K 快速鑽頭 Rapid Drill

快速鑽頭識別系統 Rapid Drill Identification System ····· K02

◎**SPGX** 系列 SPGX Series

NEW SPGX2D ····· K06—K08

NEW SPGX3D ····· K09—K11

NEW SPGX4D ····· K12—K13

◎**BSP** 系列 BSP Series

BSP ····· K14—K15

◎**EDX** 系列 EDX Series

NEW EDX2D ····· K19

NEW EDX3D ····· K20—K22

NEW EDX4D ····· K23—K24

◎**WCMX** 系列 WCMX Series

WCMX2D ····· K28—K29

WCMX3D ····· K30—K32

WCMX4D ····· K33—K34

快速鑽頭識別系統

Rapid Drill Identifiction System

12.5 SPGX - 3D - 25

1 2 3 4

1 切削直徑 Cutting Diameter

2 快鑽系列 Rapid Drill Series

3 加工深度 Maximum Depth

4 柄部直徑 Shank

2 快鑽系列 Rapid Drill Series

快鑽系列 Rapid Drill Series		
	SPGX 系列 SPGX series	圖示 fig1
	EDX 系列 EDX series	圖示 fig2
	WCMX 系列 WCMX series	圖示 fig3

fig1. SPGX系列 / SPGX Series

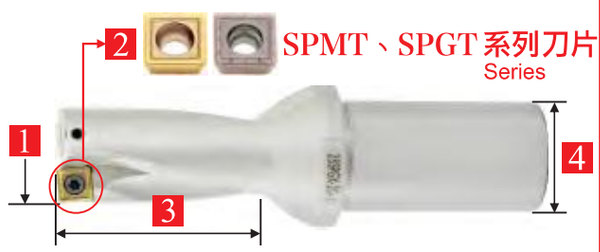
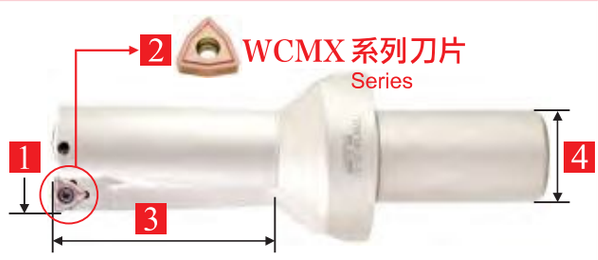


fig2. EDX系列 / EDX Series

fig3. WCMX系列 / WCMX Series



3 加工深度(mm) Maximum Depth

記 號 Symbol	說 明 Ap[plication
2D	2X加工直徑 2XDimension
3D	3X加工直徑 3XDimension
4D	4X加工直徑 4XDimension

4 柄部直徑(mm) Shank

柄部直徑 Shank
Ø25
Ø32
Ø40

SPGX series

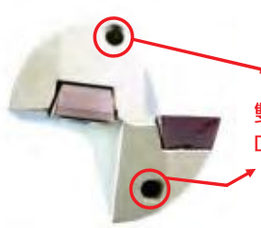
Rapid Drill Series 捨棄式快速鑽頭

設計特色 Tool Design Feature

良好的刀片安裝角度，切削過程震動小，鑽孔精度和表面質量更優。
Excellent insert pocket design, high drilling precision and low vibration during operation.

高抗扭能力和全新表面處理的堅固鑽體，可承受更高的進給，效率更高。
High torsional resistance and new finishing strong body can sustain.

更大的容屑空間，良好的沖液角度，排屑更加流暢。
More higher feeding operation.



雙螺旋內冷孔，冷卻和潤滑效果更優，鑽孔深度範圍更大。
Dual-helical coolant hole can make great drilling results.

刀片特色 Insert Feature

超細TiAIN基納米塗層，添加耐磨和耐高溫的稀有元素，綜合性能顯著提升。
TiAIN coating with high temperature resistant elements.

特殊的塗層處理技術，塗層和基體結合更牢固
Treatment technology of special coating, the coating is more firmly bonded to the substrate

薄的PVD塗層，刃口鋒利。
Thin PVD coating make cutting edge sharp.

細晶體的碳化鎢基硬質合金，具有高的硬度和較強的韌性。
High hardness and high toughness.

塗層後特殊的表面處理技術，去除有害應力的同時提高了表面光潔度。
High surface finishing.

材質推薦切削表

Recommended Cutting Condition

被削材 Workpiece			刃徑 Diameter				
			12-14.5mm	15-22.5mm	23-34mm	35-48mm	49-60mm
P 鋼 Steel	軟鋼 Mild Steel (SS400)	V(2D/3D)	80-**140**-200	80-**140**-200	80-**140**-200	100-**150**-200	100-**150**-200
		V(4D)	80-**120**-200	80-**120**-200	80-**120**-200	100-**120**-200	100-**120**-200
		f	0.04-**0.06**-0.10	0.04-**0.08**-0.10	0.04-**0.1**-0.12	0.04-**0.12**-0.14	0.04-**0.12**-0.14
	碳素鋼 Carbon Steel (S45C)	V(2D/3D)	60-**120**-160	60-**120**-160	60-**120**-160	100-**120**-180	100-**120**-180
		V(4D)	60-**100**-120	60-**100**-120	60-**100**-120	60-**100**-120	60-**100**-120
		f	0.04-**0.06**-0.10	0.04-**0.08**-0.12	0.04-**0.1**-0.12	0.04-**0.12**-0.14	0.04-**0.12**-0.14
	合金鋼 Alloy Steel (SCM400)	V(2D/3D)	80-**100**-160	80-**100**-160	80-**120**-160	80-**140**-160	80-**140**-160
		V(4D)	60-**80**-120	60-**80**-120	80-**100**-120	80-**100**-120	80-**100**-120
		f	0.04-**0.06**-0.10	0.06-**0.08**-0.10	0.04-**0.1**-0.12	0.04-**0.12**-0.14	0.04-**0.12**-0.14
M 不鏽鋼 Stainless Steel	不鏽鋼 Stainless Steel (SUS304)	V(2D/3D)	80-**100**-120	80-**100**-120	80-**100**-120	100-**120**-200	100-**120**-200
		V(4D)	60-**80**-120	60-**80**-120	60-**80**-120	60-**80**-120	60-**80**-120
		f	0.04-**0.06**-0.10	0.04-**0.08**-0.10	0.04-**0.1**-0.12	0.04-**0.12**-0.14	0.04-**0.12**-0.14
K 鑄鐵 Cast Iron	鑄 鐵 Cast Iron (FC250)	V(2D/3D)	80-**120**-160	80-**120**-160	80-**120**-120	80-**140**-160	80-**140**-160
		V(4D)	80-**100**-120	80-**100**-120	80-**100**-140	110-**120**-160	110-**120**-160
		f	0.04-**0.07**-0.10	0.06-**0.08**-0.10	0.04-**0.10**-0.12	0.06-**0.12**-0.14	0.06-**0.12**-0.14

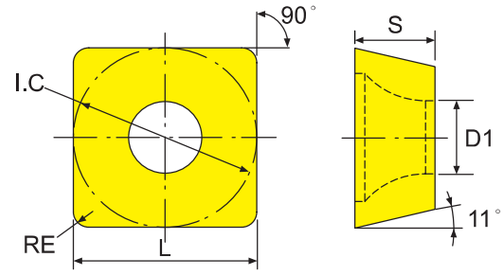
●(V=m/min. f=mm/刃) (下限值－推薦－上限值) (Min.–Optimum－Max.)
●工具回轉速度(N)=〔1000×切削速度(V)〕÷〔3.14×工具直徑(D)〕
●總進給(F)=〔每刃進給(ft)×工具刃數(Z)×工具回轉速度(N)〕

→使用快速鑽頭儘量由高壓中心出水，以增加刀片壽命及排屑良好。
Draining hi-pressure coolant thru spindle center while using the high speed drill will helt extending inserts life and improving chip evacuation.

→使用在CNC車床時，刀具中心點及機械主軸中心儘量平行。
While using CNC lathe, the cutting center point must parallel the spindle center of the machine.

→CNC車床使用如須擴孔，刀片外刃必須和刀塔移動角度平行。
Hole widening by CNC lathe, the peripheral insert must parallel the mobing angle tool turret.

SPMT



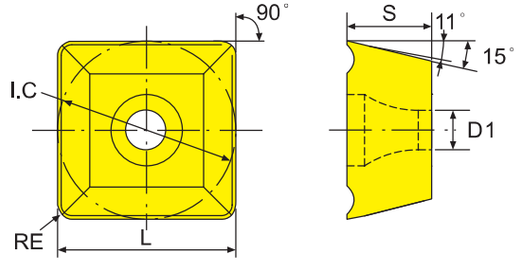
◆ 材質介紹→參考A04頁
Grade Ref.Page-A04

◆ 斷削槽選擇→參考A06-A08頁
Chipbreaker Ref.Page-A06-A08

◆ 切削條件→參考A09頁
Cutting condition Ref.Page-A09

形狀 Shape	型號 Model No	刀尖半徑 RE	切削刃長 L	內接圓 IC	刀片厚度 S	螺釘孔徑 D1	塗層硬質合金 Carbide Coated P			P/M			K		N
							DF133	DF233	DF333	ECM200	BEJ750	BEP706	ECK200	BEG607	BEJ757
GO中切削 Medium	SPMT050204-GO	0.4	5	5	2.38	2.2				●					
	SPMT060204-GO	0.4	6	6	2.38	2.6				●					
	SPMT07T308-GO	0.8	7.94	7.94	3.97	2.8				●					
	SPMT090408-GO	0.8	9.8	9.8	4.3	4.2				●					
	SPMT110408-GO	0.8	11.5	11.5	4.76	4.4				●					
	SPMT140512-GO	1.2	14.3	14.3	5.2	5.75				●					

SPGT



形狀 Shape	型號 Model No	刀尖半徑 RE	切削刃長 L	內接圓 IC	刀片厚度 S	螺釘孔徑 D1	塗層硬質合金 Carbide Coated P			P/M			K			
							ECM100	ECM200	BE4875	BEP706	BEJ750	BEJ757	BEJ758	ECK100	ECK200	ECK300	BEG607
RO中切削 Medium	SPGT050204-RO	0.4	5	5	2.38	2.2					●						
	SPGT060204-RO	0.4	6	6	2.38	2.6					●						
	SPGT07T308-RO	0.8	7.94	7.94	3.97	2.8					●						
	SPGT090408-RO	0.8	9.8	9.8	4.3	4.2					●						
	SPGT110408-RO	0.8	11.5	11.5	4.76	4.4					●						
	SPGT140512-RO	1.2	14.3	14.3	5.2	5.75					●						

MADE IN TAIWAN NEW ARRIVAL

BSP Series

沉頭鑽

Countersunk Drill

加工螺絲沉頭孔專用成形刀具

Special forming tool for processing screw countersunk holes

擁有四個加工刀角，節省刀具成本及加工時間

Each insert with 4 processing angles ,there are 4 inserts !
saving tool cost and processing time.

EDX 系列

EDX series
Characteristics and Applications

受力均衡設計 Design Feature

加工時的切屑阻力通過中心刃和外周刃均衡分布，而且使相互的位置系統最佳化，可進行穩定的孔加工。
Cutting resistance during machining is balanced between central and peripheral inserts, and the relative position of each insert are potimised to provide stable drilling.

優異的切屑處理 Excellent Chip Management

在切屑槽中央部份形成「切屑控制溝槽」，可有效控制切屑流出方向，按不同用途分開使用三個種類的斷屑槽，在各種各樣的被削材和加工條件下，明顯減少了切屑產生的問題。
A “chip control groove” in the centre of the breaker allows the direction of chip evacuation to be controlled.
Three separate purpose-designed breakers drastically reduce chip troubles with a variety of different work materials in a variety of different conditions.

低速進給、切屑處理用。
Low Feed / Chip Management

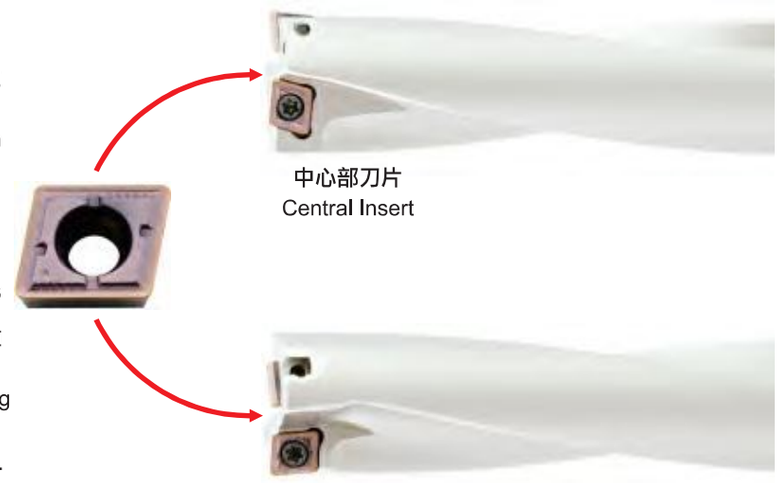
通用。
General Purpose

刀尖強化型。
Strong Edge Type

刀片特色 Insert Feature

使用四個刀尖，降低成本
Economical, Four-Cornered Insert

中心刃、外周刃兼用刀片的設計，可使用內刃二個刀尖、外刃二個刀尖，共四個刀尖。
Inserts canbe used in either central or peripheral positions, with two corners for each position- a total of for corners.



中心部刀片
Central Insert

外週部刀片
Peripheral Insert

實現加工的多樣性
Versatile Tool for a Variety of a Machining Applications

刀體進行了特殊硬化表面處理，提高了耐久性，在擴孔、外徑車削、內徑搪孔等多種用途中可長時間穩定使用。
A special hard surface treatment gives added durability, allowing stable, long-term drilling in a variety of applications including hole widening, spot facing, external turning, and internal boring.

採用新材質ACP300 / ACK300實現長壽命
New ACP300 / ACK300 Grades Extend Tool Life

材質推薦切削表

Recommended Cutting Condition

被削材 Workpiece		刃徑 Diameter 12-22mm		
		V(2D / 3D)	V(4D)	f
P 鋼 Steel	軟 鋼 Mild Steel SS400)	100-**150**-200	100-**140**-200	0.05-**0.08**-0.10
	碳素鋼 Carbon Steel (S45C)	80-**120**-160	60-**100**-120	0.06-**0.10**-0.18
	合金鋼 Alloy Steel (SCM400)	80-**120**-160	80-**100**-120	0.06-**0.10**-0.17
M 不鏽鋼 Stainless Steel	不鏽鋼 Stainless Steel (SUS304)	90-**120**-150	80-**110**-140	0.06-**0.10**-0.18
K 鑄 鐵 Cast Iron	鑄 鐵 Cast Iron (FC250)	90-**140**-150	110-**120**-160	0.09-**0.12**-0.32

●(V=m/min. f=mm/刃) (下限值－推薦－上限值) (Min.–Optimum－Max.)

●工具回轉速度(N)=〔1000×切削速度(V)〕÷〔3. 14×工具直徑(D)〕

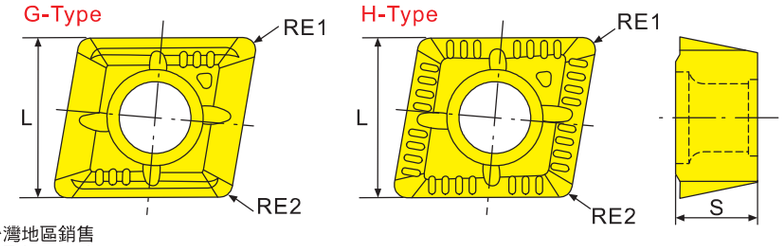
●總進給(F)=〔每刃進給(ft)×工具刃數(Z)×工具回轉速度(N)〕

→使用快速鑽頭儘量由高壓中心出水以增加刀片壽命及排屑良好。
Draining hi-pressure coolant thru spindle center while using the high speed drill will helt extending inserts life and improving chip evacuation.

→使用在CNC車床時，刀具中心點及機械主軸中心儘量平行。
While using CNC lathe, the cutting center point must parallel the spindle center of the machine.

→CNC車床使用如須擴孔，刀片外刃必須和刀塔移動角度平行。
Hole widening by CNC lathe, the peripheral insert must parallel the mobing angle tool turret.

WDXT



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◆ 材質介紹→參考A04頁
Grade Ref.Page-A04

◆ 斷削槽選擇→參考A06-A08頁
Chipbreaker Ref.Page-A06-A08

◆ 切削條件→參考A09頁
Cutting condition Ref.Page-A09

形狀 Shape	型號 Model No	刀尖半徑 RE 1	刀尖半徑 RE 2	切削刃長 L	刀片厚度 S	塗層硬質合金 Carbide Coated								
						P		P/M	K		K/M	P	P/M	N
						ACP100	ACP200	ACP300	ACK300	ACK310	ACK200	ACZ350	ACZ330	DL1500
＊◎ G-Type	WDXT042004-G	0.4	0.4	4.2	2			●	●					●
	WDXT042004-H	0.4	0.4	4.2	2			●	●					
	WDXT052504-G	0.4	0.4	5	2.5			●	●					●
	WDXT052504-H	0.4	0.4	5	2.5			●	●					
	WDXT063006-G	0.6	0.6	6	3			●	●					●
＊◎ H-Type	WDXT073506-G	0.6	0.6	7.5	3.5			●	●					●
	WDXT094008-G	0.8	0.8	9.6	4			●	●					●
	WDXT125012-G	1.2	1.2	12.4	5			●	●					
	WDXT156012-G	1.2	1.2	15.2	6			●	●					

WCMX 系列

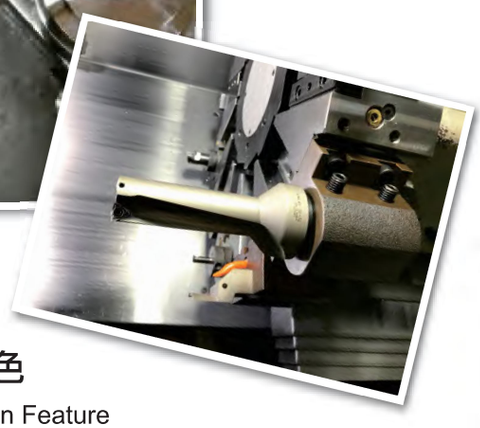
WCMX series

操作注意事項

Important Cautions

在使用CNC車床時，刀具中心點及機械主軸中心盡量平行。
While using CNC lathe, the cutting center point must parallel the spindle center of the machine.

CNC車床使用如須擴孔，刀片外刃必須和刀塔移動角度平行。
Hole widening by CNC lathe, the peripheral insert must parallel the mobilng angle tool turret.



使用高壓式中心出水
快速鑽頭，以增加刀片壽命。
Draining hi-pressure coolant thru spindle center while using the high speed drill will extend inserts life.

設計特色

Tool Design Feature

刀片替換快速，排屑良好。
Changing insert is simple and effective, improving chip evacuation.

節省加工時間，比一般快速鑽頭快。
The processing time is short and better than ordinary rapid drill.

材質推薦切削表

Recommended Cutting Condition

被削材 Workpiece			刃徑 Diameter			
			15-22.5mm	23-34mm	35-48mm	49-60mm
P 鋼 Steel	軟鋼 Mild Steel (SS400)	V(2D/3D)	80-**140**-200	80-**140**-200	100-**150**-200	100-**150**-200
		V(4D)	80-**120**-200	80-**120**-200	100-**120**-200	100-**120**-200
		f	0.04-**0.07**-0.10	0.04-**0.1**-0.12	0.04-**0.12**-0.14	0.04-**0.12**-0.14
	碳素鋼 Carbon Steel (S45C)	V(2D/3D)	60-**100**-160	60-**100**-160	100-**120**-180	100-**120**-180
		V(4D)	60-**80**-120	60-**80**-120	60-**100**-120	60-**100**-120
		f	0.04-**0.09**-0.12	0.04-**0.08**-0.12	0.04-**0.08**-0.12	0.04-**0.08**-0.12
	合金鋼 Alloy Steel (SCM400)	V(2D/3D)	80-**100**-160	80-**100**-160	80-**120**-160	80-**120**-160
		V(4D)	60-**80**-120	80-**80**-120	80-**100**-120	80-**100**-120
		f	0.06-**0.08**-0.10	0.04-**0.1**-0.12	0.04-**0.12**-0.14	0.04-**0.12**-0.14
M 不鏽鋼 Stainless Steel	不鏽鋼 Stainless Steel (SUS304)	V(2D/3D)	80-**100**-120	80-**100**-120	100-**120**-200	100-**120**-200
		V(4D)	60-**80**-120	60-**80**-120	60-**100**-120	60-**100**-120
		f	0.04-**0.07**-0.10	0.04-**0.1**-0.12	0.04-**0.10**-0.12	0.04-**0.12**-0.14
K 鑄鐵 Cast Iron	鑄 鐵 Cast Iron (FC250)	V(2D/3D)	80-**120**-160	80-**120**-160	80-**140**-160	80-**140**-160
		V(4D)	80-**100**-120	80-**100**-140	110-**120**-160	110-**120**-160
		f	0.06-**0.07**-0.10	0.04-**0.10**-0.12	0.06-**0.12**-0.14	0.06-**0.12**-0.14

●(V=m/min. f=mm/刃) (下限值－推薦－上限值) (Min.–Optimum－Max.)
●工具回轉速度(N)=〔1000×切削速度(V)〕÷〔3.14×工具直徑(D)〕
●總進給(F)=〔每刃進給(ft)×工具刃數(Z)×工具回轉速度(N)〕

→使用快速鑽頭儘量由高壓中心出水，以增加刀片壽命及排屑良好。
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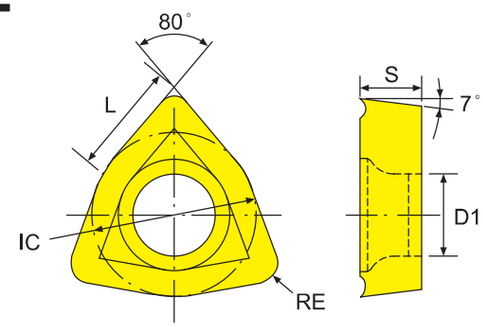
→CNC車床使用如須擴孔，刀片外刃必須和刀塔移動角度平行。
Hole widening by CNC lathe, the peripheral insert must parallel the mobing angle tool turret.

WCMX / WCMT / WCKT



●標準庫存 ＊僅限中國地區銷售 ◎僅限台灣地區銷售
●Standard Stocks ＊Sell in China only ◎Sell in Taiwan only

◆ 材質介紹→參考A04頁
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◆ 斷削槽選擇→參考A06-A08頁
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◆ 切削條件→參考A09頁
Cutting condition Ref.Page-A09

塗層硬質合金 Carbide Coated

形狀 Shape	型號 Model No	刀尖半徑 RE	切削刃長 L	內接圓 IC	刀片厚度 S	螺釘孔徑 D1	P ECM100	P/M ECM2020	P/M BEJ750	K ACK200	K ACK300	K/M ACZ310	P ACZ330	P/M ACZ350	K/N H1	N BG656
＊◎	WCMX030208FN	0.8	3.8	5.56	2.38	2.8							●			
	WCMX040208FN	0.8	4.3	6.35	2.38	3.1							●			
	WCMT050308FN	0.8	5.4	7.94	3.18	3.2						●	●			
	WCMT06T308FN	0.8	6.5	9.525	3.97	3.7							●			
	WCMT080412FN	1.2	8.7	12.7	4.76	4.3							●			
	WCMX030208R	0.8	3.8	5.56	2.38	2.8			●							
	WCMX040208R	0.8	4.3	6.35	2.38	3.1			●							
	WCMX050308R	0.8	5.4	7.94	3.18	3.2			●							
	WCMX06T308R	0.8	6.5	9.525	3.97	3.7			●							
	WCMX080412R	1.2	8.7	12.7	4.76	4.3			●							
	WCMX06T308R-53	0.8	6.5	9.525	3.97	3.7	●									
	WCMX080412R-53	1.2	8.7	12.7	4.76	4.3	●									
	WCMX030208FN	0.8	3.8	5.56	2.38	2.8	●									
	WCMX040208FN	0.8	4.3	6.35	2.38	3.1	●									
	WCMX050308FN	0.8	5.4	7.94	3.18	3.2	●									
	WCKT030208-EC	0.8	3.8	5.56	2.38	2.8										●
	WCKT040208-EC	0.8	4.3	6.35	2.38	3.1										●
	WCKT050308-EC	0.8	5.4	7.94	3.18	3.2										●
	WCKT06T308-EC	0.8	6.5	9.525	3.97	3.7										●
	WCKT080408-EC	0.8	8.7	12.7	4.76	4.3										●