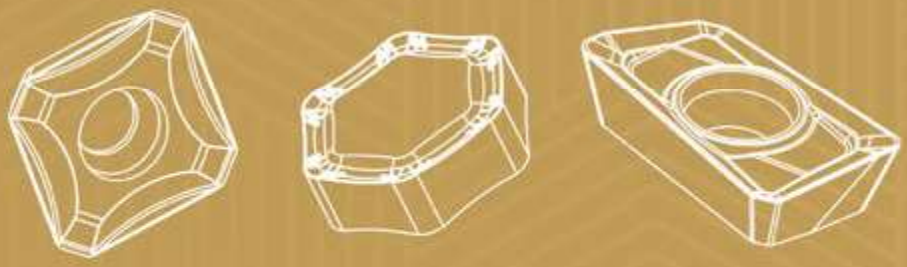


MILLING/**CARBIDE**

CARBIDE /MILLING

GRADES

ISO DIN 513	K					P					M					N				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD	CS8915		CS8925																	
CARBIDE PVD		PS8915				PS5915	PS5925	PS5960	PS5915S	PS5925S		PS7920	PS7925	PS7925S						
CARBIDE UNCOATED																	US2915			
CERMET UNCOATED																				

CVD MILLING GRADES

MATERIAL	GRADE	ISO	Color	Operation
K	CS8915	K05-K10	BLACK	MT-TiCN+TiC+Al2O3+TiN
				As adapting highly hard substrate with superior PVD coated which has excellent resistance for thermal & oxidation, Excellent performance in casting iron continuous machining
	CS8925	K20-K30	BLACK	MT-TiCN+TiC+Al2O3+TiN
				General cutting for gray cast iron and ductile cast iron

PVD MILLING GRADES

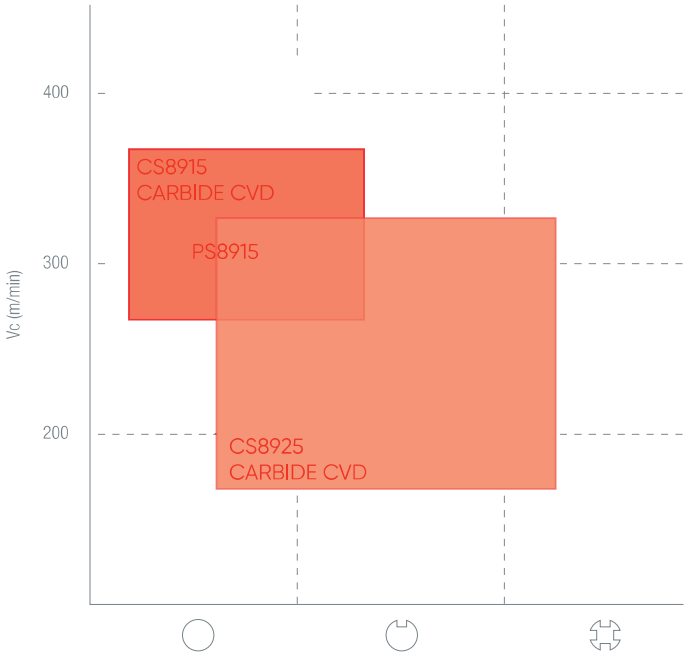
MATERIAL	GRADE	ISO	Color	Operation
P	PS5915	P05-P15	BLACK	MT-TiCN+TiC+Al2O3+TiN
				Milling grade for medium and roughing of steel New coating layer with superior wear resistance with high toughness substrate
	PS5915S	P05-P20	BLACK	MT-TiCN+TiC+Al2O3+TiN
				1. 2-4um TiALN PVD coating combined with ultra fine grain substrate with high toughness suitable for finishing to semi-finishing. 2. Basic material grade for milling steel parts and easy to cut/medium difficulty to process stainless steel 3. High therami shock resistance is suitable for light interrupted cut
	PS5925	P10-P20	BLACK	MT-TiCN+TiC+Al2O3+TiN
				Universal grade for interrupted machining of steel, cast-iron, hard to cut materials and stainless steel with stable machinability
	PS5925S	P10-P20	BLACK	MT-TiCN+TiC+Al2O3+TiN
				1. 2-4um AlCIN + AlCrSaN PVD coating combined with ultra fine grain substrates with high-toughness suitable for martenstic stainless steel and austenitic stainless steel under dificult working conditions and high temperature. 2. Used as the preferred material grade for machining high temperature alloys under unstable working conditions.3. It is re-commended to process tempered steel and rickel-based material
	PS5960	P20-P40	YELLOW	MT-TiCN+Al2O3+TiN
				General machining of steel
M	PS7920	M10-M20	YELLOW	MT-TiCN+TiC+α-Al2O3
				2-4um AlGN + AlCrSiN PVD coating combined with ultra fine grain substrates with high-toughness suitable for martenstic stainless steel and austenitic stainless steel under dificult working conditions and high temperature. 2. Used as the preferred material grade for machining high temperature alloys under unstable working conditions.3. It is re-commended to process tempered steel and nickel-based material
	PS7925	M10-M20	YELLOW	MT-TiCN+TiC+α-Al2O3
				Medium to roughing of hard to cut materials and stainless steel 2-4 micron Nano AlCrN AlCrSiN coating
	PS7925	M20-M30	BRONZ	MT-TiCN+TiC+α-Al2O3
				PVD coating combined with high-resistant substrates, suitable for sta-inless steel & low carbon steel in roughing to semi-finishing
K	PS8915	K10-K30	BLACK	MT-TiCN+TiC+Al2O3+TiN
				Thigh wear resistant substrates perfect combine with MT-TiCN, thick Al203 coating. ideal for ductile cast iron & grey cast iron at high cutting speed.

UNCOATED MILLING GRADES

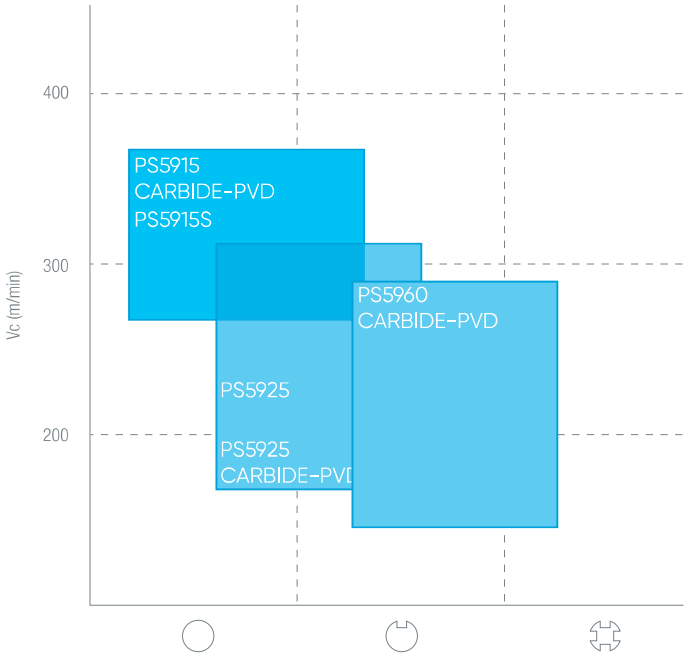
MATERIAL	GRADE	ISO	Color	Operation
N	US2915	K05-K25	SİLVER	Ultra fine substrate
				Increased wear & chipping resistance as using a ultra fine substrate, Excellent tool life with special surface treatment & and sharp cutting edge of ALU chip breaker

CARBIDE /MILLING

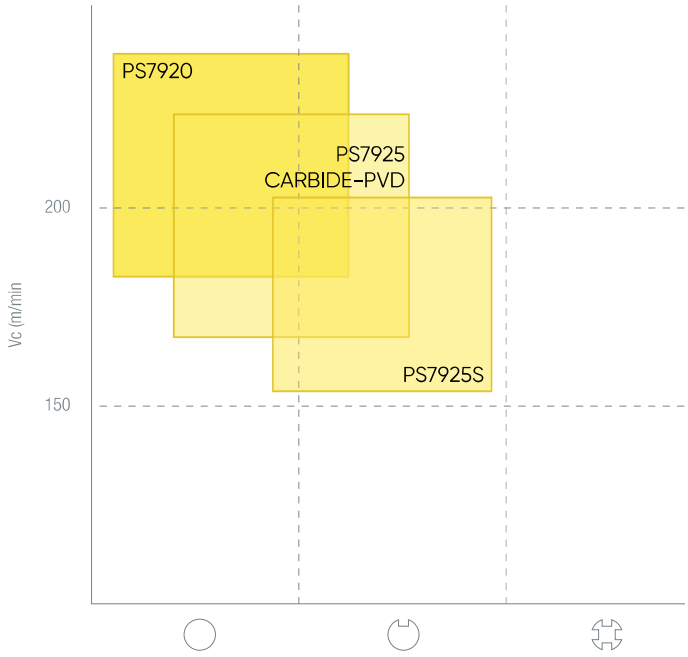
RANGE ISO K



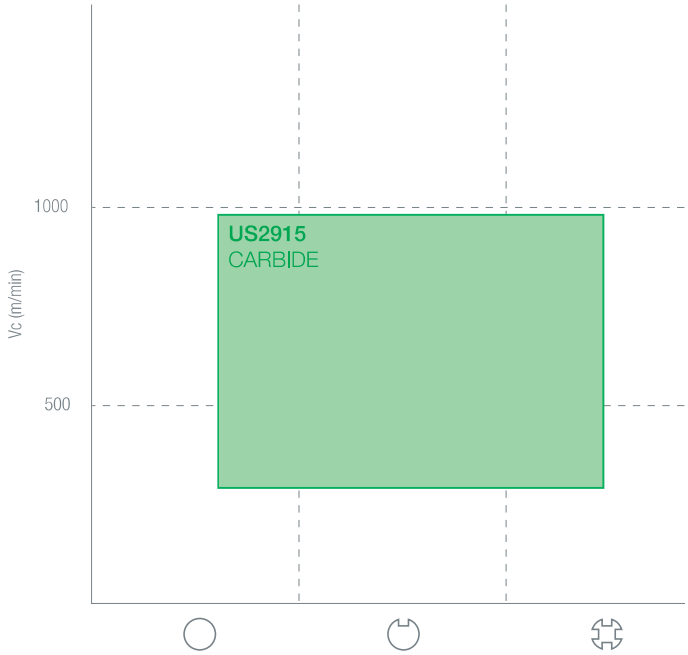
RANGE ISO P



RANGE ISO M

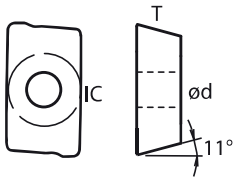


RANGE ISO N



CARBIDE /MILLING

AP□□

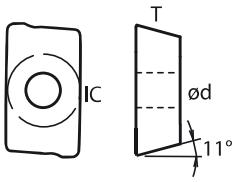


AP□□	1035□□	1135□□	1604□□
IC	6,35	6,35	9,525
T	3,50	3,50	4,76
Ød	2,80	2,80	4,50
Holder	324	324	324

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	APEX	1003PDER-ALU												●
	APKT	1135PDER-ALU												●
		1604PDER-ALU												●
		160420-ALU												●
		160424-ALU												●
	APMT	1003PDER-ALU												●
		1604PDER-ALU												●
	APMT	160412-RM	●											
		160430-RM	●											
	APMT	1035PDER-RM	●		●			●				●		
		1604PDER-RM	●		●						●	●		

Vc ● fn ● ap ▶ 314

AP□□



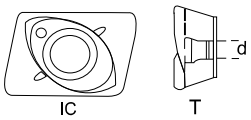
AP□□	1035□□	1135□□
IC	6,35	6,35
T	3,50	3,50
Ød	2,80	2,80
Holder	324	324

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	APMT	1135PDER-QH2			●		●							
	APMT	1135PDER-QM2			●		●							
	APMT	1035PDSR-RM			●						●			
	APMT	1135PDSR-QM			●		●							
	APMT	1135PDSR-QX			●									

Vc ● fn ● ap 314

CARBIDE /MILLING

AXMX



AX□□	0702□□
IC	4,3
T	2,45
Ød	2,00

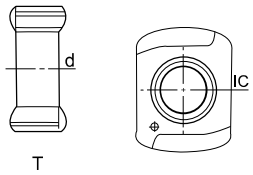
Holder ▶ 335

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	AXMX	070204R			●									
		070208R			●									
	AXMX	070204R-ALU												●

Vc ● fn ● ap ▶ 314

BLGX

HighFeed



BL□□	0603□□
IC	6,39
T	3,73
Ød	2,1

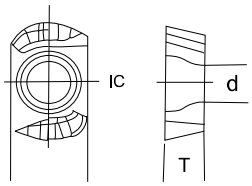
Holder ▶ 336

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	BLGX	0603R-M			●							●	●	
	BLGX	0603R-MM	●											

Vc ● fn ● ap ▶ 314

CARBIDE /MILLING

EPGX



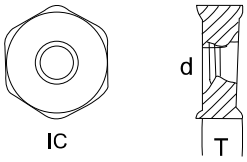
EP□□	0602□□
IC	4,19
T	2,19
Ød	2,1

Holder ▶ 338

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	EPGX	060210R-SM	●									●		

Vc ● fn ● ap ▶ 314

HNGX



HN□□	0906□□
IC	-
T	6,35
Ød	4,9

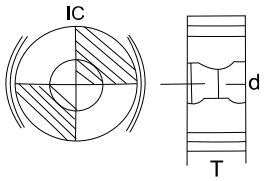
Holder ▶ 339

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	HNGX	0906ANSN-M										●		
	HNGX	0906ANSN-R			●							●		

Vc ● fn ● ap ▶ 314

CARBIDE /MILLING

LNGX

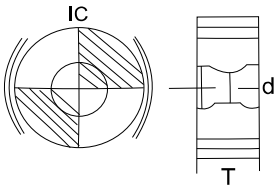


LN□□	1104□□	15T6□□
IC	6,39	6,39
T	3,73	3,73
Ød	3,0	3,0
Holder	344	347

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	LNGX	110408RSE	●									●		
		15T608RSE	●									●		

LNMX

HighFeed

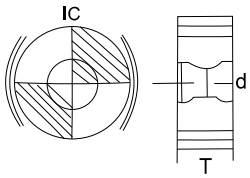


LN□□	0303□□
IC	6,39
T	3,73
Ød	4,0
Holder	340

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	LNMX	0303SER-M											●	
		0303SER-MJ	●									●		

Vc ● fn ● ap ▶ 314

LNKT

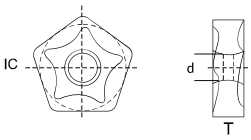


LN□□	1306□□
IC	6,39
T	3,73
Ød	4,0

Holder ▶ 346

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	LNKT	130608R-GM	●											

PNMU



PN□□	0905□□
IC	12,2
T	5,56
Ød	4,70

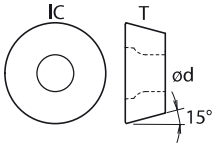
Holder ▶ 353

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	PNMU	0905XNER-MM	●									●		

Vc ● fn ● ap ▶ 314

CARBIDE /MILLING

RD□□

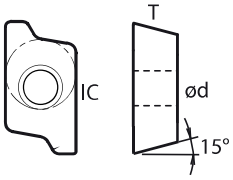


RD□□	0501□□	0802□□	1003□□	12T3□□	1604□□
IC	5,00	8,00	10,0	12,0	16,0
T	1,51	2,38	3,18	3,97	4,76
Ød	2,20	2,80	3,80	4,40	5,00
Holder	358	358	358	358	358

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	RDGT	1003MO-ALU												●
		1204MO-ALU												●
	RDHX	1003MO			●							●		
		12T3MO			●							●		
	RDMW	0501MO					●							
		08T2MO			●									
	RDMX	0802MO			●							●		
		1003MO			●							●		
		12T3MO			●							●		
		1604MO			●							●		

Vc ● fn ● ap ▶ 314

RT



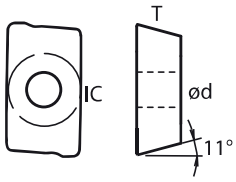
RD□□	0702□□	1003□□
IC	4,30	6,35
T	2,38	3,40
Ød	2,20	2,90
Holder	363	363

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	RT	070204-R-81	●				●							
		100308-R-81	●				●							

Vc ● fn ● ap 314

CARBIDE /MILLING

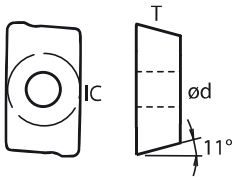
SD□□



SD□□	1204□□	0802□□	11T3□□
IC	12,7	12,7	12,7
T	4,76	4,76	4,76
Ød	4,40	4,40	4,40
Holder	-	-	-

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SDHT	1204AEFN-ALU												●

SD□□

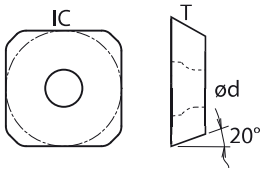


SD□□	0802□□	11T3□□
IC	12,7	12,7
T	4,76	4,76
Ød	4,40	4,40
Holder	370	370

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SDMT	0802-AX									●			
		11T3-AX									●			

Vc ● fn ● ap ▶ 314

SE□□



SE□□	12T3□□
IC	12,7
T	3,97
Ød	4,40

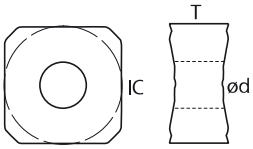
Holder ▶ 365

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SEET	12T3-FM	●		●							●		
	SEET	12T3-SM			●							●		
	SEHT	12T3-CM												●
	SEMT	13T308-SM			●									
	SEMT	140408M-PM			●	●						●		

Vc ● fn ● ap ▶ 314

CARBIDE /MILLING

SNMX



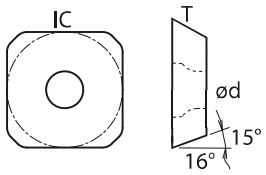
SN□□	1205□□
IC	12,7
T	5,75
Ød	6,00

Holder ▶ 366

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SNMX	1205ANN			●	●	●	●	●			●		
	SNMX	120512-QM		●						●				
	SNMX	1206ANEN-MM				●								
	SNMX	1907ANR-GR			●					●				
	SNMX	1206QNN-MM				●								

Vc ● fn ● ap ▶ 314

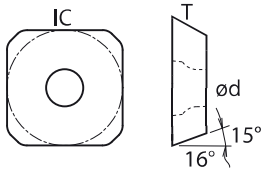
SO□□



SO□□	0803□□
IC	12,7
T	3,97
Ød	5,16
Holder	367

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SOMW	080315-FH			●									

SP□□



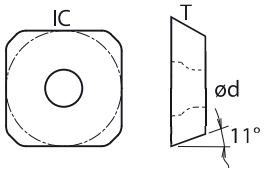
SP□□	1204□□
IC	12,7
T	4,18
Ød	5,16
Holder	367

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SPMW	120420-FH			●									

Vc ● fn ● ap 314

CARBIDE /MILLING

SPKN

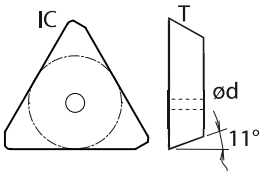


SP□□	1203□□	1504□□
IC	12,7	15,875
T	3,18	4,76
Ød	-	-
Holder	-	-

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	SPKN	1203EDR-SU			●									
		1203EDSR-SU			●			●				●		
		1504EDSR-SU			●							●		
	SPKN	1203EDFR						●	●					
		1203EDTR			●									
		1504EDTL												●
		1504EDTR												●
	SPKR	1203EDR-SU										●		

Vc ● fn ● ap 314

TPKN



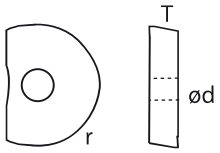
TP□□	1603□□	2204□□
IC	9,525	12,7
T	3,18	4,76
Ød	-	-
Holder	371	371

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	TPKN	1603PDSR-SU			•									
		2204PDSR-SU			•									
	TPKN	1603PDTR-SU			•							•		
		2204PDTR-SU			•							•		

Vc • fn • ap ▶ 314

CARBIDE /MILLING

TW

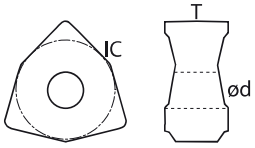


TW	08□□	10□□	12□□	16□□	20□□	25□□	30□□	32□□
IC	8,0	10,0	12,0	16,0	20,0	25,0	30,0	32,0
T	2,0	2,5	2,5	3,0	3,0	4,0	5,0	5,0
Ød	3,2	3,2	3,7	4,2	5,2	6,2	8,2	8,2
Holder	372	372	372	372	372	372	372	372

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	TW	08020	●									●		
		10025	●									●		
		12025	●									●		
		16030	●									●		
		20030	●									●		
		25040	●									●		
		30050	●									●		
		32050	●									●		

Vc ● fn ● ap ▶ 314

WNMU



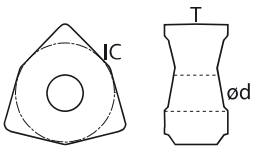
WN□□	0806□□
IC	12,7
T	6,40
Ød	4,40

Holder ▶ 373

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	WNMU	040304-GM	•		•									
	WNMU	080608EN-ALU												•
	WNMU	080608EN-GM			•			•			•	•	•	

WNMX

HighFeed



WN□□	0806□□
IC	9,52
T	3,97
Ød	3,6

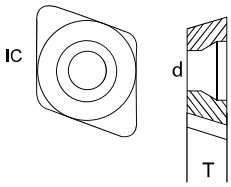
Holder ▶ 373

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	WNMX	09T316ZNN-SS									•			

Vc • fn • ap ▶ 314

CARBIDE /MILLING

XDHX

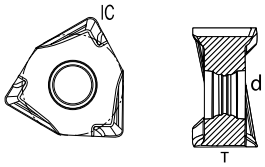


XD□□	0602□□	10T3□□
IC	6,5	10,0
T	2,38	3,97
Ød	2,98	3,95
Holder	376	376

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	XDHX	060210SS										•		
		10T310SS										•		

Vc • fn • ap 314

XNEX



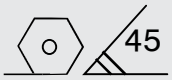
XN□□	0806□□
IC	12,48
T	6,45
Ød	2,80
Holder	-

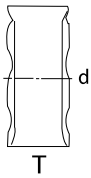
DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	XNEX	080612			•									

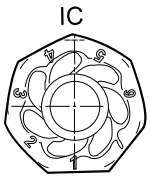
Vc • fn • ap ▶ 314

CARBIDE /MILLING

XNGU







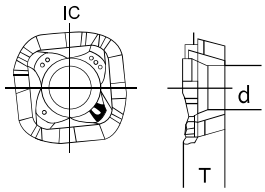
XN□□	0806□□
IC	12,48
T	6,45
Ød	2,80
Holder	-

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	XNGU	0906ANTR-GM			●			●				●		

Vc ● fn ● ap 314

XOMT

HighFeed



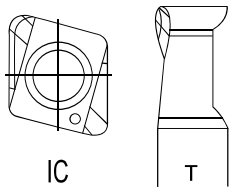
XO□□	1004□□	1405□□
IC	-	-
T	4,58	5,56
Ød	4,6	4,8
Holder	-	-

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	XOMT	100420R-GM	●									●		
	XOMT	140520R-GM	●											

Vc ● fn ● ap ▶ 314

CARBIDE /MILLING

YNGX



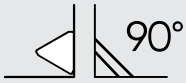
YN□□	0603□□
IC	6,60
T	4,67
Ød	3,25

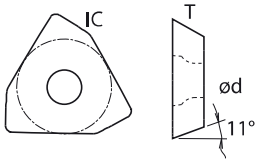
Holder ▶ 377

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	YNGX	060308R-SM	●	●	●					●		●	●	

Vc ● fn ● ap ▶ 314

3PGX





3P□□	1004□□	1505□□
IC	6,90	10,70
T	4,00	5,00
Ød	2,20	2,80
Holder	355	355

DESCRIPTION			CARBIDE											
			PS5915	PS5915S	PS5925	PS5925S	PS5960	CS8915	CS8925	PS8915	PS7920	PS7925	PS7925S	US2915
	3PGX	100404R-M			●							●		
		100408R-M			●							●		
		150508R-M			●							●		

Vc ● fn ● ap 314

CARBIDE /MILLING

CUTTING PARAMETERS Vc (m/min)

KG	GREY CAST IRON
KN	NODULAR CAST IRON
PL	LOW CARBON AND FREE CUTTING STEEL
PM	MEDIUM CARBON STEEL
PH	HIGH CARBON STEEL
PA	ALLOY STEEL

MM	MARTENSITIC AND FERRITIC STAINLESS STEEL
MA	AUSTENITIC STAINLESS STEEL
NA	ALUMINIUM ALLOYS
NH	ALUMINIUM ALLOYS AGED AND HARDENED
NB	BRASS
NC	BRONZE AND ELECTOLYTIC COPPER

MATERIAL		CARBIDE						CARBIDE				
		PS5915	PS5925	PS5960	CS8915	CS8925	PS7925	US2915				
K	KG				220~350	120~250						
	KN				180~280	100~200						
P	PL	200~280	220~300	240~320								
	PM	200~280	220~300	240~320								
	PH	180~260	200~280	220~300								
	PA	160~230	180~250	200~270								
M	MM						160~280					
	MA						140~260					
N	NA							400~1000				
	NH							300~800				
	NB							300~600				
	NC							200~500				

CUTTING PARAMETERS ap (mm) & fn (mm/rev)

AP□□		1035		1135		1204		1604		1705	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	RM	0,8~8,0	0,1~0,25								
P	ST/RM	0,8~8,0	0,08~0,2	1,0~9,0	0,1~0,2	1,0~11,0	0,1~0,25	1,0~14,0	0,1~0,25	1,0~15,0	0,1~0,25
P	QM/QX			0,7~3,0	0,5~1,2						
M	RM	0,8~8,0	0,05~0,15					1,0~14,0	0,1~0,2		
N	ALU	0,8~8,0	0,15~0,3	1,0~9,0	0,15~0,3			1,0~14,0	0,15~0,3		

AXMX		0702		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	R	0.40-2.00	0,10-0,45								
P	R	0.40-2.00	0,10-0,45								
M	R	0.40-2.00	0,10-0,25								
N	ALU	0.40-2.00	0,10-0,50								

BLGX		0603		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	M	0,7-9.00	0,30-0,50								
P	M	0,7-9.00	0,30-0,50								
M	M	0,7-1.50	0,50-0,80								
N											

EPGX		0602		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SM	0.15-0.55	0,20-0,60								
P	SM	0.15-0.55	0,20-0,60								
M	SM	0.15-0.55	0,20-0,60								
N											

HNGX		0906		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	R-M	0.8-4.5	0.06-0.20								
P	R-M	0.8-4.5	0.06-0.20								
M	R-M	0.8-4.5	0.06-0.20								
N											

CARBIDE /MILLING

CUTTING PARAMETERS ap (mm) & fn (mm/rev)

LNGX		1104		15T608		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	RSE	1.0-11.00	0,10-0,50	1.0-15.00	0,10-0,50						
P	RSE	1.0-11.00	0,10-0,50	1.0-15.00	0,10-0,50						
M	RSE	1.0-11.00	0,10-0,50	1.0-15.00	0,10-0,50						
N											

LNKT		1306		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	GM	3.0-12.0	0,10-0,35								
P	GM	3.0-12.0	0,10-0,35								
M	GM	3.0-12.0	0,10-0,35								
N											

LNMX		0303		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	M-MJ	0,7-9.00	0,30-0,50								
P	M-MJ	0,7-9.00	0,30-0,50								
M	M-MJ	0,7-9.00	0,30-0,50								
N											

PNMU		0905		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	MM	0.80-4.5	0.06-0.20								
P	MM	0.80-4.5	0.06-0.20								
M	MM	0.80-4.5	0.06-0.20								
N											

RD□□		0501		0802		1003		12T3		1604	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	-					0,5~4,0	0,08~0,4	0,5~5,0	0,08~0,6	0,6~7,0	0,1~0,6
P	-	0,25~2,5	0,1~0,25	0,4~3,5	0,07~0,35	0,5~4,0	0,08~0,3	0,5~5,0	0,08~0,4	0,6~7,0	0,1~0,5
M	-					0,5~4,0	0,08~0,25	0,5~5,0	0,08~0,25	0,6~7,0	0,1~0,4
N	-										

CUTTING PARAMETERS ap (mm) & fn (mm/rev)

RT		0702		1003		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K											
P	R-81	0,5~5,0	0,05~0,3	0,5~7,0	0,08~0,3						
M	R-81	0,5~5,0	0,05~0,25	0,5~7,0	0,05~0,25						
N											

SDHT		1204		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K											
P											
M											
N	ALU	0,1-2,0	0,10-0,35								

SDMT		0802		11T3		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	AX	0.05-0.30	0.05-0.30		0.5-1.4						
P	AX	0.05-0.30	0.05-0.30		0.5-1.4						
M	AX	0.05-0.30	0.05-0.30		0.5-1.4						
N											

SEMT		13T308		140408		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SM-PM	0.8-4.50	0,10-0,40	0.8-6.0	0,10-0,40						
P	SM-PM	0.8-4.50	0,10-0,40	0.8-6.0	0,10-0,40						
M	SM-PM	0.8-4.50	0,10-0,40	0.8-6.0	0,10-0,40						
N											

SE□□		12T3		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K											
P	FM/SM	1,0~10,0	0,1~0,3								
M	FM/SM	1,0~10,0	0,1~0,25								
N	CM	1,0~10,0	0,1~0,35								

CARBIDE /MILLING

CUTTING PARAMETERS ap (mm) & fn (mm/rev)

SNMX		1205		120512		1206		1907		1206QNN	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	QM-GM-GR	1.0-7.0	0.1-0.4	1.0-8.0	0.1-0.4	1.0-7.0	0.1-0.4	1.0-2.0	0.1-0.4	1.0-8.0	0.1-0.4
P	QM-GM-GR	1.0-7.0	0.1-0.35	1.0-8.0	0.1-0.35	1.0-7.0	0.1-0.35	1.0-7.0	0.1-0.35	1.0-8.0	0.1-0.35
M	QM-GM-GR	1.0-7.0	0.1-0.35	1.0-8.0	0.1-0.35	1.0-7.0	0.1-0.35	1.0-7.0	0.1-0.35	1.0-8.0	0.1-0.35
N											

SOMW		0803		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	FH	0,5~1,0	0,5~2,0								
P	FH	0,5~1,0	0,5~2,0								
M	FH	0,5~1,0	0,4~1,0								
N											

SPKN		1203		1504		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SU	0,8~8,0	0,05~0,3	1,0~10,0	0,05~0,3						
P	SU	0,8~8,0	0,05~0,2	1,0~10,0	0,05~0,2						
M	SU	0,8~8,0	0,05~0,2	1,0~10,0	0,05~0,2						
N											

SPKR		1203		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SU	0,8-8,0	0,05-0,20								
P	SU	0,8-8,0	0,05-0,20								
M	SU	0,8-8,0	0,05-0,20								
N											

SPMW		1204		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	FH	0,8~1,5	0,5~1,8								
P	FH	0,8~1,5	0,8~2,0								
M	FH	0,8~1,5	0,4~1,0								
N											

CUTTING PARAMETERS ap (mm) & fn (mm/rev)

TPKN		1603		2204		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SU	1,0~12,0	0,05~0,3	1,0~15,0	0,1~8,0						
P	SU	1,0~12,0	0,05~0,25	1,0~15,0	0,8~8,0						
M	SU	1,0~12,0	0,05~0,2	1,0~15,0	0,8~8,0						
N											

TW		08020		10025		12025		16030		20030	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K		0,2~0,4	0,1~0,3	0,2~0,7	0,1~0,3	0,5~0,84	0,1~0,3	0,5~1,12	0,1~0,3	0,8~1,4	0,1~0,3
P		0,25~0,5	0,1~0,25	0,3~0,7	0,1~0,25	0,36~0,84	0,1~0,25	0,48~1,12	0,1~0,25	0,6~1,4	0,1~0,25
M		0,2~0,4	0,1~0,2	0,2~0,5	0,1~0,2	0,3~0,6	0,1~0,2	0,4~0,8	0,1~0,2	0,5~1,0	0,1~0,2
N											

TW		25040		30050		32050		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K		0,8~1,75	0,1~0,3	0,7-2,00	0,1-0,30	0,7-2,20	0,1-0,30				
P		0,75~1,75	0,1~0,25	0,7-2,00	0,1-0,30	0,7-2,20	0,1-0,30				
M		0,7~1,25	0,1~0,2	0,7-2,00	0,1-0,30	0,7-2,20	0,1-0,30				
N											

WNMU		040304		080608		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	GM	0,5-4,00	0,05-0,15	1,0~8,0	0,1~0,30						
P	GM	0,5-4,00	0,05-0,15	1,0~8,0	0,1~0,25						
M	GM	0,5-4,00	0,05-0,15	1,0~8,0	0,1~0,20						
N	ALU			1,0-8,0	0,15-0,30						

WNMX		09T316		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SS	0.5-2.0	1.0-2.5								
P	SS	0.5-2.0	1.0-2.5								
M	SS	0.5-2.0	1.0-2.5								
N											

CARBIDE /MILLING

CUTTING PARAMETERS ap (mm) & fn (mm/rev)

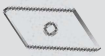
XDHX		60210		10T310		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SS	0.5-2.0	1.0-2.5	0,5-1,50	0,10-0,35						
P	SS	0.5-2.0	1.0-2.5	0,5-1,50	0,10-0,35						
M	SS	0.5-2.0	1.0-2.5	0,5-1,50	0,10-0,35						
N											

XNEX		80612		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K		0.8-4.5	0.06-0.20								
P		0.8-4.5	0.06-0.20								
M		0.8-4.5	0.06-0.20								
N											

XNGU		0906ANTR		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	GM	0.8-4.5	0.06-0.20								
P	GM	0.8-4.5	0.06-0.20								
M	GM	0.8-4.5	0.06-0.20								
N											

CUTTING PARAMETERS ap (mm) & fn (mm/rev)

XOMT		100420R		140520R		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	GM	0,8-1,5	0,4-2,00	0,8-2,0	0,4-2,00						
P	GM	0,8-1,5	0,4-2,00	0,8-2,0	0,4-2,00						
M	GM	0,8-1,5	0,4-2,00	0,8-2,0	0,4-2,00						
N											

YNGX		060308R		-		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	SM	0.8-4.50	0,10-0,40								
P	SM	0.8-4.50	0,10-0,40								
M	SM	0.8-4.50	0,10-0,40								
N											

3PGX		1004		1505		-		-		-	
Material	Chip Breaker	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	M	1,0~7,0	0,09~0,2	1,0~11,0	0,1~0,2						
P	M	1,0~7,0	0,07~0,15	1,0~11,0	0,12~0,25						
M	M	1,0~7,0	0,07~0,15	1,0~11,0	0,1~0,17						
N											

Sangeo
cutting tools