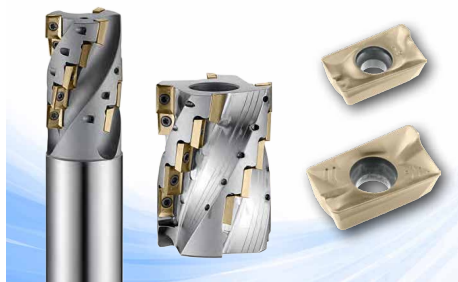


Helical Milling Series Introduction

玉米粗銑刀系列介紹

CAPH Series



- Use APKT inserts with 2 cutting edges.
- Offers large depth of cut in rough contouring applications.
- 20~63mm cutter diameter.
- 使用 APKT 銑刀片 , 2 個可用切削角
- 適用於較大切削深度的輪廓粗加工應用
- 20~63mm 刀桿直徑

→ Page A131

CBAH Series



- Use APMT inserts with 2 cutting edges.
- Offers large depth of cut in rough contouring applications.
- 20~63mm cutter diameter.
- 使用 APMT 銑刀片 , 2 個可用切削角
- 適用於較大切削深度的輪廓粗加工應用
- 20~63mm 刀桿直徑

→ Page A133

C39H Series

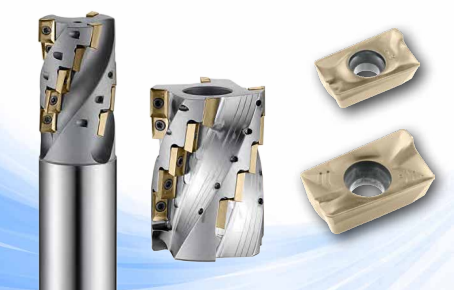


- Use W390 inserts with 2 cutting edges.
- High efficient and large depth of cut in rough contouring applications.
- 25~32mm cutter diameter.
- 使用 W390 銑刀片 , 2 個可用切削角
- 適用於高效率及較大切削深度的輪廓粗加工應用
- 25~32mm 刀桿直徑

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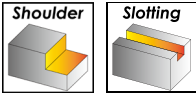
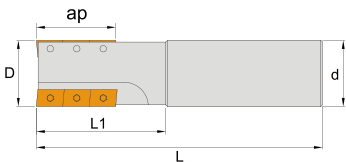
Helical Milling - CAPH 玉米粗銑刀

CAPH Series



- Use APKT inserts with 2 cutting edges.
- Offers large depth of cut in rough contouring applications.
- 20~63mm cutter diameter.
- 使用 APKT 銑刀片，2 個可用切削角
- 適用於較大切削深度的輪廓粗加工應用
- 20~63mm 刀桿直徑

CAPHE - Milling Tools 玉米粗銑刀

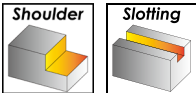
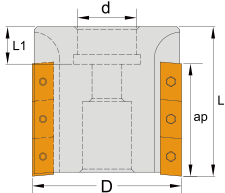


Insert Brand 建議刀片：Winstar, Iscar, Ceratizit, ...

Order No. 訂購編碼	D	ap	L1	L	d	T × Pcs	Inserts	Screw	Wrench	Stock
ICAPHE305020100	20	28	42	107	20	1 x 5	APKT1003	ITS2515	ITK08	●
ICAPHE308025120	25	35	50	125	25	2 x 4				●
ICAPHE315032130	32	44	60	135	32	3 x 5				●

● stock ○ by inquiry

CAPHF - Milling Tools 玉米粗銑刀



Insert Brand 建議刀片：Winstar, Iscar, Ceratizit, ...

Order No. 訂購編碼	D	ap	L2	L	d	T × Pcs	Inserts	Screw	Wrench	Stock
ICAPHF409050220	50	42	21	69	22	3 x 3	APKT1604 or APET1604	ITS4023	ITK15	●
ICAPHF412063250	63	42	38	69	25.4	4 x 3				●
ICAPHF420063252	63	68	38	97	25.4	4 x 5				●

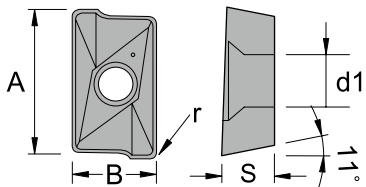
● stock ○ by inquiry

Recommended Cutting Conditions 建議切削數據

Working Material	APKT1003		APKT1604	
	Vc	fz	Vc	fz
Carbon Steel / Alloy Steel	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Stainless Steel	100 ~ 180	0.08 ~ 0.18	100 ~ 180	0.10 ~ 0.22
Cast Iron	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Aluminum Alloy	-	-	300 ~ 1000	0.10 ~ 0.40
High Temperature Alloy	40 ~ 100	0.07 ~ 0.14	40 ~ 100	0.10 ~ 0.18

Insert Specifications 刀片規格

Insert	Dimensions (mm)				
	A	B	S	r	d1
APKT100304	10.5	6.7	3.5	0.4	2.8
APKT100308	10.5	6.7	3.5	0.8	2.8
APET160402	16.3	9.525	4.76	0.2	4.5
APET160404	16.3	9.525	4.76	0.4	4.5
APKT160408	16.3	9.525	5.25	0.8	4.5



Insert Designation 刀片型號

Insert	Order No. 訂購編碼	Designation	Working Material					
			P	M	K	N	S	H
	IAPKT100304ESG23AX	APKT100304PDER-SG-CX23AX	○	○	○		○	●
	IAPKT100304EMG23AX	APKT100304PDER-MG-CX23AX	○	○	○		○	●
	IAPKT100304EMG32HS	APKT100304PDER-MG-CX32HS	●	●	●		○	
	IAPKT100304EMG33TX	APKT100304PDER-MG-CX33TX	●	●	●		●	●
	IAPKT100304EMG43TX	APKT100304PDER-MG-CX43TX	●	●	●		●	
	IAPKT100308EMG23AX	APKT100308PDER-MG-CX23AX	○	○	○		○	●
	IAPKT100308EMG32HS	APKT100308PDER-MG-CX32HS	●	●	●		○	
	IAPKT100308EMG33TX	APKT100308PDER-MG-CX33TX	●	●	●		●	●
	IAPKT100308EMG43TX	APKT100308PDER-MG-CX43TX	●	●	●		●	
	IAPKT100304ERG32HS	APKT100304PDER-RG-CX32HS	●	●	●		○	
	IAPKT100304ERG33TX	APKT100304PDER-RG-CX33TX	●	●	●		●	●
	IAPET160402FAL10	APET160402PDFR-AL-CX10				●		
	IAPET160404FAL10	APET160404PDFR-AL-CX10				●		
	IAPET160402FFG23AX	APET160402PDFR-FG-CX23AX	○	○	○		○	●
	IAPET160404FFG23AX	APET160404PDFR-FG-CX23AX	○	○	○		○	●
	IAPKT160408EMG23AX	APKT160408PDER-MG-CX23AX	○	○	○		○	●
	IAPKT160408EMG32HS	APKT160408PDER-MG-CX32HS	●	●	●		○	
	IAPKT160408EMG33TX	APKT160408PDER-MG-CX33TX	●	●	●		●	●
	IAPKT160408EMG43TX	APKT160408PDER-MG-CX43TX	●	●	●		●	
	IAPKT160408ERG23AX	APKT160408PDER-RG-CX23AX	○	○	○		○	●
	IAPKT160408ERG32HS	APKT160408PDER-RG-CX32HS	●	●	●		○	
	IAPKT160408ERG33TX	APKT160408PDER-RG-CX33TX	●	●	●		●	●
	IAPKT160408ERG43TX	APKT160408PDER-RG-CX43TX	●	●	●		●	

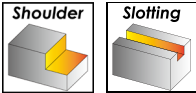
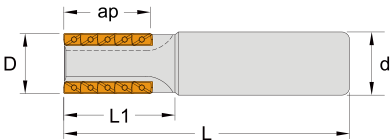
Helical Milling - CBAH 玉米粗銑刀

CBAH Series



- Use APMT inserts with 2 cutting edges.
- Offers large depth of cut in rough contouring applications.
- 20~63mm cutter diameter.
- 使用 APMT 銑刀片 , 2 個可用切削角
- 適用於較大切削深度的輪廓粗加工應用
- 20~63mm 刀桿直徑

CBAHE - Milling Tools 玉米粗銑刀



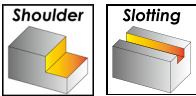
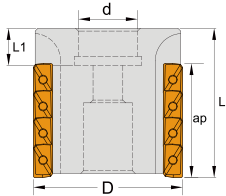
Insert Brand 建議刀片 : Winstar, Mitsubishi, ...

Order No. 訂購編碼	D	ap	L1	L	d	T × Pcs	Inserts	 Screw	 Wrench	Stock
ICBAHE305020100	20	28	42	107	20	1 × 5	APMT1135	ITS2515	ITK08	●
ICBAHE308025120	25	35	50	125	25	2 × 4				●
ICBAHE315032130	32	44	60	135	32	3 × 5				●
ICBAHE324040170	40	72	94	175	32	3 × 8				●
ICBAHE406032130	32	42	55	135	32	2 × 3	APMT1604 or APGT1604	ITS4023	ITK15	●
ICBAHE410040170	40	68	94	175	32	2 × 5				●
ICBAHE415040170	40	68	94	175	32	3 × 5				●
ICBAHE424050220	50	100	128	224	50.8	3 × 8				●
ICBAHE436050280	50	158	188	284	50.8	3 × 12				●

Helical Milling - CBAH

玉米粗銑刀

CBAHF - Milling Tools 玉米粗銑刀



Insert Brand 建議刀片 : Winstar, Mitsubishi, ...

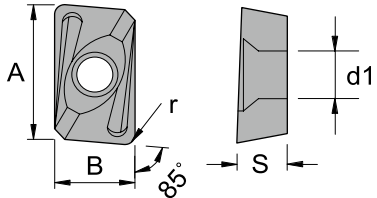
Order No. 訂購編碼	D	ap	L1	L	d	T × Pcs	Inserts	Screw	Wrench	Stock
ICBAHF409050220	50	42	21	69	22	3 × 3	APMT1604 or APGT1604	ITS4023	ITK15	●
ICBAHF412063250	63	42	38	69	25.4	4 × 3				●
ICBAHF420063250	63	68	38	97	25.4	4 × 5				●

● stock ○ by inquiry

Recommended Cutting Conditions 建議切削數據

Working Material	APMT1135		APMT1604	
	Vc	fz	Vc	fz
Carbon Steel / Alloy Steel	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Stainless Steel	100 ~ 180	0.08 ~ 0.18	100 ~ 180	0.10 ~ 0.22
Cast Iron	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Aluminum Alloy	-	-	300 ~ 1000	0.10 ~ 0.40
High Temperature Alloy	40 ~ 100	0.07 ~ 0.14	40 ~ 100	0.10 ~ 0.22

Insert Specifications 刀片規格

Insert	Dimensions (mm)					
	A	B	S	r	d1	
APMT113508	11.0	6.35	3.5	0.8	2.8	
APMT113516	11.0	6.35	3.5	1.6	2.8	
APMT160408	16.5	9.525	4.76	0.8	4.4	
APMT160416	16.5	9.525	4.76	1.6	4.4	
APGT160408	16.5	9.525	4.76	0.8	4.4	

Insert Designation 刀片型號

Insert	Order No. 訂購編碼	Designation	Working Material					
			P	M	K	N	S	H
	IAPMT113508EMG23AX	APMT113508PDER-MG-CX23AX	○	○	○		○	●
	IAPMT113508EMG32HS	APMT113508PDER-MG-CX32HS	●	●	●		○	
	IAPMT113508EMG33TX	APMT113508PDER-MG-CX33TX	●	●	●		●	●
	IAPMT113508EMG43TX	APMT113508PDER-MG-CX43TX	●	●	●		●	
	IAPMT113516EMG23AX	APMT113516PDER-MG-CX23AX	○	○	○		○	●
	IAPMT113516EMG32HS	APMT113516PDER-MG-CX32HS	●	●	●		○	
	IAPMT113516EMG33TX	APMT113516PDER-MG-CX33TX	●	●	●		●	●
	IAPMT113516EMG43TX	APMT113516PDER-MG-CX43TX	●	●	●		●	
	IAPMT113508ERG23AX	APMT113508PDER-RG-CX23AX	○	○	○		○	●
	IAPMT113508ERG32HS	APMT113508PDER-RG-CX32HS	●	●	●		○	
	IAPMT113508ERG33TX	APMT113508PDER-RG-CX33TX	●	●	●		●	●
	IAPMT113508ERG43TX	APMT113508PDER-RG-CX43TX	●	●	●		●	
	IAPMT113508EHG32HS	APMT113508PDER-HG-CX32HS	●	●	●		○	
	IAPMT113508EHG33TX	APMT113508PDER-HG-CX33TX	●	●	●		●	●
	IAPMT113508EHG43TX	APMT113508PDER-HG-CX43TX	●	●	●		●	
	IAPGT160408EAL10	APGT160408PDER-AL-CX10				●		
	IAPGT160408EFG23AX	APGT160408PDER-FG-CX23AX	○	○	○		○	●
	IAPMT160408EMG23AX	APMT160408PDER-MG-CX23AX	○	○	○		○	●
	IAPMT160408EMG32HS	APMT160408PDER-MG-CX32HS	●	●	●		○	
	IAPMT160408EMG33TX	APMT160408PDER-MG-CX33TX	●	●	●		●	●
	IAPMT160408EMG43TX	APMT160408PDER-MG-CX43TX	●	●	●		●	
	IAPMT160408EMG47TA	APMT160408PDER-MG-CX47TA	●	●	○		●	○
	IAPMT160416EMG32HS	APMT160416PDER-MG-CX32HS	●	●	●		○	
	IAPMT160416EMG33TX	APMT160416PDER-MG-CX33TX	●	●	●		●	●
	IAPMT160416EMG43TX	APMT160416PDER-MG-CX43TX	●	●	●		●	
	IAPMT160408ERG23AX	APMT160408PDER-RG-CX23AX	○	○	○		○	●
	IAPMT160408ERG32HS	APMT160408PDER-RG-CX32HS	●	●	●		○	
	IAPMT160408ERG33TX	APMT160408PDER-RG-CX33TX	●	●	●		●	●
	IAPMT160408ERG43TX	APMT160408PDER-RG-CX43TX	●	●	●		●	
	IAPMT160408EHG23AX	APMT160408PDER-HG-CX23AX	○	○	○		○	●
	IAPMT160408EHG32HS	APMT160408PDER-HG-CX32HS	●	●	●		○	
	IAPMT160408EHG33TX	APMT160408PDER-HG-CX33TX	●	●	●		●	●
	IAPMT160408EHG43TX	APMT160408PDER-HG-CX43TX	●	●	●		●	

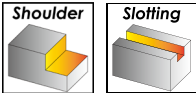
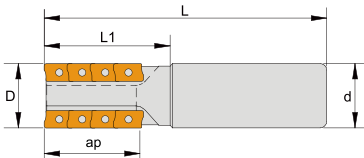
Helical Milling - C39H 玉米粗銑刀

C39H Series



- Use W390 inserts with 2 cutting edges.
- High efficient and large depth of cut in rough contouring applications.
- 25~32mm cutter diameter.
- 使用 W390 銑刀片 , 2 個可用切削角
- 適用於高效率及較大切削深度的輪廓粗加工應用
- 25~32mm 刀桿直徑

C39HE - Milling Tools 玉米粗銑刀



Insert Brand 建議刀片 : Winstar, Sandvik, ...

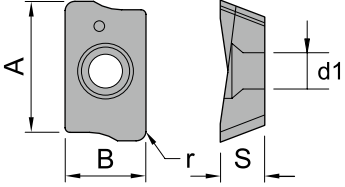
Order No. 訂購編碼	D	ap	L1	L	d	T × Pcs	Inserts	Screw	Wrench	Stock
IC39HE308025110	25	36	50	110	25	2 × 4	W39011T3	ITS2509	ITK08	●
IC39HE308032120	32	36	50	125	32	2 × 4				●

● stock ○ by inquiry

Recommended Cutting Conditions 建議切削數據

Working Material	Vc	fz
Carbon Steel / Alloy Steel	120 ~ 250	0.10 ~ 0.22
Stainless Steel	100 ~ 180	0.08 ~ 0.18
Cast Iron	120 ~ 250	0.10 ~ 0.22
High Temperature Alloy	40 ~ 100	0.07 ~ 0.14

Insert Specifications 刀片規格

Insert	Dimensions (mm)					
	A	B	S	r	d1	
W39011T308	11	6.9	3.59	0.8	2.8	
W39011T320	11	6.9	3.59	2.0	2.8	

Insert Designation 刀片型號

Insert	Order No. 訂購編碼	Designation	Working Material					
			P	M	K	N	S	H
	IW39011T308SG23AX	W39011T308-SG-CX23AX	○	○	○		○	●
	IW39011T308SG32HS	W39011T308-SG-CX32HS	●	●	●		○	
	IW39011T308SG33TX	W39011T308-SG-CX33TX	●	●	●		●	●
	IW39011T308SG43TX	W39011T308-SG-CX43TX	●	●	●		●	
	IW39011T308MG23AX	W39011T308-MG-CX23AX	○	○	○		○	●
	IW39011T308MG32HS	W39011T308-MG-CX32HS	●	●	●		○	
	IW39011T308MG33TX	W39011T308-MG-CX33TX	●	●	●		●	●
	IW39011T308MG43TX	W39011T308-MG-CX43TX	●	●	●		●	
	IW39011T308MG37TA	W39011T308-MG-CX37TA	○	○	●		○	○
	IW39011T308MG47TA	W39011T308-MG-CX47TA	●	●	○		●	○
	IW39011T320MG23AX	W39011T320-MG-CX23AX	○	○	○		○	●
	IW39011T320MG32HS	W39011T320-MG-CX32HS	●	●	●		○	
	IW39011T320MG33TX	W39011T320-MG-CX33TX	●	●	●		●	●
	IW39011T320MG43TX	W39011T320-MG-CX43TX	●	●	●		●	
	IW39011T320MG37TA	W39011T320-MG-CX37TA	○	○	●		○	○
	IW39011T320MG47TA	W39011T320-MG-CX47TA	●	●	○		●	○

CSPT Series



- Use SPMG inserts with 4 cutting edges.
- For side slotting and T-slotting applications.
- 19~32mm cutter diameter.
- 使用 SPMG 銑刀片，4 個可用切削角
- 適用於側溝和 T 型槽加工應用
- 19~32mm 刀桿直徑

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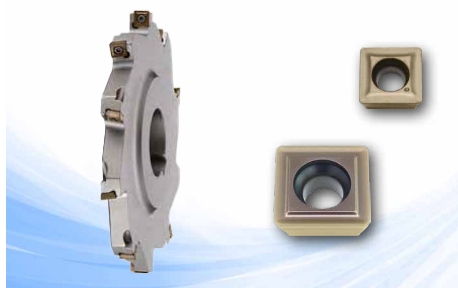
CRDT Series



- Use RDKW or RPMT round inserts.
- For side R slotting and T-slotting applications.
- 26~50mm cutter diameter.
- 使用 RDKW 或 RPMT 圓形刀片
- 適用於 R 底側溝和 T 型槽加工應用
- 26~50mm 刀桿直徑

→ Page A141

CSPD Series



- Use SPMG inserts with 4 cutting edges.
- Economical and versatile disc cutting solution.
- 19~32mm cutter diameter.
- 使用 SPMG 銑刀片，4 個可用切削角
- 經濟且多功能三面刃適用於側邊較深加工
- 80~200mm 刀桿直徑

→ Page A143

Disc Milling - CSPT

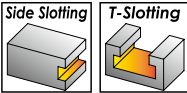
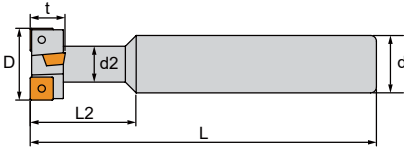
T 型銑刀

CSPT Series



- Use SPMG inserts with 4 cutting edges.
- For side slotting and T-slotting applications.
- 19~32mm cutter diameter.
- 使用 SPMG 銑刀片 , 4 個可用切削角
- 適用於側溝和 T 型槽加工應用
- 19~32mm 刀桿直徑

CSPTE - T-Slot Milling Tools T 型銑刀



Insert Brand 建議刀片 : Winstar, Taegutec, ...

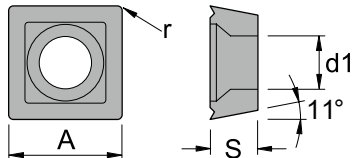
Order No. 訂購編碼	D	t	d2	L2	L	d	T	Inserts	Screw	Wrench	Stock
ICSPTE504019090	19	8	9.5	25	95	16	4	SPMG0502	ITS2003	ITK06	●
ICSPTE604021100	21	9	11	27	100	16	4	SPMG0602	ITS2205	ITK06	●
ICSPTE504022090	22	6.3	15	15	90	20	4	SPMG0502	ITS2003	ITK06	●
ICSPTE704025110	25	11	12	31	110	20	4	SPMG07T3	ITS2511	ITK08	●
ICSPTE504032110	32	7.8	19	9.5	110	20	4	SPMG0502	ITS2003	ITK06	●
ICSPTE504032112	32	8	19	9.5	110	20	4	SPMG0502	ITS2003	ITK06	●
ICSPTE904032110	32	14	17	39	110	25	4	SPMG0904	ITS3504	ITK15	●
ICSPTE104040120	40	18	21	49	125	25	4	SPMG1104	ITS4006	ITK15	●

● stock ○ by inquiry

Recommended Cutting Conditions 建議切削數據

Working Material	Vc	fz
Carbon Steel / Alloy Steel	120 ~ 250	0.08 ~ 0.12
Stainless Steel	100 ~ 180	0.07 ~ 0.10
Cast Iron	120 ~ 250	0.08 ~ 0.12
High Temperature Alloy	40 ~ 100	0.05 ~ 0.08
Hardened Steel	50 ~ 100	0.05 ~ 0.08

Insert Specifications 刀片規格

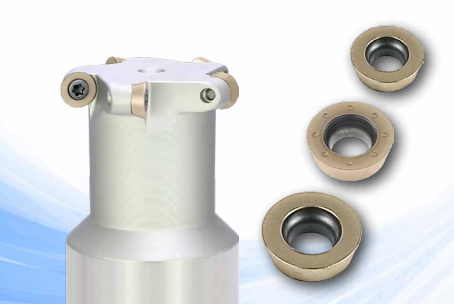
Insert	Dimensions (mm)				
	A	S	r	d1	
SPMG050204	5.00	2.38	0.4	2.30	
SPMG060204	6.00	2.38	0.4	2.65	
SPMG07T308	7.94	3.97	0.8	2.85	
SPMG090408	9.80	4.3	0.8	4.05	

Insert Designation 刀片型號

Insert	Order No. 訂購編碼	Designation	Working Material					
			P	M	K	N	S	H
	ISPMG050204MG32HS	SPMG050204-MG-CX32HS	●	●	●		○	
	ISPMG050204MG33TX	SPMG050204-MG-CX33TX	●	●	●		●	●
	ISPMG050204MG43TX	SPMG050204-MG-CX43TX	●	●	●		●	
	ISPMG060204MG32HS	SPMG060204-MG-CX32HS	●	●	●		○	
	ISPMG060204MG33TX	SPMG060204-MG-CX33TX	●	●	●		●	●
	ISPMG060204MG43TX	SPMG060204-MG-CX43TX	●	●	●		●	
	ISPMG07T308MG32HS	SPMG07T308-MG-CX32HS	●	●	●		○	
	ISPMG07T308MG33TX	SPMG07T308-MG-CX33TX	●	●	●		●	●
	ISPMG07T308MG43TX	SPMG07T308-MG-CX43TX	●	●	●		●	
	ISPMG090408MG32HS	SPMG090408-MG-CX32HS	●	●	●		○	
	ISPMG090408MG33TX	SPMG090408-MG-CX33TX	●	●	●		●	●
	ISPMG090408MG43TX	SPMG090408-MG-CX43TX	●	●	●		●	
	ISPMG090408RG32HS	SPMG090408-RG-CX32HS	●	●	●		○	
	ISPMG090408RG33TX	SPMG090408-RG-CX33TX	●	●	●		●	●
	ISPMG090408RG43TX	SPMG090408-RG-CX43TX	●	●	●		●	

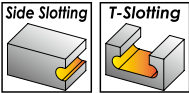
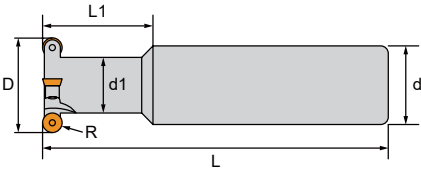
Disc Milling - CRDT 圓頭 T 型銑刀

CRDT Series



- Use RDKW or RPMT round inserts.
- For side R slotting and T-slotting applications.
- 26~50mm cutter diameter.
- 使用 RDKW 或 RPMT 圓形刀片
- 適用於 R 底側溝和 T 型槽加工應用
- 26~50mm 刀桿直徑

CRDTE - T-Slot Milling Tools 圓頭 T 型銑刀



Insert Brand 建議刀片 : Winstar, Safety, Mitsubishi, ...

Order No. 訂購編碼	D	R	d1	L1	L	d	T	Inserts	Screw	Wrench	Stock
ICRDTE505026100	26	2.5	18	21	105	25	5	RDKW0501	ITS2001	ITK06	●
ICRDTE506033110	33	2.5	23	25	110	32	6	RDKW0501	ITS2001	ITK06	●
ICRDTE604030110	30	3	18	35	110	25	4	RDKW0620	ITS2205	ITK06	●
ICRDTE606050110	50	3	32	30	110	32	6	RDKW0620	ITS2504	ITK08	●
ICRDTE705039110	39.3	3.5	26	26	110	32	5	RDKW0702	ITS2515	ITK08	●
ICRPTE104050150	50	5	28	35	150	32	4	RPMT10T3	ITS3503	ITK15	○

● stock ○ by inquiry

Recommended Cutting Conditions 建議切削數據

Working Material	Vc	fz
Carbon Steel / Alloy Steel	120 ~ 250	0.08 ~ 0.12
Stainless Steel	100 ~ 180	0.07 ~ 0.10
Cast Iron	120 ~ 250	0.08 ~ 0.12
High Temperature Alloy	40 ~ 100	0.05 ~ 0.08
Hardened Steel	50 ~ 100	0.05 ~ 0.08

Disc Milling - CRDT

圓頭 T 型銑刀

Insert Specifications 刀片規格

Insert	Dimensions (mm)				RD.. RP..
	A	r	S	d1	
RDKW0501	5	2.5	1.59	2.2	
RDMW0620	6	3.0	1.99	2.6	
RDKW0702	7	3.5	2.38	2.8	
RPMT10T3	10	5.0	3.97	4.5	

Insert Designation 刀片型號

Insert	Order No. 訂購編碼	Designation 型號	Working Material					
			P	M	K	N	S	H
	IRDKW0501MOE23AX	RDKW0501MOE-CX23AX	○	○	○		○	●
	IRDKW0501MOE32HS	RDKW0501MOE-CX32HS	●	●	●		○	
	IRDKW0501MOE33TX	RDKW0501MOE-CX33TX	●	●	●		●	●
	IRDKW0620MOE32HS	RDKW0620MOE-CX32HS	●	●	●		○	
	IRDKW0620MOE33TX	RDKW0620MOE-CX33TX	●	●	●		●	●
	IRDKW0702MOE23AX	RDKW0702MOE-CX23AX	○	○	○		○	●
	IRDKW0702MOE32HS	RDKW0702MOE-CX32HS	●	●	●		○	
	IRDKW0702MOE33TX	RDKW0702MOE-CX33TX	●	●	●		●	●
	IRDKW0702MOE43TX	RDKW0702MOE-CX43TX	●	●	●		●	
	IRPMT10T3MOE32HS	RPMT10T3MOE-CX32HS	●	●	●		○	
	IRPMT10T3MOE33TX	RPMT10T3MOE-CX33TX	●	●	●		●	●
	IRPMT10T3MOE43TX	RPMT10T3MOE-CX43TX	●	●	●		●	
	IRPMT10T3MOT32HS	RPMT10T3MOT-CX32HS	●	●	●		○	
	IRPMT10T3MOT33TX	RPMT10T3MOT-CX33TX	●	●	●		●	●
	IRPMT10T3MOT43TX	RPMT10T3MOT-CX43TX	●	●	●		●	

Disc Milling - CSPD

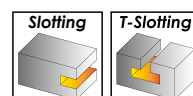
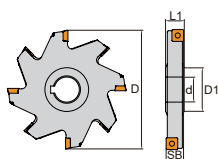
三面刃銑刀

CSPD Series



- Use SPMG inserts with 4 cutting edges.
- Economical and versatile disc cutting solution.
- 19~32mm cutter diameter.
- 使用 SPMG 銑刀片, 4 個可用切削角
- 經濟且多功能三面刃適用於側邊較深加工
- 80~200mm 刀桿直徑

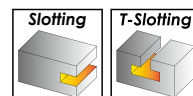
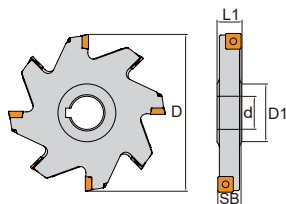
CSPDE - Milling Tools 三面刃銑刀



Insert Brand 建議刀片 : Winstar, Taegutec, ...

Order No. 訂購編碼	D	L1	SB	d	D1	T	Inserts	Screw	Wrench	Stock
ICSPDE506080220	80	12	6	22	44	2 × 4	SPMG0502	ITS2003	ITK06	●
ICSPDE507080220	80	12	7	22	44	2 × 4	SPMG0502	ITS2003	ITK06	○
ICSPDE608080220	80	12	8	22	44	2 × 4	SPMG0602	ITS2205	ITK06	●
ICSPDE609080220	80	12	9	22	44	2 × 4	SPMG0602	ITS2205	ITK06	○
ICSPDE610080220	80	12	10	22	44	2 × 4	SPMG0602	ITS2205	ITK06	●
ICSPDE711080220	80	12	11	22	44	2 × 4	SPMG07T3	ITS2511	ITK08	○
ICSPDE712080220	80	12	12	22	44	2 × 4	SPMG07T3	ITS2511	ITK08	●
ICSPDE506100270	100	12	6	27	50	2 × 5	SPMG0502	ITS2003	ITK06	●
ICSPDE507100270	100	12	7	27	50	2 × 5	SPMG0502	ITS2003	ITK06	●
ICSPDE608100270	100	12	8	27	50	2 × 5	SPMG0602	ITS2205	ITK06	●
ICSPDE609100270	100	12	9	27	50	2 × 5	SPMG0602	ITS2205	ITK06	○
ICSPDE710100270	100	12	10	27	50	2 × 5	SPMG07T3	ITS2511	ITK08	●
ICSPDE711100270	100	12	11	27	50	2 × 5	SPMG07T3	ITS2511	ITK08	○
ICSPDE712100270	100	12	12	27	50	2 × 5	SPMG07T3	ITS2511	ITK08	●
ICSPDE914100270	100	16	14	27	50	2 × 5	SPMG0904	ITS3504	ITK15	○
ICSPDE916100270	100	16	16	27	50	2 × 5	SPMG0904	ITS3504	ITK15	●
ICSPDE711125320	125	12	11	32	65	2 × 6	SPMG07T3	ITS2511	ITK08	○
ICSPDE712125320	125	12	12	32	65	2 × 6	SPMG07T3	ITS2511	ITK08	○
ICSPDE914125320	125	16	14	32	65	2 × 6	SPMG0904	ITS3504	ITK15	○
ICSPDE916125320	125	16	16	32	65	2 × 6	SPMG0904	ITS3504	ITK15	●
ICSPDE118125320	125	20	18	32	65	2 × 5	SPMG1104	ITS4006	ITK15	○
ICSPDE120125320	125	20	20	32	65	2 × 5	SPMG1104	ITS4006	ITK15	○
ICSPDE711160400	160	12	11	40	75	2 × 8	SPMG07T3	ITS2511	ITK08	○
ICSPDE712160400	160	12	12	40	75	2 × 8	SPMG07T3	ITS2511	ITK08	●
ICSPDE914160400	160	16	14	40	75	2 × 8	SPMG0904	ITS3504	ITK15	○
ICSPDE916160400	160	16	16	40	75	2 × 8	SPMG0904	ITS3504	ITK15	●
ICSPDE118160400	160	20	18	40	75	2 × 6	SPMG1104	ITS4006	ITK15	○
ICSPDE120160400	160	20	20	40	75	2 × 6	SPMG1104	ITS4006	ITK15	●
ICSPDE914200400	200	16	14	40	80	2 × 9	SPMG0904	ITS3504	ITK15	○
ICSPDE915200400	200	16	16	40	80	2 × 9	SPMG0904	ITS3504	ITK15	●
ICSPDE118200400	200	20	18	40	80	2 × 9	SPMG1104	ITS4006	ITK15	○
ICSPDE120200400	200	20	20	40	80	2 × 7	SPMG1104	ITS4006	ITK15	○

CSPDE - Milling Tools 三面刃銑刀

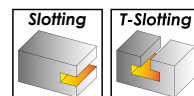
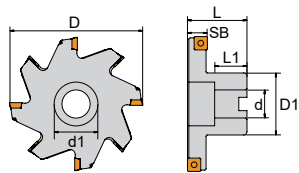


Insert Brand 建議刀片：Winstar, Taegutec, ...

Order No. 訂購編碼	D	L1	SB	d	D1	T	Inserts	Screw	Wrench	Stock
ICSPDE506080250	80	12	6	25.4	44	2 × 4	SPMG0502	ITS2003	ITK06	●
ICSPDE507080250	80	12	7	25.4	44	2 × 4	SPMG0502	ITS2003	ITK06	●
ICSPDE608080250	80	12	8	25.4	44	2 × 4	SPMG0602	ITS2205	ITK06	●
ICSPDE609080250	80	12	9	25.4	44	2 × 4	SPMG0602	ITS2205	ITK06	●
ICSPDE610080250	80	12	10	25.4	44	2 × 4	SPMG0602	ITS2205	ITK06	●
ICSPDE711080250	80	12	11	25.4	44	2 × 4	SPMG07T3	ITS2511	ITK08	●
ICSPDE712080250	80	12	12	25.4	44	2 × 4	SPMG07T3	ITS2511	ITK08	●
ICSPDE608100250	100	12	8	25.4	50	2 × 5	SPMG0602	ITS2205	ITK06	○
ICSPDE609100250	100	12	9	25.4	50	2 × 5	SPMG0602	ITS2205	ITK06	●
ICSPDE610100250	100	12	10	25.4	50	2 × 5	SPMG0602	ITS2205	ITK06	●
ICSPDE711100250	100	12	11	25.4	50	2 × 5	SPMG07T3	ITS2511	ITK08	○
ICSPDE712100250	100	12	12	25.4	50	2 × 5	SPMG07T3	ITS2511	ITK08	●
ICSPDE914100250	100	16	14	25.4	50	2 × 5	SPMG0904	ITS3504	ITK15	○
ICSPDE916100250	100	16	16	25.4	50	2 × 5	SPMG0904	ITS3504	ITK15	○
ICSPDE506125310	125	12	6	31.75	65	2 × 6	SPMG0502	ITS2003	ITK06	●
ICSPDE507125310	125	12	7	31.75	65	2 × 6	SPMG0502	ITS2003	ITK06	○
ICSPDE608125310	125	12	8	31.75	65	2 × 6	SPMG0602	ITS2205	ITK06	○
ICSPDE610125310	125	12	10	31.75	65	2 × 6	SPMG0602	ITS2205	ITK06	○
ICSPDE711125310	125	12	11	31.75	65	2 × 6	SPMG07T3	ITS2511	ITK08	○
ICSPDE712125310	125	12	12	31.75	65	2 × 6	SPMG07T3	ITS2511	ITK08	○
ICSPDE914125310	125	16	14	31.75	65	2 × 6	SPMG0904	ITS3504	ITK15	●
ICSPDE916125310	125	16	16	31.75	65	2 × 6	SPMG0904	ITS3504	ITK15	○
ICSPDE118125310	125	20	18	31.75	65	2 × 5	SPMG1104	ITS4006	ITK15	○
ICSPDE120125310	125	20	20	31.75	65	2 × 5	SPMG1104	ITS4006	ITK15	○

● stock ○ by inquiry

CSPDF - Milling Tools 三面刃銑刀



Insert Brand 建議刀片 : Winstar, Taegutec, ...

Order No. 訂購編碼	D	L1	L	SB	d	D1	T	Inserts	Screw	Wrench	Stock
ICSPDF506080220	80	22	40	6	22	42	2 × 4	SPMG0502	ITS2003	ITK06	●
ICSPDF507080220	80	22	40	7	22	42	2 × 4	SPMG0502	ITS2003	ITK06	●
ICSPDF608080220	80	22	40	8	22	42	2 × 4	SPMG0602	ITS2205	ITK06	●
ICSPDF609080220	80	22	40	9	22	42	2 × 4	SPMG0602	ITS2205	ITK06	○
ICSPDF610080220	80	22	40	10	22	42	2 × 4	SPMG0602	ITS2205	ITK06	●
ICSPDF711080220	80	22	40	11	22	42	2 × 4	SPMG07T3	ITS2511	ITK08	○
ICSPDF712080220	80	22	40	12	22	42	2 × 4	SPMG07T3	ITS2511	ITK08	●
ICSPDF506100270	100	22	40	6	27	50	2 × 5	SPMG0502	ITS2003	ITK06	○
ICSPDF507100270	100	22	40	7	27	50	2 × 5	SPMG0502	ITS2003	ITK06	○
ICSPDF608100270	100	22	40	8	27	50	2 × 5	SPMG0602	ITS2205	ITK06	●
ICSPDF609100270	100	22	40	9	27	50	2 × 5	SPMG0602	ITS2205	ITK06	●
ICSPDF610100270	100	22	40	10	27	50	2 × 5	SPMG0602	ITS2511	ITK08	●
ICSPDF711100270	100	22	40	11	27	50	2 × 5	SPMG07T3	ITS2511	ITK08	○
ICSPDF712100270	100	22	40	12	27	50	2 × 5	SPMG07T3	ITS2511	ITK08	●
ICSPDF914100270	100	22	40	14	27	50	2 × 5	SPMG0904	ITS3504	ITK15	○
ICSPDF916100270	100	22	40	16	27	50	2 × 5	SPMG0904	ITS3504	ITK15	○
ICSPDF608125320	125	25	45	8	32	70	2 × 6	SPMG0602	ITS2205	ITK06	○
ICSPDF610125320	125	25	45	10	32	70	2 × 6	SPMG0602	ITS2205	ITK06	●
ICSPDF711125320	125	25	45	11	32	70	2 × 6	SPMG07T3	ITS2511	ITK08	●
ICSPDF712125320	125	25	45	12	32	70	2 × 6	SPMG07T3	ITS2511	ITK08	●
ICSPDF914125320	125	25	45	14	32	70	2 × 6	SPMG0904	ITS3504	ITK15	○
ICSPDF916125320	125	25	45	16	32	70	2 × 6	SPMG0904	ITS3504	ITK15	○

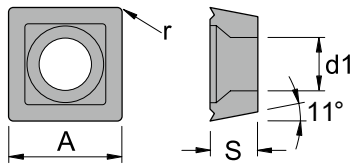
● stock ○ by inquiry

Recommended Cutting Conditions 建議切削數據

Working Material	Vc	fz
Carbon Steel / Alloy Steel	100 ~ 220	0.10 ~ 0.35
Stainless Steel	130 ~ 200	0.12 ~ 0.30
Cast Iron	100 ~ 210	0.10 ~ 0.20

Insert Specifications 刀片規格

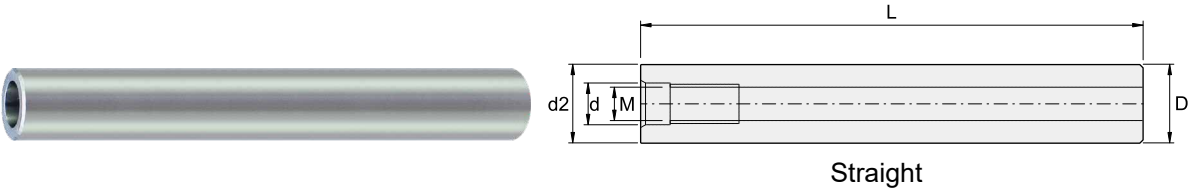
Insert	Dimensions (mm)			
	A	S	r	d1
SPMG050204	5.00	2.38	0.4	2.30
SPMG060204	6.00	2.38	0.4	2.65
SPMG07T308	7.94	3.97	0.8	2.85
SPMG090408	9.80	4.3	0.8	4.05
SPMG110408	11.50	4.8	0.8	4.45


Insert Designation 刀片型號

Insert	Order No. 訂購編碼	Designation	Working Material					
			P	M	K	N	S	H
	ISPMG050204MG32HS	SPMG050204-MG-CX32HS	●	●	●		○	
	ISPMG050204MG33TX	SPMG050204-MG-CX33TX	●	●	●		●	●
	ISPMG050204MG43TX	SPMG050204-MG-CX43TX	●	●	●		●	
	ISPMG060204MG32HS	SPMG060204-MG-CX32HS	●	●	●		○	
	ISPMG060204MG33TX	SPMG060204-MG-CX33TX	●	●	●		●	●
	ISPMG060204MG43TX	SPMG060204-MG-CX43TX	●	●	●		●	
	ISPMG07T308MG32HS	SPMG07T308-MG-CX32HS	●	●	●		○	
	ISPMG07T308MG33TX	SPMG07T308-MG-CX33TX	●	●	●		●	●
	ISPMG07T308MG43TX	SPMG07T308-MG-CX43TX	●	●	●		●	
	ISPMG090408MG32HS	SPMG090408-MG-CX32HS	●	●	●		○	
	ISPMG090408MG33TX	SPMG090408-MG-CX33TX	●	●	●		●	●
	ISPMG090408MG43TX	SPMG090408-MG-CX43TX	●	●	●		●	
	ISPMG090408RG32HS	SPMG090408-RG-CX32HS	●	●	●		○	
	ISPMG090408RG33TX	SPMG090408-RG-CX33TX	●	●	●		●	●
	ISPMG090408RG43TX	SPMG090408-RG-CX43TX	●	●	●		●	
	ISPMG110408MG32HS	SPMG110408-MG-CX32HS	●	●	●		○	
	ISPMG110408MG33TX	SPMG110408-MG-CX33TX	●	●	●		●	●
	ISPMG110408MG43TX	SPMG110408-MG-CX43TX	●	●	●		●	
	ISPMG110408RG32HS	SPMG110408-RG-CX32HS	●	●	●		○	
	ISPMG110408RG33TX	SPMG110408-RG-CX33TX	●	●	●		●	●
	ISPMG110408RG43TX	SPMG110408-RG-CX43TX	●	●	●		●	

Carbide Adapter - ISO M Threads鎢鋼抗震刀桿 (ISO M 型牙)- 直柄型

SWMEA - Carbide Adapter (Straight)



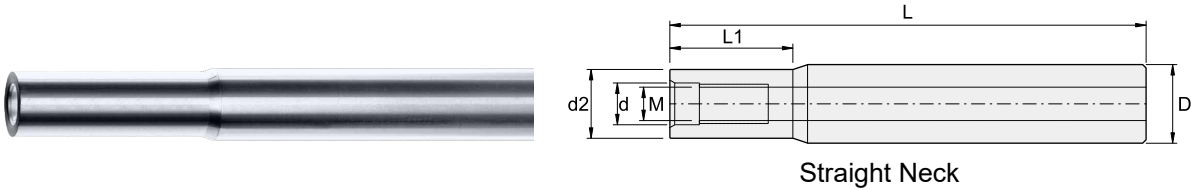
Order No. 訂購編碼	Dimensions (mm)				
	d2	d	L	D	M
ISWMEA10075050	10	5.5	75	10	M5
ISWMEA10100050	10	5.5	100	10	M5
ISWMEA10150050	10	5.5	150	10	M5
ISWMEA10100060	10	5.5	100	10	M6
ISWMEA10150060	10	5.5	150	10	M6
ISWMEA11100060	11	6.5	100	11	M6
ISWMEA11150060	11	6.5	150	11	M6
ISWMEA12075060	12	6.5	75	12	M6
ISWMEA12100060	12	6.5	100	12	M6
ISWMEA12150060	12	6.5	150	12	M6
ISWMEA12200060	12	6.5	200	12	M6
ISWMEA15100080	15	8.5	100	15	M8
ISWMEA15150080	15	8.5	150	15	M8
ISWMEA15200080	15	8.5	200	15	M8
ISWMEA16100080	16	8.5	100	16	M8
ISWMEA16150080	16	8.5	150	16	M8
ISWMEA16200080	16	8.5	200	16	M8
ISWMEA16250080	16	8.5	250	16	M8
ISWMEA20100100	20	10.5	100	20	M10
ISWMEA20150100	20	10.5	150	20	M10
ISWMEA20200100	20	10.5	200	20	M10
ISWMEA20250100	20	10.5	250	20	M10
ISWMEA20300100	20	10.5	300	20	M10
ISWMEA25100120	25	12.5	100	25	M12
ISWMEA25150120	25	12.5	150	25	M12
ISWMEA25200120	25	12.5	200	25	M12
ISWMEA25250120	25	12.5	250	25	M12
ISWMEA25300120	25	12.5	300	25	M12
ISWMEA32200160	32	17.0	200	32	M16
ISWMEA32300160	32	17.0	300	32	M16

Customize available.

Carbide Adapter - ISO M Threads

鎢鋼抗震刀桿 (ISO M 型牙)- 直頸型

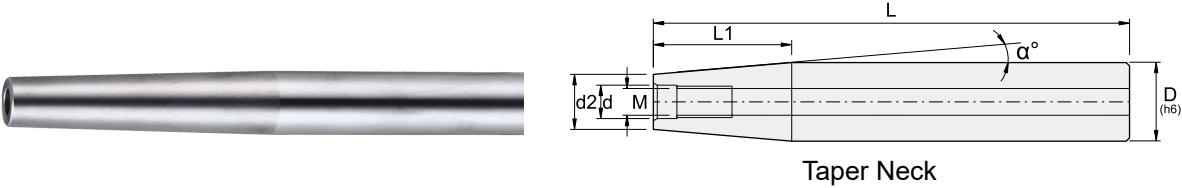
SWMEB - Carbide Adapter (Straight Neck)



Order No. 訂購編碼	Dimensions (mm)					
	d2	d	L1	L	D	M
ISWMEB12100060	11.5	6.5	24	100	12	M6
ISWMEB12100061	11.5	6.5	40	100	12	M6
ISWMEB12100062	11.5	6.5	60	100	12	M6
ISWMEB12150060	11.5	6.5	24	150	12	M6
ISWMEB12150061	11.5	6.5	100	150	12	M6
ISWMEB16150082	13.0	8.5	32	150	16	M8
ISWMEB16150080	15.0	8.5	30	150	16	M8
ISWMEB16150081	15.0	8.5	100	150	16	M8
ISWMEB16200080	15.0	8.5	40	200	16	M8
ISWMEB16200081	15.0	8.5	120	200	16	M8
ISWMEB20150102	17.0	10.5	40	150	20	M10
ISWMEB20150100	19.0	10.5	40	150	20	M10
ISWMEB20150101	19.0	10.5	100	150	20	M10
ISWMEB20200100	19.0	10.5	40	200	20	M10
ISWMEB20200101	19.0	10.5	120	200	20	M10
ISWMEB25150120	24.0	12.5	48	150	25	M12
ISWMEB25150121	24.0	12.5	100	150	25	M12
ISWMEB25200120	24.0	12.5	48	200	25	M12
ISWMEB25200121	24.0	12.5	100	200	25	M12

Customize available.

SWMET - Carbide Adapter (Taper Neck)



Order No. 訂購編碼	Dimensions (mm)						
	d2	d	α°	L1	L	D	M
ISWMET12150050	9.8	5.5	1°	60	150	12	M5
ISWMET12150060	9.8	5.5	1°	60	150	12	M6
ISWMET16150060	11.8	6.5	1.5°	70	150	16	M6
ISWMET20200080	15.5	8.5	1.5°	90	200	20	M8
ISWMET25200100	19.8	10.5	1.5°	90	200	25	M10
ISWMET32200120	24.5	12.5	2	90	200	32	M12

Customize available.

How to install the Modular Solid Head 如何安裝全鎢鋼銑刀頭至抗震刀桿

1. Screw the adapter to the holder and clean.
將抗震刀桿鎖在刀把上



2. Screw the Solid Head to the adapter.
將全鎢鋼銑刀頭鎖在抗震刀桿上



3. Use the spanner to screw the Solid Head.
使用板手鎖緊全鎢鋼銑刀頭



4. Complete installation.
完成安裝

How to uninstall the Modular Solid Head 如何拆卸全鎢鋼銑刀頭

- When uninstall the Solid head, please push the spanner lightly for avoiding the neck broken.
拆卸全鎢鋼銑刀頭時，請輕輕推動板手，避免刀頭頸部斷裂

Recommended Torque 建議板手扭力值

Suitable Modular Solid Head Diameter	Recommended Clamping Torque (N · m)
10mm	10
12mm	10
16mm	12
20mm	12

How to install the Modular Milling Head 如何安裝銑刀頭至抗震刀桿



1. Screw the adapter to the holder and clean.
將抗震刀桿鎖在刀把上



2. Screw the Milling Head to the adapter.
將銑刀頭鎖在抗震刀桿上



3. Use the spanner to screw the Milling Head.
使用板手鎖緊銑刀頭



4. Complete installation.
完成安裝

How to uninstall the Modular Milling Head 如何拆卸銑刀頭



When uninstall the Milling head, please push the spanner lightly for avoiding the neck broken.
拆卸銑刀頭時，請輕輕推動板手，避免刀頭頸部斷裂

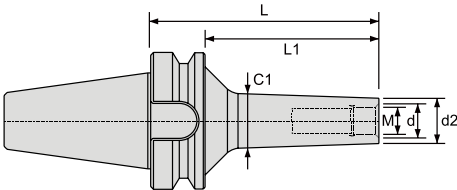
Recommended Torque 建議板手扭力值

Suitable Modular Milling Head	Recommended Clamping Torque (N · m)
M5	10
M6	15
M8	23
M10	46
M12	80
M16	90

BT40/50 Adapter- ISO M Threads

BT40/50 鎖牙式刀柄 (ISO M 型牙)

BT40/50 Adapter



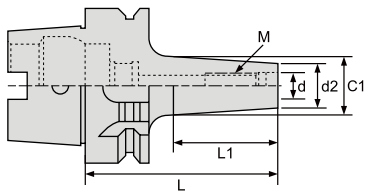
Order No. 訂購編碼	d2	d	C1	L1	L	M	Arbor Type
IBT40DM08050	13	8.5	15	23	50	M8	BT40
IBT40DM10057	18	10.5	21	30	57	M10	
IBT40DM12080	21	12.5	25	53	80	M12	
IBT40DM16087	28	17.0	31	60	87	M16	
IBT40FMC403060	36	28.0	40	30	60	M18	
IBT40FMC406090	36	28.0	40	60	90	M18	
IBT50FMC5003065	48	36.0	50	30	65	M25	BT50
IBT50FMC50080115	48	36.0	50	80	115	M25	
IBT50FMC50130165	48	36.0	50	130	165	M25	



HSK63 Adapter- ISO M Threads

HSK63 鎖牙式 刀柄 (ISO M 型牙)

HSK63 Adapter

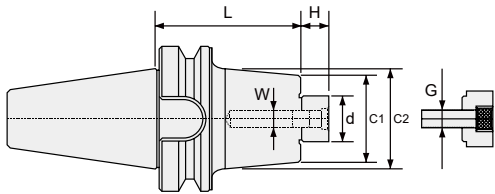


Order No. 訂購編碼	d2	d	C1	L1	L	M
IHSK63AM08050	17	8.5	18	16	50	M8×P1.25
IHSK63AM10060	18	10.5	23	26	60	M10×P1.5
IHSK63AM10080	20	10.5	24	44	80	M10×P1.5
IHSK63AM12060	23	12.5	24	26	60	M12×P1.75
IHSK63AM12080	21	12.5	24	44	80	M12×P1.75
IHSK63AM16080	29	17	34	46	80	M16×P2.0
IHSK63AM16100	34	17	34	66	100	M16×P2.0



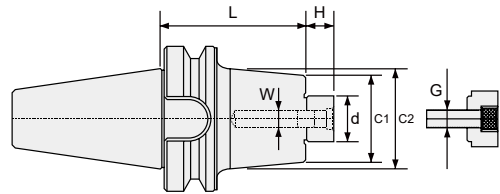
Indexable Milling

BT FMA Series (BT30, BT40, BT50)



Order No. 訂購編碼	Dimensions (mm)							
	Cutter dia.	d	L	C1	C2	H	W	G
IBT30FMA25045	76	25.4	45	45	-	20	9.5	M12
IBT30FMA31045	100	31.75	45	60	-	22	12.7	M12
IBT40FMA25045	76	25.4	45	50	-	20	9.5	M12
IBT40FMA25090	76	25.4	90	50	60	20	9.5	M12
IBT40FMA31045	100	31.75	45	60	-	22	12.5	M12
IBT40FMA31075	100	31.75	75	60	70	22	12.5	M12
IBT40FMA31105	100	31.75	105	60	70	22	12.5	M12
IBT50FMA25045	76	25.4	45	50	-	20	9.5	M12
IBT50FMA25075	76	25.4	75	50	60	20	9.5	M12
IBT50FMA25100	76	25.4	100	50	60	20	9.5	M12
IBT50FMA31045	100	31.75	45	60	-	20	12.5	M12
IBT50FMA31075	100	31.75	75	60	70	20	12.5	M12
IBT50FMA31100	100	31.75	100	60	70	20	12.5	M12

BT FMB Series (BT30, BT40, BT50)



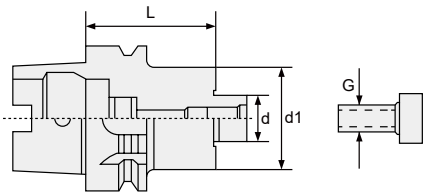
Order No. 訂購編碼	Dimensions (mm)							
	Cutter dia.	d	L	C1	C2	H	W	G
IBT30FMB22045	60	22	45	56	-	18	10	M10
IBT30FMB27045	80	27	45	64	-	20	12	M12
IBT30FMB32045	100	32	45	70	-	20	14	M16
IBT40FMB22045	60	22	45	50	-	18	10	M10
IBT40FMB22060	60	22	60	50	60	18	10	M10
IBT40FMB22090	60	22	90	50	60	18	10	M10
IBT40FMB27045	80	27	45	60	-	20	12	M12
IBT40FMB27060	80	27	60	60	-	20	12	M12
IBT40FMB27090	80	27	90	60	-	20	12	M12
IBT40FMB27105	80	27	105	60	-	20	12	M12
IBT40FMB32045	100	32	45	78	-	20	14	M16
IBT40FMB40060	125	40	60	85	-	22	16	M16
IBT50FMB22060	60	22	60	50	-	18	10	M10
IBT50FMB22090	60	22	90	50	60	18	10	M10
IBT50FMB22150	60	22	150	50	60	18	10	M10
IBT50FMB27045	80	27	45	60	-	20	12	M12
IBT50FMB27090	80	27	90	60	70	20	12	M12
IBT50FMB27150	80	27	150	60	70	20	12	M12
IBT50FMB32045	100	32	45	70	-	20	14	M16
IBT50FMB32090	100	32	90	70	80	20	14	M16
IBT50FMB40045	125	40	45	90	-	23	16	M16
IBT50FMB40090	125	40	90	90	100	23	16	M16

Indexable Milling

HSK Face Milling Holder

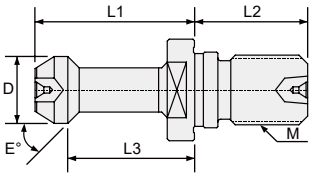
HSK 面銑刀柄

HSK63 FMA / FMB Series



Order No. 訂購編碼	Dimensions (mm)			
	d	d1	L	G
IHSK63AFMA25050	25.4	52	50	M12
IHSK63AFMA25075	25.4	51	75	M12
IHSK63AFMA25105	25.4	54	105	M12
IHSK63AFMA25150	25.4	54	150	M12
IHSK63AFMB16045	16	37	45	M8
IHSK63AFMB22050	22	45	50	M10
IHSK63AFMB22075	22	47	75	M10
IHSK63AFMB22105	22	47	105	M10
IHSK63AFMB22150	22	47	150	M10
IHSK63AFMB27050	27	52	50	M12
IHSK63AFMB27150	27	58	150	M12
IHSK63AFMB32150	32	76	150	M16

BT Pull Studs



Order No. 訂購編碼	Dimensions (mm)						For Shank
	L1	L2	L3	D	E°	M	
IP30T01	23	20	18	11	45°	M12	BT30
IP30T02	23	20	18	11	60°	M12	BT30
IP40T01	35	25	28	15	45°	M16	BT40
IP40T02	35	25	28	15	60°	M16	BT40
IP50T01	45	40	35	23	45°	M24	BT50
IP50T02	45	40	35	23	60°	M24	BT50

Indexable Milling

Milling Inserts Grade Comparison - PVD

銑刀片材質比較表 - PVD

ISO Code		WINSTAR 萬事達	Mitsubishi 三菱	Hitachi 日立	Sumitomo 住友	Kyocera 京瓷	Tungaloy 泰珂洛	Korloy 克勞伊	TaeguTec 特固克
P Steel	P10			JP4115	ACU2500 ACP200	PR1225 PR1230 PR1525		PC2005 PC2010	TT2510
	P20	CX23AX CX32HS CX33TX	MP6120 VP15TF	JP4020 JP4120 CP9020 CY150	ACP3000 ACU2500 ACP200 ACP300	PR1225 PR1230 PR1525	AH725 AH120 AH330	PC3600 PC3700 PC2510	TT7080 TT7030
	P30	CX32HS CX32HX CX33TX CX43TX	VP15TF MP6120 MP6130 VP30RT	JS4045 CY250 CY25	ACP3000 ACU2500 ACP200 ACP300	PR1225 PR1230 PR1525	AH725 AH130 AH140 AH730	PC5300	TT9080 TT9030
	P40	CX43TX	VP30RT	JS4060 JS4160 JX1060	ACP3000 ACU2500 ACP300		AH140 AH3035	PC5400	TT8080 TT8020
M Stainless Steel	M10				ACM100 ACU2500 ACK300 ACP300	PR1225 PR1525			
	M20	CX23AX	VP15TF MP7130 MP7140 VP20RT	JP4020 JP4120	ACM300 ACU2500 ACP300	PR1225 PR1525 PR1535	AH725 AH120 AH330 GH110	PC210F PC5300	TT9080 TT9030
	M30	CX33TX CX43TX	VP15TF MP7130 MP7140 VP30RT	JS4045 CY250 CY25	ACM300	PR1225 PR1525 PR1535	AH725 AH130 AH730 GH130	PC9530	TT3540 TT8080 TT8020
	M40	CX43TX	MP7140 VP30RT	JM4160	ACM300	PR1525 PR1535	AH140 AH3135 AH4035	PC5400 PC9540	TT3540
K Cast Iron	K01		MP8010	ATH80D TH308		PR1510	AH110 GH110 AH330	PC8110	
	K10	CX23AX	MP8010	TH315 CY100H	ACK3000 ACU2500	PR1210 PR1510	AH110 AH120 GH110 AH725 AH330	PC6510	TT7515 TT6080
	K20	CX32HS CX33TX	VP15TF VP20RT	CY150 JP4120 CY9020	ACK3000 ACU2500 ACK300	PR1210 PR1510	GH130	PC5300	TT7515 TT6080
	K30	CX33TX CX43TX	VP15TF VP20RT	CY250 JS4045	ACK3000 ACU2500 ACK300	PR1510		PC5300	TT3080
S High-Temp Alloy	S01			PN08M PN208	ACM100 ACU2500 ACK300 ACP300	PR905 PR1210 PR1535	AH110 AH710		
	S10	CX33TX	MP9120 VP15TF	JS1025 JP4120	ACM100 ACU2500 ACK300 ACP300	PR905 PR1210 PR1535	AH120 AH725		TT9030 TT9080 TT8080
	S20	CX33TX CX43TX	MP9120 VP15TF MP9130 MP9030	PTH30H	ACM300 ACU2500 ACP300	PR905 PR1210 PR1535	AH725 AH130 AH6030	PC5300	TT8080 TT8020
	S30	CX43TX	MP9140	JM4160	ACM300	PR1535	AH130	PC3545	TT3540 TT8020

The above table is selected from a publication for reference only, which is not obtained approval from each brand.

此材質比較表僅供參考

Milling Inserts Grade Comparison - PVD

銑刀片材質比較表 - PVD

ISO Code		WINSTAR 萬事達	Sandvik 山特維克	Iscar 伊斯卡	Kennametal 肯納	SECO 山高	Walter 瓦爾特
P Steel	P10		GC1010	IC903 IC4100 IC4050	KC715M KC930M KC935M		WKP25 WKP25S WPP20 WKK20S
	P20	CX23AX CX33TX	GC1010 GC1030 GC1130 GC2030	IC8080 IC810 IC380	KC715M KC930M KC935M	F25M MP3000	WSM20
	P30	CX33TX CX43TX	GC1010 GC1030 GC1130 GC2030	IC830 IC928 IC330	KC735M KC530M KC537M	F30M F40M MP3000	WSM30 WSM35
	P40	CX43TX	GC2030 GC1030 GC1130		KC735M KC537M KCPM40	F40M T60M	WKP45 WP45S WSP45
M Stainless Steel	M10		GC1025 GC1030	IC903	KC715M KC515M		
	M20	CX23AX	GC1025 GC1030 GC1040 GC2230	IC908 IC928	KC635M KC730M KC525M KCPM40	F25M MP3000	WSM35 WXM35
	M30	CX33TX CX43TX	S30T GC1040 GC2230	IC328 IC330 IC830	KC530M KC537M K735M KCPM40	F30M F40M MP3000	WSM35 WXM35
	M40	CX43TX		IC328 IC300 IC330		F40M	WSP45 WSM45S
K Cast Iron	K01						
	K10	CX23AX	GC1010	IC350 IC810	KC514M KC515M KC527M KC635M	MK1500	WAK15
	K20	CX33TX	GC1010 GC1020	IC5100 IC830	KC514M KC610M KC520M KC620M	MK1500 MK2000 T150M	WAK15 WKK25 WKP25S
	K30	CX33TX CX43TX	GC1020	IC810 IC908 IC910 IC928 IC950	KC522M KC725M KC524M KC735M	MK2000 MK2050	WKP35S WPP20
S High-Temp Alloy	S01		GC1010	IC808 IC907 IC908	KC510M		
	S10	CX33TX	S30T GC1010 GC1030 GC2030	IC808 IC907 IC908 IC903	KC510M KC610M	MS2050	
	S20	CX33TX CX43TX	S30T GC1030 GC1040 GC2030 GC2040	IC300 IC900 IC830 IC928	KC522M KC525M KC610M	MS2050 F40M	WSM35 WSM36
	S30	CX43TX	S30T GC1040 GC2040	IC830 IC928	KC522M KC525M KC725M	MS2050 F40M	WSM35 WSM36 WSP45 WSP46

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此材質比較表僅供參考

Milling Inserts Grade Comparison - CVD

銑刀片材質比較表 - CVD

ISO Code		WINSTAR 萬事達	Mitsubishi 三菱	Hitachi 日立	Sumitomo 住友	Kyocera 京瓷	Tungaloy 泰珂洛	Korloy 克勞伊	TaeguTec 特固克
P Steel	P10				XCU2500 ACP2000 ACP100				
	P20	CX47TA	F7030 MC7020	GX2140	XCU2500 ACP2000 ACP100		T3130 T3225	NC5330	
	P30	CX47TA	F7030 MC7020	GX2140 GX2160	XCU2500 ACP2000 ACP100		T3130 T3225	NC5330 NCM535	TT8525B
	P40			GX2030 GX30 GX2160				NCM545	TT8525B
M Stainless Steel	M10				XCU2500 ACM200			NC5330	
	M20	CX47TA	F7030 MC7020	AX2040 GX2140	XCU2500 ACM200	CA6535	T3130 T3225	NC5330	TT9540
	M30	CX47TA	F7030 FC7020 MC7020	AX2040 GX2140 GX2160 GX30	XCU2500 ACM200	CA6535	T3130 T3225	NCM535 NCM545	TT8525B TT9540
	M40			GX2030 GX2160 GX30				NCM545	TT8525B TT9540
K Cast Iron	K01								
	K10	CX37TA	MC5020		XCK2000 ACK2000 ACK200	CA420M	T1215 T1115 T1015	NC5330	TT7515
	K20	CX37TA	MC5020		XCK2000 XCU2500 ACK2000 ACK200		T1115 T1015	NC5330	TT7515
	K30			GX30				NCM535	TT7515

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此材質比較表僅供參考

Milling Inserts Grade Comparison - CVD

銑刀片材質比較表 - CVD

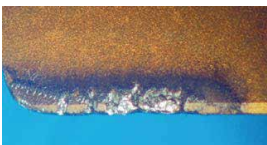
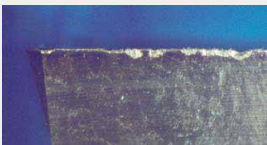
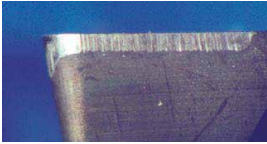
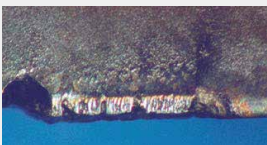
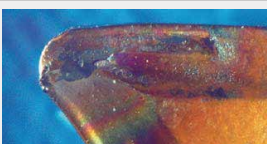
ISO Code		WINSTAR 萬事達	Sandvik 山特維克	Iscar 伊斯卡	Kennametal 肯納	SECO 山高	Walter 瓦爾特
P Steel	P10			IC9080 IC4100 IC9015		MP1500	WKP25
	P20	CX37TA	GC4220	IC5500 IC5100 IC520M		MP1500 MP2500	WKP35
	P30	CX37TA	GC4330 GC4230	IC5500 IC4050	KCPK30 KC930M	MP2500	
	P40	CX47TA	GC4340 GC4240		KC935M KC530M KCPM20		
M Stainless Steel	M10			IC9250			
	M20			IC520M IC9350	KC925M	MP2500 MM4500	
	M30	CX47TA	GC2040	IC9350 IC4050	KC930M KCPM20	MP2500 MM4500	
	M40			IC635	KC930M KC935M		
K Cast Iron	K01						
	K10						WAK15
	K20	CX37TA	GC3220 GC3330 K20W	IC5100 IC9150	KC915M	MK1500 MK2000	WKP25
	K30	CX37TA CX47TA	GC3330 GC3040	IC4100 IC4050 IC520M	KC920M KC925M KCPK30 KC930M KC935M KCPM20	MK2000 MK3000	WKP35

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此材質比較表僅供參考

Troubleshooting in Insert

刀片加工異常原因及對策

Trouble / 情況	Occurrences / 原因	Countermeasures / 對策
 Thermal Crackin 熱裂	Intermittent heating of the cutting edge. High speed, high volume metal removal. 切削角間歇性高熱，高切削線速度和較大的金屬移除量，造成的熱裂	1. Use heat resistant grades 使用具有耐熱抵抗的刀片材質 2. Use positive or large rake tools 使用正角或較銳利的刀片 3. Increase nose radius 使用較大半徑刀口的刀片 4. Reduce speed, feed or depth of cut 降低切削線速度、進給或切深
 Chipping 脆裂	Cutting tool excessively brittle. 刀片材質太硬脆	1. Use tougher grades 使用韌性較高的刀片材質 2. Use negative or smaller rake tools 使用負角或較鈍的刀片 3. Increase nose radius 使用較大半徑刀口的刀片 4. Use increased edge land 使用較大刀口平台的刀片 5. Increase cutting speed 增加切削線速度
 Excessive Flank Wear 過度磨耗	Cutting tool too soft. 刀片材質太軟 Surface speed too fast. 切削線速度太快	1. Use harder and more wear resistant grade 使用較硬或較耐磨的刀片材質 2. Reduce cutting speed 降低切削線速度 3. Increase feed 增加進給 4. Use coolant 使用冷卻液
 Notching 凹陷	Cutting material working harden cause serious wear of insert. 被加工材料產生硬化而造成刀片嚴重磨損	1. Increase approach angle 增加進刀時切削邊隙角 2. Reduce cutting speed and feed 降低切削線速度及進給量 3. Use high lubricity coolant 使用潤滑性較高的冷卻液
 Built-Up-Edge 積屑	Cutting speed too slow for material being machined. 就被加工材料而言，切削線速度太低	1. Increase cutting speed 提高切削線速度 2. Use friction reducing grade 使用摩擦力較低的刀片材質 3. Use high lubricity coolant 使用潤滑性較高的冷卻液
 Deformation 變形	Heavy feeds or higher cutting speed. 切削線速度太快或是進給量太大	1. Reduce cutting speed or feed 降低切削線速度或進給量 2. Use polished tools to reducing friction 使用拋光刀片降低磨擦阻力 3. Use more heat resistant grade 使用更高耐熱抵抗的刀片材質
 Crater Wear 熱裂	Excessive heat and pressure welding of chip to rake. 切削產生的高溫和高壓，造成鐵屑焊黏在刀口上	1. Use a harder grade 使用較硬的刀片材質 2. Reduce cutting speed and feed 降低切削線速度及進給量 3. Use high lubricity coolant 使用潤滑性較高的冷卻液

* Pictures from Kennametal Tooling Catalogue