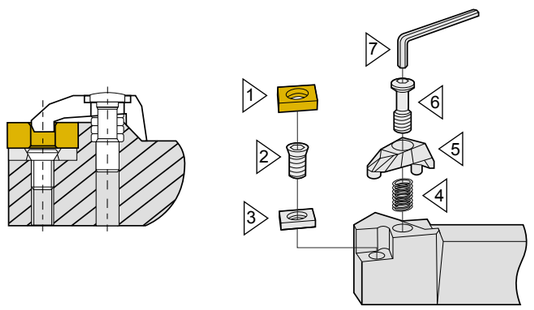
TURNING

TOOLHOLDER SPARE PART BREAK DOWN

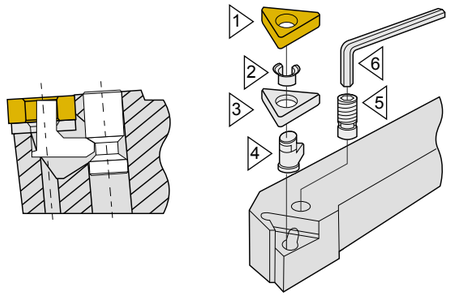
DOUBLE CLAMP TYPE



1	Insert
2	Shim screw
3	Shim
4	Spring
5	Clamp
6	Clamp screw
7	Key

For negative inserts. Highly secure clamping mechanism with excellent index repeatability

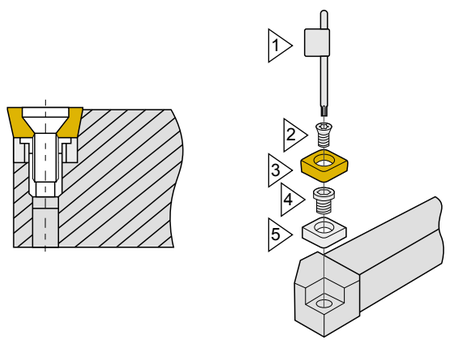
LEVER LOCK TYPE



1	Insert
2	Shim pin
3	Shim
4	Lever
5	Screw
6	Key

For negative inserts. Lever system allows for easy indexing and gives a more free chip flow.

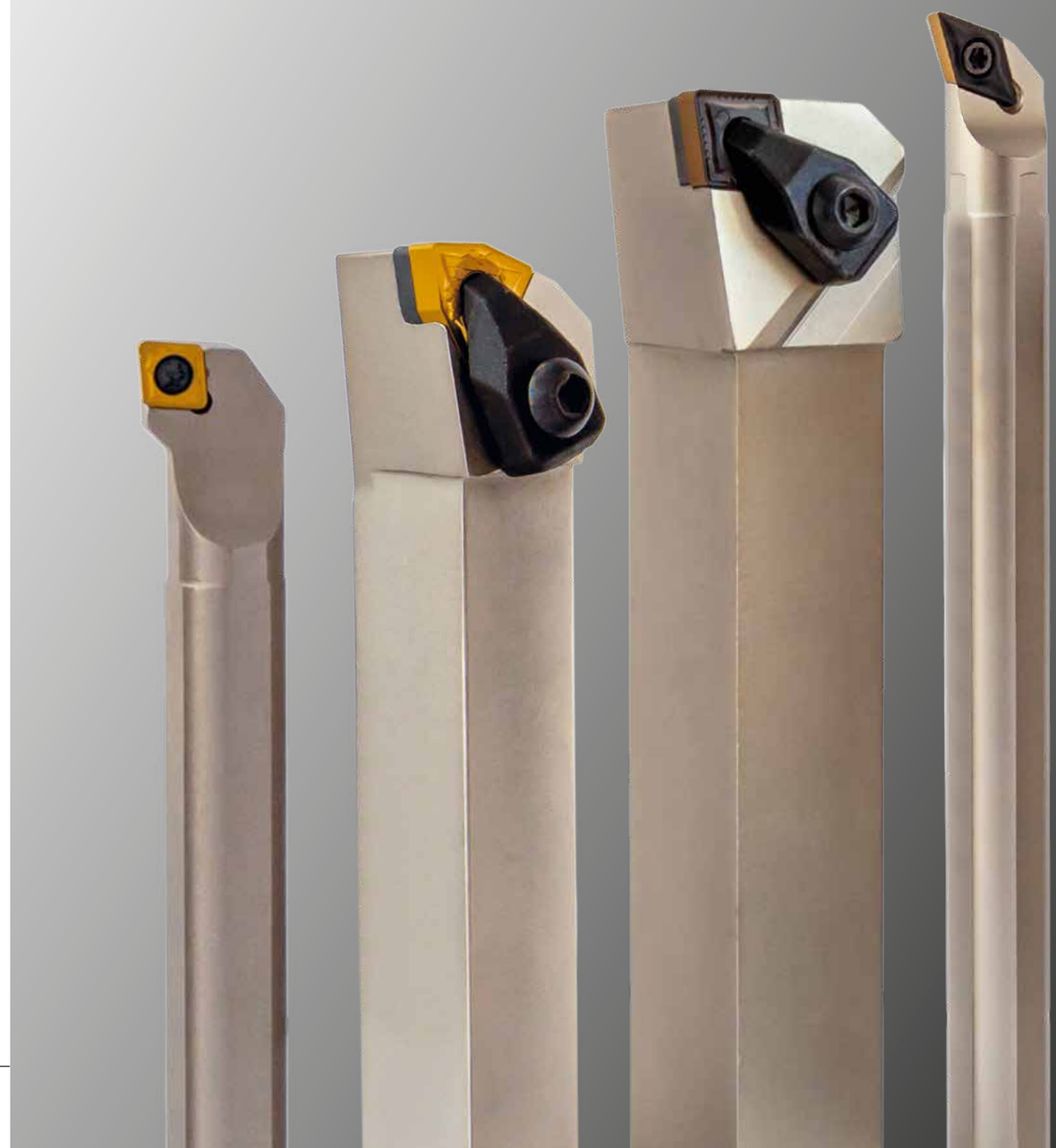
SCREW LOCK TYPE



1	Wrench
2	Insert screw
3	Insert
4	Shim screw
5	Shim

For positive inserts. Secure clamping with high index accuracy.

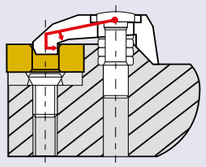
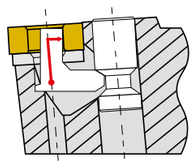
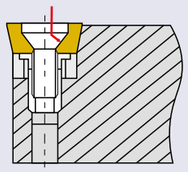
TOOLHOLDERS



EXTERNAL TURNING HOLDER CODE

1	2	3	4	5	6	7	8	9
D	**C**	**L**	**N**	**R**	**20**	**20**	**K**	**12**
Clamping System	Insert Shape	Tool Angle	Insert Clearance	Hand	Shank Height (H)	Shank Width (B)	Length (LF)	Insert Size

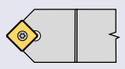
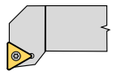
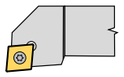
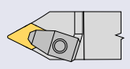
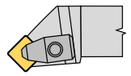
1. Clamping System

D	P	S
		
DOUBLE CLAMP TYPE	LEVER LOCK TYPE	SCREW LOCK TYPE

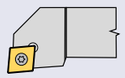
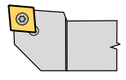
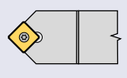
2, 4, 9. Insert Compatibility and Size

HOLDER **D C L N R 2020K 12** INSERT **C N M G 12 0408**

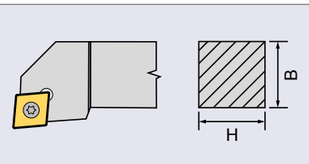
3. Tool Approach Angle

D	F	J	L	N	S
					
45º	90º	93º	95º	62.5º	45º

5. Tool Hand

R	L	N
		
RIGHT HAND	LEFT HAND	NEUTRAL

6, 7. Shank Height (H) and Width (B)



8. Overall Length (LF)

Letter	E	F	H	K	M	P
Length (mm)	70	80	100	125	150	170
Letter	Q	R	S	T	U	V
Length (mm)	180	200	250	300	350	400

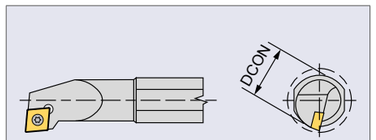
INTERNAL TURNING HOLDER CODE

1	2	3	4	5	6	7	8	9
S	**12**	**M**	**S**	**C**	**L**	**C**	**R**	**09**
Coolant & Material	Shank Dia (DCON)	Length (LF)	Clamping System	Insert Shape	Tool Angle	Insert Clearance	Hand	Insert Size

1. Coolant Type and Shank Material

Letter	A	E	S
Coolant Type	**Through Coolant**	**Through Coolant**	**Solid**
Shank Material	**Steel**	**Carbide**	**Steel**

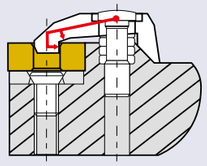
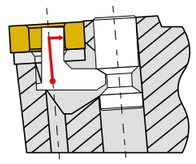
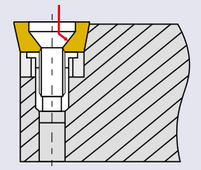
2. Shank Diameter (DCON)



3. Overall Length (LF)

Letter	E	F	H	K	M	P
Length (mm)	70	80	100	125	150	170
Letter	Q	R	S	T	U	V
Length (mm)	180	200	250	300	350	400

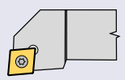
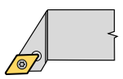
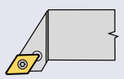
4. Clamping System

D	P	S
		
DOUBLE CLAMP TYPE	LEVER LOCK TYPE	SCREW LOCK TYPE

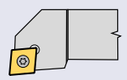
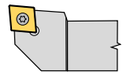
5, 7, 9. Insert Compatibility and Size

HOLDER **S 12M S C L C R 09** INSERT **C C G T 09 T302**

6. Tool Approach Angle

L	Q	U
		
95º	107.5º	93º

8. Tool Hand

R	L
	
RIGHT HAND	LEFT HAND

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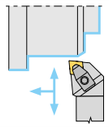
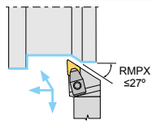
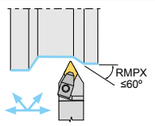
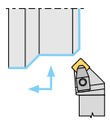
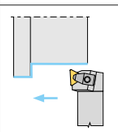
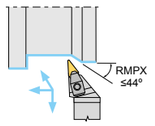
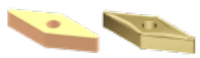
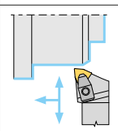
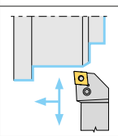
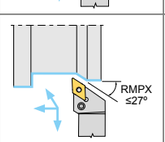
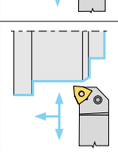
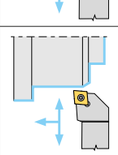
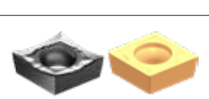
Holder	Application	Size Range	Page No	Insert	Page No.
DCLNR/L		20mm sq - 40mm sq	10	CNMA CNMG	32-35
DDJNR/L		20mm sq - 40mm sq	12	DNMA DNMG	38-40
DDNNN		20mm sq - 25mm sq	12		
DSSNR/L		20mm sq - 25mm sq	13	SNMA SNMG	42-43
DTJNR/L		20mm sq - 40mm sq	14	TNMA TNMG	44-46
DVJNR/L		20mm sq - 25mm sq	14	 VNMA VNMG	47-49
DWLNR/L		20mm sq - 40mm sq	15	WNMA WNMG	50-52
PCLNR/L		20mm sq - 25mm sq	10	CNMA CNMG	32-35
PDJNR/L		20mm sq - 25mm sq	13	DNMA DNMG	38-40
PWLNR/L		16mm sq - 20mm sq	15	WNMG 06	50-52
SCLCR/L		8mm sq - 25mm sq	16	 CCGT CCMT	54

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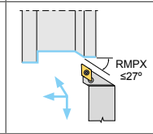
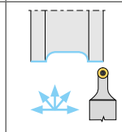
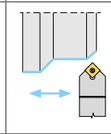
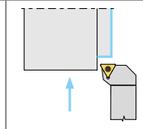
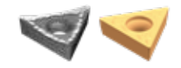
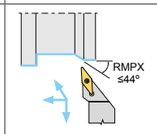
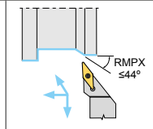
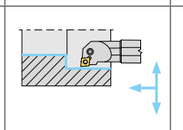
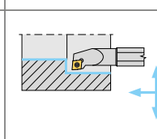
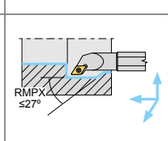
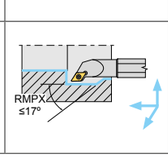
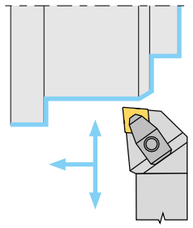
Holder	Application	Size Range	Page No	Insert	Page No.
SDJCR/L		10mm sq - 25mm sq	18	DCGT DCMT	55
SRDCN		16mm sq - 25mm sq	20	RCMT	56
SSDCN		12mm sq - 25mm sq	20	SCMT	57
STFCR/L		12mm sq - 25mm sq	21	 TCGT TCMT	58
SVJBR/L		16mm sq - 25mm sq	21	VBMT	59
SVJCR/L		20mm sq - 32mm sq	22	VCGT VCMT	60
A-PCLNR/L		Ø25mm - Ø32mm	11	CNMA CNMG	32-35
A-SCLCR/L E-SCLCR/L S-SCLCR/L		Ø8mm - Ø25mm	17	CCGT CCMT	54
E-SDUCR/L		Ø10mm - Ø16mm	19	DCGT DCMT	55
S-SDQCR/L		Ø10mm - Ø25mm	19		

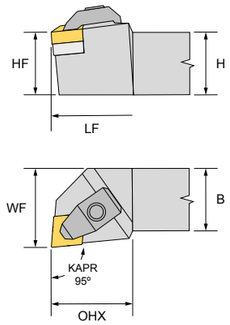
INSERT INFORMATION	24 - 30

DOUBLE CLAMP EXTERNAL TOOL HOLDER

For CN.. negative inserts

DCLNR/L





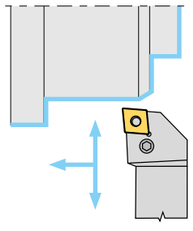
Insert Type	
	CNMG 1204..
	CNMA 1204..

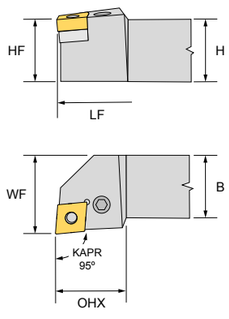
EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Key
TTH0041	**DCLNR 2020 K12**	●		20	20	20	125	30	25	TTBP-2	HMBV6M	HPC12NA	HBI4	HCY6	HA4
TTH0041L	**DCLNL 2020 K12**		●	20	20	20	125	30	25						
TTH0042	**DCLNR 2525 M12**	●		25	25	25	150	30	32						
TTH0042L	**DCLNL 2525 M12**		●	25	25	25	150	30	32						
TTH0043	**DCLNR 3232 P12**	●		32	32	32	170	35	40						
TTH0043L	**DCLNL 3232 P12**		●	32	32	32	170	35	40						
TTH0044	**DCLNR 4040 R12**	●		40	40	40	200	40	48						
TTH0044L	**DCLNL 4040 R12**		●	40	40	40	200	40	48						

LEVER LOCK EXTERNAL TOOL HOLDER

For CN.. negative inserts

PCLNR/L





Insert Type	
	CNMG 1204..
	CNMA 1204..

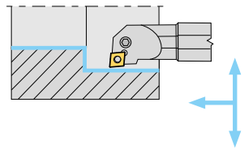
EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Lever	Screw	Shim	Shim Pin	Wrench
TTH0089	**PCLNR 2020 K12**	●		20	20	20	125	30	25	HL441	HLV441	HPC12NA	HAY461	HA3
TTH0089L	**PCLNL 2020 K12**		●	20	20	20	125	30	25					
TTH0090	**PCLNR 2525 M12**	●		25	25	25	150	30	32					
TTH0090L	**PCLNL 2525 M12**		●	25	25	25	150	30	32					

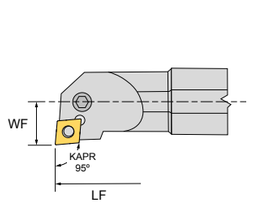
TURNING

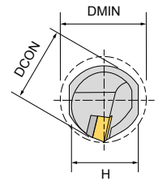
LEVER LOCK BORING BAR

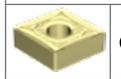
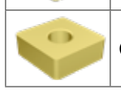
For CN.. negative inserts

- PCLNR/L







Insert Type	
	CNMG 1204..
	CNMA 1204

EDP Code	Description		R	L	DCON	DMIN	H	LF	WF	Lever	Screw	Shim	Shim Pin	Wrench
TTH0093	**A25R PCLNR/L 12C**	💧	●	○	25	32	23	200	17	HL441	HLV441	HPC12NA	HAY461	HA3
TTH0094	**A32S PCLNR/L 12C**	💧	●	○	32	40	30	250	22					

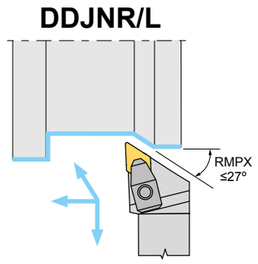
● : Stock ○ : Available to order

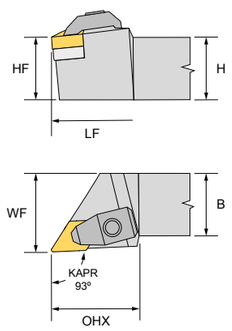
To order left hand add L to EDP code. Example: S25S PCLNL 12 = TTH0093L

DOUBLE CLAMP EXTERNAL TOOL HOLDER

For DN.. negative inserts

DDJNR/L





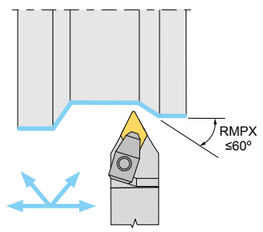
Insert Type	
	DNMG 1506..
	DNMA 1506..

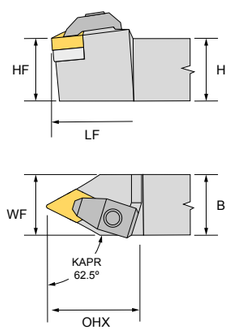
EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Key
TTH0045	**DDJNR 2020 K15**	●		20	20	20	125	30	25	TTBP-2	HMBV6M	HPD15NA	HBI4	HCY6	HA4
TTH0045L	**DDJNL 2020 K15**		●	20	20	20	125	30	25						
TTH0046	**DDJNR 2525 M15**	●		25	25	25	150	30	32						
TTH0046L	**DDJNL 2525 M15**		●	25	25	25	150	30	32						
TTH0047	**DDJNR 3232 P15**	●		32	32	32	170	35	40						
TTH0047L	**DDJNL 3232 P15**		●	32	32	32	170	35	40						
TTH0048	**DDJNR 4040 R15**	●		40	40	40	200	40	48						
TTH0048L	**DDJNL 4040 R15**		●	40	40	40	200	40	48						

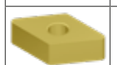
DOUBLE CLAMP EXTERNAL TOOL HOLDER

For DN.. negative inserts

DDNNN





Insert Type	
	DNMG 1506..
	DNMA 1506..

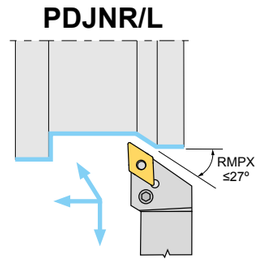
EDP Code	Description		H	HF	B	LF	OHX	WF	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Key
TTH0107	**DDNNN 2020 K15**	o	20	20	20	125	40.8	10	TTBP-2	HMBV6M	HPD15NA	HBI4	HCY6	HA4
TTH0108	**DDNNN 2525 M15**	o	25	25	25	150	40.8	12.5						

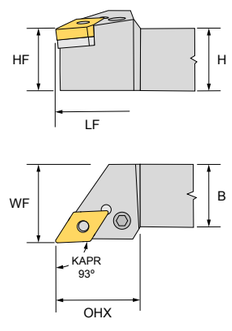
● : Stock O : Available to order

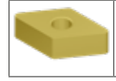
LEVER LOCK EXTERNAL TOOL HOLDER

For DN.. negative inserts

PDJNR/L





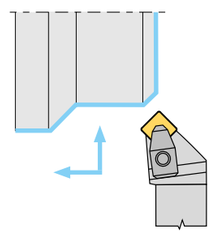
Insert Type	
	DNMG 1506..
	DNMA 1506..

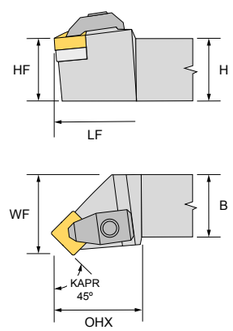
EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Lever	Screw	Shim	Shim Pin	Wrench
TTH0091	**PDJNR 2020 K15**	●		20	20	20	125	30	25	HL441	HLV441	HPD15NA	HAY461	HA3
TTH0091L	**PDJNL 2020 K15**		●	20	20	20	125	30	25					
TTH0092	**PDJNR 2525 M15**	●		25	25	25	150	30	32					
TTH0092L	**PDJNL 2525 M15**		●	25	25	25	150	30	32					

DOUBLE CLAMP EXTERNAL TOOL HOLDER

For SN.. negative inserts

DSSNR/L





Insert Type	
	SNMG 1204..
	SNMA 1204..

EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Key
TTH0049	**DSSNR/L 2020 K12**	●	o	20	20	20	125	35	25	TTBP-2	HMBV6M	HPS12NA	SP12M4	HY22	HA4
TTH0050	**DSSNR/L 2525 M12**	●	o	25	25	25	150	40	32						

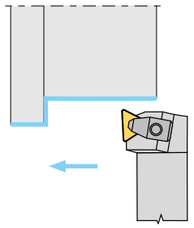
● : Stock O : Available to order

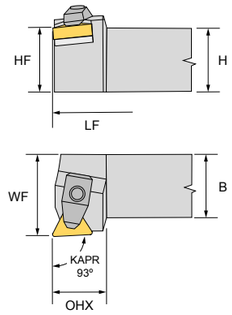
To order left hand add L to EDP code. Example: DSSNL 2020 K12 = TTH0049L

DOUBLE CLAMP EXTERNAL TOOL HOLDER

For TN.. negative inserts

DTJNR/L





Insert Type	
	TNMG 1604.. TNMG 2204..
	TNMA 1604..

EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Hex Key
TTH0051	**DTJNR/L 2020 K16**	●	o	20	20	20	125	30	25	TTBP-1	HMBV5M	HPT16NA	SP12M4	HCY5	HA3
TTH0052	**DTJNR/L 2525 M16**	●	o	25	25	25	150	30	32						
TTH0053	**DTJNR/L 2525 M22**	●	o	25	25	25	150	40	32	TTBP-2	HMBV6M	HPT22NA	SP12M4	HY22	HA4
TTH0054	**DTJNR/L 3232 P22**	●	o	32	32	32	170	40	40						
TTH0055	**DTJNR/L 4040 R22**	●	o	40	40	40	200	45	50						

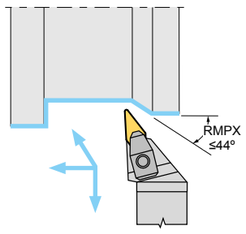
● : Stock ○ : Available to order

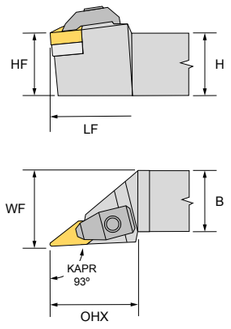
To order left hand add L to EDP code. Example: DTJNL 2020 K16 = TTH0051L

DOUBLE CLAMP EXTERNAL TOOL HOLDER

For VN.. negative inserts

DVJNR/L





Insert Type	
	VNMG 1604..
	VNMA 1604..

EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Hex Key
TTH0084	**DVJNR/L 2020 K16**	●	o	20	20	20	125	35	25	TTBP-3	HMBV6M	HPV16NA	SP10M4	HY22	HA4
TTH0085	**DVJNR/L 2525 M16**	●	o	25	25	25	150	40	32						

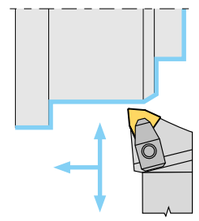
● : Stock ○ : Available to order

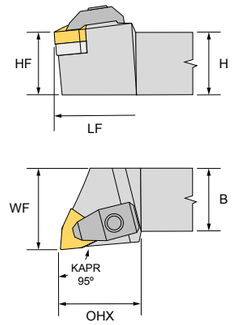
To order left hand add L to EDP code. Example: DVJNL 2020 K16 = TTH0084L

DOUBLE CLAMP EXTERNAL TOOL HOLDER

For WN.. negative inserts

DWLNR/L





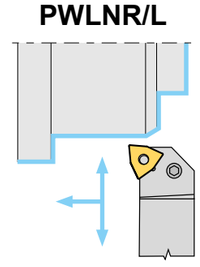
Insert Type	
	WNMG 0804..
	WNMA 0804..

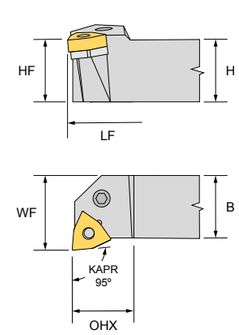
EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Key
TTH0058	**DWLNR 2020 K08**	●		20	20	20	125	30	25	TTBP-2	HMBV6M	HPW08NA	HBI4	HCY6	HA4
TTH0058L	**DWLNL 2020 K08**		●	20	20	20	125	30	25						
TTH0059	**DWLNR 2525 M08**	●		25	25	25	150	30	32						
TTH0059L	**DWLNL 2525 M08**		●	25	25	25	150	30	32						
TTH0060	**DWLNR 3232 P08**	●		32	32	32	170	35	40						
TTH0060L	**DWLNL 3232 P08**		●	32	32	32	170	35	40						
TTH0061	**DWLNR 4040 R08**	●		40	40	40	200	40	48						
TTH0061L	**DWLNL 4040 R08**		●	40	40	40	200	40	48						

LEVER LOCK EXTERNAL TOOL HOLDER

For WN.. negative inserts

PWLNR/L





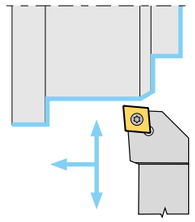
Insert Type	
	WNMG 0604..

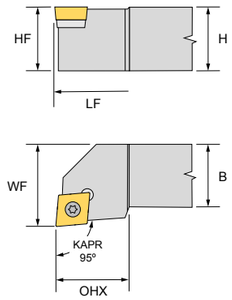
EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Lever	Screw	Shim	Shim Pin	Wrench
TTH0056	**PWLNR 1616 H06**	●		16	16	16	100	20	20	HL440	HLV420	HPW06NA	HAY463	HA2.5
TTH0056L	**PWLNL 1616 H06**		●	16	16	16	100	20	20					
TTH0057	**PWLNR 2020 K06**	●		16	16	16	125	20	25					
TTH0057L	**PWLNL 2020 K06**		●	16	16	16	125	20	25					

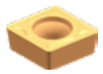
SCREW LOCK EXTERNAL TOOL HOLDER

For CC.. positive inserts

SCLCR/L





Insert Type	
	CCGT 09T3.. CCGT 1204..
	CCMT 0602.. CCMT 09T3.. CCMT 1204..

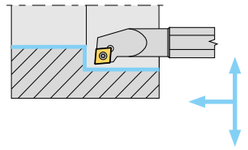
EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Insert	Screw	Shim	Shim Screw	Wrench	Key
TTH0001	**SCLCR 0808 F06**	●		8	8	8	80	11	10	CCMT 06	TXS2506	-	-	TXW09	-
TTH0001L	**SCLCL 0808 F06**		●	8	8	8	80	11	10						
TTH0002	**SCLCR 1010 F06**	●		10	10	10	80	11	12						
TTH0002L	**SCLCL 1010 F06**		●	10	10	10	80	11	12						
TTH0003	**SCLCR 1212 F09**	●		12	12	12	80	16	16	CCGT 09 CCMT 09	TXS3509	-	-	TXW15	-
TTH0003L	**SCLCL 1212 F09**		●	12	12	12	80	16	16						
TTH0004	**SCLCR 1616 H09**	●		16	16	16	100	17	20						
TTH0004L	**SCLCL 1616 H09**		●	16	16	16	100	17	20						
TTH0005	**SCLCR 2020 K09**	●		20	20	20	125	18	25						
TTH0005L	**SCLCL 2020 K09**		●	20	20	20	125	18	25						
TTH0006	**SCLCR 2525 M09**	●		25	25	25	150	25	32						
TTH0006L	**SCLCL 2525 M09**		●	25	25	25	150	25	32						
TTH0007	**SCLCR 2020 K12**	●		20	20	20	125	22	25	CCGT 12 CCMT 12	TXS4512	HSC12PA	HSAV4.5	TXW15	HA4.5
TTH0007L	**SCLCL 2020 K12**		●	20	20	20	125	22	25						
TTH0008	**SCLCR 2525 M12**	●		25	25	25	150	25	32						
TTH0008L	**SCLCL 2525 M12**		●	25	25	25	150	25	32						

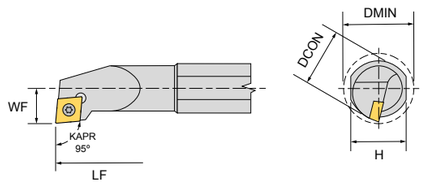
● : Stock ○ : Available to order

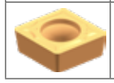
SCREW LOCK BORING BAR

For CC.. positive inserts

- SCLCR/L





Insert Type	
	CCGT 09T3..
	CCMT 0602.. CCMT 09T3..

EDP Code	Description		R	L	DCON	DMIN	H	LF	WF	Insert	Screw	Wrench
TTH0062	**A08F SCLCR/L 06**	💧	●	○	8	10	7	80	5	CCMT 06	TXS2506	TXW09
TTH0019	**S08H SCLCR/L 06**	x	●	○	8	11	7	100	6			
TTH0063	**A10H SCLCR/L 06**	💧	●	○	10	12	9	100	6			
TTH0020	**S10K SCLCR/L 06**	x	●	○	10	13	9	125	7			
TTH0095	**E10M SCLCR/L 06***	💧	●	○	10	13	9	150	7			
TTH0064	**A12H SCLCR/L 06**	💧	●	○	12	16	11	100	9			
TTH0021	**S12M SCLCR/L 06**	x	●	○	12	16	11	150	9			
TTH0096	**E12Q SCLCR/L 06***	💧	●	○	12	16	11	180	9			
TTH0022	**S16Q SCLCR/L 06**	x	●	○	16	20	15	180	11			
TTH0065	**A12H SCLCR/L 09**	💧	●	○	12	16	11	100	9	CCGT 09 CCMT 09	TXS3508	TXW15
TTH0023	**S12M SCLCR/L 09**	x	●	○	12	16	11	150	9			
TTH0066	**A16M SCLCR/L 09**	💧	●	○	16	20	15	150	11			
TTH0024	**S16Q SCLCR/L 09**	x	●	○	16	20	15	180	11			
TTH0097	**E16R SCLCR/L 09***	💧	●	○	16	20	15	200	11			
TTH0067	**A20P SCLCR/L 09**	💧	●	○	20	25	18	170	13			
TTH0025	**S20R SCLCR/L 09**	x	●	○	20	25	18	200	13			
TTH0026	**S25S SCLCR/L 09**	x	●	○	25	32	23	250	17			

● : Stock ○ : Available to order

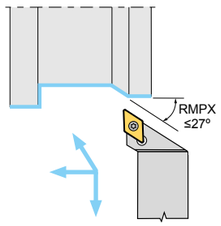
To order left hand add L to EDP code. Example: S08H SCLCL 06 = TTH0019L

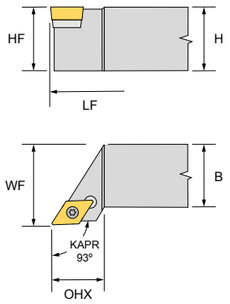
*Carbide shank

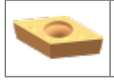
SCREW LOCK EXTERNAL TOOL HOLDER

For DC.. positive inserts

SDJCR/L





Insert Type	
	DCGT 11T3..
	DCMT 0702.. DCMT 11T3..

EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Insert	Screw	Shim	Shim Screw	Wrench	Key
TTH0068	**SDJCR/L 1010 H07**	●	o	10	10	10	100	14	12	DCMT 07	TXS2506	-	-	TXW09	-
TTH0069	**SDJCR/L 1212 F07**	●	o	12	12	12	80	14	16						
TTH0070	**SDJCR/L 1212 F11**	●	o	12	12	12	80	20	16	DCGT 11 DCMT 11	TXS3511	HSD11PA	HSAV3.5	TXW15	HA3.5
TTH0071	**SDJCR/L 1616 H11**	●	o	16	16	16	100	20	20						
TTH0072	**SDJCR/L 2020 K11**	●	o	20	20	20	125	25	25						
TTH0073	**SDJCR/L 2525 M11**	●	o	25	25	25	150	25	32						

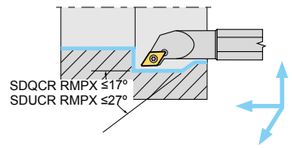
● : Stock O : Available to order

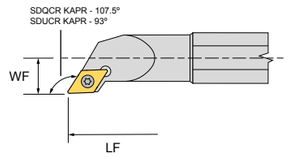
To order left hand add L to EDP code. Example: SDJCL 2020 K11 = TTH0072L

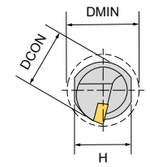
SCREW LOCK BORING BAR

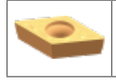
For DC.. positive inserts

- SD_CR/L







Insert Type	
	DCGT 11T3..
	DCMT 0702.. DCMT 11T3..

EDP Code	Description		R	L	DCON	DMIN	H	LF	WF	Insert	Screw	Wrench
TTH0074	**S10K SDQCR/L 07**	x	●	o	10	13	9	125	7	DCMT 07	TXS2506	TXW09
TTH0075	**S12M SDQCR/L 07**	x	●	o	12	16	11	150	9			
TTH0076	**S16Q SDQCR/L 11**	x	●	o	16	20	15	180	11	DCGT 11 DCMT 11	TXS3509	TXW15
TTH0077	**S20R SDQCR/L 11**	x	●	o	20	25	18	200	13			
TTH0078	**S25S SDQCR/L 11**	x	●	o	25	32	23	250	17			
TTH0098	**E10M SDUCR/L 07***	💧	●	o	10	13	9	150	7	DCMT 07	TXS2506	TXW09
TTH0099	**E12Q SDUCR/L 07***	💧	●	o	12	16	11	180	9			
TTH0100	**E16R SDUCR/L 11***	💧	●	o	16	20	15	200	11	DCGT 11 DCMT 11	TXS3509	TXW15

● : Stock O : Available to order

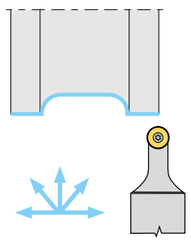
To order left hand add L to EDP code. Example: S10K SDQCL 07 = TTH0074L

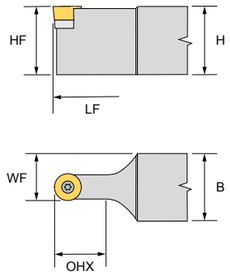
*Carbide shank

SCREW LOCK EXTERNAL TOOL HOLDER

For RC.. positive inserts

SRDCN





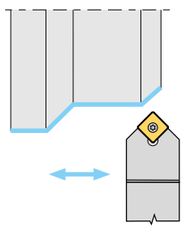
Insert Type	
	RCMT 0602.. RCMT 0803.. RCMT 10T3.. RCMT 1204..

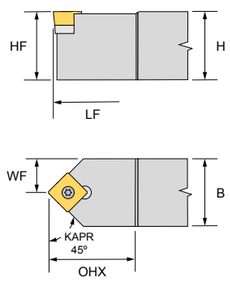
EDP Code	Description		H	HF	B	LF	OHX	WF	Insert	Screw	Wrench
TTH0101	**SRDCN 2020 K06**	●	20	20	20	125	17	13	RCMT 06	TXS2506	TXW08
TTH0102	**SRDCN 2525 M06**	●	25	25	25	150	17	15.5			
TTH0103	**SRDCN 2020 K08**	●	20	20	20	125	20	14	RCMT 08	TXS3008	TXW08
TTH0104	**SRDCN 2525 M08**	●	25	25	25	150	20	16.5			
TTH0009	**SRDCN 1616 H10**	●	16	16	16	100	20	13	RCMT 10	TXS4010	TXW15
TTH0010	**SRDCN 2020 K10**	●	20	20	20	125	20	15			
TTH0105	**SRDCN 2525 M10**	●	25	25	25	150	20	17.5			
TTH0106	**SRDCN 2020 K12**	●	20	20	20	125	22	16	RCMT 12	TXS4512	TXW15
TTH0011	**SRDCN 2525 M12**	●	25	25	25	150	22	18.5			

SCREW LOCK EXTERNAL TOOL HOLDER

For SC.. positive inserts

SSDCN





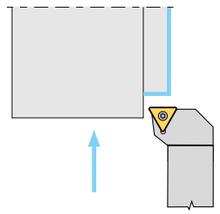
Insert Type	
	SCMT 09T3.. SCMT 1204..

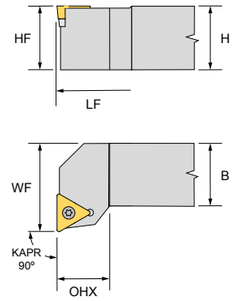
EDP Code	Description		H	HF	B	LF	OHX	WF	Insert	Screw	Shim	Shim Screw	Wrench	Key
TTH0012	**SSDCN 1212 F09**	●	12	12	12	80	25	6	SCMT 09	TXS3509	-	-	TXW15	
TTH0013	**SSDCN 1616 H09**	●	16	16	16	100	25	8						
TTH0014	**SSDCN 2020 K12**	●	20	20	20	125	30	10	SCMT 12	TXS4512	HSS12PA	HSAV4.5	TXW15	HA4.5
TTH0015	**SSDCN 2525 M12**	●	25	25	25	150	30	12.5						

SCREW LOCK EXTERNAL TOOL HOLDER

For TC.. positive inserts

STFCR/L





Insert Type	
	TCGT 16T3..
	TCMT 1102.. TCMT 16T3..

EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Insert	Screw	Shim	Shim Screw	Wrench	Key
TTH0079	**STFCR/L 1212 F11**	●	o	12	12	12	80	20	16	TCMT 11	TXS2506	-	-	TXW09	-
TTH0080	**STFCR/L 1616 H11**	●	o	16	16	16	100	25	20						
TTH0081	**STFCR/L 1616 H16**	●	o	16	16	16	100	25	20	TCGT 16 TCMT 16	TXS3509	-	-	TXW15	
TTH0082	**STFCR/L 2020 K16**	●	o	20	20	20	125	35	25		TXS3511	HST16PA	HSAV3.5	TXW15	HA3.5
TTH0083	**STFCR/L 2525 M16**	●	o	25	25	25	150	40	32						

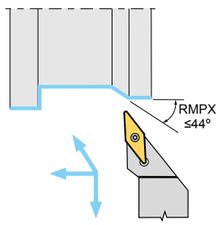
● : Stock O : Available to order

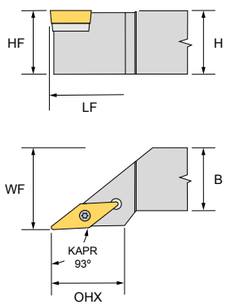
To order left hand add L to EDP code. Example: STFCL 1616 H11 = TTH0080L

SCREW LOCK EXTERNAL TOOL HOLDER

For VB.. positive inserts

SVJBR/L





Insert Type	
	VBMT 1604..

EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Insert	Screw	Shim	Shim Screw	Wrench	Key
TTH0086	**SVJBR/L 1616 H16**	●	o	16	16	16	100	25	20	VBMT 16	TXS3511	HSV16PA	HSAV3.5	TXW15	HA3.5
TTH0087	**SVJBR 2020 K16**	●		20	20	20	125	35	25						
TTH0087L	**SVJBL 2020 K16**		●	20	20	20	125	35	25						
TTH0088	**SVJBR 2525 M16**	●		25	25	25	150	35	32						
TTH0088L	**SVJBL 2525 M16**		●	25	25	25	150	35	32						

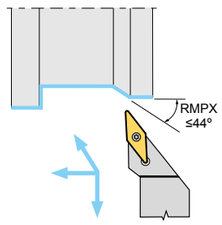
● : Stock O : Available to order

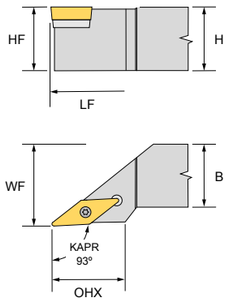
To order left hand add L to EDP code. Example: SVJBL 2020 K16 = TTH0087L

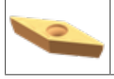
SCREW LOCK EXTERNAL TOOL HOLDER

For VC.. positive inserts

SVJCR/L





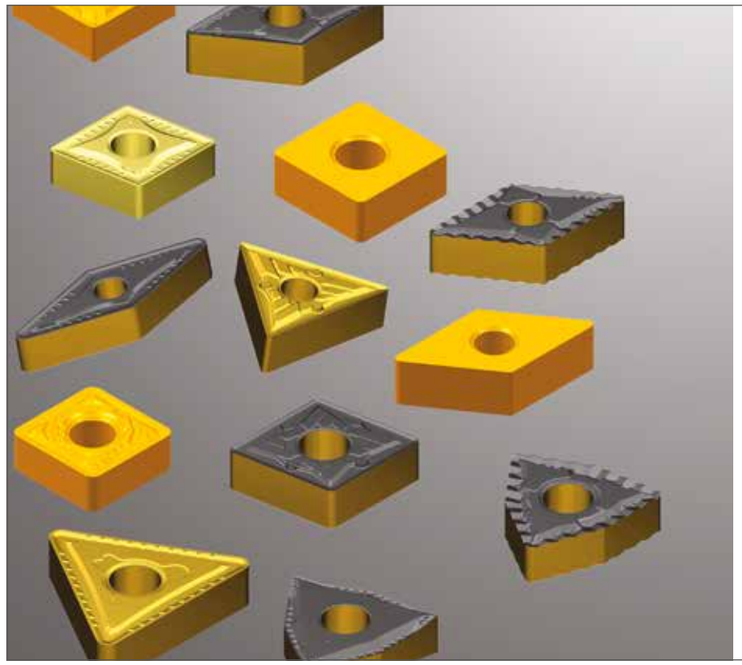
Insert Type	
	VCGT 1604..
	VCMT 1604..

EDP Code	Description	R	L	H	HF	B	LF	OHX	WF	Insert	Screw	Shim	Shim Screw	Wrench	Key
TTH0016	**SVJCR/L 2020 K16**	●	○	20	20	20	125	35	25	VCGT 16 VCMT 16	TXS3511	HSV16PA	HSAV3.5	TXW15	HA3.5
TTH0017	**SVJCR/L 2525 M16**	●	○	25	25	25	150	35	32						
TTH0018	**SVJCR/L 3232 P16**	●	○	32	32	32	170	40	40						

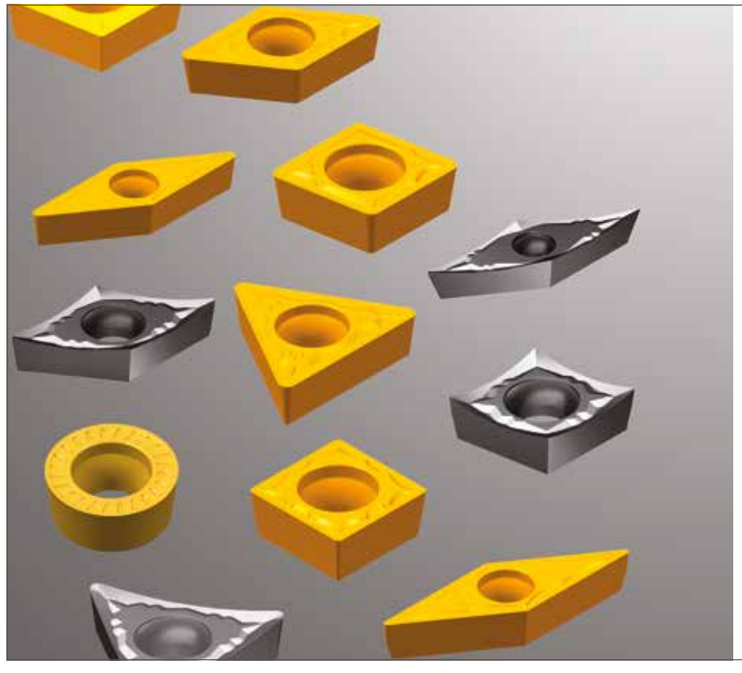
● : Stock ○ : Available to order

To order left hand add L to EDP code. Example: SVJCL 2020 K16 = TTH0016L

INSERTS



NEGATIVE INSERTS P.31-52



POSITIVE INSERTS P.53-60

INSERT CODE GUIDE

*ISO

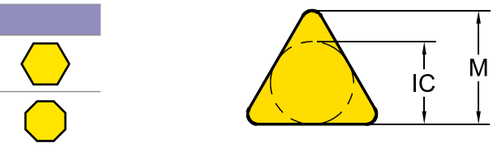
1	2	3	4	5	6	7	8	9
C	N	M	G	12	04	08	-BG	ET33C
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

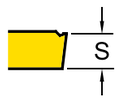
1 - Shape

Symbol	Shape	
H	Hexagonal	
O	Octagonal	
P	Pentagonal	
S	Square	
T	Triangular	
C	Rhombic 80°	
D	Rhombic 55°	
V	Rhombic 35°	
W	Trigon	
L	Rectangular	
K	Parallelogram 55°	
R	Round	

2 - Relief Angle (AN)

Symbol	Relief Angle (AN)	
N	No Relief Angle	
C	Relief 7°	
P	Relief 11°	
D	Relief 15°	
E	Relief 20°	
F	Relief 25°	
O	Special	





3 - Tolerance Class

Symbol	Inner Circle IC (mm)	Nose Height M (mm)	Thickness S (mm)
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
K	±0.05~0.15	±0.013	±0.025
M	±0.05~0.15	±0.08~0.2	±0.13
U	±0.08~0.25	±0.13~0.38	±0.13

4 - Clamping & Chipbreaker

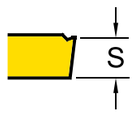
Symbol	Clamping	Chipbreaker	Figure
N	No clamping hole	X	
R		One Face	
A	Cylindrical Clamping hole	X	
M		One Face	
G		Both Faces	
W	Screw Hole	X	
T		One Face	
U		Both Faces	
X	Special		

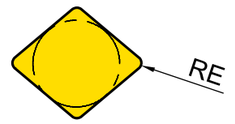
*ANSI

1	2	3	4	5	6	7	8	9
C	N	M	G	4	3	2	-BG	ET33C
Shape	Clearance	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness	Corner Radius	Chipbreaker Geometry	Grade

5 - Insert Size

Metric (ISO)							Inscribed Circle IC (mm)	ANSI
S	T	C	D	V	W	R		
06	11	06	07	11			6.53	2
07							7.94	2.5
09	16	09	11	16	06	09 (00)	9.525	3
12	22	12	15	22	08	12 (00)	12.7	4
15		16					15.875	5
						06 (M0)	6	
						08 (M0)	8	
						10 (M0)	10	
						12 (M0)	12	
						16 (M0)	16	





6 - Insert Thickness (S)

Metric (ISO)	Thickness - S (mm)	ANSI
T1	1.98	1.2
02	2.38	1.5
03	3.18	2
T3	3.97	2.5
04	4.76	3
05	5.56	3.5
06	6.35	4
07	7.94	5

7 - Corner Radius (RE)

Metric (ISO)	Corner Radius - RE (mm)	ANSI
01	0.1	0
02	0.2	0.5
04	0.4	1
08	0.8	2
12	1.2	3
16	1.6	4
20	2.0	5
24	2.4	6

CHIPBREAKER GUIDE

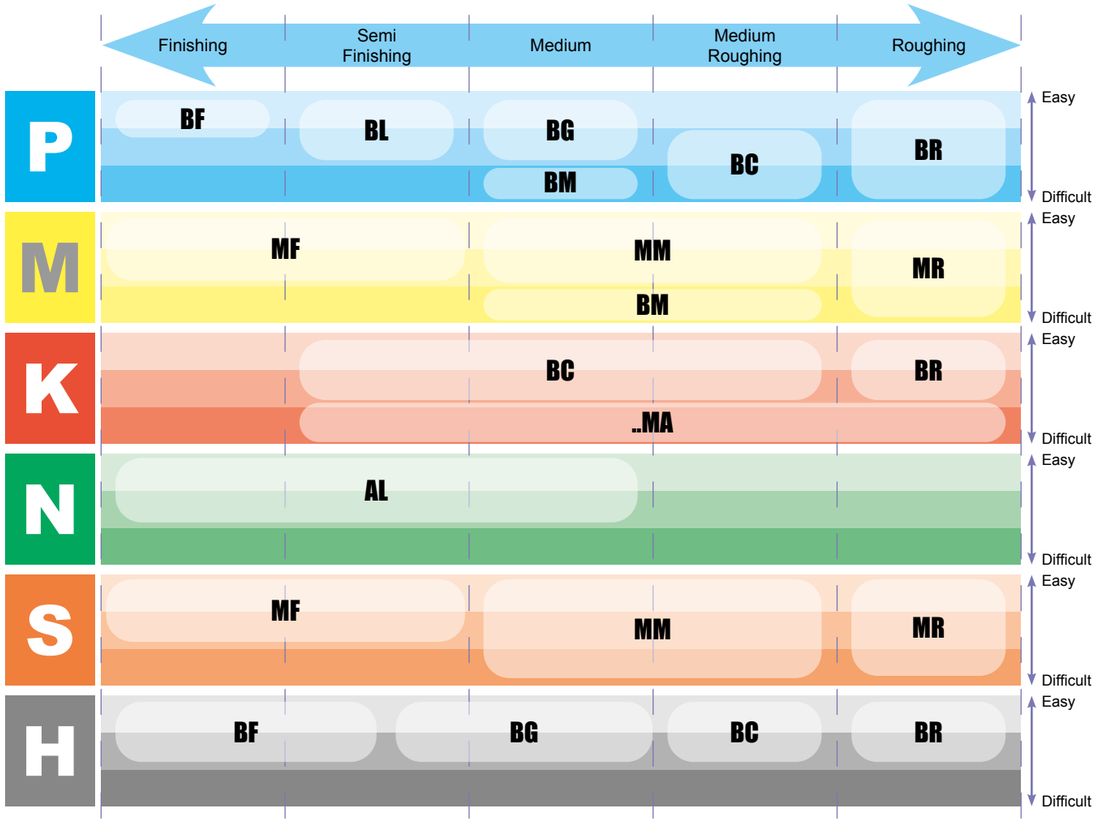
Chipbreaker		BF			MF			BL			BG			BM			MM			BC			BR			MR			AL			MA		
ISO	Grade	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R
P	ET1001																			○	○													
	ET31C	●						●				●			●	●				○	○		●											
	ET32C	●						●	●			●			●	●		○		●	●		●											
	ET33C	●						●	●			●			●	●				●	●		●											
	ET801	○						○				○											○											
M	ET33C	●						●	●			●			●			●					●											
	ET21P				●													●																
	ET23P				●													●										●						
	ET24P																	●	●									●						
K	ET1001											●									●	●											●
	ET31C	●										●									●	●											●
	ET801	○										○													○									
N	ET10D																												●	●				
	ET10U																												●	●				
S	ET21P				●													●																
	ET23P				●													●										●						
	ET24P																	●	●									●						
H	ET31C	○										○									○	○			○									
	ET801	○										○													○									

●:First choice ○:Second choice

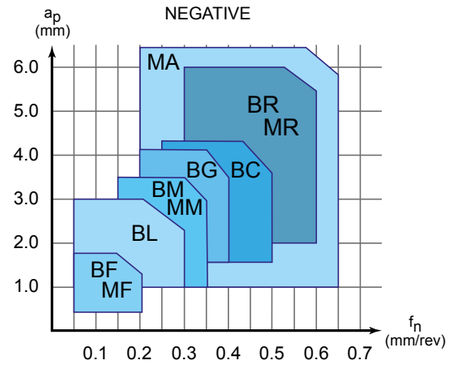
NEGATIVE CHIPBREAKERS			
BF	Finishing	**BR**	Roughing and interrupted cut
BL	Light cutting and sticky materials	**MA**	Cast iron heavy roughing
BM	Medium cutting and unstable conditions	**MF**	Finishing of stainless steel and HRSA
BG	Medium cutting First choice	**MM**	Medium cutting of stainless steel and HRSA
BC	Cast iron and medium roughing of steel	**MR**	Roughing of stainless steel and HRSA

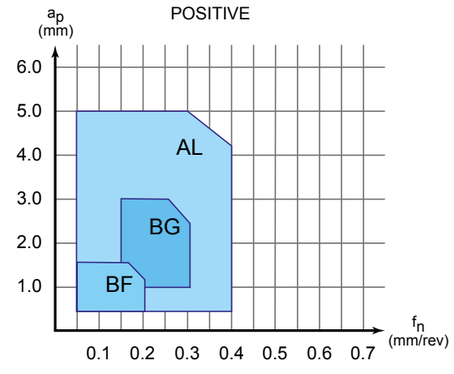
POSITIVE CHIPBREAKERS	
BF	Finishing
BG	Medium Cutting
AL	For Aluminium

CHIPBREAKER GUIDE



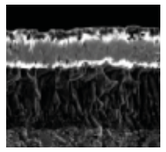
CHIPBREAKER MAPS





INSERT GRADES

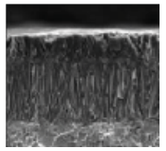
CVD COATED GRADES



P01 - P10 / K10 - K25

ET1001
First choice for stable turning of Cast Iron

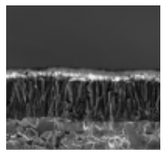
CVD TiCN - Al_2O_3



P05 - P20 / K15 - K35

ET31C
First choice for high speed finishing of Steels and ductile Cast Iron.

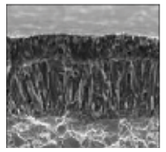
CVD TiCN - Al_2O_3



P15 - P30

ET32C
Versatile grade for general turning of Steels.

CVD TiCN - Al_2O_3

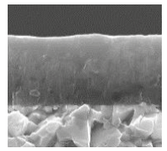


P20 - P35 / M20 - M30

ET33C
Tough grade for turning of Stainless Steel and interrupted cutting of Steel.

CVD TiCN - Al_2O_3

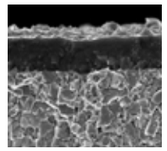
PVD COATED GRADES



M05 - M20 / S05 - S20

ET21P
First choice for stable turning of Stainless Steel and HRSA.

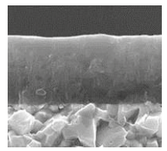
PVD Coated



M20 - M35 / S15 - S25

ET23P
Optimised grade for cutting of Stainless Steel and HRSA at low cutting speeds.

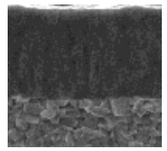
PVD Coated



M30 - M40 / S25 - S30

ET24P
Optimised grade for interrupted cutting of Stainless Steel and HRSA.

PVD Coated

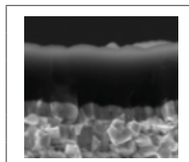


P10 - P30 / K20 - K30 / H20 - H30

ET801
Turning grade for mid and low cutting conditions in most steels and cast iron

PVD Coated

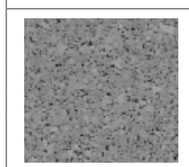
NON-FERROUS GRADES



N05 - N35

ET10D
First choice for high speed turning of Aluminium, and Si >10%

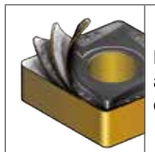
TaC Coated



N05 - N35

ET10U
Polished face for general turning of Aluminium.

Uncoated

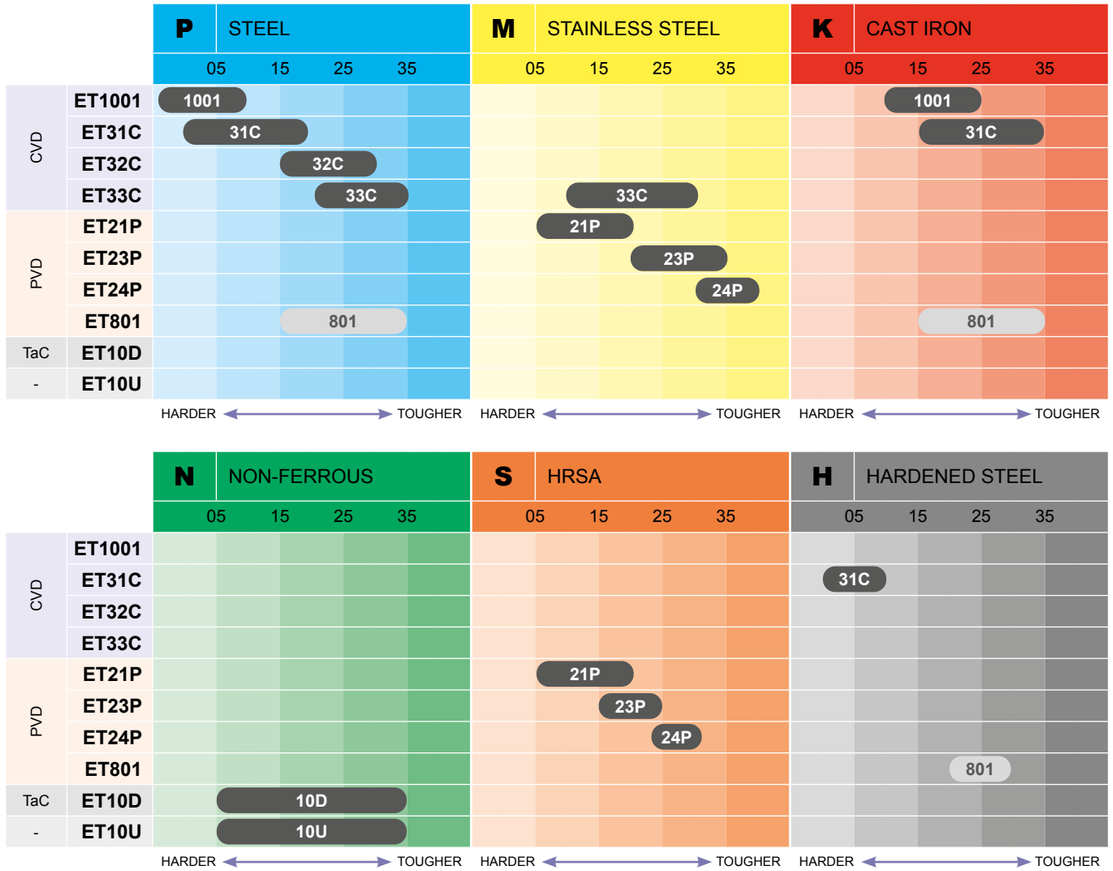


New Multi-layer CVD coated grades are finished with a special process to enable smoother chip flow.

Single layer PVD coated grades are designed to balance edge strength with extended tool life.

TaC coated inserts maintain sharp cutting edge due to coating thickness of ≤ 1 µm and highly polished face.

INSERT GRADE GUIDE



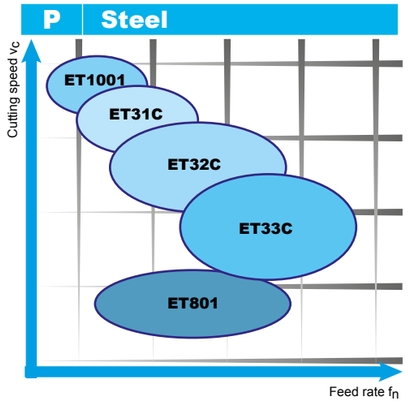
THEORETICAL SURFACE ROUGHNESS BY INSERT RADIUS

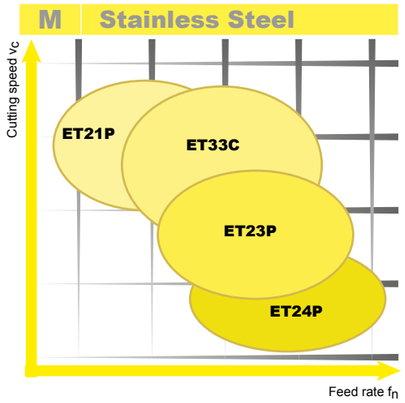
Ra (Rz) µm	Insert corner radius					
	0.2	0.4	0.8	1.2	1.6	2.4
	fn (mm/rev)					
0.4 (1.6)	0.05	0.07	0.10	0.12	0.14	0.18
1.6 (6.3)	0.10	0.14	0.20	.025	0.28	0.35
3.2 (12.5)	0.14	0.20	0.28	0.35	0.40	0.49
6.3 (25)	-	0.28	0.40	0.49	0.57	0.69
8 (32)	-	-	0.45	0.55	0.64	0.78

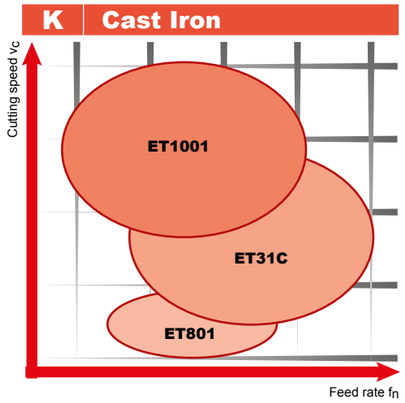
TURNING

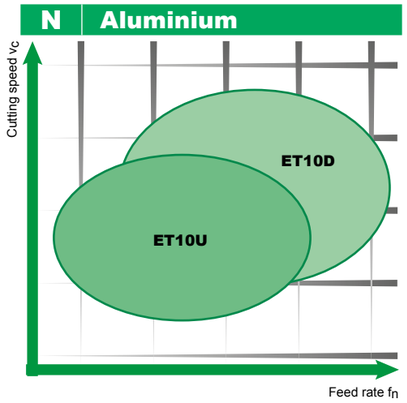
INSERT GRADE APPLICATION AREA

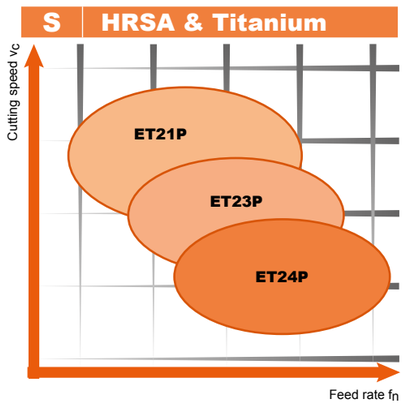
The charts below indicate grade selection in relation to cutting speed and feed rate



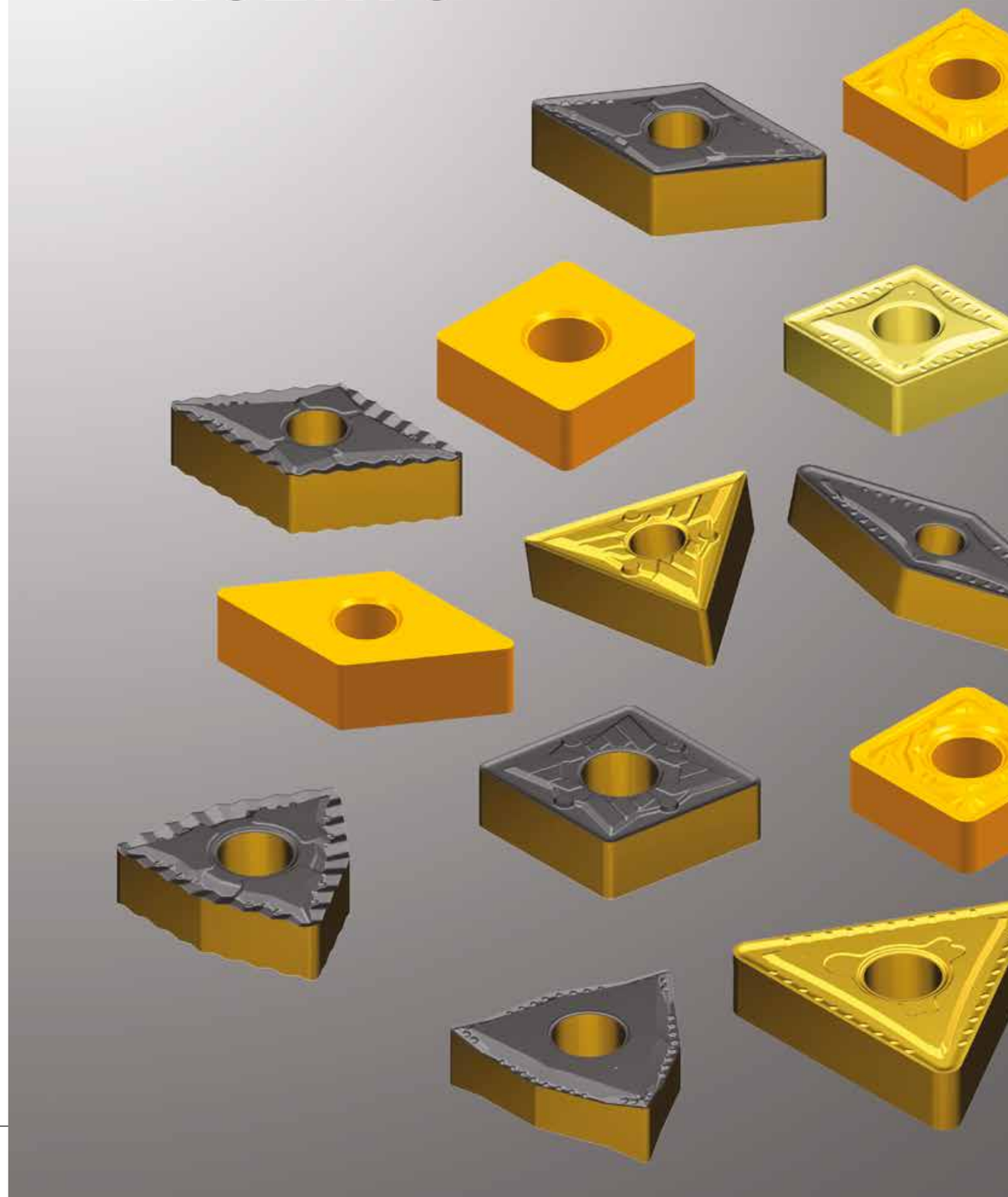






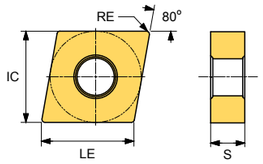


NEGATIVE INSERTS



Toolholders: page 10-11

INSERT	LE	IC	S
CNMA/G 1204	12	12.7	4.76
CNMA/G 1606	16	15.88	6.35
CNMA/G 1906	19	19.05	6.35



EDP Code TI..... Example: CNMG 120404-BF ET31C = TI00402

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

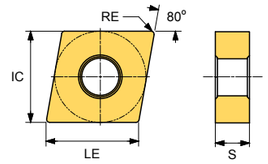
CNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
BF Finishing ○ ●	**CNMG 120404-BF**	0.4	0.05 - 0.25	0.5 - 1.5		● 00402	● 00403	● 00095	● 00028					
	CNMG 120408-BF	0.8	0.05 - 0.25	1.0 - 2.5		● 00404	● 00405	● 00098						
MF Finishing ○ ●	**CNMG 120404-MF**	0.4	0.07 - 0.30	0.2 - 1.5				● 00925		● 00654	● 00655			
Stainless Steel and HRSA	**CNMG 120408-MF**	0.8	0.07 - 0.30	0.2 - 1.5				● 00926		● 00656	● 00657	● 00658		
BL Light cutting ○ ●	**CNMG 120404-BL**	0.4	0.10 - 0.30	0.5 - 2.0		● 00545	● 00546							
and sticky materials	**CNMG 120408-BL**	0.8	0.10 - 0.30	1.0 - 3.0		● 00547	● 00548	● 00101	● 00074					
	CNMG 120412-BL	1.2	0.10 - 0.30	1.5 - 3.5		● 00549	● 00550	● 00551						
MM Medium cutting ○ ●	**CNMG 120404-MM**	0.4	0.20 - 0.35	0.5 - 3.0						● 00637	● 00645			
Stainless Steel and HRSA	**CNMG 120408-MM**	0.8	0.20 - 0.35	1.0 - 3.5			● 00341	● 00122		● 00340	● 00646	● 00659		
	CNMG 120412-MM	1.2	0.20 - 0.35	1.5 - 3.5				● 00343		● 00638	● 00647	● 00664		

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
Vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

TURNING

Toolholders: page 10-11

INSERT	LE	IC	S
CNMA/G 1204	12	12.7	4.76
CNMA/G 1606	16	15.88	6.35
CNMA/G 1906	19	19.05	6.35



EDP Code TI..... Example: CNMG 120404-BG ET31C = TI00461

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

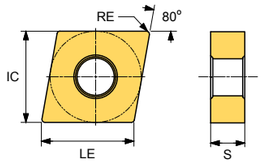
● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

CNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
BG Medium cutting ○ ● First choice	**CNMG 120404-BG**	0.4	0.20 - 0.40	0.5 - 2.0		● 00461	● 00462	● 00110						
	CNMG 120408-BG	0.8	0.20 - 0.40	1.0 - 3.0	● 00463	● 00464	● 00465	● 00113	● 00029					
	CNMG 120412-BG	1.2	0.20 - 0.40	1.5 - 4.0		● 00466	● 00467	● 00116						
	CNMG 160612-BG	1.2	0.20 - 0.40	1.5 - 5.0		● 00468	● 00469	● 00470						
	CNMG 160616-BG	1.6	0.20 - 0.40	1.8 - 5.0		● 00471	● 00472	● 00473						
BM Medium cutting ○ ✱ and unstable conditions	**CNMG 120404-BM**	0.4	0.15 - 0.30	0.5 - 1.5		● 00569	● 00570	● 00105						
	CNMG 120408-BM	0.8	0.15 - 0.30	1.0 - 3.0	● 00571	● 00572	● 00573	● 00107						
BC Cast Iron and ○ ✱ Medium roughing Steel	**CNMG 120404-BC**	0.4	0.20 - 0.40	0.5 - 2.5	● 00073	● 00355	● 00356	● 00357						
	CNMG 120408-BC	0.8	0.20 - 0.40	1.0 - 4.0	● 00075	● 00358	● 00359	● 00360						
	CNMG 120412-BC	1.2	0.20 - 0.40	1.5 - 4.5	● 00076	● 00361	● 00362	● 00363						

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
Vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 10-11

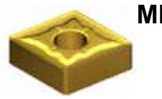
INSERT	LE	IC	S
CNMA/G 1204	12	12.7	4.76
CNMA/G 1606	16	15.88	6.35
CNMA/G 1906	19	19.05	6.35



▸ EDP Code TI..... Example: CNMG 120408-MR ET33C = TI00663

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

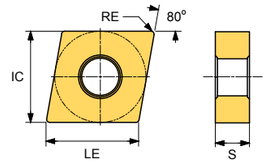
P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

CNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
 **MR** Roughing Stainless Steel and HRSA ◉ ✱	**CNMG 120408-MR**	0.8	0.30 - 0.55	1.2 - 5.5				● 00663		● 00660	● 00661	● 00662		
	CNMG 120412-MR	1.2	0.30 - 0.55	1.5 - 5.5						● 00404	● 00405	● 00098		
BR Roughing and Interrupted cut ◉ ✱	**CNMG 120408-BR**	0.8	0.30 - 0.50	1.0 - 4.0		● 00583	● 00584	● 00118						
	CNMG 120412-BR	1.2	0.30 - 0.50	1.5 - 5.0		● 00585	● 00586	● 00120	● 00030					
	CNMG 160612-BR	1.2	0.30 - 0.50	1.5 - 5.0		● 00587	● 00588	● 00589						
	CNMG 160616-BR	1.6	0.30 - 0.50	2.0 - 5.0		● 00590	● 00591	● 00592						
	CNMG 190612-BR	1.2	0.30 - 0.80	3.0 - 9.0	● 00593	● 00594								

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
vc (m/min) ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
vc (m/min) ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
vc (m/min) ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
vc (m/min) ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
vc (m/min) ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
vc (m/min) ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
vc (m/min) ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
vc (m/min) ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
vc (m/min) ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 10-11

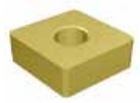
INSERT	LE	IC	S
CNMA/G 1204	12	12.7	4.76
CNMA/G 1606	16	15.88	6.35
CNMA/G 1906	19	19.05	6.35



▸ EDP Code TI..... Example: CNMA 120404 ET1001 = TI00072

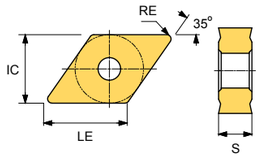
● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

CNMA	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
 Heavy roughing ◉ ✱	**CNMA 120404**	0.4	0.15 - 0.50	0.5 - 2.5	● 00072	● 00328								
	CNMA 120408	0.8	0.15 - 0.50	1.0 - 3.5	● 00025	● 00329								
	CNMA 120412	1.2	0.15 - 0.50	1.5 - 5.0	● 00026	● 00330								
	CNMA 160612	1.2	0.15 - 0.50	1.5 - 5.0	● 00027	● 00332								
	CNMA 160616	1.6	0.15 - 0.5	2.0 -5.0	● 00333	● 00334								
	CNMA 190616	1.6	0.15 - 1.0	3.0 - 10.0	● 00335	● 00336								

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
vc (m/min) ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
vc (m/min) ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
vc (m/min) ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
vc (m/min) ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
vc (m/min) ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
vc (m/min) ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
vc (m/min) ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
vc (m/min) ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
vc (m/min) ET10U	-	-	-	-	-	-	-	250 - 800	-	-

INSERT	LE	IC	S
DNMG 1504	15	12.7	4.76



▸ EDP Code TI..... Example: DNMG 150404-BF ET31C = TI00412

	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD				PVD				TaC	Bright

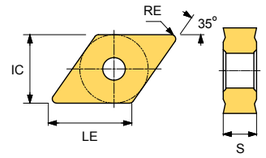
● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

DNMG 1504	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BF Finishing ○ ●	**DNMG 150404-BF**	0.4	0.05 - 0.25	0.5 - 1.5		● 00412	● 00413	● 00414	● 00032					
BG Medium cutting First choice ○ ●	**DNMG 150408-BG**	0.8	0.20 - 0.40	1.0 - 2.5	● 00482	● 00483	● 00484	● 00485	● 00033					
	DNMG 150412-BG	1.2	0.20 - 0.40	1.5 - 3.0			● 00486							
BM Medium cutting and unstable conditions ○ ✱	**DNMG 150412-BM**	1.2	0.15 - 0.30	1.5 - 4.0		● 00574								
MM Medium cutting Stainless Steel and HRSA ○ ●	**DNMG 150404-MM**	0.4	0.20 - 0.36	0.5 - 3.0				● 00344		● 00639				
	DNMG 150408-MM	0.8	0.20 - 0.35	1.0 - 3.5				● 00346		● 00345	● 00648			
	DNMG 150412-MM	1.2	0.20 - 0.35	1.5 - 3.5				● 00347						

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

TURNING

INSERT	LE	IC	S
DNMG 1504	15	12.7	4.76



▸ EDP Code TI..... Example: DNMG 150408-BC ET1001 = TI00364

	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD				PVD				TaC	Bright

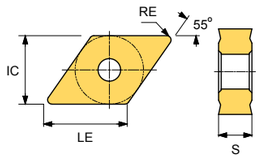
● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

DNMG 1504	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BC Cast Iron and Medium roughing Steel ○ ✱	**DNMG 150408-BC**	0.8	0.20 - 0.40	1.0 - 3.0	● 00364	● 00365								
	DNMG 150412-BC	1.2	0.20 - 0.40	1.5 - 3.5	● 00366	● 00367								
BR Roughing and Interrupted cut ● ✱	**DNMG 150412-BR**	1.2	0.30 - 0.50	1.5 - 4.0		● 595								

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 12-13

INSERT	LE	IC	S
DNMA 1506	15	12.7	6.35
DNMG 1506	15	12.7	6.35



▸ EDP Code TI..... Example: DNMG 150604-BF ET31C = TI00415

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◎ : Medium cutting ◉ : Heavy cutting

	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

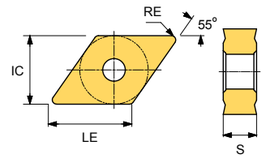
DNMG 1506	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BF Finishing ○ ●	**DNMG 150604-BF**	0.4	0.05 - 0.25	1.0 - 2.0		● 00415	● 00416	● 00125	● 00034					
	DNMG 150608-BF	0.8	0.05 -0.25	1.5 - 3.5		● 00417	● 00418	● 00128						
MF Finishing Stainless Steel and HRSA ○ ●	**DNMG 150604-MF**	0.4	0.07 - 0.30	0.2 - 1.5						● 00727				
	DNMG 150608-MF	0.8	0.07 - 0.30	0.2 - 1.5				● 00728		● 00729				
BL Light cutting and sticky materials ○ ●	**DNMG 150604-BL**	0.4	0.10 - 0.30	0.5 -2.0		● 00552	● 00553							
	DNMG 150608-BL	0.8	0.10 - 0.30	1.5 - 3.0		● 00554	● 00555	● 00131	● 00079					
BG Medium cutting First choice ◎ ●	**DNMG 150604-BG**	0.4	0.20 - 0.40	0.5 - 2.0		● 00487	● 00488	● 00136						
	DNMG 150608-BG	0.8	0.20 - 0.40	1.0 - 3.0	● 00489	● 00490	● 00491	● 00139	● 00035					
	DNMG 150612-BG	1.2	0.20 - 0.40	1.5 - 3.5	● 00492	● 00493	● 00494	● 00142						

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

TURNING

▸ Toolholders: page 12-13

INSERT	LE	IC	S
DNMA 1506	15	12.7	6.35
DNMG 1506	15	12.7	6.35



▸ EDP Code TI..... Example: DNMG 150608-BM ET31C = TI00575

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◎ : Medium cutting ◉ : Heavy cutting

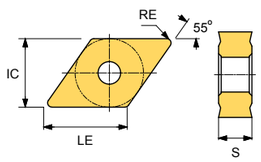
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

DNMG 1506	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BM Medium cutting and unstable conditions ◎ ✱	**DNMG 150608-BM**	0.8	0.15 - 0.30	0.5 - 2.0		● 00575	● 00576	● 00133						
MM Medium cutting Stainless Steel and HRSA ◎ ●	**DNMG 150604-MM**	0.4	0.20 - 0.35	0.5 - 3.0				● 00348		● 00641	● 00730			
	DNMG 150608-MM	0.8	0.20 - 0.35	1.0 - 3.5				● 00350		● 00349	● 00649	● 00862		
	DNMG 150612-MM	1.2	0.20 - 0.35	1.5 - 3.5				● 00351		● 00653	● 00650			
BC Cast Iron and Medium roughing Steel ◎ ✱	**DNMG 150608-BC**	0.8	0.20 - 0.40	1.0 - 3.0	● 00080	● 00368	● 00369	● 00370						
	DNMG 150612-BC	1.2	0.20 - 0.40	1.5 - 3.5	● 00081	● 00371	● 00372	● 00373						
BR Roughing and Interrupted cut ◎ ✱	**DNMG 150612-BR**	1.2	0.30 - 0.50	1.5 -4.0				● 00144	● 00036					

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 12-13

INSERT	LE	IC	S
DNMA 1506	15	12.7	6.35
DNMG 1506	15	12.7	6.35



▸ EDP Code TI..... Example: DNMG 150608-MR ET21P = TI00874

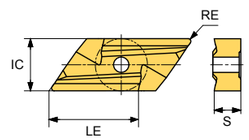
● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◎ : Medium cutting ◉ : Heavy cutting

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N									●	●	
S				○		●	●	●			
H		○			○						

DNMG 1506 DNMA 1506	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
MR Roughing ◎ ✱ Stainless Steel and HRSA	**DNMG 150608-MR**	0.8	0.30 - 0.55	2.0 - 5.5						● 00874	● 00731	● 00732		
	DNMG 150612-MR	1.2	0.30 - 0.55	2.0 - 5.5								● 00733		
 Cast Iron ◎ ✱ Heavy roughing	**DNMA 150608**	0.8	0.15 - 0.50	1.0 - 3.0	● 00077									
	DNMA 150612	1.2	0.15 - 0.50	1.5 - 4.0	● 00078									

ISO		P			M		K		N	S	H
	MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
	VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
Vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

INSERT	LE	IC	S
KNUX 1604	15	9.53	4.76



▸ EDP Code TI..... Example: KNUX 160405L ET31C = TI00623

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◎ : Medium cutting ◉ : Heavy cutting

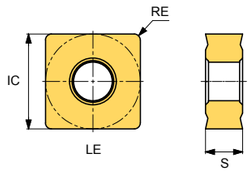
P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N									●	●	
S				○		●	●	●			
H		○			○						

KNUX	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
 Finishing to Medium ◎ ●	**KNUX 160405L**	0.5	0.10 - 0.40	0.5 - 6.0		● 00623	● 00624	● 00625	● 00038					
	KNUX 160405R	1.5	0.10 - 0.40	0.5 - 6.0		● 00626	● 00627	● 00628	● 00039					

ISO		P			M		K		N	S	H
	MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
	VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
Vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 13

INSERT	LE	IC	S
SNMA 1204	12	12.7	4.76
SNMG 1204	12	12.7	4.76



▸ EDP Code TI..... Example: SNMG120404-BF ET801 = TI00042

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

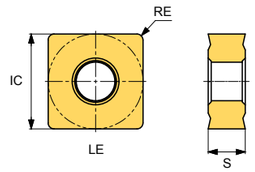
SNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BF Finishing ○ ●	**SNMG 120404-BF**	0.4	0.05 - 0.25	0.5 - 1.5					● 00042					
BL Light cutting and sticky materials ○ ●	**SNMG 120408-BL**	0.8	0.10 - 0.30	1.0 - 3.0		● 00556	● 00557	● 00558	● 00082					
BG Medium cutting First choice ◉ ●	**SNMG 120408-BG**	0.8	0.20 - 0.40	1.0 - 3.0		● 00503	● 00504	● 00505	● 00043					
	SNMG 120412-BG	1.2	0.20 - 0.40	1.5 - 4.0		● 00506	● 00507	● 00508						
BC Cast Iron and Medium roughing Steel ◉ ✱	**SNMG 120408-BC**	0.8	0.20 - 0.40	1.0 - 4.0	● 00083	● 00374	● 00375	● 00376						
	SNMG 120412-BC	1.2	0.20 - 0.40	1.5 - 4.5	● 00084									

ISO		P			M		K		N	S	H
	MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
	VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

TURNING

▸ Toolholders: page 13

INSERT	LE	IC	S
SNMA 1204	12	12.7	4.76
SNMG 1204	12	12.7	4.76



▸ EDP Code TI..... Example: SNMG 120408-BR ET31C = TI00596

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

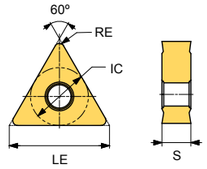
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

SNMG SNMA	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BR Roughing and Interrupted cut ◉ ✱	**SNMG 120408-BR**	0.8	0.30 - 0.50	1.0 - 4.5		● 00598	● 00599	● 00600						
	SNMG 120412-BR	1.2	0.30 - 0.50	1.5 - 5.0		● 00601	● 00602		● 00044					
Cast Iron Heavy roughing ◉ ✱	**SNMA 120408**	0.8	0.15 - 0.50	1.0 - 3.5	● 00040									
	SNMA 120412	1.2	0.15 - 0.50	1.5 - 3.5	● 00041									

ISO		P			M		K		N	S	H
	MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
	VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

Toolholders: page 14

INSERT	LE	IC	S
TNMA 1604	16	9.53	4.76
TNMG 1604	16	9.53	4.76
TNMG 2204	22	12.7	4.76



EDP Code TI..... Example: TNMG 160404-BF ET31C = TI00423

: Stable conditions : Unstable conditions

: Light cutting : Medium cutting : Heavy cutting

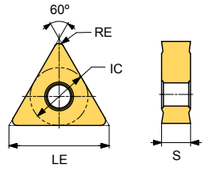
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

TNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BF Finishing	**TNMG 160404-BF**	0.4	0.05 - 0.25	1.0 - 2.0		● 00423	● 00424	● 00425	● 00048					
	TNMG 160408-BF	0.8	0.05 0.25	1.5 - 3.5		● 00426	● 00427	● 00428						
	TNMG 220404-BF	0.4	0.10 - 0.35	1.0 - 4.0		● 00429			● 00051					
MF Finishing Stainless Steel and HRSA	**TNMG 160404-MF**	0.4	0.05 - 0.30	0.2 - 1.5						● 00776	● 00777			
	TNMG 160408-MF	0.8	0.05 - 0.30	0.15 -1.5						● 00778	● 00779			
BL Light cutting and sticky materials	**TNMG 160408-BL**	0.8	0.10 - 0.30	1.0 - 3.0		● 00559	● 00560	● 00561						
BG Medium cutting First choice	**TNMG 160404-BG**	0.4	0.20 - 0.40	0.5 - 2.0	● 00515	● 00516	● 00517	● 00518						
	TNMG 160408-BG	0.8	0.20 - 0.40	1.0 - 3.0	● 00519	● 00520	● 00521	● 00522	● 00049					
	TNMG 220408-BG	0.8	0.25 - 0.60	1.0 - 4.0		● 00523	● 00524	● 00525	● 00052					

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

Toolholders: page 14

INSERT	LE	IC	S
TNMA 1604	16	9.53	4.76
TNMG 1604	16	9.53	4.76
TNMG 2204	22	12.7	4.76



EDP Code TI..... Example: TNMG 160408-BM ET31C = TI00577

: Stable conditions : Unstable conditions

: Light cutting : Medium cutting : Heavy cutting

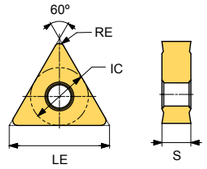
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

TNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BM Medium cutting and unstable conditions	**TNMG 160408-BM**	0.8	0.15 - 0.30	0.5 - 2.0		● 00577	● 00578	● 00579						
MM Medium cutting Stainless Steel and HRSA	**TNMG 160404-MM**	0.4	0.20 - 0.35	0.5 - 3.0						● 00781	● 00782			
	TNMG 160408-MM	0.8	0.15 - 0.30	1.0 - 3.5						● 00642	● 00783			
	TNMG 160412-MM	1.2	0.15 - 0.30	1.5 - 3.5						● 00784	● 00785			
BC Cast Iron and Medium roughing Steel	**TNMG 160404-BC**	0.4	0.20 - 0.40	0.5 - 2.5	● 00377	● 00378	● 00379	● 00380						
	TNMG 160408-BC	0.8	0.20 - 0.40	1.0 - 3.0	● 00085	● 00381	● 00382	● 00383						
	TNMG 160412-BC	1.2	0.20 - 0.40	1.5 - 3.5	● 00086									
BR Roughing and Interrupted cut	**TNMG 160412-BR**	1.2	0.30 - 0.50	1.5 - 3.0		● 00603	● 00604	● 00605	● 00050					
	TNMG 220412-BR	1.2	0.30 - 0.65	1.5 - 4.0	● 00606	● 00607	● 00608	● 00609	● 00053					
	TNMG 220416-BR	1.6	0.30 - 0.65	2.0 - 4.0	● 00610	● 00611								

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 14

INSERT	LE	IC	S
TNMA 1604	16	9.53	4.76
TNUX 1604	16	9.53	4.76



▸ EDP Code TI..... Example: TNMA 160408 ET1001 = TI00046

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

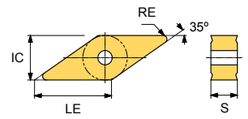
TNMA TNUX	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
Cast Iron Heavy roughing ○ ✱	**TNMA 160408**	0.8	0.15 - 0.50	1.0 - 3.0	● 00046									
	TNMA 160412	1.2	0.15 - 0.50	1.5 - 4.0	● 00047									
Finishing to Medium ○ ●	**TNUX 160404L**	0.4	0.10 - 0.30	0.5 - 4.0		● 00629	● 00630		● 00054					
	TNUX 160404R	0.4	0.10 - 0.30	0.5 - 4.0		● 00631	● 00632		● 00055					
	TNUX 160408L	0.8	0.10 - 0.40	0.5 - 6.0		● 00633	● 00634		● 00056					
	TNUX 160408R	0.8	0.10 - 0.40	0.5 - 6.0		● 00635	● 00636		● 00057					

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
vc (m/min) ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
vc (m/min) ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
vc (m/min) ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
vc (m/min) ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
vc (m/min) ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
vc (m/min) ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
vc (m/min) ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
vc (m/min) ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
vc (m/min) ET10U	-	-	-	-	-	-	-	250 - 800	-	-

TURNING

▸ Toolholders: page 14

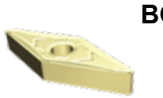
INSERT	LE	IC	S
VNMA 1604	16	9.53	4.76
VNMG 1604	16	19.53	4.76



▸ EDP Code TI..... Example: VNMG 160404-BF ET31C = TI00435

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

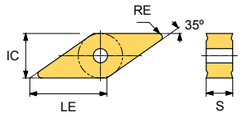
● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

VNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
BF Finishing ○ ●	**VNMG 160404-BF**	0.4	0.05 - 0.25	0.5 - 2.0		● 00435	● 00436	● 00437	● 00061					
	VNMG 160408-BF	0.8	0.05 - 0.25	1.0 - 2.5		● 00438	● 00439	● 00440						
MF Finishing Stainless Steel and HRSA ○ ●	**VNMG 160408-MF**	0.8	0.05 - 0.30	0.2 - 1.5				● 00792		● 00793				
BL Light cutting and sticky materials ○ ●	**VNMG 160408-BL**	0.8	0.10 - 0.30	1.0 - 2.5		● 00562	● 00563							
BG  Medium cutting First choice ○ ●	**VNMG 160404-BG**	0.4	0.20 - 0.40	1.0 - 3.0				● 00884						
	VNMG 160408-BG	0.8	0.20 - 0.40	1.0 - 3.0	● 00532	● 00533	● 00534	● 00535	● 00062					

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
vc (m/min) ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
vc (m/min) ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
vc (m/min) ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
vc (m/min) ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
vc (m/min) ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
vc (m/min) ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
vc (m/min) ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
vc (m/min) ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
vc (m/min) ET10U	-	-	-	-	-	-	-	250 - 800	-	-

Toolholders: page 14

INSERT	LE	IC	S
VNMA 1604	16	9.53	4.76
VNMG 1604	16	19.53	4.76



EDP Code TI..... Example: VNMG 160404-MM ET21P = TI00794

: Stable conditions : Unstable conditions

: Light cutting : Medium cutting : Heavy cutting

	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

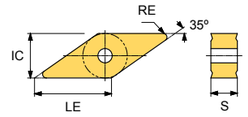
VNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
MM Medium cutting Stainless Steel and HRSA	**VNMG 160404-MM**	0.4	0.20 - 0.35	0.5 - 3.5						● 00794	● 00795			
	VNMG 160408-MM	0.8	0.20 - 0.35	0.5 - 3.5						● 00796	● 00797			
BC Cast Iron and Medium roughing Steel	**VNMG 160404-BC**	0.4	0.20 - 0.40	0.5 - 2.5		● 00384								
	VNMG 160408-BC	0.8	0.20 - 0.40	1.0 - 3.0	● 00385	● 00386	● 00387	● 00388						
BR Roughing and Interrupted cut	**VNMG 160412-BR**	1.2	0.30 - 0.50	1.0 - 3.0		● 00612	● 00613	● 00614	● 00063					

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
ET10U	-	-	-	-	-	-	-	250 - 800	-	-

vc (m/min)

Toolholders: page 14

INSERT	LE	IC	S
VNMA 1604	16	9.53	4.76
VNMG 1604	16	19.53	4.76



EDP Code TI..... Example: VNMG 160408-MR ET33C = TI00796

: Stable conditions : Unstable conditions

: Light cutting : Medium cutting : Heavy cutting

	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD					PVD			TaC	Bright

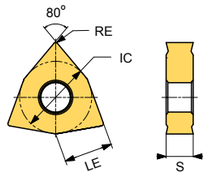
VNMG VNMA	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
MR Roughing Stainless Steel and HRSA	**VNMG 160408-MR**	0.8	0.30 - 0.55	2.0 - 5.5				● 00798			● 00799			
Cast Iron Heavy roughing	**VNMA 160408**	0.8	0.15 - 0.50	1.0 - 3.0	● 00337									

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
ET10U	-	-	-	-	-	-	-	250 - 800	-	-

vc (m/min)

▸ Toolholders: page 15

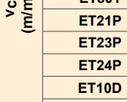
INSERT	LE	IC	S
WNMG 0604	06	9.53	4.76
WNMA 0804	08	12.7	6.35
WNMG 0804	08	12.7	6.35



▸ EDP Code TI..... Example: WNMG 060404-BF ET31C = TI00441

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

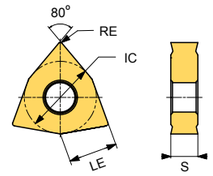
● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

WNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
 **BF** Finishing ○ ●	**WNMG 060404-BF**	0.4	0.05 - 0.20	0.5 - 2.5		● 00441	● 00442	● 00199	● 00067					
	WNMG 080404-BF	0.4	0.05 - 0.25	1.0 - 3.5		● 00443	● 00444	● 00204	● 00069					
	WNMG 080408-BF	0.8	0.05 - 0.25	1.5 - 5.0		● 00445	● 00446	● 00207						
MF Finishing Stainless Steel and HRSA ○ ●	**WNMG 060404-MF**	0.4	0.07 - 0.30	0.2 - 1.5				● 00886						
	WNMG 080404-MF	0.4	0.07 - 0.30	0.15 - 1.5				● 00823		● 00824	● 00825	● 00861		
	WNMG 080408-MF	0.8	0.07 - 0.30	0.2 - 1.5				● 00950		● 00826	● 00827			
BL Light cutting and sticky materials ○ ●	**WNMG 060408-BL**	0.8	0.10 - 0.30	1.0 - 2.5		● 00564	● 00565	● 00566						
	WNMG 080408-BL	0.8	0.10 - 0.30	1.0 - 3.0		● 00567	● 00568	● 00209	● 00088					
MM Medium cutting Stainless Steel and HRSA ○ ●	**WNMG 080404-MM**	0.4	0.20 - 0.35	0.5 - 3.5						● 00643	● 00651			
	WNMG 080408-MM	0.8	0.20 - 0.35	1.0 - 3.5				● 00354		● 00352	● 00353			
	WNMG 080412-MM	1.2	0.20 - 0.35	1.5 - 3.5						● 00644	● 00652			

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
vc (m/min) ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
vc (m/min) ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
vc (m/min) ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
vc (m/min) ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
vc (m/min) ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
vc (m/min) ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
vc (m/min) ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
vc (m/min) ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
vc (m/min) ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 15

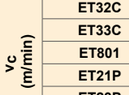
INSERT	LE	IC	S
WNMG 0604	06	9.53	4.76
WNMA 0804	08	12.7	6.35
WNMG 0804	08	12.7	6.35



▸ EDP Code TI..... Example: WNMG 060408-BG ET32C = TI00536

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ● : Heavy cutting

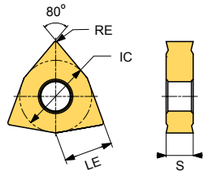
WNMG	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
 **BG** Medium cutting First choice ○ ●	**WNMG 060408-BG**	0.8	0.20 - 0.40	1.0 - 2.5			● 00536		● 00068					
	WNMG 080404-BG	0.4	0.20 - 0.40	1.5 - 2.5		● 00537	● 00538	● 00214						
	WNMG 080408-BG	0.8	0.20 - 0.40	1.0 - 3.5	● 00539	● 00540	● 00541	● 00217	● 00070					
	WNMG 080412-BG	1.2	0.20 - 0.40	1.5 - 3.5	● 00542	● 00543	● 00544							
BM Medium cutting and unstable conditions ○ ✱	**WNMG 080408-BM**	0.8	0.15 - 0.30	1.0 - 3.0	● 00580	● 00581	● 00582	● 00211						
	WNMG 080412-BM	1.2	0.15 - 0.30	1.5 - 3.0			● 00811	● 00812						
BC Cast Iron and Medium roughing Steel ○ ✱	**WNMG 080404-BC**	0.4	0.25 - 0.40	0.5 - 3.5	● 00087	● 00389	● 00390	● 00391						
	WNMG 080408-BC	0.8	0.20 - 0.40	1.0 - 4.0	● 00089	● 00392	● 00393	● 00394						
	WNMG 080412-BC	1.2	0.20 - 0.40	1.5 - 4.5	● 00090	● 00395	● 00396	● 00397						

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
vc (m/min) ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
vc (m/min) ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
vc (m/min) ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
vc (m/min) ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
vc (m/min) ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
vc (m/min) ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
vc (m/min) ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
vc (m/min) ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
vc (m/min) ET10U	-	-	-	-	-	-	-	250 - 800	-	-

TURNING

▸ Toolholders: page 15

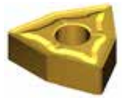
INSERT	LE	IC	S
WNMG 0604	06	9.53	4.76
WNMA 0804	08	12.7	6.35
WNMG 0804	08	12.7	6.35



▸ EDP Code TI..... Example: WNMG 060412-MR ET21P = TI00807

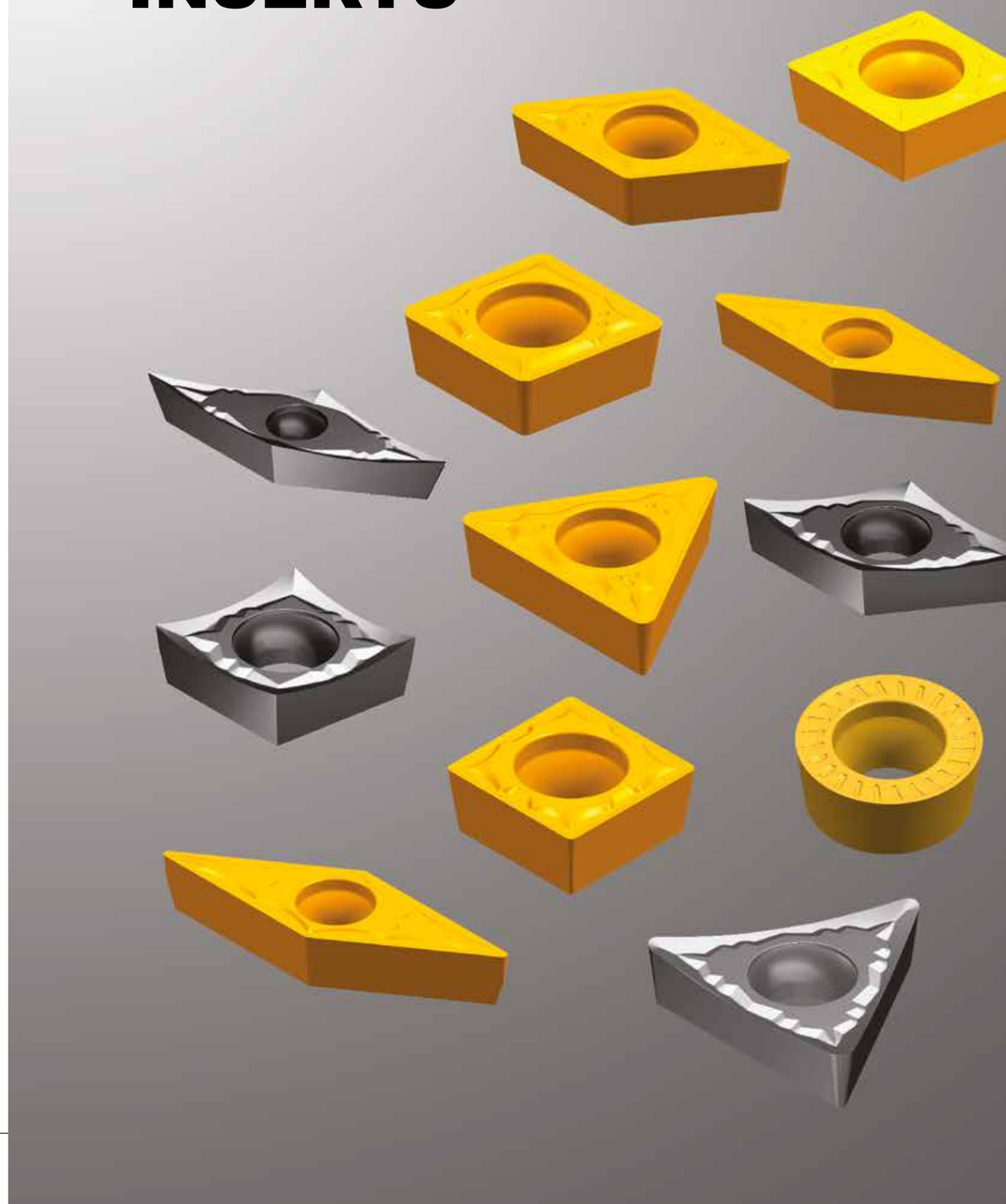
P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ○ : Medium cutting ○ : Heavy cutting

WNMG WNMA	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD					PVD			TaC	Bright
 **MR** Roughing Stainless Steel and HRSA ○ ✱	**WNMG 060412-MR**	1.2	0.20 - 0.50	1.2 - 4.0						● 00807				
	WNMG 080408-MR	0.8	0.30 - 0.55	2.0 - 5.5				● 00951		● 00828	● 00829	● 00830		
	WNMG 080412-MR	1.2	0.30 - 0.55	2.0 - 5.5				● 00831		● 00832	● 00833	● 00834		
BR Roughing and Interrupted cut ○ ✱	**WNMG 080408-BR**	0.8	0.30 - 0.50	1.2 - 5.0	● 00615	● 00616	● 00617	● 00219						
	WNMG 080412-BR	1.2	0.30 - 0.50	1.5 - 5.0	● 00618	● 00619	● 00620	● 00221	● 00071					
	WNMG 080416-BR	1.6	0.30 - 0.50	2.0 - 5.0	● 00621	● 00622								
Heavy roughing ○ ✱	**WNMA 080404**	0.4	0.15 - 0.50	0.5 - 2.5	● 00064									
	WNMA 080408	0.8	0.15 - 0.50	1.0 - 3.5	● 0065	● 00338								
	WNMA 080412	1.2	0.15 - 0.50	1.5 - 5.0	● 00066	● 00339								

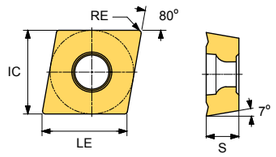
ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
Vc (m/min)	**ET1001**	**220 - 480**	**220 - 420**	**-**	**-**	**-**	**170 - 420**	**120 - 410**	**-**	**-**	**-**
	ET31C	**170 - 450**	**180 - 380**	**100 - 330**	**-**	**-**	**120 - 300**	**120 - 280**	**-**	**-**	**40 - 80**
	ET32C	**180 - 380**	**110 - 350**	**60 - 300**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	ET33C	**150 - 350**	**90 - 300**	**70 - 250**	**120 - 220**	**50 - 180**	**-**	**-**	**-**	**35 - 80**	**-**
	ET801	**120 - 200**	**70 - 230**	**70 - 180**	**-**	**-**	**60 - 160**	**60 - 120**	**-**	**-**	**40 - 80**
	ET21P	**-**	**-**	**-**	**130 -230**	**100 - 200**	**-**	**-**	**-**	**30 - 90**	**-**
	ET23P	**-**	**-**	**-**	**110 - 180**	**40 - 130**	**-**	**-**	**-**	**20 - 40**	**-**
	ET24P	**-**	**-**	**-**	**80 - 150**	**30 - 120**	**-**	**-**	**-**	**20 - 40**	**-**
	ET10D	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**350 - 1200**	**-**	**-**
	ET10U	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**250 - 800**	**-**	**-**

POSITIVE INSERTS



▸ Toolholders: page 16-17

INSERT	LE	IC	S
CCMT 0602	06	6.35	2.38
CCGT/MT 09T3	09	9.53	3.97
CCGT/MT 1204	12	12.7	4.76



▸ EDP Code TI..... Example: CCMT 060204-BF ET31C = TI00398

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◎ : Medium cutting ◉ : Heavy cutting

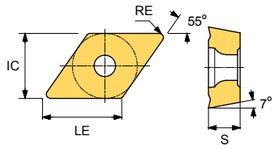
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				◎		●	●	●		
H		◎			◎					
	CVD					PVD			TaC	Bright

CCMT CCGT	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BF	CCMT 060204-BF	0.4	0.05 - 0.20	0.5 - 1.5		● 00398	● 00399		● 00001					
Finishing ○ ●	CCMT 09T304-BF	0.4	0.05 - 0.20	0.5 - 2.0		● 00400	● 00401		● 00003					
	CCMT 09T308-BF	0.8	0.05 - 0.20	0.8 - 2.0				● 00883						
BG	CCMT 060204-BG	0.4	0.10 - 0.25	0.5 - 2.0		● 00447		● 00838						
	CCMT 060208-BG	0.8	0.10 - 0.25	0.8 - 2.0		● 00448		● 00839	● 00002					
	CCMT 09T304-BG	0.4	0.15 - 0.30	0.5 - 2.0		● 00449	● 00450	● 00840						
	CCMT 09T308-BG	0.8	0.15 - 0.30	0.8 - 2.5	● 00451	● 00452	● 00453	● 00454	● 00004					
	CCMT 120404-BG	0.4	0.15 - 0.35	0.5 - 2.5		● 00455	● 00456							
	CCMT 120408-BG	0.8	0.15 - 0.35	0.8 - 3.5		● 00457	● 00458	● 00459	● 00005					
Medium cutting ○ ●	CCMT 120412-BG	1.2	0.15 - 0.35	1.2 - 3.5		● 00460								
AL	CCGT 09T302-AL	0.2	0.02 - 0.08	0.5 - 1.0									● 00222	● 00223
	CCGT 09T304-AL	0.4	0.05 - 0.25	0.5 - 2.0									● 00224	● 00225
	CCGT 09T308-AL	0.8	0.10 - 0.35	1.0 - 3.0									● 00226	● 00227
	CCGT 120402-AL	0.2	0.04 - 0.15	0.1 - 1.0									● 00311	● 00310
	CCGT 120404-AL	0.4	0.04 - 0.20	0.3 - 1.5									● 00313	● 00312
Aluminium Finishing to Medium ○ ●	CCGT 120408-AL	0.8	0.04 - 0.20	0.6 - 2.5									● 00315	● 00314

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
Vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 18-19

INSERT	LE	IC	S
DCMT 0702	07	6.35	2.38
DCGT/MT 11T3	11	9.53	3.97



▸ EDP Code TI..... Example: DCMT 070204-BF ET31C = TI00406

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◎ : Medium cutting ◉ : Heavy cutting

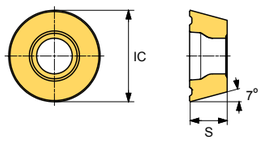
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				◎		●	●	●		
H		◎			◎					
	CVD					PVD			TaC	Bright

DCMT DCGT	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BF	DCMT 070204-BF	0.4	0.05 - 0.20	0.5 - 1.5		● 00406	● 00407	● 00879	● 00006					
Finishing ○ ●	DCMT 11T304-BF	0.4	0.05 - 0.25	0.5 - 2.0		● 00408	● 00409	● 00880	● 00007					
	DCMT 11T308-BF	0.8	0.05 - 0.25	1.0 - 2.5		● 00410	● 00411	● 00882						
BG	DCMT 070204-BG	0.4	0.10 - 0.25	0.5 - 1.5		● 00474	● 00475							
	DCMT 070208-BG	0.8	0.10 - 0.25	0.8 - 1.5		● 00476								
	DCMT 11T304-BG	0.4	0.15 - 0.30	0.5 - 2.0		● 00477	● 00478	● 00881						
Medium cutting ○ ●	DCMT 11T308-BG	0.8	0.15 - 0.30	0.8 - 2.5		● 00479	● 00480	● 00481	● 00008					
AL	DCGT 11T302-AL	0.2	0.02 - 0.08	0.5 - 1.0									● 00241	● 00242
	DCGT 11T304-AL	0.4	0.05 - 0.25	0.5 - 2.0									● 00243	● 00244
Aluminium Finishing to Medium ○ ●	DCGT 11T308-AL	0.8	0.10 - 0.30	1.0 - 2.5									● 00245	● 00246

ISO	P			M		K		N	S	H
MATERIAL	Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
Vc (m/min) ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 20

INSERT	LE	IC	S
RCMT 0602	-	6.0	2.38
RCMT 0803	-	8.0	3.18
RCMT 10T3	-	10.0	3.97
RCMT 1204	-	12.0	4.76



▸ EDP Code TI..... Example: RCMT 0602MO ET1001 = TI00316

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

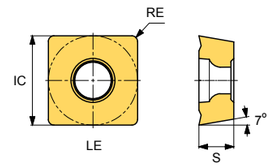
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD				PVD				TaC	Bright

RCMT	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
Finishing to Medium cutting ◉ ●	**RCMT 0602MO**	-	0.05 - 0.25	0.2 - 1.2	● 00316	● 00317	● 00318		● 00009					
	RCMT 0803MO	-	0.05 - 0.30	0.5 - 1.5	● 00319	● 00320	● 00321		● 00010					
	RCMT 10T3MO	-	0.10 - 0.35	0.5 - 2.5	● 00322	● 00323	● 00324		● 00011					
	RCMT 1204MO	-	0.15 - 0.45	0.5 - 3.0	● 00325	● 00326	● 00327		● 00012					

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	**ET1001**	**220 - 480**	**220 - 420**	-	-	-	**170 - 420**	**120 - 410**	-	-	-
	ET31C	**170 - 450**	**180 - 380**	**100 - 330**	-	-	**120 - 300**	**120 - 280**	-	-	**40 - 80**
	ET32C	**180 - 380**	**110 - 350**	**60 - 300**	-	-	-	-	-	-	-
	ET33C	**150 - 350**	**90 - 300**	**70 - 250**	**120 - 220**	**50 - 180**	-	-	-	**35 - 80**	-
	ET801	**120 - 200**	**70 - 230**	**70 - 180**	-	-	**60 - 160**	**60 - 120**	-	-	**40 - 80**
	ET21P	-	-	-	**130 -230**	**100 - 200**	-	-	-	**30 - 90**	-
	ET23P	-	-	-	**110 - 180**	**40 - 130**	-	-	-	**20 - 40**	-
	ET24P	-	-	-	**80 - 150**	**30 - 120**	-	-	-	**20 - 40**	-
	ET10D	-	-	-	-	-	-	-	**350 - 1200**	-	-
	ET10U	-	-	-	-	-	-	-	**250 - 800**	-	-

▸ Toolholders: page 20

INSERT	LE	IC	S
SCMT 09T3	09	9.53	3.97
SCMT 1204	12	12.7	4.76



▸ EDP Code TI..... Example: SCMT09T304-BF ET31C = TI00419

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

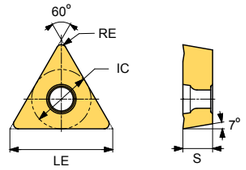
	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
P	●	●	●	●	●					
M				●		●	●	●		
K	●	●			●					
N									●	●
S				○		●	●	●		
H		○			○					
	CVD				PVD				TaC	Bright

SCMT	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
BF Finishing ○ ●	**SCMT 09T304-BF**	0.4	0.05 - 0.25	0.5 - 2.0		● 00419	● 00307		● 00013					
BG Medium cutting ◉ ●	**SCMT 09T304-BG**	0.4	0.15 - 0.30	1.0 - 2.5	● 00495	● 00496								
	SCMT 09T308-BG	0.8	0.15 - 0.30	1.0 - 2.5	● 00497	● 00498	● 00499		● 00014					
	SCMT 120408-BG	0.8	0.15 - 0.35	1.0 - 3.5		● 00500	● 00501	● 00502						

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	**ET1001**	**220 - 480**	**220 - 420**	-	-	-	**170 - 420**	**120 - 410**	-	-	-
	ET31C	**170 - 450**	**180 - 380**	**100 - 330**	-	-	**120 - 300**	**120 - 280**	-	-	**40 - 80**
	ET32C	**180 - 380**	**110 - 350**	**60 - 300**	-	-	-	-	-	-	-
	ET33C	**150 - 350**	**90 - 300**	**70 - 250**	**120 - 220**	**50 - 180**	-	-	-	**35 - 80**	-
	ET801	**120 - 200**	**70 - 230**	**70 - 180**	-	-	**60 - 160**	**60 - 120**	-	-	**40 - 80**
	ET21P	-	-	-	**130 -230**	**100 - 200**	-	-	-	**30 - 90**	-
	ET23P	-	-	-	**110 - 180**	**40 - 130**	-	-	-	**20 - 40**	-
	ET24P	-	-	-	**80 - 150**	**30 - 120**	-	-	-	**20 - 40**	-
	ET10D	-	-	-	-	-	-	-	**350 - 1200**	-	-
	ET10U	-	-	-	-	-	-	-	**250 - 800**	-	-

▸ Toolholders: page 21

INSERT	LE	IC	S
TCMT 1102	11	6.35	2.38
TCGT/MT 16T3	16	9.53	3.97



▸ EDP Code TI..... Example: TCMT 110204-BF ET31C = TI00420

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

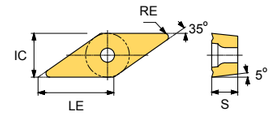
P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

TCMT TCGT	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD				PVD				TaC	Bright
BF Finishing ○ ●	**TCMT 110204-BF**	0.4	0.05 - 0.20	0.5 - 2.0		● 00420	● 00308		● 00016					
	TCMT 16T304-BF	0.4	0.05 - 0.25	0.5 - 3.0		● 00421	● 00422		● 00017					
	TCMT 16T308-BF	0.8	0.05 - 0.25	0.8 - 3.0				● 00905						
BG Medium cutting ◉ ●	**TCMT 110208-BG**	0.8	0.15 - 0.25	0.8 - 2.0		● 00509								
	TCMT 16T304-BG	0.4	0.15 - 0.30	0.5 - 2.0		● 00510	● 00511							
	TCMT 16T308-BG	0.8	0.15 - 0.30	0.8 - 2.0	● 00512	● 00513	● 00309	● 00514	● 00018					
AL Aluminium Finishing to Medium ○ ●	**TCGT 16T302-AL**	0.2	0.02 - 0.05	0.5 - 1.0									● 00222	● 00223
	TCGT 16T304-AL	0.4	0.05 - 0.25	0.5 - 2.0									● 00313	● 00312
	TCGT 16T308-AL	0.8	0.10 - 0.35	1.0 - 3.0									● 00315	● 00314

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-

▸ Toolholders: page 21

INSERT	LE	IC	S
VBMT 1604	16	9.53	4.76



▸ EDP Code TI..... Example: VBMT 160404-BF ET31C = TI00430

● : Stable conditions ✱ : Unstable conditions
○ : Light cutting ◉ : Medium cutting ◉ : Heavy cutting

P	●	●	●	●	●						
M				●		●	●	●			
K	●	●			●						
N										●	●
S				○		●	●	●			
H		○			○						

VBMT	ISO DESIGNATION	RE (mm)	fn (mm/rev)	ap (mm)	ET1001	ET31C	ET32C	ET33C	ET801	ET21P	ET23P	ET24P	ET10D	ET10U
					CVD				PVD				TaC	Bright
BF Finishing ○ ●	**VBMT 160404-BF**	0.4	0.05 - 0.25	0.5 - 2.0		● 00430	● 00431		● 00020					
	VBMT 160408-BF	0.8	0.05 - 0.25	0.5 - 3.0		● 00432	● 00433							
BG Medium cutting ◉ ●	**VBMT 160404-BG**	0.4	0.15 - 0.30	0.5 - 2.5		● 00526	● 00527							
	VBMT 160408-BG	0.8	0.20 - 0.40	1.0 - 3.0		● 00528	● 00529	● 00530	● 00021					

ISO		P			M		K		N	S	H
MATERIAL		Non-alloy steel	Low alloy steel	High alloy steel	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel
VDI GROUP		1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38
vc (m/min)	ET1001	220 - 480	220 - 420	-	-	-	170 - 420	120 - 410	-	-	-
	ET31C	170 - 450	180 - 380	100 - 330	-	-	120 - 300	120 - 280	-	-	40 - 80
	ET32C	180 - 380	110 - 350	60 - 300	-	-	-	-	-	-	-
	ET33C	150 - 350	90 - 300	70 - 250	120 - 220	50 - 180	-	-	-	35 - 80	-
	ET801	120 - 200	70 - 230	70 - 180	-	-	60 - 160	60 - 120	-	-	40 - 80
	ET21P	-	-	-	130 -230	100 - 200	-	-	-	30 - 90	-
	ET23P	-	-	-	110 - 180	40 - 130	-	-	-	20 - 40	-
	ET24P	-	-	-	80 - 150	30 - 120	-	-	-	20 - 40	-
	ET10D	-	-	-	-	-	-	-	350 - 1200	-	-
	ET10U	-	-	-	-	-	-	-	250 - 800	-	-