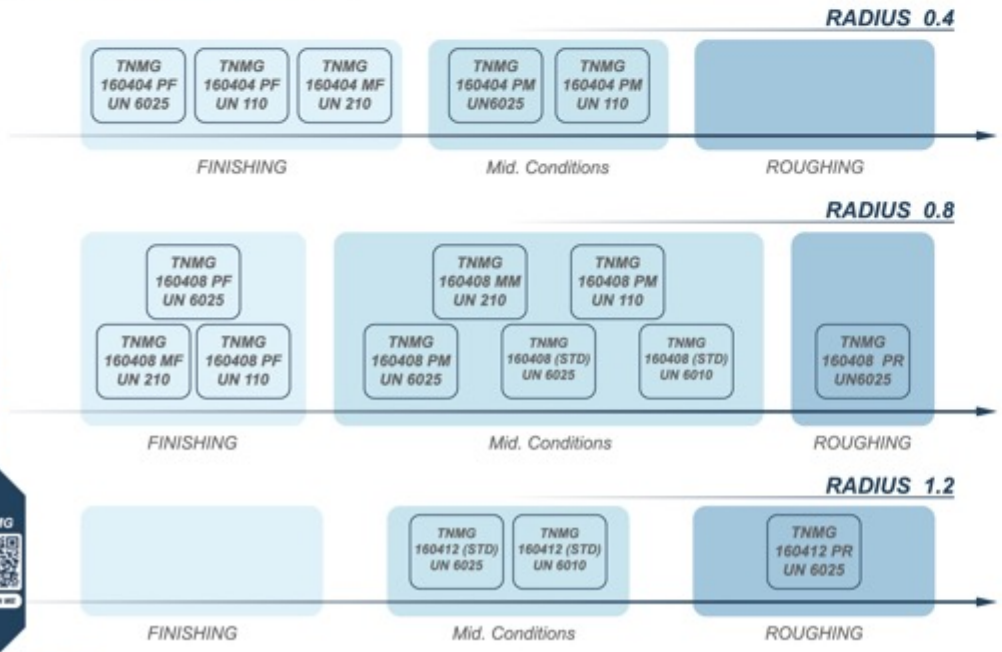
TNMG

FAMILY

			IC	LE	RE	S
5100000182	TNMG 160404 PF	UN110	9.52	16.50	0.40	4.76
5100000206	TNMG 160404 MF	UN210	9.52	16.50	0.40	4.76
5100000042	TNMG 160404 PF	UN6025	9.52	16.50	0.40	4.76
5100000200	TNMG 160404 PM	UN110	9.52	16.50	0.40	4.76
5100000064	TNMG 160404 PM	UN6025	9.52	16.50	0.40	4.76
5100000184	TNMG 160408 PF	UN110	9.52	16.50	0.80	4.76
5100000060	TNMG 160408 MF	UN210	9.52	16.50	0.80	4.76
5100000044	TNMG 160408 PF	UN6025	9.52	16.50	0.80	4.76
5100000202	TNMG 160408 PM	UN110	9.52	16.50	0.80	4.76
5100000050	TNMG 160408 MM	UN210	9.52	16.50	0.80	4.76
5100000046	TNMG 160408 PM	UN6025	9.52	16.50	0.80	4.76
5100000174	TNMG 160408	UN6010	9.52	16.50	0.80	4.76
5100000164	TNMG 160408	UN6025	9.52	16.50	0.80	4.76
5100000212	TNMG 160408 PR	UN6025	9.52	16.50	0.80	4.76
5100000166	TNMG 160412	UN6025	9.52	16.50	1.20	4.76
5100000176	TNMG 160412	UN6010	9.52	16.50	1.20	4.76
5100000048	TNMG 160412 PR	UN6025	9.52	16.50	1.20	4.76



PRODUCT - LINE UP



Chip Breakers

PF
- Sharp Chip-breaker
- for Finishing and sticky material

Starting Feed (Fz) : 0.12 (mm/Rev) — P M K

PM
- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions

Starting Feed (Fz) : 0.18 (mm/Rev) — P M K

(STD)
- Mid. conditions Chip-breaker
- for General-tough or unstable machining conditions

Starting Feed (Fz) : 0.25 (mm/Rev) — P K

PR
- Tough Chip-breaker
- for tough, Interrupted or very unstable conditions

Starting Feed (Fz) : 0.35 (mm/Rev) — P K

MF
- Unique and very Sharp Chip-breaker
- for Finishing of Stainless steel and Aerospace material

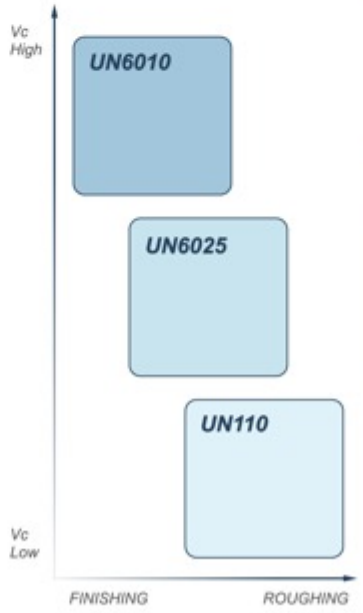
Starting Feed (Fz) : 0.11 (mm/Rev) — M S

MM
- Unique and Mid. conditions Chip-breaker

First Choice for Stainless steel and Aerospace material

Starting Feed (Fz) : 0.15 (mm/Rev) — M S

GRADES



UN6010
- Hard P10 substrate with Thick Alumina (Alpha) CVD coating
- For high speed TURNING and Cast Iron Applications
- where a focus id on wear resistance and and high speed machining
- First Choice for Turning in stable condition

UN6025
- Cobalt Enriched & Alpha Alumina CVD
- General Purpose TURNING Applications
- where a good balance of wear resistance and toughness is required
- First Choice for Turning in all condition

UN110
- Sub Micron Substrate & Extrimly thick Hyper Pulsed PVD coating
- Suitable for Low to Mid Cutting Speeds in TURNING Application
- An excellent option for Turning at low speeds and non stable condition

RADIUS 0.4

TNMG 160404 PF UN110

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160404 MF UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	80 - 160		
Fz	0.06 - 0.18	Fz	0.07 - 0.18		
Ap	0.2 - 4.0	Ap	0.2 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160404 PF UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 170	Vc	120 - 250
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 -0 .40
Ap	0.3 - 2.0	Ap	0.3 - 1.0	Ap	0.3 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160404 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.14 - 0.42	Fz	0.14 - 0.42	Fz	0.14 - 0.42
Ap	0.4 - 5.0	Ap	0.4 - 5.0	Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160404 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.14 - 0.42	Fz	0.14 - 0.42	Fz	0.14 - 0.42
Ap	0.4 - 5.0	Ap	0.4 - 5.0	Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

RADIUS 0.8

TNMG 160408 PF UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.4 - 2.0	Ap	0.4 - 2.0	Ap	0.4 - 2.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 MF UN210

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	80 - 160	Vc	80 - 160		
Fz	0.06 - 0.18	Fz	0.07 - 0.18		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 PF UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 170	Vc	120 - 250
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.4 - 1.0	Ap	0.4 - 1.0	Ap	0.4 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	100 - 180
Fz	0.14 - 0.42	Fz	0.16 - 0.42	Fz	0.14 -0 .42
Ap	0.5 - 5.0	Ap	0.5 - 5.0	Ap	0.5 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 MM UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	140 - 160		
Fz	0.14 - 0.22	Fz	0.15 - 0.22		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.14 - 0.42	Fz	0.16 - 0.42	Fz	0.14 - 0.42
Ap	0.5 - 5.0	Ap	0.5 - 5.0	Ap	0.5 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.18 - 0.50	Fz	0.20 - 0.50	Fz	0.18 - 0.50
Ap	0.6 - 5.0	Ap	0.6 - 5.0	Ap	0.6 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 UN6010

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	120 - 210			Vc	120 - 230
Fz	0.18 - 0.50			Fz	0.18 - 0.50
Ap	0.6 - 5.0			Ap	0.6 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160408 PR UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.34 - 0.55	Fz	0.34 - 0.55	Fz	0.34 - 0.55
Ap	0.7 - 6.0	Ap	0.7 - 6.0	Ap	0.7 - 6.0

TOOL HOLDER COMPATABILITY ISO Standard

RADIUS 1.2

TNMG 160412 UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.18 - 0.50	Fz	0.20 - 0.50	Fz	0.18 - 0.50
Ap	0.8 - 5.0	Ap	0.8 - 5.0	Ap	0.8 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160412 UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 240
Fz	0.18 - 0.50			Fz	0.18 - 0.50
Ap	0.8 - 5.0			Ap	0.8 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

TNMG 160412 PR UN6025

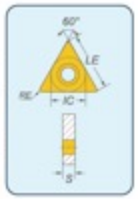
STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 240	Vc	120 - 240	Vc	120 - 250
Fz	0.34 - 0.55	Fz	0.34 - 0.55	Fz	0.34 - 0.55
Ap	0.7 - 6.0	Ap	0.7 - 6.0	Ap	0.7 - 6.0

TOOL HOLDER COMPATABILITY ISO Standard

TNUX

FAMILY

			IC	LE	RE	S
5100000052	TNUX 160404 R	UN110	9.52	16.50	0.40	4.76
5100000054	TNUX 160408 R	UN110	9.52	16.50	0.80	4.76
5100000244	TNUX 160404 L	UN110	9.52	16.50	0.40	4.76
5100000246	TNUX 160408 L	UN110	9.52	16.50	0.80	4.76



PRODUCT - LINE UP

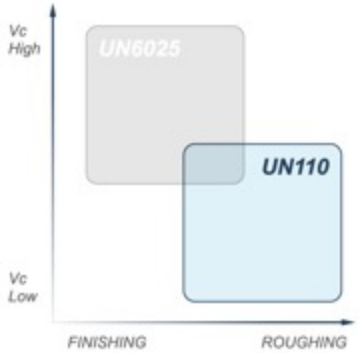
Chip Breakers

R / L
- Left or Right, very Sharp Chip-breakers
- for Finishing and sticky material
- Basic operation - same as KNUX

- **Starting Feed (Fz) : 0.12** (mm/Rev)

P M K

GRADES



UN110

- Sub Micron Substrate & thick Hyper Pulsed PVD coating
- Suitable for Low to Mid Cutting Speeds in EXTERNAL TURNING
- An excellent option for tough, aggresive and non stable condition .

Cutting Conditions

TNUX 160404 R UN110

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	80 - 180	Vc	100 - 180	Vc	80 - 180
Fz	0.10 - 0.20	Fz	0.10 - 0.20	Fz	0.10 - 0.20
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

TNUX 160408 R UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 180	Vc	80 - 180
Fz	0.14 - 0.24	Fz	0.14 - 0.24	Fz	0.14 - 0.24
Ap	0.4 - 2.0	Ap	0.4 - 2.0	Ap	0.4 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

TNUX 160404 L UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 180	Vc	80 - 180
Fz	0.10 - 0.20	Fz	0.10 - 0.20	Fz	0.10 - 0.20
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

TNUX 160408 L UN110

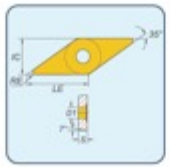
STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 180	Vc	80 - 180
Fz	0.14 - 0.24	Fz	0.14 - 0.24	Fz	0.14 - 0.24
Ap	0.4 - 2.0	Ap	0.4 - 2.0	Ap	0.4 - 2.0

TOOL HOLDER COMPATABILITY — ISO Standard

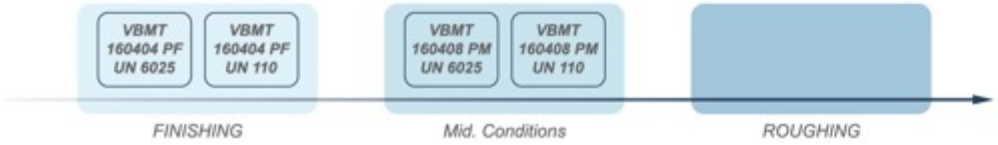
VBMT

FAMILY

			IC	LE	RE	S
5100000150	VBMT 160404 PF	UN110	9.52	16.60	0.40	4.76
5100000152	VBMT 160404 PF	UN6025	9.52	16.50	0.40	4.76
5100000154	VBMT 160408 PM	UN110	9.52	16.60	0.80	4.76
5100000156	VBMT 160408 PM	UN6025	9.52	16.50	0.80	4.76



PRODUCT - LINE UP



Chip Breakers

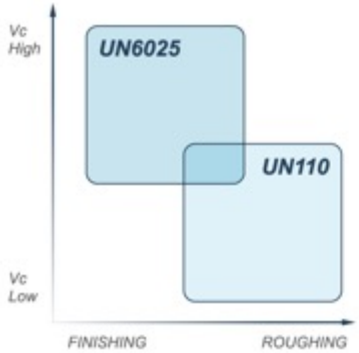
PF
- *Sharp Chip-breaker*
- *for Finishing and sticky material*

• ***Starting Feed (Fz) : 0.12*** *(mm/Rev)* P M K

PM
- *Semi Finishing chip Breaker for General Machining*
- *First Choice for ALL conditions*

• ***Starting Feed (Fz) : 0.18*** *(mm/Rev)* P M K

GRADES



UN6025
- *Cobalt Enriched & Alpha Alumina CVD*
- *General Purpose internal and external TURNING Applications*
- *where a good balance of wear resistance and toughness is required*

UN110
- *Sub Micron Substrate & thick Hyper Pulsed PVD coating*
- *Suitable for Low to Mid Cutting Speeds in EXTERNAL TURNING*
- *An excellent option for tough, aggresive and non stable condition .*

Cutting Conditions

VBMT 160404 PF UN110

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	80 - 180
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.20
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

VBMT 160408 PM UN110

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 180	Vc	100 - 170	Vc	80 - 180
Fz	0.16 - 0.32	Fz	0.18 - 0.32	Fz	0.14 - 0.48
Ap	0.5 - 2.0	Ap	0.5 - 3.0	Ap	0.5 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

VBMT 160404 PF UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 170	Vc	120 - 230
Fz	0.10 - 0.18	Fz	0.08 - 0.18	Fz	0.08 - 0.20
Ap	0.3 - 2.0	Ap	0.3 - 2.0	Ap	0.3 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

VBMT 160408 PM UN6025

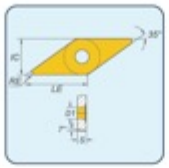
STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 210	Vc	120 - 270	Vc	120 - 230
Fz	0.16 - 0.32	Fz	0.18 - 0.32	Fz	0.14 - 0.48
Ap	0.5 - 2.0	Ap	0.5 - 3.0	Ap	0.5 - 3.0

TOOL HOLDER COMPATABILITY — ISO Standard

VNMG

FAMILY

			IC	LE	RE	S
5100000056	VNMG 160404 PF	UN6025	9.52	16.60	0.40	4.76
5100000058	VNMG 160408 PM	UN6025	9.52	16.50	0.80	4.76



PRODUCT - LINE UP

Chip Breakers

PF

- Sharp Chip-breaker
- for Finishing and sticky material

- **Starting Feed (Fz) : 0.12** (mm/Rev)

P M K

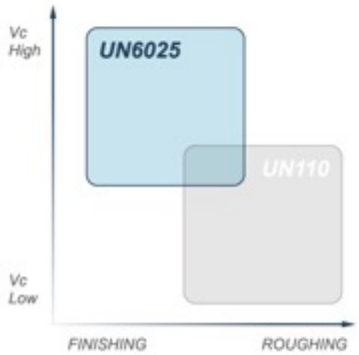
PM

- Semi Finishing chip Breaker for General Machining
- First Choice for ALL conditions

- **Starting Feed (Fz) : 0.18** (mm/Rev)

P K

GRADES



UN6025

- Cobalt Enriched & Alpha Alumina CVD
- General Purpose internal and external TURNING Applications
- where a good balance of wear resistance and toughness is required

Cutting Conditions

VNMG 160404 PF UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	140 - 250	Vc	140 - 230	Vc	140 - 250
Fz	0.08 - 0.30	Fz	0.08 - 0.30	Fz	0.08 - 0.30
Ap	0.3 - 1.0	Ap	0.3 - 1.0	Ap	0.3 - 1.0

TOOL HOLDER COMPATABILITY — ISO Standard

VNMG 160408 PM UN6025

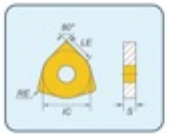
STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 250	Vc	140 - 230	Vc	140 - 250
Fz	0.08 - 0.30	Fz	0.08 - 0.30	Fz	0.08 - 0.30
Ap	0.4 - 1.0	Ap	0.4 - 1.0	Ap	0.4 - 1.0

TOOL HOLDER COMPATABILITY — ISO Standard

WNMA

FAMILY

			IC	LE	RE	S
5100000102	WNMA 080408	UN7010	12.70	8.70	0.80	4.76
5100000104	WNMA 080412	UN7010	12.70	8.70	1.20	4.76



PRODUCT - LINE UP

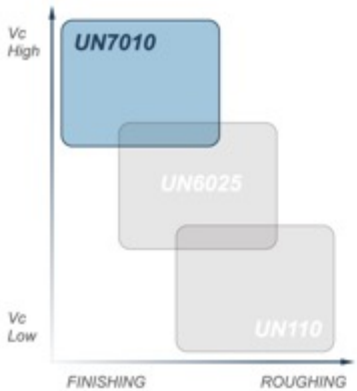
Chip Breakers

A

- *Flat top chip breaker*
- *For all cast iron application*

- ***Starting Feed (Fz) : 0.15** (mm/Rev)* K

GRADES



UN7010

- *Hard K10 substrate with Thick Alumina (Alpha) CVD coating*
- *For high speed CAST IRON TURNING Applications*
- *Where the focus is on very high abrasive wear resistance and high speed machining.*
- *First Choice for cast iron application*

Cutting Conditions

WNMA 080408 UN 7010

(P) STEEL	(M) STAINLESS STEEL	(K) CAST IRON
		Vc 140 - 300 Fz 0.15 - 0.60 Ap 0.2 - 8.0

TOOL HOLDER COMPATABILITY *ISO Standard*

WNMA 080412 UN 7010

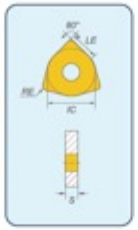
STEEL	STAINLESS STEEL	CAST IRON
		Vc 140 - 300 Fz 0.15 - 0.60 Ap 0.4 - 8.0

TOOL HOLDER COMPATABILITY *ISO Standard*

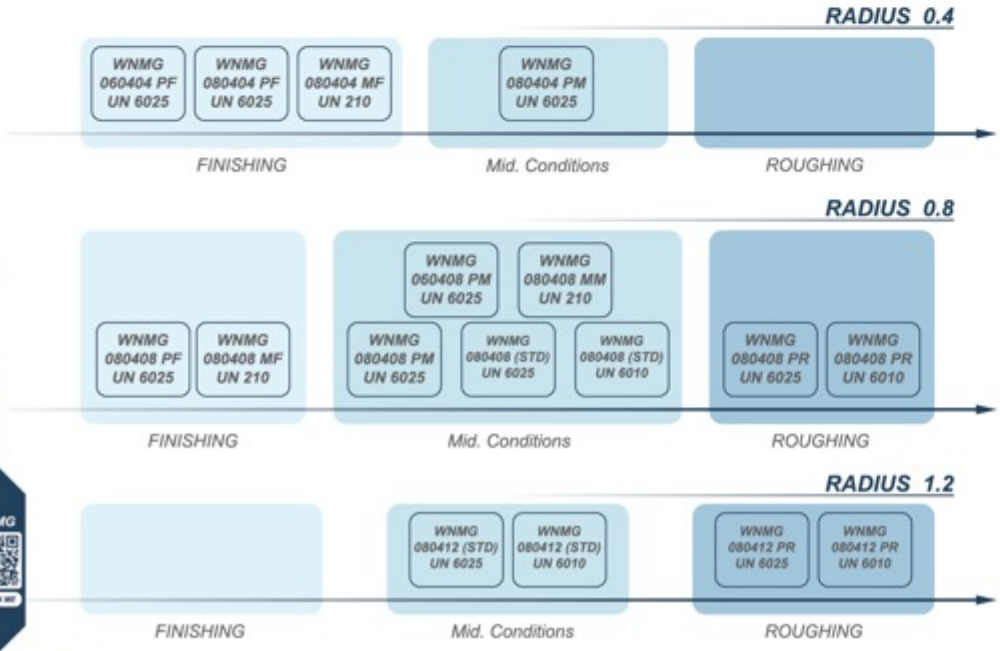
WNMG

FAMILY

			IC	LE	RE	S
5100000248	WNMG 060404 PF	UN6025	9.53	6.52	0.40	4.76
5100000250	WNMG 060408 PM	UN6025	9.53	6.52	0.80	4.76
5100000082	WNMG 080404 MF	UN210	12.70	8.70	0.40	4.76
5100000066	WNMG 080404 PF	UN6025	12.70	8.70	0.40	4.76
5100000214	WNMG 080404 PM	UN6025	12.70	8.70	0.40	4.76
5100000240	WNMG 080408 MF	UN210	12.70	8.70	0.80	4.76
5100000070	WNMG 080408 PF	UN6025	12.70	8.70	0.80	4.76
5100000074	WNMG 080408 PM	UN6025	12.70	8.70	0.80	4.76
5100000076	WNMG 080408 MM	UN210	12.70	8.70	0.80	4.76
5100000170	WNMG 080408	UN6025	12.70	8.70	0.80	4.76
5100000168	WNMG 080408	UN6010	12.70	8.70	0.80	4.76
5100000080	WNMG 080408 PR	UN6025	12.70	8.70	0.80	4.76
5100000078	WNMG 080408 PR	UN6010	12.70	8.70	0.80	4.76
5100000204	WNMG 080412	UN6025	12.70	8.70	1.20	4.76
5100000180	WNMG 080412	UN6010	12.70	8.70	1.20	4.76
5100000086	WNMG 080412 PR	UN6025	12.70	8.70	1.20	4.76
5100000084	WNMG 080412 PR	UN6010	12.70	8.70	1.20	4.76



PRODUCT - LINE UP



Chip Breakers

PF
- Sharp Chip-breaker
- for Finishing and sticky material

• Starting Feed (Fz) : 0.12 (mm/Rev) — P M K

PM
- Semi Finishing chip Breaker for General Machining
- First Choice for stable conditions

• Starting Feed (Fz) : 0.18 (mm/Rev) — P M K

(STD)
- Mid. conditions Chip-breaker
- for General-tough or unstable machining conditions

• Starting Feed (Fz) : 0.25 (mm/Rev) — P K

PR
- Tough Chip-breaker
- for tough, Interrupted or very unstable conditions

• Starting Feed (Fz) : 0.35 (mm/Rev) — P K

MF
- Unique and very Sharp Chip-breaker
- for Finishing of Stainless steel and Aerospace material

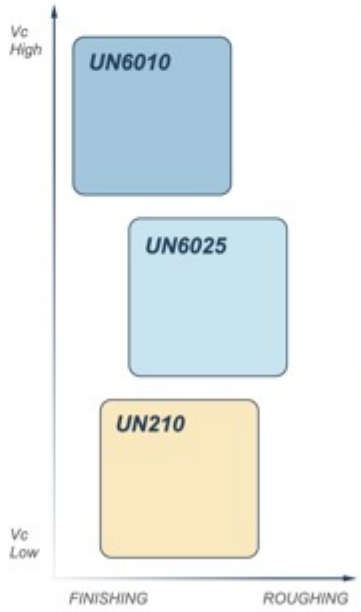
• Starting Feed (Fz) : 0.11 (mm/Rev) — M S

MM
- Unique and Mid. conditions Chip-breaker

First Choice for Stainless steel and Aerospace material

• Starting Feed (Fz) : 0.15 (mm/Rev) — M S

GRADES



UN6010
- Hard P10 substrate with Thick Alumina (Alpha) CVD coating
- For high speed TURNING and Cast Iron Applications
- where a focus id on wear resistance and and high speed machining
- First Choice for Turning in stable condition

UN6025
- Cobalt Enriched & Alpha Alumina CVD
- General Purpose TURNING Applications
- where a good balance of wear resistance and toughness is required
- First Choice for Turning in all condition

UN210
- Sub Micron Substrate & unique and Patented Hyper Pulsed PVD Coating
- Suitable for all STAINLESS STEEL applications
- Especially developed to delay Notch wear damage

RADIUS 0.4

WNMG 060404 PF UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.4 - 1.0	Ap	0.4 - 1.0	Ap	0.4 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080404 MF UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	80 - 160		
Fz	0.08 - 0.18	Fz	0.08 - 0.18		
Ap	0.2 - 4.0	Ap	0.2 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080404 PF UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 -0 .40
Ap	0.4 - 1.0	Ap	0.4 - 1.0	Ap	0.4 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080404 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 260	Vc	120 - 230	Vc	120 - 250
Fz	0.14 - 0.30	Fz	0.14 - 0.30	Fz	0.14 - 0.30
Ap	0.4 - 5.0	Ap	0.4 - 5.0	Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

RADIUS 0.8

WNMG 060408 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.14 - 0.30	Fz	0.14 - 0.30	Fz	0.14 - 0.30
Ap	0.4 - 5.0	Ap	0.4 - 5.0	Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 MF UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	80 - 160		
Fz	0.08 - 0.18	Fz	0.08 - 0.18		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 PF UN6025

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.10 - 0.40	Fz	0.10 - 0.40	Fz	0.10 - 0.40
Ap	0.4 - 1.0	Ap	0.4 - 1.0	Ap	0.4 - 1.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 PM UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	120 - 280	Vc	120 - 240	Vc	120 - 270
Fz	0.14 - 0.30	Fz	0.14 - 0.30	Fz	0.14 - 0.30
Ap	0.4 - 5.0	Ap	0.4 - 5.0	Ap	0.4 - 5.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 MM UN210

STEEL		STAINLESS STEEL		CAST IRON	
Vc	80 - 160	Vc	80 - 160		
Fz	0.12 - 0.24	Fz	0.12 - 0.24		
Ap	0.4 - 4.0	Ap	0.4 - 4.0		

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 PR UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.34 - 0.50	Fz	0.34 - 0.50	Fz	0.34 - 0.50
Ap	0.7 - 7.0	Ap	0.7 - 7.0	Ap	0.7 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 PR UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.34 - 0.50			Fz	0.34 - 0.50
Ap	0.7 - 7.0			Ap	0.7 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.24 - 0.45	Fz	0.24 - 0.45	Fz	0.24 - 0.45
Ap	0.5 - 7.0	Ap	0.5 - 7.0	Ap	0.5 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080408 UN6010

(P) STEEL		(M) STAINLESS STEEL		(K) CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.24 - 0.45			Fz	0.24 - 0.45
Ap	0.5 - 7.0			Ap	0.5 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

RADIUS 1.2

WNMG 080412 PR UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.34 - 0.50	Fz	0.34 - 0.50	Fz	0.34 - 0.50
Ap	0.1 - 7.0	Ap	0.1 - 7.0	Ap	0.1 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080412 PR UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.34 - 0.50			Fz	0.34 - 0.50
Ap	0.1 - 7.0			Ap	0.1 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080412 UN6025

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220	Vc	140 - 210	Vc	140 - 220
Fz	0.24 - 0.45	Fz	0.24 - 0.45	Fz	0.24 - 0.45
Ap	0.8 - 7.0	Ap	0.8 - 7.0	Ap	0.8 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

WNMG 080412 UN6010

STEEL		STAINLESS STEEL		CAST IRON	
Vc	140 - 220			Vc	140 - 220
Fz	0.24 - 0.45			Fz	0.24 - 0.45
Ap	0.8 - 7.0			Ap	0.8 - 7.0

TOOL HOLDER COMPATABILITY ISO Standard

TECHNICAL INFO

GRADES CONVERSION - CVD GRADES

		SWISS BLUE	Kennametal	Mitsubishi	TaeguTec	Sandvik	Tungaloy	ISCAR
P	Finish	UN 6010	KCP05 KC9105	UC5115	TT8115 TT1100	GC4010 GC4210	T9005	IC9150 IC8150
	Medium	UN 6025	KCP10 KC9110 TN7005 TN7010	UC5115 UE6020	TT8125 TT1300	GC4215 GC4325	T9005 T9015	IC9150 IC9015 IC8150
	Semi Rough	UN 6025	KCP25 KC9025 KC9125 TN7015	UE 6020	TT8135 TT1500	GC 4225	T9015 T9025	IC9025 IC9250 IC9054 IC8350
M	Finish	UN 6025	KCM15 TN7010	MC7015	TT2500	GC2015	T9015	IC9250
	Medium	UN 6025	KC9225 TN7015	MC7025	TT3500	GC2025	T6020 T9025	IC9250 IC9025 IC9054
K	Medium	UN 6025	KVK15 KCK20 KC9315 KC9110 TN5015	MC5005	TT1300	GC3205 GC3210 GC3215	T5010	IC9150
	Rough	UN 7010	KCK20 KC9320 TN5020	MC5015	TT1500	GC3215	T5020	IC9150 IC9015 IC418 IC428 IC4010

GRADES CONVERSION - PVD GRADES

		SWISS BLUE	Kennametal	Mitsubishi	TaeguTec	Sandvik	Tungaloy	ISCAR
P	Finish	UN 110	KC715M	VP10TF	TT9030	GC1015	AH 8015	IC907 IC428
	Medium	UN 330	KC715M	VP15TF	TT8020	GC1025 GC1130	AH 725	IC 908
	Semi Rough	UN 330	KC522M	VP30RT	TT8020 TT9030	GC1015 GC1025	GH330 AH330	IC 908
	Rough							
M	Finish	UN 210	KC715M	VP15TF	TT8020 TT9030	GC1025 GC1030	GH330	IC 907
	Medium	UN 330	KC522M	VP20RT	TT8030	GC1025 GC1030	AH120	IC 908
K	Medium	UN 110	KC510M	VP15TF		GC1010 GC1020	AH110	IC 907
	Rough	UN 330	KC520M	VP20RT	TT6030	GC1020	AH120	IC 908
S	Light	UN 110	KC510M	VP15TF	TT6030	GC1025	AH120	IC 907
	Medium	UN 330	KC522M	VP15TF		GC1025	AH 120	IC 908
	Heavy							

CHIP BREAKERS – CONVERSION

		SWISS BLUE	Kennametal	Seco Tools	Mitsubishi Carbide	Walter	TaeguTec	Sandvik	Tungaloy	Kyocera
P	Finish	PF	FF	FF1 FF2	PK FH FP FY	FP5	FA	QF PF	01 TF 11 ZF	DP GP PP XP XP-T XF
	Medium	PM	P MN	MF3 MF5 M3 M5	MP MA MH	MP5	PC MP MT SM	PM QM XM	NM ZM TM AM DM 33 37 38	PG CJ GS PS HS PT
	Semi Rough	(STD)	RN RP	MR6 MR7	RP GH Std.	RP5 RP7 NM6 NM9	RT	PR HM XMR	TH Std.	PH GT Std.
	Rough	PR	MR RM RH	R4 R5 R6 57 RR6 R7 R8 RR9	HR HZ HL HM HX HV	NR6 NRF NRR	RX RH HD HY HT HZ EH	QR PR HR MR	TRS TU TUS	PX
M	Finish	MF	FP LF	MF1	SH LM	NF4	SF	MF	SS	MQ GU
	Medium	MM	MP	MF4	MS GM MM MA ES	RM5 NM4	ML EM VF	MM QM XM K	SA SF SM S	MS MU SU HU TK ST
K	Medium	(STD)	RP UN	M5	MK GK Std.	RK5 NM5		KM	CM Std.	KG Std. C
	Rough	(A)Flat			RK	RK7		KR		KH GC
S	Light	PF	MS	MF4 MF5	LS MJ MJ	NF4 NFT	EA	SGF	HRF	
	Medium	PM	UP P NGP	M1	MS	NMS NMT		NGP SM	HRM SA HMM	MS MU TK
	Heavy	PR	RP	M5 MR3 MR4	RS GJ	NRS NRT	ET	SR SMR		

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