

Complete
Metalworking tools
รวมรายการผลิตภัณฑ์สำหรับงานโลหะ



2022 - 2023
Edition



Economy to Hyper performance tools
Milling . Turning . Hole making . Tooling system . etc



Product highlight



New invention

SLC Micron power chuck

BT40/50 . BBT40 . HSK . Capto

S63N - SLC10 / 12 / 16 / 20 / 25 mm

S100N - SLC16 / 20 / 25 mm

หัวจับทูล SLC ระบบเดียวที่ครอบคลุมความต้องการให้แรงยึดจับสูงสุด ตั้งค่า Runout ได้ เพิ่มประสิทธิภาพลดเวลาการทำงาน และ ช่วยยืดอายุคัทติงทูลทุกประเภท



- ▶ The most powerful clamping power
- ▶ The best accuracy runout < 3Micron
- ▶ Unique adjustable runout system
- ▶ Improve cutting tools performance
- ▶ Easy to setup and clamping



Tool outlet

ModuloGen2

ตู้เก็บทูลอัจฉริยะ เบิกจ่ายได้ 24ชม เก็บทูลไว้หน้างาน ลดค่าใช้จ่ายในการดูแลระบบSoftware ควบคุมและบันทึกการเบิกจ่ายได้ รวดเร็ว แม่นยำ ตรวจสอบได้



- ▶ High capacity
- ▶ Proven drawer system
- ▶ Multiple drawer sizes
- ▶ Flexible and simple to reconfigure
- ▶ Power by SupplyPoint software



Up to 120 secure locations in a single frame for a total of 1,440 compartments (10 frames maximum for a total of 14,400 compartments).



The unique SupplyPoint software provides a complete audit trail on who, when, where and why about the usage of any component within the system.



CNC Machine

Built-in motorized spindle
High rigid base components
Automation interface
ATC Servo drive



HTC Turning
Motorized build-in spindle



VMCII - 12000RPM
Direct drive spindle



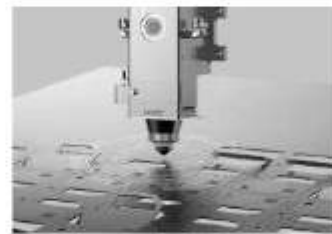
CFV600 - 12000RPM
Motorized build-in spindle



GLU13/16 II
Double column machine



Swiss Fiber Laser



Intelligence processor
Anti- collision function
Fly cut function
Remote online service



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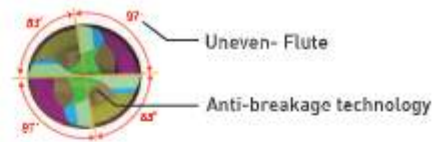
ดอกเอ็นมิลประสิทธิภาพสูง

HSC - HPC - TPC

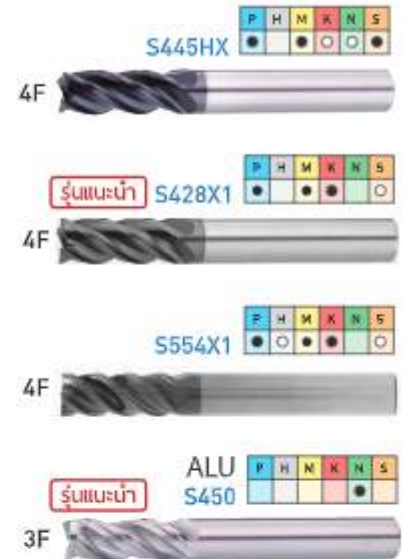
Hi performance carbide endmills

ดอกเอ็นมิลคาร์ไบด์ รุ่นประสิทธิภาพสูง

ถูกออกแบบพิเศษสำหรับทำงานได้หลากหลายแบบในดอกเดียว ใช้กัดหยานและละเอียด กัด Slotting / Side milling / Ramping และ เจาะลงแนวตั้งได้ สามารถใช้ได้กับทุกวัสดุที่มีความแข็งไม่เกิน 52HRC



Dia. +0/-0.03	Lc กม.ตัด	L ยาว	Shank ก้าน	Helix38/41	Helix40v	Helix40v	Helix48	Helix40v	Helix40v
				S445HX ราคา	S428X1 ราคา	S428-3.0X1 ราคา(กม.ตัด)	S554-3.0X1 ราคา(กม.ตัด)	S450 ราคา	S450-3.0 ราคา(กม.ตัด)
1	3	50	4	350	350			350	
1.5	5	50	4	350	350			350	
2	6	50	4	350	350			350	
2.5	8	50	4	350	350			350	
3A	8	50	4	350	350			350	
4A	11	50	4	350	350			350	
3	8	50	6	520	520			520	
4	11	50	6	520	520			520	
5	13	50	6	520	520			520	
6	16	50	6	520	520	570(18)	570(18)	520	570(18)
8	20	60	8	970	970	1080(24)	1080(24)	970	1080(24)
10	25	75	10	1480	1480	1590(30)	1590(30)	1480	1590(30)
12	30	75	12	1920	1920	1990(36)	1990(36)	1920	1990(36)
14	32	90	16	4450	4450			4450	
16	40	100	16	4790	4790	4990(48)	4990(48)	4990	4990(48)
18	40	100	20	7450	7450			7450	
20	40	100	20	7450	7450	8350(60)	8350(60)	7450	8350(60)



Semi - Rough
ALU 3F - ZrN Coating

ดอกเอ็นมิลคาร์ไบด์ 3ฟัน **รุ่นแนะนำ**

Dia. +0/-0.03	Lc กม.ตัด	L ยาว	Shank ก้าน	S250-3.0ZX	
				ALU	
3A	9	50	4	380	
4A	12	50	4	380	
3	9	50	6	570	
4	12	50	6	570	
5	15	50	6	570	
6	18	50	6	570	
8	24	60	8	990	
10	30	75	10	1490	
12	36	75	12	1790	
16	50	100	16	4190	
20	60	100	20	7290	



Semi - Finishing
ALU - ZrN Coating

ดอกเอ็นมิลคาร์ไบด์ 3ฟัน

Dia. +0/-0.03	Lc กม.ตัด	L ยาว	Shank ก้าน	S255-3.0ZX	
				ALU	
3A	9	50	4	380	
4A	12	50	4	380	
3	9	50	6	570	
4	12	50	6	570	
5	15	50	6	570	
6	18	50	6	570	
8	24	60	8	990	
10	30	75	10	1490	
12	36	75	12	1790	
16	50	100	16	4190	
20	60	100	20	7290	



ALU Ballnose-ZrN coating
ดอกบอลโนสคาร์ไบด์ 2ฟัน

Dia. +0/-0.03	Lc กม.ตัด	L ยาว	Shank ก้าน	S618ZX	
				ALU	
1x0.5R	2	50	4	390	
2x1R	4	50	4	390	
3x1.5R	6	50	6	580	
4x2R	8	50	6	580	
5x2.5R	10	50	6	580	
6x3R	12	50	6	580	
8x4R	16	60	8	1050	
10x5R	20	75	10	1590	
12x6R	24	75	12	1990	



4F Variable helix endmill

ดอกเอ็นมิลคาร์ไบด์ 4ฟัน **รุ่นแนะนำ**

Dia. +0/-0.03	Lc กม.ตัด	L ยาว	Shank ก้าน	S215-3.0TX	
				56HRC	
3A	9	50	4	330	
4A	12	50	4	330	
3	9	50	6	470	
4	12	50	6	470	
5	15	50	6	470	
6	18	50	6	470	
8	24	60	8	890	
10	30	75	10	1340	
12	36	75	12	1680	
16	50	100	16	3980	
20	60	100	20	6990	



2F Universal carbide endmills ดอกเอ็นมิลคาร์ไบด์ 2 พัน

Standard

Dia. +0/-0.03	Lc กนดัด	L ยาว	Shank ก้าน	S200F 50HRC
1	3	50	4	295
1.5	5	50	4	295
2	6	50	4	295
2.5	8	50	4	295
3A	8	50	4	295
4A	11	50	4	295
3	8	50	6	425
4	11	50	6	425
5	13	50	6	425
6	16	50	6	425
8	20	60	8	780
10	25	75	10	1180
12	30	75	12	1570
14	32	90	16	3650
16	40	100	16	3800
18	40	100	20	5990
20	40	100	20	5990



S200F

รุ่นยาว Long

Dc +0/-0.03	Lc กนดัด	L ยาว	d ก้าน	S202F 50HRC
3A	12	70	4	395
4A	15	70	4	395
3	12	70	6	560
4	15	70	6	560
5	20	80	6	670
6	20	80	6	670
8	25	100	8	1190
10	30	100	10	1720
12	40	110	12	2290
16	50	140	16	6290
20	60	160	20	9190



S202F

4F carbide endmills ดอกเอ็นมิลคาร์ไบด์ 4 พัน

Standard

Dia. +0/-0.03	Lc กนดัด	L ยาว	Shank ก้าน	S204F 48HRC
1	3	50	4	295
1.5	5	50	4	295
2	6	50	4	295
2.5	8	50	4	295
3A	8	50	4	295
4A	11	50	4	295
3	8	50	6	425
4	11	50	6	425
5	13	50	6	425
6	16	50	6	425
8	20	60	8	780
10	25	75	10	1180
12	30	75	12	1570
14	32	90	16	3650
16	40	100	16	3800
18	40	100	20	5990
20	40	100	20	5990



S204F

รุ่นยาว Long

Dc +0/-0.03	Lc กนดัด	L ยาว	d ก้าน	S206F 50HRC
3A	12	70	4	395
4A	15	70	4	395
3	12	70	6	560
4	15	70	6	560
5	20	80	6	670
6	20	80	6	670
8	25	100	8	1190
10	30	100	10	1720
12	40	110	12	2290
16	50	140	16	6290
20	60	160	20	9190



S206F

2F Ballnose carbide ดอกบอลโนสคาร์ไบด์ 2 พัน

Standard

Dia. +0/-0.03	Lc กนดัด	L ยาว	Shank ก้าน	S208F 50HRC
1x0.5R	2	50	4	335
1.5x0.75R	3	50	4	335
2x1R	4	50	4	335
3Ax1.5R	6	50	4	335
4Ax2R	8	50	4	335
3x1.5R	6	50	6	469
4x2R	8	50	6	469
5x2.5R	10	50	6	469
6x3R	12	50	6	469
8x4R	14	60	8	880
10x5R	18	75	10	1320
12x6R	22	75	12	1750
16x8R	30	100	16	4350
20x10R	38	100	20	6850



S208F

รุ่นยาว Long

Dia. +0/-0.03	Lc กนดัด	L ยาว	Shank ก้าน	S210F 50HRC
3Ax1.5R	6	70	4	495
4Ax2R	8	70	4	495
3x1.5R	6	70	6	640
4x2R	8	70	6	640
5x2.5R	10	80	6	790
6x3R	12	80	6	790
8x4R	14	100	8	1370
10x5R	18	100	10	1930
12x6R	22	110	12	2490
16x8R	30	140	16	7100
20x10R	38	160	20	10500



S210F

2F Carbide endmills 56/62HRC

ดอกเอ็นมีลคาร์ไบด์ 2ฟัน

Standard

รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc กม.ตัด	L ยาว	Shank ก้าน	S630X 56HRC	S630TX 62HRC
1	3	50	4	318	350
1.5	5	50	4	318	350
2	6	50	4	318	350
2.5	8	50	4	318	350
3A	8	50	4	318	379
4A	11	50	4	318	379
3	8	50	6	475	520
4	11	50	6	475	520
5	13	50	6	475	520
6	16	50	6	475	520
8	20	60	8	890	990
10	25	75	10	1340	1490
12	30	75	12	1720	1890
14	32	90	16	3990	4490
16	40	100	16	4280	4780
18	40	100	20	6690	7390
20	40	100	20	6690	7390



S630X S630TX

รุ่นยาว Long

รหัสสินค้า / ราคา

Dc +0/-0.02	Lc กม.ตัด	L ยาว	d ก้าน	S650X 56HRC	S650TX 62HRC
3A	12	70	4	435	485
4A	15	70	4	435	485
3	12	70	6	595	650
4	15	70	6	595	650
5	20	80	6	750	845
6	20	80	6	750	845
8	25	100	8	1290	1430
10	30	100	10	1830	2050
12	40	110	12	2490	2690
16	50	140	16	6690	7290
20	60	160	20	9980	10890



S202F S650TX

4F Finishing carbide endmills 56/62HRC

ดอกเอ็นมีลคาร์ไบด์ 4ฟัน

รุ่นแนะนำ

Standard

รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc กม.ตัด	L ยาว	Shank ก้าน	S640X 56HRC	S640TX 62HRC
1	3	50	4	318	350
1.5	5	50	4	318	350
2	6	50	4	318	350
2.5	8	50	4	318	350
3A	8	50	4	318	379
4A	11	50	4	318	379
3	8	50	6	475	520
4	11	50	6	475	520
5	13	50	6	475	520
6	16	50	6	475	520
8	20	60	8	890	990
10	25	75	10	1340	1490
12	30	75	12	1720	1890
14	32	90	16	3990	4490
16	40	100	16	4280	4780
18	40	100	20	6690	7390
20	40	100	20	6690	7390



S640X S640TX

รุ่นยาว Long

รหัสสินค้า / ราคา

Dc +0/-0.02	Lc กม.ตัด	L ยาว	d ก้าน	S660X 56HRC	S660TX 62HRC
3A	12	70	4	435	485
4A	15	70	4	435	485
3	12	70	6	595	650
4	15	70	6	595	650
5	20	80	6	750	845
6	20	80	6	750	845
8	25	100	8	1290	1430
10	30	100	10	1830	2050
12	40	110	12	2490	2690
16	50	140	16	6690	7290
20	60	160	20	9980	10890



S660X S660TX

2F Ballnose carbide (Ultra precision)

ดอกบอลโนสคาร์ไบด์ 2ฟัน

5 Micron Radius tolerance

รุ่นแนะนำ

Standard

รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc กม.ตัด	L ยาว	Shank ก้าน	S618X 56HRC	S618TX 62HRC	S618ATX 68HRC
1x0.5R	2	50	4	365	410	450
1.5x0.75R	3	50	4	365	410	450
2x1R	4	50	4	365	410	450
3Ax1.5R	6	50	4	365	410	450
4Ax2R	8	50	4	365	410	450
3x1.5R	6	50	6	519	569	630
4x2R	8	50	6	519	569	630
5x2.5R	10	50	6	519	569	630
6x3R	12	50	6	519	569	630
8x4R	14	60	8	980	1120	1240
10x5R	18	75	10	1450	1590	1860
12x6R	22	75	12	1950	2090	2590
16x8R	30	100	16	4750	5290	5990
20x10R	38	100	20	7550	8390	9290



S208F S618TX

รุ่นยาว Long

รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc กม.ตัด	L ยาว	Shank ก้าน	S620X 56HRC	S620TX 62HRC	S620ATX 68HRC
3Ax1.5R	6	70	4	545	590	680
4Ax2R	8	70	4	545	590	680
3x1.5R	6	70	6	670	740	850
4x2R	8	70	6	670	740	850
5x2.5R	10	80	6	860	940	1090
6x3R	12	80	6	860	940	1090
8x4R	14	100	8	1490	1600	1890
10x5R	18	100	10	2090	2290	2790
12x6R	22	110	12	2690	2950	3590
16x8R	30	140	16	7800	8500	9800
20x10R	38	160	20	11900	12900	14500



S210F S620TX

4F Finishing endmill <62/70HRC

ดอกเอ็นมิลคาร์ไบด์ 4ฟัน กัดงานแข็ง **รุ่นแนะนำ**

Standard				รหัสสินค้า / ราคา	
Dia. +0/-0.02	Lc กม.ตัด	L ยาว	Shank ก้าน	S645TX 62HRC	S676ATX 70HRC
1	3	50	4	400	
1.5	5	50	4	400	
2	6	50	4	400	
2.5	8	50	4	400	
3A	8	50	4	400	
4A	11	50	4	400	
3	8	50	6	520	630
4	11	50	6	520	630
5	13	50	6	520	630
6	16	50	6	520	630
8	20	60	8	1090	1180
10	25	75	10	1590	1690
12	30	75	12	1950	2240
16	40	100	16	4890	5400
20	40	100	20	7850	8400



รุ่นยาว Long				รหัสสินค้า / ราคา	
Dia. +0/-0.02	Lc กม.ตัด	L ยาว	Shank ก้าน	S665TX 62HRC	S678ATX 70HRC
3A	12	70	4	490	
4A	15	70	4	490	
3	12	70	6	690	
4	15	70	6	690	
5	20	80	6	880	
6	20	80	6	880	950
8	25	100	8	1490	1650
10	30	100	10	2140	2290
12	40	110	12	2790	3080
16	50	140	16	7690	8350
20	60	160	20	11500	12300



2F / 4F bullnose endmill

ดอกเอ็นมิลคาร์ไบด์ 2ฟัน / 4ฟัน ปลายR

Standard				รหัสสินค้า / ราคา		
Dia. +0/-0.02	R ค่า R	Lc กม.ตัด	L ยาว	Shank ก้าน	B265TX 62HRC	B266TX 62HRC
1	0.1/0.2	3	50	4	480	480
1.5	0.2/0.3	5	50	4	480	480
2	0.2/0.3/0.5	6	50	4	480	480
3A	0.2/0.3/0.5	8	50	4	480	480
4A	0.2/0.3/0.5/1	11	50	4	480	480
3	0.2/0.3/0.5	8	50	6	720	720
4	0.2/0.3/0.5/1	11	50	6	720	720
5	0.2/0.3/0.5/1	13	50	6	720	720
6	0.3/0.5/1/1.5	16	50	6	720	720
8	0.3/0.5/1/1.5/2	20	60	8	1250	1250
10	0.5/1/1.5/2	25	75	10	1760	1760
12	0.5/1/1.5/2/3	30	75	12	2390	2390



รุ่นยาว Long				รหัสสินค้า / ราคา		
Dia. +0/-0.02	R ค่า R	Lc กม.ตัด	L ยาว	Shank ก้าน	B267TX 62HRC	B268TX 62HRC
3	0.2/0.3/0.5	10	50	6	690	690
4	0.2/0.3/0.5/1	15	60	6	790	790
6	0.3/0.5/1/1.5	20	80	6	990	990
8	0.3/0.5/1/1.5/2	25	100	8	1750	1750
10	0.5/1/1.5/2	30	100	10	2490	2490
12	0.5/1/1.5/2/3	40	110	12	3190	3190



4F bullnose HPC <70HRC

ดอกเอ็นมิลคาร์ไบด์ 4ฟัน กัดแข็ง ปลายR

Standard				รหัสสินค้า / ราคา	
Dia. +0/-0.02	R ค่า R	Lc กม.ตัด	L ยาว	Shank ก้าน	B276ATX 70HRC
3	0.2/0.5	8	50	6	790
4	0.2/0.5	11	50	6	790
5	0.2/0.5	13	50	6	790
6	0.2/0.5/1	16	50	6	790
8	0.2/0.5/1/2	20	60	8	1390
10	0.2/0.5/1/2	25	75	10	2190
12	0.2/0.5/1/2	30	75	12	2790
16	0.5/1/2/3	40	100	16	6900
20	0.5/1/2/3	40	100	20	10900



รุ่นยาว Long				รหัสสินค้า / ราคา	
Dia. +0/-0.02	R ค่า R	Lc กม.ตัด	L ยาว	Shank ก้าน	B278ATX 70HRC
6	0.2/0.5/1/1.5	20	80	6	1270
8	0.2/0.5/1/2	25	100	8	2190
10	0.2/0.5/1/2	30	100	10	2890
12	0.2/0.5/1/2	40	110	12	3790
16	0.5/1/2/3	50	140	16	10900
20	0.5/1/2/3	60	160	20	15800



General series

ดอกคาร์ไบด์รุ่นไม่โค้งตัง

สำหรับงานทั่วไป คมกึ่งคนพิเศษ ให้ผิวดี
ใช้ได้กับงานเหล็ก <45HRC อลูมิเนียม ทองแดง พลาสติก

2F Carbide endmill เอ็นมิลคาร์ไบด์ 2 ฟัน



Standard **E172**

Dc $\frac{+0.02}{0}$	Lc mm	L mm	Shank h6
1.0	3	38	3
1.5	5	38	3
2.0	6	38	3
2.5	7	38	3
3.0	9	38	3
3.5	12	50	4
4.0	14	50	4
4.5	14	50	5
5.0	16	50	5
5.5	16	50	6
6.0	20	63	6
6.5	20	63	8
7.0	20	63	8
7.5	20	63	8
8.0	20	63	8
8.5	22	72	10
9.0	22	72	10
9.5	22	72	10
10.0	22	72	10
11.0	26	75	12
12.0	26	75	12
13.0	32	89	14
14.0	32	89	14
15.0	32	89	16
16.0	32	89	16
17.0	38	100	18
18.0	38	100	18
20.0	38	100	20



4F Carbide endmill เอ็นมิลคาร์ไบด์ 4 ฟัน



Standard **E174**

Dc $\frac{+0.02}{0}$	Lc mm	L mm	Shank h6
1.0	3	38	3
1.5	5	38	3
2.0	6	38	3
2.5	7	38	3
3.0	9	38	3
3.5	12	50	4
4.0	14	50	4
4.5	14	50	5
5.0	16	50	5
5.5	16	50	6
6.0	20	63	6
6.5	20	63	8
7.0	20	63	8
7.5	20	63	8
8.0	20	63	8
8.5	22	72	10
9.0	22	72	10
9.5	22	72	10
10.0	22	72	10
11.0	26	75	12
12.0	26	75	12
13.0	32	89	14
14.0	32	89	14
15.0	32	89	16
16.0	32	89	16
17.0	38	100	18
18.0	38	100	18
20.0	38	100	20



2F Carbide ballnose บอลนุสคาร์ไบด์ 2 ฟัน



Standard **B212**

Dc $\frac{+0.02}{0}$	R ± 0.01	Lc mm	L mm	Shank h6
1.0	0.50R	3	38	3
1.5	0.75R	5	38	3
2.0	1.00R	6	38	3
2.5	1.25R	7	38	3
3.0	1.50R	9	38	3
3.5	1.75R	12	50	4
4.0	2.00R	14	50	4
4.5	2.25R	14	50	5
5.0	2.50R	16	50	5
5.5	2.75R	16	50	6
6.0	3.00R	20	63	6
6.5	3.25R	20	63	8
7.0	3.50R	20	63	8
7.5	3.75R	20	63	8
8.0	4.00R	20	63	8
8.5	4.25R	22	72	10
9.0	4.50R	22	72	10
9.5	4.75R	22	72	10
10.0	5.00R	22	72	10
11.0	5.50R	26	75	12
12.0	6.00R	26	75	12
13.0	6.50R	32	89	14
14.0	7.00R	32	89	14
15.0	7.50R	32	89	16
16.0	8.00R	32	89	16
17.0	8.50R	38	100	18
18.0	9.00R	38	100	18
20.0	10.0R	38	100	20



รุ่นคมตัดยาว Long Length

Code No.	Dc $\frac{+0.02}{0}$	Lc mm	L mm	Shank h6
E185030	3	25	75	3
E185040	4	28	75	4
E185050	5	32	75	5
E185060	6	38	100	6
E185080	8	42	100	8
E187080	8	75	150	8
E185100	10	45	100	10
E187100	10	75	150	10
E182120	12	50	100	12
E185120	12	75	150	12
E187120	12	75	200	12
E185140	14	80	150	14
E185160	16	80	150	16
E187160	16	80	200	16
E185200	20	80	150	20
E187200	20	80	200	20



รุ่นคมตัดยาว Long Length

Code No.	Dc $\frac{+0.02}{0}$	Lc mm	L mm	Shank h6
E186030	3	25	75	3
E186040	4	28	75	4
E186050	5	32	75	5
E186060	6	38	100	6
E186080	8	42	100	8
E188080	8	75	150	8
E186100	10	45	100	10
E188100	10	75	150	10
E184120	12	50	100	12
E186120	12	75	150	12
E188120	12	75	200	12
E186140	14	80	150	14
E186160	16	80	150	16
E188160	16	80	200	16
E186200	20	80	150	20
E188200	20	80	200	20



รุ่นคมตัดยาว Long Length

Code No.	Dc $\frac{+0.02}{0}$	Lc mm	L mm	Shank h6
B282030	3x1.5R	25	75	3
B282040	4x2.0R	28	75	4
B282050	5x2.5R	32	75	5
B282060	6x3.0R	38	100	6
B282080	8x4.0R	42	100	8
B282100	10x5.0R	45	100	10
B280120	12x6.0R	50	100	12
B282120	12x6.0R	75	150	12
B282140	14x7.0R	80	150	14
B280160	16x8.0R	57	127	16
B282160	16x8.0R	80	150	16
B280200	20x10R	57	127	20
B282200	20x10R	80	150	20



E-catalog

Hi-performance endmill รุ่นแนะนำ

ดอกเอ็นมิลคาร์ไบด์ รุ่นประสิทธิภาพสูง

คู่ออกแบบพิเศษสำหรับทำงานได้หลากหลายแบบในดอกเดียว
ใช้กัดหยวนและละเอียด กัด Slotting / Side milling / Ramping
และ เจาะลงแนวตั้งได้ สามารถใช้กับทุกวัสดุที่มีความแข็งไม่เกิน 52HRC



Standard E140HX

Dc 0 -0.02	Lc mm	L mm	Shank h6
1.0	3	50	4
1.5	5	50	4
2.0	6	50	4
2.5	8	50	4
3.0A	8	50	4
4.0A	11	50	4
3.0	8	50	6
4.0	11	50	6
5.0	13	50	6
6.0	16	50	6
8.0	20	60	8
10.0	22	72	10
12.0	26	75	12
16.0	38	100	16
20.0	38	100	20



รุ่นคมยาว Long edge E141-4.0HX

Dc 0 -0.02	Lc mm	L mm	Shank h6
3	12	50	6
4	16	50	6
5	20	55	6
6	24	60	6
8	32	90	8
10	40	100	10
12	48	110	12
16	64	140	16
20	80	160	20



รุ่นคมยาว Long edge E141-5.0HX

Dc 0 -0.02	Lc mm	L mm	Shank h6
3	15	55	6
4	20	60	6
5	25	65	6
6	30	75	6
8	40	90	8
10	50	100	10
12	60	110	12
16	80	160	16
20	100	200	20



รุ่นยาวพิเศษ Long edge E144-6.0X

Dc 0 -0.02	Lc mm	L mm	Shank h6
6	36	80	6
8	48	100	8
10	60	110	10
12	72	120	12
16	96	160	16
20	120	200	20

Aluminium and composite เอ็นมิลงานอลูมิเนียม และ คอมโพสิต

3F Endmill ALU รุ่นแนะนำ

เอ็นมิล 3ฟัน งานอลูมิเนียม



Standard รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc คนตัด	L ยาว	Shank ก้าน	E143 ALU
3.0	8	50	6	886
4.0	11	50	6	856
5.0	13	50	6	886
6.0	16	50	6	886
8.0	20	60	8	1482
10.0	22	72	10	2197
12.0	26	75	12	3167
16.0	38	100	16	6130
20.0	38	100	20	10575



1F Endmill ALU

เอ็นมิล 1ฟัน งานอลูมิเนียม



Standard รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc คนตัด	L ยาว	Shank ก้าน	E195R/L ALU
4.0	15	50	4	802
6.0	18	50	6	1145
8.0	22	60	8	1175
10.0	30	72	10	2863
12.0	30	75	12	3893



Router for Composite

ดอกกัดสำหรับ CRP,CFRP,POM,PEEK



Standard รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc คนตัด	L ยาว	Shank ก้าน	E191 CFRP
6.0	18	50	6	1603
8.0	22	60	8	2290
10.0	30	72	10	3149
12.0	30	75	12	4122



รุ่นคมยาว Long edge E143-5.0

6	30	75	6	1771
8	40	90	8	2933
10	50	100	10	3819
12	60	110	12	5258
16	80	160	16	16935
20	100	200	20	26288

Super finishing ALU

เอ็นมิลเก็บละเอียด งานอลูมิเนียม



Standard รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc คนตัด	L ยาว	Shank ก้าน	E194 ALU
6.0	13	50	6	1090
8.0	19	60	8	1750
10.0	22	72	10	2750
12.0	26	75	12	3890



Router for Composite

ดอกกัดสำหรับ CRP CFRP POM PEEK



Standard รหัสสินค้า / ราคา

Dia. +0/-0.02	Lc คนตัด	L ยาว	Shank ก้าน	E19x CFRP
3.0	12	38	3	744
4.0	15	50	4	973
6.0	18	50	6	1374
8.0	22	60	8	2004
10.0	30	72	10	2805
12.0	30	75	12	3779



X - Series endmill

ดอกเอ็นมิลคาร์ไบด์รุ่น X

ให้ความเที่ยงตรงสูง Tolerance 0/-0.02mm โค้ดตั้ง Multi-layer AlTiN X
ให้ผิวงานดีมาก ใช้ได้ดีกับงานเหล็ก <52HRC สแตนเลส เหล็กหล่อ ทองแดง

2F Carbide endmill เอ็นมิลคาร์ไบด์ 2ฟัน <52HRC



Standard **E122X**

Dc ±0.02	Lc mm	L mm	Shank h6
0.1	0.3	50	4
0.2	0.5	50	4
0.3	0.8	50	4
0.4	1	50	4
0.5	1.2	50	4
0.6	1.5	50	4
0.7	1.8	50	4
0.8	2	50	4
0.9	2.5	50	4
1.0	3	50	4
1.5	5	50	4
2.0	6	50	4
2.5	8	50	4
3.0A	8	50	4
4.0A	11	50	4
3.0	8	50	6
3.5	10	50	6
4.0	11	50	6
4.5	11	50	6
5.0	13	50	6
5.5	13	50	6
6.0	16	60	6
6.5	16	60	8
7.0	20	60	8
7.5	20	60	8
8.0	20	60	8
8.5	20	72	10
9.0	22	72	10
9.5	22	72	10
10.0	22	72	10
11.0	26	75	12
12.0	26	75	12
13.0	32	90	16
14.0	32	90	16
15.0	32	90	16
16.0	38	100	16
17.0	38	100	20
18.0	38	100	20
19.0	38	100	20
20.0	38	100	20



4F Carbide endmill เอ็นมิลคาร์ไบด์ 4ฟัน <52HRC



Standard **E124X**

Dc ±0.02	Lc mm	L mm	Shank h6
1.0	3	50	4
1.5	5	50	4
2.0	6	50	4
2.5	8	50	4
3.0A	8	50	4
4.0A	11	50	4
3.0	8	50	6
3.5	10	50	6
4.0	11	50	6
4.5	11	50	6
5.0	13	50	6
5.5	13	50	6
6.0	16	60	6
6.5	16	60	8
7.0	20	60	8
7.5	20	60	8
8.0	20	60	8
8.5	20	72	10
9.0	22	72	10
9.5	22	72	10
10.0	22	72	10
11.0	26	75	12
12.0	26	75	12
13.0	32	90	16
14.0	32	90	16
15.0	32	90	16
16.0	38	100	16
17.0	38	100	20
18.0	38	100	20
19.0	39	100	20
20.0	38	100	20
INCH			
1/8	8	50	6
3/16	12	50	6
1/4	18	60	8
5/16	20	60	8
3/8	22	72	10
1/2	26	75	12
5/8	38	100	16
3/4	38	100	20



2F Carbide ballnose บอลโนสคาร์ไบด์ 2ฟัน <52HRC



Standard **B222X**

Dc ±0.02	R ±0.01	Lc mm	L mm	Shank h6
0.3	0.15R	0.6	50	4
0.4	0.20R	0.8	50	4
0.5	0.25R	1.0	50	4
0.6	0.30R	1.2	50	4
0.8	0.40R	1.6	50	4
1.0	0.50R	2	50	4
1.5	0.75R	3	50	4
2.0	1.00R	4	50	4
2.5	1.25R	5	50	4
3.0A	1.50R	6	50	4
4.0A	2.00R	8	50	4
3.0	1.50R	6	50	6
3.5	1.75R	8	50	6
4.0	2.00R	8	50	6
4.5	2.25R	10	50	6
5.0	2.50R	10	50	6
5.5	2.75R	12	50	6
6.0	3.00R	12	50	6
6.5	3.25R	14	60	8
7.0	3.50R	14	60	8
7.5	3.75R	14	60	8
8.0	4.00R	14	60	8
8.5	4.25R	18	72	10
9.0	4.50R	18	72	10
9.5	4.75R	18	72	10
10.0	5.00R	18	72	10
11.0	5.50R	22	75	12
12.0	6.00R	22	75	12
13.0	6.50R	26	90	16
14.0	7.00R	26	90	16
15.0	7.50R	30	90	16
16.0	8.00R	30	100	16
17.0	8.50R	34	100	20
18.0	9.00R	34	100	20
19.0	9.50R	38	100	20
20.0	10.0R	38	100	20



รูปร่าง
Long length

E125X

Dc ±0.02	Lc mm	L mm	Shank h6
3	12	70	6
4	15	70	6
5	20	80	6
6	20	80	6
8	25	100	8
10	30	100	10
12	35	110	12
14	40	120	16
16	50	140	16
20	55	160	20



รูปร่าง
Long length

E126X

Dc ±0.02	Lc mm	L mm	Shank h6
3	12	70	6
4	15	70	6
5	20	80	6
6	20	80	6
8	25	100	8
10	30	100	10
12	35	110	12
14	40	120	16
16	50	140	16
20	55	160	20



รูปร่าง
Long length

B232X

Dc ±0.02	R ±0.01	Lc mm	L mm	Shank h6
3.0	1.50R	6.0	70	6
4.0	2.00R	8.0	70	6
5.0	2.50R	10.0	80	6
6.0	3.00R	12.0	80	6
8.0	4.00R	14.0	100	8
10.0	5.00R	18.0	100	10
12.0	6.00R	22.0	110	12
14.0	7.00R	26.0	120	16
16.0	8.00R	30.0	140	16
20.0	10.00R	38.0	160	20



รูปร่างพิเศษ
Extra Long length

E127X

Dc ±0.02	Lc mm	L mm	Shank h6
3	12	80	4
4	15	80	4
5	20	100	6
6	20	100	6
8	25	130	8
10	30	160	10
12	35	180	12
16	50	210	16
20	55	210	20

รูปร่างพิเศษ
Extra Long length

E128X

Dc ±0.02	Lc mm	L mm	Shank h6
3	12	80	4
4	15	80	4
5	20	100	6
6	20	100	6
8	25	130	8
10	30	160	10
12	35	180	12
16	50	210	16
20	55	210	20

รูปร่างพิเศษ
Extra Long length

B242X

Dc ±0.02	R ±0.01	Lc mm	L mm	Shank h6
3.0	1.50R	6.0	80	4
4.0	2.00R	8.0	80	4
5.0	2.50R	10.0	100	6
6.0	3.00R	12.0	100	6
8.0	4.00R	14.0	130	8
10.0	5.00R	18.0	160	10
12.0	6.00R	22.0	180	12
16.0	8.00R	30.0	210	16
20.0	10.00R	38.0	210	20

รูปร่างพิเศษ
Extra Long length

B246X

4.0	2.00R	8.0	130	4
6.0	3.00R	12.0	160	6
8.0	4.00R	14.0	180	8
10.0	5.00R	18.0	200	10
12.0	6.00R	22.0	210	12

4F Roughing endmill
ดอกกัดหยาบคาร์ไบด์



Application:
Steel < 48HRC, Cast iron, Stainless

F608HX

Dc ±0.02	Lc mm	L mm	Z	Shank h6
6.0	16	57	3	6
8.0	20	63	3	8
10.0	22	72	4	10
12.0	26	83	4	12
16.0	32	92	4	16
20.0	38	104	4	20



รูปร่าง
Long length

F609HX

Dc ±0.02	Lc mm	L mm	Z	Shank h6
6.0	19	63	3	6
8.0	28	72	3	8
10.0	34	84	4	10
12.0	40	97	4	12
16.0	48	108	4	16
20.0	56	122	4	20

Chamfer endmill
ดอกกัดเซมเฟอร์ 45 องศา



Application:
All materials grade

E107X E109X

Dc ±0.02	Lc mm	L mm	d h6
3	6	50	3
4	8	50	4
6	12	50	6
8	16	60	8
10	20	72	10
12	24	75	12



E-catalog

TX - Series endmill
ดอกเอ็นมิลคาร์ไบด์รุ่น TX

ผลิตจาก Submicron Carbide คมตัดแบบพิเศษ และโคกตั้ง ATISIN-TX ทนความร้อนได้สูงถึง 1200C
ให้อายุการใช้งานยาวนานในการกัดแบบแห้ง เหมาะกับงานเหล็ก Mold&Die ได้ถึง 68HRC และเหล็กหล่อ

2F Carbide endmill
เอ็นมิลคาร์ไบด์ 2ฟัน <62HRC



Standard **E162TX**

Dc 0-0.02	Lc mm	L mm	Shank h6
0.3	0.8	50	4
0.4	1.0	50	4
0.5	1.2	50	4
0.6	1.5	50	4
0.8	2.0	50	4
1.0	3	50	4
1.5	5	50	4
2.0	6	50	4
2.5	8	50	4
3.0A	8	50	4
4.0A	11	50	4
3.0	8	50	6
4.0	11	50	6
5.0	13	50	6
6.0	16	50	6
8.0	20	60	8
10.0	22	72	10
12.0	26	75	12
14.0	32	90	16
16.0	38	100	16
20.0	38	100	20



4F Carbide endmill
เอ็นมิลคาร์ไบด์ 4ฟัน<62HRC



Standard **E164TX**

Dc 0-0.02	Lc mm	L mm	Shank h6
1.0	3	50	4
1.5	5	50	4
2.0	6	50	4
2.5	8	50	4
3.0A	8	50	4
4.0A	11	50	4
3.0	8	50	6
4.0	11	50	6
5.0	13	50	6
6.0	16	50	6
8.0	20	60	8
10.0	22	72	10
12.0	26	75	12
14.0	32	90	16
16.0	38	100	16
20.0	38	100	20



<SMicron Radius tolerance
2F Carbide ballnose
บอลนึสคาร์ไบด์ 2ฟัน<65HRC



Standard **B262TX**

Dc 0-0.02	R ±0.01	Lc mm	L mm	Shank h6
0.3	0.15R	0.6	50	4
0.4	0.2R	0.8	50	4
0.5	0.25R	1	50	4
1.0	0.50R	2.0	50	4
1.5	0.75R	3.0	50	4
2.0	1.00R	4.0	50	4
2.5	1.25R	5.0	50	4
3.0A	1.50R	6.0	50	4
3.0B	1.50R	6.0	50	3
4.0A	2.00R	8.0	50	4
3.0	1.50R	6.0	50	6
4.0	2.00R	8.0	50	6
5.0	2.50R	10.0	50	6
6.0	3.00R	12.0	50	6
7.0	3.50R	14.0	60	8
8.0	4.00R	14.0	60	8
9.0	4.50R	18.0	72	10
10.0	5.00R	18.0	72	10
12.0	6.00R	22.0	75	12
16.0	8.00R	30.0	100	16
20.0	10.00R	38.0	100	20



รุ่นยาว
Long length **E163TX**

Dc 0-0.02	Lc mm	L mm	Shank h6
3	12	70	6
4	15	70	6
5	20	80	6
6	20	80	6
8	25	100	8
10	30	100	10
12	35	110	12
14	40	120	16
16	50	140	16
20	55	160	20



รุ่นยาว
Long length **E165TX**

Dc 0-0.02	Lc mm	L mm	Shank h6
3	12	70	6
4	15	70	6
5	20	80	6
6	20	80	6
8	25	100	8
10	30	100	10
12	35	110	12
14	40	120	16
16	50	140	16
20	55	160	20



รุ่นยาว
Long length **B263TX**

Dc 0-0.02	R ±0.01	Lc mm	L mm	Shank h6
1.0	0.50R	2	50	6
1.5	0.75R	3	50	6
2.0	1.00R	4	60	6
2.5	1.25R	5	80	6
3.0	1.50R	6	70	6
4.0	2.00R	8	70	6
5.0	2.50R	10	80	6
6.0	3.00R	12	80	6
8.0	4.00R	14	100	8
10.0	5.00R	18	100	10
12.0	6.00R	22	110	12
14.0	7.00R	26	120	16
16.0	8.00R	30	140	16
20.0	10.00R	38	160	20



6 Flutes Finishing endmill
เอ็นมิลคาร์ไบด์ 4ฟัน 40-70HRC



Standard **E166TX**

Dc 0-0.02	Lc mm	L mm	d h6	NO.of Flute
3	8	50	6	4
4	11	50	6	4
5	13	50	6	6
6	16	50	6	6
8	20	60	8	6
10	22	72	10	6
12	26	75	12	6
16	38	100	16	6
20	38	100	20	6



รุ่นยาว
Long length **E167TX**

Dc 0-0.02	Lc mm	L mm	d h6	NO.of Flute
6	26	80	6	6
8	36	100	8	6
10	46	100	10	6
12	56	110	12	6
16	66	140	16	6
20	76	160	20	6



รุ่นยาวพิเศษ
Extra Long length **B264TX**

Dc 0-0.02	R ±0.01	Lc mm	L mm	Shank h6
3	1.5R	6	80	4
4	2.0R	8	80	4
5	2.5R	10	100	6
6	3.0R	12	100	6
8	4.0R	14	130	8
10	5.0R	18	160	10
12	6.0R	22	180	12
16	8.0R	30	210	16
20	10.0R	38	210	20

2F long neck endmill
ดอกเอ็นมิลคอยาว 2ฟัน



Application
Steel up to 65HRC / Copper



Dia. Ø	L1	Lc	L	Shank ก้าน	F692TX 65HRC
0.3	2	0.45	50	4	1650
0.3	3	0.45	50	4	1650
0.4	2	0.6	50	4	1390
0.4	4	0.6	50	4	1390
0.5	2	0.7	50	4	1050
0.5	4	0.7	50	4	1050
0.5	6	0.7	50	4	1050
0.5	8	0.7	50	4	1050
0.5	10	0.7	50	4	1050
0.6	4	0.9	50	4	1050
0.6	6	0.9	50	4	1050
0.8	4	1.2	50	4	1050
0.8	6	1.2	50	4	1050
1.0	4	1.5	50	4	825
1.0	6	1.5	50	4	825
1.0	8	1.5	50	4	825
1.0	10	1.5	50	4	825
1.0	12	1.5	50	4	825
1.0	16	1.5	50	4	825
1.0	20	1.5	50	4	988
1.5	6	2.3	50	4	825
1.5	8	2.3	50	4	825
1.5	10	2.3	50	4	825
1.5	12	2.3	50	4	825
1.5	16	2.3	50	4	825
1.5	20	2.3	50	4	1050
2.0	6	3.0	50	4	825
2.0	8	3.0	50	4	825
2.0	10	3.0	50	4	825
2.0	12	3.0	50	4	825
2.0	16	3.0	50	4	825
2.0	20	3.0	60	4	1050
2.0	25	3.0	60	4	1050
2.0	30	3.0	70	4	1150
3.0	8	4.5	50	6	1150
3.0	10	4.5	50	6	1150
3.0	12	4.5	50	6	1150
3.0	16	4.5	60	6	1240
3.0	20	4.5	60	6	1240
3.0	25	4.5	70	6	1380
3.0	30	4.5	70	6	1380
3.0	35	4.5	80	6	1590
4.0	12	6.0	60	6	1230
4.0	16	6.0	60	6	1230
4.0	20	6.0	70	6	1320
4.0	25	6.0	70	6	1380
4.0	30	6.0	80	6	1580
4.0	35	6.0	80	6	1580
4.0	40	6.0	90	6	1870
4.0	45	6.0	100	6	2190
4.0	50	6.0	100	6	2190

**ขนาดอื่น ๆ นอกจากรายการสอบถามเพิ่มเติม

2F long neck ballnose
ดอกบอลโนคอยาว 2ฟัน



5 Micron Radius tolerance

Application
Steel up to 65HRC / Copper



R	L1	Lc	L	Shank ก้าน	F695TX 65HRC
0.15R	2	0.24	50	4	1850
0.15R	3	0.24	50	4	1850
0.2R	2	0.30	50	4	1660
0.2R	4	0.30	50	4	1660
0.25R	4	0.4	50	4	1290
0.25R	6	0.4	50	4	1290
0.25R	8	0.4	50	4	1290
0.3R	4	0.5	50	4	1290
0.3R	6	0.5	50	4	1290
0.3R	8	0.5	50	4	1290
0.4R	4	0.6	50	4	1290
0.4R	6	0.6	50	4	1290
0.4R	8	0.6	50	4	1290
0.4R	10	0.6	50	4	1290
0.5R	4	0.8	50	4	990
0.5R	6	0.8	50	4	990
0.5R	8	0.8	50	4	990
0.5R	10	0.8	50	4	990
0.5R	12	0.8	50	4	990
0.5R	16	0.8	50	4	1100
0.5R	20	0.8	50	4	1100
0.75R	6	1.2	50	4	990
0.75R	8	1.2	50	4	990
0.75R	10	1.2	50	4	990
0.75R	12	1.2	50	4	990
0.75R	16	1.2	50	4	990
0.75R	20	1.2	50	4	1100
1.0R	6	1.6	50	4	990
1.0R	8	1.6	50	4	990
1.0R	10	1.6	50	4	990
1.0R	12	1.6	50	4	990
1.0R	16	1.6	50	4	990
1.0R	20	1.6	60	4	1100
1.0R	25	1.6	60	4	1100
1.0R	30	1.6	70	4	1190
1.5R	8	2.4	50	6	1390
1.5R	10	2.4	50	6	1390
1.5R	12	2.4	50	6	1390
1.5R	16	2.4	60	6	1490
1.5R	20	2.4	60	6	1490
1.5R	25	2.4	70	6	1690
1.5R	30	2.4	70	6	1690
1.5R	35	2.4	80	6	1790
2.0R	8	3.2	60	6	1490
2.0R	10	3.2	60	6	1490
2.0R	12	3.2	60	6	1490
2.0R	16	3.2	60	6	1490
2.0R	20	3.2	70	6	1690
2.0R	25	3.2	70	6	1690
2.0R	30	3.2	80	6	1890
2.0R	35	3.2	80	6	1890
2.0R	40	3.2	90	6	2150

**ขนาดอื่น ๆ นอกจากรายการสอบถามเพิ่มเติม

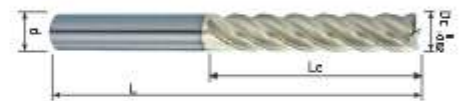
New innovation 2022

5 Flutes Endmills
ดอกกัดสแตนเลส ไทเทเนียม



E234SX

Dc 0-0.02	Lc mm	L mm	d h6	E234SX AITIX+ZrN
3	8	50	6	T120
4	11	50	6	T120
6	13	50	6	1100
8	16	60	8	1900
10	20	72	10	2790
12	25	75	12	3690



E234-5.0SX

Dc 0-0.02	Lc mm	L mm	d h6	E234-5.0SX AITIX+ZrN
6	30	75	6	2190
8	40	90	8	3990
10	50	100	10	5900
12	60	100	12	7900

4F slim shank endmills
ดอก 4ฟัน แบบก้านลด ยาวพิเศษ



E149HX

Dc 0-0.02	Lc mm	L mm	d h6	E149HX AITIX HX
6	9	120	6	2990
8	12	135	6	3480
10	15	150	8	4300
12	18	160	10	7150
14	21	160	12	8850
16	24	180	14	10300
18	27	180	16	14500
20	30	200	18	16500
22	33	200	20	19500



E-catalog

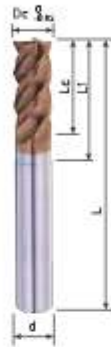
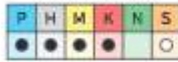
TX - Hyper series endmill

ดอกเอ็นมิลคาร์ไบด์รุ่น Hyper TX

รองรับการทำงานบน Cutting condition สูงได้ยาวนานกว่ากลุ่ม
Tolerance Radius 5-ระดับ 0.003mm เหมาะกับงาน High precision สูงสุด

TX Hard - Flat endmills

Work Material



4 Flutes Endmill <56HRC

Variable helix design with large chip pocket

F517TX

Dc 0 -0.02	Lc mm	L1 mm	L mm	d h6	AITISIN E158TX
3	8	14	57	6	890
4	11	16	57	6	890
5	13	18	57	6	890
6	16	20	57	6	890
8	19	26	63	8	1490
10	22	31	72	10	2290
12	26	37	83	12	3390
16	32	43	92	16	5790
20	38	53	104	20	9990

Long edge

F518TX



Dc 0 -0.02	Lc mm	L1 mm	L mm	d h6	AITISIN E159TX
6	19	26	63	6	1250
8	28	35	72	8	1740
10	34	43	84	10	2480
12	40	51	97	12	3770
16	48	59	108	16	6150
20	56	71	122	20	11200

Work Material



4 Flutes Endmill <68HRC

45 deg. helix design with large core diameter

E158TX

Dc 0 -0.02	Lc mm	L mm	d h6	AITISIN E158TX
1	3	50	4	620
1.5	5	50	4	620
2	6	50	4	620
2.5	8	50	4	620
3A	8	50	4	620
4A	11	50	4	620
3	8	50	6	890
4	11	50	6	890
5	13	50	6	890
6	16	50	6	890
8	20	60	8	1630
10	22	72	10	2430
12	26	75	12	3190
16	38	100	16	6390
20	38	100	20	12290

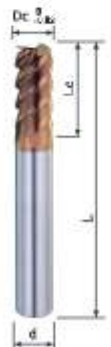
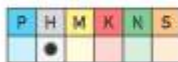
Long length

E159TX



Dc 0 -0.02	Lc mm	L mm	d h6	AITISIN E159TX
3	12	70	6	1290
4	15	70	6	1290
5	20	80	6	1380
6	20	80	6	1380
8	25	100	8	2480
10	30	100	10	3550
12	40	110	12	4650
16	50	140	16	12500
20	60	160	20	17900

Work Material



4 Flutes Endmill 40-70HRC

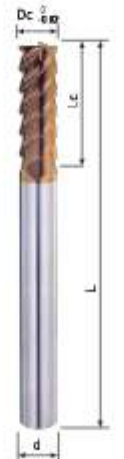
55 deg. helix design with ultra strong flute

E168TX

Dc 0 -0.02	Lc mm	L mm	d h6	AITISIN E168TX
3	8	50	6	1120
4	11	50	6	1120
5	13	50	6	1120
6	16	50	6	1120
8	20	60	8	1940
10	22	72	10	3050
12	26	75	12	3990
16	38	100	16	7440
20	38	100	20	11750

Long length

E169TX



Dc 0 -0.02	Lc mm	L mm	d h6	AITISIN E169TX
6	20	80	6	1780
8	25	100	8	2790
10	30	100	10	4230
12	40	110	12	5290
16	50	140	16	13490
20	60	160	20	19200



E-catalog

TX Hard - Corner radius endmills

Work Material

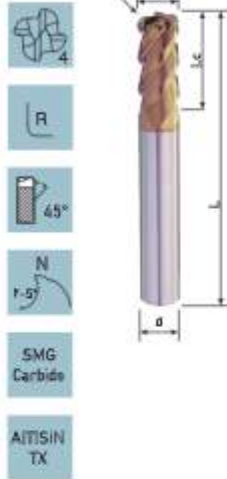


4 Flutes Bullnose <70HRC

High radius accuracy , for HSC on 3D profile

B286TX

Dc	R	Lc	L	d	AITISIN
0	+0.01	mm	mm	h6	B286TX
1	R0.2	3	50	4	1000
1.5	R0.2	5	50	4	1000
2	R0.2	6	50	4	1000
2	R0.5	6	50	4	1000
2.5	R0.2	8	50	4	1000
3A	R0.2	8	50	4	1000
3A	R0.5	8	50	4	1000
4A	R0.2	11	50	4	1000
4A	R0.5	11	50	4	1000
4A	R1	11	50	4	1000
3	R0.2	8	50	6	1120
3	R0.5	8	50	6	1120
4	R0.2	11	50	6	1120
4	R0.5	11	50	6	1120
4	R1	11	50	6	1120
5	R0.2	13	50	6	1120
5	R0.5	13	50	6	1120
5	R1	13	50	6	1120
6	R0.2	16	50	6	1120
6	R0.3	16	50	6	1120
6	R0.5	16	50	6	1120
6	R1	16	50	6	1120
8	R0.2	20	60	8	1990
8	R0.3	20	60	8	1990
8	R0.5	20	60	8	1990
8	R1	20	60	8	1990
8	R2	20	60	8	1990
10	R0.2	22	72	10	2950
10	R0.3	22	72	10	2950
10	R0.5	22	72	10	2950
10	R1	22	72	10	2950
10	R2	22	72	10	2950
10	R3	22	72	10	2950
12	R0.5	26	75	12	3950
12	R1	26	75	12	3950
12	R2	26	75	12	3950
12	R3	26	75	12	3950
16	R1	38	100	16	7990
16	R2	38	100	16	7990
16	R3	38	100	16	7990
20	R1	38	100	20	12500
20	R2	38	100	20	12500
20	R3	38	100	20	12500

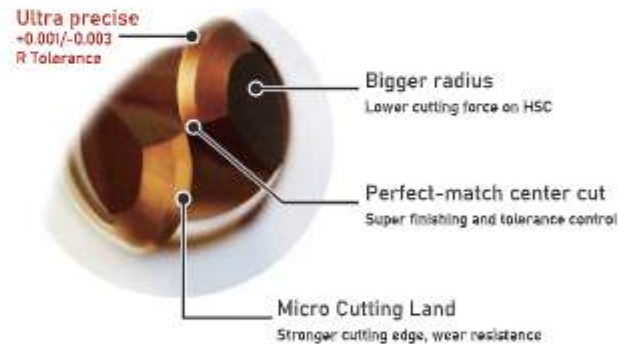
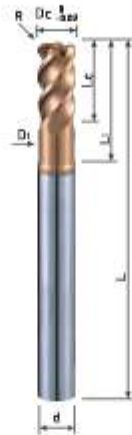


4 Flutes HPC Bullnose <70HRC

Hi-performance design for HSC/HPC

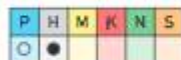
B277TX

Dc	R	Lc	L	d	L1	D1	AITISIN
0	+0.01	mm	mm	h6	mm	mm	B277TX
6	R0.2	9	80	6	18	5.7	1630
6	R0.5	9	80	6	18	5.7	1630
6	R1	9	80	6	18	5.7	1630
6	R1.5	9	80	6	18	5.7	1630
8	R0.2	12	100	8	24	7.6	2900
8	R0.5	12	100	8	24	7.6	2900
8	R1	12	100	8	24	7.6	2900
8	R2	12	100	8	24	7.6	2900
10	R0.2	15	100	10	30	9.5	3850
10	R0.5	15	100	10	30	9.5	3850
10	R1	15	100	10	30	9.5	3850
10	R2	15	100	10	30	9.5	3850
12	R0.2	18	110	12	36	11.4	5150
12	R0.5	18	110	12	36	11.4	5150
12	R1	18	110	12	36	11.4	5150
12	R2	18	110	12	36	11.4	5150
16	R0.5	24	140	16	48	15.2	13500
16	R1	24	140	16	48	15.2	13500
16	R2	24	140	16	48	15.2	13500
16	R3	24	140	16	48	15.2	13500
20	R0.5	30	160	20	60	19	20700
20	R1	30	160	20	60	19	20700
20	R2	30	160	20	60	19	20700
20	R3	30	160	20	60	19	20700



TX Hard - Ultra precision ballnose

Work Material

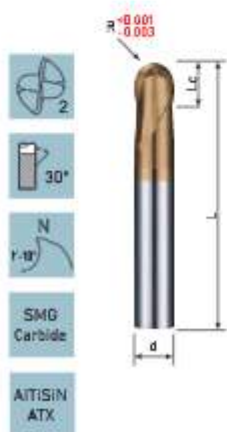


2 Flutes Ballnose <70HRC

<0.003mm R tolerance , Excellent finishing

B272ATX

Dc	R	Lc	L	d	AITISIN
0	+0.001	mm	mm	h5	B272ATX
0.1	0.05R	0.1	40	4	2850
0.2	0.1R	0.2	40	4	2290
0.3	0.15R	0.3	40	4	1930
0.4	0.2R	0.4	40	4	1930
0.5	0.25R	0.5	40	4	1630
0.6	0.3R	0.6	40	4	1630
0.8	0.3R	0.8	40	4	1630
1	0.5R	1	40	4	1150
1.5	0.75R	1.5	40	4	1150
2	1R	2	45	6	1280
2.5	1.25R	2.5	45	6	1280
3	1.5R	3	45	6	1280
4	2R	4	45	6	1280
5	2.5R	5	50	6	1340
6	3R	6	50	6	1340
8	4R	8	60	8	2350
10	5R	10	72	10	3650
12	6R	12	75	12	4900

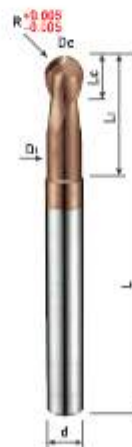


2 Flutes S-Ballnose <70HRC

S-Curve center cut design for HSC/HPC

F626TX

Dc	R	Lc	L1	L	d1	d	AITISIN
0	+0.005	mm	mm	mm	Neck	h5	F626TX
3	1.5R	4	9	70	2.8	6	1960
4	2R	5	12	70	3.7	6	1960
5	2.5R	6	15	80	4.6	6	2100
6	3R	7	20	80	5.5	6	2100
8	4R	9	26	100	7.4	8	2890
10	5R	11	31	100	9.2	10	4450
12	6R	13	37	110	11.0	12	6980



Helical chamfer mills 90deg

					Code No. E121HX-Dc	
Dc 0 -0.02	D1 mm	Lc mm	L mm	d h6	Uncoat E121	AlTiCrN E121HX
2	0.2	0.9	38	3	820	890
3	0.3	1.35	38	3	820	890
4	0.4	1.8	50	4	1040	1130
5	0.5	2.25	50	6	1240	1350
6	0.6	2.7	50	6	1240	1350
8	0.8	3.6	60	8	1730	1850
10	1	4.5	72	10	2250	2450
12	1.2	5.4	75	12	2590	2790
16	1.6	7.2	90	16	5250	5590
20	2	9	100	20	7990	8590

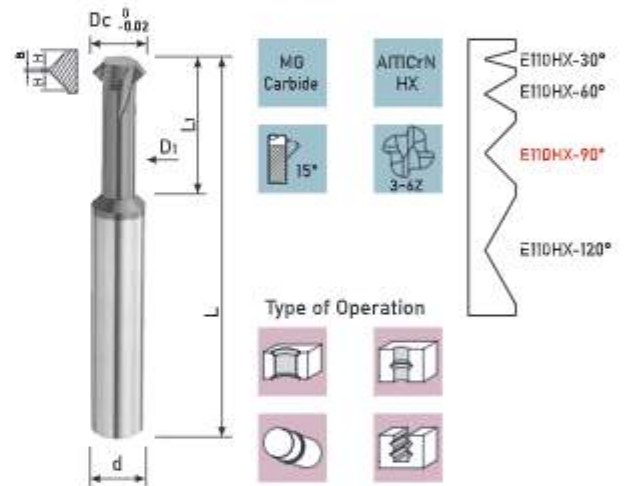
รุ่นยาว E123HX สอบถามเพิ่มเติม



Front and Back chamfer mill 30/60/90/120deg

									Code No. E110HX-90°-Dc	
Dc 0 -0.02	H mm	B mm	L mm	d h6	L1 mm	D1 mm	Z t	AlTiCrN E110HX-90°		
1	0.3	0.05	38	3	2.5	0.4	3	1384		
1.5	0.4	0.08	38	3	3.8	0.7	3	1384		
2	0.5	0.1	38	3	5	1	3	1384		
2.5	0.6	0.15	38	3	6.3	1.3	3	1384		
3	0.7	0.2	38	3	7.5	1.6	3	1384		
3.5	0.8	0.2	50	4	8.8	1.9	3	1439		
4	0.9	0.2	50	4	10	2.2	3	1439		
4.5	1.1	0.2	50	5	11.3	2.3	3	1826		
5	1.2	0.2	50	5	12.5	2.6	3	1826		
5.5	1.3	0.2	50	6	13.8	2.9	3	1937		
6	1.6	0.2	50	6	15	3.1	3	1937		
8	1.7	0.2	60	8	20	4.6	4	2657		
10	1.9	0.2	72	10	25	6.2	5	3653		
12	2.2	0.2	75	12	30	7.6	6	4206		

รุ่นยาว E120HX สอบถามเพิ่มเติม



SOLID CBN
<72HRC



JJ TOOLS
Korea

**+15,000
ITEMS**

Ex-stock



E-catalog



Economy endmill

4F Endmill Carbide

เอ็นมิลคาร์ไบด์ 4ฟัน <55HRC

Standard

4TTE



Dia. mm	Lc mm	L mm	Shank h6	Price 55HRC
1.0	3	50	4	200
2.0	6	50	4	200
3.0	8	50	4	200
4.0	10	50	4	200
6.0	15	50	6	330
8.0	20	60	8	580
10.0	25	75	10	980
12.0	30	75	12	1320
16.0	45	100	16	3240



Extra long ตัวยาวพิเศษ

Dia. mm	Lc mm	L mm	Shank h6	Price 55HRC
4.0	20	100	4	490
6.0	30	100	6	680
6.0	40	150	6	1190
8.0	35	100	8	990
8.0	50	150	8	1690
10.0	40	100	10	1390
10.0	50	150	10	2590
12.0	45	100	12	1890
12.0	55	150	12	3090
16.0	60	150	16	4990

Side milling finisher 30Helix

10.0	50	100	10	2290
12.0	55	100	12	2790



Ballnose Carbide

หัวบอลคาร์ไบด์ 2ฟัน <55HRC

Standard

2TTB



Dia. mm	Lc mm	L mm	Shank h6	Price 55HRC
1.0	3	50	4	220
2.0	4	50	4	220
3.0	6	50	4	220
4.0	8	50	4	220
6.0	12	50	6	380
8.0	16	60	8	650
10.0	20	75	10	1100
12.0	24	75	12	1480



Extra long ตัวยาวพิเศษ

Dia. mm	Lc mm	L mm	Shank h6	Price 55HRC
4.0	8	100	4	520
6.0	12	100	6	680
6.0	12	150	6	1190
8.0	16	100	8	1050
8.0	16	150	8	1750
10.0	20	100	10	1490
10.0	20	150	10	2690
10.0	20	210	10	3890
12.0	24	100	12	1990
12.0	24	150	12	3150
16.0	32	150	16	4990



3F Endmill for Aluminum

เอ็นมิลคาร์ไบด์ 3ฟัน

Standard

3TTA



Dia. mm	Lc mm	L mm	Shank h6	Price No coat	Price DLC
1.0	3	50	4	200	
2.0	6	50	4	200	
3.0	8	50	4	200	
4.0	10(12)	50	4	200	390
6.0	15(18)	50	6	330	550
8.0	20(24)	60	8	580	980
10.0	25(30)	75	10	980	1490
12.0	30(35)	75	12	1320	1870



Long edge กบดยาว

Dia. mm	Lc mm	L mm	Shank h6	Price
4.0	20	100	4	520
6.0	30	100	6	680
8.0	40	100	8	1100
10.0	40	100	10	1490
12.0	45	100	12	1990
16.0	60	150	16	5290

DLC coating

4.0	16	100	4	850
5.0	24	100	6	1090
8.0	32	100	8	1690
8.0	32	150	8	2390
10.0	40	100	10	2390
10.0	40	150	10	3290



Roughing endmill

เอ็นมิลกัดหยาบ 4ฟัน Steel

เอ็นมิลกัดหยาบ 3ฟัน Aluminium

Standard

3/4TTR



Dia. mm	Lc mm	L mm	Shank h6	Price 3F-Alu Uncoat	Price 4F-TiAlN
6.0	18 15	50	6.0	750	750
8.0	24 20	60	8.0	1190	1190
10.0	30 25	75	10.0	1750	1750
12.0	36 30	75	12.0	2150	2150

Ballnose long neck - Rib

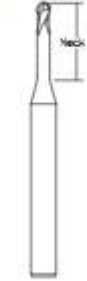
เอ็นมิลบอล คอยาว <55HRC

A Coating - Steel <55HRC

B No coat - Aluminium/Copper

Standard

2TBR



Dia. x Neck mm	L mm	Shank h6	Price T15N/AlN No Coat
R0.5 x 6	50	4	520
R0.5 x 8	50	4	520
R0.5 x 10	50	4	520
R0.75 x 8	50	4	520
R0.75 x 10	50	4	520
R0.75 x 12	50	4	520
R1.0 x 10	50	4	520
R1.0 x 12	50	4	520
R1.0 x 16	50	4	520
R1.5 x 12	50	4	520
R1.5 x 16	50	4	520
R1.5 x 20	50	4	520

Ballnose for Aluminum

หัวบอลคาร์ไบด์ 2ฟัน

Long edge กบดยาว

2TBA



Dia. mm	Lc mm	L mm	Shank h6	Price
4.0	25	75	4	690
6.0	35	100	6	1190
8.0	40	100	8	1790
10.0	45	100	10	2490

DLC coating

6.0	12	100	6	1190
8.0	16	100	8	1690
10.0	20	100	10	2490



Carbide thread milling

ดอกกัดเกลียวคาร์ไบด์

STM

Pitch Metric	Pitch Range	D mm	L1 mm	L mm	Price
M2x0.4	-	4	4.5	50	1350
M2.5x0.45	-	4	5.5	50	1350
M3x0.5	-	4	6.5	50	1350
M4x0.7	0.5-0.8	4	10	50	1350
M5x0.8	0.6-1.0	4	12	50	1350
M6x1.0	0.5-1.0	6	15	50	1800
M8x1.25	0.8-1.25	6	20	60	1990
M10x1.5	0.8-1.5	8	25	60	2790
M12x1.75	1.5-2.0	10	30	75	3900
M14x2.0	1.25-2.0	10	28	75	3900
M16x2.0	1.0-5.0	12	30	83	5200

* รุ่น 3 ร่องสอนงานพิเศษ



1F Engraving cutter

ดอกแกะตัวหนังสือ

A1STE

Dia. X Deg	Lc mm	L mm	Shank h6	Price No coat T15N
0.1X20	7	40	4	550 890
0.1X30	7	40	4	550 890
0.2X20	7	40	4	550 890
0.2X30	7	40	4	550 890



4F Finishing endmill

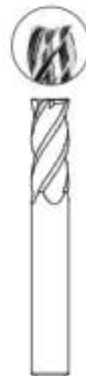
เซอร์เมท เอ็นมิล 4ฟัน

Standard

4TTC

Dia. mm	Lc mm	L mm	Shank h6	Price
6.0	15	50	6	1190
8.0	20	60	8	1890
10.0	25	75	10	2890
12.0	30	75	12	3590

■ Cermet grade สำหรับงาน Hard Steel Heat resistance material กัดได้เร็วกว่า Carbide 2-3 เท่า ให้ผิวดีกว่า



HSS Co Endmill

OSL - SKL - SZ

High speed cobalt 8% endmill

4F HSS Co Roughing endmill

ดอกเอ็นมิลไฮสปีด 4ฟัน กัดหยาบ

รุ่น Standard OSL/SZ

Dia. mm	Lc มม.	L ยาว	Shank ก้าน	S334/S336 S334C/S336C	
				Uncoat	Ti(C)N
6	15	60	6	550	620
8	20	65	8	670	790
10	25	75	10	750	890
12	30	80	12	920	1070
14	35	90	12	1370	1490
16	40	95	16	1490	1690
18	40	105	16	1880	2130
20	45	110	20	1950	2180
22	45	110	20	3100	3400
25	50	120	25	3300	3600
30	55	140	25	5500	6300
32	60	145	32	7200	7900



NR
Uncoat
Ti(C)N

รุ่นยาว Long

OSL

Dia. mm	Lc มม.	L ยาว	Shank ก้าน	S335 S335C	
				Uncoat	Ti(C)N
10	45	100	10	1000	1150
12	53	110	12	1220	1380
14	53	110	12	1790	2050
16	63	125	16	1890	2150
18	63	125	16	2180	2490
20	75	140	20	2590	2980
25	90	160	25	4490	5200
32	106	180	32	9100	10500

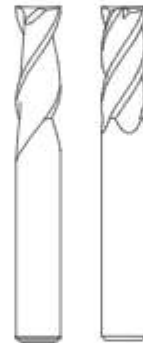


HSS Co endmill

ดอกเอ็นมิลไฮสปีด

รุ่น Standard OSL/SKL/SZ

Dia. mm	Lc มม.	L ยาว	Shank ก้าน	Uncoat Ti(C)N		
				2F	4F	4F
2.0	6	55	6	390	390	420
2.5	7	55	6	360	360	410
3.0	10	55	6	360	360	410
3.5	12	60	6	370	370	420
4.0	12	60	6	335	335	410
5.0	15	60	6	335	335	410
6.0	15	60	6	335	335	410
7.0	20	65	8	420	420	515
8.0	20	65	8	420	420	515
9.0	25	70	10	460	460	550
10.0	25	70	10	460	460	550
11.0	30	80	12	655	655	785
12.0	30	80	12	640	640	780
13.0	35	85	12	950	950	1140
14.0	35	90	12	1000	1000	1160
15.0	40	95	16	1050	1050	1290
16.0	40	95	16	1050	1050	1290
17.0	40	95	16	1390	1390	1650
18.0	40	95	16	1390	1390	1650
19.0	45	110	20	1420	1420	1720
20.0	45	110	20	1420	1420	1720
25.0	50	120	25	2150	2150	2490



รุ่นยาว Long

OSL/SKL

Dia. mm	Lc มม.	L ยาว	Shank ก้าน	Uncoat	
				4F	4F
6.0	25	70	6	450	450
8.0	35	85	8	520	520
10.0	45	100	10	630	630
12.0	55	115	12	950	950
16.0	65	130	16	1390	1390
18.0	65	130	20	1690	1690
20.0	75	145	20	1880	1880
25.0	90	165	25	2890	2890



HSS Countersink 90deg

ดอก Chamfer 90 องศา



Dia. mm	Min. Hole dia.	L ยาว	Shank ก้าน	Price	
				Uncoat	TIN coated
5.0	1.5	40	4	460	710
6.3	1.5	45	5	480	710
8.3	2.0	50	6	530	820
10.4	2.5	50	6	630	980
12.4	2.8	56	8	670	1070
16.5	3.2	60	10	820	1270
20.5	3.5	63	10	1120	1790
25	3.8	67	10	1540	2350



HSS Counterbore



























ดอกเคาะเตอร์บอร์



Size M	Lenght(L)	Pilot(d1)	Dia(D)	Flute	Shank(d)
M 3	65	3.2	6.5	4	6.0
M 4	75	4.3	8.0	4	8.0
M 5	85	5.3	9.5	4	8.0
M 6	90	6.4	11.0	4	10.0
M 8	100	8.4	14.0	4	12.0
M 10	110	10.5	17.5	4	12.0
M 12	120	13.0	20.0	4	12.0



Milling insert selection guide

	Cutter Dia.	Insert		Holder	Brand
Shoulder 90 เม็ดดอก	8-16mm	JDMT 0702 2μm		ASM07 ขนาดเล็กหนนเอ็นมิล 10-16mm	AKEN
	16-50mm	APMT1135 2μm		BAP300R เม็ด ISO ราคาต่ำ ใช้งานทั่วไป	CRM , AKEN , STEM
		LNMU1104 4μm		M4DR สันหุนต่อมุมต่ำ กัดงานได้หนัก	CRM
		ADMX 1204 2μm		A90.02 ให้ความฉากดีเยี่ยม Finishing ได้ ทนทาน	AKEN
		4PKT 0603 4μm New		0603 สันหุนต่อมุมต่ำ	STEM
	25-50mm	APMT1604 2μm		BAP400R เม็ด ISO ราคาต่ำ ใช้งานทั่วไป	CRM , AKEN
		ADMX 1705 2μm		A90.02 ให้ความฉากดีเยี่ยม Finishing ได้ ทนทาน	AKEN
	32-63mm	WNMU0606 6μm		MFWN สันหุนต่อมุมต่ำ	CRM
		WNGX 0604 6μm		A90.05 กัดงานได้หนัก ฉากดี tool life ยาวมาก	AKEN
	50-315mm	SOMX 1404 4μm		A90.04 ให้ความฉากดีสุด Finishing ได้	AKEN
		XNMX0805 6μm		A90.05 กัดงานได้หนัก ฉากดี tool life ยาวมาก	AKEN
		WNGX0806 6μm		MFXN สันหุนต่อมุมต่ำ	CRM
	Hi Feed เม็ดโฮฟิด	8-16mm	EDHT 0402 2μm		ASR ขนาดเล็กหนน Bullnose carbide
16-50mm		LNMU 0303 4μm		ENX03R ใช้งานทั่วไป สันหุนต่อมุมต่ำ โทลด์น้อย	CRM , STEM
		EPNW/MT0603 2μm		ASM02/ASR กัดเร็ว tool life ยาว	CRM , AKEN , STEM
25-63mm		SDKT 0935 4μm		CSDR กัดเหล็กแข็งพิเศษ สันหุนต่อมุมต่ำ	CRM
32-125mm		SDM(H)T1205 4μm		CSDR กัดเหล็กแข็งพิเศษ tool life ยาว	CRM , STEM
		XDM(G)T1205 4μm		ASR12 กัดเหล็กแข็งพิเศษ tool life ยาว	AKEN
		ASM1206 6μm		ASM03 เน้นงาน Parts งานงานได้เร็วที่สุด	AKEN
Facemill เม็ดปาก	50-250mm	SEKT1204 4μm 13T3		A45.02 เม็ด ISO โน้ตง ใช้งานทั่วไป	AKEN
		SNGX 1206 8μm		A88 หัวกัดนอกประสงค์ ใช้ปาก ใช้กัดได้ดี	AKEN
	50-315mm	SNMX 1205 8μm SNGX 1205		A45.03 ประสิทธิภาพสูงสุด มีเกรดให้เลือกเยอะ	AKEN
		ONHU0505 16μm		A45.03 มี Wiper เน้นงาน Finishing	AKEN
	63-315mm	ODMX0605 8μm		TOD06 ใช้งานนอกประสงค์ โทลด์เครื่องน้อย	AKEN
	50-125mm	ONMU 0504 16μm ONMU 0604		S42 ON หัวราคาไม่สูง เม็ดไม่แพง ใช้งานทั่วไป	CRM
		63-315mm	HNGX0906 12μm		S45 HN หัวราคาไม่สูง เม็ดไม่แพง ใช้งานทั่วไป



Any Cut

NEW PRODUCTS

Hyper Performance Grinding Insert

ASM04 Super performance

Multi function 3-in-1

สามารถใส่เม็ดได้ 3แบบ ในตัวอันเดียว
เม็ดไฮไฟด์ เม็ดกัดจาก และ เม็ดยูเรเนียม

Hi feed



LNGX0604
ZER-ML

Shoulder90



LNGX060408R-ML

Corner radius

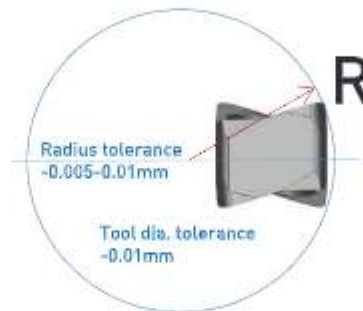


LNGX0604-
12R/20R/30R
-ML/MM

5Micron

Ultra precision tolerance

เม็ดเม็ดละเอียด คุณค่าพิกัด 5ไมครอน
สามารถใช้งาน Rough จนถึง Finishing ได้



Save cost & time

เม็ดเม็ดไฮไฟด์ 4μm หัวกัดใส่เม็ดได้
มากกว่าปกติ สามารถกัดด้วย
อัตราป้อนสูง (Fast Feed rate)

Double side
4 Cutting edge



Insert grade

- PM8225 - Steel / Stainless / Titanium
- PM8255 - Stainless / Inconel / Titanium
- MC4225 - Steel / Cast iron
- PM8012 - Hard steel / Cast iron

Holder: ASM04E

- Dia16x120 / 16x160 -2T
- Dia20x120 / 20x160 -3T
- Dia25x120 / 25x160 -4T
- Dia32x120 / 32x160 -5T
- Dia40x120 / 40x160 -5T

Capto PSC : ASM04C

- Dia40-C4-6T
- Dia50-C4-8T
- Dia63-C5-10T
- Dia80-C6-10T
- Dia100-C6-12T



Facemill: ASM04F

- Dia40-FMB16-6T
- Dia50-FMB22-8T
- Dia63-FMB22-10T
- Dia80-FMB27-10T

Screw type: ASM04M

- Dia16-M8-2T
- Dia20-M10-3T
- Dia25-M12-4T
- Dia32-M16-5T

A50-06 Super speed facemill

หัวกัดประสิทธิภาพสูง สำหรับงาน Mass production
ที่ต้องการลดเวลา เพิ่มความเร็ว และ ได้ผิวงานที่ขูดเนียน
เม็ดปัดใช้งานได้ 14μm ช่วยลดต้นทุน ใช้งานได้กับ
เหล็ก สแตนเลส เหล็กหล่อ และ โทเทเนียม



XNMU0605ZER-XM
MC4225 / PM8120 / PM8255
Ap0.3-3.0 / Fz0.1-0.25 R M S



XNMU0605ZEN-MM
MC4225 / KC1215 / PM8225
Ap0.3-3.0 / Fz0.15-0.4 R M S

Max Feed 2000mm/min

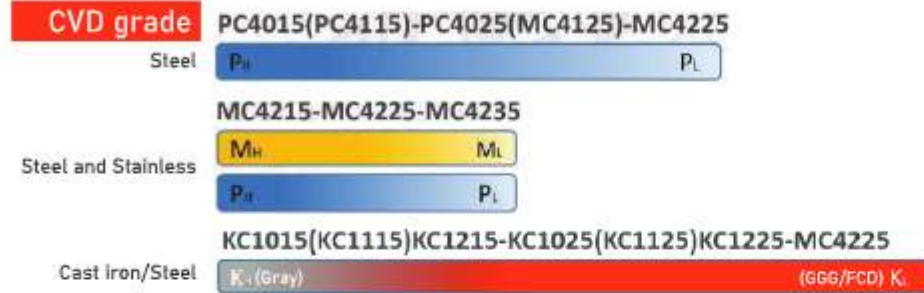
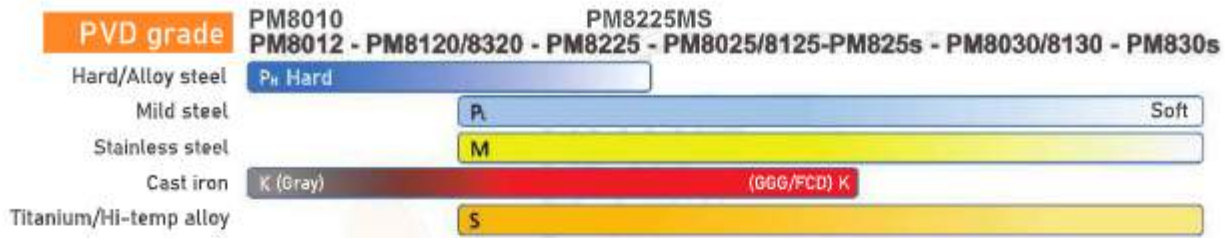
Capto PSC : A50C

- D32-C4H-3T
- D40-C4H-4T
- D50-C5H-5T
- D60-C6H-6T
- D80-C6M-6T
- D100-C80-8T

Facemill : A50-06

- D50-22M-4T
- D63-22M-4T
- D80-27M-5T
- D100-32M-6T
- D125-40M-7T
- D160-40M-10T

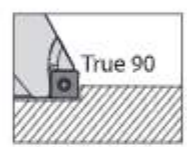
AKEN milling grade system ตารางแนะนำเกรด



Chip geometry
 (H) Heavy cut : XH / PH / KH
 (M) Medium cut : XM / PM / MM / TM
 (L) Finishing cut : XL / OL / NL / SM



Shoulder mill



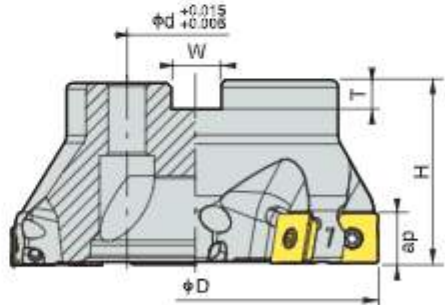
A90.04 90degree shoulder mill

Any Cut

- SOMX140408R-MM PM8025 ■ ■ Ap1.0-3.0
 - SOMX140408R-MM PM8225 ■ ■ Ap1.0-5.0
 - ★ SOMX140408R-MM PM8120 ■ ■ ■ Ap0.3-2.0
 - SOEX140408R-MM H101 ■ Ap0.2-6.0
- *140420 = R2



A90.04	Vc	Fz(mm)
■ P Steel < 36HRC	200-300	0.15-0.4
■ P Steel < 45HRC	160-300	0.15-0.4
■ M Stainless	80-120	0.1-0.25
■ K Gray cast iron	160-250	0.1-0.3
■ K Cast iron	150-200	0.1-0.3
■ N Non-Ferrous	600-1000	0.05-0.3

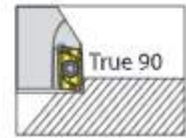


A90.04 Facemill

Order No.	Fig	Flute(T)		Dimension						Kg.	Shim	Insert	Screw	Wrench
		↺	↻	D	d	H	W	T	ap					
A90.04-14050-22-4T	A	4	---	50	22	50	10.4	6.3	12	0.3	---	---	---	---
A90.04-14063-22-5T	A	5	---	63	22	50	10.4	6.3	12	0.5	---	---	---	IP15F IP15
A90.04-14080-27-6T	B	6	---	80	27	50	12.4	7	12	0.94	---	---	---	---
A90.04-14100-32-7T	B	7	---	100	32	50	14.4	8	12	1.5	FMB-32-SHIM	80□X1404□DR	S35-20J-15/P (M8.5X12)	---
A90.04-14125-40-8T	C	8	---	125	40	63	16.4	9	12	1.9	FMB-40-SHIM	---	---	---
A90.04-14160-40-9T	C	9	---	160	40	63	16.4	9	12	2.9	FMB-40-SHIM	---	---	IP15PL IP15
A90.04-14200-60-12T	C	12	---	200	60	63	25.7	14	12	6.3	---	---	SPS	---
A90.04-14250-60-15T	D	15	---	250	60	63	25.7	14	12	6.3	---	---	---	---



Shoulder mill



A90.02 High performance shoulder mill

Any Cut

- 12 ADMX120408R(M)-MM PM8025 P M Ap1.0-5.0
- ★ ADMX120408R(M)-XM PM8225 P M K Ap1.0-3.0
- ADMX120408R(M)-MM PM8012 P M K Ap0.1-2.0
- ADEX120404R-NL H101 N Ap0.2-6.0
- 17 ADMX170508R(M)-XM PM8025 P M Ap1.0-5.0
- ★ ADMX170508R(M)-XM PM8225 P M K Ap1.0-3.0
- ADMX170508R(M)-XM PM8120 P M K Ap0.3-2.0

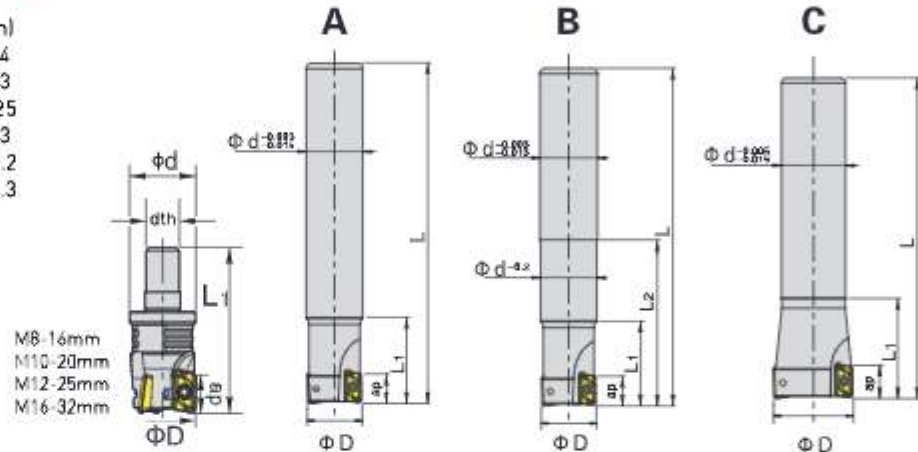
NEW Grade for Titanium / Inconel / Super alloy

ADMX120408RM-MM PM825s P M K

ADMX170508RM-MM PM825s P M K



A90.02	Vc	Fz(mm)
P Steel < 36HRC	200-300	0.1-0.4
P Steel < 45HRC	160-300	0.1-0.3
M Stainless	80-120	0.1-0.25
K Cast iron	160-250	0.1-0.3
K Hardened steel	80-150	0.05-0.2
N Non-Ferrous	600-1000	0.05-0.3



ADMX120408 Holder

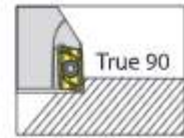
Order No.	Flute(T)	Fig	Dimension						Insert	Screw	Wrench
			D	d	L	L1	L2	ap			
A90.02-1210×120-C10-1T	1	A	10	10	120	30	—	10			
A90.02-1212×120-C12-1T	1	A	12	12	120	30	—	10			
A90.02-1216×120-C16-2T	2	A	18	16	120	40	—	10			
A90.02-1216×160-C16-2T	2	A	18	16	160	40	—	10			
A90.02-1220×120-C20-3T	3	A	20	20	120	40	—	10			
A90.02-1220×160-C20-3T	3	A	20	20	160	50	—	10			
A90.02-1225×120-C25-3T/4T	3 or 4	A	25	25	120	50	—	10			
A90.02-1225×160-C25-3T	3	A	25	25	160	50	—	10			
A90.02-1225×200-C25-3T	3	A	25	25	200	75	—	10			
A90.02-1230×120-C25-4T	4	C	30	25	120	50	—	10			
A90.02-1230×160-C25-4T	4	C	30	25	160	50	—	10			
A90.02-1232×120-C32-4T	4	A	32	32	120	50	—	10			
A90.02-1232×160-C32-4T	4	A	32	32	160	50	—	10			
A90.02-1232×200-C32-4T	4	A	32	32	200	80	—	10			
A90.02-1240×120-C32-4T	4	C	40	32	120	50	—	10			
A90.02-1240×160-C32-4T	4	C	40	32	160	50	—	10			

ADMX170508 Holder

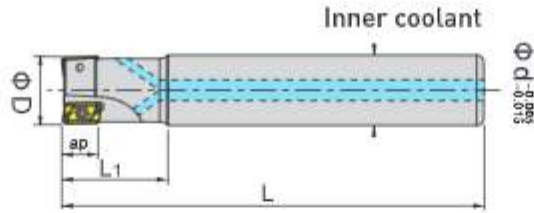
Order No.	Flute(T)	Fig	Dimension						Insert	Screw	Wrench
			D	d	L	L1	L2	ap			
A90.02-1725×120-C25-2T	2	A	25	25	120	50	—	15			
A90.02-1725×160-C25-2T	2	A	25	25	160	50	—	15			
A90.02-1725×200-C25-2T	2	A	25	25	200	50	—	15			
A90.02-1732×120-C32-3T	3	A	32	32	120	50	—	15			
A90.02-1732×160-C32-3T	3	A	32	32	160	50	—	15			
A90.02-1732×200-C32-3T	3	A	32	32	200	80	—	15			
A90.02-1732×250-C32-3T	3	A	32	32	250	80	—	15			
A90.02-1740×120-C32-3T	3	C	40	32	120	50	—	15			
A90.02-1740×160-C32-3T	3	C	40	32	160	50	—	15			
A90.02-1740×200-C32-3T	3	C	40	32	200	50	—	15			
A90.02-1740×250-C32-3T	3	C	40	32	250	50	—	15			



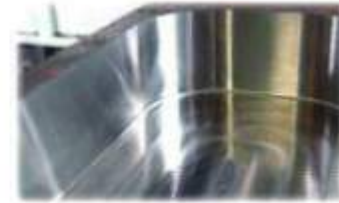
Shoulder mill



A90.02S

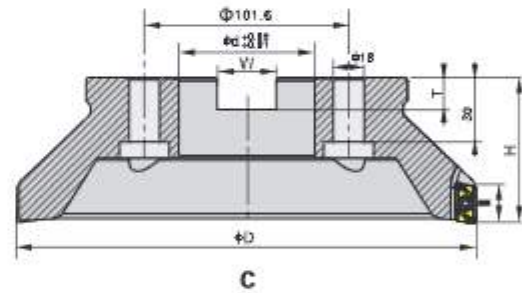
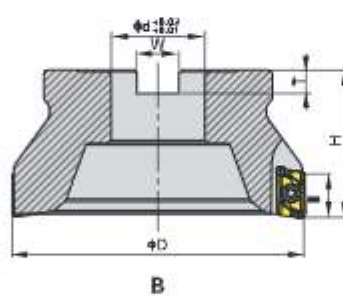
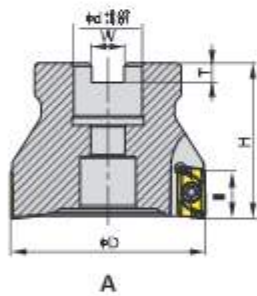


Perfect 90 degree for side wall finishing



ADMX120408 Holder - High Precision type / long shank

Order No.	Flute(T)	Fig	Dimension						Insert	Screw	Wrench
			D	d	L	L1	L2	ap			
A90.02S-1213x120-C12-1T	1	A	13	12	120	30	—	10	AD□X1204□□R	S25060J-8IP (M2.5x6) SPS	IP8D IP8
A90.02S-1213x150-C12-1T	1	A	13	12	150	30	—	10			
A90.02S-1216x200-C16-2T	2	B	16	16	200	40	100	10			
A90.02S-1217x160-C16-2T	2	A	17	16	160	40	—	10			
A90.02S-1217x200-C16-2T	2	A	17	16	200	40	—	10			
A90.02S-1220x200-C20-2T	2	B	20	20	200	50	100	10			
A90.02S-1221x160-C20-2T	2	A	21	20	160	40	—	10			
A90.02S-1221x200-C20-2T	2	A	21	20	200	40	—	10			
A90.02S-1226x200-C25-2T	2	B	25	25	200	75	—	10			
A90.02S-1226x200-C25-2T	2	A	26	25	200	50	—	10			
A90.02S-1226x250-C25-2T	2	A	26	25	250	50	—	10			
A90.02S-1233x200-C32-4T	4	A	33	32	200	50	—	10			
A90.02S-1233x250-C32-4T	4	A	33	32	250	50	—	10			
A90.02S-1233x300-C32-4T	4	A	33	32	300	50	—	10			



ADMX120408 Facemill

Order No.	Flute(T)	Dimension							Kg.	Insert	Screw	Wrench	
		D	d	H	W	T	ap						
A90.02-12040-16-4T	A	4	40	16	42	8.4	6.3	10	0.21	—	AD□X1204□□R	A25060G ⁺ (M2.5x6)	T8F T8
A90.02-12050-22-5T	A	5 or 6	50	22	42	10.4	6.3	10	0.32				
A90.02-12063-22-6T	A	6 or 8	63	22	42	10.4	6.3	10	0.48				
A90.02-12080-27-8T	A	8	80	27	45	12.4	7	10	0.83				
A90.02-12100-27-10T	A	10	100	27	45	12.4	7	10	1.15				

ADMX170508 Facemill

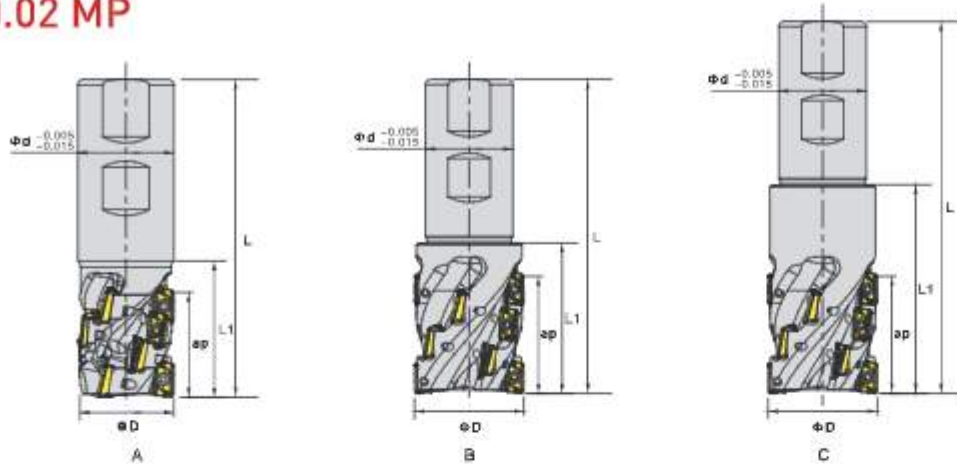
A90.02-17040-16-3T	A	3	40	16	42	8.4	6.3	15	0.25	—	AD□X1705□□R	A40100J (M4x10)	T15F T15
A90.02-17050-22-4T	A	4	50	22	50	10.4	6.3	15	0.47	—			
A90.02-17063-22-5T	A	5	63	22	50	10.4	6.3	15	0.57	—			
A90.02-17080-27-6T	A	6	80	27	50	12.4	7	15	0.88	—			
A90.02-17100-32-6T	B	6	100	32	50	14.4	8	15	1.8	FMB-32-SHIM			
A90.02-17125-40-8T	C	8	125	40	63	16.4	9	15	2.1	FMB-40-SHIM			
A90.02-17160-40-9T	C	9	160	40	63	16.4	9	15	3.1	FMB-40-SHIM			
A90.02-17200-60-12T	C	12	200	60	63	25.7	14	15	4.9	—			
A90.02-17250-60-15T	C	15	250	60	63	25.7	14	15	8.7	—			



Shoulder mill



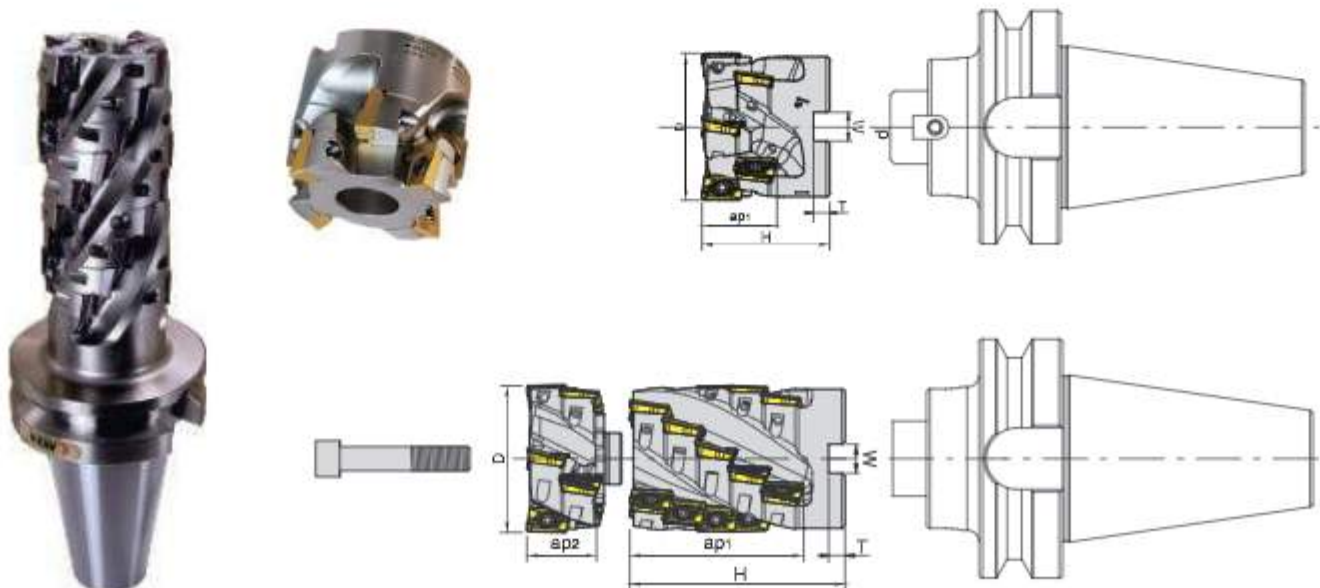
A90.02 MP



Order No.	Flute(T)	Fig	↺	↻	Dimension					Insert	Screw	Wrench
					D	d	L	ap	L1			
A90.02-12020MP-1.5D-C20-2Z	2	A	4/2	---	20	20	95	31	43	AD X1204 □ □ R	S25060J-8IP (M2.5x6)	IP6D IP6
A90.02-12025MP-1.5D-C25-2Z	2	A	5/2	---	25	25	110	38	50			
A90.02-12032MP-1D-C32-3Z	3	A	8/3	---	32	32	105	36	45			
A90.02-12032MP-1D-C32L-3Z	3	C	8/3	---	32	32	130	36	70			
A90.02-12032MP-1.5D-C32-3Z	3	A	11/3	---	32	32	120	49	60			
A90.02-12032MP-1.5D-C32L-3Z	3	C	11/3	---	32	32	145	49	85			
A90.02-12040MP-1D-C32-4Z	4	B	12/4	---	40	32	115	43	55			
A90.02-12040MP-1D-C32L-4Z	4	C	12/4	---	40	32	150	43	90			
A90.02-12040MP-1.5D-C32-4Z	4	B	16/4	---	40	32	130	58	60			
A90.02-12040MP-1.5D-C32L-4Z	4	C	16/4	---	40	32	170	58	100			

Order No.	Flute(T)	Fig	↺	↻	Dimension					Insert	Screw	Wrench
					D	d	L	ap	L1			
A90.02-17040HP-1D-C40-3Z	3	C	---	9/3	40	40	140	44.5	80	AD X1705 □ □ R	S40090J-15IP (M4x9)	IP15PL IP15
A90.02-17040HP-1.5D-C40-3Z	3	C	---	12/3	40	40	160	E9	90			

Other types (Dia.50 - 80mm)





Shoulder mill



A90.05 Power 90 milling - 6 cutting edges

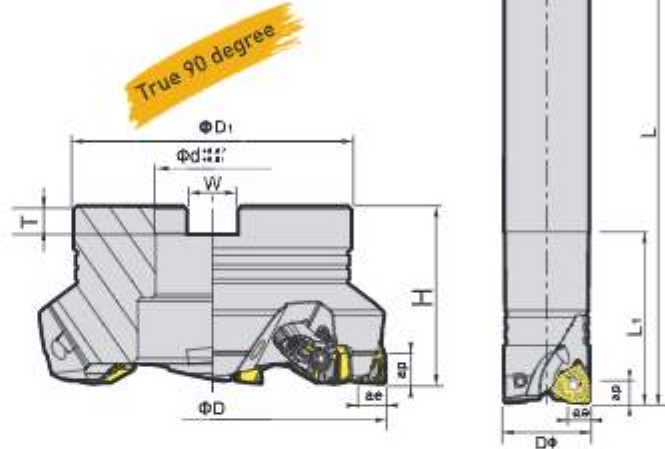
Any Cut

- 06 WNGX0604ER-MM PM8025 P M S Ap0.5-3.0
- ★ WNGX0604ER-XM PM8225 P M Ap0.3-2.0
- WNGX0604ER-XM PM8120 H S Ap0.3-2.0
- 08 WNGX0806ZR-SM PM8025 P M S Ap0.5-4.0
- ★ WNGX0806ER-XM PM8225 P M Ap0.3-3.0
- WNGX0806ER-XM PM8120 H S Ap0.3-2.0
- WNGX0806ER-XM KC1215 K Ap0.3-2.0
- WNGX0806ER-XM MC4225 P M S Ap0.5-5.0



A90.05		Vc	Fz(mm)
P	Steel < 36HRC	200-300	0.1-0.35
P	Steel < 45HRC	160-280	0.1-0.3
M	Stainless	60-100	0.1-0.25
K	Gray cast iron	160-250	0.25-0.4
K	Cast iron	120-200	0.15-0.25
S	Ti, Inconel	30-60	0.15-0.25

NEW Grade for Titanium / Inconel / Super alloy
WNGX0604ER-XM PM825s S
WNGX0806ZR-SM PM825s S



A90.05 -Holder

Order No.	Fig	Flute(T)	Dimension					Insert	Screw	Wrench
			D	d	L	L1	ap/ae			
A90.05-0625*120-C25-2T	E	2	25	25	120	50	5	WNGX-0604	S30100G-BIP	IP6 IP6D
A90.05-0625*160-C25-2T	E	2	25	25	160	60	5			
A90.05-0625*200-C25-2T	E	2	25	25	200	80	5			
A90.06-0626*160-C25-2T	E	2	26	25	160	50	5			
A90.05-0626*200-C25-2T	E	2	26	25	200	80	5			
A90.05-0632*120-C32-3T	E	3	32	32	120	50	5			
A90.05-0632*160-C32-3T	E	3	32	32	160	70	5			
A90.05-0632*200-C32-3T	E	3	32	32	200	80	5			
A90.05-0633*160-C32-3T	E	3	33	32	160	70	5			
A90.05-0633*160-C32-3T	E	3	33	32	200	70	5			
A90.05-0640*120-C32-4T	E	4	40	32	120	50	5			
A90.05-0640*160-C32-4T	E	4	40	32	160	50	5			

A90.05 - Facemill

Order No.	Fig	Flute(T)		Dimension							Kg.	Insert	Screw	Wrench
		↺	↻	D	D1	d	H	W	T	ap/ae				
A90.06S-08050-22-4T	D	—	4	50	48	22	50	10.4	6.3	7	0.34	WNGX0806	S40120G-IP15	IP15 IP15F
A90.06S-08063-22-4T	D	—	4	63	48	22	50	10.4	6.3	7	0.56			
A90.05S-08080-27-5T	D	—	5	80	60	27	50	12.4	7	7	0.89			
A90.05S-08100-32-6T	D	—	6	100	78	32	50	14.4	8	7	1.50			
A90.05S-08125-40-8T	D	—	8	125	89	40	63	16.4	9	7	2.70			
A90.05-08160-40-9T	D	9	—	160	101	40	63	16.4	9	7	3.87			

DIA.200-315mm. On request



Hi-Feed



ASM03 High feed milling - 6 cutting edges

Any Cut

NEW Grade for Titanium / Inconel / Super alloy

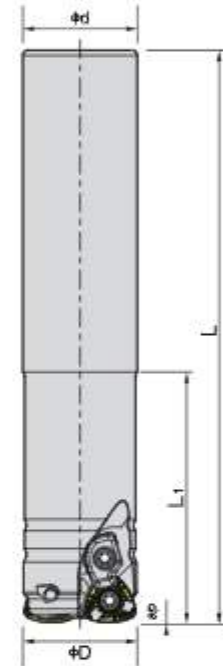
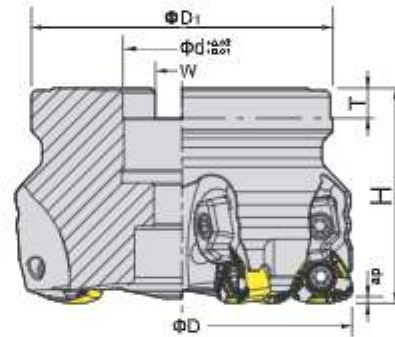
ASM1206ER-XM PM825s **M S**

- ★ ASM1206ER-XM PM8225 **M S** Ap0.2-2.0 Light load
- ASM1206ER-MM PM8012 **H** Ap0.2-2.0 Light load
- ASM1206TR-XM PM8025 **M** Ap0.2-2.0 Heavy load
- ASM1206TR-XM PM8120 **H** Ap0.2-2.0 Heavy load



ASM03	Vc	Fz(mm)
P Steel < 36HRC	200-300	0.2-2.0
P Steel < 45HRC	120-200	0.2-1.5
M Stainless	80-120	0.1-1.0
K Cast iron	200-300	0.2-2.0
H Hardened steel	60-100	0.1-0.5
S Ti, Inconel	30-60	0.2-1.0

Program R value = 3



ASM03 - Facemill

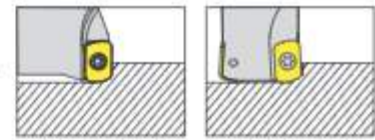
Order No.	Flute(T)		Dimension							Kg.	Insert	Clamp	Screw	Wrench
			D	D1	d	H	W	T	ap					
ASM03-12050-22-4T	—	4	50	47	22	50	10.4	6.3	2	0.28	ASM1206TR-XM		A40120G-15	IP15F
12063-22-4T	4	—	63	60	22	50	10.4	6.3	2	0.75			AS1206ER-XM	
12063-22-5T	—	5	63	60	22	50	10.4	6.3	2	0.7	ASM1206ER-XM		S40120J-IP15	IP20F
12080-27-6T	—	6	80	70	27	50	12.4	7	2	1.0	ASM1206ER-MM			IP20F
12100-32-7T	—	7	100	88	32	63	14.4	8	2	2.2				IP20F
12125-40-8T	—	8	125	89	40	83	16.4	9	2	3.0				

ASM03 - Holder

Order No.	T	Dimension						Insert	Clamp	Screw	Wrench
		D	d	L	L1	ap					
ASM03-1232x120-C32-2T	2	32	32	120	50	1	ASM1206TR-XM		A40120G-15	T15F T15	
1232x160-C32-2T	2	32	32	160	70	1					
1232x200-C32-2T	2	32	32	200	80	1	ASM1206ER-XM		S40120J-IP15		
1233x160-C32-2T	2	33	32	160	70	1	ASM1206ER-XM				
1233x200-C32-3T	3	33	32	200	70	1	ASM1206ER-MM				
1240x120-C32-3T	3	40	32	120	50	1	ASM1206ER-MM		S40120J-IP15		
1240x160-C32-3T	3	40	32	160	50	1					
1240x200-C32-3T	3	40	32	200	50	1					



Hi-Feed



MOLD & DIE RECOMMENDED

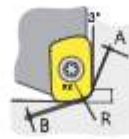
ASM02 High feed milling - 2 cutting edges

Any Cut

- EPMT(W)0603ER-MM PM8225 ■ ■ ■ Ap0.1-0.6
- EPNW0603TR-PH PC4030 ■ PVD Ap0.3-0.6
- ★ EPNW0603ER-PH PM8012 (H10) ■ ■ ■ Ap0.2-0.6
- EPNW0603ER-OL PM8025 ■ ■ ■ Ap0.2-0.8

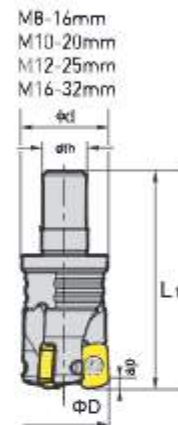
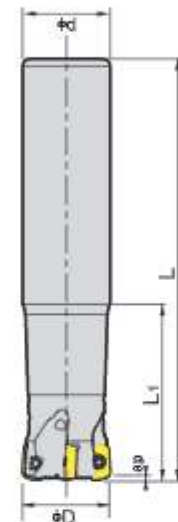
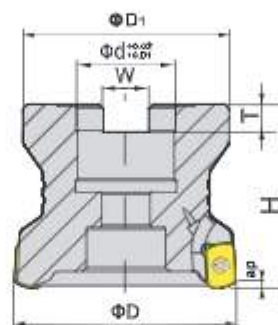


ASM02	Vc	Fz(mm)
P Steel < 36HRC	200-300	0.2-1.0
P Steel < 45HRC	120-200	0.2-0.8
M Stainless	80-120	0.1-0.5
K Cast iron	200-300	0.2-1.0
H Hardened steel	60-100	0.1-0.5
S Ti, Inconel	30-60	0.1-0.5



R	A	B
R2.0	0	0.497
R2.5	0.076	0.349
R3.0	0.218	0.236
R3.5	0.419	0.108
R4.0	0.612	0.030

Program R value - 2



ASM02 -For general use

Order No.	Flute(T)	Dimension							Kg.	Insert	Screw	Wrench
		D	D1	d	H	W	T	ap				
ASM02-06040-16-5T	5	40	34	16	42	6.4	5.6	1	0.17	EPNW0603 EPMT0603	S2506J-8IP (M2.5x6) 	IP8F IP8
ASM02-06050-22-6T	6	50	47	22	42	10.4	6.3	1	0.30			
ASM02-06063-22-8T	8	63	60	22	42	10.4	6.3	1	0.55			
ASM02-06090-27-10T	10	80	70	27	60	12.4	7	1	1.20			
ASM02-06100-27-12T	12	100	70	27	60	12.4	7	1	1.50			
ASM02-06125-32-16T	16	125	78	32	60	14.4	8	1	2.20			

ASM02 -For general use

Order No.	Flute(T)	Dimension					Insert	Screw	Wrench
		D	d	L	L1	ap			
ASM02-0616x120-C16-2T	2	16	16	120	40	1	EPNW0603 EPMT0603	S2506J-8IP (M2.5x6) 	IP8D IP8
ASM02-0616x160-C16-2T	2	16	16	160	50	1			
ASM02-0620x120-C20-3T	3	20	20	120	40	1			
ASM02-0620x160-C20-3T	3	20	20	160	50	1			
ASM02-0625x120-C20-4T	4	25	20	120	50	1			
ASM02-0625x160-C25-4T	4	25	25	160	60	1			
ASM02-0625x200-C25-4T	4	25	25	200	120	1			
ASM02-0632x120-C32-4T	4	32	32	120	50	1			
ASM02-0632x160-C32-4T	4	32	32	160	60	1			
ASM02-0632x200-C32-4T	4	32	32	200	120	1			
ASM02-0640x120-C32-5T	5	40	32	120	50	1			

ASM02S -For mold application (Negative Angle)

Order No.	Flute(T)	Dimension					Insert	Screw	Wrench
		D	d	L	L1	ap			
ASM02S-0617x160-C16-2T	2	17	16	160	27	1	EPNW0603 EPMT0603	S2506J-8IP (M2.5x6) 	IP8D IP8
ASM02S-0620x160-C20-3T	3	20	20	160	50	1			
ASM02S-0621x160-C20-3T	3	21	20	160	27	1			
ASM02S-0626x160-C25-3T	3	26	25	160	50	1			
ASM02S-0626x200-C25-3T	3	26	25	160	50	1			
ASM02S-0633x160-C32-4T	4	33	32	120	50	1			
ASM02S-0633x200-C32-4T	4	33	32	200	70	1			



Hi-Feed



MOLD & DIE RECOMMENDED

ASR12 High feed milling- 4 cutting edges

Any Cut

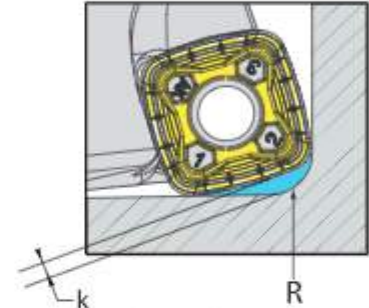
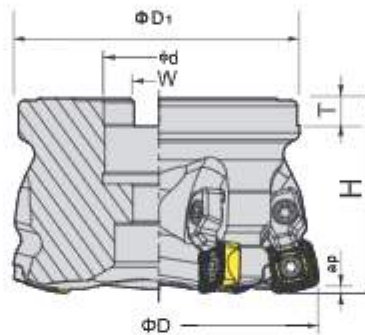
- ★ XDMT1205 ZDTN-PH PM8120 Ap0.3-1.0
- XDGX1205 ZDER-XM PM8012 Ap0.1-0.5
- XDGX1205 ZDER-XM PM8225 Ap0.2-1.5



	ASR12	Vc	Fz(mm)
P	Steel < 36HRC	200-300	0.3-1.5
P	Steel < 45HRC	120-200	0.3-0.8
M	Stainless	80-120	0.3-0.5
K	Cast iron	200-300	0.3-1.0
H	Hardened steel	60-100	0.2-0.5
S	Ti, Inconel	50-80	0.3-1.0



Tool life up to 12Hr.



	XD	R	k
Kr15	12	R3.5	1.1
Kr10	12	RS.0	0.8

kr=10° ap:1.0 (Max)

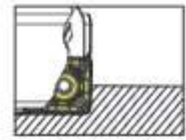
Order No.	Flute(T)		Dimension							Kg.	Insert	Clamp	Clamp Screw	Screw	Wrench
			D	D1	d	H	W	T	ap						
ASR-12050-22-4T-Kr10	4	—	50	47	22	50	10.4	6.3	1	0.28	XDMT1205ZDTN-PH XDGX1205ZDER-XM		A40120J	A40120J (M4X12)	
ASR-12063-22-5T-Kr10	5	—	63	60	22	50	10.4	6.3	1	0.58					

kr=15° ap:1.5 (Max)

Order No.	Flute(T)		Dimension							Kg.	Insert	Clamp	Clamp Screw	Screw	Wrench
			D	D1	d	H	W	T	ap						
ASR-12050-22-4T-Kr15	4	—	50	47	22	50	10.4	6.3	1.5	0.28	XDMT1205ZDTN-PH XDGX1205ZDER-XM		A40120J	A40120J (M4X12)	
ASR-12063-22-5T-Kr15	5	—	63	60	22	50	10.4	6.3	1.5	0.58					
ASR-12080-27-6T-Kr15	6	—	80	70	27	50	12.4	7	1.5	1.0					
ASR-12100-32-7T-Kr15	7	—	100	88	32	63	14.4	8	1.5	1.5					
ASR-12125-40-8T-Kr15	8	—	125	95	40	63	16.4	9	1.5	2.0					



Facemill



A88 High performance milling

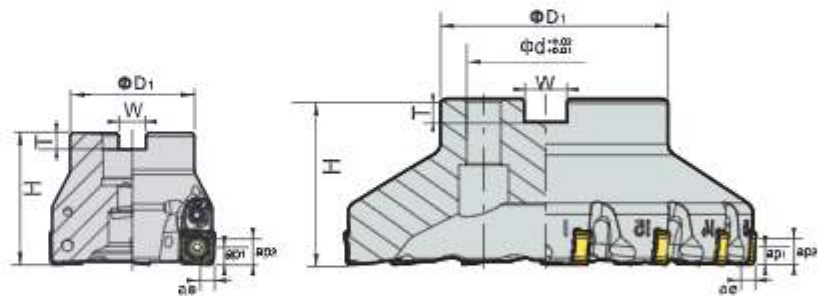
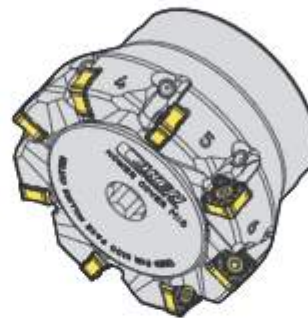
NEW Grade for Titanium / Inconel / Super alloy

- SNGX120608 ZR-SM PM825S S M Ap0.2-8.0
- SNGX120608ZR-SM PM8025 P M S Ap1.0-6.0
- ★ SNGX120608(12) ER-XM PM8225 P M Ap1.0-6.0
- SNGX120608(12) ER-XM KC1215 K Ap0.2-8.0
- ★ SNMU1206EN-XM PM8225 P M Ap1.0-6.0 Rough only
- SNMU1206TN-KM MC4225 P K Ap1.0-6.0 Rough only

Any Cut



A88	Vc	Fz(mm)
P Steel < 36HRC	200-300	0.1-0.35
P Steel < 45HRC	160-250	0.1-0.3
M Stainless	80-100	0.1-0.25
K Gray cast iron	160-250	0.15-0.4
K Cast iron	120-200	0.15-0.25
S Ti, Inconel	30-60	0.1-0.5



A88 Facemill

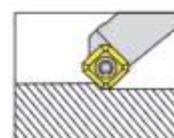
Order No.	Fig	Flute(T)		Dimension							Kg.	Insert	Clamp	Screw	Wrench
				D	D1	d	H	W	T	ap					
A88-12050-22-4T	E	4		83	51.08	22	80	10.4	6.3	8	0.38	SNGX1206□□	AM94.3	A50120R	IP20F IP20
A88-12063-22-4T	E	4		83	64.07	22	50	10.4	6.3	6	0.62				
A88-12080-27-5T	E	5		80	66.07	27	50	12.4	7	6	1.1				
A88-12100-32-6T	E	6		100	101.07	32	50	14.4	8	6	1.9				

A88 Facemill - Fine pitch

Order No.	Fig	Flute(T)		Dimension							Kg.	Insert	Screw	Wrench
				D	D1	d	H	W	T	ap				
A88-12063-22-6T	A	6		63	64.07	22	50	10.4	6.3	6	0.66	SNGX1206□□	A50120R	IP20F IP20 IP20PL
A88-12080-27-7T	A	7		80	88.07	27	50	12.4	7	6	1.1			
A88-12100-32-8T	B	8		100	101.07	32	50	14.4	8	6	1.0			
A88-12125-40-12T	C	12		125	126.07	40	83	16.4	9	6	2.6			
A88-12160-40-15T	C	15		160	161.07	40	83	16.4	9	6	3.9			
A88-12200-60-18T	C	18		200	201.07	60	83	25.7	14	6	6.1			
A88-12250-60-24T	D	24		250	251.07	60	78	25.7	14	6	10			



Facemill



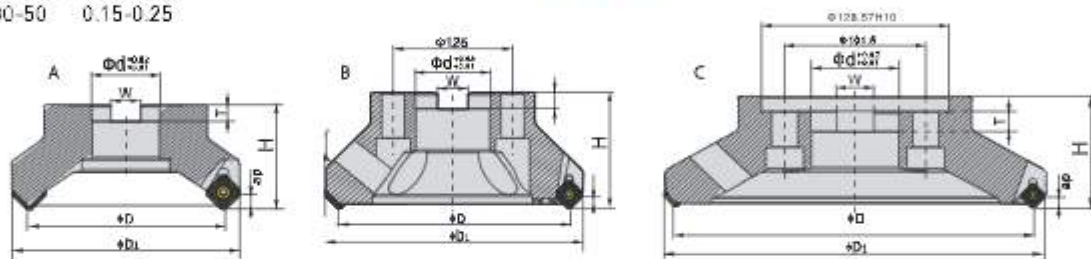
A45.03 High performance facemill + Wiper

Any Cut

- ★ SNGX1205ANER-XM PM8225 ■ ■ ■ Ap0.3-2.0
- ★ SNMX1205ANTR-XH PC4025 ■ ■ Ap0.3-5.0 (Rough)
- SNHX1205ANEN-MM PM8120 ■ ■ Ap0.3-2.0 (Finishing)
- SNGX1205ANER-XM KC1215 ■ Ap1.0-2.0
- SNGX1205ANER-XM MC4225 ■ ■ Ap1.0-5.0
- ONHU0505EN PM8225 ■ ■ ■ Ap0.3-1.0 (Finishing)



A45.03		Vc	Fz(mm)
■ P	Steel < 36HRC	160-250	0.15-0.35
■ P	Steel < 45HRC	150-250	0.1-0.3
■ M	Stainless	60-100	0.1-0.25
■ K	Cast iron	150-250	0.15-0.4
■ K	Cast iron	120-200	0.15-0.35
■ S	Ti, Inconel	30-50	0.15-0.25



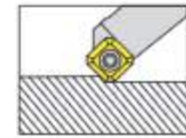
Order No.	Fig	Flute(T)		Dimension							Kg.	Shim	Insert	Screw	Wrench	
				D	D1	d	H	W	T	ap						
A45.03-12050-22-4T	A	4	—	50	63.86	22	50	10.4	6.3	5	0.7	—	—	—	—	IP20F IP20
A45.03-12063-22-4T	A	4	—	63	76.94	22	50	10.4	6.3	5	0.8	—	—	—	—	—
A45.03-12080-27-5T	A	—	5	80	93.94	27	50	12.4	7	5	1.0	—	—	—	—	—
A45.03-12100-32-6T	B	—	6	100	113.94	32	50	14.4	8	5	1.6	FMB-32-SHIM		A50120R		
A45.03-12125-40-7T	C	—	7	160	173.94	40	63	16.4	9	5	2.3	FMB-40-SHIM	ONHU0505EN/ZN		—	
A45.03-12160-40-8T	C	—	8	160	173.94	40	63	16.4	9	5	3.3	FMB-40-SHIM		—	IP20PL IP20	
A45.03-12200-60-9T	C	—	9	200	213.94	60	63	25.7	14	5	5.2	FMB-40-SHIM		—	—	
A45.03-12250-60-12T	D	12	—	250	263.94	60	76	25.7	14	5	10	—	—	—	—	
A45.03-12315-60-16T	D	16	—	315	328.94	60	80	25.7	14	5	22.1	—	—	—	—	

Order No.	Fig	Flute(T)		Dimension							Kg.	Shim	Insert	Screw	Wrench	
				D	D1	d	H	W	T	ap						
A45.03-12050-22-5T	A	—	5	50	63.86	22	50	10.4	6.3	5	0.73	—	—	—	—	IP20F IP20
A45.03-12063-22-6T	A	—	6	63	76.94	22	50	10.4	6.3	5	0.9	—	—	—	—	—
A45.03-12080-27-7T	A	—	7	80	93.94	27	50	12.4	7	5	1.1	—	—	—	—	—
A45.03-12100-32-8T	B	—	8	100	113.94	32	50	14.4	8	5	1.6	FMB-32-SHIM		S50120R		
A45.03-12125-40-10T	C	—	10	125	136.94	40	63	16.4	9	5	2.5	FMB-40-SHIM	ONHU0505EN/ZN		—	
A45.03-12160-40-12T	C	—	12	160	173.94	40	63	16.4	9	5	3.5	FMB-40-SHIM		—	IP20PL IP20	
A45.03-12200-60-16T	C	16	—	200	213.94	60	63	25.7	14	5	5.8	—	—	—	—	
A45.03-12250-60-20T	D	20	—	250	263.94	60	76	25.7	14	5	11	—	—	—	—	
A45.03-12315-60-24T	D	24	—	315	328.94	60	80	25.7	14	5	22	—	—	—	—	

Order No.	Fig	Flute(T)		Dimension							Kg.	Shim	Insert	Screw	Wrench	
				D	D1	d	H	W	T	ap						
A45.03S-12125-40-10T	C	10	—	125	136.94	40	65	16.4	9	5	2.5	FMB-40-SHIM	SN□X 1205□□	—	—	—
A45.03S-12160-40-12T	C	12	—	160	173.94	40	65	16.4	9	5	3.8	FMB-40-SHIM	ONHU0505EN/ZN	S50120R	IP20PL IP20	
A45.03S-12200-60-16T	C	16	—	200	213.94	60	65	25.7	14	5	8.8	—				
A45.03S-12250-60-20T	D	20	—	250	263.94	60	76	25.7	14	5	16	—	—	—	—	
A45.03S-12315-60-24T	D	24	—	315	328.94	60	80	25.7	14	5	39	—	SNHU1206ZZFN	—	—	



Facemill



A45.02 / R245 Universal facemill

Any Cut



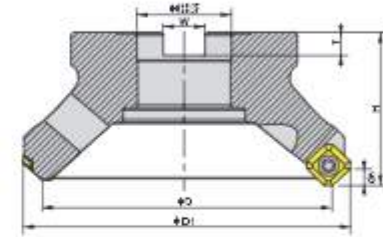
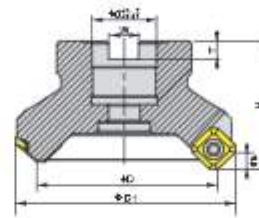
R245 insert (Sandvik/Sumitomo/Mitsubishi) A45.02 insert

- ★SEKT13T3AGTN-XM PM8225
- SEET13T3AGEN-XL PM8225
- SEET13T3AGEN-XL AX150C
Super Finishing

- ★SEHT1204AFSN-MM PM8225
- SEHT1204AFFR-XL PM8120
- SEET1204AFFN-NL H101

- M ■ Ap0.5-2.0
- M ■ Ap0.2-1.0
- ■ Ap0.2-1.0
- N Ap0.05-4.0

	A45.02	Vc	Fz(mm)
■ P	Steel < 36HRC	200-300	0.15-0.4
■ P	Steel < 45HRC	150-250	0.1-0.25
■ M	Stainless	80-120	0.1-0.25
■ K	Cast iron	150-200	0.15-0.4
■ N	Non-Ferrous	600-1000	0.05-0.4



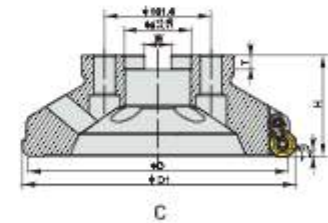
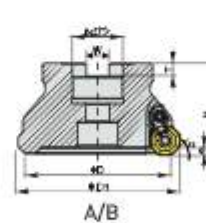
Order No. A45.02 / R245	Fig	Flute(T)	Dimension							Kg.	FMB shim	Insert Shim	Insert	Wrench	Screw
			D	D1	d	H	W	T	ap						
A45.02-12050-22-4T	4	A	60	64	22	50	10.4	6.3	6	0.4	—	—	—	—	—
A45.02-12063-22-5T	5	A	63	77	22	50	10.4	6.3	6	0.5	—	—	SEKT1204 SEET1204 SEHT1204	S35120J-20IP (M3.5x12)	IP20F IP20
A45.02-12080-27-6T	6	A	60	64	27	50	12.4	7	6	0.8	—	—	—	—	—
A45.02-12100-32-7T	7	B	100	114	32	50	14.4	8	6	1.4	FMB-32-SHIM	—	—	—	—
A45.02-12125-40-8T	8	C	125	139	40	63	16.4	9	6	2.0	FMB-40-SHIM	SSP0903	SEET13T3	—	—
A45.02-12160-40-10T	10	C	160	174	40	63	16.4	9	6	2.9	FMB-40-SHIM	—	—	—	—
A45.02-12200-60-12T	12	C	200	174	60	63	25.7	14	6	4.5	—	—	—	SDS535 (M5x8.7)	IP20PL IP20
A45.02-12250-60-12T	12	C	250	174	60	63	25.7	14	6	4.5	—	—	—	—	—

TOD06 Universal Facemill

- ODMX060512TN-XM PC4025 ■ Ap 1.0-3.0
- ★ODHX060512TN-XM PM8120 ■ ■ Ap 1.0-5.0
- ODHX060512TN-XM KC1215 ■ Ap 2.0-5.0



	TOD06	Vc	Fz(mm)
■ P	Steel < 36HRC	200-300	0.15-0.4
■ P	Steel < 45HRC	150-250	0.1-0.25
■ M	Stainless	80-120	0.1-0.25
■ K	Cast iron	150-200	0.15-0.4



Order No.	Flute(T)	Fig	Dimension							Kg.	FMB shim	Insert	Clamp	Screw	Wrench
			D	D1	d	H	W	T	ap						
TOD-06063-22-4T	4	A	63	73	22	50	10.4	6.3	4	0.6	—	—	—	—	—
TOD-06080-27-5T	5	A	80	90	27	50	12.4	7	4	1.0	—	—	—	A50120J (M5x12)	T20PL T20
TOD-06100-32-6T	6	B	100	110	32	50	14.4	8	4	1.3	FMB-32-SHIM	ODMT 060508 TN ODMW 060508 TN	AMS-4.3	—	—
TOD-06125-40-7T	7	C	125	135	40	63	16.4	9	4	2.0	FMB-40-SHIM	ODHX 060512 TN	—	—	—
TOD-06160-40-8T	8	C	160	170	40	63	16.4	9	4	3.2	FMB-40-SHIM	ODMX 060512 TN	—	—	—
TOD-06200-60-9T	9	C	200	210	60	63	25.7	14	4	5.0	—	—	—	—	—
TOD-06200-60-12T	12	C	200	210	60	63	25.7	14	4	5.0	—	—	—	—	—
TOD-06250-60-15T	15	D	250	260	60	76	25.7	14	4	7.6	—	—	—	—	—
TOD-06315-60-18T	18	D	315	260	80	76	25.4	14	4	18	—	—	—	—	—



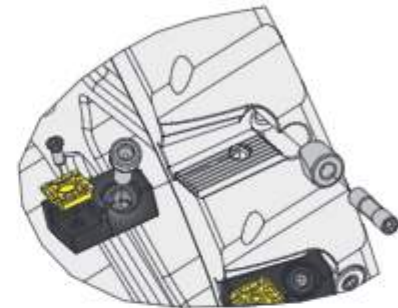
Facemill



PFM Modular facemill system

หัวปาด PFM12 100-400mm สามารถถอดเปลี่ยนเม็ดตัดได้ถึง 9แบบ และสามารถตั้งระดับความสูงต่ำแต่ละฟันได้อย่างอิสระ จึงให้คุณภาพผิวงานและ Tolerance ที่ดีกว่า

Any Cut



Insert Cartridge

kr=90°	kr=90°	kr=90°	○	kr=45°	kr=45°	kr=45°	kr=75°
SO12PR-14	AD12PR-17	AP12PR-16	RD12R-16	OD12AR-06	SE12AR-12	SEW12AR-12 SEW12AR-15	SPW12ER-12 SPW12ER-15

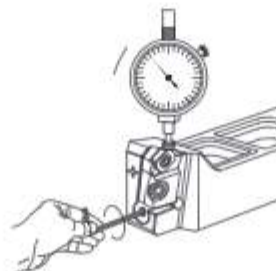
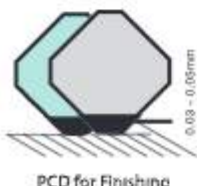
PFM10-AL
Adjustable for PCD



PFM12AL D125-1200mm
Ultra light weight



PFM12 D60-315mm
Adjustable for PCD



BAP General shoulder milling

BAP เหมาะสำหรับใช้งานกัดทั่วไปกับทุกวัสดุ เช่น เหล็ก<45HRC สแตนเลส เหล็กหล่อ



- APMT1135PDER-MM PM8025 P M
- ★ APMT1135PDER-XM PM8225 M H
- APMT1135PDER-MM PM8012(810) M H
- APKT1135-AL/NL H01(101) N
- APMT1604PDER-XH2 MC4225 M H Roughing
- ★ APMT1604PDER-XM PM8225 M H
- APMT1604PDER-XM PM8120 M H
- APKT1604-AL/NL H01(101) N

NEW Grade for Titanium / Inconel / Super alloy

APMT1135PDER-MM PM825s

APMT1604PDER-XH2 PM825s



Code x Size (1135)	Flute	Price
BAP300R-10*120-C10-1T	1	2,000
BAP300R-12*100-C12-1T	1	2,000
BAP300R-12*120-C12-1T	1	2,000
BAP300R-12*130-C12-1T	1	2,000
BAP300R-12*150-C12-1T	1	2,300
BAP300R-13*120-C12-1T	1	2,300
BAP300R-16*120-C16-2T	2	2,500
BAP300R-16*160-C16-2T	2	2,500
BAP300R-16*180-C16-2T	2	2,700
BAP300R-16*200-C16-2T	2	2,800
BAP300R-17*160-C16-2T	2	2,800
BAP300R-17*200-C16-2T	2	2,900
BAP300R-20*120-C20-2T	2	2,400
BAP300R-20*120-C20-3T	3	2,900
BAP300R-20*160-C20-2T	2	2,600
BAP300R-20*160-C20-3T	3	2,800
BAP300R-20*180-C20-2T	2	2,900
BAP300R-20*200-C20-2T	2	2,900
BAP300R-20*200-C20-3T	3	3,100
BAP300R-21*160-C20-2T	2	2,700
BAP300R-21*160-C20-3T	3	3,100
BAP300R-21*200-C20-2T	2	3,100
BAP300R-21*200-C20-3T	3	3,500
BAP300R-25*160-C25-3T	3	3,100
BAP300R-25*200-C25-3T	3	3,300
BAP300R-30*160-C25-3T	3	3,500





Code x Size (1604)	Flute	Price
BAP400R-25*160-C25-2T	2	3,400
BAP400R-25*160-C24-2T	2	3,700
BAP400R-25*200-C25-2T	2	3,700
BAP400R-25*200-C24-2T	2	4,200
BAP400R-25*250-C25-2T	2	5,900
BAP400R-25*250-C24-2T	2	6,200
BAP400R-26*160-C25-2T	2	4,900
BAP400R-26*200-C25-2T	2	5,300
BAP400R-26*250-C32-3T	3	6,200
BAP400R-32*160-C32-3T	3	6,000
BAP400R-32*160-C25-3T	3	5,500
BAP400R-32*200-C32-3T	3	6,000
BAP400R-32*200-C25-2T	2	5,700
BAP400R-32*200-C25-3T	3	6,000
BAP400R-32*250-C32-3T	3	7,200
BAP400R-35*160-C32-3T	3	6,300
BAP400R-35*200-C32-3T	3	6,600
BAP400R-35*250-C32-3T	3	7,200
BAP400R-35*300-C32-3T	3	8,000
BAP400R-35*350-C32-3T	3	10,000
BAP400R-40*160-C32-3T	3	6,600
BAP400R-40*200-C32-3T	3	7,200
BAP400R-40*250-C32-3T	3	8,600

Code x Size (Facemill 1604)	Flute	Price
BAP400R-40-22-3T	3	4,000
BAP400R-50-22-4T	4	4,200
BAP400R-63-22-4T	4	4,800
BAP400R-63-22-5T	5	5,200
BAP400R-80-27-6T	6	6,000
BAP400R-100-32-6T	6	8,500
BAP400R-125-40-8T	8	ASK
BAP400R-160-40-9T	9	ASK
BAP400R-200-60-12T	12	ASK









RPD Round insert milling R4-R8





RPD เป็นคัตตัมชนิดแบบพิเศษที่สามารถใส่ได้ทั้งเม็ด RDxx และ RPxx
เหมาะสำหรับงานกัดขอบ ทั้งแบบ 2D และ 3D ใช้ได้ทั้งเหล็ก เหล็กหล่อ สแตนเลส







★ RDMT0802M0-MM PM8025  
RDMT0802M0-PM PM8012  

RDMT10T3M0T-PM PM8025   
★ RDMT10T3M0T-PM PM8225   
RDMT10T3M0T-PM PM8012(8110)  

★ RDMT1204M0T-PM PM8025   
RDMT1204M0T-PM PM8012(8110)   
RDKW1204M0T-PH PC4030  

RPMW1003M0T-PH PM8025  
RPMW1003M0T-PH PM8012  

RPMW1204M0T-PH PM8025  
RPMW1204M0T-PH PM8120  

ROKT1605M0T-XM PM8225   



	Code x Size (Cutter)	Flute	Price
R4	RPD-4R12*120-1T	1	3,300
	RPD-4R16*120-2T	2	3,400
	RPD-4R16*160-2T	2	3,700
	RPD-4R17*160-C16-2T	2	3,700
	RPD-4R17*200-C16-2T	2	4,200
	RPD-4R20*120-2T	2	4,500
	RPD-4R20*160-2T	2	4,500
	RPD-4R21*160-C20-2T	2	4,500
	RPD-4R21*200-C20-2T	2	4,800
R5	RPD-5R20*160-2T	2	3,200
	RPD-5R20*200-2T	2	3,400
	RPD-5R21*160-C20-2T	2	3,400
	RPD-5R25*160-2T	2	3,600
	RPD-5R25*160-C20-2T	2	3,600
	RPD-5R25*200-2T	2	3,700
	RPD-5R25*250-2T	2	4,300
	RPD-5R25*200-C20-2T	2	3,900
	RPD-5R30*110-C20-2T	2	3,300
	RPD-5R30*160-C25-2T	2	3,700
	RPD-5R30*200-C25-2T	2	4,200
	RPD-5R30*250-C25-2T	2	4,900
	RPD-5R30*300-C25-2T	2	7,600
	RPD-5R35*160-C32-3T	3	4,000
	RPD-5R35*200-C32-3T	3	4,500
	RPD-5R35*250-C32-3T	3	5,200
	RPD-5R35*300-C32-3T	3	9,500
	RPD-5R35*350-C32-3T	3	10,800
	RPD-5R40*160-C32-3T	3	8,300
	RPD-5R40*200-C32-4T	4	8,800

	Code x Size (Cutter)	Flute	Price
R6	RPD-6R32*160-C25-2T	2	4,900
	RPD-6R32*160-2T	2	4,900
	RPD-6R32*200-C25-2T	2	5,400
	RPD-6R35*160-C32-3T	3	5,900
	RPD-6R35*200-C32-3T	3	6,200
	RPD-6R35*250-C32-3T	3	6,700
	RPD-6R35*300-C32-3T	3	7,700
	RPD-6R35*350-C32-3T	3	8,600
	RPD-6R40*160-C32-3T	3	6,000
	RPD-6R40*200-C32-3T	3	6,900
	RPD-6R40*250-C32-3T	3	7,400

Facemill

	Code x Size (Cutter)	Flute	Price
R4	RPD-4R040-16-4T	4	6,600
	RPD-4R050-22-5T	5	7,900
	RPD-4R063-22-6T	6	8,600
R5	RPD-5R040-16-4T	4	4,500
	RPD-5R050-22-4T	4	4,500
	RPD-5R063-22-4T	4	4,800
	RPD-5R063-22-5T	5	5,600
	RPD-5R080-27-6T	6	6,500
	RPD-5R-100-32-6T	6	8,200
R6	RPD-6R040-16-3T	3	4,500
	RPD-6R050-22-4T	4	4,500
	RPD-6R063-22-4T	4	4,800
	RPD-6R063-22-5T	5	5,600
	RPD-6R080-27-6T	6	6,500
	RPD-6R-100-32-6T	6	8,200
R8	TRS-8R-63-22	4	5,900
	TRS-8R-80-27	5	6,900
	TRS-8R-100-32	6	8,900

AR03 Performance
Round insert R8



ROKT1605M0E-XM PM8225

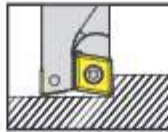




General series

TJU Milling cutter

ด้ามกัดตอเนกประสงค์ สำหรับงานแม่พิมพ์

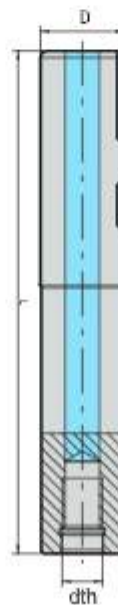


Code x Size (Cutter)	Flute	Price	Insert
TJU-16x160-C16-2T	2	2,700	
TJU-17-160-C16-2T	2	2,700	CPMT060204 / CPMT080204Z
TJU-17-200-C16-2T	2	2,700	
TJU-20-160-C20-2T	2	2,700	
TJU-21-160-C20-2T	2	2,900	CPMT060204 / CPMT090204Z
TJU-21-200-C20-2T	2	2,900	
TJU-25-160-C25-2T	2	3,300	
TJU-26-160-C25-2T	2	3,500	CPMT090308 / CPMT120308Z
TJU-26-200-C25-2T	2	3,800	
TJU-26-250-C25-2T	2	4,100	
TJU-32-160-C32-2T	2	3,900	
TJU-32-200-C32-2T	2	3,900	CPMT120408 / CPMT160408Z
TJU-33-250-C32-2T	2	6,800	
TJU-33-300-C32-2T	2	8,300	

Steel shank For screw milling head

ด้ามต่อหัวกัดแบบสกรู

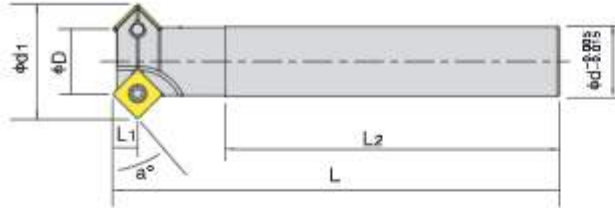
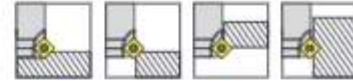
Steel shank	L	D	dth	Price
C16*100-M8	16	100	M8	1990
C16*150-M8	16	150	M8	2290
C20*100-M10	20	100	M10	2090
C20*150-M10	20	150	M10	2390
C20*200-M10	20	200	M10	2890
C25*100-M12	25	100	M12	2290
C25*150-M12	25	150	M12	2690
C25*200-M12	25	200	M12	3390
C32*100-M16	32	100	M16	2990
C32*150-M16	32	150	M16	3590
C32*200-M16	32	200	M16	3990
C32*250-M16	32	250	M16	4490
C32*300-M16	32	300	M16	5590





General series

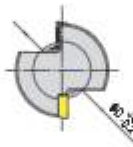
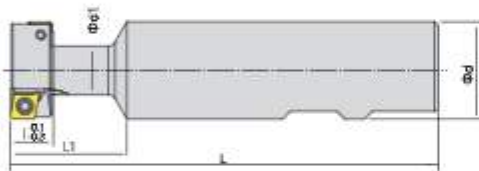
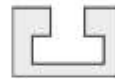
CSP Chamfer milling



SPM(G)T insert
Grade PM8030
Grade KM8225

Order Code	No. Insert	Dimension									
		a	D	d1	d	L	L1	L2			
CSP12-30x120-C20	1	30	12	31.5	20	120	6	80	General SPMT120408 Finishing SPGT120408	A50105F (M5x10.5)	T20
CSP12-45x120-C20	1	45	12	28.0	20	120	8.4	80			
CSP25-45x160-C25	2	45	25	41	25	160	8.4	120			
CSP25-60x160-C25	2	60	25	36	25	160	10.3	120			

TMP T-slot milling



MPHT insert
Grade PM8030
Grade KC1025

Order Code	No. Insert	Dimension								
		D	d	d1	l	L	L1			
TMP06-21x109-C25	2	21	25	10.5	9	109	29	MPHT060304	A25060G ⁺	T8
TMP06-25x112-C25	2	25	25	12.5	11	112	32			
TMP08-32x120-C32	2	32	32	15.5	14	120	38	MPHT080305	A30070G ⁺	T10
TMP12-40x130-C32	2	40	32	20.5	18	130	50	MPHT120408	A50120J	T20
TMP12-50x140-C32	4	50	32	26.5	22	140	60			

SSP Multi function chamfer

คำสั่ง Chamfer 45องศา



TCMX insert
Grade PM8025



Order Code	Angle	No. of insert	Dia	length	Shank	Insert
SSP-45x130-C20-1T	45	1	20	120	20	TCMX16T308E-ZR

GMP Cutter



Insert : MPHT060304 / 080305 / 120408



GMP-FiB Type
Dia 80-200mm
Thickness 8-20mm



GMP-SCA Type
Dia 80-200mm
Thickness 8-20mm

CRM PERFORMANCE MILLING

Performance insert developed from user experiences
High cutting efficiency and consistency tool life

Grade & Applications

Grade	Material	Wear resistance	Interrupt	Application
CP1120H CP1125H CP1140M	M S H	●●●●●	●	สำหรับงาน Finishing เหล็กแข็ง 40-63HRC สแตนเลส ไทเทเนียม และกลุ่มการกัดผสมแข็ง Finishing grade: Stainless steel, High temperature alloy, Titanium alloy and HRC 40-63 Hardened Steel processing.
CP2430H CP2435 CP2440/50	M S P	●●●●○	●	สำหรับงานเหล็ก สแตนเลส ไทเทเนียม และกลุ่มการกัดผสมแข็ง Steel, Stainless steel, High temperature alloy, Titanium alloy machining Suitable for dry milling
CP2630 (L,T) CP2640 (L,T) CP2650 (L,T)	M P K	●●●●○	●	สำหรับงานเหล็ก เหล็กหล่อ สแตนเลส วัสดุผสมคาร์บอนสูง นิกเกิลและไทเทเนียม Continuous and strong intermittent of stainless steel and steel
CP5130K CP5140K CP5150K	P K	●●●●○	●	สำหรับงานเหล็ก เหล็กหล่อ นิกเกิลและไทเทเนียม Steel, Cast iron rough machining

ISO Milling insert



M2 Steel / Stainless
H2 - Hard steel >60HRC

APMT1135 M2
APMT1135 M2
APMT119 M2
APMT1604 H2
APMT1604 H2
APMT1604 H2
APMT1605

CP1120H
CP2430
CP2630T

Tool holder : BAP Dia 12/16/20/25/32/40mm
Facemill : BAP Dia 50-160mm



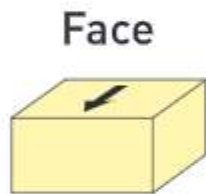
J5 - Hard steel >60HRC
S1 - Steel / Cast iron

RPKT10T3M0
RPKT1204M0
RDMT10T3M0
RDMT1204M0
RDW10T3M0
RDW1204M0

CP1120H
CP2430
CP2630T

Tool holder : TRS/RPD Dia 20/25/32/40mm
Facemill : TRS/RPD Dia 50-100mm

ดูหรือหัดกดสามารถ Download spec. ได้ที่นี่



Face



HNGX0906
Dia.63-320



ONMU0906
Dia.80-200



ONMU0504
Dia.50-160



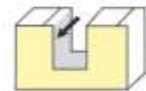
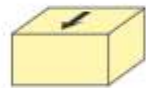
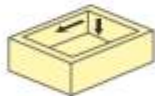
ONM(H)U0605
Dia.50-320



XNMU0605 / 0805
Dia.40-160



Shoulder 90



SNMJ10T3
Dia.32-100



LNMU1104
Dia.16-63



EDHT0402
EPMT0603 Dia.8-63



LNMU0303
D16-63



LOH(M)T0804
LOH(M)T1205
Dia. 16-80



WNMU0606
XNMX080608
Dia.32-100

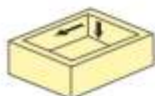


SDKT093508
Dia.25-40



SDHT120520
SDMT120520
Dia.35-100

Profile R



RDMT10T3/1204
1604/1605
Dia.20-200



RPKT10T3/1204
Dia.20-200



P3204 (T2139 Holder)
Dia.10-32mm



ALR Hi-Power shoulder mill
LOHT0804



Dia	T	L1	L	Shank	
16	2	25	78	16	2990
17	2	-	78	16	3290
20	3	30	105	20	4100
21	3	-	90	20	4300
25	4	30	101	25	5300
26	4	-	101	25	5900
32	3	60	135	32	4900
35	5	-	107	32	7200
35	3	-	135	32	5500
FACEMILL					
50	8	-	45	FMB22	9500
63	9	-	45	FMB22	15800
80	9	-	50	FMB27	36500



M4DR 4-Corners shoulder mill
LNMU1104



Dia	T	L1	L	Shank	
16	2	30	100	16	2990
20	3	50	130	20	4650
25	4	50	140	25	6350
32	5	70	150	32	8800
SCREW TYPE					
17	2	-	25	M8	3290
21	3	-	30	M10	4790
26	4	-	35	M12	6100
FACEMILL					
50	8	-	40	FMB22	11900
63	9	-	45	FMB22	13400

Screw : MS2560 / Wrench T8



MF 6-Corners shoulder mill
WNMU060610
XNMX080608



Dia	T	L1	L	Shank	
30	2	90	160	25	3990
32	3	90	160	32	4990
35	3	120	200	32	6190
FACEMILL					
50	4	-	40	FMB22	4990
63	5	-	40	FMB22	5590
FACEMILL					
50	4	-	45	FMB22	6900
63	5	-	45	FMB22	6900
80	6	-	50	FMB27	7900
100	7	-	55	FMB32	9500

D6 insert screw : MS40120 / Wrench T15
D8 insert screw : MS45120 / Wrench T20



ASR Mini Hi-feed
EDHT0402
R1.5



Dia	T	L1	L	Shank	
8	1	16	80	8	1890
10	2	20	80	10	2290
12	2	25	90	12	2290
16	4	35	100	16	2990
SCREW TYPE					
12/13	2	-	-	M6	2190

Screw : MS2050 / Wrench T6



EXN03 Double side Hi-Feed
LNMU0303
R1.5



Dia	T	L1	L	Shank	
16	2	30	100	16	2080
20	3	50	130	20	2450
25	4	50	160	25	2790
30	5	50	160	25	5290
SCREW TYPE					
17	2	-	25	M8	2290
21	3	-	30	M10	3150
26	4	-	35	M12	4200
FACEMILL					
50	8	-	40	FMB22	4390
63	9	-	45	FMB22	5190

Screw : MS2560 / Wrench T8



CRDR 4-Corners Hi-Feed
SDKT0935 / SDHT1205
R2.0 R4.0



Dia	T	L	Shank	
25	3	110/120	25	3990/6100
32	4	130/160	32	5490/7950
35	4	130	32	5790
SCREW TYPE				
25	3	33	M12	3190
32	4	40	M16	4590
35	4	40	M16	4890
FACEMILL				
50	4	6	50	FMB22 5012 5019W 4450 7150
63	5	8	50	FMB22 5500 9550
80	6	10	50	FMB27 6590 12500

D5 insert screw : MS3070 / Wrench T10
D12 insert screw : MS4090 / Wrench T15

General use
S42/S45 Facemill
ONMU0504



Dia	T	H	Shank	
50	4	40	FMB22	3590
63	5	50	FMB27	3790
80	6	50	FMB32	4590
100	8	50	FMB40	5890
125	9	63	FMB40	7590

Hi performance Steel / Cast Iron
ONMU/ONHU0605

Dia	T	H	Shank	
63	5	50	FMB27	9800
80	7	50	FMB32	13900
100	9	50	FMB40	19900
125	11	63	FMB40	23500
160	12	63	FMB40	29900
200	14	63	FMB60	49000
250	16	63	FMB60	59000

High feed facing Steel / Stainless / Titanium
XN08 Facemill
XNMU0806



Dia	T	H	Shank	
50	4	40	FMB22	8200
63	5	50	FMB27	11800
80	6	50	FMB32	13500
100	8	50	FMB40	16900
125	9	63	FMB40	19500
160	10	63	FMB40	26000
200	12	63	FMB60	45900

Screw : MS45120 / Wrench T15

General use
S45HN09 Facemill
HNGX0906



Dia	T	H	Shank	
63	6	40	FMB22	11800
80	8	50	FMB27	15700
100	10	50	FMB32	20900
125	10	63	FMB40	21500
160	12	63	FMB40	23500
200	12	63	FMB60	28700
250	14	63	FMB60	31000
315	16	80	FMB60	37500

Screw : MS45120 / Wrench T15

Hi-Performance profile milling



Solid-Rock Clamping
World's first V-Pocket
High rigidity and accuracy



NA : No coating
HSN : Nano coating
TLN : ALTiN coating

SFCY - Steel shank holder

Ball (MB / RBN / RBT / MBT)

Dia	L1	L	Shank
12	36/46	125/150	12
16	50	160	16
20	50/61	150/190	20
25	50/64/64	150/200/250	25
30/32	57/76/57	190/250/300	32

Ø16 Carbide ø20mm/ø16mm



Insert shapes

<p>MB Flank</p>  <p>~50HRC TLN/NA General</p> <p>12/16/20/25/30/32 Chip breaker design</p>	<p>BDN Smooth</p>  <p><70HRC TLN Bull R</p> <p>12/16/20/25/32 R0.5-R1-R1.5-R1.6 R2.0-R2.6</p>
<p>RBN Smooth</p>  <p>40-70HRC TLN/HSN Rough</p> <p>12/16/20/25/30/32 Core Cavity Profile</p>	<p>HF Smooth</p>  <p><70HRC HSN Hi-Feed</p> <p>12, R1.63 / 16, R1.94 20, R2.26 / 25, R2.52 Low ap - High feed</p>
<p>RBT</p>  <p>40-70HRC TLN/HSN Semi to Finish</p> <p>12/16/20/25/30/32 High speed cut</p>	<p>TO</p>  <p><70HRC HSN Toroid</p> <p>12R3 / 16R4 / 20R5 25R6 / 30R7.5 / 32R8 Pocket / Flat surface</p>
<p>MBT Smooth</p>  <p>50-70HRC HSN Finishing</p> <p>12/16/20/25/30/32 High speed cut</p>	<p>TOBD Smooth</p>  <p>Alu NA Toroid</p> <p>12R3 / 16R3 / 20R3 / 25R3 High speed rough</p>

CYF - Steel shank holder

Bull (BDN / HF / TOBD / TO)

Dia	L1	L	Shank
12	36/46	125/150	12
16	50	160	16
20	50/61	150/200	20
25	50/64	150/200	25
30/32	57/76	190/250	32

Ø16 Carbide ø20mm/ø16mm



Economy milling holder



0603 4-Corners shoulder mill

4PKT060308 KM15C
4PKT060308 KM15S



Dia	T	L	Shank	Price
16	2	160	16	1590
17	2	160	16	1690
17	2	200	16	1990
20	3	160	20	1890
21	3	160	20	2090
21	3	200	20	2390
25	4	160	25	2490
26	4	200	25	2890

ASM07 Shoulder mill

JDMT070208 KM15P/C



Dia	T	L	Shank	Price
10	2	120	10	1490
12	2	120	12	1590
14	3	120	14	1690
16	4	120	16	1890

MFWN Shoulder mill

WNMU080508EN-GM KM15C



Dia	T	L	Shank	Price
50	4	-	FMB22	3890
63	4	-	FMB22	4290

ASFR High feed mill

SDMT1205 KM15C 45HRC



Dia	T	L	Shank	Price
35	3	160	32	2690
50	4	-	FMB22	2990
63	4	-	FMB22	2990

Economy milling & U-drill insert



เม็ดมีดมิลลิ่งและเม็ดสว่าน

	Grade	Holder	Price
P 90 Shoulder milling			
M JDMT070208	KM15P/C	ASM - Hitachi	170
K APMT 1135 PDER-M2	KM15C	300R	110
APMT 113512 PDER (R1.2)	KM15C	300R	145
APMT 1604 PDER-M2	KM15C	400R	129
APMT 1135-H2(58HRC)	KM15C	300R	119
APMT 1604-H2(58HRC)	KM15C	400R	145
WNMU 080608EN-GM	KM15C	MFVN-Kyocera	230
4PKT 060308	KM15C/P/S	0603-Taegutec	170/200
P High-feed milling			
K LNMU 0303ZER-MJ	KM15C	EXN03-Tungaloy	180
LNMU 0303ZER-MJ(58HRC)	KM15C	EXN03-Tungaloy	210
EPNW 0603TN	KM15C	ASR-Hitachi	160
SDMT 1205	KM15C	ASRF-Hitachi	220
SDMT 1205 (58HRC)	KM15C	ASRF-Hitachi	250
P Round insert			
K RPMT 08T2	KM15C	EMR/RPD	115
RPMW 1003 (58HRC)	KM15C	EMR/RPD	110
RPMT 10T3	KM15C	EMR/RPD	98
RPMT 1204 (45HRC)	KM15C	EMR/RPD	115
RPMT 1204 (58HRC)	KM15C	EMR/RPD	138
RDMW 1605	KM15C	TRS/RPD	180
RDMT 1204 M0	PKM15	TRS/RPD	135
P Multi-function milling			
CCMT 060204	PKM15	TJU-Hitachi	138
CPMT 080204	PKM15	TJU-Hitachi	155
CPMT 090204	PKM15	TJU-Hitachi	177
CPMT 090308	PKM15	TJU-Hitachi	184
CPMT 120308	PKM15	TJU-Hitachi	219
CPMT 120408	PKM15	TJU-Hitachi	250
CPMT 160408	PKM15	TJU-Hitachi	320
P Face milling			
SEKT 1204 AFTN	KM15C	SE45	175
SEEN 1203 AFTN-Cermet	CNX15	45 Facemill	135
SEEN 1504 AFTN-Cermet	CNX15	45 Facemill	179
TPMN 160308-Cermet	CNX15	90 Facemill	119
TPKN 220412-Cermet	CNX15	90 Facemill	149
N Aluminum milling			
APKT 1135	NH01	BAP300R	150
APKT 1604	NH01	BAP400R	170
SEHT 1204-AFFN	NH01	SE45	197
P Ballnose carbide insert			
K P3200-D8	PKM15	T2139	700
P3200-D10	PKM15	T2139	700
P3200-D12	PKM15	T2139	720
P3200-D16	PKM15	T2139	950
P3200-D20	PKM15	T2139	1250
P3200-D25	PKM15	T2139	1580
P Drilling เม็ดสว่าน			
K WCMX 030208-SF	KM15C	U-drill	140
WCMX 040208-SF	KM15C	U-drill	140
WCMX 050308-SF	KM15C	U-drill	158
WCMX 06T308-SF	KM15C	U-drill	178
WCMX 080412-SF	KM15C	U-drill	224
SPMG 040204-TG	KM15C	U-drill	220
SPMG 050204-TG	KM15C	U-drill	140
SPMG 060204-TG	KM15C	U-drill	140
SPMG 07T308-TG	KM15C	U-drill	158
SPMG 090408-TG	KM15C	U-drill	178
SPMG 110408-TG	KM15C	U-drill	210

Insert Shape:



Holder : Suken

D8x130
D10x160
D12x160
D16x160
D20x160

SPMG Holder 3xD

Dia13/14/15/16/17/18/19/20/23/25mm

Economy milling holder



ASM Mini mill
JDMT0702



Dia	T	L1	L	Shank	
10	2	25	120	10	2300
12	2	25	120	12	2550
13	2	25	150	12	2550
17	4	-	150	16	2950

Screw : M1.8 / Wrench T6
Option : ADMT070208

R390 Shoulder mill
R390 11T308,16,20



Dia	T	L1	L	Shank	
16	2	25	160	16	1950
20	2	25	160	20	2170
20	2	25	200	20	2490
25	2	50	160	25	2750

Screw : M3.5x8 / Wrench T8

ASR High feed
EPNW(MT) 0603



Dia	T	L1	L	Shank	
16	2	50	160	16	1920
20	2	50	160	20	2350
20	2	50	200	20	2780
25	3	60	160	25	2890

Screw : M2.5x6 / Wrench T8

300R Shoulder mill
APMT1135



Dia	T	L1	L	Shank	
16	2	40	120	16	1250
16	2	40	160	16	1290
20	2	50	120	20	1400
20	2	60	160	20	1500
25	3	50	160	25	1690
25	3	50	200	25	1790

Screw : M2.5x6 / Wrench T8

400R Shoulder mill
APMT1604



Dia	T	L1	L	Shank	
25	2	70	160	25	1680
25	2	70	200	25	1850
30	2	80	160	25	2150
30	2	80	200	25	2380
35	2	60	200	32	2590
35	2	60	300	32	3890

Screw : M4.0x8 / Wrench T15

EXN03R Hi feed
LNMU0303



Dia	T	L1	L	Shank	
16	2	40	160	16	2650
16	2	40	200	16	3150
17	2	-	200	16	3150
20	3	50	160	20	3250
21	3	-	160	20	3250
21	3	-	200	20	3650
25	4	50	200	25	4480
32	5	50	200	32	5590

Screw : M4.0x8 / Wrench T15

TRS Round insert
RDMT10T3



Dia	T	L1	L	Shank	
20xR5	2	60	160	20	1290
20xR5	2	100	200	20	1550
25xR5	2	-	160	20	1400
25xR5	2	70	200	25	1590

Screw : M2.5x6 / Wrench T8

TCM45 Chamfer
TCMT1603



Dia	T	d1	L	Shank	
20	1	3	110	16	1990
25	1	8	110	20	2250

Screw : M4 / Wrench T15

EM45 Chamfer
SDMB26152



Dia	T	L1	L	Shank	
25	2	45	110	20	1990
30	2	45	150	25	2390

Screw : M3 / Wrench T15

SB Multi chamfer
SPMW090304



Dia	T	Range	d	Shank	
16	1	1.5-16	120	16	2150

Screw : M4 / Wrench T15

SE45 Facemill
SEKT1204



Dia	T	H	Shank	
50	4	50	FMB22	2990
80	5	50	FMB27	4290
100	6	50	FMB32	5590
125	6	63	FMB40	6900
160	7	63	FMB40	11500

Screw : M5 / Wrench T20

Milling holder



Modular milling



E-catalog

Modular milling system



300R Shoulder mill APMT1135 Mitsubishi type



Dia	T	L	Thread	Price
16 ●	2	46	M8	1284
17	2	46	M8	1284
20 ●	2	49	M10	1420
21 ●	2	49	M10	1420
25 ●	3	57	M12	1704

400R Shoulder mill APMT1604 Mitsubishi type



Dia	T	L	Thread	Price
25 ●	2	46	M12	1567
26	2	46	M12	1567
30 ●	2	49	M12	1965
32	3	49	M16	1965
35 ●	3	57	M16	2158

ASM Shoulder mill JDMT0702 Hitachi type



Dia	T	L	Thread	Price
10 ●	2	35	M6	2272
12 ●	2	35	M6	2272
13 ●	2	35	M6	2272
16	4	35	M8	3271
17	4	35	M8	3271

R390 Shoulder mill R390 11T3 Sandvik type



Dia	T	L	Thread	Price
16 ●	2	46	M8	2215
17	2	46	M8	2215
20 ●	2	49	M10	2453
21	2	49	M10	2453
25	3	57	M12	2953

EXN03R High feed LNMU0303 Tungaloy type



Dia	T	L	Thread	Price
16 ●	2	46	M8	3235
20 ●	3	49	M10	4019
21	3	49	M10	4019
25 ●	3	57	M12	4705
26	4	57	M12	4705

ASR High feed EPNW0603 Hitachi type



Dia	T	L	Thread	Price
16	2	46	M8	2215
20 ●	3	49	M10	2453
21 ●	3	49	M10	2453
25 ●	3	57	M12	3067
32	4	63	M16	3930

R4 Round insert RDMT0802 Hitachi type



Dia	T	L	Thread	Price
16 ●	2	46	M8	1284
17	2	46	M8	1284
20	2	49	M10	1420
25	3	57	M12	1840

R5 Round insert RDMT10T3 Hitachi type



Dia	T	L	Thread	Price
20 ●	2	46	M10	1420
21	2	46	M10	1420
25 ●	2	49	M12	1227
30	3	49	M12	1227

R6 Round insert RDMT1204 Hitachi type



Dia	T	L	Thread	Price
30 ●	3	57	M12	1965
32	3	57	M16	1965
35 ●	3	63	M16	1965
40	3	63	M16	3442

T2139 Ball insert P3200 Walter type



Dia	T	L	Thread	Price
R6	1	35	M6	2941
R8 ●	1	46	M8	3235
R10 ●	1	46	M10	3431
R12.5	1	57	M12	3921
R15	1	63	M16	4705

ABPF Ball insert ZDFG/ZPFG Hitachi type



Dia	T	L	Thread	Price
R6	1	35	M6	2941
R8	1	46	M8	2941
R10	1	46	M10	3431
R12.5	1	57	M12	3921
R15	1	63	M16	4705

Carbide screw shank CBS/ASC



D	L	Thread	Shank
12	150	M6	12
12	200	M6	12
16	150	M8	16
16	200	M8	16
16	250	M8	16
20	150	M10	20
20	200	M10	20
20	250	M10	20
25	200	M12	25
25	250	M12	25
25	300	M12	25
32	200	M16	32
32	250	M16	32
32	300	M16	32

BT Modular holder BT-M



Dia-M-L	d Min/max
BT30-M8-100	15/17
BT30-M10-100	19/21
BT30-M12-100	24/26
BT40-M8-100 ●	15/17
BT40-M8-150 ●	15/22
BT40-M10-100 ●	19/25
BT40-M10-150 ●	19/25
BT40-M10-200 ●	19/31

Dia-M-L	d Min/max
BT40-M12-100 ●	24/32
BT40-M12-150 ●	24/37
BT40-M12-200 ●	24/68
BT40-M16-150	30/41
BT40-M16-200	30/46
BT50-M8-200	16/32
BT50-M10-150	20/37
BT50-M10-200	20/37

Dia-M-L	d Min/max
BT50-M10-250	20/37
BT50-M12-150	24/40
BT50-M12-200	24/40
BT50-M12-250	24/50
BT50-M12-300	24/50
BT50-M16-150	29/50
BT50-M16-200	29/50
BT50-M16-300	29/55

● Stock items

HSS Drills

(YG-KOREA)

Precision HSS drill

ดอกสว่านไฮสปีดก้านกลม ขนาดมาตรฐาน

Code	Dia.	Price/pc	Code	Dia.	Price/pc	Code	Dia.	Price/pc
D1103	0.30	117	D1103	4.10	61	D1103	7.90	177
D1103	0.40	84	● D1103	4.20	61	● D1103	8.00	177
D1103	0.50	75	D1103	4.30	61	D1103	8.10	206
D1103	0.60	73	D1103	4.40	61	D1103	8.20	206
D1103	0.70	73	● D1103	4.50	61	D1103	8.30	206
D1103	0.80	56	D1103	4.60	77	D1103	8.40	206
D1103	0.90	39	D1103	4.70	77	● D1103	8.50	206
● D1103	1.00	39	D1103	4.80	77	D1103	8.60	206
D1103	1.10	39	D1103	4.90	77	D1103	8.70	231
D1103	1.20	39	● D1103	5.00	77	D1103	8.80	231
D1103	1.30	39	D1103	5.10	86	D1103	8.90	231
D1103	1.40	39	D1103	5.20	86	● D1103	9.00	231
D1103	1.50	39	D1103	5.30	86	D1103	9.10	272
● D1103	1.60	39	D1103	5.40	86	D1103	9.20	272
D1103	1.70	39	● D1103	5.50	86	D1103	9.30	281
D1103	1.80	39	D1103	5.60	101	D1103	9.40	281
D1103	1.90	39	D1103	5.70	101	● D1103	9.50	281
● D1103	2.00	39	D1103	5.80	101	D1103	9.60	281
D1103	2.10	39	D1103	5.90	101	D1103	9.70	291
D1103	2.20	39	● D1103	6.00	101	D1103	9.80	291
D1103	2.30	39	D1103	6.10	120	D1103	9.90	291
D1103	2.40	39	D1103	6.20	120	● D1103	10.00	291
● D1103	2.50	39	D1103	6.30	120	● D1103	11.00	343
D1103	2.60	39	D1103	6.40	120	● D1103	12.00	414
D1103	2.70	39	● D1103	6.50	121	D1103	12.50	479
D1103	2.80	39	D1103	6.60	138	D1103	13.00	497
D1103	2.90	39	D1103	6.70	138	D1103	14.00	593
● D1103	3.00	39	● D1103	6.80	138			
D1103	3.10	45	D1103	6.90	138			
D1103	3.20	45	● D1103	7.00	138			
● D1103	3.30	45	D1103	7.10	153			
D1103	3.40	45	D1103	7.20	153			
● D1103	3.50	45	D1103	7.30	153			
D1103	3.60	52	D1103	7.40	159			
● D1103	3.70	52	● D1103	7.50	159			
D1103	3.80	52	D1103	7.60	178			
D1103	3.90	52	D1103	7.70	178			
● D1103	4.00	52	D1103	7.80	178			



รุ่นยาว S562 กรุณาลองถามเพิ่มเติม
ขนาดต่ำกว่า 6 มม. ขายเป็น ชุดของ 10 ดอก

HSS Drills

NACHI



List 500      

Code	Dia.	Price/pc	Code	Dia.	Price/pc	Code	Dia.	Price/pc
L500	0.30	204	L500	4.60	96	L500	8.90	256
L500	0.40	176	L500	4.70	96	L500	9.00	256
L500	0.50	160	L500	4.80	96	L500	9.10	300
L500	0.60	146	L500	4.90	96	L500	9.20	300
L500	0.70	88	L500	5.00	96	L500	9.30	300
L500	0.80	74	L500	5.10	108	L500	9.40	300
L500	0.90	74	L500	5.20	108	L500	9.50	300
L500	1.00	59	L500	5.30	108	L500	9.60	330
L500	1.10	59	L500	5.40	108	L500	9.70	330
L500	1.20	59	L500	5.50	108	L500	9.80	330
L500	1.30	59	L500	5.60	125	L500	9.90	330
L500	1.40	59	L500	5.70	125	L500	10.00	330
L500	1.50	56	L500	5.80	125	L500	10.10	380
L500	1.60	59	L500	5.90	125	L500	10.20	380
L500	1.70	59	L500	6.00	125	L500	10.30	380
L500	1.80	59	L500	6.10	142	L500	10.40	380
L500	1.90	59	L500	6.20	142	L500	10.50	380
L500	2.00	56	L500	6.30	142	L500	10.60	424
L500	2.10	59	L500	6.40	142	L500	10.70	424
L500	2.20	59	L500	6.50	142	L500	10.80	424
L500	2.30	59	L500	6.60	161	L500	10.90	424
L500	2.40	59	L500	6.70	161	L500	11.00	424
L500	2.50	56	L500	6.80	161	L500	11.10	468
L500	2.60	59	L500	6.90	161	L500	11.20	468
L500	2.70	59	L500	7.00	158	L500	11.30	468
L500	2.80	58	L500	7.10	183	L500	11.40	468
L500	2.90	58	L500	7.20	183	L500	11.50	438
L500	3.00	56	L500	7.30	183	L500	11.60	512
L500	3.10	59	L500	7.40	183	L500	11.70	512
L500	3.20	59	L500	7.50	182	L500	11.80	512
L500	3.30	59	L500	7.60	205	L500	11.90	512
L500	3.40	59	L500	7.70	205	L500	12.00	498
L500	3.50	58	L500	7.80	205	L500	12.50	526
L500	3.60	69	L500	7.90	205	L500	13.00	556
L500	3.70	69	L500	8.00	205	L500	13.50	1244
L500	3.80	69	L500	8.10	226	L500	14.00	1302
L500	3.90	69	L500	8.20	226	L500	14.50	1420
L500	4.00	69	L500	8.30	226	L500	15.00	1506
L500	4.10	80	L500	8.40	226	L500	15.50	1594
L500	4.20	80	L500	8.50	226	L500	16.00	1682
L500	4.30	80	L500	8.60	256	L500	16.50	1726
L500	4.40	80	L500	8.70	256	L500	17.00	1902
L500	4.50	80	L500	8.80	256	L500	17.50	1960

ขนาดอื่น ๆ สอบถามเพิ่มเติม

ขนาดต่ำกว่า 6 มม. ขายเป็น ชุด 10 ดอก

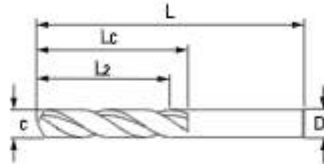
HSS-E Performance drill

Germany



Jobber drills for stainless / steel

HSS HSS E DIN 338 h8



HSS E 135°

114405



HSS 116°

114360



Application & Cutting condition

Suitable for/ v _c [m/min]	Alu plates 0.22%	Alu cast > 10% Si	Alu cast < 10% Si	500 N	750 N	900 N	1100 N	1400 N	55 HRC	60 HRC	65 HRC	67 HRC	70 HRC	INOX < 900 N	INOX > 900 N	TI > 350 N	GG(G)	CuZn	
ISO code	N	N	N	P	P	P	P	P	H	H	H	H	H	M	M	S	K	N	
114405				35	28	22	8	6						8					
114360	56	50	50	37	31	12	10							15	10	6	31	80	

D _c h8 mm	114405 HOLEX HSS-E		114360 HOLEX HSS		Pack	Lc mm	L mm	INOX f mm/rev.	INOX f mm/rev.
	N	N	TiN	N					
1	160	150			5	12	34	0.02	0.05
1.1	170	150			5	14	36	0.02	0.05
1.2	160	150			5	16	38	0.02	0.05
1.3	160	150			5	16	38	0.02	0.05
1.4	160	150			5	16	38	0.02	0.05
1.5	160	140			5	18	40	0.02	0.05
1.6	160	130	•		5	20	43	0.02	0.05
1.7	160	140			5	20	43	0.02	0.05
1.8	170	140			5	22	46	0.02	0.05
1.9	150	140			5	22	46	0.02	0.05
2	160	130	•		5	24	49	0.02	0.05
2.1	170	150			5	24	49	0.02	0.05
2.2	180	150			5	27	57	0.02	0.05
2.3	180	150			5	27	57	0.02	0.05
2.4	170	150			5	30	57	0.02	0.05
2.5	170	150	•		5	30	57	0.02	0.05
2.6	180	150			5	30	57	0.02	0.05
2.7	180	150			5	33	61	0.02	0.05
2.8	180	150			5	33	61	0.02	0.05
2.9	180	150			5	33	61	0.02	0.05
3	170	150	•		10	33	61	0.02	0.05
3.1	180	160			10	36	65	0.02	0.05
3.2	180	150			10	36	65	0.02	0.05
3.3	180	160	•		10	36	65	0.02	0.05
3.4	190	180			10	39	70	0.02	0.05
3.5	180	180	•		10	39	70	0.02	0.05
3.6	200	180			10	39	70	0.02	0.05
3.7	190	190	•		10	39	70	0.02	0.05
3.8	220	190			10	43	75	0.02	0.05
3.9	230	190			10	43	75	0.02	0.05
4	210	190	•		10	43	75	0.03	0.09
4.1	230	210			10	43	75	0.03	0.09
4.2	200	220	•		10	43	75	0.03	0.09
4.3	230	220			10	47	80	0.03	0.09
4.4	230	230			10	47	80	0.03	0.09
4.5	200	230	•		10	47	80	0.03	0.09
4.6	230	240			10	47	80	0.03	0.09
4.7	220	240			10	47	80	0.03	0.09
4.8	230	240			10	52	86	0.03	0.09
4.9	230	240			10	52	86	0.03	0.09
5	210	240	•		10	52	86	0.04	0.09
5.1	250	260			10	56	86	0.04	0.09
5.2	250	260			10	56	86	0.04	0.09
5.3	240	280			10	56	86	0.04	0.09
5.4	260	300			10	57	93	0.04	0.09
5.5	240	300	•		10	57	93	0.04	0.09
5.6	280	310			10	57	93	0.04	0.09
5.7	280	310			10	57	93	0.04	0.09
5.8	280	310			10	57	93	0.04	0.09
5.9	280	340			10	57	93	0.04	0.09
6	250	320	•		10	57	93	0.05	0.13
6.1	320	360			10	63	101	0.05	0.13
6.2	320	360			10	63	101	0.05	0.13
6.3	310	360			10	63	101	0.05	0.13

D _c h8 mm	114405 HOLEX HSS-E		114360 HOLEX HSS		Pack	Lc mm	L mm	INOX f mm/rev.	INOX f mm/rev.
	N	N	TiN	N					
6.4	320	360			10	63	101	0.05	0.13
6.5	310	370			10	63	101	0.05	0.13
6.6	360	370			10	63	101	0.05	0.13
6.7	330	370			10	63	101	0.05	0.13
6.8	390	420	•		10	69	109	0.05	0.13
6.9	410	420			10	69	109	0.05	0.13
7	390	410	•		10	69	109	0.05	0.13
7.1	500	430			10	69	109	0.05	0.13
7.2	500	430			10	69	109	0.05	0.13
7.3	500	470			10	69	109	0.05	0.13
7.4	540	470			10	69	109	0.05	0.13
7.5	100	470	•		10	69	109	0.05	0.13
7.6	550	510			5	75	117	0.05	0.13
7.7	550	510			5	75	117	0.05	0.13
7.8	560	510			5	75	117	0.05	0.13
7.9	560	510			5	75	117	0.05	0.13
8	450	500	•		5	75	117	0.09	0.16
8.1	560	550			5	75	117	0.09	0.16
8.2	560	550			5	75	117	0.09	0.16
8.3	560	550			5	75	117	0.09	0.16
8.4	550	570			5	75	117	0.09	0.16
8.5	500	550	•		5	75	117	0.09	0.16
8.6	700	610			5	81	125	0.09	0.16
8.7	630	610			5	81	125	0.09	0.16
8.8	630	620			5	81	125	0.09	0.16
8.9	630	630			5	81	125	0.09	0.16
9	560	610	•		5	81	125	0.09	0.16
9.1	680	640			5	81	125	0.09	0.16
9.2	680	690			5	81	125	0.09	0.16
9.3	700	690			5	81	125	0.09	0.16
9.4	700	690			5	81	125	0.09	0.16
9.5	610	670	•		5	81	125	0.09	0.16
9.6	760	740			5	87	133	0.09	0.16
9.7	760	740			5	87	133	0.09	0.16
9.8	760	740			5	87	133	0.09	0.16
9.9	760	740	•		5	87	133	0.09	0.16
10	680	720			5	87	133	0.09	0.16
10.1	930	810			5	87	133	0.09	0.16
10.2	800	800	•		5	87	133	0.09	0.16
10.5	790	820	•		5	87	133	0.09	0.16
10.8	820	1030			5	94	142	0.09	0.16
11	1030	910	•		5	94	142	0.09	0.16
11.2	1070	1060			5	94	142	0.09	0.16
11.5	1160	990	•		5	94	142	0.09	0.16
11.8	1670	1160			5	94	142	0.13	0.16
12	1220	1090	•		5	101	151	0.13	0.2
12.2	950	1340			5	101	151	0.13	0.2
12.5	1460	1240			5	101	151	0.13	0.2
12.8	1050	1480			5	101	151	0.13	0.2
13	1620	1300			5	101	151	0.13	0.2
14		1780			1	108	160	-	0.2
14.5		2340			1	114	169	-	0.2
15		2810			1	114	169	-	0.2
15.5		2850			1	120	178	-	0.2
16		2850			1	120	178	-	0.25

HSS Taper drill



Jobber drills with Morse taper shank



Application & Cutting condition

Suitable for/ v _c [m/min]	Alu plates 0.2-0.22	Alu cast > 10 N/S	Alu cast < 10 N/S	P	P	P	P	P	P	H	H	H	H	H	H	INOX < 500 N	INOX > 900 N	Ti > 850 N	GG(G) K	Graphite GFP CSP N					
11 6320	N	N	N	P	P	P	P	P	P	H	H	H	H	H	H	M	M	S	25	N					
11 6340		45		40	30	25	30	25											25						

D _c h8	116340		116320		L _c	L	MT	I < 750 N f	D _c h8	116340		116320		L _c	L	MT	I < 750 N f
	Garant Precision	HOLEX Standard	Garant Precision	HOLEX Standard						Garant Precision	HOLEX Standard						
mm	N		mm	mm	mm	mm	mm/rev.	mm	N		mm	mm	mm/rev.				
5	1240				52	133	1	0.07	22	3520		3010	150	248	2	0.2	
5.5	1210				57	138	1	0.07	22.25	4210			150	248	2	0.2	
6	1270				57	138	1	0.07	22.5	3840		3190	155	253	2	0.2	
6.5	1240				63	144	1	0.07	22.75	4390			155	253	2	0.2	
7	1240				69	150	1	0.07	23	4150		3300	155	253	2	0.2	
7.5	1240				69	150	1	0.07	23.5	4120		3520	155	276	3	0.2	
8	1190				75	156	1	0.1	23.75	5730			160	281	3	0.2	
8.5	1350				75	156	1	0.1	24	4350		3420	160	281	3	0.2	
9	1310				81	162	1	0.1	24.5	4530		3760	160	281	3	0.2	
9.5	1470				81	162	1	0.1	24.75	6220			160	281	3	0.2	
9.6	2620				87	166	1	0.1	25	4790		3930	160	281	3	0.25	
10	1340				87	168	1	0.1	25.5	4950		3970	165	286	3	0.25	
10.25	1970				87	168	1	0.1	25.75	6500			165	286	3	0.25	
10.5	1380				87	168	1	0.1	26	5480		4010	165	286	3	0.25	
10.75	1950				94	175	1	0.1	26.5	5290		4490	165	286	3	0.25	
11	1450				94	175	1	0.1	27	5440		4700	170	291	3	0.25	
11.25	1830				94	175	1	0.1	27.5	5650		4830	170	291	3	0.25	
11.5	1670				94	175	1	0.1	27.75	8040			170	291	3	0.25	
11.75	1930				94	175	1	0.1	28	6030		4700	170	291	3	0.25	
12	1490				101	182	1	0.16	28.5	7460		5270	175	296	3	0.25	
12.25	1950				101	182	1	0.16	29	6590		5550	175	296	3	0.25	
12.5	1560				101	182	1	0.16	29.5	6720		5710	175	296	3	0.25	
12.75	1950				101	182	1	0.16	29.75	8660			175	296	3	0.25	
13	1630		1320		101	182	1	0.16	30	6590		5910	175	296	3	0.25	
13.25	1990				108	189	1	0.16	30.5	8010		6160	180	301	3	0.25	
13.5	1840		1360		108	189	1	0.16	31	7750		6500	180	301	3	0.25	
13.75	2100				108	189	1	0.16	31.5	8850			180	301	3	0.25	
14	1710		1430		108	189	1	0.16	32	8240		7050	185	334	4	0.25	
14.25	2590				114	212	2	0.16	32.5	9430			185	334	4	0.25	
14.5	1790		1660		114	212	2	0.16	33	8820		8080	185	334	4	0.25	
14.75	2730				114	212	2	0.16	33.5	9780			185	334	4	0.25	
15	1930		1700		114	212	2	0.16	34	10330		8550	190	339	4	0.25	
15.25	2540				120	218	2	0.16	34.5	11400			190	339	4	0.25	
15.5	2050		1780		120	218	2	0.16	35	10430		8610	190	339	4	0.25	
15.75	2320				120	218	2	0.16	35.5	12530			190	339	4	0.25	
16	2050		1850		120	218	2	0.2	36	11330		9080	195	344	4	0.25	
16.25	3100				125	223	2	0.2	37	12330			195	344	4	0.25	
16.5	2220		2000		125	223	2	0.2	37.5	14070			195	344	4	0.25	
16.75	2510				125	223	2	0.2	38	13170		10140	200	349	4	0.25	
17	2310		2110		125	223	2	0.2	38.5	16080			200	349	4	0.25	
17.25	2880				130	228	2	0.2	39	14520		11060	200	349	4	0.25	
17.5	2360		2190		130	228	2	0.2	39.5	18010			200	349	4	0.25	
17.75	2900				130	228	2	0.2	40	14850		11840	200	349	4	0.32	
18	2460		2320		130	228	2	0.2	40.5	23560			205	354	4	0.32	
18.25	2900				135	233	2	0.2	41	15880		13710	205	354	4	0.32	
18.5	2670		2370		135	233	2	0.2	42	17430		13610	205	354	4	0.32	
18.75	3100				135	233	2	0.2	43	18460		14290	210	359	4	0.32	
19	2660		2520		135	233	2	0.2	44	19500		18300	210	359	4	0.32	
19.25	3310				140	238	2	0.2	45	20270		19270	210	359	4	0.32	
19.5	3080		2650		140	238	2	0.2	46	22980		19080	215	364	4	0.32	
19.75	3450				140	238	2	0.2	47	22980		21500	215	364	4	0.32	
20	2830		2590		140	238	2	0.2	48	22980		22180	220	369	4	0.32	
20.25	3830				145	243	2	0.2	49	23950		22950	220	369	4	0.32	
20.5	2970		2820		145	243	2	0.2	50	24660		23820	220	369	4	0.32	
20.75	3840				145	243	2	0.2	51	29340		27590	225	412	5	0.32	
21	3160		2870		145	243	2	0.2	53	34980		30210	230	417	5	0.32	
21.25	3970				150	248	2	0.2	60	43240		42900	235	422	5	0.32	
21.5	3650		2900		150	248	2	0.2	65	54470		53830	245	432	5	0.4	
21.75	4120				150	248	2	0.2	70	66980		62530	250	437	5	0.4	

Solid carbide drill

Solid carbide drill

超硬ドリル 脱炭素加工に最適な標準

Dc h7	Lc mm	L mm	Price		Dc h7	Lc mm	L mm	Price	
			D412	D430FN				D412	D430FN
1.00	6	26	240	308	5.00	26	62	900	1115
1.05	6	26	396	510	5.10	26	62	1196	1487
1.10	7	28	305	393	5.20	26	62	1196	1487
1.15	7	28	396	510	5.30	26	62	1196	1487
1.20	8	30	305	393	5.40	28	66	1196	1487
1.25	8	30	396	510	5.50	28	66	1139	1416
1.30	8	30	305	393	5.60	28	66	1410	1753
1.35	9	32	396	510	5.70	28	66	1410	1753
1.40	9	32	305	393	5.80	28	66	1410	1753
1.45	9	32	396	510	5.90	28	66	1410	1753
1.50	9	32	305	393	6.00	28	66	1345	1670
1.55	10	34	429	553	6.10	31	70	1617	2007
1.60	10	34	330	425	6.20	31	70	1617	2007
1.65	10	34	429	553	6.30	31	70	1617	2007
1.70	10	34	330	425	6.40	31	70	1617	2007
1.75	11	36	429	553	6.50	31	70	1560	1935
1.80	11	36	330	425	6.60	31	70	1675	2080
1.85	11	36	429	553	6.70	31	70	1675	2080
1.90	11	36	330	425	6.80	34	74	1914	2376
1.95	12	38	429	553	6.90	34	74	1914	2376
2.00	12	38	305	394	7.00	34	74	1890	2346
2.05	12	38	429	553	7.10	34	74	2037	2531
2.10	12	38	330	425	7.20	34	74	2037	2531
2.15	13	40	470	606	7.30	34	74	2037	2531
2.20	13	40	363	467	7.40	34	74	2037	2531
2.25	13	40	470	606	7.50	34	74	1980	2460
2.30	13	40	363	467	7.60	37	79	2343	2789
2.35	13	40	503	648	7.70	37	79	2343	2789
2.40	14	43	387	502	7.80	37	79	2343	2789
2.45	14	43	503	649	7.90	37	79	2253	2789
2.50	14	43	363	467	8.00	37	79	2673	2657
2.55	14	43	590	760	8.10	37	79	2673	2884
2.60	14	43	454	584	8.20	37	79	2673	2884
2.65	14	43	709	914	8.30	37	79	2673	2884
2.70	16	46	544	702	8.40	37	79	2673	2884
2.75	16	46	709	914	8.50	37	79	2475	2778
2.80	16	46	544	702	8.60	40	84	2813	3055
2.85	16	46	709	914	8.70	40	84	2813	3055
2.90	16	46	544	702	8.80	40	84	2813	3055
2.95	16	46	709	914	8.90	40	84	2813	3055
3.00	16	46	544	584	9.00	40	84	2665	2884
3.10	18	49	603	774	9.10	40	84	3102	3321
3.20	18	49	603	774	9.20	40	84	3102	3321
3.30	18	49	606	774	9.30	40	84	3102	3321
3.40	20	52	660	850	9.40	40	84	3102	3321
3.50	20	52	603	774	9.50	40	84	3016	3264
3.60	20	52	750	968	9.60	43	89	3457	3742
3.70	20	52	750	968	9.70	43	89	3457	3742
3.80	22	55	809	1039	9.80	43	89	3457	3742
3.90	22	55	809	1039	9.90	43	89	3457	3742
4.00	22	55	750	968	10.00	43	89	3218	3491
4.10	22	55	841	1086	10.20	43	89	3584	3655
4.20	22	55	841	1086	10.50	43	89	3375	3840
4.30	24	58	841	1086	10.80	47	95	3820	4118
4.40	24	58	841	1086	11.00	47	95	3720	4023
4.50	24	58	809	1039	11.50	47	95	3927	4269
4.60	24	58	900	1157	12.00	51	102	4488	4858
4.70	24	58	900	1157	12.50	51	102	5082	5503
4.80	26	62	957	1233	13.00	51	102	5610	6072
4.90	26	62	957	1233					

Standard drill

D412



MG Carbide Uncoated Blank

3XD 2

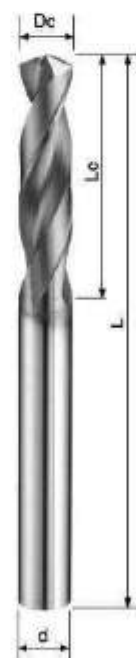
DIN 6539 118°

Work Material

P	H	M	K	N	S
●			○	●	

Hi performance drill

D430FN



MG Carbide TiAlN F-NaNo

3XD 2

DIN 6539 140°

Work Material

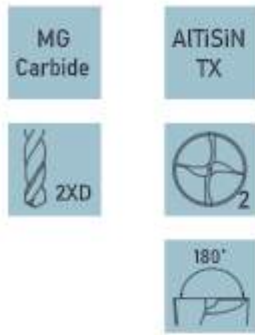
P	H	M	K	N	S
●	○	○	●		

รุ่นยาว D413 / D433FN
กรุณาสอบถาม

Solid carbide flat drill



D425TX-2-Dc



Work Material

P	H	M	K	N	S
●	●	○	●	○	○

P	Steel
H	<38HRC Hardened Steel
H	<48HRC Hardened Steel
M	Stainless Steel
K	Cast Iron
S	Titanium
S	Nickel
S	High Temp Alloys

Feature of product:

With 0° point of drill tip, it can avoid shift or skewing during non-planar drilling such as countersinks, ramping, curved surface, etc.

With AITISIN coating type to have longer tool life and enhance cutting and using efficiency.

Flat drill advantage

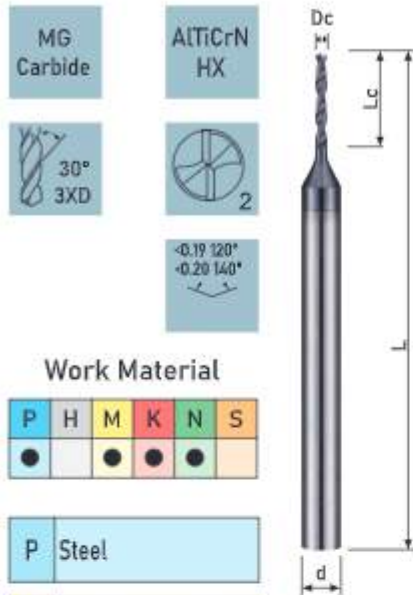
Anit-slip for Curve or Slant surface drilling and counterboring use

Dc h7	Lc mm	L mm	d h6	AITISIN D425TX-2	Dc h7	Lc mm	L mm	d h6	AITISIN D425TX-2
1	3	50	3	1155	7	24	70	6	2100
1.1	4	50	3	1155	7.1	26	70	6	2350
1.2	4	50	3	1155	7.2	26	70	6	2350
1.3	4	50	3	1155	7.3	26	70	6	2350
1.4	5	50	3	1155	7.4	27	70	6	2350
1.5	5	50	3	1155	7.5	27	70	6	2350
1.6	5	50	3	1155	7.6	27	70	6	2350
1.7	6	50	3	1155	7.7	28	70	6	2350
1.8	6	50	3	1155	7.8	28	70	6	2350
1.9	7	50	3	1155	7.9	28	70	6	2350
2	7	50	4	1260	8	28	70	8	2670
2.1	8	50	4	1260	8.1	29	80	8	2670
2.2	8	50	4	1260	8.2	29	80	8	2670
2.3	8	50	4	1260	8.3	29	80	8	2670
2.4	9	50	4	1260	8.4	30	80	8	2670
2.5	9	50	4	1260	8.5	30	80	8	2670
2.6	9	50	4	1260	8.6	30	80	8	2670
2.7	10	50	4	1260	8.7	32	80	8	2670
2.8	10	50	4	1260	8.8	32	80	8	2670
2.9	11	50	4	1260	8.9	32	80	8	2670
3	11	50	6	1260	9	32	80	8	2670
3.1	12	50	6	1295	9.1	33	80	8	2870
3.2	12	50	6	1295	9.2	33	80	8	2870
3.3	12	50	6	1295	9.3	33	80	8	2870
3.4	13	50	6	1295	9.4	34	80	8	2870
3.5	13	50	6	1295	9.5	34	80	8	2870
3.6	13	50	6	1295	9.6	34	80	8	2870
3.7	14	50	6	1295	9.7	35	80	8	2870
3.8	14	50	6	1295	9.8	35	80	8	2870
3.9	14	50	6	1295	9.9	35	80	8	2870
4	14	50	6	1295	10	35	80	10	2870
4.1	15	60	6	1470	10.1	36	90	10	3290
4.2	15	60	6	1470	10.2	36	90	10	3290
4.3	15	60	6	1470	10.3	36	90	10	3290
4.4	16	60	6	1470	10.4	37	90	10	3290
4.5	16	60	6	1470	10.5	37	90	10	3290
4.6	16	60	6	1470	10.6	37	90	10	3290
4.7	18	60	6	1470	10.7	38	90	10	3290
4.8	18	60	6	1470	10.8	38	90	10	3290
4.9	18	60	6	1470	10.9	38	90	10	3290
5	18	60	6	1470	11	38	90	10	3290
5.1	19	60	6	1610	11.1	40	90	10	3640
5.2	19	60	6	1610	11.2	40	90	10	3640
5.3	19	60	6	1610	11.3	40	90	10	3640
5.4	20	60	6	1610	11.4	41	90	10	3640
5.5	20	60	6	1610	11.5	41	90	10	3640
5.6	20	60	6	1610	11.6	41	90	10	3640
5.7	21	60	6	1610	11.7	42	90	10	3640
5.8	21	60	6	1610	11.8	42	90	10	3640
5.9	21	60	6	1610	11.9	42	90	10	3640
6	21	60	6	1610	12	42	90	12	3640
6.1	22	70	6	2100	12.5	44	100	12	4090
6.2	22	70	6	2100	13	45	100	12	4090
6.3	22	70	6	2100	13.5	48	100	12	-ask-
6.4	23	70	6	2100	14	49	105	12	-ask-
6.5	23	70	6	2100	14.5	51	105	12	-ask-
6.6	23	70	6	2100	15	52	105	12	-ask-
6.7	24	70	6	2100	15.5	55	115	12	-ask-
6.8	24	70	6	2100	16	56	115	16	-ask-
6.9	24	70	6	2100					

Solid carbide micro drill



D420HX-3-DC



MG
Carbide

AlTiCrN
HX



Work Material

P	H	M	K	N	S
●		●	●	●	

- P Steel
- M Stainless Steel
- K Cast Iron
- N Aluminium
- N Copper
- N Plastics

Feature of product:
 Micro Precision Drills
 140° X-shape drill tip design which included sharp and strength.
 Dc range from 0.1 to 2.0mm with every 0.01mm as size range.
 Good wear resistance and lubrication with Nano multilayer coating.
 Suitable for drilling application with Steels which is below HRC30, Stainless Steels, Cast Iron, Aluminium, Copper..etc.

Dc	Lc	L	d	AlTiCrN	Dc	Lc	L	d	AlTiCrN	Dc	Lc	L	d	AlTiCrN
0 -0.005	mm	mm	h6	D420HX-3	0 -0.005	mm	mm	h6	D420HX-3	0 -0.005	mm	mm	h6	D420HX-3
0.1	0.6	38	3	1098	0.7	4.5	38	3	857	1.3	8	42	3	870
0.11	0.6	38	3	1318	0.71	4.5	38	3	944	1.31	8	42	3	1028
0.12	0.8	38	3	1318	0.72	4.5	38	3	944	1.32	8	42	3	1028
0.13	0.8	38	3	1318	0.73	4.5	38	3	944	1.33	9	42	3	1028
0.14	0.8	38	3	1318	0.74	4.5	38	3	944	1.34	9	42	3	1028
0.15	1	38	3	1208	0.75	4.5	38	3	857	1.35	9	42	3	949
0.16	1	38	3	1318	0.76	5	38	3	944	1.36	9	42	3	1028
0.17	1	38	3	1318	0.77	5	38	3	944	1.37	9	42	3	1028
0.18	1.2	38	3	1318	0.78	5	38	3	944	1.38	9	42	3	1028
0.19	1.2	38	3	1318	0.79	5	38	3	944	1.39	9	42	3	1028
0.2	1.5	38	3	888	0.8	5	38	3	857	1.4	9	42	3	870
0.21	1.5	38	3	1208	0.81	5	38	3	944	1.41	9	42	3	1028
0.22	1.5	38	3	1208	0.82	5	38	3	944	1.42	9	42	3	1028
0.23	1.5	38	3	1208	0.83	5	38	3	944	1.43	9	42	3	1028
0.24	1.5	38	3	1208	0.84	5	38	3	944	1.44	9	42	3	1028
0.25	1.5	38	3	1098	0.85	5	38	3	857	1.45	9	42	3	949
0.26	1.5	38	3	1208	0.86	5.5	38	3	944	1.46	9	42	3	1028
0.27	1.5	38	3	1208	0.87	5.5	38	3	944	1.47	9	42	3	1028
0.28	1.5	38	3	1208	0.88	5.5	38	3	944	1.48	9	42	3	1028
0.29	1.5	38	3	1208	0.89	5.5	38	3	944	1.49	9	42	3	1028
0.3	1.5	38	3	878	0.9	5.5	38	3	857	1.5	9	42	3	870
0.31	2	38	3	1098	0.91	5.5	38	3	944	1.51	10	42	3	1028
0.32	2	38	3	1098	0.92	5.5	38	3	944	1.52	10	42	3	1028
0.33	2	38	3	1098	0.93	5.5	38	3	944	1.53	10	42	3	1028
0.34	2	38	3	1098	0.94	5.5	38	3	944	1.54	10	42	3	1028
0.35	2	38	3	1098	0.95	5.5	38	3	857	1.55	10	42	3	949
0.36	2	38	3	1098	0.96	6	38	3	944	1.56	10	42	3	1028
0.37	2	38	3	1098	0.97	6	38	3	944	1.57	10	42	3	1028
0.38	2	38	3	1098	0.98	6	38	3	944	1.58	10	42	3	1028
0.39	2.5	38	3	1098	0.99	6	38	3	944	1.59	10	42	3	1028
0.4	2.5	38	3	878	1	6	38	3	830	1.6	10	42	3	870
0.41	2.5	38	3	1098	1.01	6	38	3	988	1.61	10	42	3	1107
0.42	2.5	38	3	1098	1.02	6	38	3	988	1.62	10	42	3	1107
0.43	2.5	38	3	1098	1.03	6	38	3	988	1.63	10	42	3	1107
0.44	2.5	38	3	1098	1.04	6	38	3	988	1.64	10	42	3	1107
0.45	2.5	38	3	1098	1.05	6	38	3	988	1.65	10	42	3	949
0.46	2.5	38	3	1098	1.06	6	38	3	988	1.66	10	42	3	1107
0.47	2.5	38	3	1098	1.07	7	42	3	988	1.67	10	42	3	1107
0.48	2.5	38	3	1098	1.08	7	42	3	988	1.68	10	42	3	1107
0.49	3	38	3	1098	1.09	7	42	3	988	1.69	10	42	3	1107
0.5	3	38	3	878	1.1	7	42	3	870	1.7	10	42	3	949
0.51	3	38	3	1098	1.11	7	42	3	1028	1.71	11	42	3	1265
0.52	3	38	3	1098	1.12	7	42	3	1028	1.72	11	42	3	1265
0.53	3	38	3	1098	1.13	7	42	3	1028	1.73	11	42	3	1265
0.54	3.5	38	3	1098	1.14	7	42	3	1028	1.74	11	42	3	1265
0.55	3.5	38	3	1098	1.15	7	42	3	949	1.75	11	42	3	1146
0.56	3.5	38	3	1098	1.16	7	42	3	1028	1.76	11	42	3	1265
0.57	3.5	38	3	1098	1.17	7	42	3	1028	1.77	11	42	3	1265
0.58	3.5	38	3	1098	1.18	7	42	3	1028	1.78	11	42	3	1265
0.59	3.5	38	3	1098	1.19	8	42	3	1028	1.79	11	42	3	1265
0.6	3.5	38	3	878	1.2	8	42	3	870	1.8	11	42	3	1067
0.61	4	38	3	944	1.21	8	42	3	1028	1.81	11	42	3	1265
0.62	4	38	3	944	1.22	8	42	3	1028	1.82	11	42	3	1265
0.63	4	38	3	944	1.23	8	42	3	1028	1.83	11	42	3	1265
0.64	4	38	3	944	1.24	8	42	3	1028	1.84	11	42	3	1265
0.65	4	38	3	944	1.25	8	42	3	949	1.85	11	42	3	1146
0.66	4	38	3	944	1.26	8	42	3	1028	1.86	11	42	3	1265
0.67	4	38	3	944	1.27	8	42	3	1028	1.87	11	42	3	1265
0.68	4.5	38	3	944	1.28	8	42	3	1028	1.88	11	42	3	1265
0.69	4.5	38	3	944	1.29	8	42	3	1028	1.89	00	42	3	1265

Carbide drill

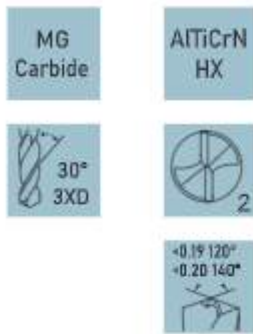


E-Catalog

Solid carbide micro drill

7leaders

D420HX-3-DC



Work Material

P	H	M	K	N	S
●		●	●	●	

P Steel

M Stainless Steel

K Cast Iron

N Aluminium

N Copper

N Plastics

Feature of product:

Micro Precision Drills
140° X-shape drill tip design which included sharp and strength.

Dc. range from 0.1 to 2.0mm with every 0.01mm as size range.

Good wear resistance and lubrication with Nano multilayer coating.

Suitable for drilling application with Steels which is below HRC30, Stainless Steels, Cast Iron, Aluminium, Copper...etc.



Dc 0 -0.005	Lc mm	L mm	d h6	AlTiCrN D420HX-3	Dc 0 -0.005	Lc mm	L mm	d h6	AlTiCrN D420HX-3
1.9	11	42	3	1067	2.46	14	50	3	
1.91	12	50	3	1265	2.47	14	50	3	
1.92	12	50	3	1265	2.48	14	50	3	
1.93	12	50	3	1265	2.49	14	50	3	
1.94	12	50	3	1265	2.5	14	50	3	1107
1.95	12	50	3	1146	2.51	14	50	3	
1.96	12	50	3	1265	2.52	14	50	3	
1.97	12	50	3	1265	2.53	14	50	3	
1.98	12	50	3	1265	2.54	14	50	3	
1.99	12	50	3	1265	2.55	14	50	3	1225
2	12	50	3	1107	2.56	14	50	3	
2.01	12	50	3		2.57	14	50	3	
2.02	12	50	3		2.58	14	50	3	
2.03	12	50	3		2.59	14	50	3	
2.04	12	50	3		2.6	14	50	3	1107
2.05	12	50	3	1225	2.61	14	50	3	
2.06	12	50	3		2.62	14	50	3	
2.07	12	50	3		2.63	14	50	3	
2.08	12	50	3		2.64	14	50	3	
2.09	12	50	3		2.65	14	50	3	1225
2.1	12	50	3	1107	2.66	16	50	3	
2.11	12	50	3		2.67	16	50	3	
2.12	12	50	3		2.68	16	50	3	
2.13	13	50	3		2.69	16	50	3	
2.14	13	50	3		2.7	16	50	3	1107
2.15	13	50	3	1225	2.71	16	50	3	
2.16	13	50	3		2.72	16	50	3	
2.17	13	50	3		2.73	16	50	3	
2.18	13	50	3		2.74	16	50	3	
2.19	13	50	3		2.75	16	50	3	1225
2.2	13	50	3	1107	2.76	16	50	3	
2.21	13	50	3		2.77	16	50	3	
2.22	13	50	3		2.78	16	50	3	
2.23	13	50	3		2.79	16	50	3	
2.24	13	50	3		2.8	16	50	3	1107
2.25	13	50	3	1225	2.81	16	50	3	
2.26	13	50	3		2.82	16	50	3	
2.27	13	50	3		2.83	16	50	3	
2.28	13	50	3		2.84	16	50	3	
2.29	13	50	3		2.85	16	50	3	1225
2.3	13	50	3	1107	2.86	16	50	3	
2.31	13	50	3		2.87	16	50	3	
2.32	13	50	3		2.88	16	50	3	
2.33	13	50	3		2.89	16	50	3	
2.34	13	50	3		2.9	16	50	3	1107
2.35	13	50	3	1125	2.91	16	50	3	
2.36	13	50	3		2.92	16	50	3	
2.37	14	50	3		2.93	16	50	3	
2.38	14	50	3		2.94	16	50	3	
2.39	14	50	3		2.95	16	50	3	1225
2.4	14	50	3	1107	2.96	16	50	3	
2.41	14	50	3		2.97	16	50	3	
2.42	14	50	3		2.98	16	50	3	
2.43	14	50	3		2.99	16	50	3	
2.44	14	50	3		3	16	50	3	1107
2.45	14	50	3	1125					

High Performance Drills 3xD



D42ITX / D423TX-3



Work Material

P	H	M	K	N	S
●	●	○	●	○	○

P Steel

H <38HRC Hardened Steel

H <48HRC Hardened Steel

M Stainless Steel

K Cast Iron

S Titanium

S Nickel

S High Temp Alloys

Feature of product:

JIS 3XD Drills
 140° S-shape drill tip design to reduce axial force.
 Design with groove shape to provide higher chip removal rates.
 Good wear resistance and lubrication with Nano multilayer coating.
 Application for drilling with Steels which is below HRC48, Cast iron, Aluminium...etc.
 Suitable for drilling with 3XD depth.



Dc h7	Lc mm	L mm	d h6	3xD		Dc h7	Lc mm	L mm	d h6	3xD	
				D42ITX Solid	D423TX Coolant					D42ITX Solid	D423TX Coolant
1	6	50	3	1170		7	34	79	7	2090	3700
1.1	6	50	3	1170		7.1	41	79	8	2450	3950
1.2	6	50	3	1170		7.2	41	79	8	2450	3950
1.3	6	50	3	1170		7.3	41	79	8	2450	3950
1.4	6	50	3	1170		7.4	41	79	8	2450	3950
1.5	6	50	3	1170		7.5	41	79	8	2450	3950
1.6	8	50	3	1170		7.6	41	79	8	2450	4160
1.7	8	50	3	1170		7.7	41	79	8	2450	4160
1.8	8	50	3	1170		7.8	41	79	8	2450	4160
1.9	8	50	3	1170		7.9	41	79	8	2450	4160
2	8	50	3	1170	1980	8	41	79	8	2450	4160
2.1	10	62	3	1230	2080	8.1	47	89	9	2980	4500
2.2	10	62	3	1230	2080	8.2	47	89	9	2980	4500
2.3	10	62	3	1230	2080	8.3	47	89	9	2980	4500
2.4	10	62	3	1230	2080	8.4	47	89	9	2980	4500
2.5	10	62	3	1230	2080	8.5	47	89	9	2980	4500
2.6	13	62	3	1230	2180	8.6	47	89	9	2980	4800
2.7	13	62	3	1230	2180	8.7	47	89	9	2980	4800
2.8	13	62	3	1230	2180	8.8	47	89	9	2980	4800
2.9	13	62	3	1230	2180	8.9	47	89	9	2980	4800
3	13	62	3	1230	2180	9	47	89	9	2980	4800
3.1	19	66	4	1280	2300	9.1	47	89	10	3200	5190
3.2	19	66	4	1280	2300	9.2	47	89	10	3200	5190
3.3	19	66	4	1280	2300	9.3	47	89	10	3200	5190
3.4	19	66	4	1280	2300	9.4	47	89	10	3200	5190
3.5	19	66	4	1280	2300	9.5	47	89	10	3200	5190
3.6	21	66	4	1280	2450	9.6	47	89	10	3200	5340
3.7	21	66	4	1280	2450	9.7	47	89	10	3200	5340
3.8	21	66	4	1280	2450	9.8	47	89	10	3200	5340
3.9	21	66	4	1280	2450	9.9	47	89	10	3200	5340
4	21	66	4	1280	2450	10	47	89	10	3200	5340
4.1	23	66	5	1440	2650	10.1	55	102	11	3840	5850
4.2	23	66	5	1440	2650	10.2	55	102	11	3840	5850
4.3	23	66	5	1440	2650	10.3	55	102	11	3840	5850
4.4	23	66	5	1440	2650	10.4	55	102	11	3840	5850
4.5	23	66	5	1440	2650	10.5	55	102	11	3840	5850
4.6	25	66	5	1440	2850	10.6	55	102	11	3840	5990
4.7	25	66	5	1440	2850	10.7	55	102	11	3840	5990
4.8	25	66	5	1440	2850	10.8	55	102	11	3840	5990
4.9	25	66	5	1440	2850	10.9	55	102	11	3840	5990
5	25	66	5	1440	2850	11	55	102	11	3840	5990
5.1	28	66	6	1600	2990	11.1	55	102	12	4080	6360
5.2	28	66	6	1600	2990	11.2	55	102	12	4080	6360
5.3	28	66	6	1600	2990	11.3	55	102	12	4080	6360
5.4	28	66	6	1600	2990	11.4	55	102	12	4080	6360
5.5	28	66	6	1600	2990	11.5	55	102	12	4080	6360
5.6	28	66	6	1600	3140	11.6	55	102	12	4080	6480
5.7	28	66	6	1600	3140	11.7	55	102	12	4080	6480
5.8	28	66	6	1600	3140	11.8	55	102	12	4080	6480
5.9	28	66	6	1600	3140	11.9	55	102	12	4080	6480
6	28	66	6	1600	3140	12	55	102	12	4080	6480
6.1	34	79	7	2090	3520	12.5	60	107	13	4740	7050
6.2	34	79	7	2090	3520	13	60	107	13	4704	7260
6.3	34	79	7	2090	3520	13.5	60	107	14	5400	7740
6.4	34	79	7	2090	3520	14	60	107	14	5400	7920
6.5	34	79	7	2090	3520	14.5	65	115	15	5880	8580
6.6	34	79	7	2090	3700	15	65	115	15	5880	8760
6.7	34	79	7	2090	3700	15.5	65	115	16	6300	9900
6.8	34	79	7	2090	3700	16	65	115	16	6300	10140
6.9	34	79	7	2090	3700						

High Performance Drills 5xD



D422TX / D423TX-5



Work Material

P	H	M	K	N	S
●	●	○	●	○	○

- P Steel
- H <38HRC Hardened Steel
- H <48HRC Hardened Steel
- M Stainless Steel
- K Cast Iron
- S Titanium
- S Nickel
- S High Temp Alloys

Feature of product:
 JIS 5XD Drills
 140° S-shape drill tip design to reduce axial force.
 Design with groove shape to provide higher chip removal rates.
 Good wear resistance and lubrication with Nano multilayer coating.
 Application for drilling with Steels which is below HRC48, Cast Iron, Aluminium...etc.
 Suitable for drilling with 5XD depth.

Carbide drill



E-Catalog



Dc h7	Lc mm	L mm	d h6	D422TX Solid	5xD D423TX Coolant	Dc h7	Lc mm	L mm	d h6	D422TX Solid	5xD D423TX Coolant
1	12	62	3	1280		7	53	91	7	2430	4140
1.1	12	62	3	1280		7.1	53	91	8	2880	4350
1.2	12	62	3	1280		7.2	53	91	8	2880	4350
1.3	12	62	3	1280		7.3	53	91	8	2880	4350
1.4	12	62	3	1280		7.4	53	91	8	2880	4350
1.5	12	62	3	1280		7.5	53	91	8	2880	4350
1.6	15	62	3	1280		7.6	53	91	8	2880	4620
1.7	15	62	3	1280		7.7	53	91	8	2880	4620
1.8	15	62	3	1280		7.8	53	91	8	2880	4620
1.9	15	62	3	1280		7.9	53	91	8	2880	4620
2	15	62	3	1280	2760	8	53	91	8	2880	4620
2.1	18	66	3	1350	2760	8.1	61	103	9	3470	5100
2.2	18	66	3	1350	2760	8.2	61	103	9	3470	5100
2.3	18	66	3	1350	2760	8.3	61	103	9	3470	5100
2.4	18	66	3	1350	2760	8.4	61	103	9	3470	5100
2.5	18	66	3	1350	2760	8.5	61	103	9	3470	5100
2.6	20	66	3	1350	2820	8.6	61	103	9	3470	5340
2.7	20	66	3	1350	2820	8.7	61	103	9	3470	5340
2.8	20	66	3	1350	2820	8.8	61	103	9	3470	5340
2.9	20	66	3	1350	2820	8.9	61	103	9	3470	5340
3	20	66	3	1350	2820	9	61	103	9	3470	5340
3.1	24	74	4	1440	2940	9.1	61	103	10	3720	5880
3.2	24	74	4	1440	2940	9.2	61	103	10	3720	5880
3.3	24	74	4	1440	2940	9.3	61	103	10	3720	5880
3.4	24	74	4	1440	2940	9.4	61	103	10	3720	5880
3.5	24	74	4	1440	2940	9.5	61	103	10	3720	5880
3.6	28	74	4	1440	2990	9.6	61	103	10	3720	6060
3.7	28	74	4	1440	2990	9.7	61	103	10	3720	6060
3.8	28	74	4	1440	2990	9.8	61	103	10	3720	6060
3.9	28	74	4	1440	2990	9.9	61	103	10	3720	6060
4	28	74	4	1440	2990	10	61	103	10	3720	6060
4.1	32	74	5	1600	3090	10.1	71	118	11	4340	6630
4.2	32	74	5	1600	3090	10.2	71	118	11	4340	6630
4.3	32	74	5	1600	3090	10.3	71	118	11	4340	6630
4.4	32	74	5	1600	3090	10.4	71	118	11	4340	6630
4.5	32	74	5	1600	3090	10.5	71	118	11	4340	6630
4.6	38	74	5	1600	3180	10.6	71	118	11	4340	6900
4.7	38	74	5	1600	3180	10.7	71	118	11	4340	6900
4.8	38	74	5	1600	3180	10.8	71	118	11	4340	6900
4.9	38	74	5	1600	3180	10.9	71	118	11	4340	6900
5	38	74	5	1600	3180	11	71	118	11	4340	6900
5.1	44	82	6	1850	3300	11.1	71	118	12	4790	7200
5.2	44	82	6	1850	3300	11.2	71	118	12	4790	7200
5.3	44	82	6	1850	3300	11.3	71	118	12	4790	7200
5.4	44	82	6	1850	3300	11.4	71	118	12	4790	7200
5.5	44	82	6	1850	3300	11.5	71	118	12	4790	7200
5.6	44	82	6	1850	3450	11.6	71	118	12	4790	7560
5.7	44	82	6	1850	3450	11.7	71	118	12	4790	7560
5.8	44	82	6	1850	3450	11.8	71	118	12	4790	7560
5.9	44	82	6	1850	3450	11.9	71	118	12	4790	7560
6	44	82	6	1850	3450	12	71	118	12	4790	7560
6.1	53	91	7	2430	3840	12.5	77	124	13	5400	8100
6.2	53	91	7	2430	3840	13	77	124	13	5400	8460
6.3	53	91	7	2430	3840	13.5	77	124	14	6000	9000
6.4	53	91	7	2430	3840	14	77	124	14	6000	9360
6.5	53	91	7	2430	3840	14.5	83	133	15	6600	10200
6.6	53	91	7	2430	4140	15	83	133	15	6600	10500
6.7	53	91	7	2430	4140	15.5	83	133	16	7050	11700
6.8	53	91	7	2430	4140	16	83	133	16	7050	12000
6.9	53	91	7	2430	4140						

High Performance Drill - Short length

OSL Economy series

S292X1-2



Application : Steel <50HRC / Stainless / Cast iron / Heat-resistance steel / Titanium

Dc m7	Lc	L	D	Price list BHT
2	8	50	4	590
2.1	10	50	4	590
2.2	10	50	4	590
2.3	10	50	4	590
2.4	10	50	4	590
2.5	10	50	4	590
2.6	12	50	4	590
2.7	12	50	4	590
2.8	12	50	4	590
2.9	12	50	4	590
3	12	50	4	590
3.1	15	50	4	640
3.2	15	50	4	640
3.3	15	50	4	640
3.4	15	50	4	640
3.5	15	50	4	640
3.6	15	50	4	640
3.7	15	50	4	640
3.8	15	50	4	640
3.9	15	50	4	640
4	15	50	4	640
4.1	18	50	6	890
4.2	18	50	6	890
4.3	18	50	6	890
4.4	18	50	6	890
4.5	18	50	6	890
4.6	18	50	6	890
4.7	18	50	6	890
4.8	18	50	6	890
4.9	18	50	6	890
5	18	50	6	890

Dia m7	Lc	L	D	Price list BHT
5.1	20	50	6	950
5.2	20	50	6	950
5.3	20	50	6	950
5.4	20	50	6	950
5.5	20	50	6	950
5.6	20	50	6	950
5.7	20	50	6	950
5.8	20	50	6	950
5.9	20	50	6	950
6	20	50	6	950
6.1	25	60	8	1,350
6.2	25	60	8	1,350
6.3	25	60	8	1,350
6.4	25	60	8	1,350
6.5	25	60	8	1,350
6.6	25	60	8	1,350
6.7	25	60	8	1,350
6.8	25	60	8	1,350
6.9	25	60	8	1,350
7	25	60	8	1,350
7.1	28	60	8	1,450
7.2	28	60	8	1,450
7.3	28	60	8	1,450
7.4	28	60	8	1,450
7.5	28	60	8	1,450
7.6	28	60	8	1,450
7.7	28	60	8	1,450
7.8	28	60	8	1,450
7.9	28	60	8	1,450
8	28	60	8	1,450
8.1	32	75	10	1,890

Dia m7	Lc	L	D	Price list BHT
8.2	32	75	10	1,890
8.3	32	75	10	1,890
8.4	32	75	10	1,890
8.5	32	75	10	1,890
8.6	32	75	10	1,890
8.7	32	75	10	1,890
8.8	32	75	10	1,890
8.9	32	75	10	1,890
9.0	32	75	10	1,890
9.1	35	75	10	1,990
9.2	35	75	10	1,990
9.3	35	75	10	1,990
9.4	35	75	10	1,990
9.5	35	75	10	1,990
9.6	35	75	10	1,990
9.7	35	75	10	1,990
9.8	35	75	10	1,990
9.9	35	75	10	1,990
10.0	35	75	10	1,990
10.2	38	75	12	2,590
10.5	38	75	12	2,590
10.8	38	75	12	2,590
11.0	38	75	12	2,590
11.5	40	75	12	2,590
12.0	40	75	12	2,590

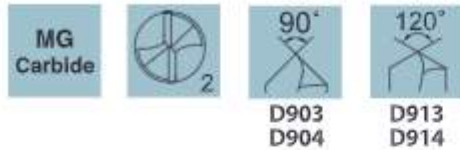
รุ่นคมกัตยาว 4xD กรุณาสอบถาม

Center Drill / Spot drill



Carbide spot drill 90/120 deg

ดอกนำศูนย์คาร์ไบด์ 90 / 120 องศา



Standard length

Dc h6	Lc mm	L mm	d h6	D903 Stock	D913 Stock
3	10	38	3	●	●
4	12	50	4	●	●
5	15	50	5	●	●
6	20	60	6	●	●
8	25	60	8	●	●
10	25	72	10	●	●
12	30	75	12	●	●
16	35	100	16	●	●
20	40	100	20	●	●



long length

Dc h6	Lc mm	L mm	d h6	D904 Stock	D914 Stock
6	20	100	6	●	●
8	25	125	8	●	●
10	25	150	10	●	●
12	30	150	12	●	●
16	35	150	16	●	●
20	40	150	20	●	●

Hi-Performance

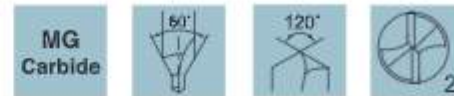
Strong point design , Longer tool life

Dc h6	Lc mm	L mm	d h6	D1 mm	D922X
0.5	1	38	3	0.15	636
1	2	38	3	0.3	636
2	4	38	3	0.6	636
3	6	50	3	1.0	731
4	8	50	4	1.5	848
6	12	70	6	2.0	1060
8	16	80	8	2.5	1749
10	20	90	10	3.0	2491
12	24	110	12	4.0	3570
16	32	120	16	5.0	8160
20	40	130	20	6.0	12648



Carbide center drill

ดอกนำศูนย์คาร์ไบด์ + Chamfer



Dc h7	Lc mm	L mm	d h6	D908 Stock
0.50	0.8	38	3	●
0.80	1.1	38	3	●
1.00	1.3	38	3	●
1.25	1.6	38	3	●
1.60	2.0	38	4	●
2.00	2.5	50	5	●
2.50	3.1	50	6	●
3.15	3.9	63	8	●
4.00	5.0	66	10	●
5.00	6.3	73	12	●



HSS-Co 8% center drill - A Type

ดอกนำศูนย์ 60องศา ทรงไฮสปีดโคบอล 8%

SKLCD / YG-DV301

Dc H7	Lc mm	L mm	Price
1.0	35	4	198
1.5	40	5	239
2.0	45	6	264
2.5	50	7.7	313
3.0	55	7.7	329
4.0	65	10	360
5.0	78	11	490



HSS-Co 8% spot drill 90deg

ดอกนำศูนย์ 90องศา ไฮสปีดโคบอล 8%

YG-D2306

Dc H7	Lc mm	L mm	Price
3.0	50	3.0	350
4.0	52	4.0	360
5.0	60	5.0	375
6.0	66	6.0	397
8.0	79	8.0	465
10.0	89	10.0	600
12.0	102	12.0	830
16.0	115	16.0	1460
20.0	130	20.0	2390



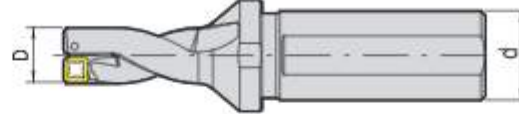
U-Drills



TOP U-Drill holder (14-26mm)

ดกกว่าแบบใส่เม็ดเม็ด 4μm SOMT

SOMT



3XD

Order code	Size		Insert	Spare parts	
	D	d		Screw	Wrench
TOP 3140-20T2-05	14	20	SOMT050204	R20040J	T6
TOP 3143-20T2-05	14.5				
TOP 3180-20T2-05	18				
TOP 3185-20T2-05	18.5				
TOP 3180-20T2-05	18				
TOP 3165-25T2-06	16.5	25	SOMT060204	R22050J	T7
TOP 3170-25T2-06	17				
TOP 3175-25T2-06	17.5				
TOP 3180-25T2-06	18				
TOP 3185-25T2-06	18.5				
TOP 3190-25T2-06	19				
TOP 3195-25T2-07	19.5				
TOP 3200-25T2-07	20				
TOP 3205-25T2-07	20.5				
TOP 3210-25T2-07	21				
TOP 3215-25T2-07	21.5				
TOP 3220-25T2-07	22				
TOP 3225-25T2-08	22.5				
TOP 3230-25T2-08	23				
TOP 3235-25T2-08	23.5				
TOP 3240-25T2-08	24				
TOP 3245-25T2-08	24.5				
TOP 3250-25T2-08	25				
TOP 3255-25T2-08	25.5				
TOP 3260-25T2-08	26				
			SOMT070306		
			SOMT08T306	R25065J	T8

5XD

Order code	Size		Insert	Spare parts	
	D	d		Screw	Wrench
TOP 5140-20T2-05	14	20	SOMT050204	R20040J	T6
TOP 5145-20T2-05	14.5				
TOP 5180-20T2-05	18				
TOP 5185-20T2-05	18.5				
TOP 5180-20T2-05	18				
TOP 5165-25T2-06	16.5	25	SOMT060204	R22050J	T7
TOP 5170-25T2-06	17				
TOP 5175-25T2-06	17.5				
TOP 5180-25T2-06	18				
TOP 5185-25T2-06	18.5				
TOP 5190-25T2-06	19				
TOP 5195-25T2-07	19.5				
TOP 5200-25T2-07	20				
TOP 5205-25T2-07	20.5				
TOP 5210-25T2-07	21				
TOP 5215-25T2-07	21.5				
TOP 5220-25T2-07	22				
TOP 5225-25T2-08	22.5				
TOP 5230-25T2-08	23				
TOP 5235-25T2-08	23.5				
TOP 5240-25T2-08	24				
TOP 5245-25T2-08	24.5				
TOP 5250-25T2-08	25				
TOP 5255-25T2-08	25.5				
TOP 5260-25T2-08	26				
			SOMT070306		
			SOMT08T306	R25065J	T8

ขนาด 2XD / 4XD กรุณาสอบถาม

Performance U-drill insert

AKEN

SOMT050204	WCMX030208R
SOMT060204	WCMX040208R
SOMT070306	WCMX050308R
SOMT08T306	WCMX06T308R
SOMT09T308	WCMX080412R
SOMT11T308	
SOMT130408	

Grade : PM8120 / PM8125



Precision U-drill insert (G Class)

CRM

SPGT050204-CM	WCGX030208-ZK
SPGT060204-CM	WCGX040208-ZK
SPGT07T308-CM	WCGX050308-ZK
SPGT09T308-CM	WCGX06T308-ZK
SPGT110408-CM	WCGX080412-ZK
SPGT140508-CM	

Grade : CP2430 / CP2630T

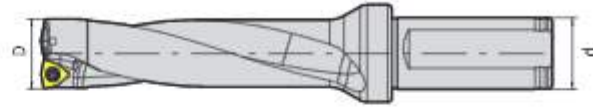
U-Drills



QDS U-Drill holder (16-87mm)

ดอกสว่านแบบไฮแม็ทชนิด 3มุม WCMX / WCMT

WCMX / WCMT



3XD

Order code	Size		Insert	Spare parts		Order code	Size		Insert	Spare parts	
	D	d		Screw	Wrench		D	d		Screw	Wrench
QSD16-48-C20	16	20	WCMX030208R (2pcs)	R25065G	T6	QSD44-132-C40	44	WCMX080412R (2pcs)	R40090J		
QSD16.5-50-C20	16.5					QSD45-135-C40	45				
QSD17-51-C20	17					QSD46-136-C40	46				
QSD17.5-53-C20	17.5					QSD47-141-C40	47				
QSD18-54-C25	18					QSD48-144-C40	48				
QSD18.5-56-C25	18.5					QSD49-147-C40	49				
QSD19-57-C25	19					QSD50-150-C50	50				
QSD19.5-59-C25	19.5					QSD51-153-C50	51				
QSD20-60-C25	20					QSD52-156-C50	52				
QSD20.5-62-C25	20.5					QSD53-159-C50	53				
QSD21-63-C25	21	QSD54-162-C50	54	WCMX06T308R (4pcs)	R35100F						
QSD21.5-65-C25	21.5	QSD55-165-C50	55								
QSD22-66-C25	22	QSD56-168-C50	56								
QSD22.5-68-C25	22.5	QSD57-171-C50	57								
QSD23-69-C25	23	QSD58-174-C50	58								
QSD23.5-71-C25	23.5	QSD59-177-C50	59								
QSD24-72-C25	24	QSD60-180-C50	60								
QSD24.5-74-C25	24.5	QSD61-183-C50	61								
QSD25-75-C25	25	QSD62-186-C50	62								
QSD25.5-77-C32	25.5	QSD63-189-C50	63				WCMX06T308R (4pcs)	R35100F			
QSD26-76-C32	26	QSD64-192-C50	64								
QSD27-81-C32	27	QSD65-195-C50	65								
QSD28-84-C32	28	QSD66-198-C50	66								
QSD29-87-C32	29	QSD67-201-C50	67								
QSD30-90-C32	30	QSD68-204-C50	68								
QSD31-93-C32	31	QSD69-207-C50	69								
QSD32-96-C32	32	QSD70-210-C50	70								
QSD33-99-C40	33	QSD71-213-C50	71								
QSD34-102-C40	34	QSD72-216-C60	72								
QSD35-105-C40	35	QSD73-219-C60	73	WCMX06T308R (4pcs)	A40090G						
QSD36-108-C40	36	QSD74-222-C50	74								
QSD37-111-C40	37	QSD75-225-C50	75								
QSD38-114-C40	38	QSD76-228-C50	76								
QSD39-117-C40	39	QSD77-231-C50	77								
QSD40-120-C40	40	QSD78-234-C60	78								
QSD41-123-C40	41	QSD79-237-C50	79								
QSD42-126-C40	42	QSD80-240-C50	80								
QSD43-129-C40	43	QSD81-243-C50	81								
		QSD82-246-C50	82								
		QSD83-249-C50	83								
		QSD84-252-C50	84								
		QSD85-255-C50	85								
		QSD86-258-C50	86								
		QSD87-261-C50	87								

ขนาด 2XD / 4XD / 5XD กรุณาสอบถาม
ใช้กับแม็ทชนิด WCMX(T) ได้ทุกแบบ

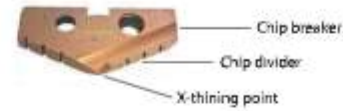
Spade drill



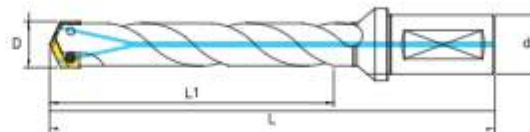
BPK Spade drill HSS-Co (Dia.13-114mm)


ดอกสว่าน HSS-Co แบบทอเปลี่ยนเม็ดเม็ด

ใช้แทนดอกสว่าน HSS ทั่วไป จะใช้ได้เร็วกว่า อายุการใช้งานยาวนานกว่า ด้านเดียวสามารถเปลี่ยนเม็ดได้หลายขนาด

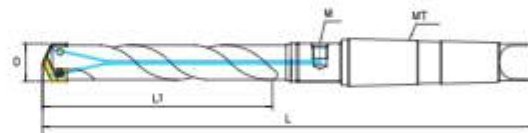



B7S Spiral Flute - Side lock shank



Order No.	ขนาดเม็ดที่ใส่ได้	Shank d	L1	L	
B7S-130175188	13-17.5	20	114	188	BS7-25060
B7S-180240212	18-24	25	117	212	BS7-30070
B7S-180240262	18-24	25	168	262	BS7-30070
B7S-250350241	25-35	32	136	241	BS7-40095
B7S-250350292	25-35	32	187	292	BS7-40095
B7S-360470337A	36-47	40	210	337	BS7-50150
B7S-480650356A	48-65	40	232	356	BS7-50150

B7M Spiral Flute - MT Taper shank



Order No.	ขนาดเม็ดที่ใส่ได้	Shank	L1	L	
B7M-130175247	13-17.5	MT2	114	247	BS7-25060
B7M-180240338	18-24	MT3	172	338	BS7-30070
B7M-250350379	25-35	MT4	187	379	BS7-40095
B7M-360470413	36-47	MT4	210	413	BS7-50150
B7M-480650470	48-65	MT5	232	470	BS7-50150
B7M-640880537	64-88	MT5	273	537	BS7-60190
B7M-9001140546	90-114	MT5	273	546	BS7-60190

Spade drill



Spade drill insert

เม็ดสว่าน HSS-Co



Order No.	Diameter	Coating
480T-0130M	13.0 HSS M48	TIN
480T-0135M	13.5 HSS M48	TIN
480T-0140M	14.0 HSS M48	TIN
480T-0145M	14.5 HSS M48	TIN
480T-0150M	15.0 HSS M48	TIN
480T-0155M	15.5 HSS M48	TIN
480T-0160M	16.0 HSS M48	TIN
480T-0165M	16.5 HSS M48	TIN
480T-0170M	17.0 HSS M48	TIN
480T-0175M	17.5 HSS M48	TIN
481T-0180M	18.0 HSS M48	TIN
481T-0185M	18.5 HSS M48	TIN
481T-0190M	19.0 HSS M48	TIN
481T-0195M	19.5 HSS M48	TIN
481T-0200M	20.0 HSS M48	TIN
481T-0205M	20.5 HSS M48	TIN
481T-0210M	21.0 HSS M48	TIN
481T-0215M	21.5 HSS M48	TIN
481T-0220M	22.0 HSS M48	TIN
481T-0225M	22.5 HSS M48	TIN
481T-0230M	23.0 HSS M48	TIN
481T-0235M	23.5 HSS M48	TIN
481T-0240M	24.0 HSS M48	TIN
481T-0245M	24.5 HSS M48	TIN
482T-0250M	25.0 HSS M48	TIN
482T-0255M	25.5 HSS M48	TIN
482T-0260M	26.0 HSS M48	TIN
482T-0265M	26.5 HSS M48	TIN
482T-0270M	27.0 HSS M48	TIN
482T-0275M	27.5 HSS M48	TIN
482T-0280M	28.0 HSS M48	TIN
482T-0285M	28.5 HSS M48	TIN
482T-0290M	29.0 HSS M48	TIN
482T-0295M	29.5 HSS M48	TIN
482T-0300M	30.0 HSS M48	TIN
482T-0305M	30.5 HSS M48	TIN
482T-0310M	31.0 HSS M48	TIN
482T-0315M	31.5 HSS M48	TIN
482T-0320M	32.0 HSS M48	TIN
482T-0325M	32.5 HSS M48	TIN
482T-0330M	33.0 HSS M48	TIN
482T-0335M	33.5 HSS M48	TIN
482T-0340M	34.0 HSS M48	TIN
482T-0345M	34.5 HSS M48	TIN
482T-0350M	35.0 HSS M48	TIN
483T-0355M	35.5 HSS M48	TIN
483T-0360M	36.0 HSS M48	TIN
483T-0365M	36.5 HSS M48	TIN
483T-0370M	37.0 HSS M48	TIN
483T-0380M	38.0 HSS M48	TIN
483T-0390M	39.0 HSS M48	TIN
483T-0400M	40.0 HSS M48	TIN
483T-0410M	41.0 HSS M48	TIN

Order No.	Diameter	Coating
483T-0420M	42.0 HSS M48	TIN
483T-0430M	43.0 HSS M48	TIN
483T-0440M	44.0 HSS M48	TIN
483T-0450M	45.0 HSS M48	TIN
483T-0460M	46.0 HSS M48	TIN
483T-0470M	47.0 HSS M48	TIN
484T-0480M	48.0 HSS M48	TIN
484T-0490M	49.0 HSS M48	TIN
484T-0500M	50.0 HSS M48	TIN
484T-0510M	51.0 HSS M48	TIN
484T-0520M	52.0 HSS M48	TIN
484T-0530M	53.0 HSS M48	TIN
484T-0540M	54.0 HSS M48	TIN
484T-0550M	55.0 HSS M48	TIN
484T-0560M	56.0 HSS M48	TIN
484T-0570M	57.0 HSS M48	TIN
484T-0580M	58.0 HSS M48	TIN
484T-0590M	59.0 HSS M48	TIN
484T-0600M	60.0 HSS M48	TIN
484T-0610M	61.0 HSS M48	TIN
484T-0620M	62.0 HSS M48	TIN
484T-0630M	63.0 HSS M48	TIN
484T-0640M	64.0 HSS M48	TIN
484T-0650M	65.0 HSS M48	TIN
044T-0635M	63.5 HSS M4 4T	TIN
044T-0640M	64.0 HSS M4 4T	TIN
044T-0650M	65.0 HSS M4 4T	TIN
045T-0640M	64.0 HSS M4 5T	TIN
045T-0660M	66.0 HSS M4 5T	TIN
045T-0680M	68.0 HSS M4 5T	TIN
045T-0700M	70.0 HSS M4 5T	TIN
045T-0720M	72.0 HSS M4 5T	TIN
045T-0740M	74.0 HSS M4 5T	TIN
045T-0760M	76.0 HSS M4 5T	TIN
046T-0780M	78.0 HSS M4 6T	TIN
046T-0800M	80.0 HSS M4 6T	TIN
046T-0820M	82.0 HSS M4 6T	TIN
046T-0840M	84.0 HSS M4 6T	TIN
046T-0860M	86.0 HSS M4 6T	TIN
046T-0880M	88.0 HSS M4 6T	TIN
047T-0900M	90.0 HSS M4 7T	TIN
047T-0920M	92.0 HSS M4 7T	TIN
047T-0940M	94.0 HSS M4 7T	TIN
047T-0960M	96.0 HSS M4 7T	TIN
047T-0980M	98.0 HSS M4 7T	TIN
047T-1000M	100.0 HSS M4 7T	TIN
048T-1020M	102.0 HSS M4 8T	TIN
048T-1040M	104.0 HSS M4 8T	TIN
048T-1060M	106.0 HSS M4 8T	TIN
048T-1080M	108.0 HSS M4 8T	TIN
048T-1100M	110.0 HSS M4 8T	TIN
048T-1120M	112.0 HSS M4 8T	TIN
048T-1140M	114.0 HSS M4 8T	TIN

* Dia 63.5 ขึ้นไปเป็นเกรด HSS M4 / โค้ทติ้ง TiAlN สีเงินเทาได้

Reamers

HSS-E machine reamer (YG Korea)

ดอกรีมเมอร์เครื่อง ไฮสปีดโคบอล

K21010

Dc H7	Lc mm	L mm	Price
2.0	11	49	412
2.5	14	57	412
3.0	15	61	420
3.5	18	70	425
4.0	19	75	528
4.5	21	80	570
5.0	23	86	640
5.5	26	93	670
6.0	26	101	640
7.0	31	109	745
8.0	33	117	795
9.0	36	125	970
10.0	38	133	1050
11.0	41	142	1190
12.0	44	151	1280



HSS-E hand reamer (YG Korea)

ดอกรีมเมอร์มือ ไฮสปีดโคบอล

K11430

Dc H7	Lc mm	L mm	Price
2.0	25	50	360
2.5	29	58	360
3.0	31	62	375
3.5	35	71	395
4.0	38	76	410
4.5	41	81	515
5.0	44	87	595
5.5	47	93	640
6.0	50	93	660
7.0	54	107	760
8.0	58	115	950
9.0	62	124	1050
10.0	66	133	1050
11.0	71	142	1120
12.0	76	152	1250



Solid carbide reamer

ดอกรีมเมอร์คาร์ไบด์ พันเดี่ยว

ขนาดมาตรฐาน
Standard

R301

Dc H7	Lc mm	L mm	d mm	Z teeth	Stock
2.0	11	49	2.0	4	●
2.5	14	57	2.5	4	●
3.0	15	61	3.0	4	●
3.5	18	70	3.5	4	●
4.0	19	75	4.0	4	●
4.5	21	80	4.5	4	●
5.0	23	86	5.0	6	●
5.5	26	93	5.5	6	●
6.0	26	93	6.0	6	●
6.5	28	101	6.5	6	○
7.0	31	109	7.0	6	●
7.5	31	109	7.5	6	○
8.0	33	117	8.0	6	●
8.5	33	117	8.5	6	●
9.0	36	125	9.0	6	●
9.5	36	125	9.5	6	○
10.0	38	133	10.0	6	●
10.5	38	133	10.0	6	○
11.0	41	142	10.0	6	●
11.5	41	142	10.0	6	○
12.0	44	151	10.0	6	●
12.5	44	151	10.0	6	○
13.0	44	151	10.0	6	●
13.5	47	160	12.5	6	○
14.0	47	160	12.5	6	●
14.5	50	162	12.5	6	○
15.0	50	162	12.5	6	●
15.5	52	170	12.5	6	○
16.0	52	170	12.5	6	●
17.0	54	175	14.0	6	○
18.0	56	182	14.0	6	●
19.0	58	189	16.0	6	○
20.0	60	195	16.0	6	●



Solid carbide reamer

ดอกรีมเมอร์คาร์ไบด์ พันตรง

7leaders

ขนาดมาตรฐาน
Standard

R300

Dc H7	Lc mm	L mm	d mm	Z teeth	Stock
2.0	11	49	2.0	4	●
2.5	14	57	2.5	4	○
3.0	15	61	3.0	4	●
3.5	18	70	3.5	4	○
4.0	19	75	4.0	4	●
4.5	21	80	4.5	4	○
5.0	23	86	5.0	6	●
6.0	26	93	6.0	6	●
7.0	31	109	7.0	6	○
8.0	33	117	8.0	6	●
9.0	36	125	9.0	6	○
10.0	38	133	10.0	6	●
11.0	41	142	10.0	6	○
12.0	44	151	10.0	6	●
13.0	44	151	10.0	6	○
14.0	47	160	12.5	6	○
15.0	50	162	12.5	6	○
16.0	52	170	12.5	6	○
18.0	56	182	14.0	6	○
20.0	60	195	16.0	6	○



Solid carbide reamer STEM

ดอกรีมเมอร์คาร์ไบด์ Short length

R100

Dc H7	Lc mm	L mm	d mm	Z teeth	Price
4.0	30	60	4	4	520
6.0	30	85	6	6	850
8.0	40	80	8	6	1370
10.0	45	90	10	6	2140
12.0	45	90	12	6	2790



*2.0-9.5 Solid Carbide คาร์ไบด์ทั้งตัว
*10.0-20.0 Carbide Tipped คาร์ไบด์เชื่อมคม

Reamers

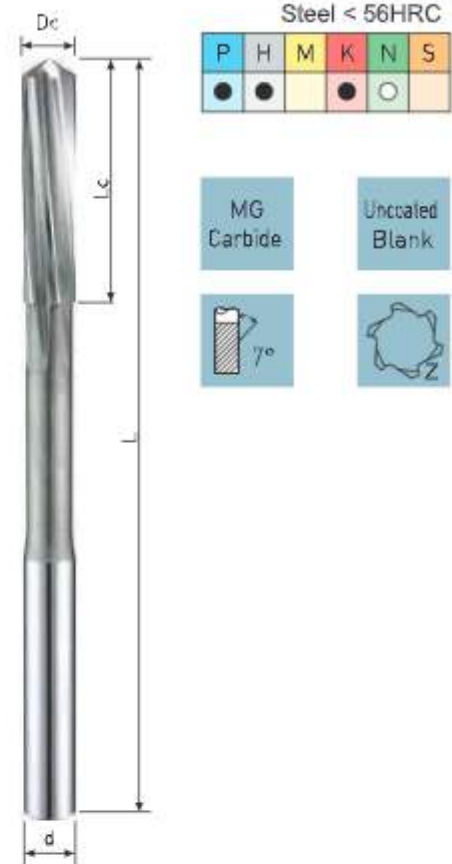
7leaders

Solid carbide reamer (Step 0.1mm)

R308

Dc H7	Lc mm	L mm	Z teeth	Blank R308	Dc H7	Lc mm	L mm	Z teeth	Blank R308
1	6	34	4	o	7	31	109	6	o
1.1	7	36	4	o	7.1	31	109	6	o
1.2	7	38	4	o	7.2	31	109	6	o
1.3	7	38	4	o	7.3	31	109	6	o
1.4	8	40	4	o	7.4	31	109	6	o
1.5	8	40	4	o	7.5	31	109	6	o
1.6	9	43	4	o	7.6	33	117	6	o
1.7	9	43	4	o	7.7	33	117	6	o
1.8	10	46	4	o	7.8	33	117	6	o
1.9	10	46	4	o	7.9	33	117	6	o
2	11	49	4	o	8	33	117	6	o
2.1	11	49	4	o	8.1	33	117	6	o
2.2	12	53	4	o	8.2	33	117	6	o
2.3	12	53	4	o	8.3	33	117	6	o
2.4	14	57	4	o	8.4	33	117	6	o
2.5	14	57	4	o	8.5	33	117	6	o
2.6	14	57	4	o	8.6	36	125	6	o
2.7	15	61	4	o	8.7	36	125	6	o
2.8	15	61	4	o	8.8	36	125	6	o
2.9	15	61	4	o	8.9	36	125	6	o
3	15	61	4	o	9	36	125	6	o
3.1	16	65	4	o	9.1	36	125	6	o
3.2	16	65	4	o	9.2	36	125	6	o
3.3	16	65	4	o	9.3	36	125	6	o
3.4	18	70	4	o	9.4	36	125	6	o
3.5	18	70	4	o	9.5	36	125	6	o
3.6	18	70	4	o	9.6	38	133	6	o
3.7	18	70	4	o	9.7	38	133	6	o
3.8	19	75	4	o	9.8	38	133	6	o
3.9	19	75	4	o	9.9	38	133	6	o
4	19	75	4	o	10	38	133	6	o
4.1	19	75	4	o	10.1	38	133	6	o
4.2	19	75	4	o	10.2	38	133	6	o
4.3	21	80	4	o	10.3	38	133	6	o
4.4	21	80	4	o	10.4	38	133	6	o
4.5	21	80	4	o	10.5	38	133	6	o
4.6	21	80	6	o	10.6	38	133	6	o
4.7	21	80	6	o	10.7	41	142	6	o
4.8	23	86	6	o	10.8	41	142	6	o
4.9	23	86	6	o	10.9	41	142	6	o
5	23	86	6	o	11	41	142	6	o
5.1	23	86	6	o	11.1	41	142	6	o
5.2	23	86	6	o	11.2	41	142	6	o
5.3	23	86	6	o	11.3	41	142	6	o
5.4	26	93	6	o	11.4	41	142	6	o
5.5	26	93	6	o	11.5	41	142	6	o
5.6	26	93	6	o	11.6	41	142	6	o
5.7	26	93	6	o	11.7	41	142	6	o
5.8	26	93	6	o	11.8	41	142	6	o
5.9	26	93	6	o	11.9	44	151	6	o
6	26	93	6	o	12	44	151	6	o
6.1	28	101	6	o					
6.2	28	101	6	o					
6.3	28	101	6	o					
6.4	28	101	6	o					
6.5	28	101	6	o					
6.6	28	101	6	o					
6.7	31	101	6	o					
6.8	31	109	6	o					
6.9	31	109	6	o					

* Solid Carbide การไบต์ทั้งตัว



ดอกรีมเมอร์ขนาดอื่นๆ กรุณาสอบถาม

- R302 - Long reamer
- R303 - Taper shank tip reamer
- R309 - Precision reamer Step 0.01
- R319 - Custom made reamer
- R329 - Spiral flute reamer



Reamer



E-Catalog

Machine Taps

YG-Korea

HSS Co machine taps

ดอกตีแปกลีวยโซสปิดโคบอลต์



Combo HSS-EX ร่องเลื้อยรูปต้น

Size	Code	Price
M2x0.4	T2809	514
M2.2x0.45	T2809	526
M2.5x0.45	T2809	456
M2.6x0.45	T2809	388
M3x0.5	T2809	340
M3.5x0.5	T2809	342
M4x0.7	T2809	322
M5x0.8	T2809	329
M6x1.0	T2809	348
M8x1.25	T2809	480
M10x1.5	T2809	624
M12x1.75	T2809	862
M14x2.0	T2809	1034
M16x2.0	T2809	1240
M20x2.5	T2809	1629
M24x3.0	T2809	2881



Combo HSS-EX ร่องตรง

Size	Code	Price
M2x0.4	T2829	440
M2.2x0.45	T2829	400
M2.5x0.45	T2829	365
M2.6x0.45	T2829	325
M3x0.5	T2829	298
M3.5x0.5	T2829	310
M4x0.7	T2829	295
M5x0.8	T2829	305
M6x1.0	T2829	305
M8x1.25	T2829	425
M10x1.5	T2829	545
M12x1.75	T2829	798
M14x2.0	T2829	965
M16x2.0	T2829	1102
M20x2.5	T2829	1503
M24x3.0	T2829	2506

HSS Hand taps

ดอกตีแปมือ HSS



HSS Ex Co8% : For Steel <45HRC / Stainless / Aluminium / Cast iron

HSS E Co5% : For Steel <35HRC / Cast iron



HSS-E ร่องเลื้อยรูปต้น งานเหล็ก

Size	Code	Price
M2x0.4	T1121	477
M2.2x0.45	T1121	486
M2.5x0.45	T1121	425
M2.6x0.45	T1121	355
M3x0.5	T1121	314
M3.5x0.5	T1121	314
M4x0.7	T1121	299
M5x0.8	T1121	304
M6x1.0	T1121	328
M8x1.25	T1121	443
M10x1.5	T1121	580
M12x1.75	T1121	758
M16x2.0	T1121	1091
M20x2.5	T1121	1451
M24x3.0	T1121	2563



HSS-E ร่องตรง งานเหล็ก

Size	Code	Price
M2x0.4	T1022	396
M2.2x0.45	T1022	365
M2.5x0.45	T1022	334
M2.6x0.45	T1022	296
M3x0.5	T1022	270
M3.5x0.5	T1022	270
M4x0.7	T1022	262
M5x0.8	T1022	269
M6x1.0	T1022	283
M8x1.25	T1022	394
M10x1.5	T1022	512
M12x1.75	T1022	704
M16x2.0	T1022	986
M20x2.5	T1022	1333
M24x3.0	T1022	2331

Size	Code	Price
M2.5x0.45	TKS11-S	450
M2.6x0.45	TKS11-S	450
M3x0.5	TKS11-S	345
M3.5x0.5	TKS11-S	355
M4x0.7	TKS11-S	355
M5x0.8	TKS11-S	368
M6x1.0	TKS11-S	410
M8x1.25	TKS11-S	560
M10x1.5	TKS11-S	675
M12x1.75	TKS11-S	880
M14x2.0	TKS11-S	1240
M16x2.0	TKS11-S	1670
M18x2.5	TKS11-S	2670



HSS-E ร่องเลื้อยรูปต้น งานสแตนเลส

Size	Code	Price
M2x0.4	T1191	477
M2.2x0.45	T1191	486
M2.5x0.45	T1191	425
M2.6x0.45	T1191	355
M3x0.5	T1191	314
M3.5x0.5	T1191	314
M4x0.7	T1191	299
M5x0.8	T1191	304
M6x1.0	T1191	328
M8x1.25	T1191	443
M10x1.5	T1191	580
M12x1.75	T1191	758
M16x2.0	T1191	1091
M20x2.5	T1191	1451
M24x3.0	T1191	2563



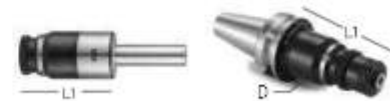
HSS-E ร่องตรง งานสแตนเลส

Size	Code	Price
M2x0.4	T1023	396
M2.2x0.45	T1023	365
M2.5x0.45	T1023	334
M2.6x0.45	T1023	296
M3x0.5	T1023	270
M3.5x0.5	T1023	270
M4x0.7	T1023	262
M5x0.8	T1023	269
M6x1.0	T1023	283
M8x1.25	T1023	394
M10x1.5	T1023	512
M12x1.75	T1023	704
M16x2.0	T1023	986
M20x2.5	T1023	1333
M24x3.0	T1023	2331



Economy tapping chuck

หัวจับตีแปแบบยึดหมุน ติดกับก้นกรรก



spec	L1	D	Range
BT30-G0312	87.6	46	M3-M12
BT40-G0312	92.6	46	M3-M12
BT40-G1224	135	63	M8-M24
C20-50-G0312	89.0	46	M3-M12



G3 JIS collet : M3/M4/M5/M6/M8/M10/M12
G12 JIS collet : M8/M10/M12/M14/M16/M18/M20/M24

Machine Taps



HSS Co machine taps

ดอกตีแปงเหล็กไฮสปีดโคบอลต์ / คาร์ไบด์

OPTION : TIN coat



CARBIDE TAP



HSS EX Co8%

HSS E Co5%

HSS EX Co8%

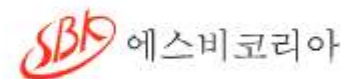
Size M x Pitch	CARBIDE TAP		HSS EX Co8%		HSS E Co5%		HSS EX Co8%
	ข้อสั้น Z-SPT	ข้อยาว T-HPT	SFT ข้อสั้น T2809	SPT ข้อยาว T2829	SFT ข้อสั้น T1121	SPT ข้อยาว T1022	Roll ตีแปงเหล็ก T2701
M2x0.4			449	388	417	355	430
M2.2x0.45			460	365	425	330	430
M2.5x0.45			399	335	371	297	430
M3x0.5	1190	1190	297	265	275	242	370
M3.5x0.6			299	265	275	242	370
M4x0.7	1190	1190	281	262	262	236	370
M5x0.8	1490	1490	288	263	266	242	440
M6x1	1990	1990	304	274	287	255	440
M8x1.25	3090	3090	419	378	388	355	600
M10x1.5	3850	3850	545	492	507	460	830
M12x1.75	4890	4890	753	713	662	640	1100
M14x2			903	865			
M16x2			1,084	995	954	894	
M20x2.5			1,423	1,350	1,268	1,196	
M24x3			2,518	2,340	2,240	2,090	

HSS Ex Co8% : For Steel <45HRC / Stainless / Aluminium / Cast iron

HSS E Co5% : For Steel <35HRC / Cast iron / Aluminium

Roll taps : Carbon steel / Aluminium

HSS-E Machine / Hand / Pipe taps



ตีแปงเครื่อง Spiral flute machine taps

- Spiral flute taps (Metric) M3-M90 (SFT-H)
- Spiral flute taps (Metric) M3-M64 (SFT-B)
- Interrupted spiral flute taps (Metric) M3-M64 (Inch) 5/16-2" (INT-SFT-H)
- TiN spiral flute taps (Metric) M4-M42 (TiN-SFT)
- Spiral flute taps for stainless (Metric) M4-M42 (SUS-SFT-H)
- Spiral flute taps long (Metric) M4-M56 100/120/150/200/250/300mm (LS-SFT-H)
- OVERSIZE spiral flute taps (Metric) M4-M42 BH3 / BH4 +0.3 (OS-SFT-H)
- Spiral flute taps for LEFT HAND (Metric) M3-M48 (Inch) 3/8-1" (LH-SFT-H)

ตีแปงเครื่อง Spiral point machine taps

- Spiral point taps (Metric) M3-M48 (SPT-H)
- Spiral point taps (Metric) M3-M48 (SPT-B)
- Spiral flute taps long (Metric) M4-M36 100/120/150/200/250/300mm (LS-SPT-H)

ตีแปง Metric hand taps

- Hand taps (Metric) M3-M64 (HT-H)
- Hand taps (Metric) M3-M64 (HT-B)

ตีแปงท่อ Pipe taps

- Hand taps taper pipe tap (PT/PS/PF/NPT/NPS) (Inch) 1/16-3" (BIT-S-PT-H, HT-S-PS-H, HT-PF-H, HT-S-NPT-H, HT-NPS-H)
- Long Hand taps taper pipe tap (PT/PF/NPT) (Inch) 1/8-1" 100/150/200mm (L-HT-S-PT-H, L-HT-PF-H, L-HT-S-NPT-H)
- Spiral flute taper pipe tap (PT/PS/PF/NPT/NPS) (Inch) 1/8-3" (SFT-S-PT-H, SFT-PS-H, SFT-PF-H, SFT-S-NPT-H, SFT-NPS-H)
- Long spiral flute taper pipe tap (PT/PF/NPT) (Inch) 1/8-1" 100/150/200mm (LS-SFT-S-PT-H, LS-SFT-PF-H, LS-SFT-S-NPT-H)
- LEFT Hand taps taper pipe tap (PT) (Inch) 1/8-2" (LH-HT-S-PT-H)












* สินค้าตอกในต่างประเทศ
กรุณาสอนตามราคาและจำนวนการสั่งซื้อแต่ละรุ่น
* ดอกตีแปง 4M12 ขายเป็นกล่อง 10ดอก

E-Catalog

CRM High performance . Stable tool life . Cost competitive

ตารางแนะนำการเลือกเกรด

P กลุ่มเหล็ก	H 45-63HRC	K เหล็กหล่อ	S โลหะทนความร้อน	M สแตนเลส	N อลูมิเนียม
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Coating type	Grade	Color	Application	Recommendation	
PVD	CP2630(T)		M P	✳️	สำหรับงาน สแตนเลส เหล็ก ทนการกระแทกได้ดี Excellent impact strength and toughness. Strong wear resistance and universality finishing with low Vc<60m/min PR1225
	CP1120		M P	✳️	สำหรับงานเหล็กทั่วไป carbon steel ใช้ทานเร็วด้วย Vc ต่ำ CP1120H/D(Finishing+High Vc) Especially good at free cutting structure steel, and cutting material with low speed PR930
	CP2130 CP2130B		M P	✳️	สำหรับงานสแตนเลส เหล็ก ทนการกระแทกได้ CP2130B(Medium-Rough) Medium wear resistance,superior grade of universality.
	CP2130H		M P	☉	สำหรับงานสแตนเลส ใช้ความเร็วตัด Vc ปานกลาง ทนการสึกหรอดี ทนการกระแทกได้เล็กน้อย Stainless steel machining material with strong wear resistance. Suitable for medium and high speed machining (VC = 100-180m/min), Continuous and slightly intermittent machining.
	CP2430 CP2430G		M P H	✳️	สำหรับงานสแตนเลส เหล็ก และ เหล็กชุบแข็ง 45-63HRC Stainless steel and HRC45-63 Hardened Steel processing. Vc < 150m/min Steel processing
	CP2430F		M S H	☉	สำหรับงานสแตนเลส โทเทเนียม โลหะทนความร้อนสูง และ เหล็กชุบแข็ง 45-63HRC Excellent wear resistance,particularly suitable for Stainless / Titanium / Difficult-to-machine material PR1535 PR1725
	CPA2130K CPA2140K		M S	✳️	สำหรับงาน Duplexสแตนเลส โลหะทนความร้อนสูง ทนการกระแทกได้ดี Duplex stainless steel and high temperature alloy For Strong intermittent rough machining.
	CP8130		M S	✳️	สำหรับงานสแตนเลส และ เหล็กทั่วไป ทนการกระแทกได้ดี Stainless steel and steel processing.
	CP6230		M S P	✳️	สำหรับโทเทเนียม เหล็ก และ สแตนเลส Advance coating technology for longest tool life
CVD	CC2135(D)		M S	☉	สำหรับงานสแตนเลส โลหะทนความร้อนสูง ใช้ความเร็วตัด Vc สูงได้ High speed machining of stainless steel and high temperature alloy. Suitable for continuous and slightly intermittent machining with VC = 110-250m/min.
	CC1125		P	☉	สำหรับงานเหล็ก มีเว็บบ ด้วยความเร็วตัด Vc สูงมากได้ High speed continuous machining of steel parts, VC = 180-400m/min.
	CC1135G CC1135G2		P	☉	สำหรับงานเหล็ก ใช้ความเร็วตัด Vc สูงได้ ทนการกระแทกได้ It is suitable for steel machining with high versatility and VC = 150-320m/min. With excellent continuous and intermittent performance.
	CC1135D		P K	✳️	สำหรับงาน เหล็กหล่อเหนียว เหล็ก ทนการกระแทกได้ดี cast iron and steel are machining with strong discontinuity
	CC3110(D)		K	✳️	สำหรับงานเหล็กหล่อ Common material for cast iron processing.

✳️ กลึงกระแทก ☉ กระแทกเล็กน้อย ● กลึงผิวต่อเนื่อง

ตารางแนะนำเกรดสำหรับงาน Small part turning (Auto lathe / Swiss type)



GRADE	WORK CONDITION	Cutting speed Vc ความเร็วตัด	Wear resistance ทนการสึกหรอ	Impact resistance ทนการกระแทก	Surface roughness คุณภาพผิวงาน	Coolant method การหล่อเย็น	Application R: Rough Semi-F: General F: Finishing SF: Super finish	Insert Application				
								External Turning	Internal Turning	Groove	Cut-off	Thread
CP1120	✳️	10-30-80	Very good	Very good	Very good	Water, Oil, Dry	R, Semi-F, F	Universal	Universal	Universal	Universal	Universal
CP2130	✳️	30-80-100	OK	Very good	OK	Water, Oil, Dry	R, Semi-F, F	Universal	Universal	Universal	Universal	Universal
CP2430	✳️	80-100-120	Good	Good	Good+	Oil, Dry	Semi-F, F			Universal		
CP2430F	☉	80-110-150	Good	Good	Good	Oil, Dry	Semi-F, F	Universal	Universal			
CP2130B	✳️	60-100-150	Good	Good	Good	Water, Oil, Dry	R, Semi-F, F	Roughing	Roughing	Roughing	Roughing	Universal
CP1120H/D	●	80-120-200	Very good	Poor	Very good	Water, Oil, Dry	F, SF	Finishing	Finishing	Finishing	Finishing	
CP6215	●	80-120-200	Very good	Poor	Very good	Water, Oil, Dry	F, SF	Finishing	Finishing	Finishing		
CW20	●	80-120-200	Good	Very good	Good	Water, Oil, Dry	F, SF	Universal	Universal	Universal	Universal	Universal

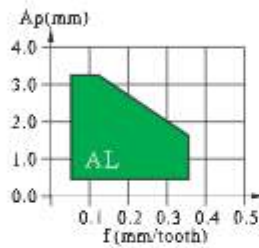
✳️ กลึงกระแทก ☉ กระแทกเล็กน้อย ● กลึงผิวต่อเนื่อง

AL

Sharp grinding edge
For aluminium and non-ferrous
เครื่องงานอลูมิเนียม



Positive insert
เม็ดหน้าเดี่ยว



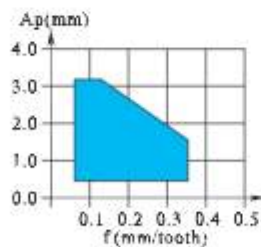
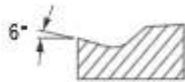
		CW20	Cutting Parameter
			Vc (mm./min.)
Materials	N	Aluminium alloy	250-300-400
	N	Non ferrous metal	150-200-280
Product code :			
CCGT060202, 04, 08-AL		*	Competitor chip Kyocera:-AH Taegutec:-FL Tungaloy:-AL Korloy:-AK
CCGT09T302, 04, 08-AL		*	
CCGT120402, 04, 08, 12-AL		*	
DCGT070202, 04, 08-AL		*	
DCGT11T302, 04, 08-AL		*	
SCGT09T302, 04, 08-AL		*	
TCGT110202, 04, 08-AL		*	
TCGT16T302, 04, 08-AL		*	
VCGT110304, 08-AL		*	
VCGT160402, 04, 08, 12, 16, 20-AL		*	
VCGT220530-AL		*	

TM

Universal cutting edge
General use
เครื่องงานเหล็ก เหล็กหล่อ



Negative insert
เม็ดสองหน้า



Cutting depth / feed

		CVD		Cutting Parameter
		CC1135G CC1135G2	CC1135D	Vc (mm./min.)
Materials	P	Mild Steel	● *	180-240-280
	P	Forge / Cast Steel	● *	180-220-250
	K	Cast iron	● *	180-250-400
	K	Ni-based cast iron	● *	180-250-400
Product code :				
CNMG120404-TM		● *	● *	Competitor chip Mitsubishi: MA Kyocera: PG,PS Taegutec: MT Tungaloy: TM
CNMG120408-TM		● *	● *	
CNMG120412-TM		● *	● *	
DNMG150404-TM		● *	● *	
DNMG150408-TM		● *	● *	
DNMG150604-TM		● *	● *	
DNMG150608-TM		● *	● *	
SNMG120404-TM		● *	● *	
SNMG120408-TM		● *	● *	
SNMG120412-TM		● *	● *	
TNMG160404-TM		● *	● *	
TNMG160408-TM		● *	● *	
TNMG160412-TM		● *	● *	
VNMG160404-TM		● *	● *	
VNMG160408-TM		● *	● *	
VNMG160412-TM		● *	● *	
WNMG080404-TM		● *	● *	
WNMG080408-TM		● *	● *	
WNMG080412-TM		● *	● *	

* ผลิตเฉพาะ ● ระบุเหล็กหล่อ ● ผลิตด้วยมือ

GH

Super Strong cutting edge

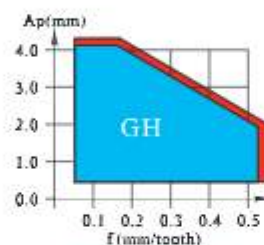
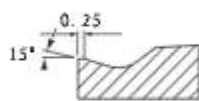
Heavy roughing

เกรงงานเหล็ก เหล็กหล่อ



Negative insert

เม็ดสองหน้า



Cutting depth / feed

		CVD		Cutting Parameter	
		CC3110/D		Vc (mm./min.)	
Materials	P	Mild Steel	*	180-240-280	
	P	Forge / Cast Steel	*	180-220-250	
	K	Cast Iron	*	180-250-400	
Product code :					
		CNMG120408-GH	*		
		CNMG120412-GH	*		
		CNMG160612-GH	*		
		CNMG160616-GH	*		
		CNMG190616-GH	*		
		CNMM190616-GH	*		
		DNMG150408-GH	*		
		DNMG150608-GH	*		
		TNMG160408-GH	*		
		TNMG160412-GH	*		
		SNMG120408-GH	*		
		SNMG120412-GH	*		
		SNMG120416-GH	*		
		SNMG150612-GH	*		
		SNMG190612-GH	*		
		SNMG190616-GH	*		
		SNMG250724-GH	*		
		SNMM190616-GH	*		
		SNMM250924-GH	*		
		VNMG160408-GH	*		
		VNMG160412-GH	*		
		WNMG080408-GH	*		
		WNMG080412-GH	*		

XM1

Strong chip breaker

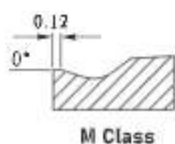
Semi-Finishing

เกรงงานเหล็ก สแตนเลส

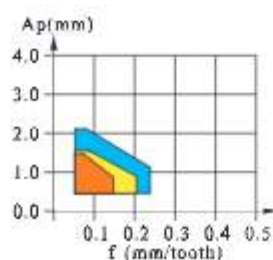


Positive insert

เม็ดหน้าเดียว



M Class



Cutting depth / feed

		PVD				Cutting Parameter	
		CP2630T	CP2430	CP2130H	CP2130	Vc (mm./min.)	
Materials	P	Steel	*	●	*	120-210	
	P	Hardened steel		●		50-100	
	K	Cast iron				120-210	
	M	Stainless	*	●	*	60-180	
	S	Heat resistance steel	*	●	*	40-70	
Product code :							
		CCMT060204, 08-XM1	*	●	*	Competitor chip	
		CCMT09T304, 08-XM1	*	●	*		
		CCMT120404, 08, 12-XM1	*	●	*		
		DCMT070204, 08-XM1	*	●	*		
		DCMT11T304, 08-XM1	*	●	*		
		SCMT09T304, 08-XM1	*	●	*		
		SCMT120404, 08, 12-XM1	*	●	*		
		TCMT110204, 08-XM1	*	●	*		
		TCMT16T304, 08-XM1	*	●	*		
		VB(C)MT110304, 08-XM1	*	●	*		
		VB(C)MT160404, 08-XM1	*	●	*		

* ผลิตเฉพาะ ● ระบุเพิ่มเติม ● ผลิตโดยอื่น

Kyocera : -GK
Tegutec : -MT
Tungaloy : -PM

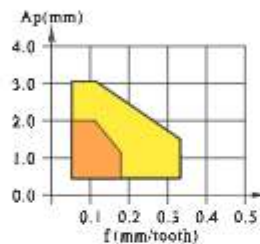
CMA

Chip breaker for stainless
General use to Finishing
เครื่องงานสแตนเลส ไทเทเนียม



Negative insert

เม็ดสองหน้า



PVD

CP2630T

Cutting Parameter

Vc (mm./min.)

Materials			
P	Steel		120-180-250
H	Hardened steel		30-50-80
M	Stainless	*	60-120-180
S	Titanium		40-70-90
S	Heat resistance steel	*	40-70-90
Product code :			
	CNMG120404-CMA	*	Competitor chip Mitsubishi: MA Kyocera: PG,MS,PS Taegutec: PC,MT Tungaloy: TM
	CNMG120408-CMA	*	
	CNMG120412-CMA	*	
	DNMG150404-CMA	*	
	DNMG150408-CMA	*	
	DNMG150604-CMA	*	
	DNMG150608-CMA	*	
	SNMG120404-CMA	*	
	SNMG120408-CMA	*	
	SNMG120412-CMA	*	
	TNMG160404-CMA	*	
	TNMG160408-CMA	*	
	TNMG160412-CMA	*	
	VNMG160404-CMA	*	
	VNMG160408-CMA	*	
	VNMG160412-CMA	*	
	WNMG080404-CMA	*	
	WNMG080408-CMA	*	
	WNMG080412-CMA	*	

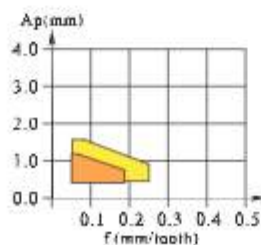
AU

Ultra sharp edge
Finishing application
เครื่องงานสแตนเลส ไทเทเนียม



Negative insert

เม็ดสองหน้า



Cutting depth / feed

PVD

CP2630T

CP2430F

Cutting Parameter

Vc (mm./min.)

Materials				
P	Steel	*	●	80-150-200
H	Hardened steel		●	40-70-100
M	Stainless	*	●	60-120-180
S	Titanium	*	●	40-60-80
S	Heat resistance steel	*	●	40-70-90
Product code :				
	CNMG120404, 08, 12-AU	*	●	Competitor chip Mitsubishi:MS,SH Kyocera:HQ Taegutec: SF Sandvik:MF
	TNMG160404, 08-AU	*	●	
	WNMG080404, 08-AU	*	●	
	CNMG120404, 08-CQ	*		
	TNMG160404, 08-CQ	*		
	WNMG080404, 08-CQ	*		

* ผลิตจาก... ● ใช้งานได้กับ... ● ใช้งานได้เฉพาะ...

CM

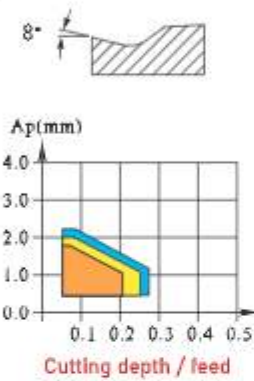
Sharp edge
Medium to Finishing

เกร็ดงานเหล็ก สแตนเลส ไทเทเนียม



Negative insert

เม็ดสองหน้า



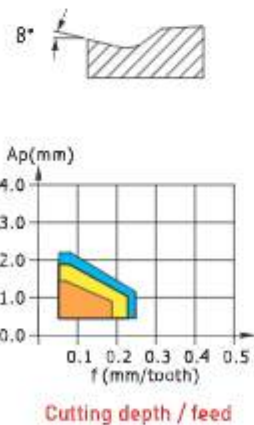
		PVD			CVD		Cutting Parameter Vc (mm./min.)
		CP2630I	CP2130H	CP2430	CC2135	CC1125	
Materials	P Steel	*	*		●	●	150-220-280
	H Hardened steel			●			30-50-80
	M Stainless	*	*	●	●		60-120-180
	S Titanium	*	*	●			40-60-80
	SS Heat resistance steel	*		●	●		40-70-90
Product code :							
CNMG120404, 08, 12-CM		*	*	●	●	●	Competitor chip Mitsubishi: MS, MA Kyocera: MS Tseagate: PC, MP Sandvik: MM Kennametal: P, MP
DNMG150404, 08-CM		*	*	●	●	●	
DNMG150604, 08-CM		*	*	●	●	●	
SNMG120404, 08, 12-CM		*	*	●	●	●	
TNMG160404, 08-CM		*	*	●	●	●	
VNMG160404, 08-CM		*	*	●	●	●	
WNMG080404, 08, 12-CM		*	*	●	●	●	
CNMU09T304, 08-CM		*	*	●			
TNMU120304, 08-CM		*	*	●			

* กลึงธรรมดา ● กลึงแบบเล็ก/หยาบ ● กลึงผิวละเอียด



Positive insert

เม็ดหน้าเดียว



		PVD			CVD		Cutting Parameter Vc (mm./min.)
		CP2630T	CP2430F	CP2130H	CC2135		
Materials	P Steel	*		*	●		80-150-180
	H Hardened steel		●				30-50-80
	M Stainless	*		*	●		60-120-160
	S Titanium	*	●	*			40-60-80
	SS Heat resistance steel	*	●		●		40-70-90
Product code :							
CCGT060202, CCMT060204, 08-CM		*	●	*	●		Competitor chip Mitsubishi: MS&MA Kyocera: MS Tseagate: PC, MP Sandvik: MM Kennametal: P, MP
CCGT09T302, CCMT09T304, 08-CM		*	●	*	●		
CCMT120404, 08, 12-CM		*	●	*	●		
DCGT070202, DCMT070204-CM		*	●	*	●		
DCGT11T302, DCMT11T304-CM		*	●	*	●		
SCMT09T304, 08-CM		*	●	*	●		
TCGT110202, TCMT110204, 08-CM		*	●	*	●		
VBGT110302-CM		*	●	*			
VCGT110302-CM		*	●	*			
VPGT110302-CM		*	●	*			
VBGT160402, VBMT160404, 08-CM		*	●	*	●		
VCGT160402-CM		*	●	*			

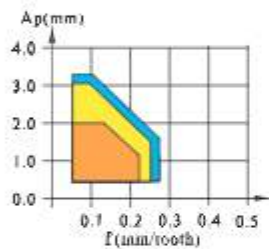
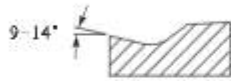
* กลึงธรรมดา ● กลึงแบบเล็ก/หยาบ ● กลึงผิวละเอียด

CF

Special chip breaker
General use to Finishing
เครื่องงานเหล็ก สแตนเลส ไทเทเนียม



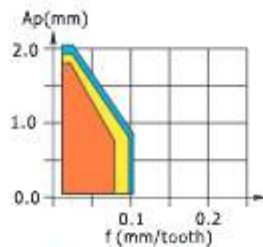
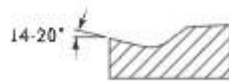
Negative insert
เม็ดสองหน้า



Cutting depth / feed



Positive insert
Ultra sharp for Semi to Super finishing
เม็ดหน้าเดียว



Cutting depth / feed

		PVD			CVD		Cutting Parameter
		CP1120	CP2630T	CP2430	CC1130G2	CC1135D	Vc (mm./min.)
Materials	P Steel	*	*	●	●	●	60-120-250
	H Hardened steel						30-50-80
	M Stainless	*	*				60-120-180
	S Titanium		*	●			40-60-80
	S Heat resistance steel		*	●			60-80-100
Product code :							
CNMG120404-CF			*	●	●	●	Competitor chip Mitsubishi : MJ Kyocera : TK Taegutec : ML Sandvik : SF Tungaloy : SS
CNMG120408,12-CF			*	●	●	●	
DNMG150404 & 08-CF			*	●			
DNMG150604 & 08-CF			*	●			
TNGG160401-CF		*	*	●			
TNGG160402-CF		*	*	●			
TNMG160404&08.12-CF			*	●	●	●	
VNMG12T304&08-CF			*	●			
VNMG160404&08-CF			*	●	●	●	
WNMG080404-CF			*	●	●	●	
WNMG080408&12-CF			*	●	●	●	

* ผลิตครบทุกชนิด ● ผลิตครบทุกชนิด ● ผลิตด้วยวิธีพิเศษ

		PVD			Cutting Parameter
		CP2130H	CP1120	CP2430F	Vc (mm./min.)
Precision grinding type					
Materials	P Steel	*	*	*	60-120-180
	H Hardened steel			●	30-50-70
	M Stainless	*	*		60-120-160
	S Titanium	*		*	40-60-80
	S Heat resistance steel	*		*	40-70-100
Product code :					
CCGT060201 - CF		*	*	*	Competitor chip Tungaloy : JS Kyocera : GF NTK : CL
CCGT060202 - CF		*	*	*	
CCGT09T301 - CF		*	*	*	
CCGT09T302 - CF		*	*	*	
CCGT09T304 - CF		*	*	*	
DCGT070201 - CF		*	*	*	
DCGT070202 - CF		*	*	*	Competitor grade CP1120 = PR930 / TM4 QM3/VM1/ZM3 CP2430(F) = PR1535 PR1725 CP2630 = PR1225 AH725 CP2130(B) = PR1225 DM4/DT4
DCGT11T301 - CF		*	*	*	
DCGT11T302 - CF		*	*	*	
DCGT11T304 - CF		*	*	*	
VBGT110301 - CF		*	*	*	
VBGT110302 - CF		*	*	*	
VCGT110301 - CF		*	*	*	
VCGT110302 - CF		*	*	*	
VPGT110301 - CF		*	*	*	
VPGT110302 - CF		*	*	*	

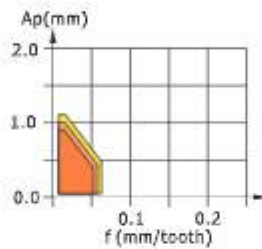
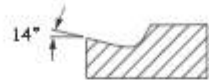
Y-U-F

Ultra sharp edge & Precise tolerance

For small part turning

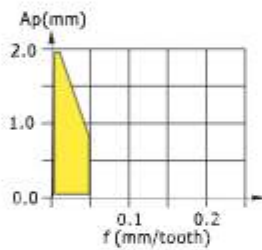
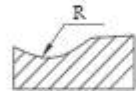
เครื่องกลึงเล็ก สดทนแลง โทงเนื้อเยี่ยม

■ Finishing - Y/J chip

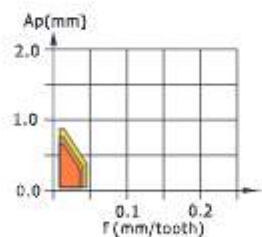
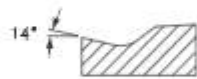


■ Finishing - U chip

Large Ap / Low feed

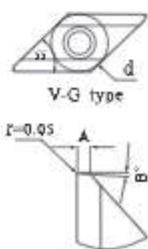


■ Finishing - F chip

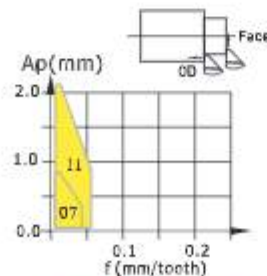


■ DCV07 DCV11 R/L (V-G)

CP2130(B) CP1120



- A x B°
- 0.3x7°
- 0.3x4°
- 0.15x7°
- 0.15x4°
- 0.3x7°
- 0.3x4°
- 0.15x7°
- 0.15x4°



Cutting depth / feed

Precision grinding type

		PVD				Cutting Parameter
		CP2430F	CP2130(B)	CP1120	CP2630	
Materials		Precision grinding type				Vc (mm./min.)
		P	Steel	*	*	*
S	Stainless	*	*	*	*	60-120-180
S	Titanium	*	*		*	40-60-80
S	Heat resistance steel	*			*	40-60-80
N	Non ferrous metal					200-300-400
Product code :						
	CPGH040101 R/L	*	*	*	*	Competitor chip
	CPGH040102 R/L	*	*	*	*	Y chip : Kyocera - Y NTK - S/AT
	CPGH040104 R/L	*	*	*	*	U chip : Kyocera - U NTK - UGH,U
	CCGT0602005 R/L	*	*	*	*	Jchip : Kyocera - J
	CCGT060201 R/L	*	*	*	*	
	CCGT060202 R/L	*	*	*	*	
	CCGT060204 R/L	*	*	*	*	
	CCGT09T3005 R/L	*	*	*	*	
	CCGT09T301 R/L	*	*	*	*	Competitor grade
	CCGT09T302 R/L	*	*	*	*	CP1120 = PR930 / TM4 QM3/VM1/ZM3
	CCGT09T304 R/L	*	*	*	*	CP2430(F) = PR1535 PR1725
	DCGT0702005 R/L	*	*	*	*	CP2630 = PR1225 AH725
	DCGT070201 R/L	*	*	*	*	CP2130(B) = PR1225 DM4/DT4
	DCGT070202 R/L	*	*	*	*	
	DCGT070204 R/L	*	*	*	*	
	DCGT11T3005 R/L	*	*	*	*	
	DCGT11T301 R/L	*	*	*	*	
	DCGT11T302 R/L	*	*	*	*	
	DCGT11T304 R/L	*	*	*	*	
	TPGT080201 R/L	*	*	*	*	
	TPGT080202 R/L	*	*	*	*	
	TPGT080204 R/L	*	*	*	*	
	TPGT090201 R/L	*	*	*	*	
	TPGT090202 R/L	*	*	*	*	
	TPGT090204 R/L	*	*	*	*	
	TCGT110201 R/L	*	*	*	*	
	TCGT110202 R/L	*	*	*	*	
	TCGT110204 R/L	*	*	*	*	
	TPGH110301 R/L	*	*	*	*	
	TPGH110302 R/L	*	*	*	*	
	TPGH110304 R/L	*	*	*	*	
	VBGT1103005 R/L	*	*	*	*	
	VBGT110301 R/L	*	*	*	*	
	VBGT110302 R/L	*	*	*	*	
	VBGT110304 R/L	*	*	*	*	
	VCGT1103005 R/L	*	*	*	*	
	VCGT110301 R/L	*	*	*	*	
	VCGT110302 R/L	*	*	*	*	
	VCGT110304 R/L	*	*	*	*	
	INGG1604005 R/L	*	*	*	*	
	INGG160401 R/L	*	*	*	*	
	TNGG160402/04 R/L	*	*	*	*	

* กลึงธรรมดา ● กลึงแบบลึก/สไลด์ ● กลึงด้วยท่อลม

CD22

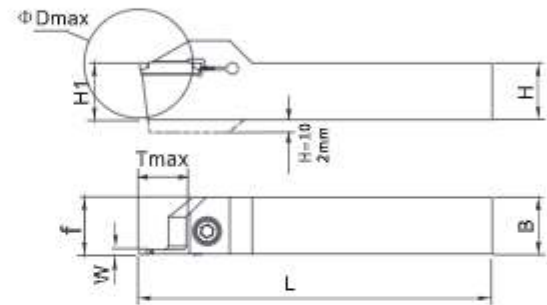
High performance grooving insert
Precision edge grinding
ทรงงานเหล็ก สแตนเลส ไทเทเนียม



	PVD				CVD	Cutting Parameter Vc (mm./min.)
	CP2430	CP2130H	CP2630T	CC1035G		
P Steel	●	●	●	●	●	80-120-160
P Hard steel	●	●	●	●	●	140-180-220
M Stainless	●	●	●	●	●	60-80-120
S Titanium	●	●	●	●	●	40-60-80
S Heat resistance steel	●	●	●	●	●	40-60-80
Groove , Cut-off , Turning						Feed per Rev.
CD22N2.00S-0.2T	●	●	●	●	●	0.05-0.07-0.10
CD22N2.50S-0.2T	●	●	●	●	●	0.06-0.08-0.12
CD22N3.00S-0.3T	●	●	●	●	●	0.07-0.10-0.20
CD25N4.00S-0.4T	●	●	●	●	●	0.08-0.20-0.30
CD25N5.00S-0.4T	●	●	●	●	●	0.12-0.25-0.35
Full radius nose						Feed per Rev.
CD22N3.00S-1.5R	●	●	●	●	●	0.05-0.08-0.12
CD25N4.00S-2.0R	●	●	●	●	●	0.06-0.10-0.15
Cutting off						Feed per Rev.
CD22R2.00E-06F1	●	●	●	●	●	0.05-0.07-0.10



Sharp cutting edge , Perfect design for all applications
Parting . Grooving . Turning . Cut off



(R)RIGHT HAND SHOWN

MODEL NO. CD / WD		Dimension mm					W	H H1 B	L	f	Tmax	Insert
Right	Left	W	H H1 B	L	f	Tmax						
TER10-20-CD22-2	TEL10-20-CD22-2	2	10	125	10.25	10	BS0416	S3	CD22N2.00 CD22R-2.00			
TER12-24-CD22-2	TEL12-24-CD22-2	2	12	125	12.25	12						
TER16-24-CD22-2	TEL16-24-CD22-2	2	16	125	16.25	12						
TER20-24-CD22-2	TEL20-24-CD22-2	2	20	125	20.25	12						
TER25-24-CD22-2	TEL25-24-CD22-2	2	25	150	25.25	12						
TER10-20-CD22-2.5	TEL10-20-CD22-2.5	2.5	10	125	10.3	10	BS0416	S3	CD22N2.50			
TER12-24-CD22-2.5	TEL12-24-CD22-2.5	2.5	12	125	12.3	12						
TER16-24-CD22-2.5	TEL16-24-CD22-2.5	2.5	16	125	16.3	12						
TER20-24-CD22-2.5	TEL20-24-CD22-2.5	2.5	20	125	20.3	12						
TER25-24-CD22-2.5	TEL25-24-CD22-2.5	2.5	25	150	25.3	12						
TER16-36-CD22-3	TEL16-36-CD22-3	3	16	125	16.35	18	BS0616	S5	CD22N3.00 CD22R-3.00 CD22S-3.00			
TER20-36-CD22-3	TEL20-36-CD22-3	3	20	125	20.35	18						
TER25-36-CD22-3	TEL25-36-CD22-3	3	25	150	25.35	18						
TER32-36-CD22-3	TEL32-36-CD22-3	3	32	170	32.35	18						
TER20-40-CD25-4	TEL20-40-CD25-4	4	20	125	20.45	22						
TER25-40-CD25-4	TEL25-40-CD25-4	4	25	150	25.45	22	BS0620	S5	CD25N-4.00 CD22S-4.00			
TER32-40-CD25-4	TEL32-40-CD25-4	4	32	170	32.45	22						
TER25-40-CD25-5	TEL25-40-CD25-5	5	25	150	25.45	22						
TER32-40-CD25-5	TEL32-40-CD25-5	5	32	170	32.45	22						
TER40-40-CD25-5	TEL40-40-CD25-5	5	40	200	40.45	22						
TER25-40-CD25-6	TEL25-40-CD25-6	6	25	150	25.55	22	BS0620	S5	CD25N6.00			
TER32-40-CD25-6	TEL32-40-CD25-6	6	32	170	32.55	22						
TER40-40-CD25-6	TEL40-40-CD25-6	6	40	200	40.55	22						

TFR Face groove
R Curve holder



TSF Dia16-40
Internal groove

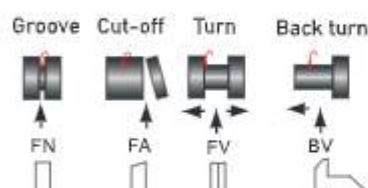


CMTP

Small part grooving insert
Precision edge grinding
เครื่องมือเหล็ก สแตนเลส ไทเทเนียม



Shape application :



Precision grinding type		Materials	P	Steel	*	*	*			
			H	HRC45-58 Steel			*			
			M	Stainless steel	*	*	*			
			S	Titanium alloy	*		*			
			N	Non ferrous metal				*		
			R	Heat-resisting steel			*			
Order example CMTPR100FN,CP2130 CMTLPR100FN,CP2130		Size	Effective depth of cut				PVD		UC	
Right hand	Left hand	Width	Groove	Cut-off	Turn	Back	CP1120	CP2130	CP2630T	CW20
		W _{H13}	FN	FA	FV	BV				
CMTPR050	CMTPL050	0.5	2.0	2.0			●	●	●	●
CMTPR080	CMTPL080	0.8	3.0	3.5	3.0		●	●	●	●
CMTPR100	CMTPL100	1.0	4.0	5.0	4.0		●	●	●	●
CMTPR125	CMTPL125	1.25	4.0	5.0			●	●	●	●
CMTPR150	CMTPL150	1.5	5.5	6.5	4.0		●	●	●	●
CMTPR175	CMTPL175	1.75	5.5	6.5			●	●	●	●
CMTPR200	CMTPL200	2.0	5.5	6.5			●	●	●	●
CMTPR250	CMTPL250	2.5	5.5	6.5		4.0	●	●	●	●
CMTLPR050	CMTLPL050	0.5	3.0	3.0			●	●	●	●
CMTLPR080	CMTLPL080	0.8	3.5	4.0	3.0		●	●	●	●
CMTLPR100	CMTLPL100	1.0	6.0	6.0	4.0		●	●	●	●
CMTLPR125	CMTLPL125	1.25	6.0	6.5			●	●	●	●
CMTLPR150	CMTLPL150	1.5	7.0	7.0	4.0		●	●	●	●
CMTLPR175	CMTLPL175	1.75	8.0	8.0			●	●	●	●
CMTLPR200	CMTLPL200	2.0	8.0	11.0			●	●	●	●
CMTLPR250	CMTLPL250	2.5	8.0	11.0		4.0	●	●	●	●

✱ มีในสต็อก ● ใช้งานได้ทันที ● ใช้งานได้เฉพาะ

Tool holder list



Holder shown as right hand

Holder code		Dimension				Screw	Wrench
Right hand	Left hand	H H1 B	L	H2	f		
CMTPR0808K66	CMTPL0808K66	8	125	-	8.1	MS4080	T15
CMTPR1010K66	CMTPL1010K66	10	125	-	10.1		
CMTPR1212K66	CMTPL1212K66	12	125	-	12.1		
CMTPR1616M66	CMTPL1616M66	16	125	-	16.1		
CMTPR2020K66	CMTPL2020K66	20	125	-	20.1		
CMTPR2525M66	CMTPL2525M66	25	150	-	25.1		
CMTLPR1212K86	CMTLPL1212K86	12	125	-	12.1	MS4080	T15
CMTLPR1616M86	CMTLPL1616M86	16	125	-	16.1		
CMTLPR2020K86	CMTLPL2020K86	20	125	-	20.1		
CMTLPR2525M86	CMTLPL2525M86	25	150	-	25.1		



Precision threading insert
Universal application
เบ็ดกลึงเกลียว



		PVD			UC	Cutting Parameter Vc (mm./min.)
		CP2630T	CP2430	CP1125	CW20	
Materials	P Steel	☑	☑	☑		80-120-160
	M Stainless	☑	☑	☑		60-80-120
	K Cast Iron	☑	☑			120-150-200
	S Titanium	☑	☑	☑		30-40-50
	S Heat resistance steel	☑	☑			40-50-60
	N Non ferrous , Aluminium				●	150-180-250
Product code :					Thread profile	
Standard Edge grinding	11IRM	☑	☑	☑		ISO A AG G UN BSW BSPT NPT TR ACME SAQE RD APIRD
	16IRM, 16ERM	☑	☑	☑		
	22IRM, 22ERM	☑				
Precision Fully grinding	06IR	☑	☑		☑	
	08IR	☑	☑		☑	
	11IR	☑	☑		☑	
	16IR, 16ER	☑	☑		☑	
	22IR, 22ER	☑			☑	
	27IR, 27ER	☑			☑	

Small part turning tools



MLG (0.5 - 3.0mm)



Tungaloy type
6/7/8 GR (0.5 - 3.0mm)



SER / SNR holder
11/16 CUT Groove



Taegutec - TDT
Korloy - MGMN
150/200/300/400/500

Grooving / Parting



Insert : 0.5 - 1.2mm
Holder : 10 - 20mm

VAC11 Small cut off



Kycocera type
GBA-TGF 22/32/42



ABS Turning
Insert : AB515
Holder : SAB5



VNBR Mini hole making



Carbide micro
Boring/Thread/Groove

Catalog



Turning insert

เม็ดมีดงานกลึง

ISO color code

P Steel **N** Aluminum **H** Harden steel
M Stainless **K** Cast iron

P เม็ดคาร์ไบด์ งานเหล็ก	Grade	Price
TNMG160404-TM	UP15/KM15C	118
TNMG160408-TM	UP15/KM15C	118
TNMG160404L-S	UP15/KM15C	118
TNMG160404R-S	UP15/KM15C	118
TNMG160408L-S	UP15/KM15C	118
TNMG160408R-S	UP15/KM15C	118
WNMG080404-TM	UP15/KM15C	125
WNMG080408-TM	UP15/KM15C	125
VNMG080404R-S	UP15/KM15C	125
WNMG080408R-S	UP15/KM15C	125
CNMG120404-TM	UP15/KM15C	125
CNMG120408-TM	UP15/KM15C	125
CNMG120404R-S	UP15/KM15C	125
CNMG120408R-S	UP15/KM15C	125
VNMG160404-TM	UP15/KM15C	190
VNMG160408-TM	UP15/KM15C	190
DNMG150404-TM	UP15/KM15C	200
DNMG150408-TM	UP15/KM15C	200
SNMG120404-TM	UP15/KM15C	125
SNMG120408-TM	UP15/KM15C	125
CCMT 060204	UP15	108
CCMT 09T304	UP15	123
CCMT 120404	UP15	140
CCMT 120408	UP15	140
TCMT 110204	UP15	108
TCMT 16T304	UP15	142
DCMT 070204	UP15	108
DCMT 11T304	UP15	133
VBMT 110304	UP15	155
VBMT 160404	UP15	190
VBMT 160408	UP15	190
P เม็ดคาร์ไบด์ Cermet	Grade	Price
CCMT060204HQ	CNX15	105
CCMT09T304HQ	CNX15	120
CNMG120404HQ	CNX15	135
CNMG120408HQ	CNX15	135
DCMT070204HQ	CNX15	105
DCMT11T302HQ	CNX15	139
DCMT11T304HQ	CNX15	138
TCMT110204HQ	CNX15	105
TNMG160404HQ	CNX15	118
TNMG160408HQ	CNX15	118
TNMG160404R-2G	CNX15	125
TNMG160404L-2G	CNX15	125
TNMG160408R-2G	CNX15	125
TNMG160408L-2G	CNX15	125
TNGG160402R-2G	CNX15	160
TNGG160402L-2G	CNX15	160
TNGG160404R-2G	CNX15	160
TNGG160404L-2G	CNX15	160
VNMG080404HQ	CNX15	135
VNMG080408HQ	CNX15	135
VNMG160404HQ	CNX15	140
VNMG160408HQ	CNX15	140

ISO insert shape



M เม็ดคาร์ไบด์ งานสแตนเลส	Grade	Price
TNMG160404-MS	UP25	118
TNMG160408-MS	UP25	118
TNMG160404-MA	UP25	118
TNMG160408-MA	UP25	118
TNMG160404L-S	UP25	118
TNMG160408L-S	UP25	118
WNMG080404-MA	UP25	125
WNMG080408-MA	UP25	125
WNMG080404-MS	UP25	125
WNMG080408-MS	UP25	125
CNMG120404-MS	UP25	125
CNMG120408-MS	UP25	125
CNMG120404-MA	UP25	125
CNMG120408-MA	UP25	125
SNMG120404-MA	UP25	125
SNMG120408-MA	UP25	125
DNMG150404-MA	UP25	200
DNMG150408-MA	UP25	200
VNMG160404-MA	UP25	190
VNMG160408-MA	UP25	190
CCMT 060204	UP25	108
CCMT 060208	UP25	108
CCMT 09T304	UP25	123
CCMT 09T308	UP25	123
CCMT 120404	UP25	140
CCMT 120408	UP25	140
TCMT 110204	UP25	108
TCMT 16T304	UP25	142
DCMT 070204	UP25	108
DCMT 11T304	UP25	133
DCMT 11T308	UP25	133
VBMT 110304	UP25	155
VBMT 160404	UP25	190
VBMT 160408	UP25	190

M เม็ดสังกะสี	Grade	Price
11 IR/ER A60	PKM15	180
11 IR/ER A55	PKM15	180
16IR/ER 10ISO	PKM15	180
16IR/ER 125ISO	PKM15	180
16IR/ER 150ISO	PKM15	180
16IR/ER 20ISO	PKM15	180
16IR/ER 25ISO	PKM15	180
16IR/ER 30ISO	PKM15	180
16IR/ER AG60	PKM15	180
16IR/ER A60	PKM15	180
16IR/ER G60	PKM15	180
16IR/ER AG55	PKM15	180
16IR/ER 11W	PKM15	180
16IR/ER 14W	PKM15	180
16IR/ER 19W	PKM15	180
16IR/ER 10UN	PKM15	180
16IR/ER 12UN	PKM15	180
16IR/ER 16UN	PKM15	180
22IR/ER N55	PKM15	335
22IR/ER N60	PKM15	335
22IR/ER 4.0ISO	PKM15	335
22IR/ER 5.0ISO	PKM15	335
22IR/ER 6.0ISO	PKM15	335

IR-internal / ER-external

N เม็ดคาร์ไบด์ งานอลูมิเนียม	Grade	Price
CCGT060202-AL	NH01	146
CCGT060204-AL	NH01	146
CCGT09T304-AL	NH01	159
CCGT09T308-AL	NH01	159
CCGT120404-AL	NH01	178
DCGT070204-AL	NH01	146
DCGT11T302-AL	NH01	159
DCGT11T304-AL	NH01	159
DCGT11T308-AL	NH01	159
TCGT090204-AL	NH01	159
TCGT110204-AL	NH01	159
TCGT16T304-AL	NH01	170
TCGT16T308-AL	NH01	170
TNMG160404-HA	NH01	165
TNMG160408-HA	NH01	165
VCGT110302-AL	NH01	155
VCGT110304-AL	NH01	155
VCGT160402-AL	NH01	186
VCGT160404-AL	NH01	186
VCGT160408-AL	NH01	186
VBGT160404-AL	NH01	186
VNMG160404-HA	NH01	186

*All chip same

K เม็ดคาร์ไบด์ งานเหล็กหล่อ	Grade	Price
CNMG120404-MS	KM35	140
CNMG120408-MS	KM35	140
CNMG1204012-MS	KM35	140
TNMG160404-MS	KM35	130
TNMG160408-MS	KM35	130
TNMA160412-MS	KM35	130
WNMG080404-MS	KM35	140
WNMG080408-MS	KM35	140
VNMA080412-MS	KM35	140

M เม็ดคว้านรูป คาร์ไบด์	Grade	Price
TPGH 080202L(D4L)	KM1215	220
TPGH 090202L(D4L)	KM1215	220
TPGH 110302L(D4L)	KM1215	220

เม็ดมีดตัด เขาะร่อง	Grade	Price
MGMN200-G-ALU	NH01	170
MGMN300-M-ALU	NH01	180
MGMN400-M-ALU	NH01	230
MGMN200-G	KM15C	130
MGMN250-G	KM15C	130
MGMN300-M	KM15C	130
MGMN400-M	KM15C	160
MGMN500-M	KM15C	180
MGMN200-H	KM15C	130
MGMN300-H	KM15C	140
MGMN200-JM-Sharp	KM15C	130
MGMN300-JM-Sharp	KM15C	140
MRMN200-G (R1)	KM15C	130
MRMN300-M (R1.5)	KM15C	140
MRMN400-M (R2)	KM15C	160

PCD / CBN insert

Economy grade for general use



Turning

ISO code	Grade	Price
CCGT060201	PCD	670
CCGT060204	PCD	670
CCGT120202	PCD	670
CCGT120204	PCD	670
CNGA120402	PCD	670
CNGA120404	PCD	670
DCGT070202	PCD	670
DCGT070204	PCD	670
DCGT11T301	PCD	670
DCGT11T302	PCD	670
DCGT11T304	PCD	670
DNGA150404	PCD	670
TCGT090202	PCD	670
TCGT090204	PCD	670
TCGT10202	PCD	670
TCGT10204	PCD	670
TCGT16T302	PCD	670
TCGT16T304	PCD	670
TCGT16T308	PCD	670
TPGH080202	PCD	670
TPGH080204	PCD	670
TPGH090202	PCD	670
TPGH090204	PCD	670

ISO code	Grade	Price
TPGH110302	PCD	670
TPGH110304	PCD	670
TBGT060102	PCD	670
TBGT060104	PCD	670
TNGA160402	PCD	670
TNGA160404	PCD	670
VCGT110302	PCD	670
VCGT110304	PCD	670
VCGT160402	PCD	670
VCGT160404	PCD	670
VNGA160402	PCD	670
VNGA160404	PCD	670
WNGA080404	PCD	670
WNGA080408	PCD	670
MGMN200	PCD	670
MGMN300	PCD	670
MGMN400	PCD	670
MRMN200-R1	PCD	670
MRMN300-R1.5	PCD	670
MRMN400-R2	PCD	670
16IRAG60	PCD	670
16ERAG60	PCD	670
16IRAG55	PCD	670

ISO code	Grade	Price
CNGA120404	CBN	670
CNGA120408	CBN	670
CCGT060204	CBN	670
CCGT09T304	CBN	670
DNGA150404	CBN	670
DNGA150408	CBN	670
DCGT070204	CBN	670
DCGT11T302	CBN	670
DCGT11T304	CBN	670
TNGA160402	CBN	670
TNGA160404	CBN	670
TNGA160408	CBN	670
TPGH090204	CBN	670
VNGA160404	CBN	670
VNGA160408	CBN	670
VCGT160404	CBN	670
WNGA080404	CBN	670
WNGA080408	CBN	670
MGMN200	CBN	670
MGMN300	CBN	670
MGMN400	CBN	670
16IRAG60	CBN	670
16IRAG55	CBN	670

Milling

ISO code	Grade	Price
APKT113504	PCD	670
APKT160402	PCD	670
APKT160404	PCD	670
APKT160408	PCD	670
SEKT1204	PCD	670
APKT113504	CBN	670
APKT160404	CBN	670
SEENI203	CBN	670

PCD with Chip-breaker



Dc_{gw} / Tc_{gw} / Vc_{gw} / Cc_{gw}
 Excellent finishing
 Longer tool life
 ISO price : 1,490

Solid PCBN insert



Rn_{gn} / Rn_{mn} / Rc_{gx} / S_{gn} / Cn_{mn}
 High machining efficiency
 Best cost-performance
 Price : Enquiry

CBN insert (Full corner type)



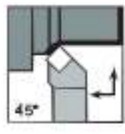
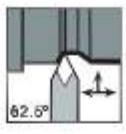
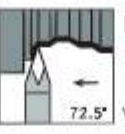



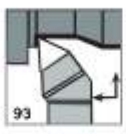
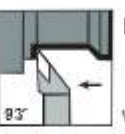


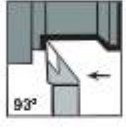
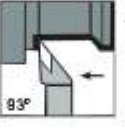


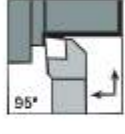
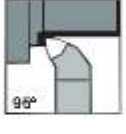
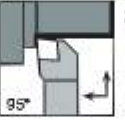
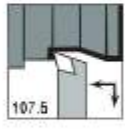
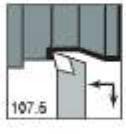
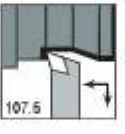
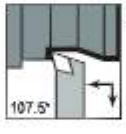
Double sides cutting edge
 For Hard steel & Cast iron
 CBN 1100W0,0

Code : OPT	Cutting edge
CNGA080408-4T	4
DNGA150404-4T	4
DNGA150408-4T	4
TNGA160404-6T	6
TNGA160408-6T	6
VNGA160404-4T	4
VNGA160408-4T	4
WNGA080404-6T	6
WNGA080408-6T	6

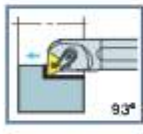
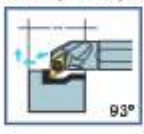
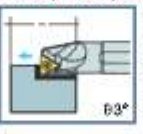
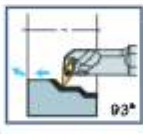
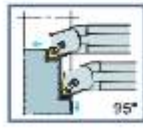
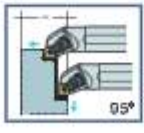
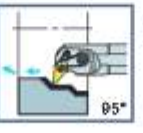
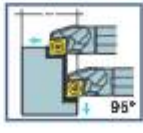
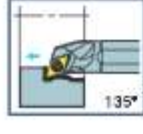
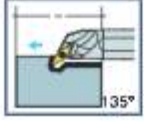
TURNING HOLDER

Class A : SKD61 - CRM , AKEN
 Class B : Cr42 steel - SYC , OEM

External turning holder ด้านกลึงนอก 10/12/16/20/25/32mm

<p>➤ 45°</p>  <p>TSSNR/L MSSNR/L 45° 5NMG1204</p>	<p>➤ 62.5°</p>  <p>SDPCN 62.5° DCMT07/11</p>	<p>➤ 72.5°</p>  <p>MVVNN 72.5° VNMG1604</p>	 <p>SVVBN 72.5° VBMT1604</p>	 <p>SVVCN 72.5° VCMT1604</p>
<p>➤ 93°</p>  <p>TDJNR/L MDJNR/L 93° DNMG1504/06</p>	 <p>WTJNR/L MTJNR/L 93° TNMG1604</p>	 <p>MVJNR/L 93° VNMG1604</p>	 <p>T type</p>  <p>W type</p>	
 <p>SDJCR/L 93° DCMT07/11</p>	 <p>SVJBR/L 93° VBGT1103 VBMT1604</p>	 <p>SVJCR/L 93° VCGT1103 VCMT1604</p>	 <p>S type</p>  <p>M type</p>	
<p>➤ 95°</p>  <p>TCLNR/L MCLNR/L 95° CNMG1204</p>	 <p>WWLNR/L MWLNR/L 95° WNMG0804</p>	 <p>SCLCR/L 95° CCMT0602 CCMT09/12</p>		
<p>➤ 107.5°</p>  <p>TDQNR/L 107.5° DNMG1504</p>	 <p>MVQNR/L 107.5° VNMG1604</p>	 <p>SVQBR/L 107.5° VBMT1604</p>	 <p>SVQCR/L 107.5° VCMT1604</p>	<p>Auto lathe external holder Holder SDJCR/L 0808K07F 1010K07F 1212M11F 1616M11F Holder SVJCR/L 1010K11F 1212K11F Holder SVJBR/L 1616M16F 2020M16F</p>

Internal boring ด้านคว้านใน 8/10/12/16/20/25/32mm ทรงเหล็ก(3xD)

<p>➤ 93°</p>  <p>MTUNR/L WTUNR/L 93° TNMG1604</p>	<p>Steel / HSS / Carbide</p>  <p>SDUCR/L 93° DCMT07/11</p>	<p>Steel / HSS / Carbide</p>  <p>STUPR/L STUCR/L SWUBR/L WBGT06 TPMT09/11 TCMT09/11/16 93°</p>	 <p>SVUCR/L SVUBR/L 93° VCMT11/16 VBMT11/16</p>
<p>➤ 95°</p>  <p>MCLNR/L 95° CNMG1204</p>	 <p>TCLNR/L 95° CNMG1204</p>	 <p>MVUNR/L 95° VNMG1604</p>	<p>Steel / HSS / Carbide</p>  <p>SCLCR/L 95° CCMT06/09/12</p>
<p>➤ 135°</p>  <p>SDQCR/L 135° DCMT07/11</p>	 <p>SVQBR/L SVQCR/L 135° VCMT11/16 VBMT11/16</p>		



TURNING HOLDER

Class A : SKD61 - CRM , AKEN
 Class B : Cr42 steel - SYC , OEM

Anti-vibration boring bar



Carbide ทรงคาร์ไบด์ ($\le 8xD$)

Dia-Type	Dia-Type	Dia-Type
C06H-SCLCR06	C10K-SDUCR07	C08K-STFPR08
C08M-SCLCR06	C12M-SDUCR07	C10K-STFPR09
C10K-SCLCR06	C16R-SDUCR11	C12M-STFPR11
C12M-SCLCR09	C20S-SDUCR11	C16R-STFPR11
C16R-SCLCR09		C20R-STFPR16
C20R-SCLCR09		

HSS ทรงเหล็กไฮสปีด (5xD)

Dia-Type	Dia-Type	Dia-Type
H08J-SCLCR06	H08K-SDUCR07	H08K-STUPR09
H10K-SCLCR06	H10K-SDUCR07	H10K-STUPR11
H12M-SCLCR06	H12M-SDUCR07	H12M-STUPR11
H16Q-SCLCR09	H16Q-SDUCR11	

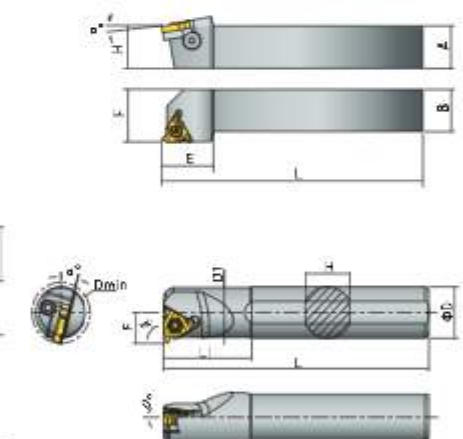
Boring bar holder

Code	Dimensions					Holder	Bar
	φD	φd1	φd2	H	L1		
SH 0416-100	16	4	5	14	100	M5x4	SL-2
SH 0516-100	16	5	6	14	100		
SH 0616-100	16	6	7	14	100		
SH 0816-100	16	7	8	14	100		

Threading insert holder ถ้ามึงเกลียว

EXTERNAL Holder code	Icon	Dimension						Screw	Wrench
		A	B	L	E	F	H		
SER1212H16	16ER**	12	12	100	20	18	12	M35x12	T15
SER1616H16		16	16	100	20	20	16		
SER2020K16		20	20	125	25	25	20		
SER2525M16		25	25	150	25	32	25		

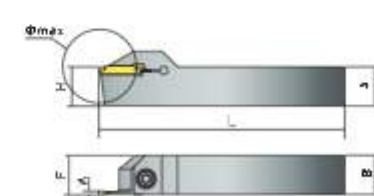
INTERNAL Holder code	Icon	Dimension							Shim	Screw	Wrench
		Dmin	D	L	H	F	a	α			
SNR010K11	11IR**	12	10	125	9	6.8		-	M25x6	T8	
SNR012M11		15	12	150	11	6		-			
SNR013N16	16IR**	17	13	160	12	10.2	15 DEG	-	M35x10	T15	
SNR016Q16		19	16	180	15	11.6		-			
SNR020R16		24	20	200	18.4	13.5		-			
SNR025S16		29	25	250	23.4	16		STM1603			M35x12



Grooving insert holder (Korloy type) ถ้ามึงร่องตัด

EXTERNAL Holder code	Icon	Dimension						Screw	Wrench
		A	B	L	max	F	H		
MGEHR1616-2	MGMN 200 MGMR 200	16	16	100	32	16.2	16	M5x20	L4
MGEHR2020-2		20	20	125	32	20.2	20	M6x20	L5
MGEHR2525-2		25	25	150	32	25.2	25	M6x20	L5
MGEHR1616-3	MGMN 300 MGMR 300	16	16	100	40	16.35	16	M5x20	L4
MGEHR2020-3		20	20	125	40	20.35	20	M6x20	L5
MGEHR2525-3		25	25	150	40	25.35	25	M6x20	L5
MGEHR1616-4	MGMN 400 MGMR 400	16	16	100	40	16.35	16	M5x20	L4
MGEHR2020-4		20	20	125	40	20.35	20	M6x20	L5
MGEHR2525-4		25	25	150	40	25.35	25	M6x20	L5

INTERNAL Holder code	Icon	W	D	L
MGIVR2520-2	3	20	200	
MGIVR2016-3	MGMN300	2	16	180
MGIVR2520-3		3	20	200



* สำหรับเจาะร่องภายใน MGIVR มีขนาด 16 และ 20mm สำหรับเม็ด MGMN 2,3mm.



RECOMMENDED PRODUCT

รุ่นแนะนำ

ESK High precision tool holder

หัวจับระบบ ESK Collet ช่วยเพิ่มประสิทธิภาพทุกการโคต

ESK system advantages

Highest clamping force
Balance 25,000RPM
Precision tolerance TIR<0.005mm at 4xD
Precision type ESK collet 0.003mm
Suitable for Roughing to Finishing
Increase cutting tool life and productivity 200%

ESK type selection

- S type - Slim type with round nut (ESK4S Dia.12 / ESK6S Dia.16mm / ESK10S Dia.20mm)
- MA type - Standard with hexagon nut (ESK10MA Dia.29mm)
- MR type - Standard with round nut (ESK16MR Dia.40mm)
- MM type - Standard with groove nut (ESK16MM Dia.45mm)
- HM type - Heavy duty with groove nut (ESK16HM Dia.60mm)



S Type



MA Type

HM Type
MM Type

Arbor size (Taper x Collet size x Length)

BBT

BBT30-ESK4S-90/105
BBT30-ESK6S-90/120
BBT30-ESK10S-90/120/150
BBT30-ESK10MA-60/90
BBT30-ESK16MM-60/90/120
BBT40-ESK6S-90/120
BBT40-ESK10S-90/120/150
BBT40-ESK10MA-90/120
BBT40-ESK16MR-60/90/120
BBT40-ESK16MM-60/90/120
BBT40-ESK16HM-65/90/120
BBT50-ESK16MM-105/135/165*
BBT50-ESK16HM-105/135/165

HSK

HSK-32E-ESK6S-50/90
HSK-32E-ESK10S-90
HSK-40E-ESK10S-90
HSK-40E-ESK16MM-70
HSK-50E-ESK10S-90
HSK-50E-ESK16MM-70
HSK-63A-ESK10S-90/120
HSK-63A-ESK10MA-90/120
HSK-63A-ESK16MR-90/120
HSK-63A-ESK16MM-90/120
HSK-63A-ESK16HM-80/120
HSK-100A-ESK16MM-105/135/165*
HSK-100A-ESK16HM-105/135/165

ESK Collet size (0.003mm Type)

ESK4 - 3,4
ESK6 - 3,4,6
ESK10 - 3,4,6,8,10
ESK16 - 4,6,8,10,12,16

ESK Spanner

ESK4S - HESK4S
ESK6S - HESK6S
ESK10S - HESK10S
ESK10MR - HESK10MR
ESK16MR - HESK16MR

ESK10MA - H10A (SK10A)

ESK16MM - H40-50

- GH10-60NM Torque + H30-55T

ESK16HM - H55-63 (C20)

- GH20-100NM Torque + H55-63T



H type



GH type - Torque wrench



E-Catalog





BT-SK Precision tool holder

หัวจับระบบ SK Collet ความเที่ยงตรงสูง

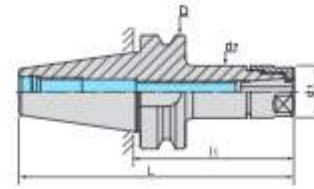


Fig I

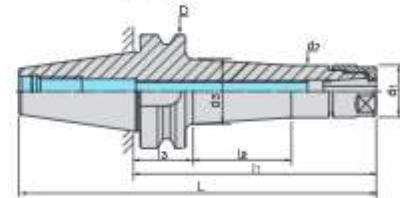


Fig II

Order code	Fig	L	l1	l2	l3	D	d1	d2	d3	Clamping size	Nut
BT30-GSK06A-90	II	138.4	90	27	24	48	19.5	20.5	26	3-6	SK6-A
BT30-GSK10A-60	I	108.4	90	—	—		29	27	—	3-10	SK10-A
BT30-GSK10A-90	I	108.4	90	—	—		—	—	—	—	—
BT40-GSK06A-90	I	155.4	90	—	—	63	19.5	20.5	—	3-6	SK6-A
BT40-GSK06A-120	II	185.4	120	45	32		—	—	32	—	—
BT40-GSK10A-60	I	125.4	60	—	—		—	—	—	—	—
BT40-GSK10A-90	I	155.4	90	—	—		29	27	—	3-10	SK10-A
BT40-GSK10A-120	II	185.4	120	42	31		—	—	30.5	—	—
BT40-GSK10A-150	II	215.4	150	72	31		—	—	30.5	—	—
BT40-GSK16MM-60	I	125.4	60	—	—		—	37	—	—	—
BT40-GSK16MM-90	I	155.4	90	—	—		45	—	—	—	—
BT40-GSK16MM-120	I	185.4	120	—	—		—	42	—	—	—
BT40-GSK16HM-80	I	145.4	80	—	—		60	55	—	—	—
BT40-GSK16HM-120	I	185.4	120	—	—	—	—	—	—	—	
BT50-GSK16MM-105	I	208.8	105	—	—	100	—	—	—	3-16	SK16-M
BT50-GSK16MM-135	I	236.8	135	—	—		40	41.9	—	—	—
BT50-GSK16MM-165	I	266.8	165	—	—		—	—	—	—	—
BT50-GSK16HM-105	II	208.8	105	11	42.5		—	—	57	—	—
BT50-GSK16HM-135	II	236.8	135	41	42.5		60	55	62	—	—
BT50-GSK16HM-165	II	266.8	165	71	42.5		—	—	67.5	—	—
BT50-GSK25MM-105	I	208.8	105	—	—		—	—	—	—	—
BT50-GSK25MM-135	I	236.8	135	—	—		55	56.1	—	—	16-25

HSK Tooling system



HSK-Power shrink

HSK32E / 40E / 50E / 63A / 100A
Power 6,8,10,12,16,20,25
SLRA 4,6,8,10,12



HSK-SK Collet chuck

HSK63A / 100A
SK10,16,25



HSK-GER Collet chuck

HSK32E / 40E / 50E / 63A / 100A
GER16,20,25,32



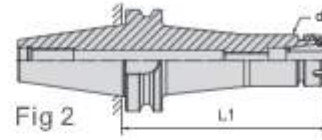
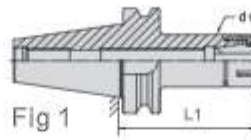
HSK-FMB/C Arbor

HSK63A / 100A
FMB(C)16,22,27,32,40,60



BT-ER tool holder

หัวจับระบบ ER Collet ใช้งานทั่วไป



A Type

Order code	Fig	L	l1	l2	l3	D	d3	Clamping size	Nut
BT40-ER16A-70	I	135.4	70	--	--	--			
BT40-ER16A-100	I	165.4	100	--	--	--	28	3-10	GER16A
BT40-ER16A-150	II	215.4	150	66	32	35			
BT40-ER20A-70	I	135.4	70	--	--	--			
BT40-ER20A-100	I	165.4	100	--	--	--	34	3-14	GER20A
BT40-ER20A-150	II	215.4	150	57	32	40			
BT50-ER16A-100	I	201.8	100	--	--	--	26	3-10	GER16A
BT50-ER16A-150	II	251.8	150	55	43	40			
BT50-ER20A-70	I	171.8	70	--	--	--			
BT50-ER20A-100	I	201.8	100	--	--	--	34	3-14	GER20A
BT50-ER20A-150	I	251.8	150	--	--	--			

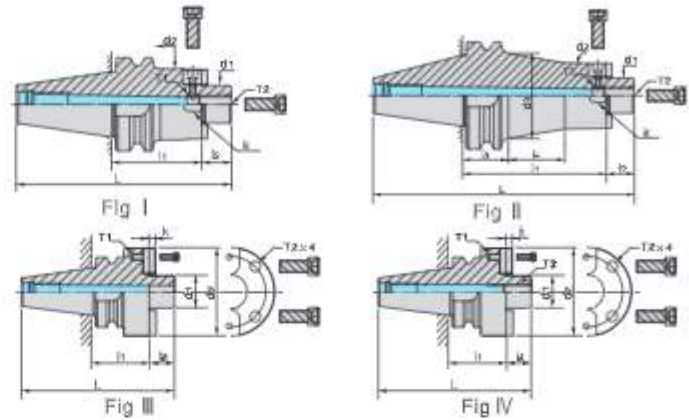
UM Type

BT40-ER25UM-70	I	135.4	70	--	--	--			
BT40-ER25UM-100	I	165.4	100	--	--	--	42	3-16	GER25M
BT40-ER25UM-150	I	215.4	150	--	--	--			
BT40-ER32UM-70	I	135.4	70	--	--	--			
BT40-ER32UM-100	I	165.4	100	--	--	--	50	3-20	GER32M
BT40-ER32UM-150	I	215.4	150	--	--	--			
BT40-ER40UM-70	I	135.4	70	--	--	--			
BT40-ER40UM-100	I	165.4	100	--	--	--	63	3-25	GER40M
BT40-ER40UM-150	I	215.4	150	--	--	--			
BT50-ER25UM-70	I	171.8	70	--	--	--			
BT50-ER25UM-100	I	201.8	100	--	--	--	42	3-16	GER25M
BT50-ER25UM-150	I	251.8	150	--	--	--			
BT50-ER32UM-70	I	171.8	70	--	--	--			
BT50-ER32UM-100	I	201.8	100	--	--	--			
BT50-ER32UM-150	I	251.8	150	--	--	--	50	3-20	GER32M
BT50-ER32UM-200	II	301.8	200	75	43	68			
BT50-ER32UM-250	II	351.8	250	58	43	68			
BT50-ER40UM-70	I	171.8	70	--	--	--			
BT50-ER40UM-100	I	201.8	100	--	--	--	63	3-25	GER40M
BT50-ER40UM-150	I	251.8	150	--	--	--			
BT50-ER40UM-200	II	301.8	200	60	43	75			



BT- FMB/FMC Holder

หัวจับหัวกัดหรือหัวปาด



Order code	Fig	L	l1	l2	l3	l4	d1	d2	d3	K	T1	T2	T3
BT30-FMB16-45	I	110.4	46	17	---	---	16	34	---	KEY-CKSP4	BM03010	BM08025	---
BT30-FMB22-45	I	111.4	46	18	---	---	22	48	---	KEY-FMB22	BM04012	BM10030	---
BT30-FMB27-45	I	113.4	46	20	---	---	27	60	---	KEY-FMB27	BM05012	BM12035	---
BT40-FMB16-60	I	142.4	60	---	---	---	---	---	---	---	---	---	---
BT40-FMB16-100	I	182.4	100	17	---	---	16	34	---	KEY-CKSP4	BM03010	BM08025	---
BT40-FMB16-150	II	232.4	150	---	30.3	112.8	---	---	38	---	---	---	---
BT40-FMB22-60 FMH	I	143.4	60	---	---	---	---	---	---	---	---	---	---
BT40-FMB22-100 FMH	I	183.4	100	18	---	---	22	48	---	KEY-FMB22	BM04012	BM10030	---
BT40-FMB22-150	I	233.4	150	---	---	---	---	---	---	---	---	---	---
BT40-FMB27-60	I	145.4	60	20	---	---	27	60	---	KEY-FMB27	BM06016	BM12035	---
BT40-FMB32-60	II	147.4	60	22	---	---	32	78	---	KEY-FMB32	BM06016	BM16045	---
BT40-FMC40-60	IV	150.4	60	25	---	---	40	89	---	KEY-FMB40	BM06020	BM12035	BM20040
BT50-FMB16-60	I	178.8	60	17	---	---	16	34	---	---	---	---	---
BT50-FMB16-100	I	218.8	100	17	---	---	16	34	---	---	---	---	---
BT50-FMB16-150	II	266.8	150	17	41.8	69	16	34	38	KEY-CKSP4	BM03010	BM08025	---
BT50-FMB16-200	II	318.8	200	17	41.8	69	16	34	38	---	---	---	---
BT50-FMB22-45	I	164.8	45	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-60 FMH	I	179.8	60	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-100 FMH	I	219.8	100	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-150 FMH	I	269.8	150	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-200 FMH	I	319.8	200	18	---	---	22	48	---	KEY-FMB22	BM04012	BM10030	---
BT50-FMB22-250 FMH	I	369.8	250	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-300 FMH	I	419.8	300	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-350 FMH	I	469.8	350	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-400 FMH	I	519.8	400	---	---	---	---	---	---	---	---	---	---
BT50-FMB22-500	I	619.8	500	---	---	---	---	---	---	---	---	---	---
BT50-FMB27-60	I	181.8	60	---	---	---	---	---	---	---	---	---	---
BT50-FMB27-100	I	221.8	100	---	---	---	---	---	---	---	---	---	---
BT50-FMB27-150	II	271.8	150	20	43	71	27	90	77	KEY-FMB27	BM05016	BM12035	---
BT50-FMB27-200	II	321.8	200	---	---	---	---	---	---	---	---	---	---
BT50-FMB27-250	II	371.8	250	---	---	---	---	---	---	---	---	---	---
BT50-FMB32-60	I	183.8	60	---	---	---	---	---	---	---	---	---	---
BT50-FMB32-100	I	223.8	100	22	---	---	---	---	---	---	---	---	---
BT50-FMB32-150	II	273.8	150	---	43	61	32	78	---	KEY-FMB32	BM06016	BM16045	---
BT50-FMB32-200	II	323.8	200	---	---	---	---	---	63	---	---	---	---
BT50-FMB32-250	II	373.8	250	---	---	---	---	---	---	---	---	---	---
BT50-FMC40-60	IV	186.8	60	---	---	---	---	---	---	---	---	---	---
BT50-FMC40-100	IV	226.8	100	25	---	---	40	89	---	KEY-FMB40	BM06020	BM12035	BM20040
BT50-FMC40-150	IV	276.8	150	---	---	---	---	---	---	---	---	---	---
BT50-FMC60-75	III	201.8	75	---	---	---	---	---	---	---	---	---	---
BT50-FMC60-150	III	276.8	150	25	---	---	60	128.57	---	KEY-FMB60	BM10025	BM16035	---
BT50-FMC60-200	III	326.8	200	---	---	---	---	---	---	---	---	---	---

FMH: มีรูป FMH สำหรับหัวกัด High Feed เฉพาะรุ่นที่รับ FMB ส่วนรับ Feed rate สูงๆได้



BT-Side lock



Size - Clamp - Length

BT40 SLA10-60
BT40 SLA12-60
BT40 SLA16-75
BT40 SLA20-75
BT40 SLA25-100
BT40 SLA32-100
BT40 SLA40-100
BT40 SLA42-100

BT50 SLA10-90
BT50 SLA12-90
BT50 SLA16-09
BT50 SLA20-105
BT50 SLA25-105
BT50 SLA32-105
BT50 SLA40-105
BT50 SLA42-120
BT50 SLA50-120
BT50 SLA50.8-120

BT-MTA



Size - Clamp - Length

BT40 MTA1-45
BT40 MTA1-120
BT40 MTA2-50
BT40 MTA2-120
BT40 MTA3-70
BT40 MTA3-135
BT40 MTA4-95
BT40 MTA4-165

BT50 MTA2-60
BT50 MTA2-135
BT50 MTA3-65
BT50 MTA3-150
BT50 MTA4-95
BT50 MTA4-180
BT50 MTA5-105

ER Extension shank

หัวจับท้ายตรงแบบ ER Collet



M Type



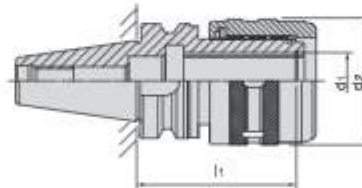
A Type

Order code	Range	L	D	Shank
ER11M-100-C12	1-7mm	130	16	12
ER11M-150-C12	1-7mm	180	16	12
ER16M-100-C16	1-10mm	139	22	16
ER16M-150-C16/C20	1-10mm	189	22	16/20
ER16M-200-C20	1-10mm	239	22	20
ER20M-150-C20	1-13mm	194	28	20
ER20M-200-C20	1-13mm	244	28	20
ER16A-100-C20	1-10mm	135	28	20
ER16A-150-C20	1-10mm	185	28	20

BT-C Collet chuck (Korea made)

หัวจับระบบ Powerchuck ใช้จับด้านปัดเบิลลิ่ง หรือ ดอกกัดหน้า

Jeil / Selux



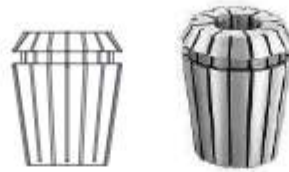
Order code	Length	Max. Clamp	Diameter	Clamping Range	Collet size	Price
BT30 x C20 x 90	90	20	58	6.0-20.0	C20	
BT30 x C32 x 100	100	32	73	6.0-32.0	C32	
BT40 x C20 x 90	90	20	58	6.0-20.0	C20	
BT40 x C32 x 105	105	32	73	6.0-32.0	C32	
BT40 x C32 x 135	135	32		6.0-32.0	C32	
BT50 x C32 x 110	110	32	73	6.0-32.0	C32	
BT50 x C32 x 135	135	32		6.0-32.0	C32	
BT50 x C32 x 165	165	42		6.0-32.0	C32	
BT50 x C42 x 110	110	42	93	6.0-42.0	C42	
BT50 x C42 x 135	135	42		6.0-42.0	C42	
BT50 x C42 x 165	165	42		6.0-42.0	C42	

* รุ่นยาว 200 / 250 / 300 มม. กรุณาสอบถาม



ER Collet

Standard type : 0.01



ER11	Size	Price
Chuckling range: All d ,range = 0.5mm	2.0 / 3.0 / 4.0 / 5.0 / 6.0 / 7.0	580
ER16	Size	Price
Chuckling range: d < 5.0 ,range = 0.5mm d > 5.0 ,range = 1.0mm	3.0 / 4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0	510
ER20	Size	Price
Chuckling range: d < 6.0 ,range = 0.5mm d > 6.0 ,range = 1.0mm	3.0 / 4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0 / 13.0	525
ER25	Size	Price
Chuckling range: d < 8.0 ,range = 0.5mm d > 8.0 ,range = 1.0mm	3.0 / 4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0 / 13.0 / 14.0 / 15.0 / 16.0	580
ER32	Size	Price
Chuckling range: d < 8.0 ,range = 0.5mm d > 8.0 ,range = 1.0mm	3.0 / 4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0 / 13.0 / 14.0 / 15.0 / 16.0 / 17.0 / 18.0 / 19.0 / 20.0	600
ER40	Size	Price
Chuckling range: d < 9.0 ,range = 0.5mm d > 9.0 ,range = 1.0mm	3.0 / 4.0 / 5.0 / 6.0 / 7.0 / 7.5 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0 / 13.0 / 14.0 / 15.0 / 16.0 / 17.0 / 18.0 / 19.0 / 20.0 / 21.0 / 22.0 / 23.0 / 24.0 / 25.0 / 26.0	710

SK Collet

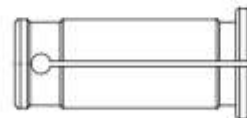
Precision type : 0.005



SK6 / SK10 / SK16 / SK25	Size	Price
	3.0 / 4.0 / 5.0 / 6.0 / 8.0 / 10.0 / 12.0 / 16.0 / 20.0 / 25.0	SK6 = 1470 SK10 = 1370 SK16 = 1470

C Collet

Standard type : 0.010



C20 / C32 / C42	Size	Price
	6.0 / 8.0 / 10.0 / 12.0 / 16.0 / 20.0 / 24.0 / 25.0 / 32.0 /	C20 = 1100 C32 = 990 C42 = 1790

Pullstud



Types :

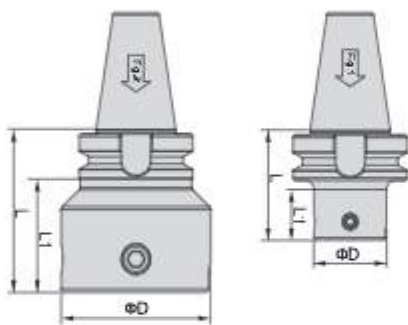
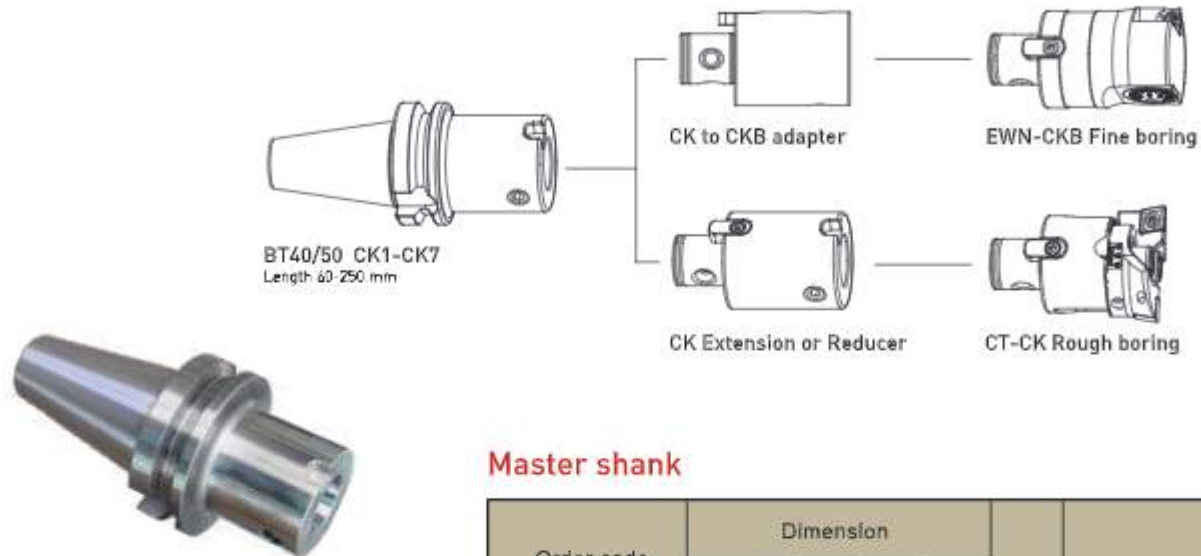
- A. BT30/40/50 - 45°, 60°, 90°
- B. BT30/40/50 Coolant type
- C. DIN69872
- D. JIS B6339
- E. Makino
- F. Mazak
- G. ISO7388 A/B

Spanner

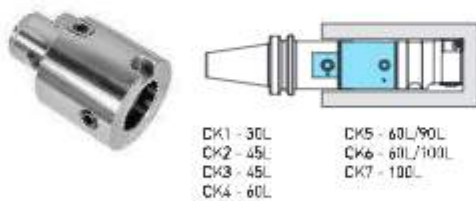


Precision boring System

หัวคว้านแบบ Modular และ อุโมงค์



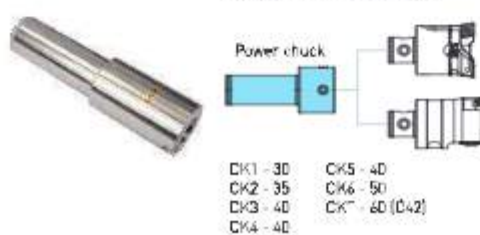
CK-extension



CK-CKB adapter



C32-CK shank



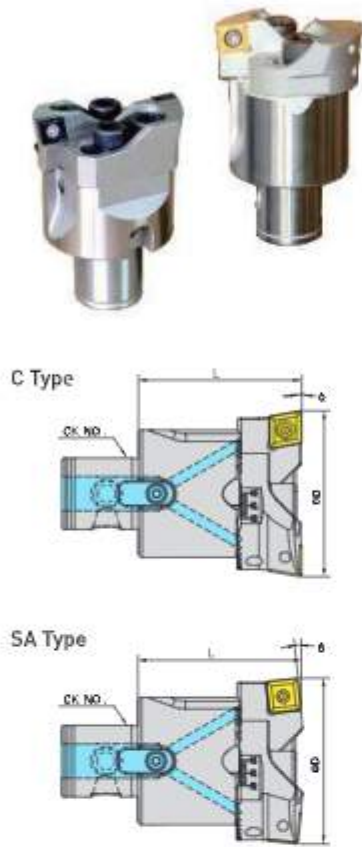
Master shank

Order code	Dimension				Fig.	Screw	Weight
	CK no.	L	L1	D			
BT40-CK1-60	1	60	28	19	1	CKS1	1.06
-90		90	58	19	1		1.09
-CK2-60	2	60	28	24	1	CKS2	1.07
-90		90	58		1		1.15
-120		120	88		1		1.26
-CK3-60	3	60	28	31	1	CKS3	1.06
-90		90	58		1		1.24
-120		120	88		1		1.41
-CK4-60	4	60	28	40	1	CKS4	1.15
-100		100	68		1		1.53
-150		150	118		1		2.03
-CK5-60	5	60	30	48.5	1	CKS5	1.26
-100		100	88		1		1.78
-150		150	118		1		2.50
-200		200	168		1		3.30
-CK6-60	6	60	33	63.5	2	CKS6	1.37
-100		100	73		2		2.16
-150		150	123		2		3.18
-200		200	173		2		2.91
-CK7-90	7	90	63	83	2	CKS7	2.66
BT50-CK1-100	1	100	57	19	1	CKS1	3.76
-CK2-100	2	100	57	24	1	CKS2	3.81
-CK3-100	3	100	57	31	1	CKS3	3.86
-150		150	107		1		4.14
-CK4-100	4	100	57	40	1	CKS4	4.05
-150		150	107		1		4.57
-CK5-100	5	100	57	48.5	1	CKS5	4.16
-150		150	107		1		4.87
-200		200	157		1		5.60
-CK6-100	6	100	57	63.5	1	CKS6	4.45
-150		150	107		1		5.69
-200		200	157		1		6.11
-250		250	207		1		6.71
-CK7-100	7	100	57	83	1	CKS7	5.34
-150		150	107		1		7.36
-200		200	160		1		8.88
-250		250	210		1		10.25



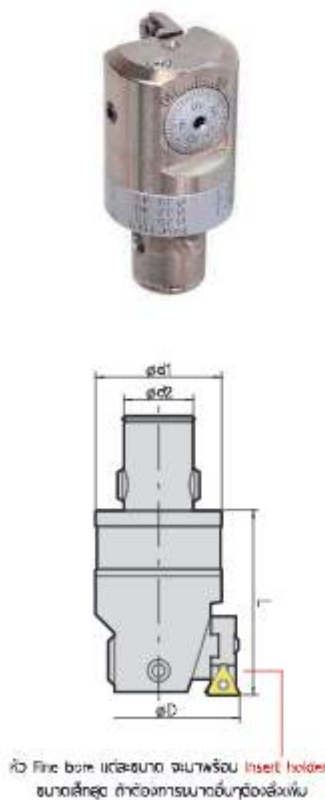
Boring system

CT-CK Rough boring (20-232mm)



Order code	Dia. Range	Dimension		Insert	Kg.
		CK no.	L		
CK1-CT2025C	20-25	CK1	35	CCMT060204	0.06
CK2-CT2530C	26-30	CK2	40	CCMT060204	0.09
CK2-CT2937C	29-37	CK2	40	CCMT060204	0.13
CK3-CT3646C	36-46	CK3	45	CCMT060204	0.27
CK4-CT4557C	45-57	CK4	55	CCMT09T308	0.51
CK5-CT5674C	56-74	CK5	60	CCMT120408	0.80
CK6-CT7391C	73-91	CK6	65	CCMT120408	1.42
CK6-CT90115C	90-115	CK6	70	CCMT120408	2.21
CK6-CT114142C	114-142	CK6	80	CCMT120408	2.93
CK6-CT141169C	141-169	CK6	80	CCMT120408	4.12
CK6-CT168200C	168-200	CK6	85	CCMT120408	5.04
CK6-CT199232C	199-232	CK6	85	CCMT120408	5.2
CK7-CT141169C	141-169	CK7	80	CCMT120408	4.53
CK7-CT168200C	168-200	CK7	85	CCMT120408	5.25
CK7-CT199232C	199-232	CK7	85	CCMT120408	5.5
CK2-CT3139SA	31-39	CK2	40	SCMT09T308	0.13
CK3-CT3848SA	38-48	CK3	45	SCMT09T308	0.27
CK4-CT4557SA	45-57	CK4	55	SCMT09T308	0.51
CK5-CT5674SA	56-74	CK5	60	SCMT120408	0.80
CK6-CT7391SA	73-91	CK6	65	SCMT120408	1.42
CK6-CT90115SA	90-115	CK6	70	SCMT120408	2.25
CK6-CT114142SA	114-142	CK6	80	SCMT120408	2.94
CK6-CT141169SA	141-169	CK6	80	SCMT120408	4.13
CK6-CT168200SA	168-200	CK6	85	SCMT120408	5.08
CK6-CT199232SA	199-232	CK6	85	SCMT120408	5.24
CK7-CT141169SA	141-169	CK7	80	SCMT120408	4.56
CK7-CT168200SA	168-200	CK7	85	SCMT120408	5.28
CK7-CT199232SA	199-232	CK7	85	SCMT120408	5.5

EWN-CKB Fine boring (20-203mm)



Order code	CK no.	Insert holder Option	Dimension			Insert	
			Dia. Range	L	L1		
EWN20-36CKB1	CK1		ENH1-1	20-26			TPGT0802□□□
			ENH1-2	25-31	32.5	29.5	
			ENH1-3	30-36			
EWN25-47CKB2	CK2		ENH2-1	25-33			
			ENH2-2	32-40	35.5	32.5	
			ENH2-3	39-47			
EWN32-60CKB3	CK3		ENH3-1	32-42			
			ENH3-2	41-51	40	35	
			ENH3-3	50-60			
EWN41-74CKB4	CK4		ENH4-1	41-54			
			ENH4-2	50-63	47	43	
			ENH4-3	61-74			
EWN53-95CKB5	CK5		ENH5-1	53-70			
			ENH5-2	65-82	57	53	
			ENH5-3	78-95			
EWN68-150CKB6	CK6		ENH6-1	68-100			
			ENH6-2	94-126	71	67.2	
			ENH6-3	118-150			
EWN100-203CKB6	CK6		ENH6-1	100-153			
			ENH6-2	126-179	71	67.2	
			ENH6-3	150-203			
EWN100-203CKB7	CK7		ENH6-1	100-153			
			ENH6-2	126-179	87	83.2	
			ENH6-3	150-203			

Advance tooling system



SR / SRS Shrink fit <3Micron runout control



BT30/40/50
BBT40
HSK32/40/50/63/100
Clamp Diameter 3-32mm



SR type
4.5deg



SRS slim type
3deg

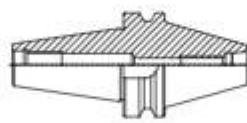


ST type



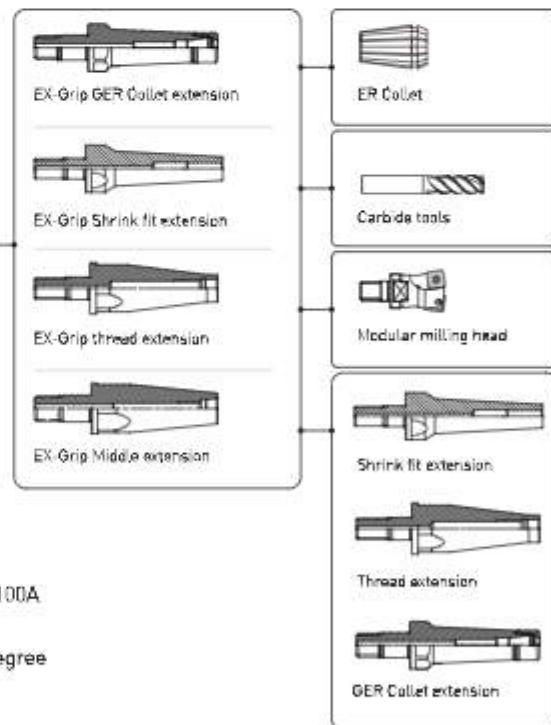
H550 Electro magnetic induction
Shrink fit machine + air cooling

EX-Grip Modular system Maximum length 500mm+



EX-Grip base holder

Base holder :
BT40/50 BBT40/50 HSK63A/100A
Length : 40-250mm
Taper: A3 - 3degree / A5 - 5degree



ER11 / ER16 extension
Length 75-180mm



Thread extension
Thread :M6/8/10/12/12 Length: 45-240



Shrink fit extension
Dia4/6/8/10/12 Length 90-245mm



Middle extension A5-A3
Length: 100/160/200mm

Advance tooling system



HGER Precision collet chuck <5 Micron runout

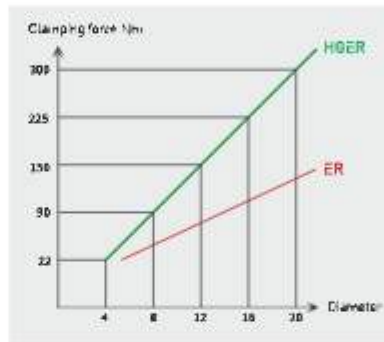
Taper : BT/BBT30/40/50 HSK63A/100A
 Collet size : ER20/ER32 Length : 75/90/105/120
 Balanced : G2.5 30,000RPM



Full contact taper



100% More clamping power and Stability



HGER type



ER type



2 Micron runout with CentreP Collet



5 Micron ER P Grade



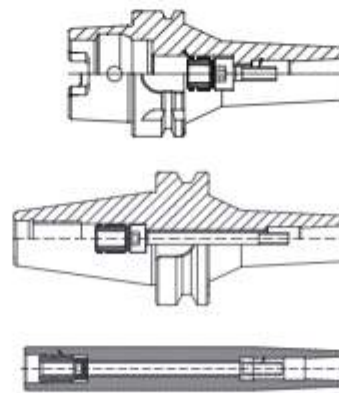
Clamping nut



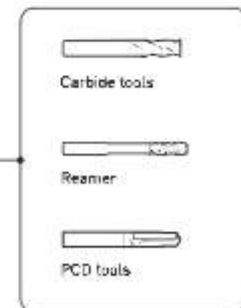
GH Spanner

MX Slim collet chuck <5 Micron runout

Taper : BT30/40/50 / HSK63A/100A
 Collet size : MX6 (Dia3-6mm) / MX8 (Dia3-10mm)
 Length : 90/120/150/200/250/300
 Balanced : G2.5 30,000RPM



Straight shank extension 120-300mm



E-Catalog

Economy tooling system



Standard ER collet chuck BT-ER / BBT-ER



spec	L1	D	Range
BT30-ER16	70/100	28	3-10mm
BT30-ER20	70/100	34	3-13mm
BT30-ER25	70/100	34	3-16mm
BT30-ER32	70/100	50	3-20mm
BT40-THERII	100/150	16	3-6mm
BT40-ER16	70/100	28	3-10mm
BT40-ER20	70/100	34	3-13mm
BT40-ER32	70/100	50	3-20mm
BT40-ER40	80/100	63	6-26mm
BT50-ER32	100/150	63	6-26mm
BT50-ER40	100/150	63	6-26mm

ER Collet (0.008mm)



ER Size	Dia range
ER16	3/4/5/6/7/8/9/10
ER20	3/4/5/6/8/10/12
ER25	3/4/5/6/8/10/12/14/16
ER32	3/4/5/6/7/8/9/10/11/12/13/14/16/18/20
ER40	4/5/6/7/8/9/10/11/12/13/14/16/18/20/25

SK Collet (0.005mm)



SK Size	Dia range	T.I.R
SK10	3-10mm	0.005
SK16	3-16mm	0.005

C Collet



C Size	Dia range	T.I.R
C32	6/8/10/12/16/20/25/32	0.01

SDC Precision collet



SDC Size	Dia range	T.I.R
SDC6	3/4/6	0.005
SDC8	3/4/5/6/8/10	0.005
SDC12	3/4/6/8/10/12	0.005

ENW / RBH Boring system (20-203mm)

Fine bore
ENW20-36mm-LBK1
ENW25-47mm-LBK2
ENW32-60mm-LBK3
ENW41-74mm-LBK4
ENW53-95mm-LBK5
ENW68-150mm-LBK6
ENW100-203mm-LBK6



Rough bore
RBH19-25mm-LBK1
RBH25-33mm-LBK2
RBH32-42mm-LBK3
RBH40-55mm-LBK4
RBH52-70mm-LBK5
RBH68-92mm-LBK6
RBH90-122mm-LBK6



BT-LBK Holder
BT30 LBK1-6 (60-80L)
BT40 LBK1-6 (85-175L)
BT50 LBK1-6 (95-350L)

LBK Extension
LBK1-6 (30/45/60/90L)



Pull stud

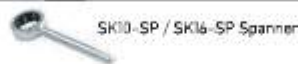
BT30-45
BT40-45
BT50-45



Precision SK collet chuck BT-SK / BBT-SK



spec	L1	D	Range
BT40-SK10	90	27	2-10mm
BT40-SK10	120	27	2-10mm
BT40-SK16	90	40	3-16mm
BT40-SK16	120	40	3-16mm
BT50-SK16	100	40	3-16mm
BT50-SK16	150	40	3-16mm



SDC Slim collet chuck BT-SDC



spec	L1	D	Range
BT30-SDC6	90	14.5	3-6mm
BT30-SDC8	90	22	3-10mm
BT40-SDC6	100	14.5	3-6mm
BT40-SDC6	150	14.5	3-6mm
BT40-SDC6	200/250	14.5	3-6mm
BT40-SDC8	100	22	3-10mm
BT40-SDC8	150	22	3-10mm
BT40-SDC8	200	22	3-10mm
BT40-SDC8	250	22	3-10mm
BT40-SDC12	100	34	3-12mm
BT50-SDC8	100	22	3-10mm
BT50-SDC8	200	22	3-10mm
BT50-SDC8	300	22	3-10mm
BT50-SDC12	100	34	3-12mm
BT50-SDC12	150	34	3-12mm

SDC Extension chuck ST-SDC



Shank-SDC	L	D	Range
ST12-SDC6	150	13.5	3-6mm
ST16-SDC6	200	13.5	3-6mm
ST16-SDC8	150	20	3-10mm
ST16-SDC8	200	20	3-10mm

Power chuck C collet BT-C / BBT-C



spec	L1	D	Range
BT40-C32	105	70	6-32mm
BT40-C32	135	70	6-32mm
BT50-C32	110/135	70	6-32mm

C20 / C25 on request

Facemill arbor BT-FMB



Spec	L1	D	Weight
BT30-FMB22	45	48	0.85
BT30-FMB27	45	60	1.20
BT40-FMB22	45	48	1.45
BT40-FMB22	100	48	2.10
BT40-FMB22	150	48	3.10
BT40-FMB27	60/100	68	1.60
BT40-FMB32	60/100	78	1.70
BT40-FMB40	60	80	2.10
BT50-FMB22	100	48/58	5.20
BT50-FMB22	150	48/58	6.60
BT50-FMB22	200	48/58	7.00
BT50-FMB22	250	48/58	7.30
BT50-FMB27	100	60	6.50
BT50-FMB32	100	78	6.20
BT50-FMB40	60	89	5.20
BT50-FMB60	60	140	8.50

BT40 : max L1 = 300mm / BT50 : max L1 = 500mm
FMA25.4/FMA31.75/FMA38.1/FMA50.8 on requested

Keyless drill chuck BT-APU



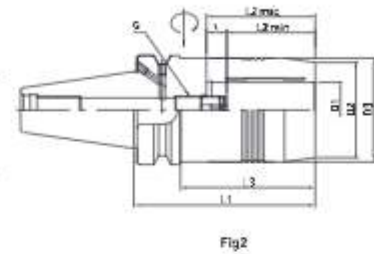
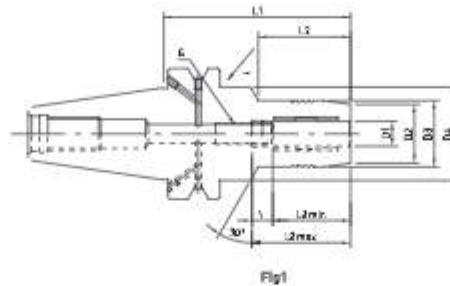
spec	L1	D	Range
BT30-APU8	80	36.5	0.5-8mm
BT30-APU13	110	48	1-13mm
BT40-APU13	105	48	1-13mm
BT50-APU13/16	110	48	1-13mm
C20-APU13	140	48	1-13mm
MT3-APU13	179	48	1-13mm
MT4-APU13	202	48	1-13mm

Hydraulic chuck

Jeil

Hydraulic expansion chuck

หัวจับระบบไฮดรอลิก สำหรับดอกสว่าน ริมเมอร์ ที่ต้องการความเที่ยงตรงสูง
หรือสำหรับงานกัด Finishing



Standard type

Taper A13

 $\geq 3\mu\text{m}/3\times\text{D}$

Bal./rpm G2.5/20000

Coolant AD, AD/B

mm

CODE NO	D1	D2	D3	D4	L1	L2max	L2min	V	L3	G	Type
JHM 6 - 65	6	25	28	50	65	37.5	27.5	10	23	M5X0.8	Fig1
JHM 6 - 90					90				44		
JHM 6 - 140					140						
JHM 8 - 65	8	27	30		65				23	M6X1.0	
JHM 8 - 90					90	39					
JHM 8 - 140					140	44					
JHM 10 - 65	10	29	32		65	42.5	32.5		23	M6X1.0	
JHM 10 - 90					90				44		
JHM 10 - 140					140						
JHM 12 - 65	12	31	34		65	47.5	37.5		23		
JHM 12 - 90					90				44		
JHM 12 - 140					140						
JHM 14 - 65	14	33	36		65				23	M8X1.0	
JHM 14 - 90					90	44					
JHM 14 - 140					140						
JHM 16 - 65	16	35	38		65	52.5	42.5		23		
JHM 16 - 90					90				48		
JHM 16 - 140					140						
JHM 18 - 75	18	38	41		75				30	M8X1.0	
JHM 18 - 90					90	48					
JHM 18 - 140				140							
JHM 20 - 75	20	40	43	75			30				
JHM 20 - 90				90	48						
JHM 20 - 140				140							
JHM 25 - 100	25	53	57	-	61	51	73	M16X1.0	Fig2		
JHM 25 - 135				135			108				
JHM 32 - 105	32	58	63	-	65	55	-				
JHM 32 - 135				135			-				

Heavy duty type

CODE NO.	D1	D2	D3	L1	L2max	L2min	V	G
BT30 JHM20P - 85	20	40	44	85	52.5	42.5	10	M8 X1.0
BT40 JHM20P - 72.5			49.5	72.5				
BT50 JHM32P - 90	32	60	72	90	65	55		M16X1.0

* ขนาดอื่นๆ BT30 / BT50 / HSK50 / HSK40 / HSK63 / HSK100 กรุณาสอบถาม

Boring system



Modular boring System

หัวคว้านรูโบ Fine bore (20-203mm.) / Rough bore (25-126mm.)

ระบบคว้านรูในละเอียด แบบถอดสลับเปลี่ยนได้ สามารถเปลี่ยนหัว (A) Fine bore หรือ Rough bore และยังสามารถเปลี่ยน (B) Master shank ได้หลายรุ่น หลายความยาว หรือ ต่อให้ยาวขึ้นได้ โดยขนาดAK ที่เท่ากันจะต่อเข้ากันได้ทั้งหมด

ตัวอย่างการสั่งซื้อ :
BT40 AK2x80L - AK2.BSD.24

A Fine or Rough Boring head + **B Master Shank**

A



0.005mm adjustable scale

FINE หัวคว้านละเอียด
Boring head

AK1.BSD.19 - dia 20-26(36)mm
AK2.BSD.24 - dia 25-33(47)mm
AK3.BSD.31 - dia 32-42(60)mm
AK4.BSD.39 - dia 41-54(74)mm
AK5.BSD.50 - dia 53-70(95)mm
AK6.BSD64 - dia 68-100(150)mm
AK6.BSD90 - dia 100-153(203)mm

A



ROUGH หัวคว้านหยาบ
Boring head

AK2.BSH.25 - dia 25-33mm
AK3.BSH.32 - dia 32-45mm
AK4.BSH.44 - dia 44-63mm
AK5.BSH.62 - dia 62-89mm

*รุ่น AK5,AK6 : BSH88/125 (Dia 88-175mm.) สามารถสั่งได้ กรุณาสอบถามเพิ่มเติม

Inserts : ฝังคมมีด

Fine bore head :

BSD19/24/31-TPGH0802L
BSD39/50/64/90-TCMT / TCGT1102L

Rough bore head :

BSH25 - CCMT0602
BSH32/44 - CCMT09T3
BSH62/88/125 - CCMT1204



B



Master shank
ตามและหัว Arbor

BT 30 :
AK1x70L / AK2x80L
AK3x75L / AK4x75L
AK5x65L

BT 40 :
AK1x70L / AK2x80L
AK3x95L / AK4x145L
AK5x135L / AK6x120L

BT 50 :
AK1x170L / AK2x175L
AK3x200L / AK4x195L
AK5x185L / AK6x170L

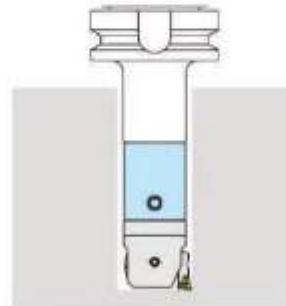
C32 (Straight shank) :
AK1x50L / AK2x70L
AK3x90L / AK4x85L
AK5x75L / AK6x60L

HSK50A / HSK63A :
AK1x70L / AK2x80L
AK3x95L / AK4x88L

*รุ่นสีอื่นหรือยาวกว่านี้สามารถสั่งได้

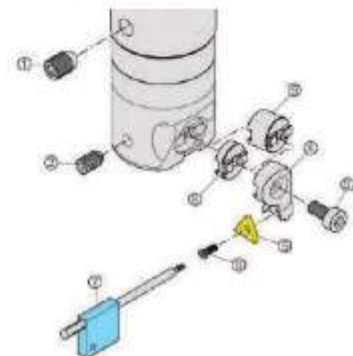
Extension (Option)

ตัวต่อเพิ่มความยาว



AK1 ext - 50mm
AK2 ext - 30mm / 50mm
AK3 ext - 30mm / 60mm
AK4 ext - 45mm / 90mm
AK5 ext - 50mm / 90mm
AK6 ext - 60mm / 100mm

Spare parts: อะไหล่ต่างๆ

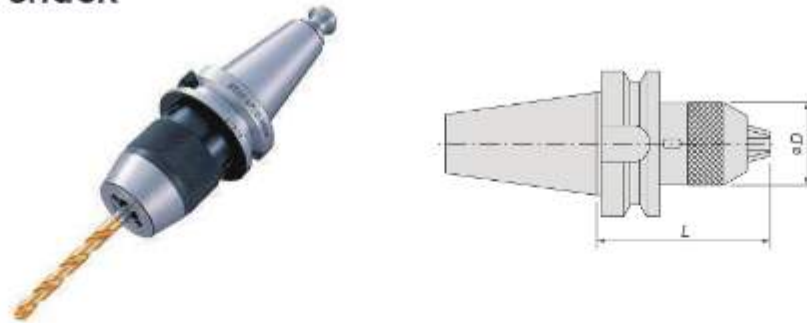


Drill & Tap holder



Keyless drill chuck

หัวจับดอกสว่าน



Order No.	d. Range	APU Drill Chuck	D	L	Stock	Price
BT30-APU08-075	1~8	APU08	34.5	75	●	
BT30-APU13-110	1~13	APU13	50.0	110	●	
BT40-APU08-075	1~8	APU08	34.5	75	●	
BT40-APU13-090	1~13	APU13	50.0	90	●	
BT40-APU13-140				140	●	
BT40-APU16-130	3~16	APU16	56.0	130	●	
BT50-APU08-085	1~8	APU08	34.5	85	○	
BT50-APU13-100	1~13	APU13	50.0	100	●	
BT50-APU13-150				150	●	
BT50-APU16-130	3~16	APU16	56.0	130	●	
HSK 50A - APU08 - 075	Ø 1 - 8	APU 08	34.5	75	○	
HSK 50A - APU13 - 100	Ø 1 - 13	APU 13	50	100	○	
HSK 63A - APU08 - 120	Ø 1 - 8	APU 08	34.5	120	○	
HSK 63A - APU13 - 140	Ø 1 - 13	APU 13	50	100	●	
HSK 63A - APU16 - 165	Ø 3 - 16	APU 16	56	165	○	

WER Tapping chuck

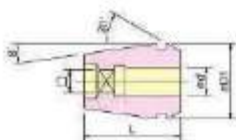
หัวจับดอกต๊าป แบบ ER Collet ระบบยึดหมุนป้องกันหัก



Order No.	Range	Ø D	Ø D1	L	L1	W	Length Flexibility		Collet	Stock/Price
							Comp.	Tens		
ST20 - WER 16 - 125	M03 - M10	20	28	125	45	19	3	8	ER16-GB	●
BT40 - WER32 - 100	M06 - M 20	32	50		100		3	10	ER32-GB	●

WER Tapping chuck

ER Collet สำหรับใส่ดอกต๊าป



Order No.	Range	Stock	Price
ER16GB-Mxx	M 4 - M 10	●	
ER32GB-Mxx	M 6 - M 20	●	

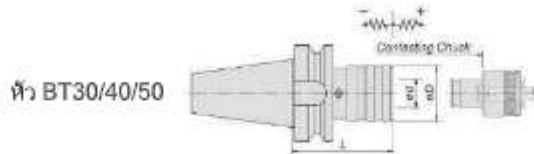
* กรุณาระบุรุ่น ERxxGB และขนาดต๊าป M

Drill & Tap holder



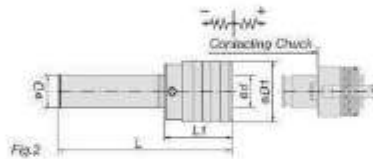
WF Quick change tap holder

หัวจับดอกตีประบบยึดหยุ่น มีคริสสปริงทุกแกน ป้องกันการหัก
เพิ่มความเที่ยงตรง ยึดอายุดอกตีป สามารถถอดเปลี่ยนได้รวดเร็ว



Order No.	Range	Ø d	Ø D	L	Length Comp.		Collet	Stock/Price
					Comp-	Tens+		
BT30 - WF 12	M03 - M12	19	36	69	7.5	7.5	TC 312	●
BT30 - WF 20	M08 - M20	31	53	95	12.5	12.5	TC 820	●
BT40 - WF 12	M03 - M12	19	36	67	7.5	7.5	TC 312	●
BT40 - WF 20	M08 - M20	31	53	92	12.5	12.5	TC 820	●
BT40 - WF 33	M14 - M33	48	78	163	20	20	TC 1433	○
BT50 - WF 12	M03 - M12	19	36	67	7.5	7.5	TC 312	●
BT50 - WF 20	M08 - M20	31	53	92	12.5	12.5	TC 820	●
BT50 - WF 33	M14 - M33	48	78	163	20	20	TC 1433	○

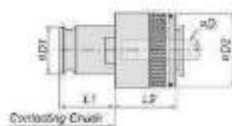
* รุ่นยาว WFE กรุณาสอบถามเพิ่มเติม



Order No.	Range	Ø d	Ø D	Ø D1	L	L1	Length Comp.		Collet	Stock/Price
							Comp	Tens		
ST 20 - WF 12	M03 - M12	19	20	36	113	43	7.5	7.5	TC 312	●
ST 25 - WF 20	M08 - M 20	31	25	53	145	65	12.5	12.5	TC 820	●
ST 32 - WF 20			32							●

TC Quick change tap collet

ด้าม Collet แบบสปริงคริส



**JIS Standard are stocked
DIN/ISO pls enquiry

Order No.	Range	Ø D1	Ø D2	L1	L2	Stock	Price
TC 312	M 03 - M 12	19	32	21.5	25	● M3 - M12	
TC 820	M 08 - M 20	31	50	35	34	● M8 - M20	
TC 1433	M 14 - M 33	48	72	55.5	45	○	

● สต็อกสินค้าพร้อมส่ง
○ สต็อกในต่างประเทศ

* กรุณาระบุรุ่น TCxxx และขนาดด้าม M

Accessories

Mechanical edge finder
ตัวหาขอบชิ้นงาน

ME420 AKEN Brand

OP-20 Optical edge finder



Tool locking fixture
ตัวจับหัว arbor BT/SK

4118-411 -BT30
4118-011 -BT40
4118-211 -BT50



Acrow

Tool pre-setters Z-axis
ตัวตั้งค่า Z 50mm

Order No. Z-50

ACROW Brand
Hi precision germany gauge



Z50M - Standard

Z50MA - Small

Tool locking fixture
ตัวจับหัว arbor HSK

Order No. THLF-HSK
32/40/50/63



Acrow

Tool pre-setters Z-axis
ตัวตั้งค่า Z 50mm

Order No. ZD50



Angle head 90 degree
หัวแปลง 90 องศา BT30/BT40/ BT50



Acrow

TEST bar
Taper 30/40/50 / HSK32-100
BBT30/40/50



External coolant holder
BT40 / 50 - Side lock / Collet

Tool presetter

KEEJAN

TAIWAN No.1 Best seller

KJ340
Image inspection device
& Presetter



TP3040 H
Fix spindle tool presetter
Fast transverse
Resolution : 0.005mm



TP3040 / 5060 R
Rotate spindle tool presetter
Fast transverse
Resolution : 0.001mm



Polishing & Grinding



Carbide Burr

หัวเจียรคาร์ไบด์



Double cut ★

General-purpose cutter tooth may be alternatively used for cutting soft and hard materials



Single cut

Coarse cutter tooth for effective cutting removal of INOX steel tool steel and welding parts



Fine cut

Standard tooth for finish machining of stainless steel hardened steel and cast iron



Alu cut

Special cutter tooth for cutting copper, bronze and aluminum alloy



Power cut

Discontinuous chip cutter tooth for machining hard steel and cast steel welding lines



Standard burr (Double cut-type)

SB



Dia	Lc	L	Shank	Price
3	13	38	3	200
6	16	61	6	370
8	20	65	6	560
10	20	65	6	620
12	25	70	6	850

SE



Dia	Lc	L	Shank	Price
3	6	38	3	200
6	10	55	6	370
8	13	58	6	560
10	16	61	6	620
12	20	65	6	850

SH



Dia	Lc	L	Shank	Price
3	7	52	3	200
6	18	63	6	370
8	20	65	6	560
10	25	70	6	620
12	32	77	6	850

SC



Dia	Lc	L	Shank	Price
3	13	38	3	200
6	16	61	6	370
8	20	65	6	560
10	20	65	6	620
12	25	70	6	850

SF



Dia	Lc	L	Shank	Price
3	13	38	3	200
6	18	63	6	370
8	20	65	6	560
10	20	65	6	620
12	25	70	6	850

SL



Dia	Lc	L	Shank	Price
3	13	38	3	200
6	16	61	6	370
8	22	67	6	560
10	25	70	6	620
12	28	73	6	850

SD



Dia	Lc	L	Shank	Price
3	3	35	3	220
6	5	50	6	390
8	7	52	6	490
10	9	54	6	580
12	10	55	6	700

SG



Dia	Lc	L	Shank	Price
3	13	38	3	200
6	18	63	6	370
8	20	65	6	560
10	20	65	6	620
12	25	70	6	850

SM



Dia	Lc	L	Shank	Price
3	16	38	3	200
6	18	63	6	370
8	17	62	6	560
10	20	65	6	620
12	25	70	6	850

Polishing & Grinding



57

Machine dish brushes for Deburring

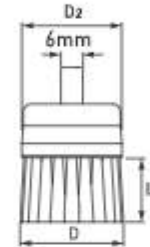
แปรงขัดจานบนเครื่อง CNC สำหรับลบครีบ ลบคม ลบรอย Burr ต่างๆ ที่เกิดจากการทำงาน ให้คุณภาพผิวงาน เรียบสวย สม่ำเสมอ และลดเวลา ลดขั้นตอน ช่วยลดต้นทุน

แปรงแปรงมีให้เลือก 2 ทรง
Silicon carbide สำหรับใช้งานทั่วไป บนเหล็ก อลูมิเนียม สแตนเลส
Ceramic สำหรับงานที่ได้อายุการบรึงขัดสูง หรือใช้กับเหล็กแข็ง เหล็กหล่อ สแตนเลส



Shank 6mm type

		D	Price		Disc dia. D ₂ mm	Bristle length L mm
			coarse 80	medium 120		
5002	For General purposes	D 20 mm	2590	2590	24	25
5004	Disc brush with shank, silicon carbide (SiC)	D 25 mm	2890	2890	29	25
5005		D 50 mm	5090	5090	55	25
5022	For Aggressive use	D 20 mm	2990	2990	24	25
5024	Disc brush with shank, ceramic grit (CER)	D 25 mm	3190	3190	29	25
5026		D 50 mm	5490	5490	55	25



Sample video



Facemill type

		D	Price			Disc dia. D ₂ mm	Bristle length L mm	Bore d ₁ mm
			coarse 80	medium 120	fine 180			
5006	For General purposes	D 50 mm	6490	6490	-	45	30	16 with groove
5008		D 63 mm	7490	7490	-	58	30	16 with groove
5010	Disc brush, silicon carbide (SiC)	D 70 mm	7490	7490	7490	76	35	22 with groove
5012		D 100 mm	7790	7790	7790	106	35	22 with groove
5015		D 119 mm	8390	8390	8390	125	38	27 with groove
5018		D 144 mm	12490	12490	12490	150	43	32 with groove
5030	For Aggressive use	D 70 mm	8650	8650	-	76	35	22 with groove
5032	Disc brush, ceramic grit (CER)	D 100 mm	8970	8970	-	106	35	22 with groove
5035		D 119 mm	9690	9690	-	125	38	27 with groove
5038		D 144 mm	13880	13880	-	150	43	32 with groove



Super abrasive grinding wheel

SDC = Synthetic diamond coated หินเพชร เจียรคาร์ไบด์

CBN = CBN coated หินซินิธเอน เจียรเหล็กHSS เหล็กแข็ง

Grit size

#100-140 = FEPA D151-D126 หินทราย

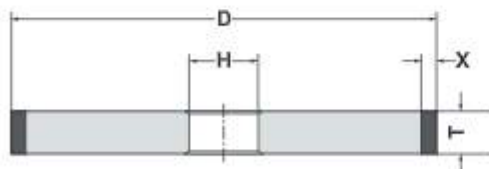
#170-200 = FEPA D91-D76

#230-325 = FEPA D64-D46 หินละเอียด

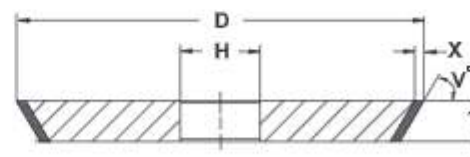
Hybrid bond สำหรับงานเจียรหนัก หินได้ลึก2-3มม. Feed ได้เร็วกว่า

Poly bond สำหรับงานทั่วไป ทนกว่า Rasin ธรรมดา ให้ผิวดี

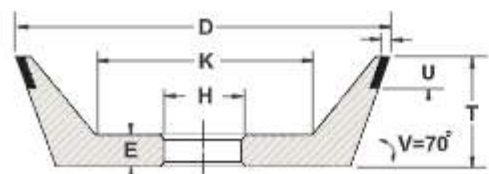
Rasin bond รุ่นมาตรฐานใช้งานทั่วไป ราคาประหยัด



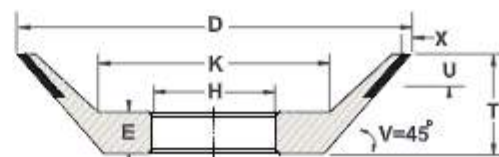
1A1



1V1



11V9



12V9

หินเจียรทรงอื่น หรือ รุ่นอื่นๆ กรุณาสอบถาม

Polishing & Grinding

EZYGRIND
Simple and reliable

Drill grinding machine



List : 16,900

EZD13

HSS drill regrind machine
Work dia. range : 3-13mm
Point angle : 90-140 degree
Grinding wheel : CBN

List : 27,500

EZD20

HSS drill regrind machine
Work dia. range : 3-20mm
Point angle : 95-140 degree
Wheel : CBN



List : 27,500

EZS20

Carbide drill regrind machine
Work dia. range : 3-20mm
Point angle : 118-140 degree
Grinding wheel : SDC (CBN option)

Drill + Endmill (2-in-1)



List : 49,500

EMF4

Drill + Endmill regrind machine
Endmill
Work dia. range : 4-14mm
Flute No. : 2/3/4
Grinding wheel : SDC (CBN option)
HSS drill
Work dia. range : 3-13mm
Point angle : 90-140 degree
Grinding wheel : CBN

Endmill grinding machine



List : 27,500

EMX1

Quick endmill regrind machine
Work dia. range : 4-14mm
Flute No. : 2/3/4
Fix position , Easy to operate
Grinding wheel : SDC (CBN option)



List : 28,900

EMX3

Endmill regrind machine
Work dia. range : 4-14mm
Flute No. : 2/3/4
Chip space adjustment function
Grinding wheel : SDC (CBN option)

List : 44,900

EMX3A

Endmill regrind machine
Work dia. range : 4-20mm
Flute No. : 2/3/4
Chip space adjustment function
Grinding wheel : SDC (CBN option)



List : 72,900

EMX6

Face + Spiral regrind machine
Work dia. range : 4-14mm
Flute No. : 2/3/4
Face and Spiral edge grinding
Grinding wheel : SDC (CBN option)

Tap grinding machine



List : 35,900

ETY3C

Tap regrind machine
Work dia. range : M5-M20
Tap point regrinding
Grinding wheel : CBN (SDC option)



List : 65,900

ETY6B

Tap regrind machine
Work dia. range : M5-M20
Spiral flute tap regrinding
Grinding wheel : CBN (SDC option)

Polishing & Grinding



Auto tapping machine High performance model



List : 37,500

TM16S

Servo tapping machine
Work dia. range : M3-M16 or Reamer
Features :
Touch screen monitor
Servo drive control 0-312RPM
Intelligence torque protection
Clutch collet protection

List : 53,500

TM30S

Servo tapping machine
Work dia. range : M6-M30 or Reamer
Features :
Touch screen monitor
Servo drive control 0-200RPM
Clutch collet protection

Options:

Steel worktable 800x500mm List : 15,900
Magnetic chuck PML300 List : 10,900



Chamfer machine



List : 34,900

ECR800D - 380V

Straight / Curve chamfering
Chamfer : 0-3mm 45deg.
Speed : Motor 750W 8500RPM
Dimension : 51x44x60 (53Kg)



List : 21,900

ECR300 - 380V

Straight chamfering machine
Chamfer : 0-3mm 45deg.
Speed : Motor 250W 2800RPM
Dimension : 54x39x30 (35Kg)

Portable chamfer



List : 27,500

ECR200A - 220V

Portable chamfering machine
Chamfer : 0-9mm
Angle : 15-45 degree
Speed : Brushless motor 750W
3000-6000RPM

List : 15,900

ECR200 - 380V

Portable chamfering machine
Chamfer : 0-3mm
Angle : 15-45 degree
Speed : Motor 250W 2800RPM

EZYGRIND

Make it easier

Micro precision regrinding series from 0.5mm



CCD camera

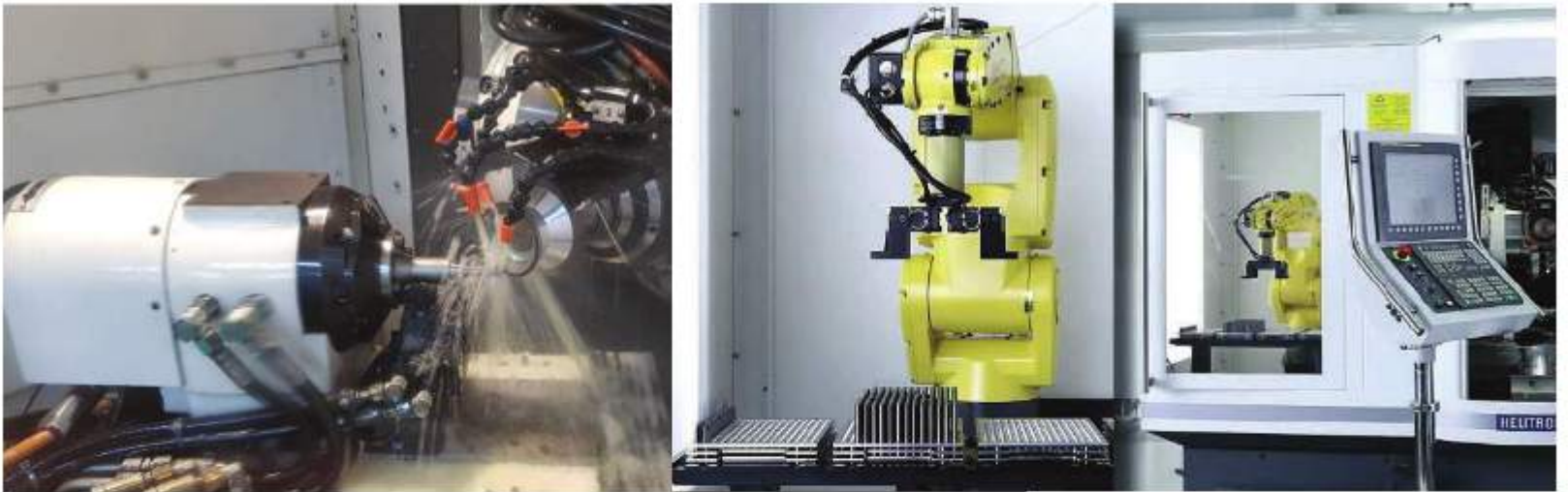


0.8-6.0mm drill regrind



CBN / PCD
Insert grinding

Special tools



รับผลิตงาน Cutting tools

สำหรับอุตสาหกรรมยานยนต์ แปรรูปโลหะ และ อากาศยาน ด้วยเครื่องจักรที่ทันสมัยล่าสุด ประกอบกับระบบควบคุมขั้นตอนการผลิตที่มีมาตรฐานสูง และ การตรวจสอบคุณภาพอย่างละเอียดทุกชิ้นก่อนส่งมอบ ทำให้ลูกค้าได้รับสินค้าตรงตามความต้องการในเวลาอันรวดเร็ว อีกทั้งบริษัทมีแผนก R&D ซึ่งสามารถออกแบบ Special tools พร้อมบริการแบบ Turnkey solution จัดหาวัสดุทุกชนิดจากทั่วโลก เพื่อช่วยเพิ่ม Productivity และ ลดต้นทุนการผลิต.



- Products & Services
- Solid carbide tools
- HSS and Brazed tools
- PCD / CBN tools
- PCD Re-tipped
- Re-Grinding service
- Modify as request

- สินค้า และ บริการของเรา
- สเปเชียลคาร์ไบด์ทูลส์
- งานไฮสปีด และ คาร์ไบด์เชื่อม
- งาน PCD และ CBN
- งานเปลี่ยนเม็ด PCD tip
- งานลับคมทุกชนิด
- งานแก้ไข โมดิฟายต่างๆ



Our advantages

- Competitive price
- 100% Quality control
- On time delivery
- Small lot production
- 24Hr. operation service
- Keep customer confidential



Ultrasonic spindle 240,000Rpm

หัวเพิ่มรอบเครื่องระบบ Ultrasonic



Hard brittle material & Micro hole drilling

ทำงานด้วยความถี่สูงเทียบเท่ากับรอบ Spindle 240,000 รอบ
 ใช้สำหรับงานเจาะรูขนาดเล็กถึง 0.04mm งานมีลึง บนวัสดุโลหะ วัสดุแข็ง แดงง่าย หรือ แมชชีนยาก
 เช่น Carbide / PEEK / AlSiC / Zirconia / Sapphire / Titanium / Inconel / SUS / SiC
 ช่วยลดเวลาการทำงาน เพิ่มอายุของทูล ให้ผิวงานที่ตีกว่า และ ลดต้นทุน

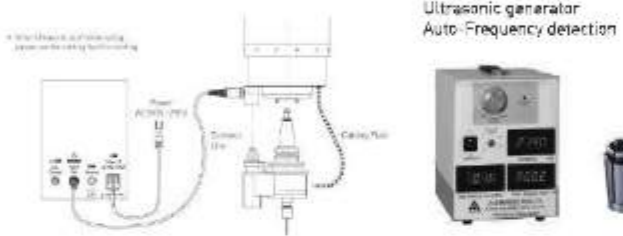
Reduce cycle time & Increase tool life

มีหัวแบบ BT30 BT40 HSK63A
 ใช้กับระบบ ATC (Tool changer) ได้
 Accuracy 5 Micron
 ติดตั้งและใช้งานง่าย

Industries application

Semiconductor
 Optical display panel
 Medical component
 Mechanical parts
 Aerospace industry
 Watch & Jewelry
 Special machining

Work example



Workshop equipment



tanko
 SINCE 1975

Complete solution with more than 1,000 items
Tanko products receive outstanding customer satisfactory through providing quality products and after-sales service.
 We have distribution channels around the globe to deliver products in time for our customers' need.



Hoffmann Group

Tools to make you better

ศูนย์รวมสินค้าอุตสาหกรรม ทูลลิง และ เครื่องมือช่าง อันดับ 1 ในยุโรป
มีสินค้าให้เลือกกว่า 65000 รายการ จาก 500 แบรินด์ชั้นนำของโลก
ทุกอย่างมีสต็อก จัดส่งได้รวดเร็วในเวลา 7-10 วัน

 **GERMAN Quality tools**



Mono Machining
Carbide&Hss cutting tools



Modular machining
indexable tools
Milling&Turning



Clamping
Technology
Tool holder



Metrology
Measurement



Grinding
and cutting



Fastening tools
for screw



Gripping, cutting,
and striking tools



Contact us