



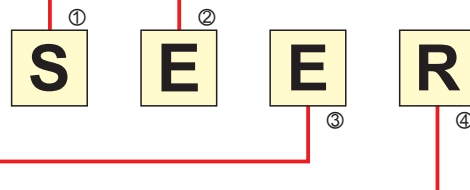
回転工具用インサート インサート規格 CBN&PCDインサート規格 インサート材種

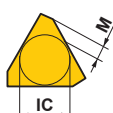
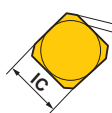
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カッタ用インサートの呼び記号

記号	インサート形状	
N	正七角形	
O	正八角形	
S	正方形	
T	正三角形	
C	菱形頂角80°	
M	菱形頂角86°	
A	平行四辺形頂角85°	
R	円形	
X	特殊形状	—
W	ワイパー	—
① インサート形状		

記号	逃げ角 AN	
C	7°	
D	15°	
E	20°	
F	25°	
G	30°	
N	0°	
P	11°	
O	その他の逃げ角	
X	その他の逃げ角	
② 主切れ刃逃げ角		



③ 精度記号			
  			
記号	コーナ高さ 許容差 M (mm)	内接円許容差 IC (mm)	厚さ許容差 S (mm)
A	±0.005	±0.025	±0.025
C	±0.013	±0.025	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
K*	±0.013	±0.05—±0.15	±0.025
M*	±0.08—±0.18	±0.05—±0.15	±0.13
N*	±0.08—±0.18	±0.05—±0.15	±0.025
* 印のものは原則として側面は焼結肌のインサートである			

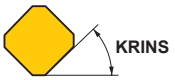
④ 溝・穴記号				
記号	穴の有無	穴の形状	ブレードの有無	インサート断面
W	あり	一部円筒穴 + 片面取 (40°—60°)	なし	
T	あり	一部円筒穴 + 片面取 (40°—60°)	片面	
B	あり	一部円筒穴 + 片面取 (70°—90°)	なし	
N	なし	—	なし	
R	なし	—	片面	
X	—	—	—	特 殊

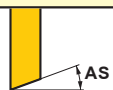
記号				内接円 (mm)
				
	06	06	11	6.35
	08	07	13	7.94
	09	09	16	9.525
10				10.00
12				12.00
	12	12	22	12.70
	16	15	27	15.875
20				20.00
⑤ インサート内接円				

	
記号	厚み (mm)
03	3.18
T3	3.97
04	4.76
⑥ インサート厚み	

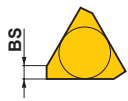
記号	ホーニング
F	 シャープエッジ
E	 丸ホーニング
T	 チャンファーホーニング
S	 コンビネーションホーニング
Z	 チャンファーホーニング (刃先強化形)
⑨ ホーニング	

⑤ 12 ⑥ 03 ⑦ A ⑧ F ⑨ E ⑩ R ⑪ 1 - JS ⑫ JS

⑦ さらい刃切込み角	
	
記号	さらい刃切込み角
A	45°
E	75°
P	90°
Z	その他の角度

⑧ さらい刃逃げ角	
	
記号	さらい刃逃げ角
D	15°
E	20°
F	25°
G	30°

⑩ 勝手	
記号	勝手
L	左勝手
N	左右共用
R	右勝手

⑪ さらい刃幅	
	
記号	さらい刃幅
1	1.4 (TEKNのみ1.94)

⑫ ブレーカ記号	
記号	名称
FT	FT ブレーカ
HS	HS ブレーカ
JH	JH ブレーカ
JM	JM ブレーカ
JP	JP ブレーカ
JS	JS ブレーカ
LS	LS ブレーカ
MM	MM ブレーカ
MS	MS ブレーカ

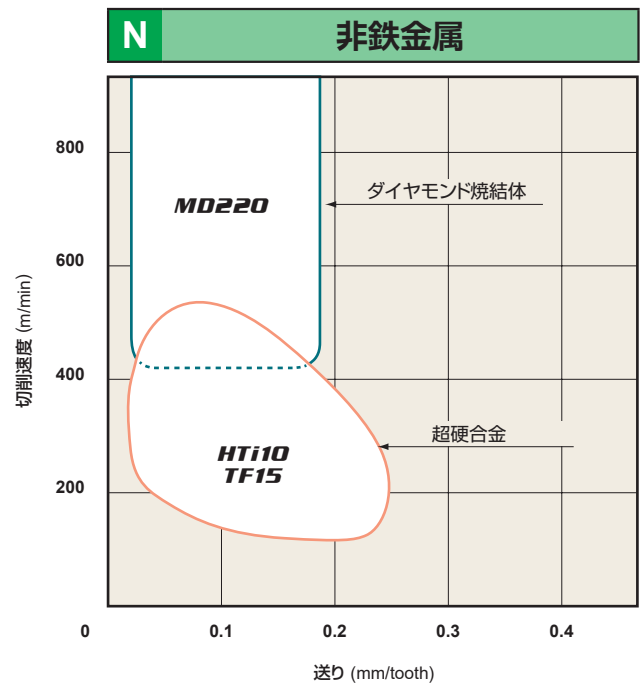
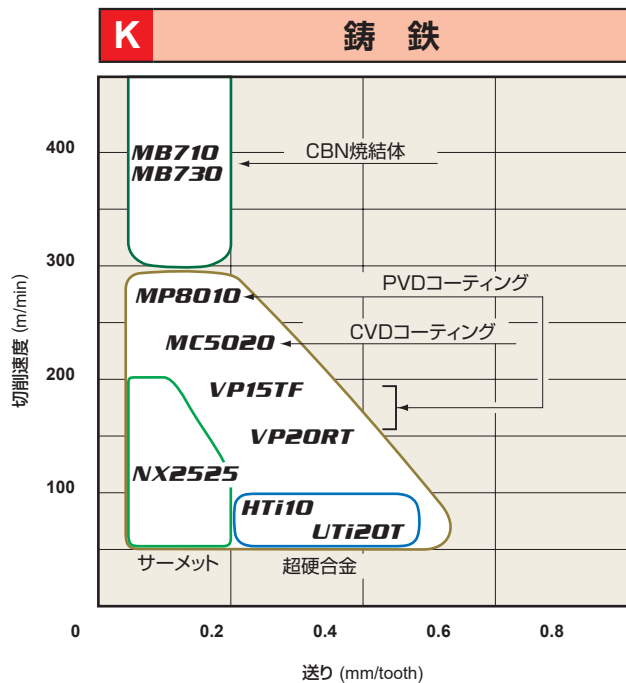
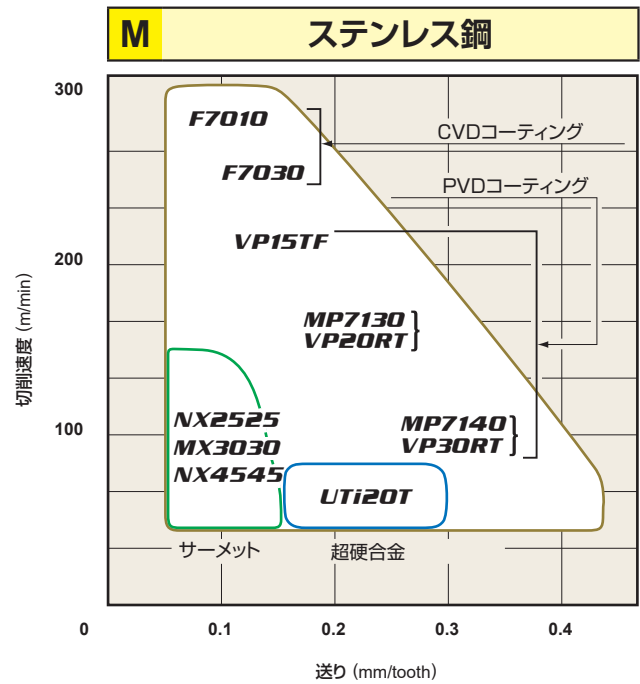
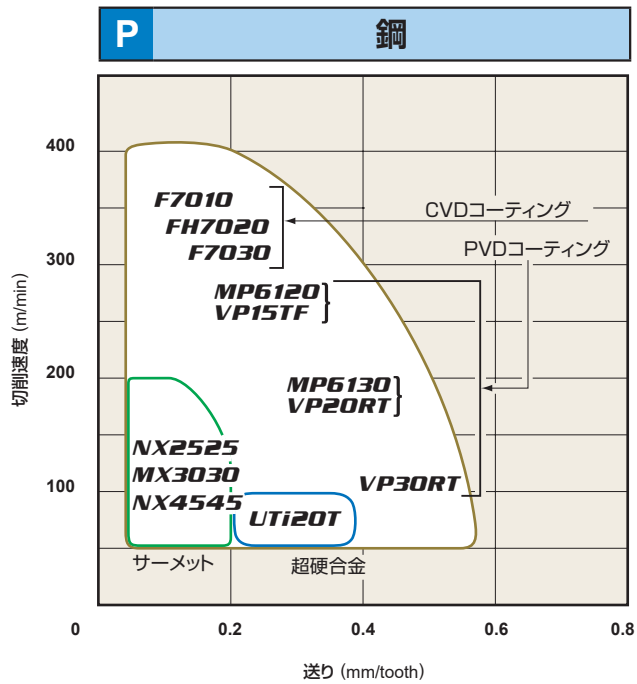
カッタ用材種

● カッタ用インサート材種

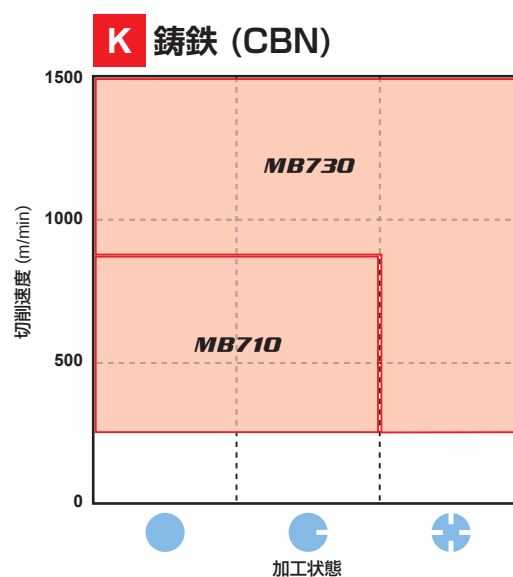
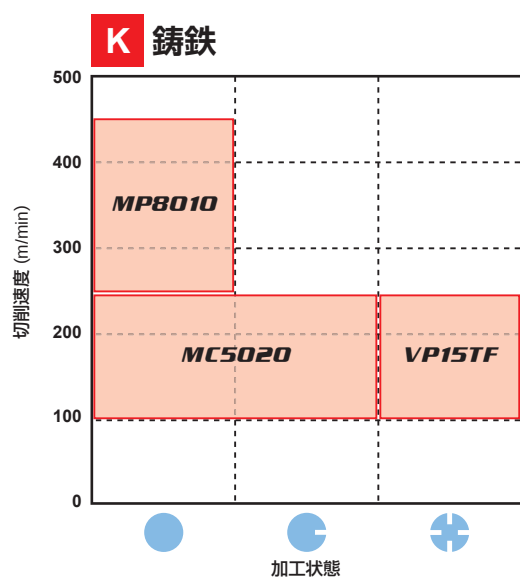
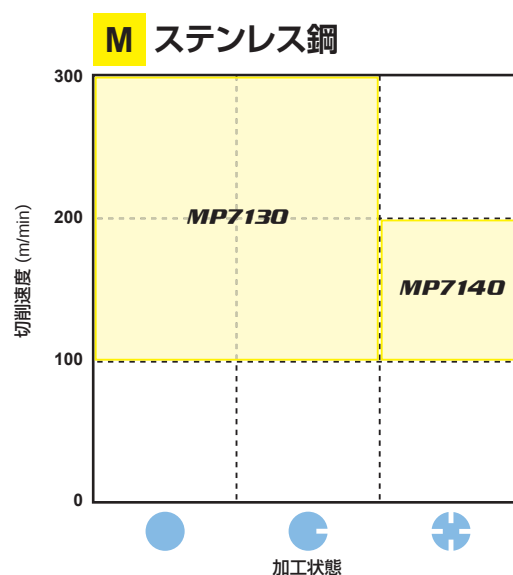
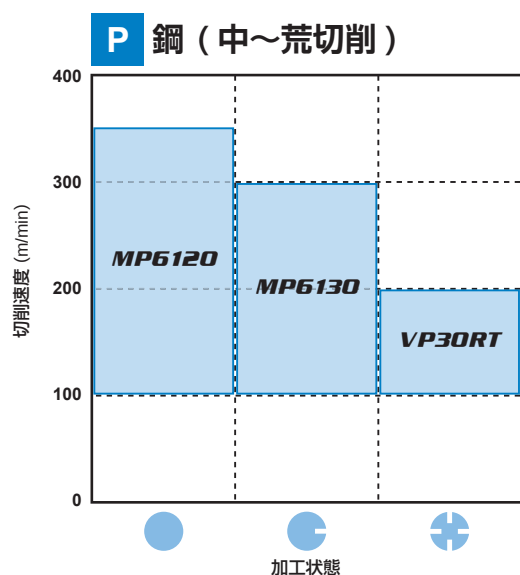
ISO使用 分類記号	コーティング		サーメット	超硬合金	CBN (CBN 焼結体)	PCD (ダイヤモンド焼結体)
	CVD	PVD				
P 銅	P01					
	P10	F7010				
	P20	FH7020 F7030				
	P30	MP6120 VP15TF MP6130				
	P40					
M ステンレス鋼	M01	F7010				
	M10					
	M20	F7030				
	M30					
	M40					
K 鋳鉄	K01					
	K10	MC5020				
	K20					
	K30					
N 非鉄金属	N01					
	N10					
	N20					
	N30					
S 耐熱合金・チタン合金	S01					
	S10					
	S20					
	S30					
H 高硬度材	H01					
	H10					
	H20					
	H30					

＝  MITSUBISHI MATERIALS

カッタ適用領域

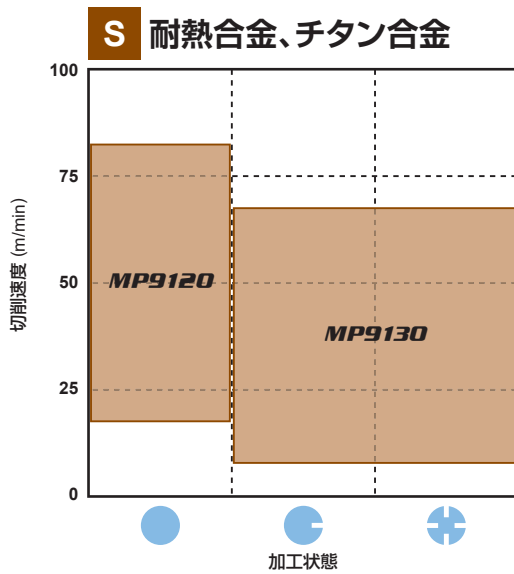
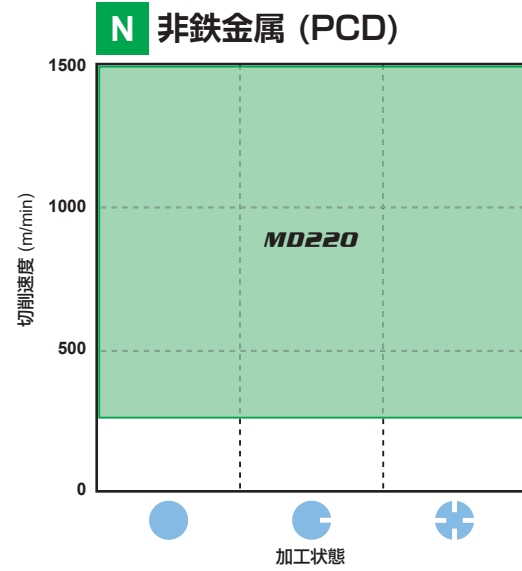
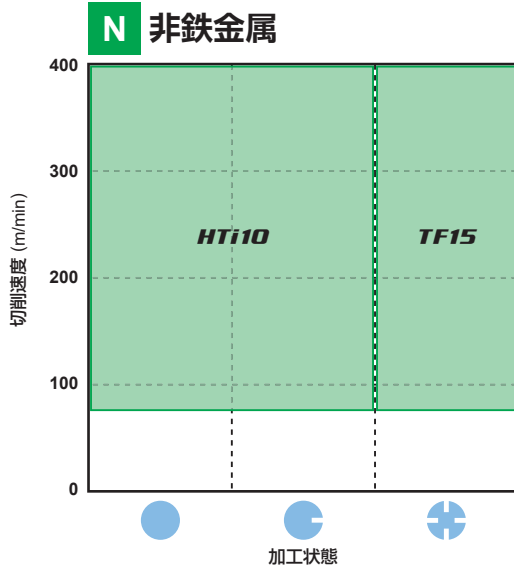


●被削材ごとの加工状態および切削速度による、推奨インサート材種



■ 加工状態

	安定切削	平面加工 取り代が一定の切削 機械加工肌の切削 ワークランブ剛性の高い切削
	一般切削	
	不安定切削	激しい断続切削 取り代の変動が大きい切削 ワークランブ剛性が低い切削



CVD&PVDコーティング（ダイヤコート）

<CVDコーティング>

- 特殊強靱結晶組織により耐摩耗性・耐欠損性が向上
- 汎用性に優れ、工具の集約が可能

<PVDコーティング>

- PVDコーティングは、超硬合金材種と同じ条件において寿命延長が可能
- シャープエッジの切れ刃を持つ工具にも、母材の軟化や変質を発生させずにコーティングが可能

選定基準

● フライス

被削材	選定材種	推奨切削速度 (m/min)	ISO 使用分類 記号	適用範囲
P 鋼	F7030	200 (150 – 250)	P10	
	MP6120	150 (100 – 200)	P20	
	MP6130	150 (100 – 200)	P30	
	VP15TF	150 (100 – 200)	P40	
M ステンレス鋼	F7030	200 (150 – 250)	M10	
	MP7030	150 (100 – 200)	M20	
	MP7130	150 (100 – 200)	M30	
	MP7140	150 (100 – 200)	M40	
	VP15TF	150 (100 – 200)	M40	
K 鋳鉄	MC5020	180 (100 – 250)	K01	
			K10	
	VP15TF	150 (100 – 200)	K20	
			K30	
N アルミニウム合金	LC15TF	1000 (200 – 3000)	N10	
			N20	
			N30	
S 耐熱合金 チタン合金	MP9120	30 (20 – 40)	S01	
	VP15TF	30 (20 – 40)	S10	
	MP9130	40 (25 – 60)	S20	
	MP9030	40 (25 – 60)	S30	
H 高硬度材	MP8010	80 (50 – 120)	H01	
			H10	
	VP15TF	80 (50 – 120)	H20	
			H30	



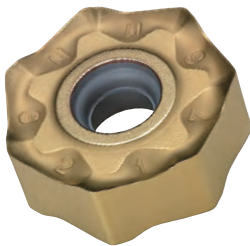
材料特性

材種	超硬合金母材		コーティング層		材種	超硬合金母材		コーティング層	
	かたさ (HRA)	抗折力 (GPa)	物質	厚み		かたさ (HRA)	抗折力 (GPa)	物質	厚み
MC5020	91.0	2.2	TiCN-Al ₂ O ₃ -Ti 化合物積層	厚膜	MP8010	93.5	2.3	(Al,Ti,Si)N	薄膜
FH7020	88.8	2.8	TiCN-Al ₂ O ₃ -Ti 化合物積層	厚膜	MP9120	91.5	2.5	(Al,Ti,Cr)N	薄膜
F7030	88.8	2.8	TiCN-Al ₂ O ₃ -TiN	薄膜	MP9030	90.5	2.5	(Al,Ti)N-Ti 化合物積層	薄膜
MP6120	91.5	2.5	(Al,Ti,Cr)N	薄膜	MP9130	90.5	2.7	(Al,Ti,Cr)N	薄膜
MP6130	90.5	2.5	(Al,Ti,Cr)N	薄膜	VP15TF	91.5	2.5	(Al,Ti)N	薄膜
MP7030	90.5	2.5	(Al,Ti)N-Ti 化合物積層	薄膜	VP20RT	90.5	2.5	(Al,Ti)N	薄膜
MP7130	90.5	2.5	(Al,Ti,Cr)N	薄膜	VP30RT	88.8	2.8	(Al,Ti)N	薄膜
MP7140	88.8	2.8	(Al,Ti,Cr)N	薄膜	UP20M	90.5	2.0	Ti 化合物積層	薄膜

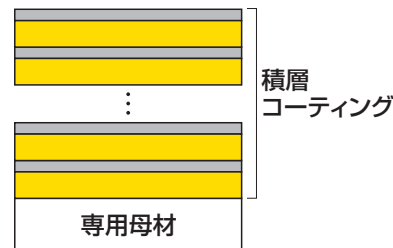
★1GPa=102kg/mm²

ステンレス加工用

MP7030



MP7030は、Ti系化合物をベースとした積層コーティングを採用しており、ステンレス切削に対し、優れた耐摩耗性および耐欠損性を発揮します。また、専用母材を採用し、難削材、特にステンレス加工において優れた性能を発揮します。



耐熱合金・チタン合金加工用

MP9130



超微粒WCに適した組成・組織を採用したことにより硬さを維持したまま、靱性を向上することに成功しました。コーティングは“Al-Ti-Cr-N系積層コーティング”を採用し、優れた耐熱性と耐摩耗性を確保したほか、Ti合金に対し低摩擦係数であるため、優れた耐溶着性を発揮、積層構造の最適化により耐欠損性を向上などの特長を持っています。

サーメット

- 高速フライス加工にはNX2525
- 一般フライス加工にはMX3030、NX4545

選定基準
● フライス

被削材	選定材種	推奨切削速度 (m/min)	ISO 使用分類 記号	適用範囲
P 鋼	NX2525	250 (150 – 350)	P10 M10	
			P20 M20	
	MX3030 NX4545	150 (120 – 180)	P30 M30	 
M K 鋳鉄	NX2525	200 (150 – 300)	K01	
			K10	
			K20	

注 湿式切削の場合、鋼切削はダイヤコートVP15TFを、鋳鉄切削はダイヤコートMC5020をご使用ください。

材料特性

材種	かたさ (HRA)	抗折力 (GPa)	熱伝導率 (W/m・K)★	熱膨張係数 (x10 ⁻⁶ /K)
NX2525	92.2	2.0	33	7.8
 MX3030	90.0	2.2	33	7.8
NX4545	90.0	2.2	33	7.8

★1GPa=102kg/mm², 1W/m・K=2.39×10⁻³cal/cm・sec・°C

超硬合金

- 鋼・鋳鉄どちらも対応可能な汎用のUTi20T、鋳鉄・非鉄金属・非金属にはHTi10と用途に応じた材種をシリーズ化

選定基準

● フライス

被削材	選定材種	推奨切削速度 (m/min)	ISO 使用分類 記号	適用範囲
P 鋼	UTi20T	120 (50 - 180)	P10	
			P20	
			P30	UTi20T
M ステンレス鋼	UTi20T	120 (50 - 180)	M10	
			M20	
			M30	UTi20T
K 鋳鉄	HTi10	100 (50 - 150)	K10	HTi10
	UTi20T	120 (50 - 180)	K20	
			K30	UTi20T
N 非鉄金属	HTi10 TF15	400 (300 - 500)	N01	
			N10	HTi10
			N20	
			N30	TF15

材料特性

ISO使用 分類記号	合金成分	特 長	被削材
P M	WC-TiC-TaC-Co系	耐熱性、耐塑性変形性に優れる。	炭素鋼、合金鋼、ステンレス鋼、鋳鉄
K N	WC-Co系	強度が高く、すきとり摩耗に強い。	鋳鉄、非鉄金属、非金属

合金特性

ISO使用 分類記号	材種	かたさ (HRA)	熱伝導率 (W/m・K) *	熱膨張係数 (x10 ⁻⁶ /K)	ヤング率 (GPa) *	抗折力 (GPa) *
P M	UTi20T	90.5	38	5.5	520	2.0
K N	HTi05T	92.5	79	4.5	600	1.5
	HTi10	92.0	79	4.6	630	2.0
N	TF15	91.5	71	5.3	580	2.5

*1GPa=102kg/mm², 1W/m・K=2.39×10⁻³cal/cm・sec・℃

CBN（CBN焼結体）

- 鋳鉄加工にはMB710、MB730の2材種を用意しております。
- 鋳物の高速粗加工用にBC5030を新たにラインナップしています。
- BC5030は専用本体AOX型との組み合わせにより、使用コーナ数が最大16コーナとなり、経済的な高能率加工が可能です。



選定基準/推奨切削条件

● 仕上げ加工

被削材	組織	切削速度 (m/min)					送り (mm/tooth)	切込み (mm)	切削油剤
		250	500	750	1000	1250			
ねずみ鋳鉄	FC250	MB710					-0.3	-0.5	乾式
	FC300								
		MB730							

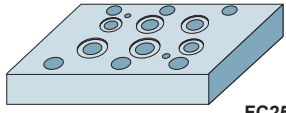
● 粗加工

被削材	組織	切削速度 (m/min)					送り (mm/tooth)	切込み (mm)	切削油剤
		250	500	1000	1500	2000			
ねずみ鋳鉄	FC250			BC5030			-0.15	-3.0	乾式

各材種の特長・主成分

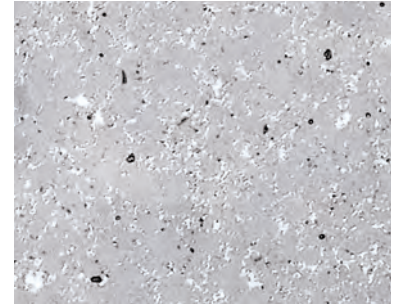
材種	用途	特長	主成分	コーティング膜
MB710	一般加工用	組成を鋳鉄加工用に最適化し、耐磨耗性と耐欠損性のバランスに優れた汎用材種です。	CBN TiC Al ₂ O ₃	—
MB730	高速加工用 断続加工用	CBN含有量が多く、高い熱伝導率性を示します。 このため高速加工時の高い切削熱にも十分対応できる高速加工向きの材種です。	CBN(高含有) Co基合金	—
BC5030	高速深切込み加工 高速深切込み断続加工	CBN含有量が多く、高い熱伝導率性を示します。 インサート全てがCBN焼結体のため高速切削及び深切込み高能率加工が可能材種です。 コーティングにより、使用済コーナの識別が容易です。	CBN AlN	TiN ベース

使用例

使用工具			使用工具		
AOX445R10008D			NF10000R0408D (MB730)		
使用インサート			被削材		
SL-ONEN120404ASN (BC5030)					
使用機械			部品名		
マシニングセンタ			油圧部品		
被削材			切削速度 (m/min)		
			1刃当たりの送り (mm/tooth)		
切削条件	切削速度 (m/min)	1200	テーブル送り (mm/min)		
	切込み (mm)	2.8	切込み (mm)		
	切削幅 (mm)	70	切削幅 (mm)		
	テーブル送り (mm/min)	3057	切削油剤		
	1刃当たりの送り (mm/tooth)	0.1	乾式（前工程は湿式切削）		
結果			正面振れ (mm)		
セラミックスに対し寿命10倍、能率4倍であり、Ra < 1.6μm以下にて良好。			0.005mm以下		
			結果		
			他社CBN材種定数加工に対し、正常摩耗にて良好であり、寿命延長可能な仕上げ面を維持。		

PCD（ダイヤモンド焼結体）

- アルミニウム合金などの非鉄合金の切削に適しています。
- 超高速仕上げ切削に対応



MD220の組織写真

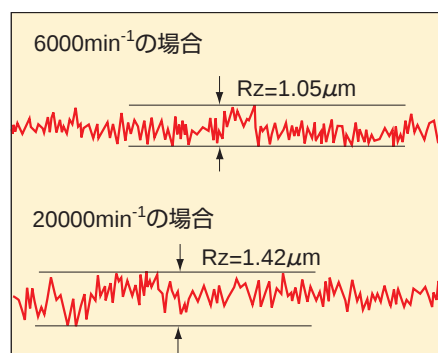
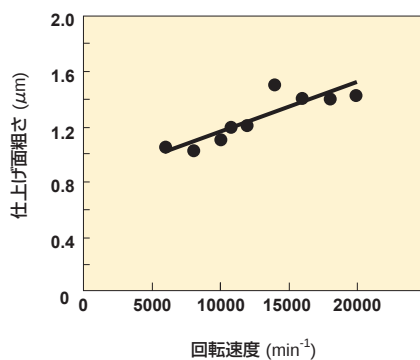
各材種の特徴

材種	特長
MD220	ダイヤモンドの粒径がおおよそ10 μ mで、耐摩耗性と耐欠損性とのバランスが最も優れた材料です。幅広いツーリングに適用可能です。

推奨切削条件

被削材	切削速度 (m/min)	インサート材種	1刃当たりの送り (mm/tooth)	切込み (mm)
アルミニウム合金 (Si含有 $\leq$ 12%)	1000—6000	MD220	—0.3	—0.5
アルミニウム合金 (Si含有 $\geq$ 13%)	200—800			

切削性能



<切削条件>

被削材：A7075-T6
 インサート：NP-GDCW1240PDFR2
 材種：MD220
 工具：V10000R0406D
 送り：0.2mm/tooth
 切込み：0.5mm
 切削幅：80mm
 乾式切削

回転工具用インサート一覧

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AF5000	LDCN190412R	1338	AHX640S	WNEU2007ZEN7C-M	1337	AJX PMC	JOMW06T215ZZSR-FT	1314
	LDCN190412L						JOMW080320ZZSR-FT	
AF10000	GDCN2004PDR	1338		WNEU2007ZEN7C-WP	1337		JDMW09T320ZDSR-FT	1314
							JDMW120420ZDSR-FT	
AHX440S AHX475S	NNMU130508ZER-L	1318		NNMU200608ZEN-MK	1319		JDMW140520ZDSR-FT	1314
	NNMU130508ZEN-M						JOMT06T215ZZSR-JM	
	NNMU130532ZEN-M	1336		NNMU200608ZEN-HK	1319		JOMT080320ZZSR-JM	1314
	NNMU130532ZEN-R						JDMT09T320ZDSR-JM	
	WNEU1305ZEN4C-M	1336		WNEU2006ZEN7C-WK	1337		JDMT120420ZDSR-JM	1314
							JDMT140520ZDSR-JM	
AHX640S	NNMU200708ZEN-M	1318		NNMU200608ZEN-MK	1319	AOX445	SL-ONEN120404ASN	1339
	NNMU200708ZEN-MP							
	NNMU200712ZER-L	1319		NNMU200608ZEN-HK	1319	APX3000	AOGT123602PEFR-GM	1312
	NNMU200712ZER-MM						AOGT123604PEFR-GM	
		1318		WNEU2006ZEN7C-WK	1337		AOGT123608PEFR-GM	1312
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							AOMT123604PEER-M	
		1312			1312		AOMT123608PEER-M	1312
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							AOMT123616PEER-M	
		1312			1312		AOMT123620PEER-M	1312
							AOMT123624PEER-M	
		1312			1312		AOMT123630PEER-M	1312
							AOMT123632PEER-M	

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	AOMT123604PEER-H	1312		RPHT1040M0E4-L	1320		SEET13T3AGEN-JL	1323		
	AOMT123608PEER-H			RPHT1040M0E4-M						
	AOMT123616PEER-H			RPHT1040M0E4-R						
				RPHT1248M0E4-L						
	AOMT184804PEER-H	1312				RPHT1248M0E4-M			SEMT13T3AGSN-JM	1323
	AOMT184808PEER-H			RPHT1248M0E4-R						
	AOMT184816PEER-H			RPMT1040M0E4-L						
	AOMT184832PEER-H			RPMT1040M0E4-M						
	AOMT184840PEER-H			RPMT1040M0E4-R						
	AOMT184850PEER-H			RPMT1248M0E4-L						
	AOMT184864PEER-H		RPMT1248M0E4-M							
			RPMT1248M0E4-R							
	AOMT184804PEER-M	1312		RDMW0517M0E	1320		SEMT13T3AGSN-JH	1323		
	AOMT184808PEER-M			RDMW0620M0E						
	AOMT184810PEER-M			RDMW0724M0E						
	AOMT184812PEER-M			1324		SEMT13T3AGSN-FT	1323			
	AOMT184816PEER-M									
	AOMT184820PEER-M									
	QOMT0830R-M2	1320		SOMT12T308PEER-JM	1325		SEGT13T3AGFN-JP	1323		
	QOMT1035R-M2			SOMT12T308PEEL-JM						
	QOMT1342R-M2									
	QOMT1651R-M2			SOMT12T308PEER-JH	1324		WEEW13T3AGER8C	1336		
	QOMT1856R-M2						WEEW13T3AGTR8C			
	QOMT2062R-M2									
	QOMT2576R-M2									
	QOGT0830R-G1	1320		SOMT12T320PEER-FT	1325		WEEW13T3AGFR3C	1341		
	QOGT1035R-G1									
	QOGT1342R-G1									
	QOGT1651R-G1			SOGT12T308PEFR-JP	1324		WEEW13T3AGTR3C			
	QOGT1856R-G1									
	QOGT2062R-G1									
	QOGT2576R-G1			WOEW12T308PEER8C	1337					
				WOEW12T308PETR8C						

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	AXD4000	
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	XDGX175008PDRF-GL	
	XDGX175012PDRF-GL	
	XDGX175016PDRF-GL	
	XDGX175020PDRF-GL	
	XDGX175024PDRF-GL	1332
	XDGX175030PDRF-GL	
	XDGX175032PDRF-GL	
	XDGX175040PDRF-GL	
	XDGX175050PDRF-GL	
	XDGX175004PDER-GM	
	XDGX175008PDER-GM	
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	XDGX175020PDER-GM	
	XDGX175024PDER-GM	1333
	XDGX175030PDER-GM	
	XDGX175032PDER-GM	
	XDGX175040PDER-GM	
	XDGX175050PDER-GM	
	XDGX175004PDRF-GM	
	XDGX175008PDRF-GM	
	XDGX175012PDRF-GM	
	XDGX175016PDRF-GM	
	XDGX175020PDRF-GM	
	XDGX175024PDRF-GM	1333
	XDGX175030PDRF-GM	
	XDGX175032PDRF-GM	
	XDGX175040PDRF-GM	
	XDGX175050PDRF-GM	

対応カッタ	インサート呼び記号	ページ
	AXD7000	
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	XDGX227016PDRF-GL	
	XDGX227020PDRF-GL	
	XDGX227024PDER-GL	1332
	XDGX227030PDRF-GL	
	XDGX227032PDRF-GL	
	XDGX227040PDRF-GL	
	XDGX227050PDRF-GL	
	XDGX227008PDER-GLA	
	XDGX227016PDER-GLA	
	XDGX227020PDER-GLA	
	XDGX227024PDER-GLA	1332
	XDGX227030PDER-GLA	
	XDGX227032PDER-GLA	
	XDGX227040PDER-GLA	
	XDGX227050PDER-GLA	
	BAE	
	AEMW150304ER	
	AEMW150308ER	1313
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	BAP300 SRM2	
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	APMT1135PDER-H2	
	APMT1135PDER-H3	1313
	APMT1135PDER-H4	
	APMT1135PDER-H6	
	APMT1135PDER-M0	
	APMT1135PDER-M1	1313
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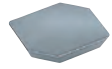
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	ZRM0603R-M5	
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	XPMT13T3PDER-M2	
	XPMT13T3PDER-M6	1335
	XPMT13T3PDER-M75	
	XPMT13T3PDER-M8	
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	XPMT13T3PDER-M75	
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	XPMT13T3PDER-M1	
	XPMT13T3PDER-M2	
	XPMT13T3PDER-M6	1335
	XPMT13T3PDER-M75	
	XPMT13T3PDER-M8	

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BF407 QBF407	SFAN1203ZFFR2	1323	BRP	RPMW08T2M0T	1321	CBJP CBMP TAB	JPMT060204-E	1315
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	SFCN1203ZFFR2			RPMW10T3M0T			MPMT090308	1317
	SFCN1203ZFFL2			RPMW1204M0E			MPMT120408	
	SFCN1203ZFFR2	1339		RPMW1204M0T	1321			1327
				RPMW1606M0E				
		1341		RPMW1606M0T	1326			1313
	WFC42ZFER2			RPMT08T2M0E-JS	1321			
		1341		RPMT10T3M0E-JS				1314
				RPMT1204M0E-JS				
		1341		RPMT1606M0E-JS	1326			1335
	NP-WFC42ZFER2							
		1341			1331			1335
BMR	HNMX1206EN06-R	1314			1331			1321
	HNMX1206EN12-R	1314			1331			1317
BN425 DN	SNC43B2G	1324			1331			1317
	SNC43B2S							
	SNK43B2G							
	SNK43B2S							
	SNKF43B2S	1324			1331			1317
	SNMF43B2G							

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FBP415 QBP415 	SPEN1203EEER1	1326	FP590 	SPEN535A	1325	MG445 	MGEEW1650AFTR	1317
	SPEN1203EEEL1							
	SPNN1203EEER1							
	SPNN1203EEEL1							
	SPER1203EEER-JS	1326	NF10000 QF10000 	GDCN2004PDFR3	1338	MVX 	SOMX063005-UM	1342
					SOMX073505-UM			
	SPEN1203EETR1	1339	NF10000 	NP-GDCN2004PDSR3	1338		SOMX084005-UM	
							SOMX094506-UM	
	WPC42EEER10C	1337	NR10000 	GDCN2004ZDTR1	1338		SOMX115506-UM	
	WPC42EEEL10C						SOMX136008-UM	
FF3000 	SPCA53Z	1325	MG200 	MGEEW1035PFTR	1317		SOMX166508-UM	
							SOMX187008-UM	
	SPCG53Z	1325	MG300 	MGEEW1242PFTR	1317		SOMX063005-US	1342
							SOMX073505-US	
FMAX 	GOER1404PXFR2	1338	MG400 	MGEEW1650PFTR	1317		SOMX084005-US	
	GOER1408PXFR2						SOMX094506-US	
FMSD 	SDEN1203AEN	1321	MG245 	MGEEW1035AFTR	1317		SOMX115506-US	
	SDKN1203AEN						SOMX136008-US	
	SDKN1203AETN						SOMX166508-US	
	SDKN1504AETN						SOMX187008-US	
FP490 	SPEN424A	1325	MG345 	MGEEW1242AFTR	1317		SOMX115506-UN	1343
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NSE300 SE300    	TEEN1603PEFR1	1329	OCTACUT BOE 	OEMX12T3ETR1	1319	S300 	SPMW090304	1327	
	TEEN1603PEER1			OEMX12T3ESR1			SPMW090308		
	TEEN1603PETR1			OEMX1705ESR1					
	TEEN1603PESR1			OEMX1705ETR1					
	TECN1603PEFR1W	1330		OEMX12T3ETR1	1338		SPMW120304	1327	
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	TECN1603PETR1W								
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					OEMX1705EER1-JS			SPMN120304T	
		TECN1603PEFR1	1339		OEMX1705ETR1-JS	1320		SPMN120308	
					REMX1705SN			SPMN120312	
	NSE400 SE400   	TECN2204PEFR1	1330		REMX12T3EN-JS	1320	S500 	SPMN150408	
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TEEN2204PESR1		SEEN1203EFTR1							
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			CPMT1906ZPEN-M2	1336			WEC42EFER5C		
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SE445 LSE445 	SECN1203AFTN1	1321
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	SEEN1203AFTN1	
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	SEER1203AFEN-JS	1322
	SECN1203AFFR1	1339
	WEC42AFTR5C	1336
SE515 	SECN1504EFTR1	1322
	SEEN1504EFER1	
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	WEC53EFTR5C	1336
SE545 	SEEN1504AFEN1	1322
	SEEN1504AFSN1	
	SEEN1504AFTN1	
	SEKN1504AFSN1	
	SEKN1504AFTN1	
	SEER1504AFEN-JS	1322

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SE545 	WEC53AFER5C	1336
	WEC53AFTR5C	
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SPX 	JPMX140412-JM	1315
	JPMX190412-JM	
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	SPMX120408-JM	1327
	SPMX120408-WH	1327
SRF 	SRFT10	1327
	SRFT12	
	SRFT16	
	SRFT20	
	SRFT25	
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	SRFT32	

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SRM2 	SRM16C-M	1328
	SRM20C-M	
	SRM25C-M	
	SRM30C-M	
	SRM32C-M	
	SRM16E-M	1328
	SRM20E-M	
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	SRG32E	
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	SRG50C	
	SRG40E	1328
	SRG50E	
	APMT1135PDER-H2	1313
	APMT1604PDER-H2	
	APMT1135PDER-M2	1313
	APMT1604PDER-M2	

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対応カッタ	インサート呼び記号	ページ
VAS500 サイドカッタ	LNGU171004PNER-R	1316
	LNGU171004PNEL-R	
	LNGU171008PNER-R	
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	XNMU160716R-MS	
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	XNMU160732R-MS	
	XNMU160740R-MS	
	XNMU160708R-HS	1334
	XNMU160708R-LS	1334

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VFX6	XNMU190912R-MS	1334
	XNMU190916R-MS	
	XNMU190924R-MS	
	XNMU190932R-MS	
	XNMU190940R-MS	
	XNMU190950R-MS	
	XNMU190912R-HS	1334
	XNMU190912R-LS	1334
VOX400 VOS400 サイドカッタ	SONX1206PER	1325
	SONX1206PEL	
	WOEX1206PER5C	1337
VIPER	TPNX1605N	1331
WSX445	SNGU140812ANFR-L	1324
	SNGU140812ANER-L	
	SNGU140812ANER-M	
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WSX445	WNGU1406ANEN8C-M	1337
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	SPKN1504EDR	
	SPEN1203EDR	
コーナ角45° 20°ポジ	SEKN1203AGTN	1323
ネガ	SNMN120408	1324
	SNMN120412	
11°ポジ	TPMN160304	1331
	TPMN160308	
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Memo

回転工用具サポート

カッタ用インサート

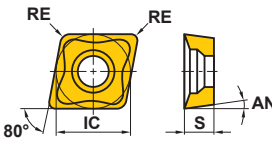
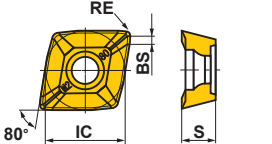
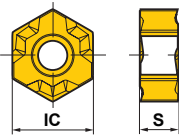
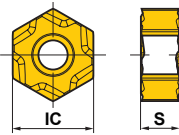
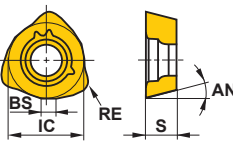
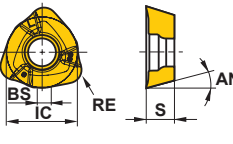
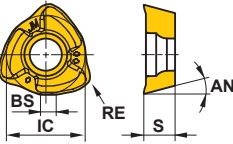
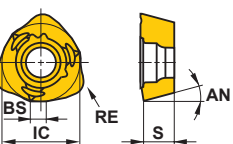
被削材	P	鋼	                             
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●: 標準在庫品
(1ケース10個入りです)



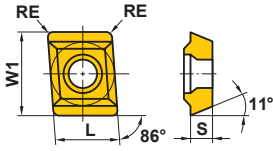
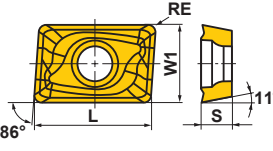
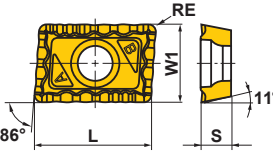


回転工具用インサート

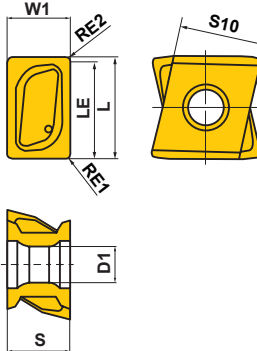
被削材	P	鋼										●:安定切削 ●:一般切削 ✱:不安定切削										
	M	ステンレス鋼																				
	K	鋳鉄																				
	N	非鉄金属																				
S	耐熱合金、チタン合金										●:安定切削 ●:一般切削 ✱:不安定切削											
H	高硬度鋼																					
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング										超硬	寸法 (mm)					形 状		
				F7030	FH7020	MP6120	MP6130	MP7130	MP7140	MP9120	MP9130	MC5015	VP15TF	VP30RT	UTi20T	IC	S	BS	RE		AN	
	DCCC	CCMX09T308EN-B	M	E	●										●		9.525	3.97	—	0.8	7°	
	PMR	CPMT1205ZPEN-M2	M	E											●		12.7	5.56	1.4	0.8	—	
		CPMT1205ZPEN-M3	M	E											●		12.7	5.56	1.4	1.2	—	
		CPMT1906ZPEN-M2	M	E											●		19.05	6.35	1.4	0.8	—	
		CPMT1906ZPEN-M3	M	E											●		19.05	6.35	1.4	1.2	—	
	BMR	HNMX1206EN06-R	M	E											●		12.7	6	—	—	—	
	BMR	HNMX1206EN12-R	M	E											●		12.7	6	—	—	—	
	AJX PMC	JOMW06T215ZZSR-FT	M	S	●	●	●	●	●	●	●	●	●	●	●		6.35	2.78	1.2	1.5	13°	
		JOMW080320ZZSR-FT	M	S	●	●	●	●	●	●	●	●	●	●	●		8	3.18	1.4	2	13°	
		JDMW09T320ZDSR-FT	M	S	●	●	●	●	●	●	●	●	●	●	●		9.525	3.97	1.8	2	15°	
		JDMW120420ZDSR-FT	M	S	●	●	●	●	●	●	●	●	●	●	●		12	4.76	2.5	2	15°	
		JDMW140520ZDSR-FT	M	S	●	●	●	●	●	●	●	●	●	●	●		14	5.56	2.8	2	15°	
	AJX	JOMT06T216ZZER-JL	M	E					●	●	●	●	●	●	●		6.35	2.78	1.2	1.6	13°	
		JOMT080322ZZER-JL	M	E					●	●	●	●	●	●	●		8	3.18	1.4	2.2	13°	
		JDMT09T323ZDER-JL	M	E					●	●	●	●	●	●	●		9.525	3.97	1.8	2.3	15°	
		JDMT120423ZDER-JL	M	E					●	●	●	●	●	●	●		12	4.76	2.5	2.3	15°	
		JDMT140523ZDER-JL	M	E					●	●	●	●	●	●	●		14	5.56	2.8	2.3	15°	
	AJX PMC	JOMT06T215ZZSR-JM	M	S	●	●	●	●	●	●	●	●	●	●	●		6.35	2.78	1.2	1.5	13°	
		JOMT080320ZZSR-JM	M	S	●	●	●	●	●	●	●	●	●	●	●		8	3.18	1.4	2	13°	
		JDMT09T320ZDSR-JM	M	S	●	●	●	●	●	●	●	●	●	●	●		9.525	3.97	1.8	2	15°	
		JDMT120420ZDSR-JM	M	S	●	●	●	●	●	●	●	●	●	●	●		12	4.76	2.5	2	15°	
		JDMT140520ZDSR-JM	M	S	●	●	●	●	●	●	●	●	●	●	●		14	5.56	2.8	2	15°	
	AJX PMC	JDMT120420ZDSR-ST	M	S	●	●	●	●	●	●	●	●	●	●	●		12	4.76	2.5	2	15°	
		JDMT140520ZDSR-ST	M	S	●	●	●	●	●	●	●	●	●	●	●		14	5.56	2.8	2	15°	

●: 標準在庫品
(1ケース10個入りです)

■ = MIRACLE SIGMA

被削材	P	鋼	●	●	●	●	切削状態(目安): ●: 安定切削 ●: 一般切削 ✱: 不安定切削 ホーニング: E: 丸ホーニング				
	M	ステンレス鋼	●	●	●	●					
	K	鋳鉄	✱	✱		✱					
	N	非鉄金属									
	S	耐熱合金、チタン合金	●								
	H	高硬度鋼	●								
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング		超硬	寸法 (mm)				形 状
				VP15TF VP20RT UP20M	UT120T	L	W1	S	RE		
	JPMT060204-E	M	E	●	●	●	6.5	7.94	2.38	0.4	 本図は外刃用(E)を示す。
	JPMX140412-JM	M	E	●	●		14.3	12.7	4.79	1.2	 本図は外刃用(E)を示す。
	JPMX190412-JM	M	E	●	●		19.05	12.7	4.83	1.2	
	JPMX140412-WH	M	E	●	●		14.3	12.7	4.76	1.2	 本図は外刃用(E)を示す。
	JPMX190412-WH	M	E	●	●		19.05	12.7	4.76	1.2	

回転工具用インサート

被削材	P	鋼		    	切削状態(目安)： ●：安定切削 ●：一般切削 ☆：不安定切削										
	M	ステンレス鋼			ホーニング： E：丸ホーニング										
	K	鋳鉄													
	N	非鉄金属													
	S	耐熱合金、チタン合金													
H	高硬度鋼														
対応カット インサート 外観	呼 び 記 号	精度	ホー ニング	コーティング		寸法 (mm)								形 状	
				MP6120	VP15TF	L	LE	S	S10	RE1	RE2	W1	D1		
	VAS400 サイドカッタ	LNGU130804PNER-M	G	E	●		13.0	12.2	8.0	11.0	0.4	0.8	8.0	4.5	
	LNGU130804PNEL-M	G	E	●		13.0	12.2	8.0	11.0	0.4	0.8	8.0	4.5		
	LNGU130808PNER-M	G	E	●		13.0	12.2	8.0	11.0	0.8	0.8	8.0	4.5		
	LNGU130808PNEL-M	G	E	●		13.0	12.2	8.0	11.0	0.8	0.8	8.0	4.5		
	LNGU130812PNER-M	G	E	●		13.0	12.2	8.0	11.0	1.2	0.8	8.0	4.5		
	LNGU130812PNEL-M	G	E	●		13.0	12.2	8.0	11.0	1.2	0.8	8.0	4.5		
	LNGU130816PNER-M	G	E	●		13.0	12.2	8.0	11.0	1.6	0.8	8.0	4.5		
	LNGU130816PNEL-M	G	E	●		13.0	12.2	8.0	11.0	1.6	0.8	8.0	4.5		
	LNGU130820PNER-M	G	E	●		13.0	12.2	8.0	11.0	2.0	0.8	8.0	4.5		
	LNGU130820PNEL-M	G	E	●		13.0	12.2	8.0	11.0	2.0	0.8	8.0	4.5		
	LNGU130824PNER-M	G	E	●		13.0	12.2	8.0	11.0	2.4	0.8	8.0	4.5		
	LNGU130824PNEL-M	G	E	●		13.0	12.2	8.0	11.0	2.4	0.8	8.0	4.5		
	LNGU130830PNER-M	G	E	●		13.0	11.4	8.0	11.0	3.0	1.6	8.0	4.5		
	LNGU130830PNEL-M	G	E	●		13.0	11.4	8.0	11.0	3.0	1.6	8.0	4.5		
	LNGU130840PNER-M	G	E	●		13.0	11.4	8.0	11.0	4.0	1.6	8.0	4.5		
	LNGU130840PNEL-M	G	E	●		13.0	11.4	8.0	11.0	4.0	1.6	8.0	4.5		
	LNGU130850PNER-M	G	E	●		13.0	11.4	8.0	11.0	5.0	1.6	8.0	4.5		
	LNGU130850PNEL-M	G	E	●		13.0	11.4	8.0	11.0	5.0	1.6	8.0	4.5		
	VAS500 サイドカッタ	LNGU171004PNER-R	G	E	●	●	17.0	16.2	10.0	13.0	0.4	0.8	10.0	5.5	
	LNGU171004PNEL-R	G	E	●	●	17.0	16.2	10.0	13.0	0.4	0.8	10.0	5.5		
	LNGU171008PNER-R	G	E	●	●	17.0	16.2	10.0	13.0	0.8	0.8	10.0	5.5		
	LNGU171008PNEL-R	G	E	●	●	17.0	16.2	10.0	13.0	0.8	0.8	10.0	5.5		
	LNGU171012PNER-R	G	E	●	●	17.0	16.2	10.0	13.0	1.2	0.8	10.0	5.5		
	LNGU171012PNEL-R	G	E	●	●	17.0	16.2	10.0	13.0	1.2	0.8	10.0	5.5		
	LNGU171016PNER-R	G	E	●	●	17.0	16.2	10.0	13.0	1.6	0.8	10.0	5.5		
	LNGU171016PNEL-R	G	E	●	●	17.0	16.2	10.0	13.0	1.6	0.8	10.0	5.5		
	LNGU171020PNER-R	G	E	●	●	17.0	16.2	10.0	13.0	2.0	0.8	10.0	5.5		
	LNGU171020PNEL-R	G	E	●	●	17.0	16.2	10.0	13.0	2.0	0.8	10.0	5.5		
	LNGU171024PNER-R	G	E	●	●	17.0	16.2	10.0	13.0	2.4	0.8	10.0	5.5		
	LNGU171024PNEL-R	G	E	●	●	17.0	16.2	10.0	13.0	2.4	0.8	10.0	5.5		
	LNGU171030PNER-R	G	E	●	●	17.0	15.4	10.0	13.0	3.0	1.6	10.0	5.5		
	LNGU171030PNEL-R	G	E	●	●	17.0	15.4	10.0	13.0	3.0	1.6	10.0	5.5		
	LNGU171040PNER-R	G	E	●	●	17.0	15.4	10.0	13.0	4.0	1.6	10.0	5.5		
	LNGU171040PNEL-R	G	E	●	●	17.0	15.4	10.0	13.0	4.0	1.6	10.0	5.5		
	LNGU171050PNER-R	G	E	●	●	17.0	15.4	10.0	13.0	5.0	1.6	10.0	5.5		
	LNGU171050PNEL-R	G	E	●	●	17.0	15.4	10.0	13.0	5.0	1.6	10.0	5.5		
	LNGU171060PNER-R	G	E	●	●	17.0	15.4	10.0	13.0	6.0	1.6	10.0	5.5		
	LNGU171060PNEL-R	G	E	●	●	17.0	15.4	10.0	13.0	6.0	1.6	10.0	5.5		
	LNGU171070PNER-R	G	E	●	●	17.0	15.4	10.0	13.0	7.0	1.6	10.0	5.5		
	LNGU171070PNEL-R	G	E	●	●	17.0	15.4	10.0	13.0	7.0	1.6	10.0	5.5		

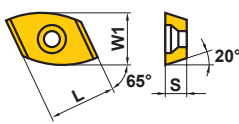
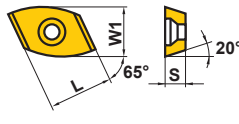
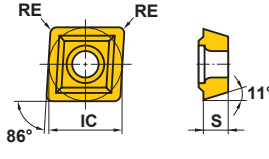
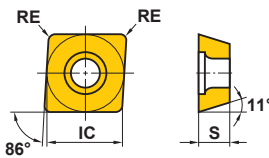
本図は右勝手(R)を示す。

●: 標準在庫品
(1ケース10個入りです)

■ = MIRACLE SIGNA

本図は右勝手(R)を示す。

被削材	P	鋼	     	     	     	     	切削状態(目安)： ●：安定切削 ●：一般切削 ✖：不安定切削					ホーニング： E：丸ホーニング T：チャンファーホーニング	
	M	ステンレス鋼					L	W1	IC	S	RE		
	K	鋳鉄											
	N	非鉄金属											
	S	耐熱合金、チタン合金											
	H	高硬度鋼											

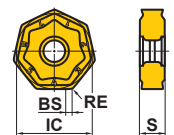
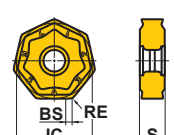
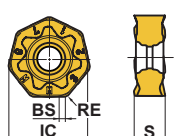
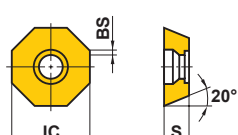
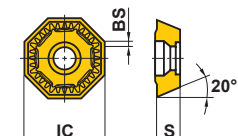
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング	サーメット	超硬	寸法 (mm)					形 状	
				VP15TF UP20M	NX2525	UT120T HT110	L	W1	IC	S	RE		
	MG245	MGEEW1035AFTR	E	T	●	●	● ●	10	9	—	3.5	—	 本図は外刃用(E)を示す。
	MG345	MGEEW1242AFTR	E	T	●	●	● ●	12	10.5	—	4.2	—	
	MG445	MGEEW1650AFTR	E	T	●	●	● ●	16	13	—	5	—	
	MG200	MGEEW1035PFTR	E	T	●	●	● ●	10	9	—	3.5	—	 本図は外刃用(E)を示す。
	MG300	MGEEW1242PFTR	E	T	●	●	● ●	12	10.5	—	4.2	—	
	MG400	MGEEW1650PFTR	E	T	●	●	● ●	16	13	—	5	—	
	CBMP	MPMT070308	M	E	●	●	●	—	—	7.94	3.18	0.8	 86° 11°
	ECMP	MPMT090308	M	E	● ●	●	●	—	—	9.525	3.18	0.8	
	TAB	MPMT120408	M	E	●	●	●	—	—	12.7	4.76	0.8	
	TSMP	MPMW070308	M	E			●	—	—	7.94	3.18	0.8	 86° 11°
		MPMW090308	M	E			●	—	—	9.525	3.18	0.8	
		MPMW120408	M	E			●	—	—	12.7	4.76	0.8	

回転工具用インサート

被削材	P	鋼			切削状態(目安): ●: 安定切削 ●: 一般切削 ☆: 不安定切削 ホーニング: E: 丸ホーニング						
	M	ステンレス鋼									
	K	鋳鉄									
	N	非鉄金属									
	S	耐熱合金、チタン合金									
H	高硬度鋼										
対応カット インサート 外観	呼 び 記 号	精度	ホーニング	コーティング	寸法 (mm)				形 状		
				MP6120 MP6130 MP7130 MP7140 MC5020 VP15TF VP20RT MP7030	IC	S	BS	RE			
	SPX MPMX120412-JM	M	E				12.7	4.79	—	1.2	
	SPX MPMX120412-WH	M	E				12.7	4.76	—	1.2	
	AHX440S AHX475S	M	E				13.4	5.77	1	0.8	
	NNMU130508ZER-L	M	E				13.4	5.57	1	0.8	
	NNMU130508ZEN-M	M	E				13.4	5.57	—	3.2	
	NNMU130532ZEN-M	M	E				13.4	5.47	—	3.2	
	NNMU130532ZEN-R	M	E								
	AHX640S	M	E				20	8	1	0.8	
	AHX640S	M	E				20	8	1	0.8	
	AHX640S	M	E				20	8	1	1.2	

■ = MIPACLE SIGNA

● : 標準在庫品 (1ケース10個入りです)

被削材	P	鋼	 	    	      	      	      	切削状態(目安)： ●：安定切削 ●：一般切削 ✖：不安定切削 ホーニング： E：丸ホーニング S：コンビネーションホーニング T：チャンファーホーニング									
	M	ステンレス鋼															
	K	鋳鉄															
	N	非鉄金属															
	S	耐熱合金、チタン合金															
	H	高硬度鋼															
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング		サメット	寸法 (mm)				形 状						
				F7030	MP9120	MP9130	MC5020	VP15TF	VP20RT	NX4545		IC	S	BS	RE		
	AHX640S	NNMU200608ZEN-MK	M	E				●	●	●			20	6.55	1	0.8	
	AHX640W																
	AHX640S	NNMU200608ZEN-HK	M	E				●	●	●			20	6.55	1	0.8	
	AHX640W																
	AHX640S	NNMU200712ZER-L	M	E	●	●							20	8	1	1.2	
	OEMX12T3ETR1	M	T							●	12.7	3.97	1	—			
	OEMX12T3ESR1	M	S	●							12.7	3.97	1	—			
	OEMX1705ETR1	M	T				●		●		17	5	1.4	—			
	OEMX1705ESR1	M	S	●							17	5	1.4	—			
	OEMX12T3EER1-JS	M	E	●							12.7	3.97	1	—			
	OEMX1705EER1-JS	M	E	●							17	5	1.4	—			
	OEMX1705ETR1-JS	M	T				●				17	5	1.4	—			

■ = MIRACLE SIGMA

回転工具用インサート

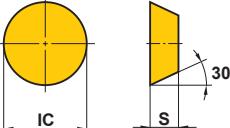
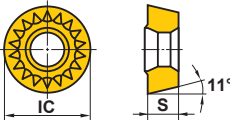
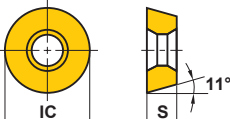
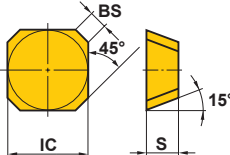
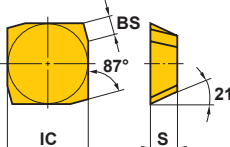
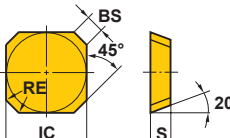
被削材	P	鋼		C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
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*1 HT110のホーニングは"F"です。

● = MIRACLE

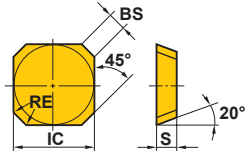
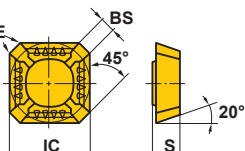
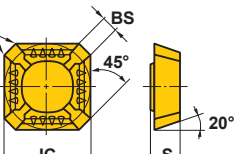
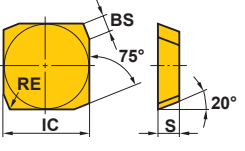
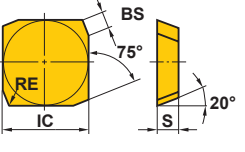
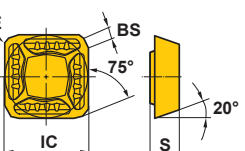
●: 標準在庫品 ▲: 現在標準在庫品で将来新製品と置き換わる製品
(1ケース10個入りです)

被削材	P	鋼	     	     	     	     	     	     	     	     	切削状態(目安)： ●：安定切削 ●：一般切削 ✱：不安定切削 ホーニング： E：丸ホーニング F：シャープエッジ S：コンビネーションホーニング T：チャンファードホーニング
	M	ステンレス鋼									
	K	鋳鉄									
	N	非鉄金属									
	S	耐熱合金、チタン合金									
H	高硬度鋼										

対応カッタ インサート 外観	呼 び 記 号	精度	ホー ニ ン グ	コーティング	サメット	超硬	寸法 (mm)				形 状						
				F7030	MC5020	VP15TF	UP20M	NX2525	NX4545	UT120T		HT110	IC	S	BS	RE	
	SG20	RGEN2004M0EN	E	E			●						20	4.76	—	—	
		RGEN2004M0SN	E	S	●			●			●	●	20	4.76	—	—	
	BRP	RPMT08T2M0E-JS	M	E	●		●						8	2.78	—	—	
		RPMT10T3M0E-JS	M	E	●		●						10	3.97	—	—	
		RPMT1204M0E-JS	M	E	●		●				●		12	4.76	—	—	
		RPMT1606M0E-JS	M	E	●		●						16	6.35	—	—	
	BRP	RPMW08T2M0T	M	T			●						8	2.78	—	—	
		RPMW10T3M0E	M	E	●				●				10	3.97	—	—	
		RPMW10T3M0T	M	T			●						10	3.97	—	—	
		RPMW1204M0E	M	E	●				●	●			12	4.76	—	—	
		RPMW1204M0T	M	T			●						12	4.76	—	—	
		RPMW1606M0E	M	E	●				●				16	6.35	—	—	
		RPMW1606M0T	M	T			●						16	6.35	—	—	
	FMSD	SDEN1203AEN	E	T						▲			12.7	3.18	1.2	—	
		SDKN1203AEN	K	T	▲		●	▲	▲				12.7	3.18	1.2	—	
		SDKN1203AETN	K	T					▲				12.7	3.18	1.7	—	
		SDKN1504AETN	K	T					▲				15.875	4.76	1.7	—	
	FE404 E404	SEA42C10GR	A	F							▲		12.7	3.18	2.4	—	
		SEA42C10GL	A	F							▲		12.7	3.18	2.4	—	
	SE445	SECN1203AFTN1	C	T						●			12.7	3.18	1.4	1.0	
		SEEN1203AFFN1	E	F							●		12.7	3.18	1.4	1.0	
		SEEN1203AFEN1	E	E			●						12.7	3.18	1.4	1.0	
		SEEN1203AFTN1	E	T					●	●			12.7	3.18	1.4	1.0	
		SEEN1203AFSN1	E	S	●	●							12.7	3.18	1.4	1.0	
		SEKN1203AFSN1	K	S	●								12.7	3.18	1.4	—	
		SEKN1203AFTN1	K	T						●			12.7	3.18	1.4	—	
		SEKN1203AFTN	K	T					●				12.7	3.18	1.7	1.0	

回転工具用インサート

被削材	P	鋼		●	●	●	●	●	切削状態(目安): ●:安定切削 ●:一般切削 ✖:不安定切削 ホーニング: E:丸ホーニング F:シャープエッジ S:コンビネーションホーニング T:チャンファーホーニング
	M	ステンレス鋼		●	●	●	●	●	
	K	鋳鉄		●	✖	●	✖	●	
	N	非鉄金属		●	●	●	●	●	
S	耐熱合金、チタン合金		●	●	●	●	●		
H	高硬度鋼		●	●	●	●	●		

対応カッタ インサート 外観	呼 び 記 号	精度	ホー ニ ン グ	コーティング	サメット	超硬	寸法 (mm)				形 状
				F7030 MC5020 VP15TF	NX2525 NX4545	UT120T HT110	IC	S	BS	RE	
	SE545 SEEN1504AFEN1	E	E	●			15.875	4.76	1.4	1.0	
	SEEN1504AFTN1	E	T		●	●	15.875	4.76	1.4	1.0	
	SEEN1504AFSN1	E	S	●	●		15.875	4.76	1.4	1.0	
	SEKN1504AFSN1	K	S	●			15.875	4.76	1.4	—	
	SEKN1504AFTN1	K	T			●	15.875	4.76	1.4	—	
	SE445 SEER1203AFEN-JS	E	E	●	●	●	12.7	3.18	1.4	1.0	
	SE545 SEER1504AFEN-JS	E	E	●	●		15.875	4.76	1.4	1.0	
	SE415 SEEN1203EFFR1	E	F			●	12.7	3.18	1.4	1.0	
	QSE415 SEEN1203EFER1	E	E	●			12.7	3.18	1.4	1.0	
	SEEN1203EFTR1	E	T		●	●	12.7	3.18	1.4	1.0	
	SEEN1203EFSR1	E	S	●	●		12.7	3.18	1.4	1.0	
	SEKN1203EFSR1	K	S	●			12.7	3.18	1.4	—	
	SEKN1203EFTR1	K	T			●	12.7	3.18	1.4	—	
	SEKN1203EFTR	K	T			●	12.7	3.18	1.8	1.0	
	SE515 SECN1504EFTR1	C	T		●		15.875	4.76	1.4	1.0	
	SEEN1504EFER1	E	E	●			15.875	4.76	1.4	1.0	
	SEEN1504EFTR1	E	T		●		15.875	4.76	1.4	1.0	
	SEEN1504EFSR1	E	S	●			15.875	4.76	1.4	1.0	
	SEKN1504EFSR1	K	S	●			15.875	4.76	1.4	—	
	SEKN1504EFTR1	K	T			●	15.875	4.76	1.4	—	
	SE415 SEER1203EFER-JS	E	E	●	●		12.7	3.18	1.4	1.0	
	QSE415										

●：標準在庫品 □：受注生産品
▲：現在標準在庫品で将来新製品と置き換わる製品
(1ケース10個入りです)

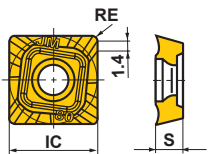
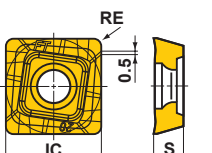
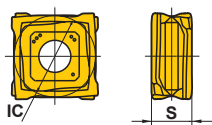
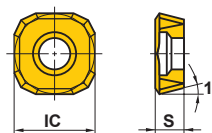
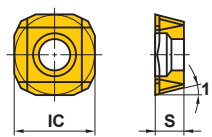
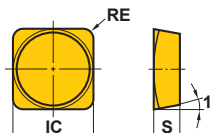
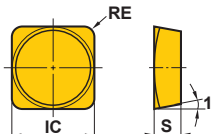
 = MIRACLE SIGMA

回転工用具用インサート

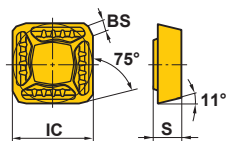
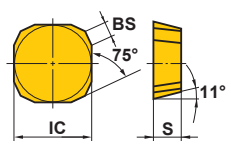
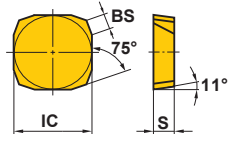
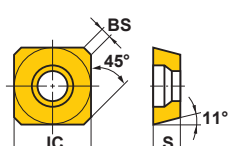
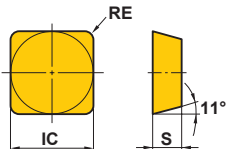
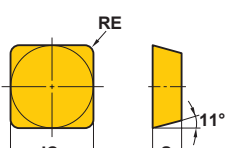
*1 UTi20Tのホーニングは"E"です。



MIRACLE SIGMA

被削材	P	鋼			切削状態(目安): ●: 安定切削 ●: 一般切削 ✱: 不安定切削															
	M	ステンレス鋼			ホーニング: E: 丸ホーニング F: シャープエッジ															
	K	鋳鉄																		
	N	非鉄金属																		
	S	耐熱合金、チタン合金																		
H	高硬度鋼																			
対応カッタ インサート 外觀	呼 び 記 号	精度	ホーニング	コーティング								サメット	超硬	寸法 (mm)			形 状			
				F7030	MC5020	MP6120	MP6130	MP7130	MP7140	MP9120	MP9130	VP15TF	VP30RT	NX2525	NX4545	HT110		HT105T	IC	S
	ASX400 SOMT12T308PEER-JM	M	E	●	●	●	●	●	●	●	●	●	●				12.7	3.97	0.8	 本図は右勝手(R)を示す。
	ASX400 SOMT12T308PEEL-JM	M	E														12.7	3.97	0.8	
	ASX400 SOMT12T320PEER-FT	M	E	●	●					●	●	●					12.7	3.97	2.0	 本図は右勝手(R)を示す。
	VOX400 SONX1206PER	N	E	●							●						12.7	6.3	—	 本図は右勝手(R)を示す。
	VOS400 SONX1206PEL	N	E								●						12.7	6.3	—	
	FF3000 SPCA53Z	C	E											●			15.88	4.8	—	 本図は右勝手(R)を示す。
	FF3000 SPCG53Z	C	F											●	●		15.88	4.8	—	 本図は右勝手(R)を示す。
	FP490 SPEN424A	E	F												●	●	12.7	3.18	1.6	 本図は右勝手(R)を示す。
	FP590 SPEN535A	E	F												●		15.875	4.76	2.0	 本図は右勝手(R)を示す。

回転工具用インサート

被削材	P	鋼			●	●	●	●	●	切削状態(目安): ●: 安定切削 ●: 一般切削 ✖: 不安定切削						
	M	ステンレス鋼			●	●	●	●	●							
	K	鋳鉄			●	✖	●	●	✖							
	N	非鉄金属			●	●	●	●	●							
S	耐熱合金、チタン合金			●	●	●	●	●	ホーニング: E: 丸ホーニング F: シャープエッジ T: チャンファーホーニング							
H	高硬度鋼			●	●	●	●	●								
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング	サーメット	超硬	寸法 (mm)				形 状					
				F7030	MC5020 VP15TF UP20M	NX2525 NX4545	UTi20T HTi10	IC	S	BS		RE				
	FBP415	SPER1203EEER-JS	E	E	●				12.7	3.18	1.4	—				
	コーナ角15°	SPEN1203EDR	E	T	▲			▲	▲	12.7	3.18	1.4	—	 本図は右勝手(R)を示す。		
		SPKN1203EDR	K	T*1	▲	●	●		▲	▲	12.7	3.18	1.4		—	
		SPKN1504EDR	K	T*1			●	▲	▲	▲	▲	15.875	4.76		1.4	—
	FBP415	SPEN1203EEER1	E	E	●				●	12.7	3.175	1.4	—	 本図は右勝手(R)を示す。		
		SPEN1203EEEL1	E	E	●					●	12.7	3.175	1.4		—	
		SPNN1203EEER1	N	E	●					●	12.7	3.18	1.3		—	
		SPNN1203EEEL1	N	E							●	12.7	3.18		1.3	—
	BSP	SPMB1204APT	M	T			●		●	12.7	4.76	1.4	—			
	S400	SPMN120304	M	E*1		●			●	●	12.7	3.18	—	0.4		
		SPMN120304T	M	T					●			12.7	3.18	—		0.4
		SPMN120308	M	E	●	●	●			●	●	12.7	3.18	—		0.8
		SPMN120312	M	E*1	●	●				●	●	12.7	3.18	—		1.2
		SPMN120408	M	E	●					●	●	12.7	4.76	—		0.8
		SPMN120412	M	E	●					●	●	12.7	4.76	—		1.2
		SPGN120304	G	E*1				●		●	●	12.7	3.18	—		0.4
		SPGN120308	G	E*1			●	●		●	●	12.7	3.18	—		0.8
		SPGN120312	G	F						●		12.7	3.18	—		1.2
	S500	SPMN150408	M	E					●		15.875	4.76	—	0.8		
		SPMN150412	M	E						●		15.875	4.76	—		1.2
		SPGN150404	G	E						●		15.875	4.76	—		0.4
		SPGN150408	G	E*1						●		15.875	4.76	—		0.8

*1 HTi10のホーニングは"F"です。

●：標準在庫品 ▲：現在標準在庫品で将来新製品と置き換わる製品
(1ケース10個入りです)

被削材	P	鋼		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●		●	
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* 1ケース2個入りです。

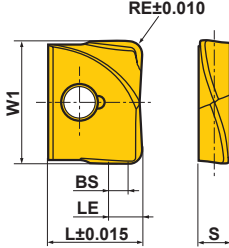
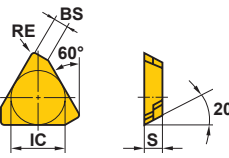
*1 NX2525、NX4545のホーニングは"T"です。



回転工用具用インサート

* 1ケース2個入りです。


MITSUBISHI MATERIALS

被削材	P	鋼	C	G	A	F	M	N	S	H	コーティング	サメット	超硬	寸法 (mm)							形状	
	M	ステンレス鋼												W1	LE	IC	L	S	BS	RE		
	K	鋳鉄																				
	N	非鉄金属																				
	S	耐熱合金、チタン合金																				
	H	高硬度鋼																				
対応カッタ インサート 外観	呼 び 記 号		精度	ホー ニ ン グ																	形 状	
					F7030	MC5020	VP15TF	UP20M	MP8010	NX2525	NX4545	UT120T	HT110									
	SUF	* SUFT10R05	—	F			●	●							10	1.5	—	8.5	2.6	1	0.5	
		* SUFT10R10	—	F			●	●							10	2	—	8.5	2.6	1	1	
		* SUFT10R20	—	F			●	●							10	3	—	8.5	2.6	1	2	
		* SUFT12R05	—	F			●	●							12	1.7	—	10	3	1.2	0.5	
		* SUFT12R10	—	F			●	●							12	2.2	—	10	3	1.2	1	
		* SUFT12R20	—	F			●	●							12	3.2	—	10	3	1.2	2	
		* SUFT12R30	—	F			●	●							12	4.2	—	10	3	1.2	3	
		* SUFT16R05	—	F			●	●							16	2.1	—	12	4	1.6	0.5	
		* SUFT16R10	—	F			●	●							16	2.6	—	12	4	1.6	1	
		* SUFT16R15	—	F			●	●							16	3.1	—	12	4	1.6	1.5	
		* SUFT16R20	—	F			●	●							16	3.6	—	12	4	1.6	2	
		* SUFT16R30	—	F			●	●							16	4.6	—	12	4	1.6	3	
		* SUFT20R05	—	F			●	●							20	2.5	—	15	5	2	0.5	
		* SUFT20R10	—	F			●	●							20	3	—	15	5	2	1	
		* SUFT20R15	—	F			●	●							20	3.5	—	15	5	2	1.5	
		* SUFT20R20	—	F			●	●							20	4	—	15	5	2	2	
		* SUFT20R30	—	F			●	●							20	5	—	15	5	2	3	
		* SUFT25R05	—	F			●	●							25	3	—	18.5	6	2.5	0.5	
		* SUFT25R10	—	F			●	●							25	3.5	—	18.5	6	2.5	1	
		* SUFT25R20	—	F			●	●							25	4.5	—	18.5	6	2.5	2	
		* SUFT25R30	—	F			●	●							25	5.5	—	18.5	6	2.5	3	
		* SUFT30R05	—	F			●	●							30	3.5	—	22.5	7	3	0.5	
		* SUFT30R10	—	F			●	●							30	4	—	22.5	7	3	1	
		* SUFT30R20	—	F			●	●							30	5	—	22.5	7	3	2	
		* SUFT30R30	—	F			●	●							30	6	—	22.5	7	3	3	
		* SUFT32R05	—	F			●	●							32	3.7	—	23.5	7	3.2	0.5	
		* SUFT32R10	—	F			●	●							32	4.2	—	23.5	7	3.2	1	
		* SUFT32R20	—	F			●	●							32	5.2	—	23.5	7	3.2	2	
	NSE300 SE300	TEEN1603PEFR1	E	F									●	—	—	—	9.525	—	3.175	1.4	0.4	
		TEEN1603PEER1	E	E			●						●	—	—	—	9.525	—	3.175	1.4	0.4	
		TEEN1603PETR1	E	T				●		●	●	●	—	—	—	—	9.525	—	3.175	1.4	0.4	
		TEEN1603PESR1	E	S	●	●							—	—	—	—	9.525	—	3.175	1.4	0.4	

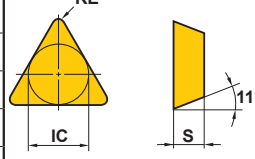
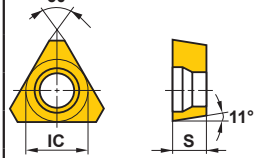
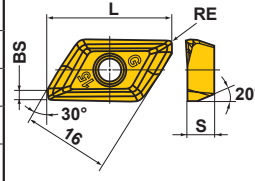
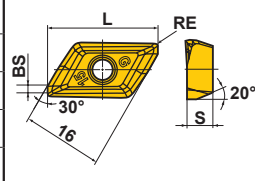
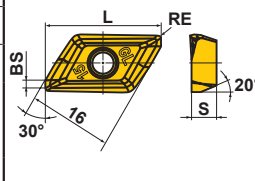
* 1ケース2個入りです。

回転工具用インサート

被削材	P	鋼	C	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TT	TU	TV	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK	ZL	ZM	ZN	ZO	ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW	ZX	ZY	ZZ
	M	ステンレス鋼																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
切削状態(目安)：																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

*1 F7030のホーニングは"E"です。

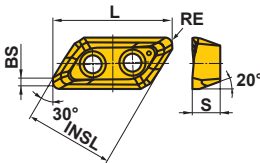
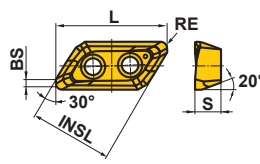
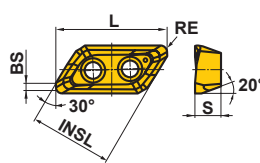
●: 標準在庫品 ▲: 現在標準在庫品で将来新製品と置き換わる製品
(1ケース10個入りです)

被削材	P	鋼		     	     	     	     	切削状態(目安): ●: 安定切削 ●: 一般切削 ✱: 不安定切削 ホーニング: E: 丸ホーニング F: シャープエッジ							
	M	ステンレス鋼													
	K	鋳鉄													
	N	非鉄金属													
	S	耐熱合金、チタン合金													
H	高硬度鋼														
対応カッタ インサート 外観	呼 び 記 号	精度	ホー ニ ン グ	コーティング	サーメット	超硬	寸法 (mm)					形 状			
				F7030 VP15TF LC15TF UP20M	NX2525	UT120T HT110 TF15	L	IC	S	BS	RE				
	11°ボジ TPMN160304	M	E*1	●	●	●	●	●	●	—	9.525	3.18	—	0.4	
	TPMN160308	M	E*2	●	●	●	●	●	●	—	9.525	3.18	—	0.8	
	TPMN160312	M	E*1			●		●		—	9.525	3.18	—	1.2	
	TPMN220404	M	E					●		—	12.7	4.76	—	0.4	
	TPMN220408	M	E*1	●	●	●		●	●	—	12.7	4.76	—	0.8	
	TPMN220412	M	E*1	●	●			●	●	—	12.7	4.76	—	1.2	
	VIPER TPNX1605N	N	E				●			—	9.525	5	—	—	
	BXD4000 XDGT1550PDER-G04	G	E	●						22	—	5	1.5	0.4	
	XDGT1550PDER-G08	G	E	●						22	—	5	1.1	0.8	
	XDGT1550PDER-G12	G	E	●						22	—	5	0.7	1.2	
	XDGT1550PDER-G16	G	E	●						22	—	5	0.4	1.6	
	XDGT1550PDER-G20	G	E	●						21.7	—	5	0.2	2.0	
	XDGT1550PDER-G30	G	E	●						20	—	5	0.6	3.0	
	XDGT1550PDER-G32	G	E	●						20	—	5	0.4	3.2	
	XDGT1550PDER-G40	G	E	●						19	—	5	0.5	4.0	
	XDGT1550PDER-G50	G	E	●						18	—	5	0.4	5.0	
	BXD4000 XDGT1550PDFR-G04	G	F		●				●	22	—	5	1.5	0.4	
	XDGT1550PDFR-G08	G	F		●				●	22	—	5	1.1	0.8	
	XDGT1550PDFR-G12	G	F		●				●	22	—	5	0.7	1.2	
	XDGT1550PDFR-G16	G	F		●				●	22	—	5	0.4	1.6	
	XDGT1550PDFR-G20	G	F		●				●	21.7	—	5	0.2	2.0	
	XDGT1550PDFR-G30	G	F		●				●	20	—	5	0.6	3.0	
	XDGT1550PDFR-G32	G	F		●				●	20	—	5	0.4	3.2	
	XDGT1550PDFR-G40	G	F		●				●	19	—	5	0.5	4.0	
	XDGT1550PDFR-G50	G	F		●				●	18	—	5	0.4	5.0	
	BXD4000 XDGT1550PDFR-GL04	G	F						●	22	—	5	1.5	0.4	
	XDGT1550PDFR-GL08	G	F						●	22	—	5	1.1	0.8	

*1 HTi10のホーニングは"F"です。

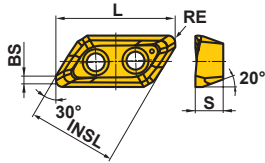
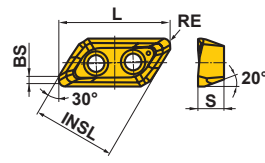
*2 HTi10のホーニングは"F"、NX2525のホーニングは"T"です。

回転工具用インサート

被削材	P	鋼					切削状態(目安)： ●：安定切削 ●：一般切削 ✖：不安定切削 ホーニング： E：丸ホーニング F：シャープエッジ					
	M	ステンレス鋼										
	K	鋳鉄										
	N	非鉄金属	●	✖	●							
	S	耐熱合金、チタン合金		●								
H	高硬度鋼											
対応カッタ インサート 外観	呼 び 記 号	精度	ホー ニ ン グ	コーティング	超硬	寸法 (mm)					形 状	
				LC15TF MP6120 MP9120	TF15	L	INSL	S	BS	RE		
	AXD4000 XDGX175004PDFR-GL	G	F	●		●	23.0	17.5	5	1.7	0.4	
	XDGX175008PDFR-GL	G	F	●		●	23.0	17.5	5	1.3	0.8	
	XDGX175012PDFR-GL	G	F	●		●	23.0	17.5	5	0.9	1.2	
	XDGX175016PDFR-GL	G	F	●		●	22.0	17.5	5	1.4	1.6	
	XDGX175020PDFR-GL	G	F	●		●	22.0	17.5	5	1.0	2.0	
	XDGX175024PDFR-GL	G	F	●		●	22.0	17.5	5	0.6	2.4	
	XDGX175030PDFR-GL	G	F	●		●	21.1	17.5	5	0.8	3.0	
	XDGX175032PDFR-GL	G	F	●		●	21.1	17.5	5	0.6	3.2	
	XDGX175040PDFR-GL	G	F	●		●	20.0	17.5	5	0.8	4.0	
	XDGX175050PDFR-GL	G	F	●		●	19.4	17.5	5	0.4	5.0	
	AXD7000 XDGX227008PDER-GL	G	F	●		●	30.0	22.5	7	2.0	0.8	
	XDGX227016PDER-GL	G	F	●		●	30.0	22.5	7	1.2	1.6	
	XDGX227020PDER-GL	G	F	●		●	30.0	22.5	7	0.8	2.0	
	XDGX227024PDER-GL	G	F	●		●	30.0	22.5	7	0.8	2.4	
	XDGX227030PDER-GL	G	F	●		●	28.8	22.5	7	0.8	3.0	
	XDGX227032PDER-GL	G	F	●		●	28.8	22.5	7	0.6	3.2	
	XDGX227040PDER-GL	G	F	●		●	27.5	22.5	7	0.9	4.0	
	XDGX227050PDER-GL	G	F	●		●	27.0	22.5	7	0.4	5.0	
	AXD7000 XDGX227008PDER-GLA	G	E		● ●		30.0	22.5	7	2.0	0.8	
	XDGX227016PDER-GLA	G	E		● ●		30.0	22.5	7	1.2	1.6	
	XDGX227020PDER-GLA	G	E		● ●		30.0	22.5	7	0.8	2.0	
	XDGX227024PDER-GLA	G	E		● ●		30.0	22.5	7	0.8	2.4	
	XDGX227030PDER-GLA	G	E		● ●		28.8	22.5	7	0.8	3.0	
	XDGX227032PDER-GLA	G	E		● ●		28.8	22.5	7	0.6	3.2	
	XDGX227040PDER-GLA	G	E		● ●		27.5	22.5	7	0.9	4.0	
	XDGX227050PDER-GLA	G	E		● ●		27.0	22.5	7	0.4	5.0	



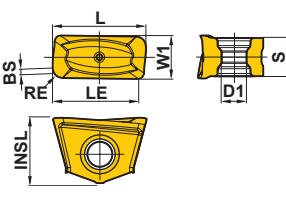
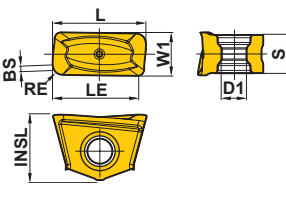
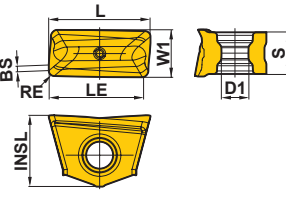
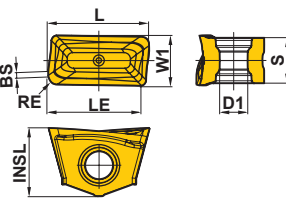
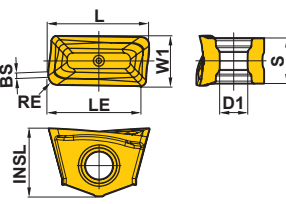
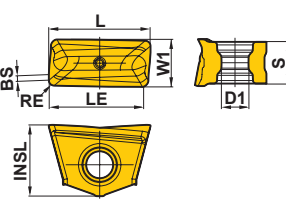
●：標準在庫品
(1ケース10個入りです)

被削材	P	鋼		●	✱	●	切削状態(目安)：					
	M	ステンレス鋼					●	安定切削	●	一般切削	✱	不安定切削
	K	鋳鉄					ホーニング：					
	N	非鉄金属					E	丸ホーニング F：シャープエッジ				
	S	耐熱合金、チタン合金										
	H	高硬度鋼										
対応カッター インサート 外観	呼 び 記 号	精度	ホー ニング	コーティング	超硬	寸法 (mm)					形 状	
				MP6120 MP9120	TF15	L	INSL	S	BS	RE		
	AXD4000 XDGX175004PDER-GM	G	E	● ●			23.0	17.5	5	1.7	0.4	
	AXD4000 XDGX175008PDER-GM	G	E	● ●			23.0	17.5	5	1.3	0.8	
	AXD4000 XDGX175012PDER-GM	G	E	● ●			23.0	17.5	5	0.9	1.2	
	AXD4000 XDGX175016PDER-GM	G	E	● ●			22.0	17.5	5	1.4	1.6	
	AXD4000 XDGX175020PDER-GM	G	E	● ●			22.0	17.5	5	1.0	2.0	
	AXD4000 XDGX175024PDER-GM	G	E	● ●			22.0	17.5	5	0.6	2.4	
	AXD4000 XDGX175030PDER-GM	G	E	● ●			21.1	17.5	5	0.8	3.0	
	AXD4000 XDGX175032PDER-GM	G	E	● ●			21.1	17.5	5	0.6	3.2	
	AXD4000 XDGX175040PDER-GM	G	E	● ●			20.0	17.5	5	0.5	4.0	
	AXD4000 XDGX175050PDER-GM	G	E	● ●			19.4	17.5	5	0.4	5.0	
	AXD4000 XDGX175004PDFR-GM	G	F		●		23.0	17.5	5	1.7	0.4	
	AXD4000 XDGX175008PDFR-GM	G	F		●		23.0	17.5	5	1.3	0.8	
	AXD4000 XDGX175012PDFR-GM	G	F		●		23.0	17.5	5	0.9	1.2	
	AXD4000 XDGX175016PDFR-GM	G	F		●		22.0	17.5	5	1.4	1.6	
	AXD4000 XDGX175020PDFR-GM	G	F		●		22.0	17.5	5	1.0	2.0	
	AXD4000 XDGX175024PDFR-GM	G	F		●		22.0	17.5	5	0.6	2.4	
	AXD4000 XDGX175030PDFR-GM	G	F		●		21.1	17.5	5	0.8	3.0	
	AXD4000 XDGX175032PDFR-GM	G	F		●		21.1	17.5	5	0.6	3.2	
	AXD4000 XDGX175040PDFR-GM	G	F		●		20.0	17.5	5	0.5	4.0	
	AXD4000 XDGX175050PDFR-GM	G	F		●		19.4	17.5	5	0.4	5.0	



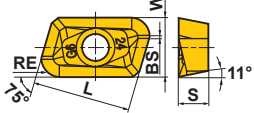
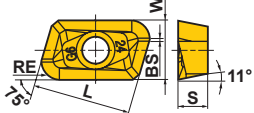
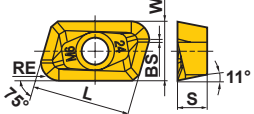
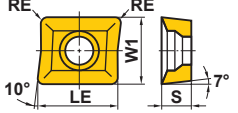
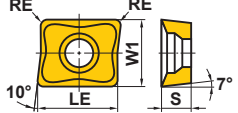
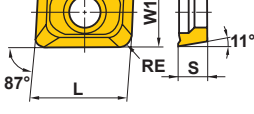
MIRACLE
SIGMA

回転工具用インサート

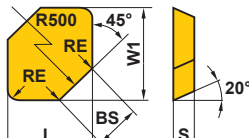
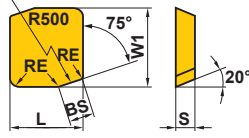
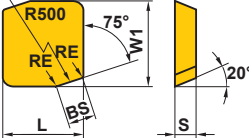
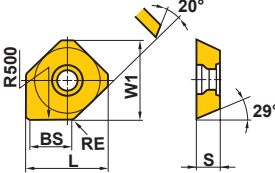
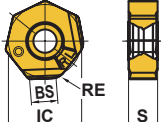
被削材	P	鋼						切削状態(目安)：							
	M	ステンレス鋼						●	●	✱					
	K	鋳鉄													
	N	非鉄金属													
	S	耐熱合金、チタン合金													
H	高硬度鋼						ホーニング： E：丸ホーニング								
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング	寸法 (mm)								形 状		
				MP9030 MP9130	L	LE	W1	INSL	S	BS	RE	D1			
	VFX5	XNMU160708R-MS	M	E	● ●	16.0	13.4	7.0	11.1	6.5	1.0	0.8	4.2		
		XNMU160712R-MS	M	E	● ●	16.0	13.8	7.0	11.1	6.5	1.0	1.2	4.2		
		XNMU160716R-MS	M	E	● ●	16.0	13.8	7.0	11.1	6.5	1.0	1.6	4.2		
		XNMU160724R-MS	M	E	● ●	16.0	13.8	7.0	11.1	6.5	1.0	2.4	4.2		
		XNMU160732R-MS	M	E	● ●	17.3	14.4	7.0	11.1	6.5	—	3.2	4.2		
		XNMU160740R-MS	M	E	● ●	18.9	15.2	7.0	11.1	6.5	—	4.0	4.2		
	VFX5	XNMU160708R-HS	M	E	● ●	16.0	13.4	7.0	11.1	6.5	1.0	0.8	4.2		
	VFX5	XNMU160708R-LS	M	E	●	16.0	13.4	7.0	11.1	6.5	1.0	0.8	4.2		
	VFX6	XNMU190912R-MS	M	E	● ●	19.1	16.5	9.5	12.7	8.5	1.0	1.2	5.2		
		XNMU190916R-MS	M	E	● ●	19.1	16.5	9.5	12.7	8.5	1.0	1.6	5.2		
		XNMU190924R-MS	M	E	● ●	19.1	16.6	9.5	12.7	8.5	1.0	2.4	5.2		
		XNMU190932R-MS	M	E	● ●	20.2	17.1	9.5	12.7	8.5	—	3.2	5.2		
		XNMU190940R-MS	M	E	● ●	21.8	17.8	9.5	12.7	8.5	—	4.0	5.2		
		XNMU190950R-MS	M	E	● ●	21.8	17.8	9.5	12.7	8.5	—	5.0	5.2		
	VFX6	XNMU190912R-HS	M	E	● ●	19.1	16.5	9.5	12.7	8.5	1.0	1.2	5.2		
	VFX6	XNMU190912R-LS	M	E	●	19.1	16.5	9.5	12.7	8.5	1.0	1.2	5.2		

● = MITSUBISHI MATERIALS

● : 標準在庫品
(1ケース10個入りです)

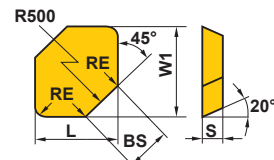
被削材	P	鋼	C	G	E	F	HT10	UT20T	切削状態(目安): ●: 安定切削 ●: 一般切削 ✕: 不安定切削					
	M	ステンレス鋼												
	K	鋳鉄												
	N	非鉄金属												
	S	耐熱合金、チタン合金												
	H	高硬度鋼												
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング		超硬	寸法 (mm)					形 状		
				F7030	VP15TF UP20M	HT10 UT20T	L	W1	S	BS	RE			
	BAP3500	XPGT13T3PDER-G1	G	E	●				13	7.9	3.97	1.6	0.4	
		XPGT13T3PDER-G2	G	E	●				13	7.9	3.97	1.2	0.8	
		XPGT13T3PDER-G6	G	E	●				13	7.9	3.97	0.4	2.4	
		XPGT13T3PDER-G75	G	E	●				13	7.9	3.97	0.4	3.0	
		XPGT13T3PDER-G8	G	E	●				13	7.9	3.97	0.4	3.2	
	BAP3500	XPGT13T3PDFR-G1	G	F				●	13	7.9	3.97	1.6	0.4	
		XPGT13T3PDFR-G2	G	F				●	13	7.9	3.97	1.2	0.8	
		XPGT13T3PDFR-G6	G	F				●	13	7.9	3.97	0.4	2.4	
		XPGT13T3PDFR-G75	G	F				●	13	7.9	3.97	0.4	3.0	
		XPGT13T3PDFR-G8	G	F				●	13	7.9	3.97	0.4	3.2	
	BAP3500	XPMT13T3PDER-M1	M	E	●	●			13	7.9	3.97	1.6	0.4	
		XPMT13T3PDER-M2	M	E	●	●			13	7.9	3.97	1.2	0.8	
		XPMT13T3PDER-M6	M	E	●	●			13	7.9	3.97	0.4	2.4	
		XPMT13T3PDER-M75	M	E	●	●			13	7.9	3.97	0.4	3.0	
		XPMT13T3PDER-M8	M	E	●	●			13	7.9	3.97	0.4	3.2	
	DCCC	ZCMX083508ER-A	M	E	●			●	10.4	7.94	3.5	—	0.8	
		ZCMX09T308ER-A	M	E	●	●	●	●	12	9.525	3.97	—	0.8	
	DCCC	ZCMX09T308ER-B	M	E	●	●		●	12	9.525	3.97	—	0.8	
	BAP300 アンダーカット形	ZRM0603R-M3	M	E	●				8.5	6.35	3.18	—	1.2	
		ZRM0603R-M4	M	E	●				8.5	6.35	3.18	—	1.6	
		ZRM0603R-M5	M	E	●				8.5	6.35	3.18	—	2.0	

ワイパーインサート

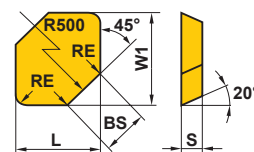
被削材	P	鋼								切削状態(目安)： ●：安定切削 ●：一般切削 ✖：不安定切削									
	M	ステンレス鋼																	
	K	鋳鉄																	
	N	非鉄金属																	
	S	耐熱合金、チタン合金																	
H	高硬度鋼																		
対応カッタ インサート 外観	呼 び 記 号	精 度	ホー ニング	コーティング	サーメット	コーテッド サーメット	超硬	寸法 (mm)						形 状					
				MP6120	MC5020	VP15TF	NX2525	VP25N	HT105T	L	W1	IC	S		BS	RE			
				SE445	WEC42AFTR5C	C	T			●									
																		本図は右勝手(R)を示す。	
SE545	WEC53AFER5C	C	E				●												
	WEC53AFTR5C <td>C</td> <td>T</td> <td></td> <td></td> <td>●</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>本図は右勝手(R)を示す。</td>	C	T			●													本図は右勝手(R)を示す。
SE415	WEC42EFER5C	C	E				●												
	WEC42EFTR5C	C	T			●													本図は右勝手(R)を示す。
SE515	WEC53EFTR5C	C	T			●													
																			本図は右勝手(R)を示す。
ASX445	WEEW13T3AGER8C	E	E		●	●			●										
	WEEW13T3AGTR8C	E	T			●	●												
AHX440S	WNEU1305ZEN4C-M	E	E	●	●	●													

切削状態(目安) :
● : 安定切削 ● : 一般切削 ✖ : 不安定切削

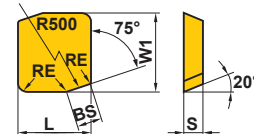
ホーニング :
E : 丸ホーニング T : チャンファーホーニング



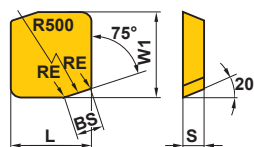
本図は右勝手(R)を示す。



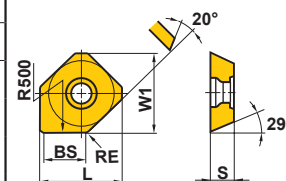
本図は右勝手(R)を示す。



本図は右勝手(R)を示す。

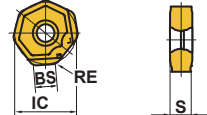
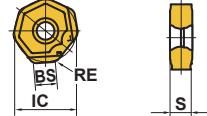
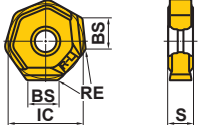
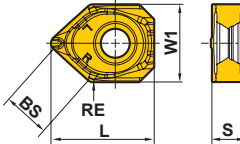
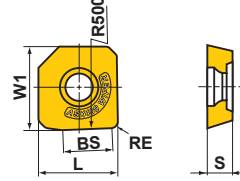
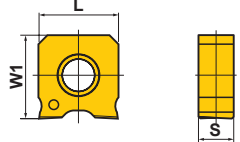
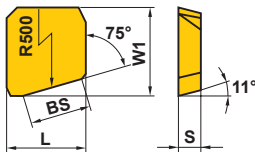
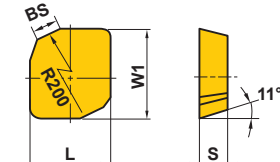


本図は右勝手(R)を示す。



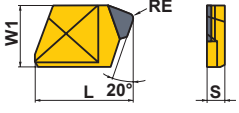
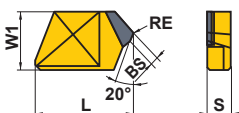
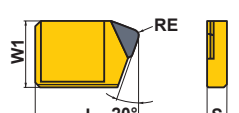
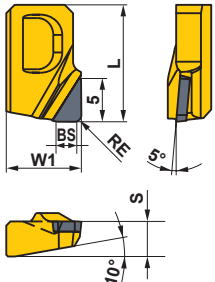
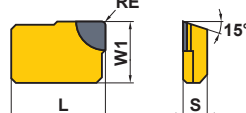
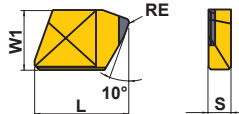
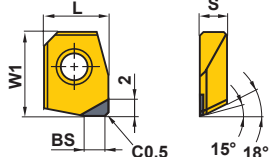
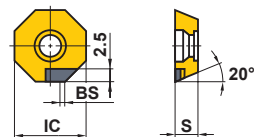
● : 標準在庫品 ▲ : 現在標準在庫品で将来新製品と置き換わる製品
(1ケース 10 個入りです)

被削材	P	鋼	     	     	     	切削状態(目安): ●: 安定切削 ●: 一般切削 ✖: 不安定切削	ホーニング: E: 丸ホーニング F: シャープエッジ T: チャンファーホーニング
	M	ステンレス鋼					
	K	鋳鉄					
	N	非鉄金属					
	S	耐熱合金、チタン合金					
	H	高硬度鋼					

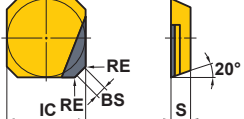
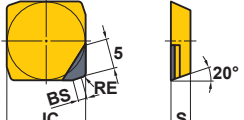
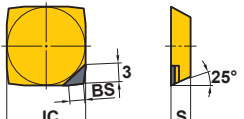
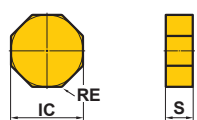
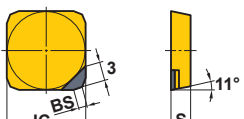
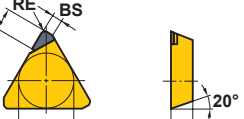
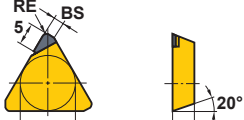
対応カッタ インサート 外観	呼 び 記 号	精度	ホーニング	コーティング	サメット	超硬	寸法 (mm)						形 状
				MC5020 MP6120 VP15TF NX2525	HTT10 HTT05T	L	W1	IC	S	BS	RE		
	AHX640S WNEU2007ZEN7C-M	E	E	●			—	—	20	6.9	7.2	0.8	
	AHX640S WNEU2007ZEN7C-WP	E	E	●			—	—	20	6.9	7.1	0.8	
	AHX640S/AHX640W WNEU2006ZEN7C-WK	E	E	●			—	—	20	6.55	7.4	0.8	
	WSX445 WNGU1406ANEN8C-M	G	E	●●●			18.1	14	—	6	8	1.0	
	ASX400 WOEW12T308PEER8C	E	E			●	12.5	13.2	—	3.97	8	0.8	
	ASX400 WOEW12T308PETR8C	E	T		●		12.5	13.2	—	3.97	8	0.8	
	VOX400 WOEX1206PER5C	E	E	●			12.5	13.025	—	5.5	—	—	
	FBP415/QBP415 WPC42EEER10C	C	E			●	12.7	15.163	—	3.175	10	—	 本図は右勝手(R)を示す。
	FBP415/QBP415 WPC42EEEL10C	C	E			●	12.7	15.163	—	3.175	10	—	
	P425 WPC42W3GR	C	F			▲	12.7	14.5	—	3.2	6	—	

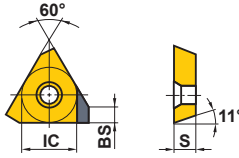
● = MIRACLE
S I G N I F I C A N T

CBN&PCDインサート

対応カッタ インサート 外観	呼 び 記 号	精度	CBN	PCD	寸法 (mm)						形 状
			MB730	MD220 MD2030	L	W1	IC	S	BS	RE	
NF10000 QF10000 	GDCN2004PDFR3	C	●	●	20	12.7	—	4.76	—	1.2	
NR10000 	GDCN2004ZDTR1	C	●	●	20	12.7	—	4.76	1.4	0.8	
AF10000 	GDCN2004PDR	C	●	●	20	12.7	—	4.76	—	1.2	
FMAX 	GOER1404PXFR2	E	●	●	14	9	—	4.2	2	0.4	
	GOER1408PXFR2	E	●	●	14	9	—	4.2	2	0.8	
AF5000 	LDCN190412R	C	●	●	19.05	12.7	—	4.76	—	1.2	 本図は右勝手(R)を示す。
	LDCN190412L	C	●	●	19.05	12.7	—	4.76	—	1.2	
NF10000 	NP-GDCN2004PDSR3	C	●	●	20	12.7	—	4.76	—	0.8	
V10000 	NP-GDCW1240PDFR2	C	●	●	9.5	12	—	4	2	—	
OCTACUT 	OEMX12T3ETR1	M	●	●	—	—	12.7	3.97	1	—	

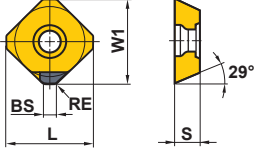
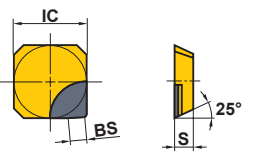
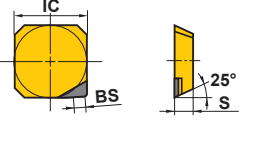
●：標準在庫品
(1ケース 1 個入りです)

対応カッタ インサート 外観	呼 び 記 号	精度	CBN	PCD	寸法 (mm)				形 状
			MB710 BC5030	MD220	IC	S	BS	RE	
SE445 	SECN1203AFFR1	C		●	12.7	3.18	1.4	1.0	
SE415 	SECN1203EFFR1	C		●	12.7	3.18	1.4	1.0	
BF407 	SFCN1203ZFFR2	C		●	12.7	3.175	2.4	—	
AOX445 	SL-ONEN120404ASN	E	●		12.7	4.76	—	0.4	
FBP415 	SPEN1203EETR1	E	●		12.7	3.175	1.4	—	
SE300 NSE300 	TECN1603PEFR1	C		●	9.525	3.175	1.4	0.4	
SE400 NSE400 	TECN2204PEFR1	C		●	12.7	4.76	1.4	1.0	

対応カッタ インサート 外観	呼 び 記 号	精度	CBN	PCD	寸法 (mm)				形 状	
			MB710	MB730	MD220	IC	S	BS		RE
			●							
	PMF	E	●		7.94	3.18	2	—		
	TPEW1303ZPTR2									

●：標準在庫品
(1ケース1個入りです)

CBN&PCDインサート（ワイパー）

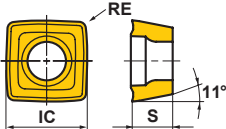
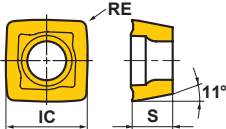
対応カッタ インサート 外観	呼 び 記 号	精度	CBN	PCD	寸法 (mm)						形 状
			MB710	MD220	L	W1	IC	S	BS	RE	
	ASX445 WEEW13T3AGFR3C	E		●	16.48	16.6	—	3.97	3.0	1.5	
	WEEW13T3AGTR3C	E	●		16.48	16.6	—	3.97	3.0	1.5	
BF407	WFC42ZFER2	C		●	—	—	12.4	3.175	2.4	—	
BF407	NP-WFC42ZFER2	C		●	—	—	12.4	3.175	2.4	—	 本図は右勝手(R)を示す。

ドリル用インサート

対応ドリル インサート 外観	呼 び 記 号	精度	コーティング						寸法 (mm)				形 状	
			VP15TF	UP20M	GP20M	UE6020	US735	MC1020	MC5020	IC	L	S		RE
 GCMT  GPMT	TAF GCMT040204-U1	M	●						—	5.0	2.38	0.4	U1ブレーカ    	
	GPMT060204-U1	M	●		●				5.56	—	2.38	0.4		
	GPMT070204-U1	M	●		●				6.35	—	2.38	0.4		
	GPMT090304-U1	M	●		●				7.94	—	3.18	0.4		
	GPMT11T308-U1	M	●		●				9.525	—	3.97	0.8		
	GPMT140408-U1	M	●		●				12.7	—	4.76	0.8		
 GCMT  GPMT	TAF GCMT040204-U2	M	●	●					—	5.0	2.38	0.4	U2ブレーカ    	
	GPMT060204-U2	M	●	●	●	●			5.56	—	2.38	0.4		
	GPMT070204-U2	M	●	●	●	●			6.35	—	2.38	0.4		
	GPMT090304-U2	M	●	●	●	●			7.94	—	3.18	0.4		
	GPMT11T308-U2	M	●	●	●	●			9.525	—	3.97	0.8		
	GPMT140408-U2	M	●	●	●	●			12.7	—	4.76	0.8		
 GCMT	TAF GPMT060204-U3	M	●		●	●			5.56	—	2.38	0.4	U3ブレーカ  	
	GPMT070204-U3	M	●		●	●			6.35	—	2.38	0.4		
	GPMT090304-U3	M	●		●	●			7.94	—	3.18	0.4		
	GPMT11T308-U3	M	●		●	●			9.525	—	3.97	0.8		
	GPMT140408-U3	M	●		●	●			12.7	—	4.76	0.8		
 MXV	SOMX063005-UM	M	●					●	●	6	—	3	0.5	 
	SOMX073505-UM	M	●					●	●	7	—	3.5	0.5	
	SOMX084005-UM	M	●					●	●	8.3	—	4	0.5	
	SOMX094506-UM	M	●					●	●	9.7	—	4.5	0.6	
	SOMX115506-UM	M	●					●	●	11.6	—	5.5	0.6	
	SOMX136008-UM	M	●					●	●	13.8	—	6	0.8	
	SOMX166508-UM	M	●					●	●	16.5	—	6.5	0.8	
	SOMX187008-UM	M	●					●	●	18.2	—	7	0.8	
 MXV	SOMX063005-US	M	●							6	—	3	0.5	 
	SOMX073505-US	M	●							7	—	3.5	0.5	
	SOMX084005-US	M	●							8.3	—	4	0.5	
	SOMX094506-US	M	●							9.7	—	4.5	0.6	
	SOMX115506-US	M	●							11.6	—	5.5	0.6	
	SOMX136008-US	M	●							13.8	—	6	0.8	
	SOMX166508-US	M	●							16.5	—	6.5	0.8	
	SOMX187008-US	M	●							18.2	—	7	0.8	

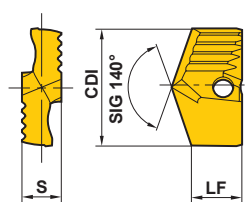
●：標準在庫品

(1ケース1個入りです)

対応ドリル インサート 外観	呼 び 記 号	精度	コーティング						寸法 (mm)				形 状
			DP8020	TF15					IC	L	S	RE	
	MVX												
	SOMX062905-UH	M	●						6	—	2.9	0.5	
	SOMX073405-UH	M	●						7	—	3.4	0.5	
	SOMX083905-UH	M	●						8.3	—	3.9	0.5	
	SOMX094406-UH	M	●						9.7	—	4.4	0.6	
	SOMX115406-UH	M	●						11.6	—	5.4	0.6	
	SOMX135908-UH	M	●						13.8	—	5.9	0.8	
	SOMX166408-UH	M	●						16.5	—	6.4	0.8	
	SOMX186908-UH	M	●						18.2	—	6.9	0.8	
	MVX												
	SOGX063005-UN	G	●						6	—	3	0.5	
	SOGX073505-UN	G	●						7	—	3.5	0.5	
	SOGX084005-UN	G	●						8.3	—	4	0.5	
	SOGX094506-UN	G	●						9.7	—	4.5	0.6	
	SOGX115506-UN	G	●						11.6	—	5.5	0.6	
	SOGX136008-UN	G	●						13.8	—	6	0.8	
	SOGX166508-UN	G	●						16.5	—	6.5	0.8	
	SOGX187008-UN	G	●						18.2	—	7	0.8	

形状
インサート外観
対応ドリル

TAW Hタイプ



呼び記号	コーティング VP15TF VP10H	寸法 (mm)			対応ホルダ
		CDI	LF	S	
TAWNH1400T	▲	14.0	7.6	5.0	TAWSNH 1400S16
TAWNH1410T	▲	14.1	7.6	5.0	TAWMNH 1400S16
TAWNH1420T	▲	14.2	7.6	5.0	TAWLNH 1400S16
TAWNH1430T	▲	14.3	7.6	5.0	
TAWNH1440T	▲	14.4	7.6	5.0	
TAWNH1450T	▲	14.5	7.5	5.0	
TAWNH1460T	▲	14.6	7.5	5.0	
TAWNH1470T	▲	14.7	7.5	5.0	TAWSNH 1500S20
TAWNH1480T	▲	14.8	7.5	5.0	
TAWNH1490T	▲	14.9	7.5	5.0	TAWMNH 1500S20
TAWNH1500T	▲	15.0	7.4	5.0	TAWLNH 1500S20
TAWNH1510T	▲	15.1	7.4	5.0	
TAWNH1520T	▲	15.2	7.4	5.0	
TAWNH1530T	▲	15.3	7.4	5.0	
TAWNH1540T	▲	15.4	7.4	5.0	
TAWNH1550T	▲	15.5	7.9	6.0	
TAWNH1560T	▲	15.6	7.9	6.0	
TAWNH1570T	▲	15.7	7.9	6.0	TAWSN 1600S20
TAWNH1580T	▲	15.8	7.9	6.0	
TAWNH1590T	▲	15.9	7.9	6.0	TAWMN 1600S20
TAWNH1600T	▲	16.0	7.8	6.0	TAWLN 1600S20
TAWNH1610T	▲	16.1	7.8	6.0	
TAWNH1620T	▲	16.2	7.8	6.0	
TAWNH1630T	▲	16.3	7.8	6.0	
TAWNH1640T	▲	16.4	7.8	6.0	
TAWNH1650T	▲	16.5	7.7	6.0	
TAWNH1660T	▲	16.6	7.7	6.0	
TAWNH1670T	▲	16.7	7.7	6.0	TAWSN 1700S20
TAWNH1680T	▲	16.8	7.7	6.0	
TAWNH1690T	▲	16.9	7.7	6.0	TAWMN 1700S20
TAWNH1700T	▲	17.0	7.6	6.0	TAWLN 1700S20
TAWNH1710T	▲	17.1	7.6	6.0	
TAWNH1720T	▲	17.2	7.6	6.0	
TAWNH1730T	▲	17.3	7.6	6.0	
TAWNH1740T	▲	17.4	7.6	6.0	
TAWNH1750T	▲	17.5	7.5	6.0	
TAWNH1760T	▲	17.6	7.5	6.0	
TAWNH1770T	▲	17.7	7.5	6.0	TAWSN 1800S20
TAWNH1780T	▲	17.8	7.5	6.0	
TAWNH1790T	▲	17.9	7.5	6.0	TAWMN 1800S20
TAWNH1800T	▲	18.0	7.4	6.0	TAWLN 1800S20
TAWNH1810T	▲	18.1	7.4	6.0	
TAWNH1820T	▲	18.2	7.4	6.0	
TAWNH1830T	▲	18.3	7.4	6.0	
TAWNH1840T	▲	18.4	7.4	6.0	

呼び記号	コーティング VP15TF VP10H	寸法 (mm)			対応ホルダ
		CDI	LF	S	
TAWNH1850T	●	18.5	9.3	7.0	
TAWNH1860T	●	18.6	9.3	7.0	
TAWNH1870T	●	18.7	9.3	7.0	TAWSN 1900S25
TAWNH1880T	●	18.8	9.3	7.0	
TAWNH1890T	●	18.9	9.3	7.0	TAWMN 1900S25
TAWNH1900T	●	19.0	9.2	7.0	TAWLN 1900S25
TAWNH1910T	●	19.1	9.2	7.0	
TAWNH1920T	●	19.2	9.2	7.0	
TAWNH1930T	●	19.3	9.2	7.0	
TAWNH1940T	●	19.4	9.2	7.0	
TAWNH1950T	●	19.5	9.1	7.0	
TAWNH1960T	●	19.6	9.1	7.0	
TAWNH1970T	●	19.7	9.1	7.0	TAWSN 2000S25
TAWNH1980T	●	19.8	9.1	7.0	
TAWNH1990T	●	19.9	9.1	7.0	TAWMN 2000S25
TAWNH2000T	●	20.0	9.0	7.0	TAWLN 2000S25
TAWNH2010T	□	20.1	9.0	7.0	
TAWNH2020T	□	20.2	9.0	7.0	
TAWNH2030T	□	20.3	9.0	7.0	
TAWNH2040T	□	20.4	9.0	7.0	
TAWNH2050T	●	20.5	8.9	7.0	
TAWNH2060T	□	20.6	8.9	7.0	
TAWNH2070T	□	20.7	8.9	7.0	TAWSN 2100S25
TAWNH2080T	□	20.8	8.9	7.0	
TAWNH2090T	□	20.9	8.9	7.0	TAWMN 2100S25
TAWNH2100T	●	21.0	8.8	7.0	TAWLN 2100S25
TAWNH2110T	□	21.1	8.8	7.0	
TAWNH2120T	□	21.2	8.8	7.0	
TAWNH2130T	□	21.3	8.8	7.0	
TAWNH2140T	□	21.4	8.8	7.0	
TAWNH2150T	●	21.5	10.6	8.0	
TAWNH2160T	□	21.6	10.6	8.0	
TAWNH2170T	□	21.7	10.6	8.0	TAWSN 2200S25
TAWNH2180T	□	21.8	10.6	8.0	
TAWNH2190T	□	21.9	10.6	8.0	TAWMN 2200S25
TAWNH2200T	●	22.0	10.5	8.0	TAWLN 2200S25
TAWNH2210T	□	22.1	10.5	8.0	
TAWNH2220T	□	22.2	10.5	8.0	
TAWNH2230T	□	22.3	10.5	8.0	
TAWNH2240T	□	22.4	10.5	8.0	
TAWNH2250T	●	22.5	10.4	8.0	TAWSN 2300S25
TAWNH2260T	□	22.6	10.4	8.0	
TAWNH2270T	□	22.7	10.4	8.0	TAWMN 2300S25
TAWNH2280T	□	22.8	10.4	8.0	TAWLN 2300S25
TAWNH2290T	□	22.9	10.4	8.0	

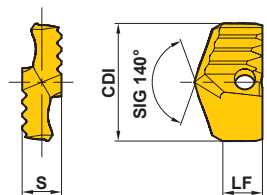
●: 標準在庫品 □: 受注生産品
▲: 現在標準在庫品で将来新製品と置き換わる製品
(1ケース1個入りです)

呼 び 記 号	コーティング		寸法 (mm)			対応ホルダ	呼 び 記 号	コーティング		寸法 (mm)			対応ホルダ
	VP15TF	VP10H	CDI	LF	S			VP15TF	VP10H	CDI	LF	S	
TAWNH2300T	●	□	23.0	10.3	8.0	TAWSN 2300S25 TAWMN 2300S25 TAWLN 2300S25	TAWNH2650T	●	□	26.5	11.3	9.0	TAWSN 2700S32 TAWMN 2700S32 TAWLN 2700S32
TAWNH2310T	□	□	23.1	10.3	8.0		TAWNH2660T	□	□	26.6	11.3	9.0	
TAWNH2320T	□	□	23.2	10.3	8.0		TAWNH2670T	□	□	26.7	11.3	9.0	
TAWNH2330T	□	□	23.3	10.3	8.0		TAWNH2680T	□	□	26.8	11.3	9.0	
TAWNH2340T	□	□	23.4	10.3	8.0		TAWNH2690T	□	□	26.9	11.3	9.0	
TAWNH2350T	●	□	23.5	10.2	8.0	TAWSN 2400S32 TAWMN 2400S32 TAWLN 2400S32	TAWNH2700T	●	□	27.0	11.2	9.0	TAWSN 2800S32 TAWMN 2800S32 TAWLN 2800S32
TAWNH2360T	□	□	23.6	10.2	8.0		TAWNH2710T	□	□	27.1	11.2	9.0	
TAWNH2370T	□	□	23.7	10.2	8.0		TAWNH2720T	□	□	27.2	11.2	9.0	
TAWNH2380T	□	□	23.8	10.2	8.0		TAWNH2730T	□	□	27.3	11.2	9.0	
TAWNH2390T	□	□	23.9	10.2	8.0		TAWNH2740T	□	□	27.4	11.2	9.0	
TAWNH2400T	●	□	24.0	10.1	8.0	TAWSN 2500S32 TAWMN 2500S32 TAWLN 2500S32	TAWNH2750T	●	□	27.5	12.3	10.0	TAWSN 2900S32 TAWMN 2900S32 TAWLN 2900S32
TAWNH2410T	□	□	24.1	10.1	8.0		TAWNH2760T	□	□	27.6	12.3	10.0	
TAWNH2420T	□	□	24.2	10.1	8.0		TAWNH2770T	□	□	27.7	12.3	10.0	
TAWNH2430T	□	□	24.3	10.1	8.0		TAWNH2780T	□	□	27.8	12.3	10.0	
TAWNH2440T	□	□	24.4	10.1	8.0		TAWNH2790T	□	□	27.9	12.3	10.0	
TAWNH2450T	●	□	24.5	11.7	9.0	TAWSN 2600S32 TAWMN 2600S32 TAWLN 2600S32	TAWNH2800T	●	□	28.0	12.2	10.0	TAWSN 3000S32 TAWMN 3000S32 TAWLN 3000S32
TAWNH2460T	□	□	24.6	11.7	9.0		TAWNH2810T	□	□	28.1	12.2	10.0	
TAWNH2470T	□	□	24.7	11.7	9.0		TAWNH2820T	□	□	28.2	12.2	10.0	
TAWNH2480T	□	□	24.8	11.7	9.0		TAWNH2830T	□	□	28.3	12.2	10.0	
TAWNH2490T	□	□	24.9	11.7	9.0		TAWNH2840T	□	□	28.4	12.2	10.0	
TAWNH2500T	●	□	25.0	11.6	9.0	TAWSN 2600S32 TAWMN 2600S32 TAWLN 2600S32	TAWNH2850T	●	□	28.5	12.1	10.0	TAWSN 3000S32 TAWMN 3000S32 TAWLN 3000S32
TAWNH2510T	□	□	25.1	11.6	9.0		TAWNH2860T	□	□	28.6	12.1	10.0	
TAWNH2520T	□	□	25.2	11.6	9.0		TAWNH2870T	□	□	28.7	12.1	10.0	
TAWNH2530T	□	□	25.3	11.6	9.0		TAWNH2880T	□	□	28.8	12.1	10.0	
TAWNH2540T	□	□	25.4	11.6	9.0		TAWNH2890T	□	□	28.9	12.1	10.0	
TAWNH2550T	●	□	25.5	11.5	9.0	TAWSN 2600S32 TAWMN 2600S32 TAWLN 2600S32	TAWNH2900T	●	□	29.0	12.0	10.0	TAWSN 3000S32 TAWMN 3000S32 TAWLN 3000S32
TAWNH2560T	□	□	25.6	11.5	9.0		TAWNH2910T	□	□	29.1	12.0	10.0	
TAWNH2570T	□	□	25.7	11.5	9.0		TAWNH2920T	□	□	29.2	12.0	10.0	
TAWNH2580T	□	□	25.8	11.5	9.0		TAWNH2930T	□	□	29.3	12.0	10.0	
TAWNH2590T	□	□	25.9	11.5	9.0		TAWNH2940T	□	□	29.4	12.0	10.0	
TAWNH2600T	●	□	26.0	11.4	9.0	TAWSN 2600S32 TAWMN 2600S32 TAWLN 2600S32	TAWNH2950T	●	□	29.5	11.9	10.0	TAWSN 3000S32 TAWMN 3000S32 TAWLN 3000S32
TAWNH2610T	□	□	26.1	11.4	9.0		TAWNH2960T	□	□	29.6	11.9	10.0	
TAWNH2620T	□	□	26.2	11.4	9.0		TAWNH2970T	□	□	29.7	11.9	10.0	
TAWNH2630T	□	□	26.3	11.4	9.0		TAWNH2980T	□	□	29.8	11.9	10.0	
TAWNH2640T	□	□	26.4	11.4	9.0		TAWNH2990T	□	□	29.9	11.9	10.0	
							TAWNH3000T	●	□	30.0	11.8	10.0	TAWSN 3000S32 TAWMN 3000S32 TAWLN 3000S32
							TAWNH3010T	□	□	30.1	11.8	10.0	
							TAWNH3020T	□	□	30.2	11.8	10.0	
							TAWNH3030T	□	□	30.3	11.8	10.0	
							TAWNH3040T	□	□	30.4	11.8	10.0	

対応ドリル インサート外観 形 状	呼 び 記 号	コーティング		寸法 (mm)		
		VP15TF		CDI	LF	S
TAW Hタイプ 	TAWBH2450T	●		24.5	11.7	9.0
	TAWBH2460T	□		24.6	11.7	9.0
	TAWBH2470T	●		24.7	11.7	9.0
	TAWBH2650T	□		26.5	11.3	9.0
	TAWBH2670T	●		26.7	11.3	9.0

対応ドリル
インサート外観
形状

TAW Hタイプ
(鋳鉄用)



呼び記号	コーティング DP5010	寸法 (mm)			対応ホルダ
		CDI	LF	S	
TAWKH1400TG	▲	14.0	7.1	5.0	TAWSNH 1400S16
TAWKH1410TG	▲	14.1	7.1	5.0	TAWMNH 1400S16
TAWKH1420TG	▲	14.2	7.1	5.0	TAWLNH 1400S16
TAWKH1430TG	▲	14.3	7.1	5.0	
TAWKH1440TG	▲	14.4	7.1	5.0	
TAWKH1450TG	▲	14.5	7.0	5.0	
TAWKH1460TG	▲	14.6	7.0	5.0	
TAWKH1470TG	▲	14.7	7.0	5.0	TAWSNH 1500S20
TAWKH1480TG	▲	14.8	7.0	5.0	
TAWKH1490TG	▲	14.9	7.0	5.0	TAWMNH 1500S20
TAWKH1500TG	▲	15.0	6.9	5.0	TAWLNH 1500S20
TAWKH1510TG	▲	15.1	6.9	5.0	
TAWKH1520TG	▲	15.2	6.9	5.0	
TAWKH1530TG	▲	15.3	6.9	5.0	
TAWKH1540TG	▲	15.4	6.9	5.0	
TAWKH1550TG	▲	15.5	7.3	6.0	
TAWKH1560TG	▲	15.6	7.3	6.0	
TAWKH1570TG	▲	15.7	7.3	6.0	TAWSN 1600S20
TAWKH1580TG	▲	15.8	7.3	6.0	
TAWKH1590TG	▲	15.9	7.3	6.0	TAWMN 1600S20
TAWKH1600TG	▲	16.0	7.2	6.0	TAWLN 1600S20
TAWKH1610TG	▲	16.1	7.2	6.0	
TAWKH1620TG	▲	16.2	7.2	6.0	
TAWKH1630TG	▲	16.3	7.2	6.0	
TAWKH1640TG	▲	16.4	7.2	6.0	
TAWKH1650TG	▲	16.5	7.1	6.0	
TAWKH1660TG	▲	16.6	7.1	6.0	
TAWKH1670TG	▲	16.7	7.1	6.0	TAWSN 1700S20
TAWKH1680TG	▲	16.8	7.1	6.0	
TAWKH1690TG	▲	16.9	7.1	6.0	TAWMN 1700S20
TAWKH1700TG	▲	17.0	7.0	6.0	TAWLN 1700S20
TAWKH1710TG	▲	17.1	7.0	6.0	
TAWKH1720TG	▲	17.2	7.0	6.0	
TAWKH1730TG	▲	17.3	7.0	6.0	
TAWKH1740TG	▲	17.4	7.0	6.0	
TAWKH1750TG	▲	17.5	6.8	6.0	
TAWKH1760TG	▲	17.6	6.8	6.0	
TAWKH1770TG	▲	17.7	6.8	6.0	TAWSN 1800S20
TAWKH1780TG	▲	17.8	6.8	6.0	
TAWKH1790TG	▲	17.9	6.8	6.0	TAWMN 1800S20
TAWKH1800TG	▲	18.0	6.8	6.0	TAWLN 1800S20
TAWKH1810TG	▲	18.1	6.8	6.0	
TAWKH1820TG	▲	18.2	6.8	6.0	
TAWKH1830TG	▲	18.3	6.8	6.0	
TAWKH1840TG	▲	18.4	6.8	6.0	

呼び記号	コーティング DP5010	寸法 (mm)			対応ホルダ
		CDI	LF	S	
TAWKH1850TG	●	18.5	8.6	7.0	
TAWKH1860TG	●	18.6	8.6	7.0	
TAWKH1870TG	●	18.7	8.6	7.0	TAWSN 1900S25
TAWKH1880TG	●	18.8	8.6	7.0	
TAWKH1890TG	●	18.9	8.6	7.0	TAWMN 1900S25
TAWKH1900TG	●	19.0	8.5	7.0	TAWLN 1900S25
TAWKH1910TG	●	19.1	8.5	7.0	
TAWKH1920TG	●	19.2	8.5	7.0	
TAWKH1930TG	●	19.3	8.5	7.0	
TAWKH1940TG	●	19.4	8.5	7.0	
TAWKH1950TG	●	19.5	8.4	7.0	
TAWKH1960TG	●	19.6	8.4	7.0	
TAWKH1970TG	●	19.7	8.4	7.0	TAWSN 2000S25
TAWKH1980TG	●	19.8	8.4	7.0	
TAWKH1990TG	●	19.9	8.4	7.0	TAWMN 2000S25
TAWKH2000TG	●	20.0	8.3	7.0	TAWLN 2000S25
TAWKH2010TG	□	20.1	8.3	7.0	
TAWKH2020TG	□	20.2	8.3	7.0	
TAWKH2030TG	□	20.3	8.3	7.0	
TAWKH2040TG	□	20.4	8.3	7.0	
TAWKH2050TG	●	20.5	8.2	7.0	
TAWKH2060TG	□	20.6	8.2	7.0	
TAWKH2070TG	□	20.7	8.2	7.0	TAWSN 2100S25
TAWKH2080TG	□	20.8	8.2	7.0	
TAWKH2090TG	□	20.9	8.2	7.0	TAWMN 2100S25
TAWKH2100TG	●	21.0	8.1	7.0	TAWLN 2100S25
TAWKH2110TG	□	21.1	8.1	7.0	
TAWKH2120TG	□	21.2	8.1	7.0	
TAWKH2130TG	□	21.3	8.1	7.0	
TAWKH2140TG	□	21.4	8.1	7.0	
TAWKH2150TG	●	21.5	9.8	8.0	
TAWKH2160TG	□	21.6	9.8	8.0	
TAWKH2170TG	□	21.7	9.8	8.0	TAWSN 2200S25
TAWKH2180TG	□	21.8	9.8	8.0	
TAWKH2190TG	□	21.9	9.8	8.0	TAWMN 2200S25
TAWKH2200TG	●	22.0	9.7	8.0	TAWLN 2200S25
TAWKH2210TG	□	22.1	9.7	8.0	
TAWKH2220TG	□	22.2	9.7	8.0	
TAWKH2230TG	□	22.3	9.7	8.0	
TAWKH2240TG	□	22.4	9.7	8.0	
TAWKH2250TG	●	22.5	9.6	8.0	TAWSN 2300S25
TAWKH2260TG	□	22.6	9.6	8.0	TAWMN 2300S25
TAWKH2270TG	□	22.7	9.6	8.0	TAWLN 2300S25
TAWKH2280TG	□	22.8	9.6	8.0	
TAWKH2290TG	□	22.9	9.6	8.0	

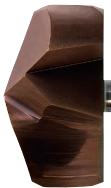
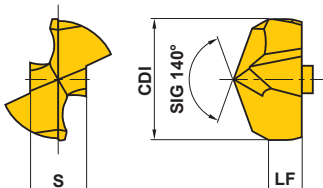
●: 標準在庫品 □: 受注生産品
▲: 現在標準在庫品で将来新製品と置き換わる製品
(1ケース1個入りです)

呼 び 記 号	コーティング DP5010	寸法 (mm)			対応ホルダ	呼 び 記 号	コーティング DP5010	寸法 (mm)			対応ホルダ
		CDI	LF	S				CDI	LF	S	
TAWKH2300TG	●	23.0	9.5	8.0	TAWSN 2300S25	TAWKH2750TG	●	27.5	11.3	10.0	TAWSN 2800S32
TAWKH2310TG	□	23.1	9.5	8.0	TAWMN 2300S25	TAWKH2760TG	□	27.6	11.3	10.0	
TAWKH2320TG	□	23.2	9.5	8.0	TAWLN 2300S25	TAWKH2770TG	□	27.7	11.3	10.0	
TAWKH2330TG	□	23.3	9.5	8.0		TAWKH2780TG	□	27.8	11.3	10.0	
TAWKH2340TG	□	23.4	9.5	8.0		TAWKH2790TG	□	27.9	11.3	10.0	
TAWKH2350TG	●	23.5	9.4	8.0	TAWSN 2400S32	TAWKH2800TG	●	28.0	11.2	10.0	TAWMN 2800S32
TAWKH2360TG	□	23.6	9.4	8.0		TAWKH2810TG	□	28.1	11.2	10.0	TAWLN 2800S32
TAWKH2370TG	□	23.7	9.4	8.0		TAWKH2820TG	□	28.2	11.2	10.0	
TAWKH2380TG	□	23.8	9.4	8.0		TAWKH2830TG	□	28.3	11.2	10.0	
TAWKH2390TG	□	23.9	9.4	8.0		TAWKH2840TG	□	28.4	11.2	10.0	
TAWKH2400TG	●	24.0	9.3	8.0	TAWMN 2400S32	TAWKH2850TG	●	28.5	11.1	10.0	TAWSN 2900S32
TAWKH2410TG	□	24.1	9.3	8.0	TAWLN 2400S32	TAWKH2860TG	□	28.6	11.1	10.0	
TAWKH2420TG	□	24.2	9.3	8.0		TAWKH2870TG	□	28.7	11.1	10.0	
TAWKH2430TG	□	24.3	9.3	8.0		TAWKH2880TG	□	28.8	11.1	10.0	
TAWKH2440TG	□	24.4	9.3	8.0		TAWKH2890TG	□	28.9	11.1	10.0	
TAWKH2450TG	●	24.5	10.8	9.0	TAWSN 2500S32	TAWKH2900TG	●	29.0	11.0	10.0	TAWMN 2900S32
TAWKH2460TG	□	24.6	10.8	9.0		TAWKH2910TG	□	29.1	11.0	10.0	TAWLN 2900S32
TAWKH2470TG	□	24.7	10.8	9.0		TAWKH2920TG	□	29.2	11.0	10.0	
TAWKH2480TG	□	24.8	10.8	9.0		TAWKH2930TG	□	29.3	11.0	10.0	
TAWKH2490TG	□	24.9	10.8	9.0		TAWKH2940TG	□	29.4	11.0	10.0	
TAWKH2500TG	●	25.0	10.7	9.0	TAWMN 2500S32	TAWKH2950TG	●	29.5	10.9	10.0	TAWSN 3000S32
TAWKH2510TG	□	25.1	10.7	9.0	TAWLN 2500S32	TAWKH2960TG	□	29.6	10.9	10.0	
TAWKH2520TG	□	25.2	10.7	9.0		TAWKH2970TG	□	29.7	10.9	10.0	
TAWKH2530TG	□	25.3	10.7	9.0		TAWKH2980TG	□	29.8	10.9	10.0	
TAWKH2540TG	□	25.4	10.7	9.0		TAWKH2990TG	□	29.9	10.9	10.0	
TAWKH2550TG	●	25.5	10.6	9.0	TAWSN 2600S32	TAWKH3000TG	●	30.0	10.8	10.0	TAWMN 3000S32
TAWKH2560TG	□	25.6	10.6	9.0		TAWKH3010TG	□	30.1	10.8	10.0	TAWLN 3000S32
TAWKH2570TG	□	25.7	10.6	9.0		TAWKH3020TG	□	30.2	10.8	10.0	
TAWKH2580TG	□	25.8	10.6	9.0		TAWKH3030TG	□	30.3	10.8	10.0	
TAWKH2590TG	□	25.9	10.6	9.0		TAWKH3040TG	□	30.4	10.8	10.0	
TAWKH2600TG	●	26.0	10.5	9.0	TAWMN 2600S32						
TAWKH2610TG	□	26.1	10.5	9.0	TAWLN 2600S32						
TAWKH2620TG	□	26.2	10.5	9.0							
TAWKH2630TG	□	26.3	10.5	9.0							
TAWKH2640TG	□	26.4	10.5	9.0							
TAWKH2650TG	●	26.5	10.4	9.0	TAWSN 2700S32						
TAWKH2660TG	□	26.6	10.4	9.0							
TAWKH2670TG	□	26.7	10.4	9.0							
TAWKH2680TG	□	26.8	10.4	9.0							
TAWKH2690TG	□	26.9	10.4	9.0							
TAWKH2700TG	●	27.0	10.3	9.0	TAWMN 2700S32						
TAWKH2710TG	□	27.1	10.3	9.0	TAWLN 2700S32						
TAWKH2720TG	□	27.2	10.3	9.0							
TAWKH2730TG	□	27.3	10.3	9.0							
TAWKH2740TG	□	27.4	10.3	9.0							

形状 インサート外観 対応ドリル	STAW						
	在庫		寸法 (mm)				対応ホルダ
	VP15TF	VP10H	CDI	LF	S		
呼 び 記 号							
STAWN1000TH	●	□	10.0	3.8	4.6	STAWSS1000S16 STAWSN1000S16 STAWMN1000S16 STAWLN1000S16	
STAWN1010TH	●	□	10.1	3.8	4.6		
STAWN1020TH	●	□	10.2	3.8	4.6		
STAWN1030TH	●	□	10.3	3.8	4.6		
STAWN1040TH	●	□	10.4	3.8	4.6		
STAWN1050TH	●	□	10.5	4.0	4.8	STAWSS1050S16 STAWSN1050S16 STAWMN1050S16 STAWLN1050S16	
STAWN1060TH	●	□	10.6	4.0	4.8		
STAWN1070TH	●	□	10.7	4.0	4.8		
STAWN1080TH	●	□	10.8	4.0	4.8		
STAWN1090TH	●	□	10.9	4.0	4.8		
STAWN1100TH	●	□	11.0	4.2	5.1	STAWSS1100S16 STAWSN1100S16 STAWMN1100S16 STAWLN1100S16	
STAWN1110TH	●	□	11.1	4.2	5.1		
STAWN1120TH	●	□	11.2	4.2	5.1		
STAWN1130TH	●	□	11.3	4.2	5.1		
STAWN1140TH	●	□	11.4	4.2	5.1		
STAWN1150TH	●	□	11.5	4.4	5.3	STAWSS1150S16 STAWSN1150S16 STAWMN1150S16 STAWLN1150S16	
STAWN1160TH	●	□	11.6	4.4	5.3		
STAWN1170TH	●	□	11.7	4.4	5.3		
STAWN1180TH	●	□	11.8	4.4	5.3		
STAWN1190TH	●	□	11.9	4.4	5.3		
STAWN1200TH	●	□	12.0	4.6	5.5	STAWSS1200S16 STAWSN1200S16 STAWMN1200S16 STAWLN1200S16	
STAWN1210TH	●	□	12.1	4.6	5.5		
STAWN1220TH	●	□	12.2	4.6	5.5		
STAWN1230TH	●	□	12.3	4.6	5.5		
STAWN1240TH	●	□	12.4	4.6	5.5		
STAWN1250TH	●	□	12.5	4.8	5.8	STAWSS1250S16 STAWSN1250S16 STAWMN1250S16 STAWLN1250S16	
STAWN1260TH	●	□	12.6	4.8	5.8		
STAWN1270TH	●	□	12.7	4.8	5.8		
STAWN1280TH	●	□	12.8	4.8	5.8		
STAWN1290TH	●	□	12.9	4.8	5.8		
STAWN1300TH	●	□	13.0	4.9	6.0	STAWSS1300S16 STAWSN1300S16 STAWMN1300S16 STAWLN1300S16	
STAWN1310TH	●	□	13.1	4.9	6.0		
STAWN1320TH	●	□	13.2	4.9	6.0		
STAWN1330TH	●	□	13.3	4.9	6.0		
STAWN1340TH	●	□	13.4	4.9	6.0		
STAWN1350TH	●	□	13.5	5.1	6.2	STAWSS1350S16 STAWSN1350S16 STAWMN1350S16 STAWLN1350S16	
STAWN1360TH	●	□	13.6	5.1	6.2		
STAWN1370TH	●	□	13.7	5.1	6.2		
STAWN1380TH	●	□	13.8	5.1	6.2		
STAWN1390TH	●	□	13.9	5.1	6.2		
STAWN1400TH	●		14.0	5.3	6.4	STAWSS1400S16 STAWSN1400S16 STAWMN1400S16 STAWLN1400S16	
STAWN1410TH	●		14.1	5.3	6.4		
STAWN1420TH	●		14.2	5.3	6.4		
STAWN1430TH	●		14.3	5.3	6.4		
STAWN1440TH	●		14.4	5.3	6.4		

●：標準在庫品 □：受注生産品
(1ケース1個入りです)

呼 び 記 号	在庫		寸法 (mm)			対応ホルダ
	VP15TF	VP10H	CDI	LF	S	
STAWN1450TH	●		14.5	5.5	6.7	STAWSS1450S16 STAWSN1450S16 STAWMN1450S16 STAWLN1450S16
STAWN1460TH	●		14.6	5.5	6.7	
STAWN1470TH	●		14.7	5.5	6.7	
STAWN1480TH	●		14.8	5.5	6.7	
STAWN1490TH	●		14.9	5.5	6.7	
STAWN1500TH	●		15.0	5.7	6.9	STAWSS1500S20 STAWSN1500S20 STAWMN1500S20 STAWLN1500S20
STAWN1510TH	●		15.1	5.7	6.9	
STAWN1520TH	●		15.2	5.7	6.9	
STAWN1530TH	●		15.3	5.7	6.9	
STAWN1540TH	●		15.4	5.7	6.9	
STAWN1550T	●		15.5	5.9	7.1	STAWSS1600S20 STAWSN1600S20 STAWMN1600S20 STAWLN1600S20
STAWN1560T	●		15.6	5.9	7.1	
STAWN1570T	●		15.7	5.9	7.1	
STAWN1580T	●		15.8	5.9	7.1	
STAWN1590T	●		15.9	5.9	7.1	
STAWN1600T	●		16.0	5.9	7.1	
STAWN1610T	●		16.1	5.9	7.1	
STAWN1620T	●		16.2	5.9	7.1	
STAWN1630T	●		16.3	5.9	7.1	
STAWN1640T	●		16.4	5.9	7.1	
STAWN1650T	●		16.5	6.3	7.6	STAWSS1700S20 STAWSN1700S20 STAWMN1700S20 STAWLN1700S20
STAWN1660T	●		16.6	6.3	7.6	
STAWN1670T	●		16.7	6.3	7.6	
STAWN1680T	●		16.8	6.3	7.6	
STAWN1690T	●		16.9	6.3	7.6	
STAWN1700T	●		17.0	6.3	7.6	
STAWN1710T	●		17.1	6.3	7.6	
STAWN1720T	●		17.2	6.3	7.6	
STAWN1730T	●		17.3	6.3	7.6	
STAWN1740T	●		17.4	6.3	7.6	
STAWN1750T	●		17.5	6.7	8.1	STAWSS1800S20 STAWSN1800S20 STAWMN1800S20 STAWLN1800S20
STAWN1760T	●		17.6	6.7	8.1	
STAWN1770T	●		17.7	6.7	8.1	
STAWN1780T	●		17.8	6.7	8.1	
STAWN1790T	●		17.9	6.7	8.1	
STAWN1800T	●		18.0	6.7	8.1	
STAWN1810T	●		18.1	6.7	8.1	
STAWN1820T	●		18.2	6.7	8.1	
STAWN1830T	●		18.3	6.7	8.1	
STAWN1840T	●		18.4	6.7	8.1	

形状 インサート外観 対応ドリル	STAW		寸法 (mm)			対応ホルダ
	在庫	DP5010	CDI	LF	S	
形状 インサート外観 対応ドリル						
STAWK1000TG	●		10.0	3.3	4.6	STAWSS1000S16 STAWSN1000S16 STAWMN1000S16 STAWLN1000S16
STAWK1010TG	●		10.1	3.3	4.6	
STAWK1020TG	●		10.2	3.3	4.6	
STAWK1030TG	●		10.3	3.3	4.6	
STAWK1040TG	●		10.4	3.3	4.6	
STAWK1050TG	●		10.5	3.5	4.8	STAWSS1050S16 STAWSN1050S16 STAWMN1050S16 STAWLN1050S16
STAWK1060TG	●		10.6	3.5	4.8	
STAWK1070TG	●		10.7	3.5	4.8	
STAWK1080TG	●		10.8	3.5	4.8	
STAWK1090TG	●		10.9	3.5	4.8	
STAWK1100TG	●		11.0	3.7	5.1	STAWSS1100S16 STAWSN1100S16 STAWMN1100S16 STAWLN1100S16
STAWK1110TG	●		11.1	3.7	5.1	
STAWK1120TG	●		11.2	3.7	5.1	
STAWK1130TG	●		11.3	3.7	5.1	
STAWK1140TG	●		11.4	3.7	5.1	
STAWK1150TG	●		11.5	3.9	5.3	STAWSS1150S16 STAWSN1150S16 STAWMN1150S16 STAWLN1150S16
STAWK1160TG	●		11.6	3.9	5.3	
STAWK1170TG	●		11.7	3.9	5.3	
STAWK1180TG	●		11.8	3.9	5.3	
STAWK1190TG	●		11.9	3.9	5.3	
STAWK1200TG	●		12.0	4.1	5.5	STAWSS1200S16 STAWSN1200S16 STAWMN1200S16 STAWLN1200S16
STAWK1210TG	●		12.1	4.1	5.5	
STAWK1220TG	●		12.2	4.1	5.5	
STAWK1230TG	●		12.3	4.1	5.5	
STAWK1240TG	●		12.4	4.1	5.5	
STAWK1250TG	●		12.5	4.2	5.8	STAWSS1250S16 STAWSN1250S16 STAWMN1250S16 STAWLN1250S16
STAWK1260TG	●		12.6	4.2	5.8	
STAWK1270TG	●		12.7	4.2	5.8	
STAWK1280TG	●		12.8	4.2	5.8	
STAWK1290TG	●		12.9	4.2	5.8	
STAWK1300TG	●		13.0	4.4	6.0	STAWSS1300S16 STAWSN1300S16 STAWMN1300S16 STAWLN1300S16
STAWK1310TG	●		13.1	4.4	6.0	
STAWK1320TG	●		13.2	4.4	6.0	
STAWK1330TG	●		13.3	4.4	6.0	
STAWK1340TG	●		13.4	4.4	6.0	
STAWK1350TG	●		13.5	4.6	6.2	STAWSS1350S16 STAWSN1350S16 STAWMN1350S16 STAWLN1350S16
STAWK1360TG	●		13.6	4.6	6.2	
STAWK1370TG	●		13.7	4.6	6.2	
STAWK1380TG	●		13.8	4.6	6.2	
STAWK1390TG	●		13.9	4.6	6.2	

●：標準在庫品
(1ケース1個入りです)

呼 び 記 号	在庫		寸法 (mm)			対応ホルダ
	DP5010		CDI	LF	S	
STAWK1400TG	●		14.0	4.8	6.4	STAWSS1400S16 STAWSN1400S16 STAWMN1400S16 STAWLN1400S16
STAWK1410TG	●		14.1	4.8	6.4	
STAWK1420TG	●		14.2	4.8	6.4	
STAWK1430TG	●		14.3	4.8	6.4	
STAWK1440TG	●		14.4	4.8	6.4	
STAWK1450TG	●		14.5	5.0	6.7	STAWSS1450S16 STAWSN1450S16 STAWMN1450S16 STAWLN1450S16
STAWK1460TG	●		14.6	5.0	6.7	
STAWK1470TG	●		14.7	5.0	6.7	
STAWK1480TG	●		14.8	5.0	6.7	
STAWK1490TG	●		14.9	5.0	6.7	
STAWK1500TG	●		15.0	5.2	6.9	STAWSS1500S20 STAWSN1500S20 STAWMN1500S20 STAWLN1500S20
STAWK1510TG	●		15.1	5.2	6.9	
STAWK1520TG	●		15.2	5.2	6.9	
STAWK1530TG	●		15.3	5.2	6.9	
STAWK1540TG	●		15.4	5.2	6.9	
STAWK1550TG	●		15.5	5.3	7.1	STAWSS1600S20 STAWSN1600S20 STAWMN1600S20 STAWLN1600S20
STAWK1560TG	●		15.6	5.3	7.1	
STAWK1570TG	●		15.7	5.3	7.1	
STAWK1580TG	●		15.8	5.3	7.1	
STAWK1590TG	●		15.9	5.3	7.1	
STAWK1600TG	●		16.0	5.3	7.1	
STAWK1610TG	●		16.1	5.3	7.1	
STAWK1620TG	●		16.2	5.3	7.1	
STAWK1630TG	●		16.3	5.3	7.1	
STAWK1640TG	●		16.4	5.3	7.1	STAWSS1700S20 STAWSN1700S20 STAWMN1700S20 STAWLN1700S20
STAWK1650TG	●		16.5	5.7	7.6	
STAWK1660TG	●		16.6	5.7	7.6	
STAWK1670TG	●		16.7	5.7	7.6	
STAWK1680TG	●		16.8	5.7	7.6	
STAWK1690TG	●		16.9	5.7	7.6	
STAWK1700TG	●		17.0	5.7	7.6	
STAWK1710TG	●		17.1	5.7	7.6	
STAWK1720TG	●		17.2	5.7	7.6	
STAWK1730TG	●		17.3	5.7	7.6	STAWSS1800S20 STAWSN1800S20 STAWMN1800S20 STAWLN1800S20
STAWK1740TG	●		17.4	5.7	7.6	
STAWK1750TG	●		17.5	6.0	8.1	
STAWK1760TG	●		17.6	6.0	8.1	
STAWK1770TG	●		17.7	6.0	8.1	
STAWK1780TG	●		17.8	6.0	8.1	
STAWK1790TG	●		17.9	6.0	8.1	
STAWK1800TG	●		18.0	6.0	8.1	
STAWK1810TG	●		18.1	6.0	8.1	
STAWK1820TG	●		18.2	6.0	8.1	
STAWK1830TG	●		18.3	6.0	8.1	
STAWK1840TG	●		18.4	6.0	8.1	