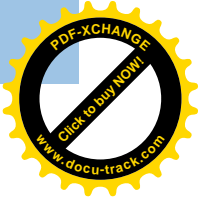
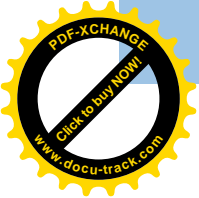




























## CLASSIFICATION

Cutter Type	Order Number	Page	Cutter Type	Order Number	Page	Cutter Type	Order Number	Page
	<b>NEW</b> JOMW06T215ZZSR-FT	C020		SOET12T308PEER-JL	C028		SEMT13T3AGSN-JH	C028
	080320ZZSR-FT							
	JDMW09T320ZDSR-FT							
	120420ZDSR-FT							
	<b>NEW</b> JOMT06T215ZZSR-JM	C020		SOGT12T308PEFR-JP	C029		SEMT13T3AGSN-JM	C028
	080320ZZSR-JM							
	JDMT09T320ZDSR-JM							
	120420ZDSR-JM							
	JDMT120420ZDSR-ST	C020		SOMT12T308PEER-JH	C029		WEEW13T3AGER8C	C041
	140520ZDSR-ST						13T3AGTR8C	
	AOMT123602PEER-M	C018		SOMT12T308PEER-JM	C029		WEEW13T3AGFR3C	C044
	123604PEER-M						13T3AGTR3C	
	123608PEER-M							
	123610PEER-M							
	123612PEER-M							
	123616PEER-M							
	<b>NEW</b> 123620PEER-M							
	<b>NEW</b> 123624PEER-M							
	123630PEER-M							
	123632PEER-M							
	<b>NEW</b> AOMT123604PEER-H	C018		SOMT12T320PEER-FT	C029		<b>NEW</b> XDGX227008PDFR-GL	C037
	<b>NEW</b> 123608PEER-H							
	<b>NEW</b> AOMT184804PEER-M	C018		WOEW12T308PEER8C	C041		<b>NEW</b> 227020PDFR-GL	C037
	<b>NEW</b> 184808PEER-M						12T308PETR8C	
	QOGT0830R-G1	C022		SEET13T3AGEN-JL	C027		AEMW150304ER	C018
	1035R-G1						150304FR	
	1342R-G1						150308ER	
	1651R-G1						150308FR	
	<b>NEW</b> 1856R-G1						19T304ER	
	2062R-G1						19T304FR	
2576R-G1		19T308ER						
	QOMT0830R-M2	C022		SEGT13T3AGFN-JP	C027		APMT1135PDER-H1	C019
	1035R-M2						1135PDER-H2	
	1342R-M2						1135PDER-H3	
	1651R-M2						1135PDER-H4	
	<b>NEW</b> 1856R-M2						1135PDER-H6	
	2062R-M2						APMT1135PDER-M0	
2576R-M2		1135PDER-M1	C019					
		1135PDER-M2						
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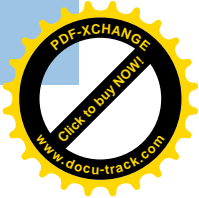
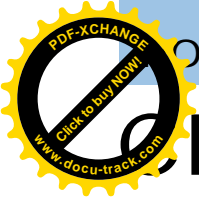


Cutter Type	Order Number	Page	
BAP300 Under-cut type 	ZRM0603R-M3	C038	
	0603R-M4		
	0603R-M5		
BAP3500 	XPGT13T3PDER-G1	C037	
	13T3PDER-G2		
	13T3PDER-G6		
	13T3PDER-G75		
	13T3PDER-G8		
	XPGT13T3PDFR-G1	C037	
	13T3PDFR-G2		
	13T3PDFR-G6		
	13T3PDFR-G75		
	13T3PDFR-G8		
	XPMT13T3PDER-M1	C038	
	13T3PDER-M2		
	13T3PDER-M6		
	13T3PDER-M75		
	13T3PDER-M8		
BAP400 SRM2 	APMT1604PDER-H1	C019	
	1604PDER-H2		
	1604PDER-H4		
	1604PDER-H6		
	1604PDER-H8		
		APMT1604PDER-M2	C019
	APGT1604PDFR-G2	C018	
BF407 QBF407 	SFAN1203ZFFR2	C028	
	1203ZFFL2		
	SFCN1203ZFFR2		
	1203ZFFL2		
	SFCN1203ZFFR2	C042	
	WFC42ZFER2	C044	

Cutter Type	Order Number	Page
BF407 QBF407 	NEW NP-WFC42ZFER2	C044
BN425 	SNMF43B2G	C028
BRE 	REMT2004M0	C023
	REMW2004M0	C024
BRP 	RPMW08T2M0E	C025
	08T2M0T	
	10T3M0E	
	10T3M0T	
	1204M0E	
	1204M0T	
	1606M0E	
1606M0T		
	RPMT08T2M0E-JS	C025
	10T3M0E-JS	
	1204M0E-JS	
	1606M0E-JS	
BSP 	SPMB1204APT	C031
BXD4000 	XDGT1550PDER-G04	C036
	1550PDER-G08	
	1550PDER-G12	
	1550PDER-G16	
	1550PDER-G20	
	1550PDER-G30	
	1550PDER-G32	
1550PDER-G40		
1550PDER-G50		

Cutter Type	Order Number	Page
BXD4000 	XDGT1550PDFR-G04	C037
	1550PDFR-G08	
	1550PDFR-G12	
	1550PDFR-G16	
	1550PDFR-G20	
	1550PDFR-G30	
	1550PDFR-G32	
1550PDFR-G40		
1550PDFR-G50		
	NEW XDGT1550PDFR-GL04	C037
	NEW 1550PDFR-GL08	
BXD7000 	XDGT2206PDFR-G08	C037
	2206PDFR-G16	
	2206PDFR-G20	
	2206PDFR-G30	
	2206PDFR-G40	
2206PDFR-G50		
CBJP TAB 	JPMT060204-C	C020
	060204-E	
CBMP ECMP TAB 	MPMT070308	C021
	090308	
	120408	
CE/F/GSP DCSP 	SPMW090304	C031
	090308	
	120304	
120308		
CV20 	RPMN2004M0	C024
DCCC 	CCMX083508EN-A	C019
	09T308EN-A	

CLASSIFICATION ROTATING INSERTS








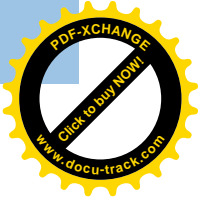
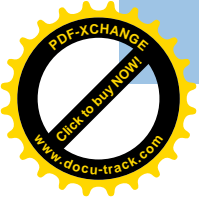
# CLASSIFICATION











CLASSIFICATION ROTATING INSERTS

Cutter Type	Order Number	Page
	CCMX09T308EN-B	C019
	ZCMX083508ER-A 09T308ER-A	
	ZCMX09T308ER-B	C038
	WEC42W11R 42W11L	C044
	UDC16F 20F 25F 30F 32F	C036
	UDC16F 20F 25F 32F	C043
	SPEN1203EEER1 1203EEEL1 SPNN1203EEER1 1203EEEL1	C030
	SPER1203EEER-JS	C030
	SPEN1203EETR1	C042
	WPC42EEER10C 42EEEL10C 42EETR10C	C041









Cutter Type	Order Number	Page
	SPCA53Z	C029
	SPCG53Z	C029
	SPEN424A	C030
	FP590	C030
	SPEN535A	C021
	MG200	C021
	MGEEW1035PFTR	C021
	MG300	C021
	MGEEW1242PFTR	C021
	MG400	C021
	MGEEW1650PFTR	C021
	MG245	C021
	MGEEW1035AFTR	C021
	MG345	C021
	MGEEW1242AFTR	C021
	MG445	C021

Cutter Type	Order Number	Page
	MGEEW1650AFTR	C021
	NSE300 SE300	C034
	TEEN1603PEFR1 1603PEER1 1603PETR1 1603PETR3 1603PESR1 1603PEZR1	C034
	TECN1603PEFR1W 1603PEER1W 1603PETR1W	C034
	TEER1603PEER-JS	C034
	TECN1603PEFR1	C042
	TECN2204PEFR1 2204PEER1 2204PETR1 TEEN2204PEFR1 2204PEFL1 2204PEER1 2204PEEL1 2204PETR1 2204PETR3 2204PESR1 2204PEZR1	C034
	TEKN2204PEER1 2204PETR1 2204PESR1 2204PETR 2204PEZR	C034
	TEER2204PEER-JS	C034

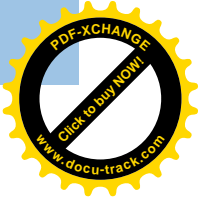
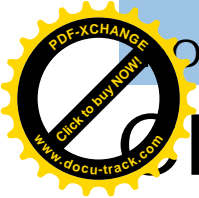


Cutter Type	Order Number	Page
NSE400 SE400 	TECN2204PEFR1	C042
OCTACUT 	OEEEX1705ETR1	C022
	OEMX12T3ETR1	
	12T3ESR1	
	1705ETR1	
	1705ESR1	
	OEMX12T3ETR1	C042
	OEMX12T3EER1-JS	C022
	12T3ETR1-JS	
	1705EER1-JS	
	1705ETR1-JS	
	REMX12T3TN	C024
	12T3SN	
	1705TN	
	1705SN	
	REMX12T3EN-JS	C024
	12T3TN-JS	
	1705EN-JS	
	1705TN-JS	
PMF 	TPEW1303ZPER2	C035
	TPEW1303ZPTR2	C043
PMR 	CPMT1205ZPEN-M2	C020
	1205ZPEN-M3	
	1906ZPEN-M2	
	1906ZPEN-M3	
SE400 	WEC 400PEER10C	C040
	400PEEL10C	

Cutter Type	Order Number	Page		
SE415 QSE415 	SECN1203EFFR1	C026		
	1203EFER1			
	1203EFTR1			
	1203EFTL1			
	SEEN1203EFFR1			
	1203EFFL1			
	1203EFER1			
	1203EFTR1			
	1203EFTR3			
	1203EFTL1			
	1203EFSR1			
	1203EFZR1			
			SEER1203EFER-JS	C026
			SECN1203EFFR1	C042
	WEC42EFFR5C	C040		
	42EFFL5C			
	42EFER5C			
	42EFEL5C			
	42EFTR5C			
	WEC42EFFR10C	C040		
	42EFFL10C			
	42EFER10C			
	42EFEL10C			
SE445 LSE445 	SECN1203AFFN1	C025		
	1203AFEN1			
	1203AFTN1			
	SEEN1203AFFN1			
	1203AFEN1			
	1203AFTN1			
	1203AFTN3			
	1203AFSN1			
	1203AFSN3			
	1203AFXN			
1203AFZN1				
	SEER1203AFEN-JS	C025		

Cutter Type	Order Number	Page
SE445 LSE445 	SECN1203AFFR1	C042
	WEC42AFFR5C	C040
	42AFFL5C	
	42AFER5C	
	42AFTR5C	
	WEC42AFER10C	C040
	42AFEL10C	
SE515 	SECN1504EFER1	C027
	1504EFTR1	
	SEEN1504EFFR1	
	1504EFER1	
	1504EFTR1	
	1504EFTR3	
	1504EFTL1	
1504EFSR1		
	WEC53EFER5C	C041
	53EFEL5C	
	53EFTR5C	
SE545 	SECN1504AFEN1	C026
	1504AFTN1	
	SEEN1504AFFN1	
	1504AFEN1	
	1504AFTN1	
	1504AFTN3	
	1504AFSN1	
1504AFSN3		
	SEER1504AFEN-JS	C026
	WEC53AFER5C	C040
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	53AFTR5C	










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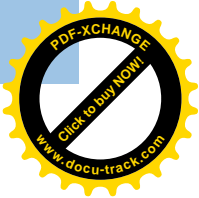
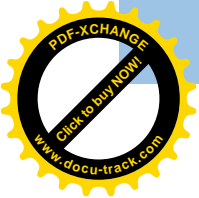
# CLASSIFICATION

CLASSIFICATION ROTATING INSERTS






Cutter Type	Order Number	Page
SG20 	RGEN2004M0SN	C024
SPX 	<b>NEW</b> JPMX190412-WH	C021
	<b>NEW</b> MPMX120412-WH	C022
	<b>NEW</b> SPMX120408-WH	C031
SRB 	<b>NEW</b> SRBT10	C032
	<b>NEW</b> 12	
	<b>NEW</b> 16	
	<b>NEW</b> 20	
	<b>NEW</b> 25	
	<b>NEW</b> 30	
SRE 	SRE06R	C031
	07R	
	09R	
	SRE12R	C031
SRF 	SRFT10	C032
	12	
	16	
	20	
	25	
	30	
	32	



Cutter Type	Order Number	Page
SRM2 	SRG16C	C032
	20C	
	25C	
	30C	
	SRG16E	C032
	20E	
	25E	
	30E	
	SRM16C-M	C033
	20C-M	
	25C-M	
	30C-M	
	SRM16E-M	C033
	20E-M	
	25E-M	
	30E-M	
SRM2-40/50 	SRG40C	C032
	50C	
	SRG40E	C032
	50E	
	APMT1135PDER-H2	C019
	1604PDER-H2	
	APMT1135PDER-M2	C019
	1604PDER-M2	
STLG 	SLG22120L	C028
	22150L	
	22200L	
	38200L	
	38300L	
	38400L	

Cutter Type	Order Number	Page
TBE1 	SPMT120408-A	C031
TRM4 	UPE40	C036
	50	
	UPM40	C036
	50	
	UPM 40P1	C036
	50P1	
	UPM 50P0	C036
TSMP 	MPMW070308	C021
	090308	
	120408	
VIPER 	CPEX130512R	C019
	CPEX160512L	C020
	TPNX1605N	C035
ZR 	ZRM0608R	C038



Cutter Type	Order Number	Page
Corner Angle 0° 11° Positive 	TPEN1603PPR	C035
	1603PPN	
	1603PPL	
	2204PDR	
	2204PDL	
	TPNN2204PDR	C035
Corner Angle 15° 11° Positive 	SPEN1203EDR	C030
	1203EDL	
	1504EDR	
	1504EDL	
	SPNN1203EDR	C031
Corner Angle 45° 11° Positive 	SDEN1203AEN	C025
Corner Angle 45° 20° Positive 	SEER1204AFEN-JS	C026
	SEEW1204AFTN	C027
Corner Angle 45° 20° Positive 	SEMN1204AZTN	C027
11° Positive 	SPGN120304	C030
	120308	
	120312	
	150404	
	150408	
	SPMN120304	
	120308	
	120312	
	150408	
	150412	

Cutter Type	Order Number	Page
11° Positive 	TPMN160304	C035
	160304T	
	160308	
	160308T	
	160312	
	160312T	
	220404	
	220408	
	220408T	
	220412	
220412T		
	LOMX150308R	C021
	LPMX150408R	C021
	RDHX0501M0E	C023
	0501M0S	
	0702M0E	
	0702M0S	
	07T1M0E	
	07T1M0S	
	1003M0E	
	1003M0S	
	12T3M0E	
	12T3M0S	
1604M0E		
1604M0S		
	RDMX0702M0E	C023
	0702M0T	
	07T1M0E	
	07T1M0T	
	1003M0E	
	1003M0S	
	1003M0T	
	12T3M0E	
	12T3M0S	
	12T3M0T	
1604M0E		
1604M0S		
1604M0T		

Cutter Type	Order Number	Page
	RDZX0501M0E	C023
	07T1M0E	
	0702M0E	
	1003M0E	
	1003M0S	
	12T3M0E	
	12T3M0S	
1604M0E		
1604M0S		
	RPM120400G	C024

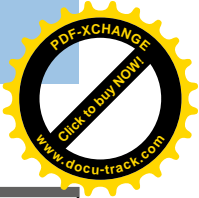
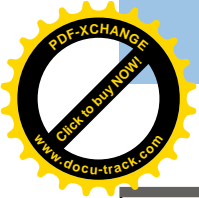
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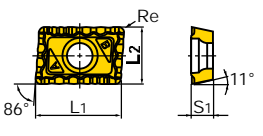

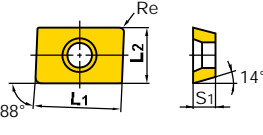

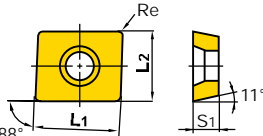

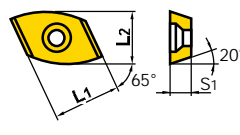

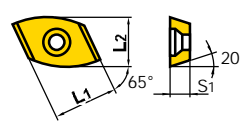

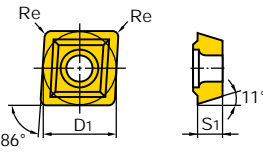

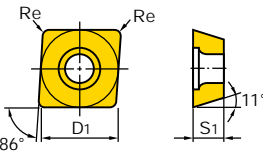


Work Material	P	Steel	●	●	●	●	●	●	Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting							
	M	Stainless Steel	●	●	●	●	●	●	Honing: E: Round							
	K	Cast Iron	✖	✖	✖	✖	✖	✖								
N	Non-ferrous Metal	●	●	●	●	●	●									
S	Heat-resistant Alloy, Titanium Alloy	●	●	●	●	●	●									
H	Hardened Materials	●	●	●	●	●	●									
Shape	Order Number	Class	Honing	Coated			Cermet		Carbide	Dimensions (mm)						Geometry
				F7030	VP15TF	UP20M	NX2525	NX4545	UT120T	HT110	L1	L2	D1	S1	F1	
	APMT1135PDER-H1	M	E	a	a	a	a	a	a	11	6.35	—	3.5	1.5	0.4	
	1135PDER-H2	M	E	a	a	a	a	a	a	11	6.35	—	3.5	1.2	0.8	
	1135PDER-H3	M	E	a	s			a	a	11	6.35	—	3.5	0.8	1.2	
	1135PDER-H4	M	E	a	a			a	a	11	6.35	—	3.5	0.4	1.6	
	1135PDER-H6	M	E	a	a			a	a	11	6.35	—	3.5	0.4	2.4	
	APMT1604PDER-H1	M	E	a	a		a	a	a	16.5	9.525	—	4.76	1.7	0.4	
	1604PDER-H2	M	E	a	a	a	a	a	a	16.5	9.525	—	4.76	1.4	0.8	
	1604PDER-H4	M	E	a				a	a	16.5	9.525	—	4.76	0.4	1.6	
	1604PDER-H6	M	E	a				a	a	16.5	9.525	—	4.76	0.4	2.4	
	1604PDER-H8	M	E	a				a	a	16.5	9.525	—	4.76	0.4	3.2	
	APMT1135PDER-M0	M	E	s						11	6.35	—	3.5	1.8	0.2	
	1135PDER-M1	M	E	s						11	6.35	—	3.5	1.5	0.4	
	1135PDER-M2	M	E	a	a		a			11	6.35	—	3.5	1.2	0.8	
	APMT1604PDER-M2	M	E	a	a		a			16.5	9.525	—	4.76	1.4	0.8	
	CCMX083508EN-A	M	E	a	s		s			—	—	7.94	3.5	—	0.8	
	09T308EN-A	M	E	a	s		s			—	—	9.525	3.97	—	0.8	
	CCMX09T308EN-B	M	E	a			s			—	—	9.525	3.97	—	0.8	
	CPEX130512R	E	E				s			13	11	—	5	—	1.2	

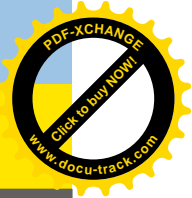
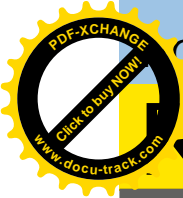
ROTATING INSERTS





Work Material	P	Steel	●	●	●	●	●	●	Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting					
	M	Stainless Steel	●	●	●	●	●	●	Honing: E: Round T: Chamfer					
	K	Cast Iron	✖	✖										
N	Non-ferrous Metal													
S	Heat-resistant Alloy, Titanium Alloy	●												
H	Hardened Materials	●												
Shape	Order Number	Class	Honing	Coated			Cermet	Carbide	Dimensions (mm)					Geometry
				VP15TF	VP20RT	UP20M	NX2525	UT120T	HT110	L1	L2	D1	S1	
SPX ▲C132 	JPMX190412-WH	M	E	s	s				19.05	12.7	—	4.76	1.2	
	LOMX150308R	M			a			a	15	9.525	—	3.18	0.8	
	LPMX150408R	M			a			a	15.88	12.7	—	4.76	0.8	
MG245 MG345 MG445 	MGEEW1035AFTR	E	T		s	s	s	s	10	9	—	3.5	—	
	1242AFTR	E	T			s	s	s	12	10.5	—	4.2	—	
	1650AFTR	E	T			s	s	s	16	13	—	5	—	
MG200 MG300 MG400 	MGEEW1035PFTR	E	T			s	s	s	10	9	—	3.5	—	
	1242PFTR	E	T			s	s	s	12	10.5	—	4.2	—	
	1650PFTR	E	T			r	s	s	16	13	—	5	—	
CBMP ▲C148 ECMP TAB 	MPMT070308	M	E		s			a	—	—	7.94	3.18	0.8	
	090308	M	E		s			a	—	—	9.525	3.18	0.8	
	120408	M	E		s			a	—	—	12.7	4.76	0.8	
TSMP ▲C147 	MPMW070308	M	E					a	—	—	7.94	3.18	0.8	
	090308	M	E					a	—	—	9.525	3.18	0.8	
	120408	M	E					a	—	—	12.7	4.76	0.8	

ROTATING INSERTS



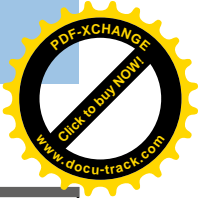
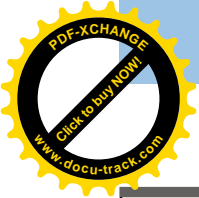
ROTATING TOOL INSERTS

# ROTATING INSERTS

Work Material	P	Steel											Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting												
	M	Stainless Steel											Honing: E: Round S: Chamfer + Hone T: Chamfer												
	K	Cast Iron																							
Shape	Order Number	Class	Honing	Coated						Cermet	Carbide	Dimensions (mm)					Geometry								
				F7010	F7030	F620	VP15TF	VP20RT	VP30RT	AP20M	UP20M	NX2525	NX4545	UTi20T	HTi10	L1		L2	D1	S1	F1				
SPX ^C132	MPMX120412-WH	M	E				s	s																	
OCTACUT ^C126	OEMX12T3ETR1	M	T	a	[						a	a													
	12T3ESR1	M	S	a																					
	OEEEX1705ETR1	E	T								a	a													
	OEMX1705ETR1	M	T	a	[				[	s	a	a	a												
	1705ESR1	M	S	a																					
OCTACUT ^C126	OEMX12T3EER1-JS	M	E	a	a																				
	12T3ETR1-JS	M	T	[									a												
	1705EER1-JS	M	E	a	a																				
	1705ETR1-JS	M	T	[									a												
AQX ^C107	QOQT0830R-G1	G	E				a						a	8.4	5.5	-	3	-							
	1035R-G1	G	E				a						a	10.6	7	-	3.5	-							
	1342R-G1	G	E				a						a	13.1	8.7	-	4.2	-							
	1651R-G1	G	E				a						a	16.5	11	-	5.1	-							
	1856R-G1	G	E				a						a	18	12	-	5.6	-							
	2062R-G1	G	E				a						a	20.4	13.6	-	6.2	-							
	2576R-G1	G	E				a						a	25.8	17.2	-	7.6	-							
AQX ^C107	QOMT0830R-M2	M	E				a	a						8.4	5.5	-	3	-							
	1035R-M2	M	E				a	a						10.6	7	-	3.5	-							
	1342R-M2	M	E				a	a						13.1	8.7	-	4.2	-							
	1651R-M2	M	E				a	a						16.5	11	-	5.1	-							
	1856R-M2	M	E				a	a						18	12	-	5.6	-							
	2062R-M2	M	E				a	a						20.4	13.6	-	6.2	-							
	2576R-M2	M	E				a	a						25.8	17.2	-	7.6	-							

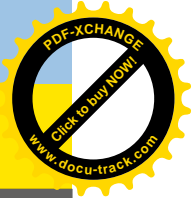
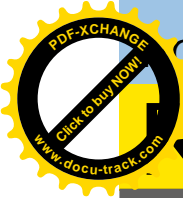
ROTATING INSERTS

a : Inventory maintained. s : Inventory maintained in Japan.  
r : Non stock, produced to order only. [ : Inventory maintained. To be replaced by new products.



Work Material	P	Steel											Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting  Honing: E: Round S: Chamfer + Hone T: Chamfer
	M	Stainless Steel											
	K	Cast Iron											
Shape	N	Non-ferrous Metal											Geometry
	S	Heat-resistant Alloy, Titanium Alloy											
	H	Hardened Materials											
Order Number	Class	Honing	Coated					Cermet	Coated Cermet	Carbide	Dimensions (mm)		
			F7030	VP15TF	VP20M	UP20M	VP10H	VP05HT	NX4545	VP25N	UT120T	D1	
	RDHX0501M0E	H	E	a	a						5	1.5	
	0501M0S	H	S	a	a	a			a	a	5	1.5	
	07T1M0E	H	E	a	a						7	1.98	
	07T1M0S	H	S	a	a	a			a	a	7	1.98	
	0702M0E	H	E	a	a						7	2.38	
	0702M0S	H	S	a	a	a			a	a	7	2.38	
	1003M0E	H	E	a	a						10	3.18	
	1003M0S	H	S	a	a	a			a	a	10	3.18	
	12T3M0E	H	E	a	a						12	3.97	
	12T3M0S	H	S	a	a	a			a	a	12	3.97	
	1604M0E	H	E	a	a						16	4.76	
1604M0S	H	S	a	a	a			a	a	16	4.76		
	RDMX07T1M0E	M	E				r	a			7	1.98	
	07T1M0T	M	T	a		a		a		a	7	1.98	
	0702M0E	M	E				r	a			7	2.38	
	0702M0T	M	T	a		a		a		a	7	2.38	
	1003M0E	M	E				r	a			10	3.18	
	1003M0S	M	S		r			a			10	3.18	
	1003M0T	M	T	a		a		a		a	10	3.18	
	12T3M0E	M	E				r	a			12	3.97	
	12T3M0S	M	S		r			a			12	3.97	
	12T3M0T	M	T	a		a		a		a	12	3.97	
	1604M0E	M	E				r	a			16	4.76	
1604M0S	M	S		r			a			16	4.76		
1604M0T	M	T	a		a		a		a	16	4.76		
	RDZX0501M0E	Z	E	a	a						5	1.50	
	0501M0S	Z	S	a							5	1.50	
	07T1M0E	Z	E		a						7	1.98	
	07T1M0S	Z	S	a							7	1.98	
	0702M0E	Z	E	a	a						7	2.38	
	0702M0S	Z	S	a							7	2.38	
	1003M0E	Z	E		a						10	3.18	
	1003M0S	Z	S	a	a						10	3.18	
	12T3M0E	Z	E		a						12	3.97	
	12T3M0S	Z	S	a	a						12	3.97	
	1604M0E	Z	E		a						16	4.76	
1604M0S	Z	S	a	a						16	4.76		

ROTATING INSERTS



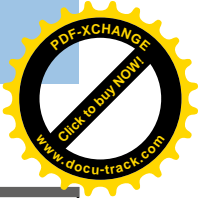
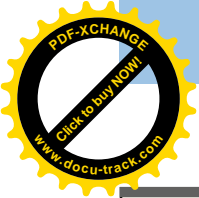
ROTATING TOOL INSERTS

# ROTATING INSERTS

Work Material	P	Steel	●	●	●	●	●	●	●	Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting		
	M	Stainless Steel	●	●	●	●	●	●	●			
Work Material	K	Cast Iron	●	●	●	●	●	●	●	Honing: E: Round S: Chamfer + Hone T: Chamfer		
	N	Non-ferrous Metal	●	●	●	●	●	●	●			
	S	Heat-resistant Alloy, Titanium Alloy	●	●	●	●	●	●	●			
Work Material	H	Hardened Materials	●	●	●	●	●	●	●			
Shape	Order Number	Class	Honing	Coated				Cermet	Carbide	Dimensions (mm)		Geometry
				F7030	F620	AP20M	UP20M	NX2525	UTi20T	HTi10	D1	
	REMT2004M0	M	E			a			a	20	4.76	
	REMW2004M0	M	E *1			[		r	a	20	4.76	
	REMX12T3TN	M	T		[	s			a	12.95	4.17	
	12T3SN	M	S	s						12.95	4.17	
	1705TN	M	T		[	s			a	17.25	5.2	
	1705SN	M	S	s						17.25	5.2	
	REMX12T3EN-JS	M	E	s					a	12.95	4.17	
	12T3TN-JS	M	T		[	[			a	12.95	4.17	
	1705EN-JS	M	E	s						17.25	5.2	
	1705TN-JS	M	T		[	[			a	17.25	5.2	
	RGEN2004M0SN	E	S	a		a		a	a a	20	4.76	
	RPMM120400G	M	E			a			a	12.7	4.76	
	CV20	M	E *1					s	s	20	4.76	

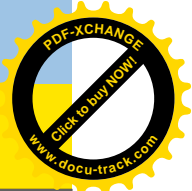
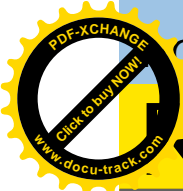
\*1 Grade NX2525 is "T".


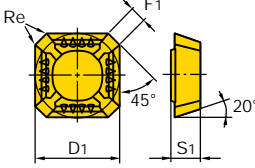

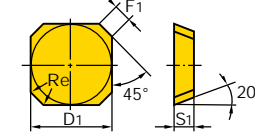

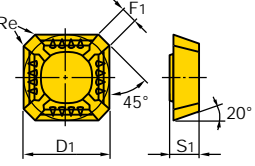

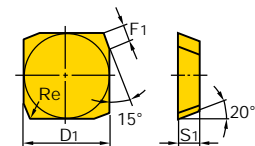

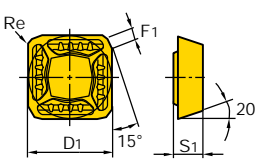
ROTATING INSERTS



Work Material	P	Steel	●	●	●	●	●	●	●	●	Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting Honing: E: Round F: Sharp S: Chamfer + Hone T: Chamfer X: Round (Small) Z: Strong						
	M	Stainless Steel	●	●	●	●	●	●	●	●							
	K	Cast Iron	●	●	●	●	●	●	●	●							
Shape	Order Number	Class	Honing	Coated			Cermet	Carbide	Dimensions (mm)				Geometry				
				F7010	F7030	F620	F5010	F5020	VP15TF	AP20M	UP20M	NX2525		NX4545	UT120T	HT110	D1
BRP ^C129	RPMT08T2M0E-JS	M	E	a			a			a			8	2.78	-	-	
	10T3M0E-JS	M	E	a			a			a			10	3.97	-	-	
	1204M0E-JS	M	E	a	a		a	a		a			12	4.76	-	-	
	1606M0E-JS	M	E	a			a	a		a			16	6.35	-	-	
BRP ^C129	RPMW08T2M0E	M	E	a						a	a		8	2.78	-	-	
	08T2M0T	M	T				a						8	2.78	-	-	
	10T3M0E	M	E	a						a	a		10	3.97	-	-	
	10T3M0T	M	T				a						10	3.97	-	-	
	1204M0E	M	E	a						a	a	a	12	4.76	-	-	
	1204M0T	M	T				a						12	4.76	-	-	
	1606M0E	M	E	a						a	a	a	16	6.35	-	-	
	1606M0T	M	T				a						16	6.35	-	-	
Corner Angle 45°	SDEN1203AEN	E	T							s	a	s	12.7	3.18	1.2	-	
LSE445 ^C060 SE445	SECN1203AFFN1	C	F									s	12.7	3.18	1.4	1.0	
	1203AFEN1	C	E									s	12.7	3.18	1.4	1.0	
	1203AFTN1	C	T					r	s	s	s		12.7	3.18	1.4	1.0	
	SEEN1203AFFN1	E	F									a	12.7	3.18	1.4	1.0	
	1203AFEN1	E	E	a								a	12.7	3.18	1.4	1.0	
	1203AFTN1	E	T	a	[	a				a	a	a	12.7	3.18	1.4	1.0	
	* 1203AFTN3	E	T	a	[	a				a	a	a	12.7	3.18	1.4	-	
	1203AFSN1	E	S	a	a	a	a						12.7	3.18	1.4	1.0	
	* 1203AFSN3	E	S	a									12.7	3.18	1.4	-	
	1203AFXN	E	X	a									12.7	3.18	1.4	1.0	
1203AFZN1	E	Z								a		12.7	3.18	1.4	1.0		
LSE445 ^C060 SE445	SEER1203AFEN-JS	E	E	a	a	[	a	a		a	a	a	12.7	3.18	1.4	1.0	

ROTATING INSERTS



Work Material	P Steel		M Stainless Steel		K Cast Iron		N Non-ferrous Metal		S Heat-resistant Alloy, Titanium Alloy		H Hardened Materials		Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting Honing: E: Round F: Sharp S: Chamfer + Hone T: Chamfer Z: Strong									
	Shape	Order Number	Class	Honing	Coated					Cermet		Carbide			Dimensions (mm)				Geometry			
					F7010	F7030	F620	F5010	F5020	UP20M	NX2525	NX4545	UTi20T	HTi10	D1	S1	F1	Re				
Corner Angle 45° 	SEER1204AFEN-JS	E	E	a	[	a	a					a			12.7	4.76	1.4	1.0				
	SE545 △C062	SECN1504AFEN1	C	E								a			15.875	4.76	1.4	1.0	 * SEEN1504AFTN3 SEEN1504AFSN3			
		1504AFTN1	C	T						s	s	s	a			15.875	4.76	1.4		1.0		
		SEEN1504AFFN1	E	F									a			15.875	4.76	1.4		1.0		
		1504AFEN1	E	E									a			15.875	4.76	1.4		1.0		
		1504AFTN1	E	T	a	[	a	a	a	a	a	a	a			15.875	4.76	1.4		1.0		
		* 1504AFTN3	E	T		[					a	a	a			15.875	4.76	1.4		—		
		1504AFSN1	E	S	a		a	a								15.875	4.76	1.4		1.0		
SE545 △C062 	SEER1504AFEN-JS	E	E	a	a	[	a	a	a			a			15.875	4.76	1.4	1.0				
	SE415 △C064	SECN1203EFFR1	C	F								s			12.7	3.18	1.4	1.0	 * SEEN1203EFTR3  Right hand insert shown.			
		1203EFER1	C	E									s			12.7	3.18	1.4		1.0		
		1203EFTR1	C	T						s	s	s	s			12.7	3.18	1.4		1.0		
		1203EFLL1	C	T									s			12.7	3.18	1.4		1.0		
		SEEN1203EFFR1	E	F									a			12.7	3.18	1.4		1.0		
		1203EFLL1	E	F									r			12.7	3.18	1.4		1.0		
		1203EFER1	E	E									a			12.7	3.18	1.4		1.0		
		1203EFTR1	E	T	a	[	a	a	a	a	a	a	a			12.7	3.18	1.4		1.0		
		1203EFLL1	E	T						a			s			12.7	3.18	1.4		1.0		
		* 1203EFTR3	E	T		[				a	a	a				12.7	3.18	1.4		—		
		1203EFSR1	E	S	a		a	a								12.7	3.18	1.4		1.0		
SE415 △C064 	SEER1203EFER-JS	E	E	a	a	[						a			12.7	3.18	1.4	1.0				

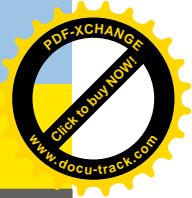
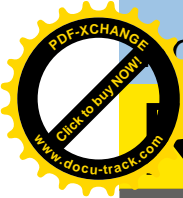
a : Inventory maintained. s : Inventory maintained in Japan.  
r : Non stock, produced to order only. [ : Inventory maintained. To be replaced by new products.






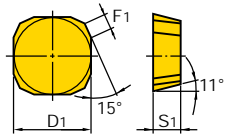

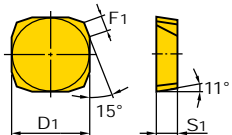

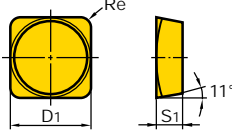

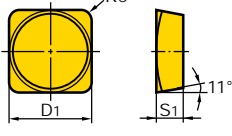

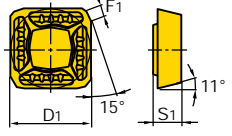

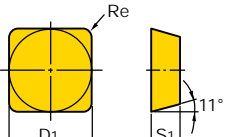
Work Material	P	Steel	●		●		●		●		●		Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting  Honing: E: Round F: Sharp		
	M	Stainless Steel	●		●		●		●		●				
	K	Cast Iron	●		●		●		●		●				
N	Non-ferrous Metal	●		●		●		●		●					
S	Heat-resistant Alloy, Titanium Alloy	●		●		●		●		●					
H	Hardened Materials	●		●		●		●		●					
Shape	Order Number	Class	Honing	Coated			Cermet	Carbide	Dimensions (mm)				Geometry		
				F7030	F5010	F5020	VP15TF	VP30RT	NX2525	NX4545	HT105T	HT110		D1	S1
ASX400 ▲C072 	SOGT12T308PEFR-JP	G	F						a		12.7	3.97	1.4	0.8	
ASX400 ▲C072 	SOMT12T308PEER-JH	M	E	a	a	a	a	a			12.7	3.97	1.4	0.8	
ASX400 ▲C072 	SOMT12T308PEER-JM	M	E	a	a	a	a	a			12.7	3.97	1.4	0.8	
ASX400 ▲C072 	SOMT12T320PEER-FT	M	E		a	a					12.7	3.97	0.5	2.0	
FF3000 	SPCA53Z	C	E				s				15.88	4.8	-	-	
FF3000 	SPCG53Z	C	F				s	s			15.88	4.8	-	-	

ROTATING INSERTS

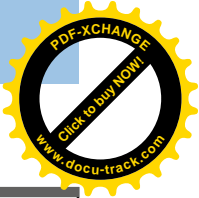
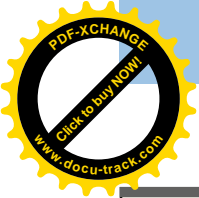


ROTATING TOOL INSERTS

# ROTATING INSERTS

Work Material	P	Steel	●	●	●	●	●	●	●	Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting  Honing: E: Round F: Sharp T: Chamfer							
	M	Stainless Steel	●	●	●	●	●	●	●								
	K	Cast Iron	●	●	●	●	●	●	●								
N	Non-ferrous Metal	●	●	●	●	●	●	●	●								
S	Heat-resistant Alloy, Titanium Alloy	●	●	●	●	●	●	●	●								
H	Hardened Materials	●	●	●	●	●	●	●	●								
Shape	Order Number	Class	Honing	Coated					Cermet		Carbide		Dimensions (mm)				Geometry
				F7010	F7030	F5010	F5020	UP20M	NX2525	NX4545	UTi20T	HTi05T	HTi10	D1	S1	F1	
 Corner Angle 15°	SPEN1203EDR	E	T *1	a	a	a	a	a	a	a	12.7	3.18	1.4	—	 Right hand insert shown.		
	1203EDL	E	T *1		r				a	a	12.7	3.18	1.4	—			
	1504EDR	E	T *1		a	a			a	a	15.875	4.76	1.4	—			
	1504EDL	E	T *1						a		15.875	4.76	1.4	—			
 FBP415 ▲C068	SPEN1203EEER1	E	E		a	a				a	12.7	3.175	1.4	—	 Right hand insert shown.		
	1203EEEL1	E	E							s	12.7	3.175	1.4	—			
	SPNN1203EEER1	N	E		s	s				s	12.7	3.175	1.4	—			
	1203EEEL1	N	E							r	12.7	3.175	1.4	—			
 FP490	SPEN424A	E	F							s	12.7	3.18	—	1.6			
 FP590	SPEN535A	E	F							s	15.875	4.76	—	2.0			
 FBP415 ▲C068	SPER1203EEER-JS	E	E		a	s					12.7	3.175	1.4	—			
 11° Positive	SPGN120304	G	E *1							a	12.7	3.18	—	0.4			
	120308	G	E *1			s				a	12.7	3.18	—	0.8			
	120312	G	F			r				a	12.7	3.18	—	1.2			
	150404	G	E							a	15.875	4.76	—	0.4			
	150408	G	E *1							a	15.875	4.76	—	0.8			
	SPMN120304	M	E *1							a	12.7	3.18	—	0.4			
	120308	M	E		s	s				a	12.7	3.18	—	0.8			
	120312	M	E *1		s	r				a	12.7	3.18	—	1.2			
	150408	M	E							a	15.875	4.76	—	0.8			
150412	M	E			r				a	15.875	4.76	—	1.2				

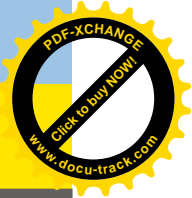
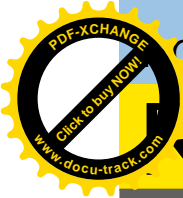
\*1 Grade HTi10 is "F".



Work Material	P	Steel	●	●	●	●	●	●	Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting								
	M	Stainless Steel	●	●	●	●	●	●	Honing: E: Round S: Chamfer + Hone T: Chamfer								
	K	Cast Iron	✖	✖													
N	Non-ferrous Metal																
S	Heat-resistant Alloy, Titanium Alloy	●															
H	Hardened Materials	●															
Shape	Order Number	Class	Honing	Coated			Cermet		Carbide		Dimensions (mm)					Geometry	
				VP15TF	VP20RT	UP20M	NX2525	NX4545	UT120T	HT110	L1	L2	D1	S1	F1		Re
BSP ^C122	SPMB1204APT	M	T		a				a		-	-	12.7	4.76	1.4	-	
TBE1	SPMT120408-A	M	E		a				a		-	-	12.7	4.76	-	0.8	
CESP CFSP CGSP ^C146	SPMW090304	M	E *1		a	a	a	a	a		-	-	9.525	3.18	-	0.4	
	090308	M	E *1		a	a	a	a	a		-	-	9.525	3.18	-	0.8	
	120304	M	E *1		a	a	a	a	a		-	-	12.7	3.18	-	0.4	
	120308	M	E *1		a	a	a	a	a		-	-	12.7	3.18	-	0.8	
SPX ^C132	SPMX120408-WH	M	E	s	s						-	-	12.7	4.76	-	0.8	
Corner Angle 15°	SPNN1203EDR	N	E						a		-	-	12.7	3.18	1.4	-	
SRE ^C124	SRE06R	E	E		a				a		8.5	6.35	-	2.3	-	0.4	
	07R	E	E		a				a		10.6	7.94	-	2.8	-	0.4	
	09R	E	E		a				a		12.7	9.525	-	3.5	-	0.4	
SRE ^C124	SRE12R	E	S		a				a		12.7	9.525	-	4	-	0.8	


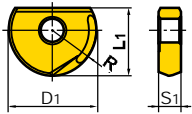

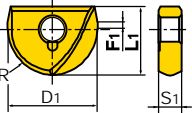

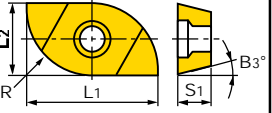

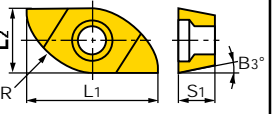

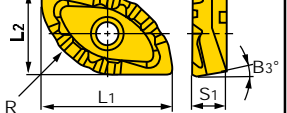

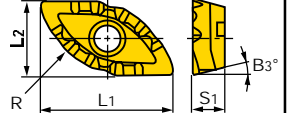
ROTATING INSERTS

\*1 Grade NX2525 and NX4545 are "T".

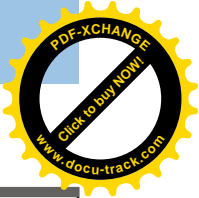
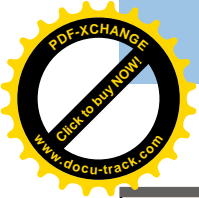



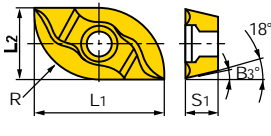

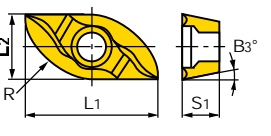
ROTATING TOOL INSERTS

# ROTATING INSERTS

Shape	Order Number	Class	Honing	Coated					Dimensions (mm)						Geometry																																																																																							
				F7030	VP15TF	VP20RT	VP30RT	VP10MF	L1	L2	D1	S1	F1	R		B3																																																																																						
				Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting																																																																																																		
Work Material				<table border="1"> <tr><td>P</td><td>Steel</td></tr> <tr><td>M</td><td>Stainless Steel</td></tr> <tr><td>K</td><td>Cast Iron</td></tr> <tr><td>N</td><td>Non-ferrous Metal</td></tr> <tr><td>S</td><td>Heat-resistant Alloy, Titanium Alloy</td></tr> <tr><td>H</td><td>Hardened Materials</td></tr> </table>					P	Steel	M	Stainless Steel	K	Cast Iron	N	Non-ferrous Metal	S	Heat-resistant Alloy, Titanium Alloy	H	Hardened Materials	Honing: E: Round F: Sharp																																																																																	
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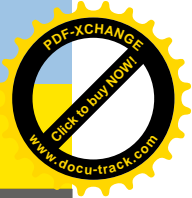
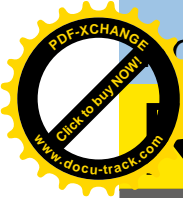
\* 2 inserts in one case.



Work Material	P	Steel	●			Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✚: Unstable Cutting				
	M	Stainless Steel	●			Honing: E: Round				
	K	Cast Iron	✚							
N	Non-ferrous Metal	●								
S	Heat-resistant Alloy, Titanium Alloy	●								
H	Hardened Materials	●								
Shape	Order Number	Class	Honing	Coated	Dimensions (mm)					Geometry
				VP15TF	L1	L2	S1	R	B3	
SRM2 ^C140 	SRM16C-M	M	E	a	16	8.2	3.5	8	11°	
	20C-M	M	E	a	19	10.2	4.6	10	10°	
	25C-M	M	E	a	24	12.8	5.5	12.5	10°	
	30C-M	M	E	a	28	15.3	7	15	10°	
	32C-M	M	E	a	28	16.3	7	16	10°	
SRM2 ^C140 	SRM16E-M	M	E	a	13.5	6.7	3.5	8	11°	
	20E-M	M	E	a	15.5	8.5	4.6	10	9°	
	25E-M	M	E	a	20.5	10.2	5.5	12.5	9°	
	30E-M	M	E	a	25.2	12.2	7	15	9°	
	32E-M	M	E	a	26.1	13.1	7	16	9°	

ROTATING INSERTS

ROTATING INSERTS



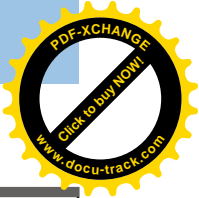
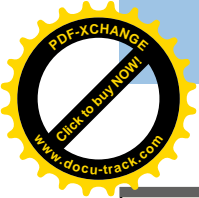
ROTATING TOOL INSERTS


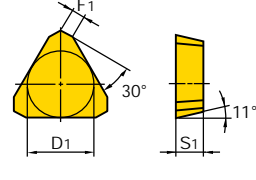

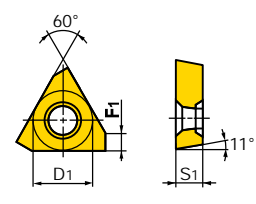

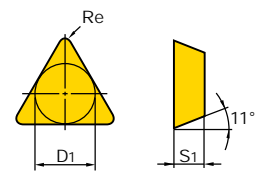

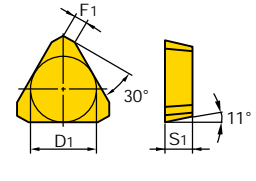

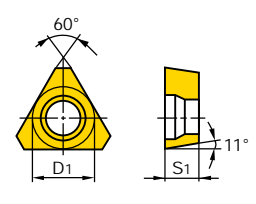
# ROTATING INSERTS

Work Material	P	Steel	● ● ●		● ● ●		● ● ●		● ● ●		● ● ●		Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting Honing: E: Round F: Sharp S: Chamfer + Hone T: Chamfer Z: Strong					
	M	Stainless Steel	● ● ●		● ● ●		● ● ●		● ● ●		● ● ●							
	K	Cast Iron	● ● ●		● ● ●		● ● ●		● ● ●		● ● ●							
N	Non-ferrous Metal	● ● ●		● ● ●		● ● ●		● ● ●		● ● ●								
S	Heat-resistant Alloy, Titanium Alloy	● ● ●		● ● ●		● ● ●		● ● ●		● ● ●								
H	Hardened Materials	● ● ●		● ● ●		● ● ●		● ● ●		● ● ●								
Shape	Order Number	Class	Honing	Coated						Cermet	Carbide	Dimensions (mm)				Geometry		
				F7010	F7030	F620	F5010	F5020	UP20M	NX2525	NX4545	UTi20T	HTi10	D1	S1		F1	Re
	TECN1603PEFR1W	C	F															Wall face finishing. 
	1603PEER1W	C	E															
	1603PETR1W	C	T							s	a	s						
	TEEN1603PEFR1	E	F															
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	1603PEZR1	E	Z								a							
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	2204PEER1	C	E															
	2204PETR1	C	T							r	s	s	a					
	TEEN2204PEFR1	E	F															
	2204PEFL1	E	F															
	2204PEER1	E	E															
	2204PEEL1	E	E															
	2204PETR1	E	T	a	[					a	a	a	a					
	2204PETR3	E	T		[					a								
	2204PESR1	E	S	a		a	a											
	2204PEZR1	E	Z								a							
	TEKN2204PEER1	K	E										s					
	2204PETR1	K	T								s		s					
	2204PESR1	K	S		s													
2204PETR	K	T										s						
2204PEZR	K	Z								s								
	TEER1603PEER-JS	E	E	a	a	[												
	TEER2204PEER-JS	E	E	a	a	[												

ROTATING INSERTS

a : Inventory maintained. s : Inventory maintained in Japan.  
r : Non stock, produced to order only. [ : Inventory maintained. To be replaced by new products.



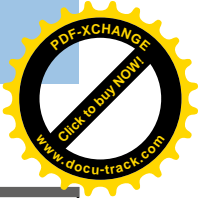
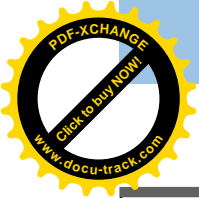
Work Material	P	Steel	●		●		●		●		●		Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting  Honing: E: Round T: Chamfer				
	M	Stainless Steel	●		●		●		●		●						
	K	Cast Iron	●		●		●		●		●						
N	Non-ferrous Metal	●		●		●		●		●							
S	Heat-resistant Alloy, Titanium Alloy	●		●		●		●		●							
H	Hardened Materials	●		●		●		●		●							
Shape	Order Number	Class	Honing	Coated					Cermet		Carbide		Dimensions (mm)				Geometry
				F7030	F5010	VP15TF	UP20M	AP10H	NX2525	NX4545	UTi20T	HTi05T	HTi10	D1	S1	F1	
Corner Angle 0° 	TPEN1603PPR	E	T	a	a				a	a	a	a	9.525	3.18	1.2	—	
	1603PPN	E	T *1							a	a		9.525	3.18	1.2	—	
	1603PPL	E	T *1						r				9.525	3.18	1.2	—	
	2204PDR	E	T *1	a	a		a		a	a	a	a	12.7	4.76	1.4	—	
	2204PDL	E	T *1								a	a		12.7	4.76	1.4	
PMF ▲C154 	TPEW1303ZPER2	E	E			a	a						7.94	3.18	2	—	
11° Positive 	TPMN 160304	M	E *1	a			r		a	a	a		9.525	3.18	—	0.4	
	160304T	M	T						a				9.525	3.18	—	0.4	
	160308	M	E *2	a			a		a	a	s a		9.525	3.18	—	0.8	
	160308T	M	T						a				9.525	3.18	—	0.8	
	160312	M	E *1	a			a			a			9.525	3.18	—	1.2	
	160312T	M	T						a				9.525	3.18	—	1.2	
	220404	M	E				r			a			12.7	4.76	—	0.4	
	220408	M	E *1	a			a			a	a		12.7	4.76	—	0.8	
	220408T	M	T						a				12.7	4.76	—	0.8	
	220412	M	E *1	s			r			a	a		12.7	4.76	—	1.2	
220412T	M	T							a			12.7	4.76	—	1.2		
Corner Angle 0° 	TPNN2204PDR	N	E							a			12.7	4.76	1.4	—	
VIPER 	TPNX1605N	N	E							a			9.525	5	—	—	

\*1 Grade HTi10 is "F".

\*2 Grade HTi10 is "F", Grade NX2525 is "T".

ROTATING INSERTS

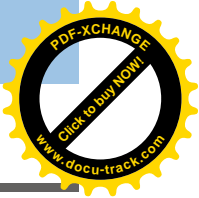
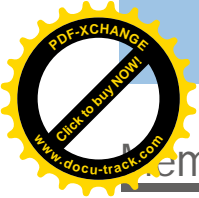




Work Material	P	Steel		Cutting Conditions (Guide):										Geometry
	M	Stainless Steel		●: Stable Cutting   ●: General Cutting   ✖: Unstable Cutting										
	K	Cast Iron		Honing: E: Round   F: Sharp										
Shape	Order Number	Class	Honing	Coated		Carbide		Dimensions (mm)						
				VPT15TF	LC15TF	HTi10	TF 15	L1	L2	L4	S1	F1	Re	
BXD4000 ▲C104	XDGT1550PDFR-G04	G	F	a		a		22	—	16	5	1.5	0.4	
	1550PDFR-G08	G	F	a		a		22	—	16	5	1.1	0.8	
1550PDFR-G12	G	F	a		a		22	—	16	5	0.7	1.2		
1550PDFR-G16	G	F	a		a		22	—	16	5	0.4	1.6		
1550PDFR-G20	G	F	a		a		21.7	—	16	5	0.2	2.0		
1550PDFR-G30	G	F	a		a		20	—	16	5	0.6	3.0		
1550PDFR-G32	G	F	a		a		20	—	16	5	0.4	3.2		
1550PDFR-G40	G	F	a		a		19	—	16	5	0.5	4.0		
1550PDFR-G50	G	F	a		a		18	—	16	5	0.4	5.0		
BXD4000 ▲C104	XDGT1550PDFR-GL04	G	F			a		22	—	16	5	1.5	0.4	
	1550PDFR-GL08	G	F			a		22	—	16	5	1.1	0.8	
BXD7000	XDGT2206PDFR-G08	G	F	r		a		30	—	22	6.35	2.0	0.8	
	2206PDFR-G16	G	F	r		s		30	—	22	6.35	1.2	1.6	
	2206PDFR-G20	G	F	r		s		30	—	22	6.35	0.8	2.0	
	2206PDFR-G30	G	F	r		s		29	—	22	6.35	0.6	3.0	
	2206PDFR-G40	G	F	r		s		27.5	—	22	6.35	0.9	4.0	
2206PDFR-G50	G	F	r		s		27	—	22	6.35	0.4	5.0		
AXD7000 ▲C100	XDXG227008PDFR-GL	G	F	r		a		30	—	22.5	7	2.0	0.8	
	227016PDFR-GL	G	F	r		a		30	—	22.5	7	1.2	1.6	
	227020PDFR-GL	G	F	r		a		30	—	22.5	7	0.8	2.0	
	227030PDFR-GL	G	F	r		a		28.8	—	22.5	7	0.8	3.0	
	227032PDFR-GL	G	F	r		a		28.8	—	22.5	7	0.6	3.2	
	227040PDFR-GL	G	F	r		a		27.5	—	22.5	7	0.9	4.0	
227050PDFR-GL	G	F	r		a		27	—	22.5	7	0.4	5.0		
BAP3500 ▲C086	XPGT13T3PDER-G1	G	E	s				13	7.9	—	3.97	1.6	0.4	
	13T3PDER-G2	G	E	s				13	7.9	—	3.97	1.2	0.8	
	13T3PDER-G6	G	E	s				13	7.9	—	3.97	0.4	2.4	
	13T3PDER-G75	G	E	s				13	7.9	—	3.97	0.4	3.0	
	13T3PDER-G8	G	E	s				13	7.9	—	3.97	0.4	3.2	
BAP3500 ▲C086	XPGT13T3PDFR-G1	G	F			s		13	7.9	—	3.97	1.6	0.4	
	13T3PDFR-G2	G	F			s		13	7.9	—	3.97	1.2	0.8	
	13T3PDFR-G6	G	F			s		13	7.9	—	3.97	0.4	2.4	
	13T3PDFR-G75	G	F			s		13	7.9	—	3.97	0.4	3.0	
	13T3PDFR-G8	G	F			s		13	7.9	—	3.97	0.4	3.2	

ROTATING INSERTS



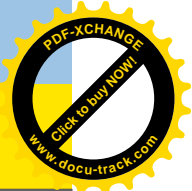
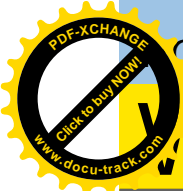


emo

Handwriting practice area consisting of multiple horizontal dashed lines.

ROTATING  
INSERTS

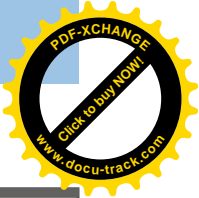
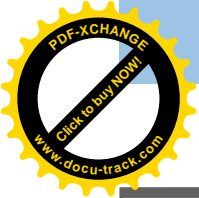
ROTATING INSERTS


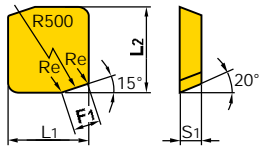

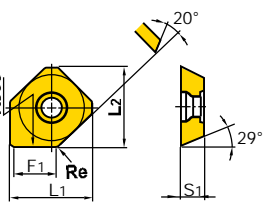

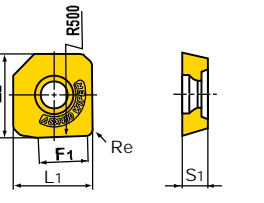

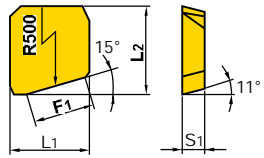


Work Material	P	Steel	C	E	NX2525	HT105T	Cutting Conditions (Guide):					Geometry	
	M	Stainless Steel					●	Stable Cutting	●	General Cutting	✦		Unstable Cutting
	K	Cast Iron					Honing:						
N	Non-ferrous Metal	S	Heat-resistant Alloy, Titanium Alloy	H	Hardened Materials	E	Round	F	Sharp	T	Chamfer		
Shape	Order Number	Class	Honing	Dimensions (mm)					Geometry				
				L1	L2	S1	F1	Re					
	WEC400PEER10C	C	E		r	12.0	17.5	4.76	10	0.4	<p>Right hand insert shown.</p>		
	400PEEL10C	C	E		r	12.0	17.5	4.76	10	0.4			
	WEC42AFFR5C	C	F		a	12.7	15.33	3.18	5	1.0	<p>Right hand insert shown.</p>		
	42AFFL5C	C	F		r	12.7	15.33	3.18	5	1.0			
	42AFER5C	C	E		a	12.7	15.33	3.18	5	1.0			
	42AFTR5C	C	T	a		12.7	15.33	3.18	5	1.0			
	WEC42AFER10C	C	E		a	12.7	18.816	3.18	10	1.0	<p>Right hand insert shown.</p>		
	42AFEL10C	C	E		r	12.7	18.816	3.18	10	1.0			
	WEC53AFER5C	C	E		a	15.875	18.505	4.76	5	1.0	<p>Right hand insert shown.</p>		
	53AFEL5C	C	E		r	15.875	18.505	4.76	5	1.0			
	53AFTR5C	C	T	a		15.875	18.505	4.76	5	1.0			
	WEC42EFFR5C	C	F		r	12.7	13.728	3.18	5	1.0	<p>Right hand insert shown.</p>		
	42EFFL5C	C	F		r	12.7	13.728	3.18	5	1.0			
	42EFER5C	C	E		a	12.7	13.728	3.18	5	1.0			
	42EFEL5C	C	E		r	12.7	13.728	3.18	5	1.0			
	42EFTR5C	C	T	a		12.7	13.728	3.18	5	1.0			
	WEC42EFFR10C	C	F		r	12.7	14.99	3.18	10	1.0	<p>Right hand insert shown.</p>		
	42EFFL10C	C	F		r	12.7	14.99	3.18	10	1.0			
	42EFER10C	C	E		s	12.7	14.99	3.18	10	1.0			
	42EFEL10C	C	E		r	12.7	14.99	3.18	10	1.0			

ROTATING INSERTS

WIPER INSERTS




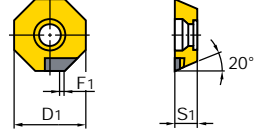

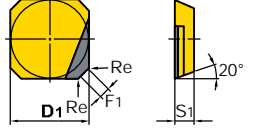

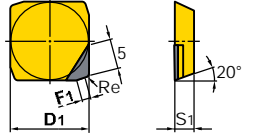

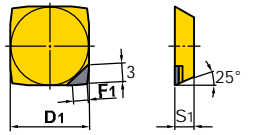

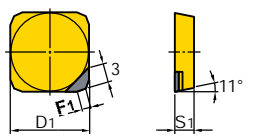

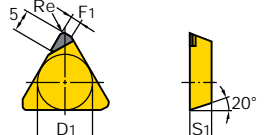

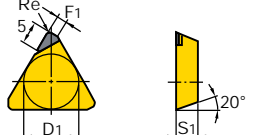
Work Material	P	Steel	●									Cutting Conditions (Guide): ●: Stable Cutting ●: General Cutting ✖: Unstable Cutting	
	M	Stainless Steel											●
	K	Cast Iron											●
Work Material	N	Non-ferrous Metal	●									Honing: E: Round T: Chamfer	
	S	Heat-resistant Alloy, Titanium Alloy											●
	H	Hardened Materials											●
Shape	Order Number	Class	Honing	Cermet	Carbide	Dimensions (mm)					Geometry		
				NX2525	HT105T	L1	L2	S1	F1	Re			
	SE515 ^C066 WEC53EFER5C	C	E		a	15.875	16.903	4.76	5	1.0	 <p>Right hand insert shown.</p>		
	53EFEL5C	C	E		r	15.875	16.903	4.76	5	1.0			
	53EFTR5C	C	T	a		15.875	16.903	4.76	5	1.0			
	ASX445 ^C056 WEEW13T3AGER8C	E	E		a	16.48	16.6	3.97	8.2	1.5			
	13T3AGTR8C	E	T	a		16.48	16.6	3.97	8.1	1.5			
	ASX400 ^C072 WOWE12T308PEER8C	E	E		a	12.5	13.2	3.97	8	0.8			
	12T308PETR8C	E	T	a		12.5	13.2	3.97	8	0.8			
	FBP415 ^C068 WPC42EEER10C	C	E		a	12.7	15.163	3.175	10	—	 <p>Right hand insert shown.</p>		
	42EEEL10C	C	E		s	12.7	15.163	3.175	10	—			
	42EETR10C	C	T	a		12.7	15.163	3.175	10	—			

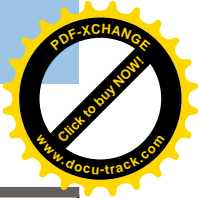
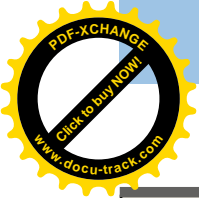
ROTATING  
INSERTS


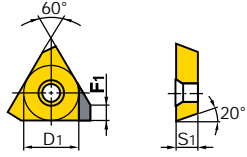

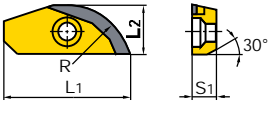
WIPER INSERTS

# CBN AND PCD

CBN AND PCD  
ROTATING  
INSERTS

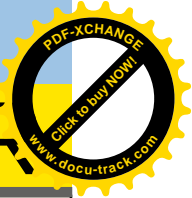
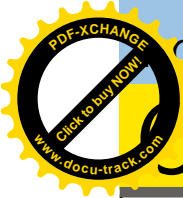
Shape	Order Number	Class	CBN			PCD			Dimensions (mm)				Geometry
			MB710	MB730	MD220	D1	S1	F1	Re				
OCTACUT ^C126 	OEMX12T3ETR1	M	a			12.7	3.97	1	—				
LSE445 ^C060 SE445 	SECN1203AFFR1	C		s		12.7	3.18	1.4	1.0				
SE415 ^C064 	SECN1203EFFR1	C		s		12.7	3.18	1.4	1.0				
BF407 ^C070 	SFCN1203ZFFR2	C		s		12.7	3.175	2.4	—				
FBP415 ^C068 	SPEN1203EETR1	E	s			12.7	3.175	1.4	—				
NSE300 ^C076 	TECN1603PEFR1	C		s		9.525	3.175	1.4	0.4				
NSE400 ^C076 	TECN2204PEFR1	C		s		12.7	4.76	1.4	1.0				



Shape	Order Number	Class	CBN		PCD		Dimensions (mm)						Geometry
			MB710	MB730	MD220	L1	L2	D1	S1	F1	R		
												a	
PMF ▲ C154 	TPEW1303ZPTR2	E	a			—	—	7.94	3.18	2	—		
FBE2 	UDC16F	C	r			15.6	5.9	—	2.5	—	8.0		
	20F	C	s			19.4	7.4	—	3.5	—	10.0		
	25F	C	s			24	9.3	—	4	—	12.5		
	32F	C	r			29.0	11.0	—	5	—	16.0		


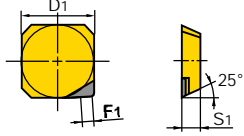

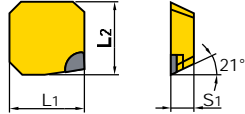

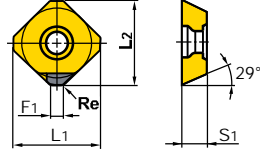

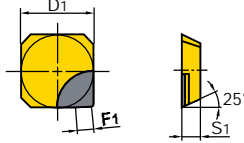
ROTATING  
INSERTS

CBN AND PCD



ROTATING TOOL INSERTS

# CBN AND PCD WITH WIPER

Shape	Order Number	Class	CBN			PCD		Dimensions (mm)					Geometry	
			MB710	MB730	MD220			L1	L2	D1	S1	F1		Re
BF407 ▲C070 	NP-WFC42ZFER2	C			s			—	—	12.4	3.175	2.4	—	
E404 	WEC42W11R 42W11L	C C			s r			12.4 12.4	12.806 12.806	— —	3.18 3.18	— —	— —	 Right hand insert shown.
ASX445 ▲C056 	WEEW13T3AGFR3C 13T3AGTR3C	E E			a a			16.48 16.48	16.6 16.6	— —	3.97 3.97	3.0 3.0	1.5 1.5	
BF407 ▲C070 	WFC42ZFER2	C			a			—	—	12.4	3.175	2.4	—	 Right hand insert shown.

ROTATING INSERTS  
CBN AND PCD WITH WIPER