

ACC_{KEE}大研



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大隱于市
研而于精



ACC_{KEE} 大研刀具

2023版



Higher! Productivity Faster! Cutting Speed Longer! Tool Life



ABOUT US

ACCKEE is a high-tech engineering group specialized in drilling and hard material technologies. Was established in 1983, covers an area of 80,000 square meters in Wenling, Zhejiang, China. And since then we fully dedicated to develop and produce boring tools, rapid drilling tools.

After 40 years of struggle, we are continuously improving and enlarging our product range for customers. we finally do the market through a distribution network covering Europe, Japan, Korea, Mid-East, Russia, India and more than 30 countries and areas.

In 2020, **ACCKEE** invested 25 million USD to build the first phase of the project—a digital smart U drill production base, to start the project with an annual output of 5 million U drills and 400,000 sets of boring head. It has more than 300 machining centers.

For product development we set up a lab for inspection according to the world standard. Such as German HAIMER Balancing Machine, Universal Tooling Microscope, CMM, direct-reading spectrometer, Metallographic analyzer and so on. Till now, all of equipment's and testing means reached the international advanced level.

Your vision, our innovation

Boring head series: $\phi 14 - \phi 750$ high-precision finish boring head, rough boring head, combined boring head;

Shallow hole drill series: $\phi 8.5 - \phi 100$ SP/SO/SC, WC/WD/PDL

Deep hole drill series: 6D 7D 8D 9D 10D with centering adjustable drill

To fully adapt to the needs of your market, we will find the optimal solution for the demands. If our presentation of the standard tools in this catalogue does not fit your needs, please contact us to design and making special tools for your customized solution.

Our mission: To be the high-tech engineering group specialised in Drilling and Boring.

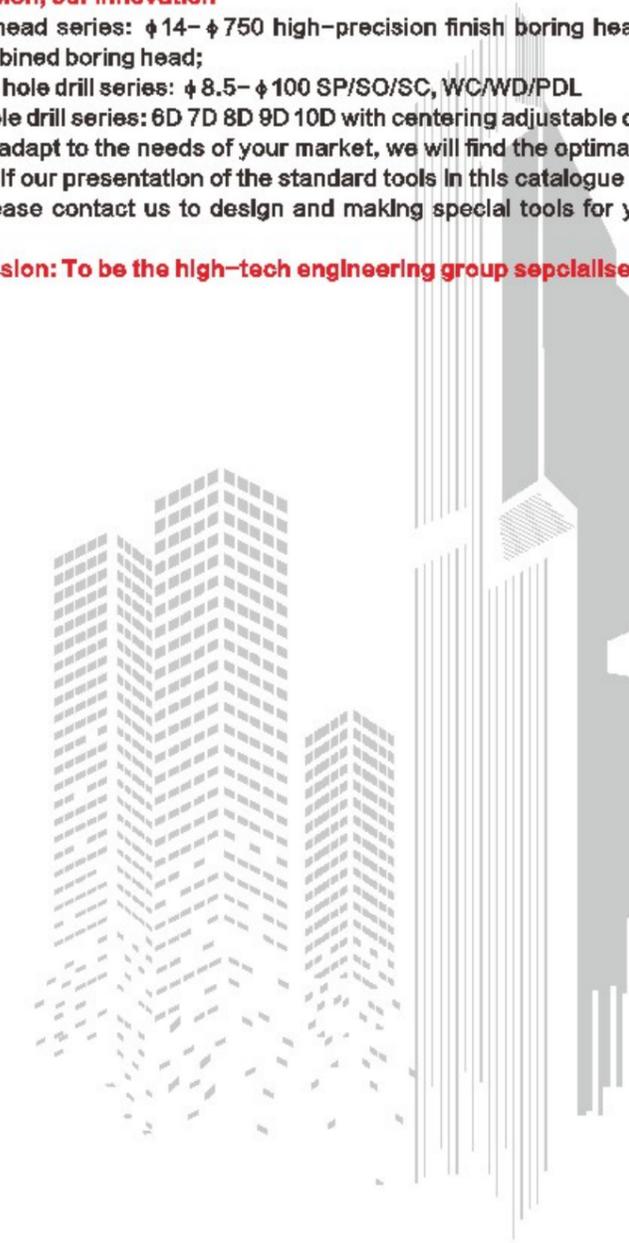
企业简介:

浙江甬岭数控刀具有限公司为国家高新技术企业，设计研发生产高端孔加工刀具-U钻，镗刀和深孔钻。

“甬岭”创立于1982年，2020年公司斥资近2亿建立数字化智能U钻生产基地，占地面积50余亩，建筑面积5万平方米。配备36条自动生产线，年产500万支U钻，40万套镗刀及枪钻。

公司拥有专业的研发中心和检测中心，是“专精特新”小巨人企业。产品主要出口欧洲，中东，美洲等30多个国家和地区。公司拥有近百项专利，参与多个国家级团体标准和行业标准的制定，拥有2项团体标准，通过ISO9001质量管理体系认证。

公司的目标是：成为全球最高端孔加工刀具的研发者和引领者。





TDR-2 X D (Φ 8.5-50) Indexable drills with SP inserts

SP 型 潜孔钻/ U 钻 2D

Holder diameter 2D: Φ8.5 ~ 50.0mm

加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

最大加工深度 $l \times \Phi D_c$
Drilling depth: $2 \times \text{diameter}$

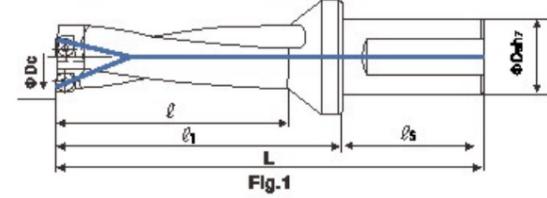


Fig.1



刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg
8.5		KSD085-2D-SP03	● 33.5	33.5	18			SP..030202	0.2
9		KSD090-2D-SP03	● 34.5	34.5	19				0.2
9.5		KSD095-2D-SP03	● 35.5	35.5	20				0.2
10		KSD100-2D-SP04	● 36.5	36.5	22				0.2
10.5		KSD105-2D-SP04	● 37.5	37.5	22				0.2
11		KSD110-2D-SP04	● 38.5	38.5	23				0.2
11.5		KSD115-2D-SP04	● 39.5	39.5	24				0.2
12		KSD120-2D-SP04	● 40.5	40.5	25				0.2
12.5		KSD125-2D-SP04	● 41.5	41.5	27				0.2
13		C20-2D13-28SP05	● 42.5	42.5	29				0.2
13.5		2D13.5-30SP05	● 43.5	43.5	30			0.2	
14		2D14-31SP05	● 44.5	44.5	31			0.2	
14.5		2D14.5-32SP05	● 45.5	45.5	32			0.2	
15		2D15-33SP05	● 46.5	46.5	33			0.2	
15.5		2D15.5-34SP05	● 47.5	47.5	34			0.2	
16		2D16-35SP06	● 48.5	48.5	35			0.2	
16.5		2D16.5-36SP06	● 49.5	49.5	36			0.2	
17		2D17-37SP06	● 50.5	50.5	37			0.2	
17.5		C25-2D17.5-38SP06	● 51.5	51.5	38			0.2	
18		2D18-39SP06	● 52.5	52.5	39			0.3	
18.5		2D18.5-40SP06	● 53.5	53.5	40			0.3	
19		2D19-41SP06	● 54.5	54.5	41			0.3	
19.5		2D19.5-42SP06	● 55.5	55.5	42			0.3	
20		2D20-43SP06	● 56.5	56.5	43			0.3	
20.5		2D20.5-44SP06	● 57.5	57.5	44			0.3	
21		2D21-45SP06	● 58.5	58.5	45			0.3	
21.5		2D21.5-46SP06	● 59.5	59.5	46			0.3	
22		2D22-47SP07	● 60.5	60.5	47			0.4	
22.5		2D22.5-48SP07	● 61.5	61.5	48			0.4	
23		2D23-49SP07	● 62.5	62.5	49			0.4	
23.5		2D23.5-50SP07	● 63.5	63.5	50			0.4	
24		2D24-51SP07	● 64.5	64.5	51			0.4	
24.5		2D24.5-52SP07	● 65.5	65.5	52			0.4	
25		2D25-53SP07	● 66.5	66.5	53			0.4	
25.5		C32-2D25.5-54SP07	● 67.5	67.5	54			0.8	
26		2D26-55SP07	● 68.5	68.5	55			0.8	
26.5		2D26.5-56SP07	● 69.5	69.5	56			0.8	
27		2D27-57SP07	● 70.5	70.5	57			0.8	
27.5		2D27.5-58SP07	● 71.5	71.5	58			0.8	
28		2D28-59SP07	● 72.5	72.5	59			0.8	
28.5		2D28.5-60SP07	● 73.5	73.5	60			0.8	
29		2D29-61SP08	● 74.5	74.5	61			0.7	
29.5		2D29.5-62SP08	● 75.5	75.5	62			0.7	
30		2D30-63SP09	● 76.5	76.5	63			0.7	
30.5		2D30.5-64SP09	● 77.5	77.5	64			0.7	
31		2D31-65SP09	● 78.5	78.5	65			0.7	

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg
31.5		C32-2D31.5-67SP09	● 79.5	79.5	67			SP..090408	0.7
32		2D32-68SP09	● 80.5	80.5	68				0.8
32.5		2D32.5-69SP09	● 81.5	81.5	69				0.8
33		2D33-70SP09	● 82.5	82.5	70				0.8
33.5		2D33.5-71SP09	● 83.5	83.5	71				0.8
34		2D34-72SP09	● 84.5	84.5	72				0.8
34.5		2D34.5-73SP09	● 85.5	85.5	73				0.8
35		2D35-74SP11	● 86.5	86.5	74				0.8
35.5	32	2D35.5-75SP11	● 87.5	87.5	75		60		0.8
36		2D36-76SP11	● 88.5	88.5	76				0.9
36.5		2D36.5-77SP11	● 89.5	89.5	77			0.9	
37		2D37-78SP11	● 90.5	90.5	78			0.9	
37.5		2D37.5-79SP11	● 91.5	91.5	79			0.9	
38		2D38-80SP11	● 92.5	92.5	80			0.9	
38.5		2D38.5-81SP11	● 93.5	93.5	81			0.9	
39		2D39-82SP11	● 94.5	94.5	82			1.0	
39.5		2D39.5-83SP11	● 95.5	95.5	83			1.1	
40		C40-2D40-85SP11	○ 96.5	96.5	85			1.1	
41		2D41-87SP11	○ 97.5	97.5	87			1.1	
42		2D42-88SP14	○ 98.5	98.5	88			1.1	
43		2D43-89SP14	○ 99.5	99.5	89			1.5	
44		2D44-90SP14	○ 100.5	100.5	90			1.6	
44.5		2D44.5-91SP14	○ 101.5	101.5	91			1.7	
46	40	2D46-93SP14	○ 103.5	103.5	93		70	1.7	
46.5		2D46.5-94SP14	○ 104.5	104.5	94			1.7	
47		2D47-95SP14	○ 105.5	105.5	95			1.8	
48		2D48-96SP14	○ 106.5	106.5	96			1.8	
49		2D49-97SP14	○ 107.5	107.5	97			1.9	
50		2D50-98SP14	○ 108.5	108.5	98			1.9	

附件 Spare Parts

平頭螺釘 Screw	扳手 Wrench	適用刀杆 Applicable Drill
M2 x 4	T6	C20-2D13-28SP05-C20-2D14.5-32SP05
M2 x 5	T6	C20-2D15-33SP05
M2.2 x 5	T7	C20-2D15.5-34SP06-C20-2D17-37SP06
M2.2 x 5	T7	C25-2D17.5-38SP06 ~ C25-2D21.5-46SP06
M2.5 x 7	T8	C25-2D22-47SP07 ~ C32-2D27.5-58SP07
M3.5 x 8	T15	C32-2D28-59SP08 ~ C32-2D33.5-71SP09
M4 x 10	T15	C32-2D34-72SP11 ~ C40-2D41-87SP11
M5 x 11	T20	C40-2D42-89SP14 ~ C40-2D50-105SP14
M3.5 x 8	T15	C40-2D51-107SP09 ~ C40-2D60-128SP09

● Mark: Standard stock item,
○ No mark: Made to order item.

●表示庫存 ○表示庫存預定品 ● SP刀片記號參見34頁

TDR-3 X D (Φ 8.5-50) Indexable drills with SP inserts

SP 型 潜孔钻/ U 钻 3D

Holder diameter 3D: Φ8.5 ~ 50.0mm

加工公差標準 0 ~ +0.20
Range of machining tolerance: 0 ~ +0.20

最大加工深度 $l \times \Phi D_c$
Drilling depth: $3 \times \text{diameter}$

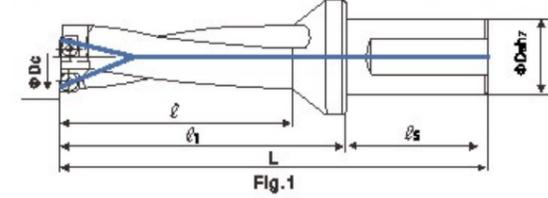


Fig.1



刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg
8.5		KSD085-3D-SP03	● 33.5	33.5	27			SP..030202	0.2
9		KSD090-3D-SP03	● 34.5	34.5	28				0.2
9.5		KSD095-3D-SP03	● 35.5	35.5	29				0.2
10		KSD100-3D-SP04	● 36.5	36.5	31				0.2
10.5		KSD105-3D-SP04	● 37.5	37.5	33				0.2
11		KSD110-3D-SP04	● 38.5	38.5	34				0.2
11.5		KSD115-3D-SP04	● 39.5	39.5	36				0.2
12		KSD120-3D-SP04	● 40.5	40.5	37				0.2
12.5		KSD125-3D-SP04	● 41.5	41.5	39				0.2
13		C20-3D13-42SP05	● 42.5	42.5	57				0.2
13.5		3D13.5-44SP05	● 43.5	43.5	59			0.2	
14		3D14-45SP05	● 44.5	44.5	60			0.2	
14.5		3D14.5-47SP05	● 45.5	45.5	62			0.2	
15		3D15-48SP05	● 46.5	46.5	63		44	0.2	
15.5		3D15.5-50SP05	● 47.5	47.5	65			0.2	
16		3D16-51SP06	● 48.5	48.5	66			0.2	
16.5		3D16.5-53SP06	● 49.5	49.5	68			0.2	
17		3D17-54SP06	● 50.5	50.5	69			0.2	
17.5		C25-3D17.5-56SP06	● 51.5	51.5	71			0.2	
18		3D18-57SP06	● 52.5	52.5	72			0.3	
18.5		3D18.5-59SP06	● 53.5	53.5	74			0.3	
19		3D19-60SP06	● 54.5	54.5	75			0.3	
19.5		3D19.5-62SP06	● 55.5	55.5	77			0.3	
20		3D20-63SP06	● 56.5	56.5	78			0.3	
20.5		3D20.5-65SP06	● 57.5	57.5	80			0.3	
21		3D21-66SP06	● 58.5	58.5	81			0.3	
21.5		3D21.5-68SP06	● 59.5	59.5	83			0.3	
22		3D22-69SP07	● 60.5	60.5	84			0.4	
22.5		3D22.5-71SP07	● 61.5	61.5	86			0.4	
23		3D23-72SP07	● 62.5	62.5	87			0.4	
23.5		3D23.5-74SP07	● 63.5	63.5	89			0.4	
24		3D24-75SP07	● 64.5	64.5	92			0.4	
24.5		3D24.5-77SP07	● 65.5	65.5	95			0.4	
25		3D25-78SP07	● 66.5	66.5	96			0.4	
25.5		C32-3D25.5-80SP07	● 67.5	67.5	100			0.8	
26		3D26-81SP07	● 68.5	68.5	101			0.6	
26.5		3D26.5-83SP07	● 69.5	69.5	103			0.6	
27		3D27-84SP07	● 70.5	70.5	104			0.6	
27.5		3D27.5-86SP07	● 71.5	71.5	106			0.6	
28		3D28-87SP07	● 72.5	72.5	107			0.6	
28.5		3D28.5-89SP07	● 73.5	73.5	109			0.6	
29		3D29-90SP08	● 74.5	74.5	112			0.7	
29.5		3D29.5-93SP08	● 75.5	75.5	114			0.7	
30		3D30-94SP09	● 76.5	76.5	118			0.7	
30.5		3D30.5-96SP09	● 77.5	77.5	120			0.7	
31		3D31-97SP09	● 78.5	78.5	121			0.7	

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg
31.5		C32-3D31.5-99SP09	● 79.5	79.5	123			SP..090408	0.7
32		3D32-100SP09	● 80.5	80.5	124				0.8
32.5		3D32.5-102SP09	● 81.5	81.5	126				0.8
33		3D33-103SP09	● 82.5	82.5	127				0.8
33.5		3D33.5-105SP09	● 83.5	83.5	129				0.8
34		3D34-106SP09	● 84.5	84.5	130				0.8
34.5		3D34.5-108SP09	● 85.5	85.5	132				0.8
35		3D35-109SP11	●						

TDR-4 X D (Φ 8.5-50) Indexable drills with SP inserts

SP 型 潜孔钻/ U 钻 4 D

Holder diameter 4D: Φ8.5 ~ 50.0mm

加工公差標準 0 ~ +0.25
Range of machining tolerance: 0 ~ +0.25

最大加工深度 $\ell \times \Phi D_c$
Drilling depth: $4 \times \Phi D_c$

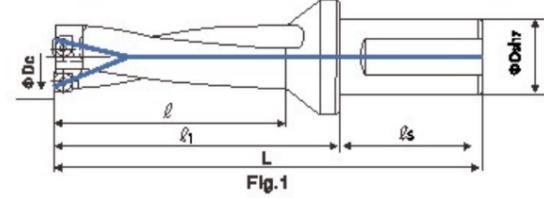


Fig.1



刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	ℓ	ℓ ₁	ℓ _s	適用刀片 Applicable Insert	重量 kg	
10		K3D100-4D-SP04	●	107	67	41		SP..04T102	0.2	
10.5		K3D105-4D-SP04	●	107.5	67.5	43			0.2	
11		K3D110-4D-SP04	●	109.5	69.5	45			0.2	
11.5		K3D115-4D-SP04	●	111	71	47			0.2	
12		K3D120-4D-SP04	●	115	75	50			0.2	
12.5		K3D125-4D-SP04	●	117	77	52			0.2	
13		C20-4D13-55SP05	●	114	65	70			SP..05D204	0.2
13.5	20	4D13.5-57SP05	●	116	67	72				0.2
14		4D14-59SP05	●	118	69	74				0.2
14.5		4D14.5-61SP05	●	120	71	76				0.2
15		4D15-63SP05	●	122	73	78				0.2
15.5		4D15.5-65SP05	●	124	75	80				0.2
16		4D16-67SP06	●	128	79	82				0.2
16.5		4D16.5-69SP06	●	128	79	84		0.2		
17		4D17-71SP08	●	130	81	86		0.2		
17.5		C25-4D17.5-73SP06	●	144	73	88		SP..06D204		0.2
18		4D18-75SP06	●	146	75	90				0.3
18.5		4D18.5-77SP06	●	148	77	92				0.3
19		4D19-79SP06	●	150	79	94				0.3
19.5		4D19.5-81SP06	●	152	81	96			0.3	
20		4D20-83SP06	●	154	83	98			0.3	
20.5		4D20.5-85SP06	●	158	85	100			0.3	
21		4D21-87SP08	●	158	87	102			0.3	
21.5		4D21.5-89SP06	●	160	89	104			0.3	
22		4D22-91SP07	●	162	91	106			0.4	
22.5		4D22.5-93SP07	●	164	93	108			0.4	
23		4D23-95SP07	●	169	95	113			0.4	
23.5		4D23.5-97SP07	●	171	97	115			0.4	
24		4D24-99SP07	●	173	99	117		0.4		
24.5		4D24.5-101SP07	●	175	101	119		0.4		
25		4D25-103SP07	●	177	103	121		0.4		
25.5		C32-4D25.5-105SP07	●	185	105	125		SP..07T308	0.6	
26		4D26-107SP07	●	187	107	127			0.6	
26.5		4D26.5-109SP07	●	189	109	129			0.6	
27		4D27-111SP07	●	191	111	131			0.6	
27.5		4D27.5-113SP07	●	193	113	133			0.6	
28		4D28-115SP07	●	195	115	135			0.6	
28.5		4D28.5-117SP07	●	197	117	137			0.6	
29		4D29-120SP09	●	201	120	141			0.7	
29.5		4D29.5-122SP09	●	203	122	143			0.7	
30		4D30-124SP09	●	206	124	148			0.7	
30.5		4D30.5-126SP09	●	210	128	150			0.7	
31		4D31-128SP09	●	212	128	152			0.7	
31.5		4D31.5-130SP09	●	214	130	154			0.7	
32		4D32-132SP09	●	216	132	156		0.8		
32.5		4D32.5-134SP09	●	218	134	158		0.8		

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	ℓ	ℓ ₁	ℓ _s	適用刀片 Applicable Insert	重量 kg
33		C32-4D33-136SP09	●	220	136	160		SP..09D408	0.8
33.5		4D33.5-138SP09	●	222	138	162			0.8
34		4D34-140SP09	●	224	140	164			0.8
34.5		4D34.5-142SP09	●	226	142	166			0.8
35		4D35-144SP11	●	228	144	168			0.8
35.5		4D35.5-146SP11	●	230	146	170			0.8
36		4D36-148SP11	●	232	148	172			0.9
36.5	32	4D36.5-150SP11	●	236	150	174			0.9
37		4D37-152SP11	●	243	153	183			0.9
37.5		4D37.5-155SP11	●	245	155	185			0.9
38		4D38-157SP11	●	247	157	187			0.9
38.5		4D38.5-159SP11	●	249	159	189			0.9
39		4D39-161SP11	●	251	161	191			1.0
39.5		4D39.5-163SP11	●	253	163	193		1.1	
40		C40-4D40-165SP11	○	265	165	195		SP..110408	1.1
41		4D41-169SP11	○	269	169	199			1.1
42		4D42-173SP14	○	273	173	203			1.1
43		4D43-177SP14	○	277	177	207			1.5
44		4D44-181SP14	○	281	181	211			1.6
45	40	4D45-185SP14	○	285	185	215	70		1.7
46		4D46-189SP14	○	289	189	219			1.7
47		4D47-193SP14	○	293	193	223			1.8
48		4D48-197SP14	○	297	197	227			1.8
49		4D49-201SP14	○	301	201	231			1.9
50		4D50-205SP14	○	305	205	235			1.9

附件 Spare Parts

平頭螺釘 Screw	扳手 Wrench	適用刀杆 Applicable Drill
M2 × 5	T6	C20-4D13-55SP05 ~ C20-4D14.5-61SP05
M2.2 × 5	T7	C20-4D16.5-65SP06 ~ C20-4D17-71SP06
M2.2 × 5	T7	C25-4D17.5-73SP06 ~ C25-4D21.5-89SP06
M2.5 × 7	T8	C25-4D22-91SP07 ~ C32-4D27.5-113SP07
M3.5 × 8.5	T15	C32-4D29-115SP09 ~ C32-4D33.5-138SP09
M4 × 10	T15	C32-4D34-140SP11 ~ C40-4D41-169SP11
M5 × 11	T20	C40-4D42-173SP14 ~ C40-4D50-205SP14
M3.5 × 8.5	T15	C40-4D51-209SP09 ~ C40-4D60-248SP09

● Mark: Standard stock item,
○ No mark: Made to order item.

●表示庫存 ○表示庫存預定期 SP刀片記号參見34頁

TDR-5 X D (Φ 8.5-50) Indexable drills with SP inserts

SP 型 潜孔钻/ U 钻 5 D

Holder diameter 5D: Φ8.5 ~ 50.0mm

加工公差標準 0 ~ +0.25
Range of machining tolerance: 0 ~ +0.25

最大加工深度 $\ell \times \Phi D_c$
Drilling depth: $5 \times \Phi D_c$

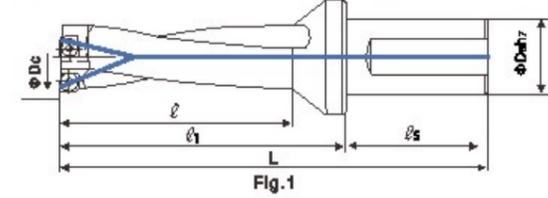


Fig.1



刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	ℓ	ℓ ₁	ℓ _s	適用刀片 Applicable Insert	重量 kg	
14.6		C20-5D14.5-81SP05	●	136	76	91		SP..05D204	0.2	
15	20	5D15-78SP05	●	137	78	93			0.3	
15.5		5D15.5-80SP05	●	140	80	95			0.3	
16		5D16-83SP06	●	142	83	98			0.4	
16.5		5D16.5-86SP06	●	145	86	101			0.4	
17		5D17-88SP06	●	147	88	103			0.4	
17.5		C25-5D17.5-91SP06	●	162	91	108			SPMG006204	0.4
18		5D18-93SP06	●	164	93	108				0.5
18.5		5D18.5-96SP06	●	167	96	111				0.5
19		5D19-98SP06	●	169	98	113				0.5
19.5		5D19.5-101SP06	●	172	101	116				0.5
20		5D20-106SP06	●	174	103	118				0.5
20.5	25	5D20.5-106SP06	●	177	106	121				0.5
21		5D21-108SP06	●	179	108	123		0.5		
21.6		5D21.6-111SP06	●	182	111	126		0.5		
22		5D22-113SP07	●	184	113	128		0.5		
22.5		5D22.5-116SP07	●	187	116	131		0.6		
23		5D23-118SP07	●	192	118	136		0.8		
23.5		5D23.5-121SP07	●	195	121	139		0.8		
24		5D24-123SP07	●	197	123	141		0.8		
24.5		5D24.5-126SP07	●	200	126	144		0.8		
25		5D25-128SP07	●	202	128	146		0.8		
25.5		C32-5D25.5-131SP07	●	213	131	153		SPMG07T308	0.8	
26		5D26-133SP07	●	216	133	156			0.8	
26.5		5D26.5-136SP07	●	217	136	157			0.8	
27		5D27-138SP07	●	218	138	158			0.8	
27.5		5D27.5-141SP07	●	221	141	161			0.8	
28		5D28-143SP09	●	223	143	163			0.9	
28.5		5D28.5-146SP09	●	228	146	166			0.9	
29		5D29-149SP09	●	230	149	170			0.9	
29.5		5D29.5-151SP09	●	233	151	173			0.9	
30		5D30-154SP09	●	236	154	176			1.0	
30.5		5D30.5-157SP09	●	241	157	181			1.0	
31		5D31-158SP09	●	243	159	183			1.0	
31.5	32	5D31.5-162SP09	●	245	162	185			SPMG090408	1.0
32		5D32-164SP09	●	248	164	188		1.1		
32.5		5D32.5-167SP09	●	251	167	191		1.1		
33		5D33-169SP09	●	253	169	193		1.1		
33.5		5D33.5-172SP09	●	255	172	196		1.1		
34		5D34-174SP11	●	258	174	198		1.2		
34.5		5D34.5-177SP11	●	261	177	201		1.2		
35		5D35-179SP11	●	263	179	203		1.2		
35.5		5D35.5-182SP11	●	265	182	205		1.2		
36		5D36-184SP11	●	268	184	208		SPMG110408		1.3
36.5		5D36.5-187SP11	●	271	187	211				1.3
37		5D37-190SP11	●	280	190	220				1.3

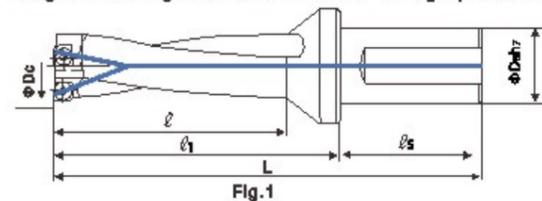
刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	ℓ	ℓ ₁	ℓ _s	適用刀片 Applicable Insert	重量 kg	
37.5		C32-5D37.5-193SP11	●	283	193	223		SPMG110408	1.3	
38		5D38-195SP11	●	285	195	225			1.4	
38.5	32	5D38.5-198SP11	●	288	198	228	60		1.4	
39		5D39-200SP11	●	290	200	230			1.9	
39.5		5D39.5-203SP11	●	293	203	233			1.9	
40		C40-5D40-205SP11	○	305	205	235			SPMG140512	1.9
41		5D41-210SP11	○	310	210	240				2.0
42		5D42-215SP14	○	315	215	245				2.1
43		5D43-220SP14	○	320	220	250				2.2
44		5D44-225SP14	○	325	225	255				2.3
45	40	5D45-230SP14	○	330	230	260	70			2.4
46		5D46-235SP14	○	335	235	265				2.5
47		5D								

TOP-2 X D (Φ 13-50) Indexable drills with SOMT inserts

SO 型 潜孔钻/U 钻 2 D

Holder diameter 2D: φ 13.0 ~ 50.0mm

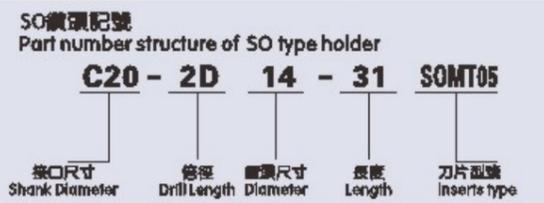
加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15
最大加工深度 $l \times \Phi Dc$
Drilling depth: 2x diameter



▲ H13/SKD61

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg
13	20	C20-2D13-29SOMT05	●	88	29	44		SOMT050204	0.2
13.5		2D13.5-30SOMT05	●	89	30	45			0.2
14		2D14-31SOMT05	●	90	31	46			0.2
14.5		2D14.5-32SOMT05	●	91	32	47			0.2
15		2D15-33SOMT05	●	92	33	48	44		0.2
15.5		2D15.5-34SOMT05	●	93	34	49			0.2
16		2D16-35SOMT05	●	94	35	50			0.2
16.5		2D16.5-36SOMT05	●	95	36	51			0.2
17		2D17-37SOMT05	●	96	37	52			0.2
17.5		25	C25-2D17.5-38SOMT08	●	109	38	53		
18	2D18-39SOMT08		●	110	39	54		0.3	
18.5	2D18.5-40SOMT08		●	111	40	55		0.3	
19	2D19-41SOMT08		●	112	41	56		0.3	
19.5	2D19.5-42SOMT07		●	113	42	57		0.3	
20	2D20-43SOMT07		●	114	43	58		0.3	
20.5	2D20.5-44SOMT07		●	115	44	59		0.3	
21	2D21-45SOMT07		●	116	45	60	58	0.3	
21.5	2D21.5-46SOMT07		●	117	46	61		0.3	
22	2D22-47SOMT07		●	118	47	62		0.4	
22.5	2D22.5-48SOMT08	●	119	48	63		0.4		
23	2D23-49SOMT08	●	123	49	67		0.4		
23.5	2D23.5-50SOMT08	●	124	50	68		0.4		
24	2D24-51SOMT08	●	125	51	69		0.4		
24.5	2D24.5-52SOMT08	●	126	52	70		0.4		
25	2D25-53SOMT08	●	127	53	71		0.4		
25.5	32	C32-2D25.5-54SOMT08	●	134	54	74		SOMT08T308	0.6
26		2D26-55SOMT08	●	135	55	75			0.6
26.5		2D26.5-56SOMT08	●	136	56	76			0.8
27		2D27-57SOMT09	●	137	57	77			0.8
27.5		2D27.5-58SOMT09	●	138	58	78			0.6
28		2D28-59SOMT09	●	139	59	79			0.6
28.5		2D28.5-60SOMT09	●	140	60	80			0.6
29		2D29-62SOMT09	●	143	62	83			0.7
29.5		2D29.5-63SOMT09	●	144	63	84			0.7
30		2D30-64SOMT09	●	148	64	88			0.7
30.5	2D30.5-65SOMT09	●	149	65	89	60	0.7		
31	2D31-66SOMT09	●	150	66	90		0.7		
31.5	2D31.5-67SOMT09	●	151	67	91		0.7		
32	2D32-68SOMT11	●	152	68	92		0.8		
32.5	2D32.5-69SOMT11	●	153	69	93		0.8		
33	2D33-70SOMT11	●	154	70	94		0.6		
33.5	2D33.5-71SOMT11	●	155	71	95		0.6		
34	2D34-72SOMT11	●	158	72	98		0.8		
34.5	2D34.5-73SOMT11	●	157	73	97		0.8		
35	2D35-74SOMT11	●	158	74	98		0.8		
35.5	2D35.5-75SOMT11	●	159	75	99		0.8		

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable insert	kg
36	32	C32-2D36-76SOMT11	●	160	76	100		SOMT11T308	0.9
36.5		2D36.5-77SOMT11	○	161	77	101			0.9
37		2D37-78SOMT13	○	169	79	109			0.9
37.5		2D37.5-80SOMT13	○	170	80	110			0.9
38		2D38-81SOMT13	○	171	81	111	80		0.9
38.5		2D38.5-82SOMT13	○	172	82	112			0.9
39		2D39-83SOMT13	○	173	83	113			1.0
39.5		2D39.5-84SOMT13	○	174	84	114			1.1
40		C40-2D40-85SOMT13	○	185	85	116			1.1
41		2D41-87SOMT13	○	187	87	117			1.1
42	2D42-88SOMT13	○	189	89	119		1.1		
43	2D43-91SOMT13	○	191	91	121		1.5		
44	2D44-93SOMT15	○	193	93	123		1.6		
45	40	2D45-95SOMT15	○	195	95	125	70	1.7	
46		2D46-97SOMT15	○	197	97	127		1.7	
47		2D47-99SOMT15	○	199	99	129		1.8	
48		2D48-101SOMT15	○	201	101	131		1.8	
49		2D49-103SOMT15	○	203	103	133		1.9	
50		2D50-105SOMT15	○	205	105	135		1.9	



附件 Spare Parts

平頭螺釘 Screw	扳手 Wrench	適用刀杆 Applicable Drill
M2 x 5	T06	C20-2D13-29SOMT05-C20-2D16-35SOMT05
M2.2 x 5	T07	C20-2D16.5-39SOMT08-C25-2D22-47SOMT07
M2.5 x 7	T08	C25-2D22.5-48SOMT08-C32-2D26-55SOMT08
M3.5 x 8.5	T15	C32-2D26.5-66SOMT09-C32-2D36.5-77SOMT11
M4 x 10	T15	C32-2D37-78SOMT13-C40-2D49-91SOMT13
M5 x 11	T20	C40-2D44-93SOMT15-C40-2D50-105SOMT15

● Mark: Standard stock item,
No mark: Made to order item.

●表示庫存 ○表示庫存預定品 ○SO刀片記號參見34頁

S
O
W
C
S
P
P
D
L
W
D
X
刀柄系列 Chuck
刀片系列 Carbide Inserts
粗鏢刀系列 Rough Boring Head
精鏢刀系列 Finish Boring Head
鑽刀柄系列 Chuck
小力夾系列 Accessories
鏢刀倒角鏢系列 Chamfering Tools
D系列槽鏢力 Slot Milling Cutters

TOP-3 X D (Φ 13-50) Indexable drills with SOMT inserts

SO 型潜孔钻/U钻 3D

Holder diameter 3D: φ 13.0 ~ 50.0mm

加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

最大加工深度 $l \times \Phi Dc$
Drilling depth: 3x diameter

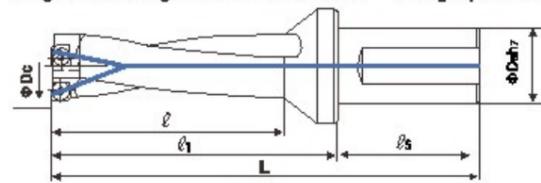


Fig.1



▲ H13/SKD61

TOP-4 X D (Φ 13-50) Indexable drills with SOMT inserts

SO 型潜孔钻/U钻 4D

Holder diameter 4D: φ 14.0 ~ 50.0mm

加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

最大加工深度 $l \times \Phi Dc$
Drilling depth: 4x diameter

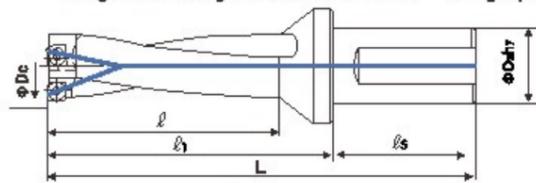


Fig.1



▲ H13/SKD61

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l _s	適用刀片 Applicable Insert	重量 kg	
13	20	C20-3D13-42SOMT05	●	101	42	57		SOMT050204	0.2	
13.5		3D13.5-44SOMT05	●	103	44	59			0.2	
14		3D14-45SOMT05	●	104	45	60			0.2	
14.5		3D14.5-47SOMT05	●	106	47	62			0.2	
15		3D15-48SOMT05	●	107	48	63			0.2	
15.5		3D15.5-50SOMT05	●	109	50	65			0.2	
16		3D16-51SOMT05	●	110	51	66			0.2	
16.5		3D16.5-53SOMT05	●	112	53	68			0.2	
17		3D17-54SOMT05	●	113	54	69			0.2	
17.5		C25-3D17.5-56SOMT06	●	127	56	71			SOMT060204	0.2
18		3D18-57SOMT06	●	128	57	72			0.3	
18.5		3D18.5-58SOMT06	●	130	59	74			0.3	
19		3D19-60SOMT06	●	131	60	75			0.3	
19.5		3D19.5-62SOMT07	●	133	62	77			0.3	
20		3D20-63SOMT07	●	134	63	78			0.3	
20.5		3D20.5-65SOMT07	●	136	65	80			SOMT070306	0.3
21		3D21-66SOMT07	●	137	66	81			0.3	
21.5		3D21.5-68SOMT07	●	139	68	83		0.3		
22		3D22-69SOMT07	●	140	69	84		0.4		
22.5		3D22.5-71SOMT08	●	142	71	86		0.4		
23		3D23-72SOMT08	●	146	72	90		0.4		
23.5		3D23.5-74SOMT08	●	148	74	92		0.4		
24		3D24-75SOMT08	●	149	75	93		SOMT08T308	0.4	
24.5		3D24.5-77SOMT08	●	151	77	95		0.4		
25		3D25-78SOMT08	●	152	78	96		0.4		
25.5		C32-3D25.5-80SOMT08	●	160	80	100		SOMT09T308	0.8	
26		3D26-81SOMT08	●	161	81	101			0.8	
26.5		3D26.5-83SOMT09	●	163	83	103			0.8	
27		3D27-84SOMT09	●	164	84	104			0.8	
27.5		3D27.5-86SOMT09	●	166	86	106			0.8	
28		3D28-87SOMT09	●	167	87	107			0.6	
28.5		3D28.5-89SOMT09	●	169	89	109			0.6	
29		3D29-91SOMT09	●	172	91	112			0.7	
29.5		3D29.5-93SOMT09	●	174	93	114			0.7	
30		3D30-94SOMT09	●	178	94	118			0.7	
30.5	32	3D30.5-96SOMT09	●	180	96	120	60		0.7	
31		3D31-97SOMT09	●	181	97	121			0.7	
31.5		3D31.5-99SOMT09	●	183	99	123			0.7	
32		3D32-100SOMT11	●	184	100	124			0.8	
32.5		3D32.5-102SOMT11	●	186	102	126			0.8	
33		3D33-103SOMT11	●	187	103	127			0.8	
33.5		3D33.5-105SOMT11	●	189	105	129			0.8	
34		3D34-106SOMT11	●	190	106	130		0.8		
34.5		3D34.5-108SOMT11	●	192	108	132		0.8		
35		3D35-111SOMT11	●	193	109	133		0.8		
35.5		3D35.5-111SOMT11	●	195	111	135		0.8		

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l _s	適用刀片 Applicable Insert	重量 kg
36		C32-3D36-112SOMT11	●	198	112	136		SOMT11T308	0.9
36.5		3D36.5-114SOMT11	○	198	114	138			0.9
37		3D37-116SOMT13	○	208	116	148			0.9
37.5		3D37.5-118SOMT13	○	208	118	148			0.9
38		3D38-119SOMT13	○	209	119	149			0.9
38.5		3D38.5-121SOMT13	○	211	121	151			0.9
39		3D39-122SOMT13	○	212	122	152			1.0
39.5		3D39.5-124SOMT13	○	214	124	154			1.1
40		C40-3D40-125SOMT13	○	225	125	155			1.1
41		3D41-126SOMT13	○	228	126	158			1.1
42		3D42-131SOMT13	○	231	131	161			1.5
43		3D43-134SOMT13	○	234	134	164			1.6
44		3D44-137SOMT15	○	237	137	167			1.7
45	40	3D45-139SOMT15	○	240	140	170	70		1.7
46		3D46-143SOMT15	○	243	143	173			1.7
47		3D47-146SOMT15	○	246	146	176			1.8
48		3D48-149SOMT15	○	249	149	179			1.8
49		3D49-152SOMT15	○	252	152	182		1.9	
50		3D50-155SOMT15	○	255	155	185		1.9	



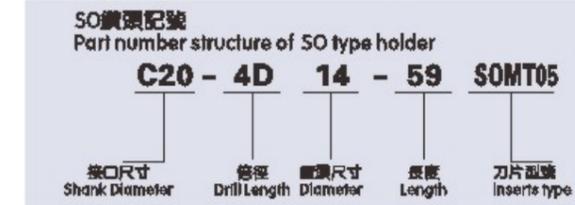
附件 Spare Parts

平頭螺釘 Screw	扳手 Wrench	適用刀杆 Applicable Drill
M2 x 5	T06	C20-3D13-42SOMT05-C20-3D16-51SOMT05
M2.2 x 5	T07	C20-3D16.5-53SOMT06-C25-3D22-69SOMT07
M2.5 x 7	T08	C25-3D22.5-71SOMT08-C32-3D28-91SOMT08
M3.5 x 8.5	T15	C32-3D28.5-83SOMT09-C32-3D36.5-114SOMT11
M4 x 10	T15	C32-3D37-116SOMT13-C40-3D43-134SOMT13
M5 x 11	T20	C40-3D44-137SOMT15-C40-3D50-155SOMT15

● Mark: Standard stock item,
No mark: Made to order item.

●●表示庫存 ○表示庫存預定品 ●SO刀片記号参见34页

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l _s	適用刀片 Applicable Insert	重量 kg	
13	20	C20-4D13-55SOMT05	●	114	55	70		SOMT050204	0.2	
13.5		4D13.5-57SOMT05	●	116	57	72			0.2	
14		4D14-58SOMT05	●	118	59	74			0.2	
14.5		4D14.5-61SOMT06	●	120	61	76			0.2	
15		4D15-63SOMT06	●	122	63	78			0.2	
15.5		4D15.5-65SOMT06	●	124	65	80			0.2	
16		4D16-67SOMT06	●	126	67	82			0.2	
16.5		4D16.5-69SOMT06	●	128	69	84			0.2	
17		4D17-71SOMT06	●	130	71	86			0.2	
17.5		C25-4D17.5-73SOMT06	●	144	73	88			SOMT060204	0.2
18		4D18-75SOMT06	●	148	75	90			0.3	
18.5		4D18.5-77SOMT06	●	149	77	92			0.3	
19		4D19-78SOMT06	●	150	79	94			0.3	
19.5		4D19.5-81SOMT07	●	152	81	96			0.3	
20		4D20-83SOMT07	●	154	83	98			0.3	
20.5		4D20.5-85SOMT07	●	156	85	100			SOMT070306	0.3
21		4D21-87SOMT07	●	158	87	102			0.3	
21.5		4D21.5-88SOMT07	●	160	89	104		0.3		
22		4D22-91SOMT07	●	162	91	106		0.4		
22.5		4D22.5-93SOMT08	●	164	93	108		0.4		
23		4D23-95SOMT08	●	168	95	113		0.4		
23.5		4D23.5-97SOMT08	●	171	97	115		0.4		
24		4D24-98SOMT08	●	173	99	117		SOMT08T308	0.4	
24.5		4D24.5-101SOMT09	●	175	101	119		0.4		
25		4D25-103SOMT09	●	177	103	121		0.4		
25.5		C32-4D25.5-105SOMT09	●	185	105	125		SOMT09T308	0.8	
26		4D26-107SOMT09	●	187	107	127			0.8	
26.5		4D26.5-109SOMT09	●	189	109	129			0.8	
27		4D27-111SOMT09	●	191	111	131			0.6	
27.5		4D27.5-113SOMT09	●	193	113	133			0.6	
28		4D28-115SOMT09	●	195	115	135			0.6	
28.5		4D28.5-117SOMT09	●	197	117	137			0.6	
29		4D29-120SOMT09	●	201	120	141			SOMT09T308	0.7
29.5		4D29.5-122SOMT09	●	203	122	143			0.7	
30		4D30-124SOMT09	●	208	124	148			0.7	
30.5	32	4D30.5-126SOMT09	●	210	126	150	60		0.7	
31		4D31-128SOMT09	●	212	128	152			0.7	
31.5		4D31.5-130SOMT09	●	214	130	154			0.7	
32		4D32-132SOMT11	●	216	132	156			0.8	
32.5		4D32.5-134SOMT11	●	218	134	158			0.8	
33		4D33-136SOMT11	●	220	136	160			0.8	
33.5		4D33.5-138SOMT11	●	222	138	162			0.8	
34		4D34-140SOMT11	●	224	140	164		0.8		
34.5		4D34.5-142SOMT11	●	228	142	168		0.8		
35		4D35-144SOMT11	●	228	144	168		0.8		
35.5		4D35.5-146SOMT11	●	230	146	170		0.8		



附件 Spare Parts

平頭螺釘 Screw	扳手 Wrench	適用刀杆 Applicable Drill
M2 x 5	T06	C20-4D14-55SOMT05-C20-4D16-67SOMT06
M2.2 x 5	T07	C20-4D16.5-69SOMT06-C25-4D22-91SOMT08
M2.5 x 7	T08	C25-4D22.5-83SOMT06-C32-4D28-107SOMT09
M3.5 x 8.5	T15	C32-4D28.5-109SOMT09-C32-4D36.5-150SOMT11
M4 x 10	T15	C32-4D37-133SOMT11-C40-4D43-177SOMT13
M5 x 11	T20	C40-4D44-181SOMT15-C40-4D50-205SOMT15

● Mark: Standard stock item,
No mark: Made to order item.

●●表示庫存 ○表示庫存預定品 ●SO刀片記号参见34页

TOP-5 X D (Φ 13-50) Indexable drills with SOMT inserts

SO 型 潜孔钻/ U 钻 5 D

Holder diameter 5D: φ 16.0 ~ 50.0mm

加工公差标准 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

最大加工深度 $\ell \leq \phi D_c$
Drilling depth: 5x diameter

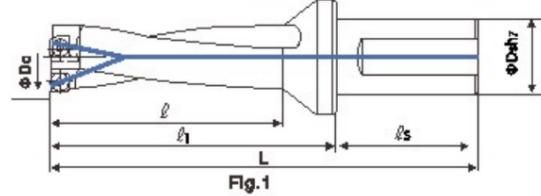


Fig.1



▲ H13/SKD61

Customised Solution-0.2/0.3/0.4/0.7/0.8/0.9 (bottom hole of the thread)

非标/小数点螺纹底孔专用U钻-0.2/0.3/0.4/0.7/0.8/0.9

加工公差标准 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

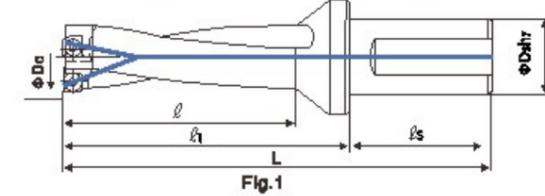


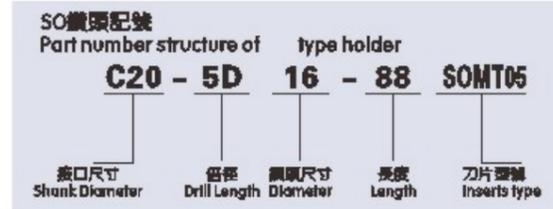
Fig.1



▲ H13/SKD61

刃径 ΦDc	柄径 ΦDs	型号 Specification/Item	库存 Store	L	ℓ	ℓ1	ℓs	适用刀片 Applicable Insert	重量 kg
16		C20-5D16-88SOMT05	●	142	83	98		SOMT050204	0.4
16.5	20	5D16.5-88SOMT06	●	145	86	101	44	SOMT060204	0.4
17		5D17-88SOMT06	●	147	88	103			0.4
17.5		C25-5D17.5-818SOMT06	●	162	91	108			0.4
18		5D18-88SOMT06	●	164	93	108			0.5
18.5		5D18.5-88SOMT06	●	167	96	111			0.5
19		5D19-96SOMT06	●	169	98	113			0.5
19.5		5D19.5-101SOMT07	●	172	101	116			0.5
20		5D20-107SOMT07	●	174	103	118			0.5
20.5		5D20.5-107SOMT07	●	177	106	121			0.5
21	25	5D21-106SOMT07	●	179	109	123	58		SOMT070306
21.5		5D21.5-111SOMT07	●	182	111	128		0.5	
22		5D22-113SOMT07	●	184	113	128		0.5	
22.5		5D22.5-116SOMT08	●	187	116	131		0.5	
23		5D23-118SOMT08	●	192	118	136		0.6	
23.5		5D23.5-121SOMT08	●	195	121	139		0.6	
24		5D24-128SOMT08	●	197	123	141		0.6	
24.5		5D24.5-128SOMT08	●	200	126	144		0.8	
25		5D25-128SOMT08	●	202	128	148		0.8	
25.5		C32-5D25.5-131SOMT08	●	213	131	153		0.8	
26		5D26-138SOMT08	●	216	133	158		0.8	
26.5		5D26.5-136SOMT08	●	217	136	157		0.8	
27		5D27-136SOMT09	●	218	138	158		0.8	
27.5		5D27.5-141SOMT09	●	221	141	161		0.8	
28		5D28-148SOMT09	●	223	143	163		0.9	
28.5		5D28.5-146SOMT09	●	226	146	166		0.9	
29		5D29-148SOMT09	●	230	149	170		0.9	
29.5		5D29.5-151SOMT09	●	233	151	173		0.9	
30		5D30-154SOMT09	●	236	154	178		1.0	
30.5		5D30.5-157SOMT09	●	241	157	181		1.0	
31		5D31-159SOMT09	●	243	159	183		1.0	
31.5		5D31.5-162SOMT09	●	245	162	185		1.0	
32	32	5D32-164SOMT11	●	248	164	188	60	SOMT09T308	1.1
32.5		5D32.5-167SOMT11	●	251	167	191			1.1
33		5D33-168SOMT11	●	253	169	193			1.1
33.5		5D33.5-172SOMT11	●	255	172	195			1.1
34		5D34-174SOMT11	●	258	174	198			1.2
34.5		5D34.5-173SOMT11	●	261	177	201			1.2
35		5D35-179SOMT11	●	263	179	203			1.2
35.5		5D35.5-182SOMT11	●	265	182	205			1.2
36		5D36-184SOMT11	●	268	184	208			1.3
36.5		5D36.5-187SOMT11	○	271	187	211			1.3
37		5D37-190SOMT13	○	280	190	220		1.3	
37.5		5D37.5-193SOMT18	○	283	193	223		1.3	
38		5D38-196SOMT13	○	285	195	225		1.4	
38.5		5D38.5-196SOMT18	○	288	198	228		1.4	

刃径 ΦDc	柄径 ΦDs	型号 Specification/Item	库存 Store	L	ℓ	ℓ1	ℓs	适用刀片 Applicable Insert	重量 kg
39		C32-5D39-200SOMT13	○	290	200	230		SOMT130408	1.9
39.5	32	5D39.5-203SOMT13	○	293	203	233	60		1.9
40		C40-5D40-205SOMT13	○	305	205	235			1.9
41		5D41-210SOMT13	○	310	210	240			2.0
42		5D42-215SOMT13	○	315	215	245			2.1
43		5D43-220SOMT16	○	320	220	250			2.2
44		5D44-225SOMT16	○	325	225	255			2.3
45	40	5D45-230SOMT15	○	330	230	260	70		2.4
46		5D46-235SOMT15	○	335	235	265			2.5
47		5D47-240SOMT15	○	340	240	270			2.6
48		5D48-245SOMT15	○	345	245	275		2.7	
49		5D49-250SOMT16	○	350	250	280		2.8	
50		5D50-255SOMT16	○	355	255	285		3.0	

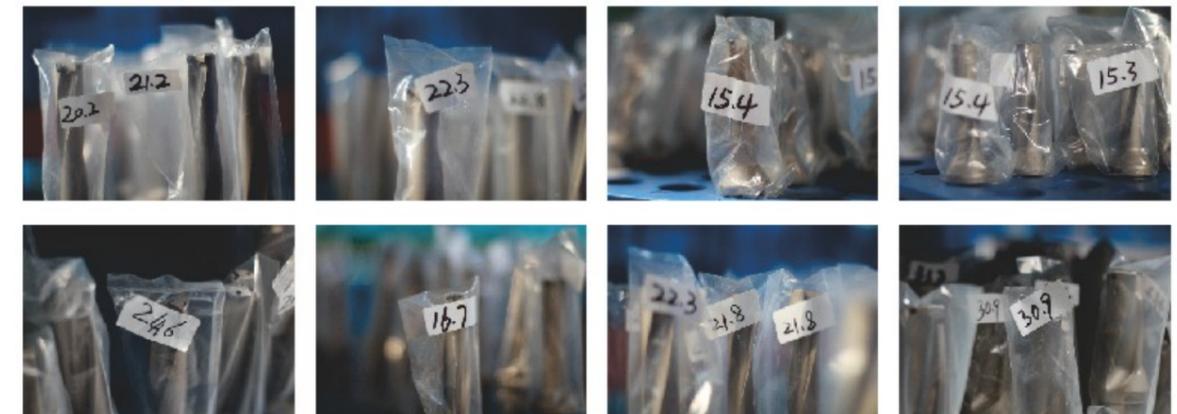


● 附件 Spare Parts

平頭螺釘 Screw	扳手 Wrench	適用刀杆 Applicable Drill
M2 x 5	T06	C20-5D16-88SOMT05-C20-5D16-88SOMT05
M2.2 x 5	T07	C20-5D16.5-88SOMT06-C25-5D22-113SOMT07
M2.5 x 7	T08	C25-5D22.5-116SOMT08-C32-5D28-133SOMT08
M3.5 x 8.5	T16	C32-5D28.5-136SOMT09-C32-5D36.5-147SOMT11
M4 x 10	T16	C32-5D37-190SOMT13-C40-5D43-220SOMT13
M5 x 11	T20	C40-5D44-225SOMT15-C40-5D50-255SOMT15

● Mark: Standard stock item,
No mark: Made to order item.

● 表示库存 ○ 表示库存预定品 ● SO 刀片记号参见34页



刃径 ΦDc	柄径 ΦDs	型号 Specification/Item									
8.8		KSD088-2D-S20-SP03	13.3		C20-3D13.3-42SP06	30.2		C32-3D30.2-94SP09	36.7		C32-3D36.7-121SP11
9		KSD090-2D-S20-SP03	14.8		C20-3D14.8-48SP06	30.3		C32-3D30.3-94SP09	36.8		C32-3D36.8-122SP11
9.3		KSD093-2D-S20-SP03	15.8	20	C20-3D15.8-60SP06	30.7		C32-3D30.7-96SP09	36.2	32	C32-3D36.2-122SP11
9.5		KSD095-2D-S20-SP03	16.3		C20-3D16.3-64SP06	30.8		C32-3D30.8-97SP09	36.3		C32-3D36.3-124SP11
10.6		KSD106-2D-S20-SP04	16.8		C20-3D16.8-68SP06	31.2		C32-3D31.2-97SP09	36.7		C32-3D36.7-124SP11
10.8		KSD108-2D-S20-SP04	17.3		C25-3D17.3-68SP06	31.2		C32-3D31.2-96SP09	36.8		C40-3D36.8-125SP11
11		KSD110-2D-S20-SP04	19.8		C25-3D19.8-62SP06	31.3		C32-3D31.3-98SP09	40.2		C40-3D40.2-125SP11
11.5		KSD115-2D-S20-SP04	20.8		C25-3D20.8-68SP06	31.7		C32-3D31.7-100SP09	40.7		C40-3D40.7-127SP11
12.5		KSD125-2D-S20-SP04	21.7		C25-3D21.7-68SP06	31.8		C32-3D31.8-100SP09	40.8		C40-3D40.8-128SP11
13		C20-2D13-28SP05	21.8		C25-3D21.8-68SP07	32.2		C32-3D32.2-100SP09	41.2		C40-3D41.2-128SP11
14.5		C20-2D14.5-32SP06	22.7	25	C25-3D22.7-71SP07	32.7		C32-3D32.7-103SP09	41.3		C40-3D41.3-128SP11
15		C20-2D15-33SP05	22.8		C25-3D22.8-71SP07	32.8		C32-3D32.8-103SP09	41.7		C40-3D41.7-129SP11
16	20	C20-2D16-33SP06	23.2		C25-3D23.2-72SP07	33.2		C32-3D33.2-103SP09	41.8		C40-3D41.8-131SP14
16.5		C20-2D16.5-36SP06	23.3		C25-3D23.3-72SP07	33.3		C32-3D33.3-106SP09	42.2		C40-3D42.2-131SP14
17		C20-2D17-37SP06	23.8		C25-3D23.8-75SP07	33.7		C32-3D33.7-106SP09	42.6		C40-3D42.6-134SP14
18		C20-2D18-39SP06	24.3		C25-3D24.3-77SP07	33.8	32	C32-3D33.8-106SP11	42.7	40	C40-3D42.7-134SP14
18.5		C20-2D18.5-40SP06	24.8		C25-3D24.8-77SP07	34.2		C32-3D34.2-106SP11	43.7		C40-3D43.7-137SP14
19		C20-2D19-41SP06	23.3		C32-3D23.3-74SP07	34.3		C32-3D34.3-106SP11	43.8		C40-3D43.8-137SP14
20		C20-2D20-43SP06	26.7		C32-3D26.7-88SP07	34.8		C32-3D34.8-109SP11	44.7		C40-3D44.7-137SP14
20.5		C20-2D20.5-44SP06	26.8		C32-3D26.8-84SP07	35.2		C32-3D35.2-109SP11	44.8		C40-3D44.8-140SP14
21		C20-2D21-45SP06	27.2		C32-3D27.2-84SP07	35.3		C32-3D35.3-106SP11	45.2		C40-3D45.2-140SP14
22		C20-2D22-47SP07	27.3		C32-3D27.3-83SP07	35.7		C32-3D35.7-111SP11	46.2		C40-3D46.2-143SP14
22.5		C20-2D22.5-48SP07	27.7		C32-3D27.7-86SP07	35.8		C32-3D35.8-112SP11	46.2		C40-3D46.2-146SP14
23		C20-2D23-49SP07	27.8		C32-3D27.8-87SP08	36.2		C32-3D36.2-112SP11	49.2		C40-3D49.2-152SP14
25		C20-2D25-53SP07	27.9		C32-3D27.9-87SP08	36.3		C32-3D36.3-114SP11	50.2		C40-3D50.2-155SP14
25.5		C32-2D25.5-54SP07	28.3	32	C32-3D28.3-88SP09	36.7		C32-3D36.7-116SP11			
26		C32-2D26-55SP07	28.7		C32-3D28.7-91SP09	36.8		C32-3D36.8-116SP11			
26.5		C32-2D26.5-56SP07	28.8		C32-3D28.8-91SP09	37.2		C32-3D37.2-116SP11			
27	32	C32-2D27-57SP07	28.9		C32-3D28.9-91SP09	37.3		C32-3D37.3-118SP11			
28		C32-2D28-59SP07	29.2		C32-3D29.2-93SP09	37.7		C32-3D37.7-118SP11			
26.5		C32-2D28.5-60SP07	29.3		C32-3D29.3-93SP08	38.2		C32-3D38.2-119SP11			
29		C32-2D29-62SP09	29.8		C32-3D29.8-94SP08	38.3		C32-3D38.3-119SP11			

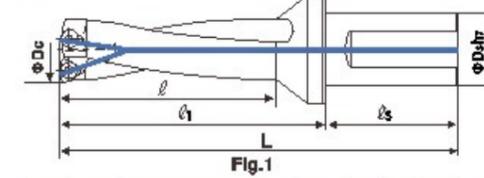
● 刀片详细参数见前页

WC-2XD (Φ13-100) Indexable drills with WC inserts

WC型潜孔钻/U钻 2D

Holder diameter 2D: Φ10.0 ~ 80.0mm

加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15
最大加工深度 $l \times 2 \times \Phi Dc$
Drilling depth: $2 \times \text{diameter}$



▲ H13/SKD61

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg	刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg
10		G20-2D10-36WC02	○	85	35	22		WC..02D104	0.2	36		CS2-2D36-76WC06	●	180	76	100		WC..08T306	0.9
10.5		2D10.5-36WC02	○	86	36	22			0.2	36.5	32	2D36.5-77WC06	●	181	77	101			0.9
11		2D11-37WC02	○	87	37	23			0.2	37		2D37-79WC06	●	188	79	108			0.9
11.5		2D11.5-38WC02	○	88	38	24			0.2	37.5		2D37.5-80WC06	●	170	80	110			0.9
12		2D12-40WC02	○	90	40	25			0.2	38		2D38-81WC06	●	171	81	111			0.9
12.5		2D12.5-43WC02	○	93	43	27			0.2	38.5		2D38.5-82WC06	●	172	82	112			0.9
13		2D13-29WC03	○	88	29	44			0.2	39		2D39-83WC06	●	173	83	113			1.0
13.5	20	2D13.5-30WC03	○	89	30	45	44		0.2	39.5		2D39.5-84WC06	●	174	84	114			1.1
14		2D14-31WC03	●	90	31	46			0.2	40		C40-2D40-85WC06	●	185	85	115			1.1
14.5		2D14.5-32WC03	●	91	32	47			0.2	41		2D41-87WC06	●	187	87	117			1.1
15		2D15-33WC03	●	92	33	48			0.2	42		2D42-89WC06	●	189	89	119			1.1
16		2D16-34WC03	●	93	34	49			0.2	43		2D43-91WC06	●	191	91	121			1.5
16		2D16-35WC03	●	94	35	50			0.2	44		2D44-93WC06	●	193	93	123			1.6
16.5		2D16.5-36WC03	●	95	36	51			0.2	45		2D45-95WC06	●	195	95	125			1.7
17		2D17-37WC03	●	96	37	52			0.2	46		2D46-97WC06	●	197	97	127			1.7
17.5		G25-2D17.5-38WC03	●	109	38	53			0.2	47		2D47-99WC06	●	199	99	129			1.8
18		2D18-39WC03	●	110	39	54			0.3	48		2D48-101WC06	●	201	101	131			1.8
18.5		2D18.5-40WC03	●	111	40	55		0.3	48		2D49-103WC06	●	203	103	133		1.9		
19		2D19-41WC03	●	112	41	56		0.3	50		2D50-105WC06	○	205	105	135		1.9		
19.5		2D19.5-42WC03	●	113	42	57		0.3	51		2D51-107WC06	○	207	107	137		2.0		
20		2D20-43WC03	●	114	43	58		0.3	52		2D52-109WC06	○	209	109	139		2.0		
20.5		2D20.5-44WC03	●	115	44	59		0.3	53		2D53-111WC06	○	211	111	141		2.1		
21		2D21-45WC04	●	116	45	60		0.3	54		2D54-113WC06	○	213	113	143		2.2		
21.5	25	2D21.5-46WC04	●	117	46	61	56	0.3	55		2D55-115WC06	○	215	115	145		2.3		
22		2D22-47WC04	●	118	47	62		0.4	56		2D56-120WC06	○	222	120	152		2.4		
22.5		2D22.5-48WC04	●	119	48	63		0.4	57		2D57-122WC06	○	224	122	154		2.5		
23		2D23-49WC04	●	123	49	67		0.4	58		2D58-124WC06	○	226	124	156		2.6		
23.5		2D23.5-50WC04	●	124	50	68		0.4	59		2D59-126WC06	○	228	126	158		2.7		
24		2D24-51WC04	●	125	51	69		0.4	60	40	2D60-128WC06	○	230	128	160	70	2.8		
24.5		2D24.5-52WC04	●	126	52	70		0.4	61		2D61-130WC06	○	232	130	162				
25		2D25-53WC05	●	127	53	71		0.4	62		2D62-132WC06	○	234	132	164				
25.5		G32-2D25.5-54WC06	●	134	54	74		0.8	63		2D63-134WC06	○	238	134	168		WC..08T306		
26		2D26-55WC06	●	135	55	75		0.6	64		2D64-136WC06	○	238	136	168				
26.5		2D26.5-56WC06	●	136	56	76		0.6	65		2D65-138WC06	○	240	138	170				
27		2D27-57WC06	●	137	57	77		0.6	66		2D66-140WC06	○	242	140	172				
27.5		2D27.5-58WC06	●	138	58	78		0.6	67		2D67-142WC06	○	244	142	174				
28		2D28-59WC06	●	139	59	79		0.6	68		2D68-144WC06	○	248	144	178				
28.5		2D28.5-60WC06	●	140	60	80		0.8	69		2D69-146WC06	○	248	146	178				
29		2D29-62WC06	●	143	62	83		0.7	70		2D70-148WC06	○	250	148	180				
29.5		2D29.5-63WC06	●	144	63	84		0.7	71		2D71-150WC06	○	150	182					
30		2D30-64WC06	●	145	64	85		0.7	72		2D72-152WC06	○	152	184					
30.5	32	2D30.5-65WC06	●	149	65	89	60	0.7	73		2D73-154WC06	○	154	186		WCMT06T306			
31		2D31-66WC06	●	150	66	90		0.7	74		2D74-156WC06	○	156	188					
31.5		2D31.5-67WC06	●	151	67	91		0.7	75		2D75-158WC06	○	158	190					
32		2D32-68WC06	●	152	68	92		0.8	76		2D76-160WC06	○	160	192					
32.5		2D32.5-69WC06	●	153	69	93		0.8	77		2D77-162WC06	○	162	194					
33		2D33-70WC06	●	154	70	94		0.8	78		2D78-164WC06	○	164	196					
33.5		2D33.5-71WC06	●	155	71	95		0.8	79		2D79-166WC06	○	166	198					
34		2D34-72WC06	●	156	72	96		0.8	80		2D80-168WC06	○	168	200					
34.5		2D34.5-73WC06	●	157	73	97		0.8											
35		2D35-74WC06	●	158	74	98		0.8											
36.5		2D35.5-75WC06	●	159	75	99		0.8											

- S
- W
- C
- S
- P
- P
- D
- L
- W
- D
- X
- 刀柄系列
Chuck
- 刀片系列
Carbide Inserts
- 粗鏢刀系列
Rough Boring Head
- 精鏢刀系列
Finish Boring Head
- 鏢刀柄系列
Chuck
- 小力夾系列
Accessories
- 鏢刀倒角鏢系列
Chamfering Tools
- 刀系列槽鏢刀
Slot Milling Cutters

WC-3XD (Φ14-100) Indexable drills with WC inserts

WC型潜孔钻/U钻 3D

Holder diameter 3D: Φ10.0 ~ 80.0mm

加工公差標準 0 ~ +0.20
Range of machining tolerance: 0 ~ +0.20

最大加工深度 $l \leq 3 \times \Phi D_c$
Drilling depth: 3x diameter

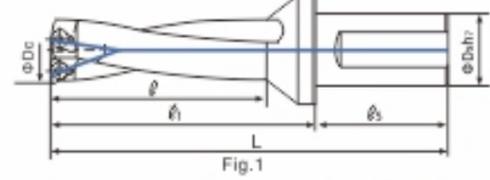


Fig.1



▲ H13/SKD61

WC-4XD (Φ14-100) Indexable drills with WC inserts

WC型潜孔钻/U钻 4D

Holder diameter 4D: Φ10.0 ~ 70.0mm

加工公差標準 0 ~ +0.25
Range of machining tolerance: 0 ~ +0.25

最大加工深度 $l \leq 4 \times \Phi D_c$
Drilling depth: 4x diameter

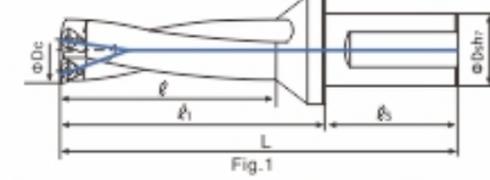


Fig.1



▲ H13/SKD61

刃径 ΦDc	柄径 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	重量 kg
10		C20-3D10-47WC02	○	97	47	31		WC..020104	0.2
10.5		3D10.5-48WC02	○	98	48	33			0.2
11		3D11-49WC02	○	99	49	34			0.2
11.5		3D11.5-50WC02	○	100	50	36			0.2
12		3D12-52WC02	○	102	52	37			0.2
12.5		3D12.5-53WC02	○	105	55	39			0.2
13		3D13-42WC03	○	101	42	57			0.2
13.5	20	3D13.5-44WC03	○	103	44	59	44		0.2
14		3D14-45WC02	●	104	45	60			0.2
14.5		3D14.5-47WC02	●	106	47	62			0.2
15		C20-3D15-48WC03	●	107	48	63			0.2
15.5		3D15.5-50WC03	●	109	50	65			0.2
16		3D16-51WC03	●	110	51	66			0.2
16.5		3D16.5-53WC03	●	112	53	68			0.2
17		3D17-54WC03	●	113	54	69			0.2
17.5		C25-3D17.5-56WC03	●	127	56	71			0.3
18		3D18-57WC03	●	128	57	72			0.3
18.5		3D18.5-59WC03	●	130	59	74		0.3	
19		3D19-60WC03	●	131	60	75		0.3	
19.5		3D19.5-62WC03	●	133	62	77		0.3	
20		3D20-63WC03	●	134	63	78		0.4	
20.5		3D20.5-65WC03	●	136	65	80		0.4	
21		3D21-66WC04	●	137	66	81		0.4	
21.5	25	3D21.5-68WC04	●	139	68	83	56	0.4	
22		3D22-69WC04	●	140	69	84		0.4	
22.5		3D22.5-71WC04	●	142	71	86		0.4	
23		3D23-72WC04	●	146	72	90		0.4	
23.5		3D23.5-74WC04	●	148	74	92		0.4	
24		3D24-75WC04	●	149	75	93		0.4	
24.5		3D24.5-77WC04	●	151	77	95		0.4	
25		3D25-78WC05	●	152	78	96		0.4	
25.5		C32-3D25.5-80WC05	●	160	80	100		0.6	
26		3D26-81WC05	●	161	81	101		0.6	
26.5		3D26.5-83WC05	●	163	83	103		0.7	
27		3D27-84WC05	●	164	84	104		0.7	
27.5		3D27.5-86WC05	●	166	86	106		0.7	
28		3D28-87WC05	●	167	87	107		0.7	
28.5		3D28.5-89WC05	●	169	89	109		0.7	
29		3D29-91WC05	●	172	91	112		0.7	
29.5		3D29.5-93WC05	●	174	93	114		0.7	
30		3D30-94WC05	●	178	94	118		0.7	
30.5		3D30.5-96WC05	●	180	96	120		0.8	
31		3D31-97WC06	●	181	97	121		0.8	
31.5		3D31.5-99WC06	●	183	99	123		0.9	
32		3D32-100WC06	●	184	100	124		0.9	
32.5		3D32.5-102WC06	●	186	102	126		0.9	
33		3D33-103WC06	●	187	103	127		0.9	
33.5		3D33.5-105WC06	●	189	105	129		0.9	
34		3D34-106WC06	●	190	106	130		0.9	

刃径 ΦDc	柄径 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	重量 kg
34.5		C32-3D34.5-108WC06	●	192	108	132		WC..06T308	1.0
35		3D35-109WC06	●	193	109	133			1.0
35.5		3D35.5-111WC06	●	195	111	135			1.0
36		3D36-112WC06	●	196	112	136			1.0
36.5		3D36.5-114WC06	●	198	114	138			1.1
37	32	3D37-116WC06	●	206	116	146	60		1.1
37.5		3D37.5-118WC06	●	208	118	148			1.1
38		3D38-119WC06	●	209	119	149			1.1
38.5		3D38.5-121WC06	●	211	121	151			1.1
39		3D39-122WC06	●	212	122	152			1.2
39.5		3D39.5-124WC06	●	214	124	154			1.3
40		C40-3D40-125WC06	●	225	125	155			1.6
41		3D41-126WC06	●	228	126	158			1.7
42		3D42-131WC06	●	231	131	161			1.7
43		3D43-134WC06	●	234	134	164			1.8
44		3D44-137WC06	●	237	137	167			1.8
45		3D45-140WC06	●	240	140	170			1.9
46		3D46-143WC06	●	243	143	173		2.0	
47		3D47-146WC06	●	246	146	176		2.1	
48		3D48-149WC06	●	249	149	179		2.2	
49		3D49-152WC06	●	252	152	182		2.2	
50		3D50-155WC06	○	255	155	185		2.3	
51		3D51-158WC06	○	258	158	188		2.4	
52		3D52-161WC06	○	261	161	191		2.5	
53		3D53-164WC06	○	264	164	194		2.6	
54		3D54-167WC06	○	267	167	197		2.7	
55		3D55-170WC06	○	270	170	200		2.8	
56		3D56-176WC06	○	278	176	208		2.8	
57		3D57-179WC06	○	281	179	211		3.0	
58		3D58-182WC06	○	284	182	214		3.2	
59		3D59-185WC06	○	287	185	217		3.3	
60	40	3D60-188WC06	○	290	188	220	70	3.3	
61		3D61-191WC06	○	291	191	221			
62		3D62-194WC06	○	296	194	226			
63		3D63-197WC06	○	299	197	229			
64		3D64-200WC06	○	302	200	232			
65		3D65-203WC06	○	305	203	235			
66		3D66-206WC06	○	308	206	238			
67		3D67-209WC06	○	311	209	241			
68		3D68-212WC06	○	314	212	244			
69		3D69-215WC06	○	317	215	247			
70		3D70-218WC06	○	320	218	250			
71		3D71-221WC06	○	321	221	253			
72		3D72-224WC06	○	324	224	256			
73		3D73-227WC06	○	327	227	259			
74		3D74-230WC06	○	330	230	262			
75		3D75-233WC06	○	333	233	265			
76		3D76-236WC06	○	336	236	268			
77		3D77-239WC06	○	339	239	271			
78		3D78-242WC06	○	342	242	274			
79		3D79-245WC06	○	345	245	277			
80		3D80-248WC06	○	348	248	280			

WCMT06T308

刃径 ΦDc	柄径 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	重量 kg
10		C20-4D10-57WC02	○	107	57	41		WC..020104	0.2
10.5		4D10.5-58WC02	○	108	58	43			0.2
11		4D11-60WC02	○	110	60	45			0.2
11.5		4D11.5-61WC02	○	111	61	47			0.2
12		4D12-65WC02	○	115	65	50			0.2
12.5		4D12.5-67WC02	○	117	67	52			0.2
13		4D13-66WC03	○	114	66	50			0.2
13.5	20	4D13.5-67WC03	○	116	67	52	44		0.2
14		4D14-69WC02	●	118	69	54			0.2
14.5		4D14.5-71WC02	●	120	71	56			0.2
15		4D15-73WC03	●	122	73	58			0.2
15.5		4D15.5-75WC03	●	124	75	60			0.2
16		4D16-77WC03	●	126	77	62			0.3
16.5		4D16.5-79WC03	●	128	79	64			0.3
17		4D17-81WC03	●	130	81	66			0.3
17.5		C25-4D17.5-83WC03	●	144	83	66			0.3
18		4D18-85WC03	●	146	85	68			0.4
18.5		4D18.5-87WC03	●	148	87	70		0.4	
19		4D19-89WC03	●	150	89	72		0.4	
19.5		4D19.5-91WC03	●	152	91	74		0.4	
20		4D20-93WC03	●	154	93	76		0.4	
20.5		4D20.5-95WC03	●	156	95	78		0.4	
21		4D21-97WC04	●	158	97	80		0.4	
21.5	25	4D21.5-99WC04	●	160	99	82	56	0.4	
22		4D22-101WC04	●	162	101	84		0.4	
22.5		4D22.5-103WC04	●	164	103	86		0.4	
23		4D23-105WC04	●	166	105	88		0.5	
23.5		4D23.5-107WC04	●	171	107	91		0.5	
24		4D24-109WC04	●	173	109	93		0.5	
24.5		4D24.5-111WC04	●	175	111	95		0.7	
25		4D25-113WC05	●	177	113	97		0.7	
25.5		C32-4D25.5-115WC05	●	185	115	105		0.7	
26		4D26-117WC05	●	187	117	107		0.7	
26.5		4D26.5-119WC05	●	189	119	109		0.7	
27		4D27-121WC05	●	191	121	111		0.7	
27.5		4D27.5-123WC05	●	193	123	113		0.7	
28		4D28-125WC05	●	195	125	115		0.8	
28.5		4D28.5-127WC05	●	197	127	117		0.8	
29		4D29-129WC05	●	201	129	121		0.8	
29.5		4D29.5-131WC05	●	203	131	123		0.8	
30		4D30-133WC05	●	208	133	128		0.9	
30.5	32	4D30.5-135WC05	●	210	135	130	60	0.9	
31		4D31-137WC06	●	212	137	132		0.9	
31.5		4D31.5-139WC06	●	214	139	134		0.9	
32		4D32-141WC06	●	216	141	136</			

WC-5XD (Φ14-100) Indexable drills with WC inserts

WC型潜孔钻/U钻 5D

Holder diameter 5D: Φ15.0 ~ 100.0mm

加工公差標準 0 ~ +0.25
Range of machining tolerance: 0 ~ +0.25

最大加工深度 $l \leq 5 \times \Phi Dc$
Drilling depth: 5x diameter

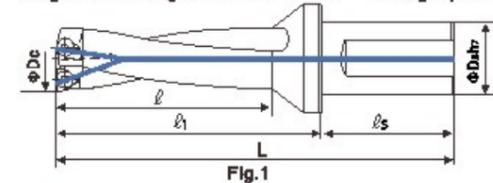


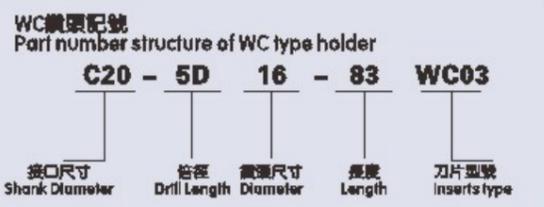
Fig.1



▲ H13/SKD81

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	重量 kg
16		C20-5D16-83WC08	●	142	83	98		WC..030208	0.4
16.5	20	5D16.5-88WC08	●	145	86	101	44		0.4
17		5D17-89WC08	●	147	89	103			0.4
17.5		C25-5D17.5-91WC08	●	162	91	108			0.4
18		5D18-93WC08	●	164	93	108			0.5
18.5		5D18.5-96WC08	●	167	96	111			0.5
19		5D19-98WC08	●	169	98	113			0.5
19.5		5D19.5-101WC08	●	172	101	116			0.5
20		5D20-103WC08	●	174	103	118			0.5
20.5		5D20.5-106WC08	●	177	106	121			0.5
21	25	5D21-108WC04	●	179	108	123	58	WC..040208	0.5
21.5		5D21.5-111WC04	●	182	111	128			0.5
22		5D22-113WC04	●	184	113	128			0.5
22.5		5D22.5-116WC04	●	187	116	131			0.5
23		5D23-118WC04	●	192	118	136			0.6
23.5		5D23.5-121WC04	●	195	121	139			0.6
24		5D24-123WC04	●	197	123	141			0.6
24.5		5D24.5-126WC04	●	200	126	144			0.6
25		5D25-128WC05	●	202	128	148			0.6
25.5		C32-5D25.5-131WC05	●	213	131	153			WC..050908
26		5D26-133WC05	●	218	133	158		0.8	
26.5		5D26.5-136WC05	●	217	136	157		0.8	
27		5D27-138WC05	●	218	138	158		0.8	
27.5		5D27.5-141WC05	●	221	141	161		0.8	
28		5D28-143WC05	●	223	143	163		0.9	
28.5		5D28.5-146WC05	●	229	146	169		0.9	
29		5D29-149WC05	●	230	149	170		0.9	
29.5		5D29.5-151WC05	●	233	151	173		0.9	
30		5D30-154WC05	●	236	154	178		1.0	
30.5		5D30.5-157WC05	●	241	157	181		1.0	
31		5D31-159WC06	●	243	159	183		1.0	
31.5		5D31.5-162WC06	●	245	162	185		1.0	
32	32	5D32-164WC06	●	248	164	188	60	WC..06T308	1.1
32.5		5D32.5-167WC06	●	251	167	191			1.1
33		5D33-169WC06	●	253	169	193			1.1
33.5		5D33.5-172WC06	●	255	172	195			1.1
34		5D34-174WC06	●	258	174	198			1.2
34.5		5D34.5-177WC06	●	261	177	201			1.2
35		5D35-179WC06	●	263	179	203			1.2
35.5		5D35.5-182WC06	●	265	182	205			1.2
36		5D36-184WC06	●	268	184	208			1.3
36.5		5D36.5-187WC06	●	271	187	211			1.3
37		5D37-190WC06	●	280	190	220		1.3	
37.5		5D37.5-193WC06	●	283	193	223		1.3	
38		5D38-195WC06	●	285	195	225		1.4	
38.5		5D38.5-198WC06	●	288	198	228		1.4	

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	重量 kg
39		C32-5D39-200WC08	●	290	200	230		WC..06T308	1.9
39.5	32	5D39.5-203WC08	●	293	203	233	60		1.9
40		C40-5D40-205WC08	●	305	205	235			1.9
41		5D41-210WC08	●	310	210	240			2.0
42		5D42-215WC08	●	315	215	245			2.1
43		5D43-220WC08	●	320	220	250			2.2
44		5D44-225WC08	●	325	225	255			2.3
45		5D45-230WC08	●	330	230	260			2.4
46		5D46-235WC08	●	335	235	265			2.5
47		5D47-240WC08	●	340	240	270			2.6
48		5D48-245WC08	●	345	245	275		2.7	
49		5D49-250WC08	●	350	250	280		2.8	
50	40	5D50-255WC08	○	355	255	285	70	WC..080412	2.9
51		5D51-260WC08	○	360	260	290			3.0
52		5D52-265WC08	○	365	265	295			3.1
53		5D53-270WC08	○	370	270	300			3.2
54		5D54-275WC08	○	375	275	305			3.3
55		5D55-280WC08	○	380	280	310			3.4
56		5D56-285WC08	○	385	285	315			3.6
57		5D57-290WC08	○	390	290	320			3.8
58		5D58-295WC08	○	395	295	325			3.9
59		5D59-300WC08	○	400	300	330			4.1
60		5D60-310WC08	○	405	310	335		4.2	



附件 Spare Parts

平頭螺絲 Screw	扳手 Wrench	適用刀杆 Applicable Drill
M2.5 x 6	T8	C20-5D16-83WC08 ~ C25-5D20.5-106WC08
M2.5 x 6	T8	C25-5D21-108WC04 ~ C25-5D24.5-126WC04
M3 x 7	T8	C25-5D25-128WC06 ~ C32-5D30.5-157WC06
M3.5 x 8.5	T15	C32-5D31-159WC08 ~ C40-5D41-210WC08
M4 x 10	T15	C40-5D42-215WC08 ~ C40-5D60-310WC08

● Mark: Standard stock item,
○ No mark: Made to order item.

●● 表示庫存 ○ 表示庫存預定品 ○ WC刀片記號參見34頁



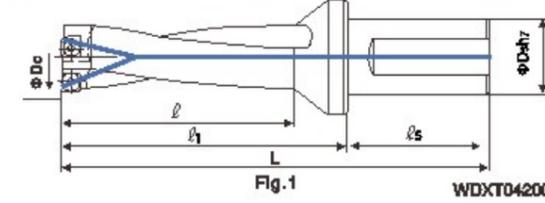
WDX (Φ 15-30) flat-bottom drills with WDX inserts

WDX型 平底钻

Holder diameter: Φ15.0 ~ 30.0mm

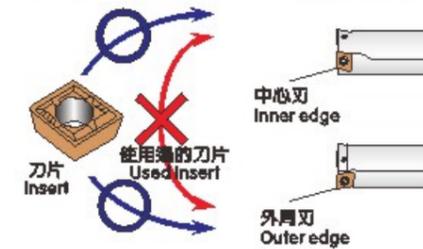
加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

最大加工深度 $\ell \times 2 \times \Phi Dc$
Drilling depth: 2x diameter



刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	ℓ	ℓ1	ℓs	適用刀片 Applicable Insert	kg	
16	20	PDL150D2S20	●	92	48	33	44	WDXT042004	0.2	
16		PDL160D2S20	●	94	60	36		WDXT052504	0.2	
17		PDL170D2S20	●	96	62	37		0.2		
18	26	PDL180D2S25	●	112	56	39	56	WDXT063006	0.3	
19		PDL190D2S25	●	114	58	41			0.3	
20		PDL200D2S25	●	118	80	43		0.3		
21		PDL210D2S25	●	118	82	45		0.3		
22		PDL220D2S25	●	120	84	47		0.4		
23		PDL230D2S25	●	122	86	48		0.4		
24		PDL240D2S25	●	124	68	51		0.4		
25		PDL250D2S25	●	126	70	53		0.4		
26		PDL260D2S32	●	136	75	55		60	WDXT073508	0.6
27		PDL270D2S32	●	137	77	57				0.6
28	PDL280D2S32	●	139	79	58	0.7				
29	PDL290D2S32	●	143	83	62	0.7				
30	PDL300D2S32	●	148	88	64	WDXT094008	0.7			

刀片安裝注意事項 Notes About Mounting Inserts (PDL Type)



PDL型: 刀片外周刃和中心刃均可使用。作為外周刃使用的刀片, 不能作為中心刃使用。同樣, 作為中心刃使用的刀片, 不能作為外周刃使用。
PCT型: 僅限於外周刃, 使用2刀尖

PCT型、PDL型的稱呼方法
Part number structure of PCT, PDL Type holder

PCT 250 D3 S25

鑽徑 Diameter (±25.0) | 鑽頭刃長/L/D Drill Length (SD) | 刀杆尺寸 Shank Diameter (±25.0)

PCT型、PDL型用刀片的稱呼方法
Part number structure of WDXT inserts

WDXT 07 35 06 - G

型號尺寸 Width Across Flats (7.5) | 厚度 Thickness x 10 (3.5) | 刀尖 Corner Radius R x 10 (0.6) | 磨削種類 Breaker Type

Application	Angled Surface	Half Cylindrical	Pre-cast Hole	Intersecting Holes	Boring	External Turning	Laminated Plates	Back Boring
Feed Rate (f) mm/rev	0.05	0.05	0.08	0.05	0.1	0.1	Not applicable	Not applicable

S
O
W
C
S
P
P
D
L
W
D
X
刀柄系列
刀片系列
粗鏤刀系列
精鏤刀系列
鏤刀柄系列
小力夾系列
鏤刀倒角鑽系列
D系列槽鑽刀

KSD-2 X D (Φ 13-35) Indexable drills with XO/SP inserts

XO/SP型 潜孔钻/U钻 2D

Holder diameter 2D: Φ13.0 ~ 35.0mm

加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

最大加工深度 2 × ΦDc
Drilling depth: 2x diameter

Threaded Fittings /Connection: PT

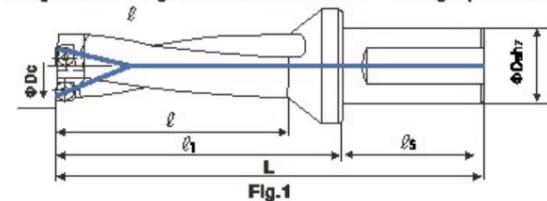


Fig.1



刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg		
12	20	K2D12020-04	● 91	40.71	27	50	56	SPMT040204	0.2		
13		K2D13020-04	● 93	40.71	29			XOMT040204	0.2		
14		K2D14020-05	● 96	45.6	31			SPMT050204	0.2		
15		K2D15020-05	● 99	48.6	33			XOMT050204	0.2		
16	25	K2D16020-05	● 101	50.5	35	56	60	SPMT060205	0.3		
17		K2D17025-08	● 109	52.6	37					XOMT060205	0.3
18		K2D18025-08	● 112	55.5	39					SPMT080205	0.3
19		K2D18025-06	● 114	57.4	41					XOMT080205	0.3
20	25	K2D20025-07	● 118	61.5	43	56	60	SPMT07T208	0.3		
21		K2D21025-07	● 120	63.4	45					XOMT07T208	0.4
22		K2D22025-07	● 122	65.4	47					SPMT07T208	0.4
23		K2D23025-07	● 128	68.3	49					XOMT07T208	0.4

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg		
24	25	K2D24025-09	● 133	72.4	51	60	60	SPMT090308	0.4		
25		K2D25025-09	● 135	74.3	53					XOMT090308	0.6
26		K2D26032-09	● 137	76.3	55					SPMT090308	0.6
27		K2D27032-09	● 140	79.2	57					XOMT090308	0.6
28	32	K2D28032-09	● 143	82.2	59	60	60	SPMT11T308	0.7		
29		K2D29032-09	● 145	84.1	61					XOMT11T308	0.7
30		K2D30032-11	● 160	89	63					SPMT11T308	0.7
31		K2D31032-11	● 162	91	65					XOMT11T308	0.7
32	35	K2D32032-11	● 164	93	67	60	60	SPMT11T308	0.7		
33		K2D33032-11	● 167	96	69					XOMT11T308	0.8
34		K2D34032-11	● 159	98	71					SPMT11T308	0.8
35		K2D35032-11	● 181	99.9	73					XOMT11T308	0.8

KSD-3 X D (Φ 13-35) Indexable drills with XO/SP inserts

XO/SP型 潜孔钻/U钻 3D

Holder diameter 3D: Φ13.0 ~ 35.0mm

加工公差標準 -0.05 ~ +0.15
Range of machining tolerance: -0.05 ~ +0.15

最大加工深度 2 × ΦDc
Drilling depth: 2x diameter

Threaded Fittings /Connection: PT

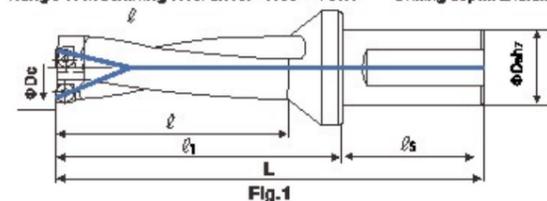


Fig.1



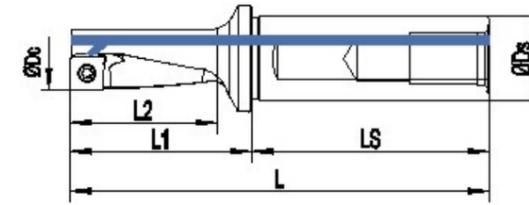
刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg		
12	20	K3D12020-04	● 91	40.71	27	50	56	SPMT040204	0.2		
13		K3D13020-04	● 93	40.71	29			XOMT040204	0.2		
14		K3D14020-05	● 96	45.6	31			SPMT050204	0.2		
15		K3D15020-05	● 99	48.6	33			XOMT050204	0.2		
16	25	K3D16020-05	● 101	50.5	35	56	60	SPMT060205	0.3		
17		K3D17025-08	● 109	52.6	37					XOMT060205	0.3
18		K3D18025-08	● 112	55.5	39					SPMT080205	0.3
19		K3D19025-08	● 114	57.4	41					XOMT080205	0.3
20	25	K3D20025-07	● 118	61.5	43	56	60	SPMT07T208	0.3		
21		K3D21025-07	● 120	63.4	45					XOMT07T208	0.3
22		K3D22025-07	● 122	65.4	47					SPMT07T208	0.4
23		K3D23025-07	● 126	68.3	49					XOMT07T208	0.4

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	l ₁	l ₂	適用刀片 Applicable Insert	kg		
24	25	K3D24025-09	● 133	72.4	51	60	60	SPMT090308	0.4		
25		K3D25025-09	● 135	74.3	53					XOMT090308	0.4
26		K3D26032-09	● 137	76.3	55					SPMT090308	0.6
27		K3D27032-09	● 140	79.2	57					XOMT090308	0.6
28	32	K3D28032-09	● 143	82.2	59	60	60	SPMT11T308	0.6		
29		K3D29032-09	● 145	84.1	61					XOMT11T308	0.6
30		K3D30032-11	● 150	89	63					SPMT11T308	0.7
31		K3D31032-11	● 152	91	65					XOMT11T308	0.7
32	35	K3D32032-11	● 154	93	67	60	60	SPMT11T308	0.7		
33		K3D33032-11	● 167	96	69					XOMT11T308	0.7
34		K3D34032-11	● 159	98	71					SPMT11T308	0.8
35		K3D35032-11	● 161	99.9	73					XOMT11T308	0.8





TCAP-2.25DN (8-32) Multifunction tools for drilling, boring, facing & external turning TCAP 2.25 D 单刃多功能钻镗一体快速钻



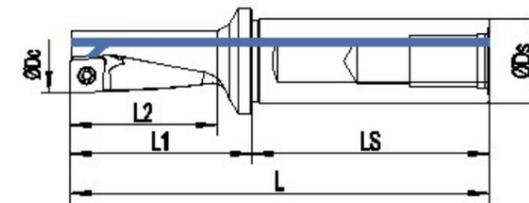
◎ Threaded Fittings /Connection: "G"



刃径 ΦD_c	柄径 ΦD_s	型号 Specification/Item	库存 Stock	L	ℓ	ℓ_1	ℓ_s	通用刀片 Applicable Insert	重量 kg
8	12	TCAP 08R 2.25D	●	64.5	22.5	18	42	XCMT040104	0.2
10	12	TCAP 10R 2.25D	●	69.5	27	22.5	42	XCMT050204	0.2
12	16	TCAP 12R 2.25D	●	78	33	27	45	XCMT060204	0.2
14	16	TCAP 14R 2.25D	●	83.5	38.5	31.5	45	XCMT070304	0.2

刃径 ΦD_c	柄径 ΦD_s	型号 Specification/Item	库存 Stock	L	ℓ	ℓ_1	ℓ_s	通用刀片 Applicable Insert	重量 kg
16	20	TCAP 16R 2.25D	●	94	44	36	44	XCMT080304	0.2
20	25	TCAP 20R 2.25D	●	111	55	45	55	XCMT10T304	0.3
25	32	TCAP 25R 2.25D	●	130	69	58.5	69	XCMT130404	0.6
32	40	TCAP 32R 2.25D	●	160	86	72	74	XCMT170508	0.9

TCAP-3DN (8-32) Multifunction tools for drilling, boring, facing & external turning TCAP 3 D 单刃多功能钻镗一体快速钻



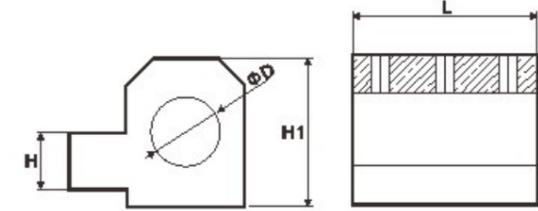
◎ Threaded Fittings /Connection: "G"



刃径 ΦD_c	柄径 ΦD_s	型号 Specification/Item	库存 Stock	L	ℓ	ℓ_1	ℓ_s	通用刀片 Applicable Insert	重量 kg
8	12	TCAP 08R 3D	●	64.5	42	25	22.5	XCMT040104	0.2
10	12	TCAP 10R 3D	●	79	37	31	42	XCMT050204	0.2
12	16	TCAP 12R 3D	●	88	44	37	45	XCMT060204	0.2
14	16	TCAP 14R 3D	●	95	50	43	45	XCMT070304	0.2

刃径 ΦD_c	柄径 ΦD_s	型号 Specification/Item	库存 Stock	L	ℓ	ℓ_1	ℓ_s	通用刀片 Applicable Insert	重量 kg
16	20	TCAP 16R 3D	●	109	59	49	50	XCMT080304	0.2
20	25	TCAP 20R 3D	●	128	72	60	58	XCMT10T304	0.3
25	32	TCAP 25R 3D	●	145	89	75	58	XCMT130404	0.6
32	40	TCAP 32R 3D	●	170	110	96	60	XCMT170508	0.9

Boring Block for U Drills U钻刀座



型號 Specification/Item	H	H1	L	D
DK20-16	20	37	60	16
DK20-20		47	65	20
DK20-25		47	65	25
DK20-32		55	85	32
DK25-16	25	42	65	16
DK25-25		53	70	25
DK25-32		60	85	32
DK25-40		65	90	40
DK32-40	32	83	100	40
DK32-50		83	100	50

刀座可搭配配件示例 Set up example



1 刀尾+刀套安裝示例 2 內孔刀安裝示例 3 U鑽安裝示例 4 槍夾頭安裝示例 5 倒角槍頭安裝示例 6 雙槽槍頭安裝示例



U钻配套螺纹接口 Threaded Fittings / Connection

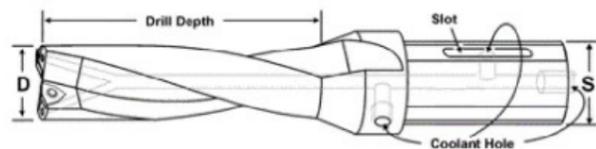
(PT&G可供選擇) PT & G for your selection

型號 Specification	U鑽柄徑 Holder	氣管外徑 Air Pipe External diameter (mm)	螺紋外徑 Threads External diameter	螺距 Screw pitch (mm)
PC10-M10*1.5	C20	10	M10	1.5
PC10-M12*1.75	C25	10	M12	1.75
PC12-M16*2	C32	12	M16	2
PC12-M20-2.5	C40	12	M20	2.5



S
O
W
C
S
P
P
D
L
W
D
X
刀柄系列
Chuck
刀片系列
Carbide Inserts
粗鏢刀系列
Rough Boring Head
精鏢刀系列
Finish Boring Head
鏢刀柄系列
Chuck
小力夾系列
Accessories
鏢刀倒角鏢系列
Chamfering Tools
D系列槽鏢刀
Slot Milling Cutters

Inch dimension Coolant Thru Indexable Drills (For America Market) 英制浅孔钻/出水钻/U钻 (SKD61)



Shank Dia: 1.000" to 1.500"
Drill Dia: 1.000" to 3.250"
Drill Depths: 2" to 6"

英制(Imperial Units)

D Drill Dia.	S Shank Size	Drill Depth 2.00"		Drill Depth 3.00"		Drill Depth 4.00" and Over			
		Part Number	Store	Part Number	Store	Flute Len.	Part Number	Store	
1.000 - 1.125 Drill Diameter - 0.315 Insert I.C.									
1"	1.000	1.00	AC1000-2010	○	AC1000-3010	○	4"	AC1000-4010	○
1-1/32	1.031	1.00	AC1031-2010	○	AC1031-3010	○	4"	AC1031-4010	○
	1.031	1.25	AC1031-2012	○	AC1031-3012	○	4"	AC1031-4012	○
1-1/8	1.125	1.00	AC1125-2010	○	AC1125-3010	○	4"	AC1125-4010	○
	1.125	1.25	AC1125-2012	○	AC1125-3012	○	4"	AC1125-4012	○
1.187 - 1.750 Drill Diameter - 0.394 Insert I.C.									
1-3/16	1.187	1.00	AC1187-2010	○	AC1187-3010	○	4"	AC1187-4010	○
	1.187	1.25	AC1187-2012	○	AC1187-3012	○	4"	AC1187-4012	○
1-1/4	1.250	1.00	AC1250-2010	○	AC1250-3010	○	4"	AC1250-4010	○
	1.250	1.25	AC1250-2012	○	AC1250-3012	○	4"	AC1250-4012	○
1-5/16	1.312	1.25	AC1312-2012	○	AC1312-3012	○	4"	AC1312-4012	○
	1.375	1.00	AC1375-2010	○	AC1375-3010	○	4"	AC1375-4010	○
1-3/8	1.375	1.25	AC1375-2012	○	AC1375-3012	○	4"	AC1375-4012	○
	1.437	1.25	AC1437-2012	○	AC1437-3012	○	4"	AC1437-4012	○
1-1/2	1.500	1.00	AC1500-2010	○	AC1500-3010	○	4"	AC1500-4010	○
	1.500	1.25	AC1500-2012	○	AC1500-3012	○	4"	AC1500-4012	○
1-5/8	1.625	1.00	AC1625-2010	○	AC1625-3010	○	4"	AC1625-4010	○
	1.625	1.25	AC1625-2012	○	AC1625-3012	○	4"	AC1625-4012	○
1-11/16	1.687	1.00	AC1687-2010	○	AC1687-3010	○	4"	AC1687-4010	○
	1.687	1.25	AC1687-2012	○	AC1687-3012	○	4"	AC1687-4012	○
1-3/4	1.750	1.00	AC1750-2010	○	AC1750-3010	○	4"	AC1750-4010	○
	1.750	1.25	AC1750-2012	○	AC1750-3012	○	4"	AC1750-4012	○
	1.750	1.25	AC1750-2012	○	AC1750-3012	○	5"	AC1750-6012	○
1.812 - 2.125 Drill Diameter - 0.472 Insert I.C.									
1-7/8	1.875	1.25	AC1875-2012	○	AC1875-3012	○	4"	AC1875-4012	○
1-15/16	1.937	1.25	AC1937-2012	○	AC1937-3012	○	4"	AC1937-4012	○
	2.000	1.25	AC2000-2012	○	AC2000-3012	○	4"	AC2000-4012	○
	2.000	1.25	AC2000-2012	○	AC2000-3012	○	5"	AC2000-6012	○
2-1/8	2.125	1.50	AC2125-2015	○	AC2125-3015	○	4"	AC2125-4015	○
	2.125	1.50	AC2125-2015	○	AC2125-3015	○	4"	AC2125-4015	○
2.250 - 2.500 Drill Diameter - 0.590 Insert I.C.									
2-1/4	2.250	1.50	AC2250-2015	○	AC2250-3015	○	4"	AC2250-4015	○
	2.250	1.50	AC2250-2015	○	AC2250-3015	○	5"	AC2250-6015	○
	2.250	1.50	AC2250-2015	○	AC2250-3015	○	6"	AC2250-6015	○
2-9/8	2.375	1.50	AC2375-2015	○	AC2375-3015	○	4"	AC2375-4015	○
	2.500	1.50	AC2500-2015	○	AC2500-3015	○	4"	AC2500-4015	○
2-1/2	2.500	1.50	AC2500-2015	○	AC2500-3015	○	4"	AC2500-4015	○
	2.500	1.50	AC2500-2015	○	AC2500-3015	○	5"	AC2500-6015	○
	2.500	1.50	AC2500-2015	○	AC2500-3015	○	6"	AC2500-6015	○
2.750 - 3.250 Drill Diameter - 0.693 Insert I.C.									
2-3/4	2.750	1.50	AC2750-2015	○	AC2750-3015	○	4"	AC2750-4015	○
	2.750	1.50	AC2750-2015	○	AC2750-3015	○	5"	AC2750-6015	○
	2.750	1.50	AC2750-2015	○	AC2750-3015	○	6"	AC2750-6015	○
3"	3.000	1.50	AC3000-2015	○	AC3000-3015	○	4"	AC3000-4015	○
	3.000	1.50	AC3000-2015	○	AC3000-3015	○	5"	AC3000-5015	○
	3.000	1.50	AC3000-2015	○	AC3000-3015	○	6"	AC3000-6015	○
3-1/4	3.250	1.50	AC3250-2015	○	AC3250-3015	○	4"	AC3250-4015	○



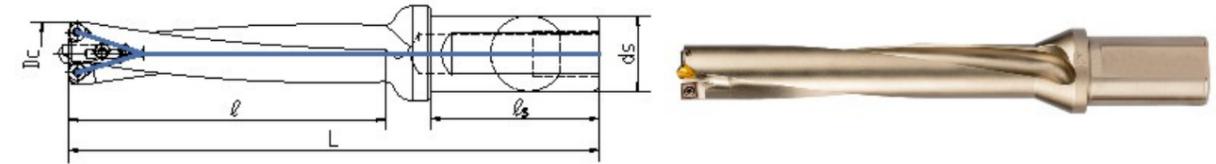


SO Turbo Drill 6D&8D SO 带中心钻快速钻 6D&8D

Holder diameter 6D: $\Phi 25.0 \sim 40.0\text{mm}$

加工公差標準 $-0.09 \sim +0.1$
Range of machining tolerance: $-0.09 \sim +0.1$

最大加工深度 $l_6 \times \Phi D_c$
Drilling depth: $6 \times \text{diameter}$



刃徑 ΦD_c	柄徑 ΦD_s	型號 Specification/Item	L	l	ls	中心鑽 Pilot Drill	適用刀片 Applicable Insert	螺釘 Screw	扳手 WRENCH		
18	25	C25-6D18-115SOMT05	196	115	56	0820	SOMT050204	M2.0	T6		
19		C25-6D19-121SOMT05	202	121	56						
20		C25-6D20-127SOMT05	208	127	56						
21		C25-6D21-133SOMT06	214	133	56		SOMT060204	M2.2	T7		
22		C25-6D22-139SOMT06	220	139	56						
23		C25-6D23-145SOMT06	226	145	56						
24		C25-6D24-151SOMT07	232	151	56						
25	C25-6D25-157SOMT07	238	157	56	0825	SOMT070306	M2.5	T8			
26	C32-6D26-163SOMT07	251	163	60							
27	C32-6D27-169SOMT07	257	169	60							
28	C32-6D28-175SOMT07	263	175	60							
29	C32-6D29-181SOMT08	269	181	60							
30	C32-6D30-187SOMT08	275	187	60							
31	C32-6D31-193SOMT08	281	193	60							
32	C32-6D32-199SOMT06	287	199	60					SOMT09T308	M3.5	T15
33	C32-6D33-205SOMT09	293	205	60							
34	C32-6D34-211SOMT09	299	211	60							
35	C32-6D35-217SOMT08	305	217	60							
36	C32-6D36-223SOMT08	311	223	60							
37	C32-6D37-229SOMT08	317	229	60							
38	C32-6D38-235SOMT09	323	235	60							
39	C32-6D39-241SOMT09	329	241	60							

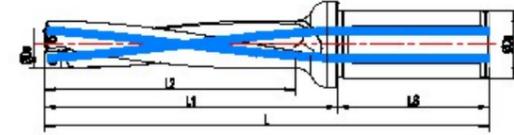
刃徑 ΦD_c	柄徑 ΦD_s	型號 Specification/Item	L	l	ls	中心鑽 Pilot Drill	適用刀片 Applicable Insert	螺釘 Screw	扳手 WRENCH		
18	25	C25-8D18-151SOMT05	232	151	56	0820	SOMT050204	M2.0	T8		
19		C25-8D19-159SOMT05	240	159	56						
20		C25-8D20-167SOMT05	248	167	56						
21		C25-8D21-176SOMT06	256	176	56		SOMT060204	M2.2	T7		
22		C25-8D22-183SOMT06	264	183	56						
23		C25-8D23-191SOMT06	272	191	56						
24		C25-8D24-199SOMT07	280	199	56						
25	C25-8D25-207SOMT07	288	207	56	0825	SOMT070308	M2.5	T8			
26	C32-8D26-215SOMT07	303	215	60							
27	C32-8D27-223SOMT07	311	223	60							
28	C32-8D28-231SOMT07	319	231	60							
29	C32-8D29-239SOMT08	327	239	60							
30	C32-8D30-247SOMT08	335	247	60							
31	C32-8D31-255SOMT08	343	255	60					SOMT08T306	M2.5	T8
32	C32-8D32-263SOMT08	351	263	60							
33	C32-8D33-271SOMT09	359	271	60							
34	C32-8D34-279SOMT09	367	279	60							
35	C32-8D35-287SOMT09	375	287	60							
36	C32-8D36-295SOMT09	383	295	60							
37	C32-8D37-303SOMT09	391	303	60							
38	C32-8D38-311SOMT09	399	311	60							
39	C32-8D39-319SOMT09	407	319	60							

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- 刀柄系列
Chuck
- 刀片系列
Carbide Inserts
- 粗鏢刀系列
Rough Boring Head
- 精鏢刀系列
Finish Boring Head
- 鏢刀柄系列
Chuck
- 小刀夾系列
Accessories
- 鏢刀倒角鏢系列
Chamfering Tools
- 刀台系列槽銑刀
Slot Milling Cutters

Coro 880 -3 X D (DIA 14-40) Indexable drills with SP/SG inserts
 Coro 880 型 潛孔鑽/ U 鑽 3 D



Technical information



刃徑 ϕD_c	柄徑 ϕD_s	型號 Specification/Item	庫存 Stock	L	l	ϕ	適用刀片 Applicable Insert	kg		
14	20	MGU3140-FC20-SP02	●	108	58	45	SPGX0202... SCGX0202...	0.2		
14.5		MGU3145-FC20-SP02	●	110	60	47		0.2		
15		MGU3150-FC20-SP02	●	112	62	50		0.2		
15.5		MGU3155-FC20-SP02	●	114	64	52		0.2		
16		MGU3160-FC20-SP02	●	116	66	51		0.2		
16.5		MGU3165-FC20-SP03	●	118	68	53		0.2		
17	25	MGU3170-FC25-SP03	●	125	69	54	SPGX0303... SCGX0303...	0.2		
17.5		MGU3175-FC25-SP03	●	128	72	58		0.3		
18		MGU3180-FC25-SP03	●	129	73	58		0.3		
18.5		MGU3185-FC25-SP03	●	131	75	60		0.3		
19		MGU3190-FC25-SP03	●	132	76	60		0.3		
19.5		MGU3195-FC25-SP03	●	136	79	62		0.3		
20		MGU3200-FC25-SP04	●	137	81	64		SPGX0403... SCGX0403...	0.3	
20.5		MGU3205-FC25-SP04	●	139	82	65			0.4	
21		MGU3210-FC25-SP04	●	140	84	67			0.4	
22		MGU3220-FC25-SP04	●	143	87	69			0.4	
23	MGU3230-FC25-SP04	●	147	91	72	0.4				
24	MGU3240-FC25-SP05	●	151	95	76	0.4				
25	32	MGU3250-FC25-SP05	●	156	99	79	SPGX0503... SCGX0503...	0.4		
26		MGU3260-FC32-SP05	●	162	102	81		0.6		
27		MGU3270-FC32-SP05	●	166	105	85		SPGX0604... SCGX0604...	0.7	
28		MGU3280-FC32-SP05	●	189	109	87			0.7	
29		MGU3290-FC32-SP05	●	172	112	91			0.7	
30		MGU3300-FC32-SP06	●	177	117	95			SPGX0704... SCGX0704...	0.7
31		MGU3310-FC40-SP06	●	191	121	98				0.8
32		MGU3320-FC40-SP06	●	184	124	101				SPGX0804... SCGX0804...
33		MGU3330-FC40-SP06	●	188	128	104		0.9		
34		MGU3340-FC40-SP06	●	201	131	108		SPGX0904... SCGX0904...		
35	MGU3350-FC40-SP06	●	205	135	112	1.0				
36	MGU3360-FC40-SP07	●	208	139	113	SPGX1004... SCGX1004...	1.0			
37	MGU3370-FC40-SP07	●	212	142	117		SPGX1104... SCGX1104...		1.1	
38	MGU3380-FC40-SP07	●	216	146	122				SPGX1204... SCGX1204...	1.1
39	MGU3390-FC40-SP07	●	219	149	125					SPGX1304... SCGX1304...
40	MGU3400-FC40-SP07	●	223	153	126			1.6		

● Stock ○ Order

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刀柄系列
刀片系列
粗鏢刀系列
精鏢刀系列
鏢刀柄系列
小力夾系列
鏢刀倒角鏢系列
D系列槽鏢刀

Coro 880 -4 X D (DIA 14-40) Indexable drills with SP/SG inserts
 Coro 880 型 潛孔鑽/ U 鑽 4 D

Coro 880 -5 X D (DIA 14-40) Indexable drills with SP/SG inserts
 Coro 880 型 潛孔鑽/ U 鑽 5 D

Technical information



Technical information



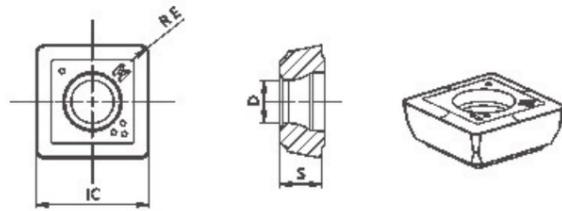
刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	h	適用刀片 Applicable Insert	kg
14	20	MGU4140-FC20-SP02	●	122	72	60	SPGX0202... SCGX0202...	0.2
14.5		MGU4145-FC20-SP02	●	125	75	63		0.2
16		MGU4160-FC20-SP02	●	127	77	64		0.2
15.5		MGU4155-FC20-SP02	●	129	79	66		0.2
16		MGU4160-FC20-SP02	●	132	82	67		0.2
16.5		MGU4185-FC20-SP03	●	134	84	70		0.2
17	25	MGU4170-FC25-SP03	●	142	86	72	SPGX0303... SCGX0303...	0.3
17.5		MGU4175-FC25-SP03	●	145	89	75		0.3
18		MGU4180-FC25-SP03	●	147	91	78		0.3
18.5		MGU4185-FC25-SP03	●	149	93	78		0.3
19		MGU4180-FC25-SP03	●	151	95	79		0.4
19.5		MGU4185-FC25-SP03	●	155	99	83		0.4
20		MGU4200-FC25-SP04	●	157	101	84		0.4
20.5		MGU4205-FC25-SP04	●	159	103	87		0.4
21		MGU4210-FC25-SP04	●	161	105	88		0.4
22		MGU4220-FC25-SP04	●	165	109	92		0.4
23		MGU4230-FC25-SP04	●	170	114	99		0.5
24		MGU4240-FC25-SP05	●	175	119	101		0.7
25	32	MGU4250-FC25-SP05	●	180	124	104	SPGX0503... SCGX0503...	0.7
26		MGU4260-FC32-SP05	●	186	128	108		0.7
27		MGU4270-FC32-SP05	●	192	132	112		0.7
28		MGU4280-FC32-SP05	●	197	137	115		0.8
29		MGU4290-FC32-SP05	●	201	141	120		0.8
30		MGU4300-FC32-SP06	●	207	147	125		0.9
31		MGU4310-FC40-SP06	●	222	152	129		0.9
32		MGU4320-FC40-SP06	●	226	156	134		1.0
33		MGU4330-FC40-SP06	●	231	161	138		1.0
34		MGU4340-FC40-SP06	●	235	165	142		1.1
35	MGU4350-FC40-SP06	●	240	170	146	1.1		
36	40	MGU4380-FC40-SP07	●	245	175	150	SPGX0704... SCGX0704...	1.2
37		MGU4370-FC40-SP07	●	249	179	154		1.2
38		MGU4380-FC40-SP07	●	254	184	157		1.3
39		MGU4390-FC40-SP07	●	258	188	165		1.8
40		MGU4400-FC40-SP07	●	263	193	164		1.9

刃徑 ΦDc	柄徑 ΦDs	型號 Specification/Item	庫存 Store	L	l	h	適用刀片 Applicable Insert	kg
14	20	MGU5140-FC20-SP02	●	138	86	74	SPGX0202... SCGX0202...	0.4
14.5		MGU5145-FC20-SP02	●	139	89	77		0.4
16		MGU5150-FC20-SP02	●	142	92	79		0.4
15.5		MGU5155-FC20-SP02	●	145	95	82		0.4
16		MGU5160-FC20-SP02	●	148	98	83		0.4
16.5		MGU5185-FC20-SP03	●	202	101	87		0.4
17	25	MGU5170-FC25-SP03	●	180	104	90	SPGX0303... SCGX0303...	0.5
17.5		MGU5175-FC25-SP03	●	183	107	93		0.5
18		MGU5180-FC25-SP03	●	218	109	94		0.5
18.5		MGU5185-FC25-SP03	●	188	112	97		0.5
19		MGU5180-FC25-SP03	●	228	114	98		0.6
19.5		MGU5185-FC25-SP03	●	174	118	103		0.6
20		MGU5200-FC25-SP04	●	242	121	104		0.6
20.5		MGU5205-FC25-SP04	●	190	124	108		0.6
21		MGU5210-FC25-SP04	●	252	128	109		0.6
22		MGU5220-FC25-SP04	●	282	131	113		0.6
23		MGU5230-FC25-SP04	●	272	138	120		0.7
24		MGU5240-FC25-SP05	●	282	143	124		0.9
25	32	MGU5250-FC25-SP05	●	294	149	129	SPGX0503... SCGX0503...	0.9
26		MGU5260-FC32-SP05	●	314	157	137		0.9
27		MGU5270-FC32-SP05	●	318	159	139		0.9
28		MGU5280-FC32-SP05	●	330	165	143		1.0
29		MGU5290-FC32-SP05	●	342	171	150		1.0
30		MGU5300-FC32-SP06	●	354	177	155		1.2
31		MGU5310-FC40-SP06	●	253	189	159		1.2
32		MGU5320-FC40-SP06	●	258	188	164		1.3
33		MGU5330-FC40-SP06	●	264	194	170		1.3
34		MGU5340-FC40-SP06	●	270	199	176		1.4
35	MGU5350-FC40-SP06	●	276	205	181	1.4		
36	40	MGU5380-FC40-SP07	●	282	211	188	SPGX0704... SCGX0704...	1.5
37		MGU5370-FC40-SP07	●	286	216	191		1.5
38		MGU5380-FC40-SP07	●	292	222	195		1.6
39		MGU5390-FC40-SP07	●	298	228	204		2.1
40		MGU5400-FC40-SP07	●	304	234	206		2.2

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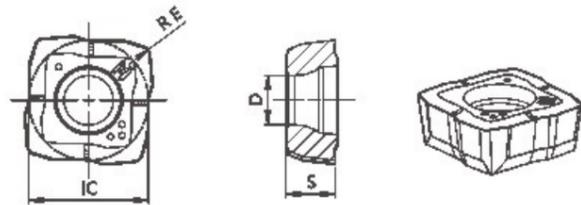
Shallow hole drilling peripheral insert



Type	Trough type			Brand			Size				Drill diameter
	GM	GR	GS	MP2150	MP2160	MP2170	IC	S	RE	D	
D-SPGX0202...	●	○	○	●	○	○	5.1	2.4	0.5	2.2	14.0-16.0
D-SPGX0303...	●	○	○	●	○	○	6	2.6	0.5	2.5	16.5-19.5
D-SPGX0403...	●	○	○	●	○	○	7.4	2.8	0.5	2.8	20.0-23.5
D-SPGX0503...	●	○	○	●	○	○	8.9	3	0.5	3.2	24.0-29.5
D-SPGX0604...	●	○	○	●	○	○	10.65	3.5	0.6	4	30.0-35.5
D-SPGX0704...	●	○	○	●	○	○	12.65	4	0.6	4	36.0-40.0

● Stock ○ Order

Shallow hole drilling center insert



Type	Trough type			Brand			Size				Drill diameter
	GM	GR	GS	MP2150	MP2160	MP2170	IC	S	RE	D	
D-SCGX0202...	●	○	○	●	○	○	4.9	2.4	0.4	2.2	14.0-16.0
D-SCGX0303...	●	○	○	●	○	○	5.7	2.6	0.5	2.5	16.5-19.5
D-SCGX0403...	●	○	○	●	○	○	6.8	2.8	0.5	2.8	20.0-23.5
D-SCGX0503...	●	○	○	●	○	○	8.4	3	0.5	3.2	24.0-29.5
D-SCGX0604...	●	○	○	●	○	○	10.2	3.5	0.6	3.7	30.0-35.5
D-SCGX0704...	●	○	○	●	○	○	12.35	4	0.6	4	36.0-40.0

● Stock ○ Order

Recommended cutting parameters

Cutting material	Cutting speed (m/min)	Feed (mm/r)				
		±14.0-±22.5	±23.0-±27.0	±27.5-±33.0	±33.5-±40.0	
P	低碳钢, 长切屑 (<125HBS)	160-300 (240)	0.04-0.06	0.04-0.06	0.04-0.08	0.04-0.08
	低碳钢, 短切屑, 易切削 (<125HBS)	140-220 (180)	0.04-0.10	0.04-0.12	0.06-0.16	0.08-0.18
	高碳钢及中碳钢 (<25HRC)	140-220 (180)	0.04-0.10	0.06-0.12	0.06-0.16	0.08-0.18
	合金钢, 工具钢 (<35HRC)	100-200 (160)	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
	合金钢, 工具钢 (35-48HRC)	80-200 (150)	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
	PH与铁素体, 马氏体钢 (<35HRC)	80-200 (150)	0.03-0.08	0.04-0.12	0.08-0.14	0.08-0.16
	高强度PH与铁素体, 马氏体钢 (35-48HRC)	60-180 (120)	0.03-0.08	0.04-0.12	0.06-0.14	0.06-0.16
M	奥氏体不锈钢 (130-200HBS)	100-200 (150)	0.04-0.10	0.06-0.12	0.06-0.14	0.06-0.16
	高强度的奥氏体和奥氏体-铁素体 (<25HRC)	60-180 (120)	0.03-0.08	0.04-0.12	0.06-0.14	0.06-0.16
K	双相不锈钢 (<30HRC)	60-180 (120)	0.03-0.08	0.04-0.12	0.06-0.14	0.06-0.16
	灰铸铁 (<32HRC)	140-230 (180)	0.04-0.10	0.06-0.14	0.06-0.16	0.08-0.20
	中等加工难度的合金铸铁, 球墨铸铁 (<28HRC)	120-200 (160)	0.04-0.10	0.06-0.14	0.06-0.16	0.08-0.20
S	难加工的高合金铸铁, 球墨铸铁 (<45HRC)	100-200 (160)	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
	镍基/铁基/钴基/耐热合金 (130-400HBS)	30-80 (50)	0.03-0.06	0.04-0.08	0.04-0.10	0.06-0.12
H	钛基+耐热合金 (130-400HBS)	30-70 (50)	0.03-0.08	0.04-0.10	0.04-0.10	0.06-0.12
	淬硬钢 (400HBS)	30-60 (45)	0.04-0.06	0.04-0.10	0.06-0.12	0.06-0.12

Body accessories list

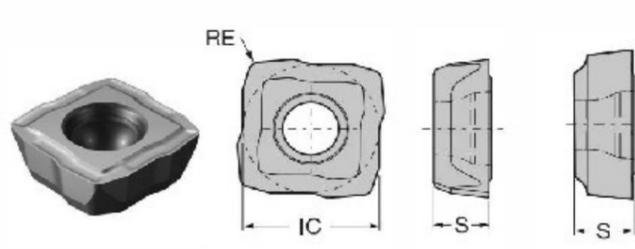
Peripheral insert	Central insert	Screw		Wrench	
		Order number	Figure	Order number	Figure
D-SPGX0202...	D-SCGX0202...	SM20-045-6IP		1056000001-6DS	
D-SPGX0303...	D-SCGX0303...	SM22-049-7IP		1056000002-7DS	
D-SPGX0403...	D-SCGX0403...	SM25-072-8IP		1056000003-8DS	
D-SPGX0503...	D-SCGX0503...	SM30-082-9IP		1056000004-9DS	
D-SPGX0604...	D-SCGX0604...	SM35-094-10IP		1056000005-10DS	
D-SPGX0704...	D-SCGX0704...	SM35-094-10IP		1056000005-10DS	

MGU钻削刀片

MGU钻削刀片

LM	MS	GM	GR
P M N S	M S	P M K N S H	P K
长切屑材料 中等 • 低至中等进给 • 在加工长屑材料时有良好的切屑控制 • 轻切削 • 大的刀尖圆角半径 • LM - 长切屑材料的首选 • MS -	• 为不锈钢材料优化的带锋利切刃的槽型	普通材料 中等 • 低至中等进给 • 轻切削 • 短且浅的断屑槽在进给区域提供了杰出的切屑控制 • 小的刀尖圆角半径保证了很低的钻头偏斜	普通材料 粗加工 • 低至高进给 • 强, 加强型切刃 • 大的刀尖圆角半径 • 在高进给区域中良好的切屑控制

◎ 中心刀片

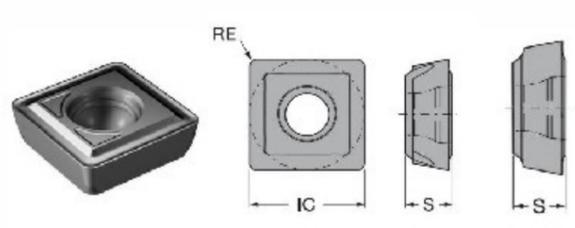


P	●	●	○
M	○	●	●
K	●	○	●
N	●	○	●
S	●	●	●
H	●	●	●

规格型号	尺寸(mm)			效率	材质			
	IC	S	RE		Mp2150	Mp3150	Gm4235	
01	D-SCGX010203-LM	4.57	2	0.3	中等进给		●	
	D-SCGX010203-GR	4.57	2	0.3	高进给			
02	D-SCGX020204-LM	4.9	2.4	0.4	中等进给		●	
	D-SCGX020204-GR	4.9	2.4	0.4		高进给	●	
03	D-SCGX030305-LM	5.7	2.6	0.5	中等进给		●	
	D-SCGX030305-GM	5.7	2.6	0.5		高进给	●	
	D-SCGX030305-GR	5.7	2.6	0.5		高进给	●	
04	D-SCGX040305-LM	6.8	2.8	0.5	中等进给		●	
	D-SCGX040305-GM	6.8	2.8	0.5		高进给	●	
	D-SCGX040305-GR	6.8	2.8	0.5		高进给	●	
05	D-SCGX050305-LM	8.4	3	0.5	中等进给		●	
	D-SCGX050305-GM	8.4	3	0.5		高进给	●	
	D-SCGX050305-GR	8.4	3	0.5		高进给	●	
06	D-SCGX060406-LM	10.2	3.5	0.6	中等进给		●	
	D-SCGX060406-GM	10.2	3.5	0.6		高进给	●	
	D-SCGX060406-GR	10.2	3.5	0.6		高进给	●	
07	D-SCGX070406-LM	12.4	4	0.6	中等进给		●	
	D-SCGX070406-GM	12.4	4	0.6		高进给	●	
	D-SCGX070406-GR	12.4	4	0.6		高进给	●	
08	D-SCGX080508-LM	14.9	4.5	0.8	中等进给		●	
	D-SCGX080508-GM	14.9	4.5	0.8		高进给	●	
	D-SCGX080508-GR	14.9	4.5	0.8		高进给	●	
09	D-SCGX090608-LM	17.9	5.5	0.8	中等进给		●	
	D-SCGX090608-GM	17.9	5.5	0.8		高进给	●	
	D-SCGX090608-GR	17.9	5.5	0.8		高进给	●	

			首选	其他
P	低碳钢		LM	GM
	合金钢		GR	GM
M			LM/MS	GM
K			GR	GM
N			LM/MS	GM
S			MS/LM	GM
H			GM	

◎ 周心刀片

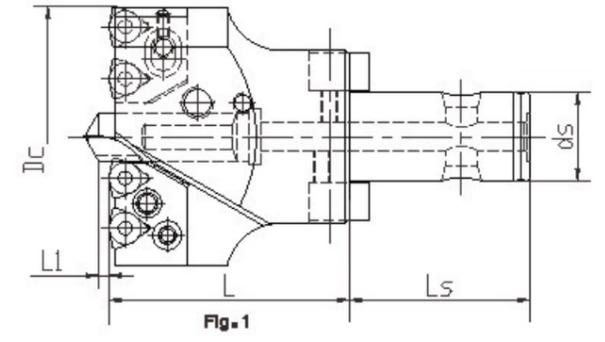


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M	○	●	●	●
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N	●	○	●	●
S	●	●	●	●
H	●	●	●	●

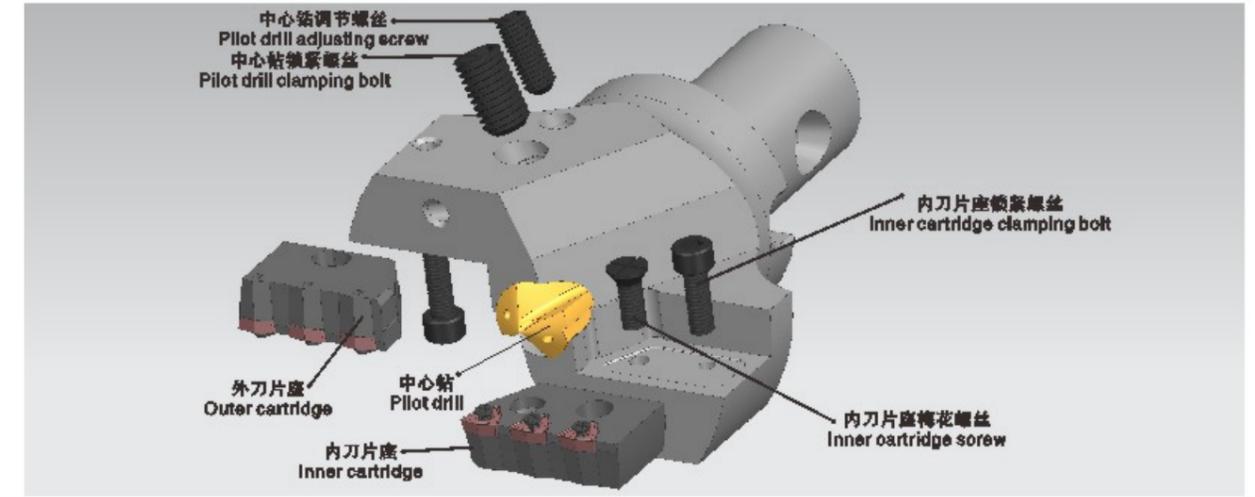
规格型号	尺寸(mm)			效率	材质				
	IC	S	RE		Mp2150	Mp3150	Mm4235	GPK30	
01	D-SCGX010204-MS	4.6	2	0.4	中等进给			●	
	D-SCGX010204-GR	4.6	2	0.4	高进给				
02	D-SPGX020204-GM	5.1	2.4	0.4	中等进给	●	●		
	D-SPGX020205-LM	5.1	2.4	0.5			●		
	D-SPGX020205-MS	5.1	2.4	0.5				●	
	D-SPGX020205-GR	5.1	2.4	0.5		高进给			●
03	D-SPGX030305-GM	6.0	2.6	0.5	中等进给	●	●		
	D-SPGX030306-LM	6.0	2.6	0.6			●		
	D-SPGX030305-MS	6.0	2.6	0.6				●	
	D-SPGX030306-GR	6.0	2.6	0.6		高进给			●
04	D-SPGX040305-GM	7.4	2.8	0.5	中等进给	●	●		
	D-SPGX040307-LM	7.4	2.8	0.7			●		
	D-SPGX040307-MS	7.4	2.8	0.7				●	
	D-SPGX040307-GR	7.4	2.8	0.7		高进给			●
05	D-SPGX050305-GM	8.9	3.0	0.5	中等进给	●	●		
	D-SPGX050308-LM	8.9	3.0	0.8			●		
	D-SPGX050308-MS	8.9	3.0	0.8				●	
	D-SPGX050308-GR	8.9	3.0	0.8		高进给			●
06	D-SPGX060406-GM	10.7	3.5	0.6	中等进给	●	●		
	D-SPGX060408-LM	10.7	3.5	0.8			●		
	D-SPGX060408-MS	10.7	3.5	0.8				●	
	D-SPGX060410-GR	10.7	3.5	1.0		高进给			●
07	D-SPGX070406-GM	12.7	4.0	0.6	中等进给	●	●		
	D-SPGX070410-LM	12.7	4.0	1.0			●		
	D-SPGX070410-MS	12.7	4.0	1.0				●	
	D-SPGX070412-GR	12.7	4.0	1.2		高进给			●
08	D-SPGX080508-GM	15.5	4.5	0.8	中等进给	●	●		
	D-SPGX080510-LM	15.5	4.5	1.0			●		
	D-SPGX080510-MS	15.5	4.5	1.0				●	
	D-SPGX080512-GR	15.5	4.5	1.2		高进给			●
09	D-SPGX090608-GM	18.6	5.5	0.8	中等进给	●	●		
	D-SPGX090610-LM	18.6	5.5	1.0			●		
	D-SPGX090610-MS	18.6	5.5	1.0				●	
	D-SPGX090612-GR	18.6	5.5	1.2		高进给			●

YLMD MAX DRILL

YLMD 带定心大直径快速钻



型號 Specification/Item	尺寸 Size					內刀片座螺絲		外刀片座螺絲		適用刀片 Insert	螺釘 Screw	扳手 Wrench	定位塊/螺絲		中心鑽 Pilot Drill		中心鑽(螺絲)	
	Dc	ds	Ls	L	Li	鎖緊	梅花	鎖緊	調節				型號	鎖緊	鎖緊	調節	鎖緊	調節
YLMD-045050-C18	45-50	18	40	55	1.8	M4	M5	M6	M3	WC..030204	M2.5*8		FMB22	M4	PLD1035	M8	M5	
YLMD-050055-C18	50-55	18	40	55	1.8	M4	M6	M6	M3				FMB22	M4		M8	M5	
YLMD-055080-C18	55-60	18	40	55	1.8	M4	M6	M6	M3	WC..050308	M3*8		FMB22	M4	PLD1238	M8	M5	
YLMD-060085-C22	60-65	22	46	60	1.8	M4	M6	M6	M3				FMB22	M4		M8	M5	
YLMD-066070-C22	65-70	22	46	60	1.8	M4	M5	M5	M3	WC..06T308	M3.5*8		FMB22	M4	PLD1645	M10	M6	
YLMD-070075-C22	70-75	22	46	60	1.8	M4	M5	M5	M3				FMB22	M4		M10	M6	
YLMD-076080-C28	75-80	28	50	65	2.2	M5	M6	M6	M3	WC..06T308	M3.5*8		FMB22	M4	PLD1645	M10	M6	
YLMD-080085-C28	80-85	28	50	65	2.2	M5	M6	M6	M3				FMB22	M4		M10	M6	
YLMD-085090-C28	85-90	28	50	65	2.2	M5	M6	M6	M3	WC..050308	M3*8	T8	FMB22	M4	PLD2045	M10	M6	
YLMD-080095-C28	90-95	28	50	65	2.2	M5	M6	M6	M3				FMB22	M4		M10	M6	
YLMD-085100-C28	95-100	28	50	65	2.2	M5	M6	M6	M3	WC..050308	M3*8		FMB27	M6	PLD2045	M12	M8	
YLMD-100105-C36	100-105	36	55	75	2.4	M5	M6	M6	M3				FMB27	M6		M12	M8	
YLMD-105110-C36	105-110	36	55	75	2.4	M5	M6	M6	M3	WC..06T308	M3.5*8		FMB27	M6	PLD2045	M12	M8	
YLMD-110115-C36	110-115	36	55	75	2.4	M5	M6	M6	M3				FMB27	M6		M12	M8	
YLMD-116120-C40	115-120	36	55	75	2.4	M5	M6	M6	M3	WC..06T308	M3.5*8		FMB32	M6	PLD2045	M12	M8	
YLMD-120125-C40	120-125	36	55	75	3.2	M5	M6	M6	M3				FMB32	M6		M12	M8	
YLMD-126130-C40	125-130	36	55	75	3.2	M5	M6	M6	M3	WC..06T308	M3.5*8		FMB32	M6	PLD2045	M12	M8	
YLMD-130135-C40	130-135	36	55	75	3.2	M5	M6	M6	M3				FMB32	M6		M12	M8	
YLMD-135140-C40	135-140	36	55	75	3.2	M5	M6	M6	M3	WC..080408	M3.5*8		FMB32	M6	PLD2656	M12	M8	
YLMD-140150-C50	140-150	50	80	80	3.2	M5	M6	M6	M3				FMB40	M6		M12	M8	
YLMD-150160-C50	150-160	50	80	80	3.2	M5	M6	M6	M3	WC..080408	M3.5*8		FMB40	M6	PLD2656	M12	M8	
YLMD-160170-C50	160-170	50	80	80	3.2	M5	M6	M6	M3				FMB40	M6		M12	M8	
YLMD-170180-C50	170-180	50	80	80	3.2	M5	M6	M6	M3				FMB40	M6		M12	M8	

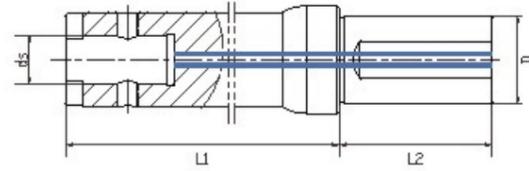


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刀片系列
粗镗刀系列
精镗刀系列
镗刀柄系列
小力夹系列
镗刀倒角系列
铣刀系列

YLMD HOLDER & PILOT DRILL

YLMD刀柄&中心钻

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粗镗刀系列
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镗刀柄系列
小刀夹系列
镗刀倒角系列
铣刀系列



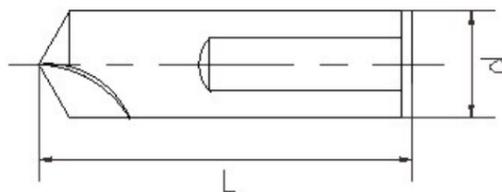
型號 Specification/Item	數據 Data			
	D	L2	L1	ds
C40-D22-125	40	70	125	22
C40-D22-165	40	70	165	22
C40-D22-205	40	70	205	22
C40-D28-125	40	70	125	28
C40-D28-165	40	70	165	28
C40-D28-205	40	70	205	28
C40-D28-265	40	70	265	28
C40-D28-305	40	70	305	28
C40-D28-365	40	70	365	28
C40-D28-400	40	70	400	28
C40-D36-125	40	70	125	36
C40-D36-165	40	70	165	36
C40-D36-205	40	70	205	36
C40-D36-255	40	70	255	36

型號 Specification/Item	數據 Data			
	D	L2	L1	ds
C40-D36-305	40	70	305	36
C40-D36-365	40	70	365	36
C40-D36-400	40	70	400	36
C40-D40-125	40	70	125	40
C40-D40-165	40	70	165	40
C40-D40-205	40	70	205	40
C40-D40-255	40	70	255	40
C40-D40-305	40	70	305	40
C40-D40-365	40	70	365	40
C40-D40-400	40	70	400	40
C50-D60-165	50	80	165	50
C50-D60-205	50	80	205	50
C50-D50-265	50	80	265	50
C50-D50-305	50	80	305	50

▲ 使用时要堵住螺紋孔，防止漏水。
使用內冷時，請用堵頭堵住出水孔。
Plug the thread hole when using to prevent water leakage. When using internal cooling, plug the water outlet hole with a plug



◎ 中心鑽 PILOT DRILL



◎ The hole tolerance of U Drill

Dia	2XD	3XD	4XD
13-21.5	-0.1~+0.15	-0.1~+0.15	-0.15~+0.2
22-50	-0.1~+0.15	-0.12~+0.2	-0.15~+0.25
50-80	-0.15~+0.2	-0.15~+0.25	-0.15~+0.3

型號 Specification/Item	數據 Data	
	D	L
PLD-0620	06	20
PLD-0630	06	30
PLD-0835	08	35
PLD-1035	10	35
PLD-1238	12	38
PLD-1645	16	45
PLD-2045	20	45
PLD-2558	25	58



InDexable Insert Drill Cutting Condition

U钻切削条件表

加工状况良好，切削参数可增加1.5-2倍

推荐切削条件 (2D~3D) Recommended Cutting Conditions (2D~3D)

(下限值 - 推荐值 - 上限值)

Minimum value - Recommended value - Maximum value

	被加工材料 Work Material	工件硬度 Hardness of Workpiece HB	推荐 断屑槽 Recommended Chipbreaker	推荐刀片 材质 Recommended Insert Grade	Vc切削速度 Cutting Speed (m/min)	F进给量 Feed Rate (mm/rev)						
						φ13.0-φ18.0	φ18.5-φ28.0	φ29.5-φ36.0	φ37.0-φ55.0	φ56.0-φ68.0		
P	钢 Carbon Steel	A3钢/SS400	125	G	ACP300	105-155-205	0.04-0.07-0.09	0.04-0.07-0.09	0.04-0.07-0.10	0.04-0.07-0.11	0.05-0.08-0.12	
	"	15#钢/S15C	125	L	ACP300	115-145-190	0.03-0.07-0.11	0.03-0.07-0.11	0.03-0.07-0.12	0.05-0.10-0.14	0.06-0.11-0.16	
	"	45#钢/S45C Hardened	190	G	ACP300	85-130-170	0.07-0.12-0.22	0.07-0.12-0.22	0.07-0.13-0.24	0.08-0.15-0.27	0.09-0.16-0.30	
	"	45#钢淬火/S45C	260	G	ACP300	70-105-140	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22	
	"	60#钢/S75C	270	G	ACP300	85-115-140	0.07-0.12-0.20	0.07-0.12-0.20	0.07-0.13-0.21	0.08-0.15-0.24	0.09-0.16-0.27	
	"	60#钢淬火/S75C Hardened	300	G	ACP300	80-85-120	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20	
	M	低合金钢 Low Alloy Steel	20mm-42mm SCM, SNCM	180	L	ACP300	85-120-155	0.04-0.08-0.13	0.04-0.07-0.13	0.04-0.07-0.15	0.05-0.08-0.16	0.06-0.09-0.18
		"	20mm-42mm 淬火 SCM, SNCM Hardened	275	G	ACP300	70-105-140	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		"	20mm-42mm 淬火 SCM, SNCM Hardened	300	G	ACP300	85-95-120	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		"	20mm-42mm 淬火 SCM, SNCM Hardened	350	G	ACP300	65-75-95	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20
		"	高合金钢 High Alloy Steel	高速钢合金工具钢 SKD51, SKD52, SKD53, SKD54	200	G	ACP300	85-115-140	0.07-0.12-0.22	0.07-0.12-0.22	0.07-0.13-0.24	0.08-0.15-0.27
	K	铸铁 Cast Iron	405-440及其系 (马氏体系硬铸铁类) SUS405 and other's Martensite Family	200	G	ACP300	85-120-155	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.08-0.13-0.22
"		405-440及其系 马氏体系 (淬火) SUS405 and other's Martensite Family (Hardened)	240	G	ACP300	80-105-130	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.08-0.13-0.22	
"		304-316 奥氏体系 SUS304, SUS316 Austenitic	180	G	ACP300	85-120-155	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.08-0.13-0.22	
S	球墨铸铁 Ductile Cast Iron		H	ACK300	105-140-170	0.09-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45		
	球墨铸铁 Ductile Cast Iron		H	ACK300	80-105-130	0.08-0.19-0.30	0.09-0.20-0.34	0.10-0.22-0.37	0.11-0.24-0.41	0.12-0.27-0.45		
N	难削材 (耐热合金、超合金、钛合金等) Exotic Alloy (Heat Resistant Alloy, super Alloy, Ti Alloy, etc.)		G	ACP300	25-45-60	0.05-0.10-0.17	0.05-0.10-0.17	0.05-0.11-0.18	0.06-0.12-0.20	0.07-0.13-0.22		
	铝合金 Aluminum Alloy		G	DL1500	170-225-275	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20		
N	铜合金 Copper Alloy		G	DL1500	165-200-240	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20		

It is the first recommended insert grades for P and K. In such cases, Please use a cutting speed vc of 130% in the table above and a feed rate of 75% for the recommended cutting conditions.

	被加工材料 Work Material	工件硬度 Hardness of Workpiece HB	推荐 断屑槽 Recommended Chipbreaker	推荐刀片 材质 Recommended Insert Grade	Vc切削速度 Cutting Speed (m/min)	F进给量 Feed Rate (mm/rev)						
						φ13.0-φ18.0	φ18.5-φ28.0	φ29.5-φ36.0	φ37.0-φ55.0	φ56.0-φ68.0		
P	钢 Carbon Steel	A3钢/SS400	125	G	ACP300	105-155-205	0.04-0.08-0.09	0.04-0.08-0.09	0.04-0.07-0.10	0.04-0.07-0.11	0.05-0.09-0.12	
	"	15#钢/S15C	125	L	ACP300	115-145-190	0.03-0.06-0.09	0.03-0.06-0.09	0.03-0.07-0.10	0.04-0.08-0.11	0.05-0.09-0.12	
	"	45#钢/S45C Hardened	190	G	ACP300	85-130-170	0.07-0.11-0.19	0.07-0.11-0.19	0.07-0.12-0.20	0.08-0.13-0.22	0.09-0.15-0.25	
	"	45#钢淬火/S45C	250	G	ACP300	70-105-140	0.06-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19	
	"	60#钢/S75C	270	G	ACP300	85-115-140	0.08-0.11-0.17	0.07-0.11-0.17	0.07-0.12-0.18	0.08-0.13-0.20	0.09-0.15-0.22	
	"	60#钢淬火/S75C Hardened	300	G	ACP300	80-85-120	0.06-0.09-0.13	0.05-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18	
	M	低合金钢 Low Alloy Steel	20mm-42mm SCM, SNCM	180	L	ACP300	85-120-155	0.04-0.08-0.11	0.04-0.08-0.11	0.04-0.07-0.12	0.05-0.07-0.14	0.06-0.09-0.16
		"	20mm-42mm 淬火 SCM, SNCM Hardened	275	G	ACP300	70-105-140	0.05-0.09-0.13	0.05-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18
		"	20mm-42mm 淬火 SCM, SNCM Hardened	300	G	ACP300	85-95-120	0.05-0.09-0.13	0.05-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18
		"	20mm-42mm 淬火 SCM, SNCM Hardened	350	G	ACP300	65-75-95	0.05-0.09-0.13	0.05-0.09-0.13	0.05-0.10-0.14	0.06-0.11-0.16	0.07-0.12-0.18
		"	高合金钢 High Alloy Steel	高速钢合金工具钢 SKD51, SKD52, SKD53, SKD54	200	G	ACP300	85-115-140	0.07-0.11-0.19	0.07-0.11-0.19	0.07-0.12-0.20	0.08-0.13-0.22
	K	铸铁 Cast Iron	405-440及其系 (马氏体系硬铸铁类) SUS405 and other's Martensite Family	200	G	ACP300	85-120-155	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19
"		405-440及其系 马氏体系 (淬火) SUS405 and other's Martensite Family (Hardened)	240	G	ACP300	80-105-130	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19	
"		304-316 奥氏体系 SUS304, SUS316 Austenitic	180	G	ACP300	85-120-155	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19	
S	球墨铸铁 Ductile Cast Iron		H	ACK300	105-140-170	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38		
	球墨铸铁 Ductile Cast Iron		H	ACK300	80-105-130	0.08-0.17-0.25	0.09-0.19-0.28	0.10-0.20-0.30	0.11-0.22-0.34	0.12-0.24-0.38		
N	难削材 (耐热合金、超合金、钛合金等) Exotic Alloy (Heat Resistant Alloy, super Alloy, Ti Alloy, etc.)		G	ACP300	25-45-60	0.05-0.09-0.14	0.05-0.09-0.14	0.05-0.10-0.15	0.06-0.11-0.17	0.07-0.12-0.19		
	铝合金 Aluminum Alloy		G	DL1500	170-225-275	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20		
N	铜合金 Copper Alloy		G	DL1500	165-200-240	0.05-0.10-0.16	0.05-0.10-0.16	0.05-0.11-0.17	0.06-0.12-0.19	0.07-0.13-0.20		

It is the first recommended insert grades for P and K. In such cases, Please use a cutting speed vc of 130% in the table above and a feed rate of 75% for the recommended cutting conditions.

InDexable Insert Drill Cutting Condition

U钻切削条件表

加工状况良好，切削参数可增加1.5-2倍

推荐切削条件 (4D~5D) Recommended Cutting Conditions (4D~5D)

(下限值 - 推荐值 - 上限值)

Minimum value - Recommended value - Maximum value

	被加工材料 Work Material	工件硬度 Hardness of Workpiece HB	推荐 断屑槽 Recommended Chipbreaker	推荐刀片 材质 Recommended Insert Grade	Vc切削速度 Cutting Speed (m/min)	F进给量 Feed Rate (mm/rev)						
						φ13.0-φ18.0	φ18.5-φ28.0	φ29.5-φ36.0	φ37.0-φ55.0	φ56.0-φ68.0		
P	钢 Carbon Steel	A3钢/SS400	125	G	ACP300	105-155-205	0.04-0.06-0.09	0.04-0.06-0.09	0.04-0.06-0.09	0.04-0.07-0.09	0.05-0.08-0.10	
	"	15#钢/S15C	125	L	ACP300	115-145-190	0.03-0.06-0.08	0.03-0.06-0.08	0.03-0.06-0.08	0.04-0.07-0.09	0.05-0.08-0.10	
	"	45#钢/S45C Hardened	190	G	ACP300	85-130-170	0.07-0.10-0.18	0.07-0.10-0.18	0.07-0.11-0.17	0.08-0.12-0.20	0.09-0.14-0.21	
	"	45#钢淬火/S45C	250	G	ACP300	70-105-140	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16	
	"	60#钢/S75C	270	G	ACP300	85-115-140	0.07-0.10-0.14	0.07-0.10-0.14	0.07-0.11-0.16	0.08-0.12-0.18	0.09-0.14-0.19	
	"	60#钢淬火/S75C Hardened	300	G	ACP300	80-85-120	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.16	
	M	低合金钢 Low Alloy Steel	20mm-42mm SCM, SNCM	180	L	ACP300	85-120-155	0.04-0.08-0.09	0.04-0.08-0.09	0.04-0.08-0.10	0.05-0.07-0.11	0.06-0.09-0.13
		"	20mm-42mm 淬火 SCM, SNCM Hardened	275	G	ACP300	70-105-140	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.16
		"	20mm-42mm 淬火 SCM, SNCM Hardened	300	G	ACP300	85-95-120	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.16
		"	20mm-42mm 淬火 SCM, SNCM Hardened	350	G	ACP300	65-75-95	0.05-0.09-0.11	0.05-0.09-0.11	0.05-0.09-0.12	0.06-0.10-0.13	0.07-0.11-0.16
		"	高合金钢 High Alloy Steel	高速钢合金工具钢 SKD51, SKD52, SKD53, SKD54	200	G	ACP300	85-115-140	0.07-0.10-0.18	0.07-0.10-0.18	0.07-0.11-0.17	0.08-0.13-0.20
	K	铸铁 Cast Iron	405-440及其系 (马氏体系硬铸铁类) SUS405 and other's Martensite Family	200	G	ACP300	85-120-155	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16
"		405-440及其系 马氏体系 (淬火) SUS405 and other's Martensite Family (Hardened)	240	G	ACP300	80-105-130	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16	
"		304-316 奥氏体系 SUS304, SUS316 Austenitic	180	G	ACP300	85-120-155	0.05-0.09-0.12	0.05-0.09-0.12	0.05-0.09-0.13	0.06-0.10-0.14	0.07-0.11-0.16	
S	球墨铸铁 Ductile Cast Iron		H	ACK300	105-140-170	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32		
	球墨铸铁 Ductile Cast Iron		H	ACK300	80-105-130	0.08-0.16-0.21	0.09-0.18-0.24	0.10-0.20-0.26	0.11-0.21-0.29	0.12-0.23-0.32		
N	难削材 (耐热合金、超合金、钛合金等) Exotic Alloy (Heat Resistant Alloy, super Alloy, Ti Alloy, etc.)		G	ACP300	25-45-60	0.06-0.10-0.13	0.06-0.10-0.13	0.06-0.10-0.13	0.06-0.10-0.14	0.07-0.11-0.16		
	铝合金 Aluminum Alloy		G	DL1500	170-225-275	0.04-0.08-0.14	0.04-0.08-0.14	0.05-0.09-0.15	0.05-0.11-0.17	0.06-0.12-0.19		
N	铜合金 Copper Alloy		G	DL1500	165-200-240	0.04-0.08-0.14	0.04-0.08-0.14	0.05-0.09-0.15	0.05-0.11-0.17	0.06-0.12-0.19		

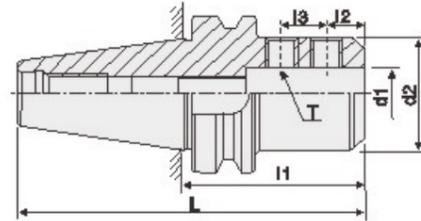
It is the first recommended insert grades for P and K. In such cases, Please use a cutting speed vc of 130% in the table above and a feed rate of 75% for the recommended cutting conditions.

	被加工材料 Work Material	工件硬度 Hardness of Workpiece HB	推荐 断屑槽 Recommended Chipbreaker	推荐刀片 材质 Recommended Insert Grade	Vc切削速度 Cutting Speed (m/min)	F进给量 Feed Rate (mm/rev)					
						φ13.0-φ18.0	φ18.5-φ28.0	φ29.5-φ36.0	φ37.0-φ55.0	φ56.0-φ68.0	
P	钢 Carbon Steel	A3钢/SS400	125	G	ACP300	105-155-205	0.04-0.05-0.08	0.04-0.05-0.08	0.04-0.05-0.08	0.04-0.06-0.08	
	"	15#钢/S15C	125	L	ACP300	115-145-190	0.03-0.05-0.07	0.03-0.05-0.07	0.03-0.05-0.07	0.04-0.06-0.08	
	"										

Weldon Tool Holder 側固式刀柄

Morse Taper Shank 莫氏CKB系列鏜刀柄

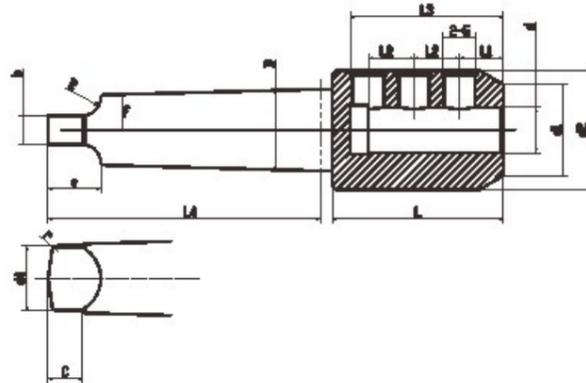
BT-SLA Weldon Tool Holder BT-SLA側固式刀柄



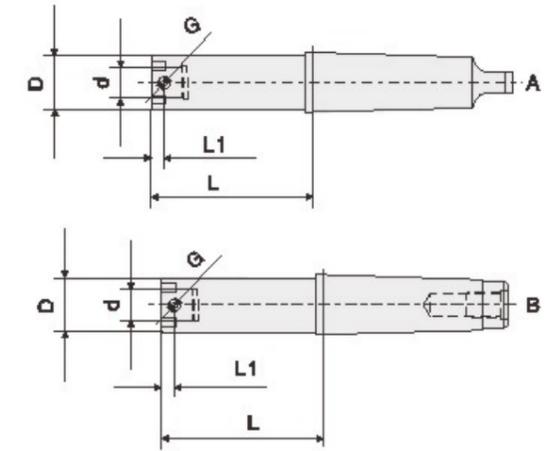
型號Cat.No		d1	d2	l1	l2	l3	T
BT40	-SLA20-75	20	52	75	25	20	M16×2.0P
	-SLA25-90	25	65	90	30	22	
	-SLA32-90	32	72		30	22	
	-SLA40-100	40	90	100	35	25	
BT60	-SLA20-90	20	52	90	25	20	M16×2.0P
	-SLA25-105	25	60	105	30	22	M16×2.0P
	-SLA32-105	32	63	105	30	22	M16×2.0P
	-SLA40-105	40	78/90	105	35	25	M16×2.0P

*非標件可訂製 Non-standard parts can be ordered

Morse Tap Holder 莫氏側固式刀柄



規格型號	尺寸	D	d	d1	d2	d4	G	F	b	C	e	L	L1	L2	L3	L4	R	r
MTA4-SLA25-80		31.27	25	38	55	24.5	M14	1:19.25	11.9	16	24	100	24	25	82	117.5	8	2.5
MTA4-SLA32-85		31.27	32	45	65	24.5	M14	1:19.25	11.9	16	24	105	24	28	86	117.5	8	2.5
MTA4-SLA40-95		31.27	40	55	75	24.5	M14	1:19.25	11.9	16	24	115	30	32	98	117.5	8	2.5
MTA5-SLA25-80		44.40	25	38	55	35.7	M14	1:19.0	15.9	19	29	100	24	25	82	149.5	12	3
MTA5-SLA32-85		44.40	32	45	65	35.7	M14	1:19.0	15.9	19	29	105	24	28	86	149.5	12	3
MTA5-SLA40-95		44.40	40	55	75	35.7	M14	1:19.0	15.9	19	29	115	30	32	98	149.5	12	3



型號 Specification	Figure	L	L1	D	d	G
MTA3-CKB1-80	A	80	5.05	19	11	M4X0.5
MTB3-CKB2-80		80	6.65	24	14	M6X0.5
MTA4-CKB3-100		100	8.05	31	18	M6X0.75
MTA4-CKB4-100		100	10.05	39	22	M8X0.75
MTA4-CKB5-100		100	13.05	49	28	M10X1
MTA4-CKB6-100		100	16.05	63	36	M12X1
MTA5-CKB4-100		100	10.05	39	22	M8X0.75
MTA5-CKB5-100		100	13.05	49	28	M10X1
MTA5-CKB6-100		100	16.05	63	36	M12X1
MTB3-CKB1-80		B	80	5.05	19	11
MTB3-CKB2-80	80		6.65	24	14	M6X0.5
MTB4-CKB3-100	100		8.05	31	18	M6X0.75
MTB4-CKB4-100	100		10.05	39	22	M8X0.75
MTB4-CKB5-100	100		13.05	49	28	M10X1
MTB4-CKB6-100	100		16.05	63	36	M12X1
MTB5-CKB4-100	100		10.05	39	22	M8X0.75
MTB5-CKB5-100	100		13.05	49	28	M10X1
MTB5-CKB6-100	100		16.05	63	36	M12X1

Application	Angled Surface	Half Cylindrical	Pre-cast Hole	Intersecting Holes	Boring	External Turning	Laminated Plates	Back Boring
Feed Rate(f) mm/rev	0.05	0.05	0.08	0.05	0.1	0.1	Not applicable	Not applicable

S
O
W
C
S
P
P
D
L
W
D
X
刀柄系列
刀片系列
粗鏜刀系列
精鏜刀系列
鏜刀柄系列
小力夾系列
鏜刀倒角鏜系列
CNC系列槽銑刀

S
O
W
C
S
P
P
D
L
W
D
X
刀柄系列
刀片系列
粗鏜刀系列
精鏜刀系列
鏜刀柄系列
小力夾系列
鏜刀倒角鏜系列
CNC系列槽銑刀

Indexable Insert Drill Cutting Condition 孔加工的计算式

Indexable Insert Recommend U钻适配刀片推荐表

轉速 (N)

$$N = \frac{V_c}{\pi \times D1} \times 1000 (\text{m/min})$$

*用1000去除，為將mm換算成m



V_c (m/min): 切削速度
 π (3.14): 圓周率
 $D1$ (mm): 鑽頭直徑
 N : 主軸轉速

(例題) 切削速度 $V_c=130\text{m/min}$ 鑽頭直徑 $\phi 25$ 求轉速 (N)

(答) 將 $\pi=3.14$, $D1=25$, $V_c=130$ 代入公式,
$$N = \frac{130}{3.14 \times 25} \times 1000 = 1656 \text{r/min}$$

據此, 得出轉速為 1656r/min。

主軸進給量 (Vf)

$$V_f = f \cdot n (\text{mm/min})$$



V_f (mm/min): 主軸 (Z軸) 進給速度
 f (mm/rev): 每轉進給量
 n (min⁻¹): 主軸轉速

(例題) 每轉進給量為 0.2mm/rev 轉速為 1350min⁻¹ 求主軸進給速度

(答) 代入公式
$$V_f = f \cdot n = 0.2 \times 1350 = 270 \text{mm/min}$$

由此得出主軸每分鐘進給量為 270mm/min

孔加工時間 (Tc)

$$T_c = \frac{ld \cdot i}{n \cdot f}$$



T_c (min): 加工時間
 n (min⁻¹): 主軸轉速
 ld (mm): 鑽孔深
 f (mm/rev): 每轉進給量
 i : 孔數

(例題) 在 SCM440 鋼上鑽 $\phi 15$, 深 30mm 的孔。切削速度為 50m/min, 每轉進給量為 0.15mm/rev, 求鑽削時間

(答) 主軸轉速 $n = \frac{50 \times 1000}{15 \times 3.14} = 1061.57 \text{min}^{-1}$
$$T_c = \frac{30 \times 1}{1061.57 \times 0.15} = 0.188$$

 $= 0.188 \times 60 \approx 11.3$ 秒可鑽削完畢

● Cutting speed (Vc)

$$V_c = \frac{Dc \times \pi \times n}{1000}$$

V_c (m/min): cutting speed
 Dc (mm): drill diameter
 n (rev/min): rotating speed

◆ Example
Spindle speed is 1600 rev/min. Drill diameter is 20 mm, thus cutting speed is:

$$V_c = \frac{Dc \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100 (\text{m/min})$$

● Machining time

$$T_c = \frac{ld \times i}{n \times f}$$

T_c (min): machining time
 f (mm/rev): feed rate per revolution
 i : number of holes
 ld (mm): drilling depth
 n (rev/min): spindle speed

◆ Example
Drilling a hole with a diameter of 20 mm and a depth of 40 mm, cutting speed is 100m/min and feed rate per revolution is 0.1mm/rev. Calculate the drilling time.

$$n = \frac{V_c \times 1000}{Dc \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600 (\text{rev/min})$$

$$T_c = \frac{ld \times i}{n \times f} = \frac{40 \times 1}{1600 \times 0.1} = 0.25 (\text{min})$$

● Feed speed

$$V_f = f \times n (\text{mm/min})$$

V_f (mm/min): feed speed
 f (mm/rev): feed rate per revolution
 n (rev/min): spindle speed

◆ Example
Spindle speed is 1500 rev/min, feed rate per revolution is 0.1mm/rev, thus feed speed is:

$$V_f = f \times n = 0.1 \times 1500 = 150 (\text{mm/min})$$

● Metal removal rate

$$Q = \frac{V_f \times \pi \times Dc^2}{4 \times 1000}$$

Q (cm³/min): metal removal rate
 Dc (mm): drill diameter
 V_f (mm/min): feed speed

◆ Example
Drill diameter is 20mm, feed speed is 160mm/rev, thus metal removal rate is:

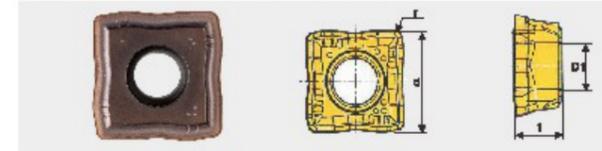
$$Q = \frac{V_f \times \pi \times Dc^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{4 \times 1000} = 50.24 (\text{cm}^3/\text{min})$$

◎ WC系列刀片选型 / WC insert



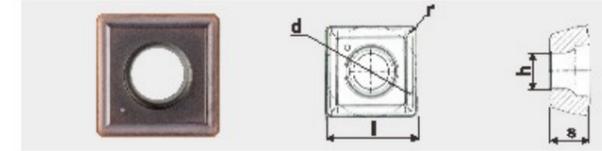
型號 Specification/Item	牌號	基本尺寸(mm)					鑽頭(mm)
		L	LC	s	d	r	
WCMX030208 FN	AZ330	3.8	5.68	2.38	2.8	0.8	15-20.5
WCMX040208 FN	AZ330	4.8	8.86	2.38	3.1	0.8	21-25.5
WCMX050808 FN	AZ330	5.4	7.94	3.18	3.2	0.6	26-30.5
WCMX061308 FN	AZ330	6.6	9.825	3.67	3.7	0.6	31-41
WCMX080412 FN	AZ330	8.7	12.7	4.78	4.3	1.2	42-57

◎ SO系列刀片选型 / SO Insert



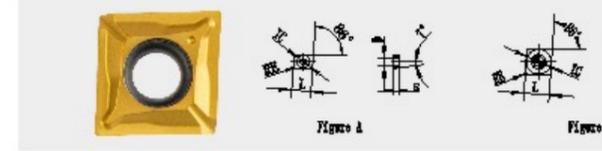
型號 Specification/Item	牌號	規格	Rd (mm)				鑽頭(mm)
			d	t	h	φD1	
SOMT040204 DP	AP9080	04	4.4	2.38	0.40	2.00	
SOMT050204 DP	AP9080	05	4.9	2.38	0.40	2.25	
SOMT060204 DP	AP9080	06	5.7	2.38	0.40	2.50	
SOMT070306 DP	AP9080	07	6.6	2.38	0.80	2.80	
SOMT08T306 DP	AP9080	08	7.9	3.97	0.80	2.85	
SOMT09T308 DP	AP9080	09	9.2	3.97	0.80	3.20	
SOMT11T308 DP	AP9080	11	11	3.97	0.80	3.20	
SOMT130408 DP	AP9080	13	12.8	4.40	0.80	4.40	
SOMT150510 DP	AP9080	15	15	4.80	1.00	5.40	

◎ SP系列刀片选型 / SP Insert

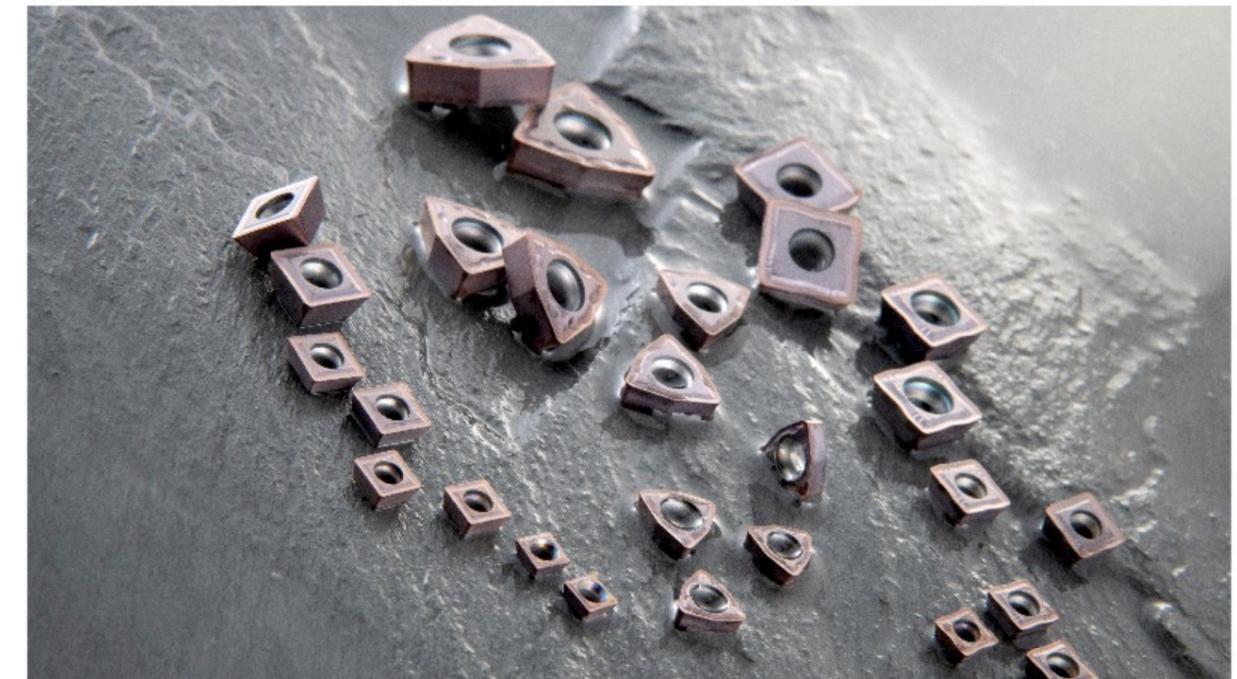


型號 Specification/Item	牌號	Rd (mm)				鑽頭 (mm)
		d	l	R	φD1	
SPGT090104 DG	AT9030	5.62	1.49	0.4	1.65	6.5-9.5
SPGT04T102 DG	AT9030	4.0	1.67	0.2	2.00	10-12.6
SPGT050204 DG	AT9030	5	2.38	0.4	2.3	18-16
SPGT060204 DG	AT9030	6	2.38	0.4	2.3	18-22
SPGT07T308 DG	AT9030	7.94	3.97	0.5	2.65	22-28
SPGT090408 DG	AT9030	9.6	4.3	0.6	4.05	28-38
SPGT110408 DG	AT9030	11.8	4.5	0.5	4.45	37-49
SPGT140512 DG	AT9030	14.3	5.2	1.2	5.63	44-50

◎ XC系列刀片选型 / XC Insert



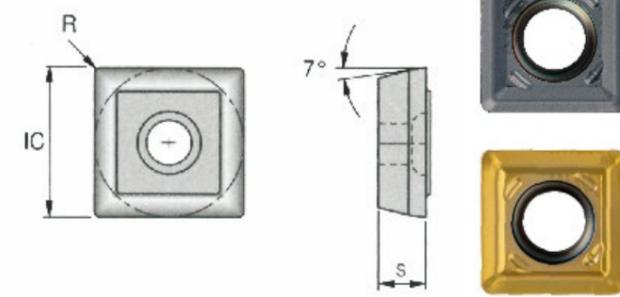
型號 Specification/Item	牌號	基本尺寸 (mm)					Figure	磨刃機 圖號
		IC	L	s	RE	D		
XCMT040104R	TC	4.40	5.40	1.70	0.40	2.10	A	TCAP08R
XCMT050204	TC	5.60	5.80	2.10	0.40	2.30	B	TCAP10R
XCMT060304	TC	6.40	6.40	2.38	0.40	2.60	B	TCAP12R
XCMT070304	TC	7.80	7.80	3.18	0.40	2.80	B	TCAP14R
XCMT080304	TC	8.40	8.40	3.18	0.40	3.40	B	TCAP16R
XCMT10T306	TC	10.60	10.60	3.97	0.80	4.20	B	TCAP20R
XCMT130408	TC	13.40	13.40	4.78	0.80	5.20	B	TCAP28R
XCMT170508	TC	17.40	17.40	5.56	0.80	5.20	B	TCAP32R



Grades and materials:

Material group	Grade
P Steel	YP425
M Stainless steel	YP440
K Cast iron	YP415
S Super alloys	YP440

Geometry:



Spare parts screws:

Insert	Chipbreaker	Key size	IC	S	R
SCLT050204	HC	T6	5.0	2.1	0.4
SCLT06T206	HC	T6	5.8	2.5	0.6
SCLT070308	HC	T8	6.9	3.0	0.8
SCLT080308	HC	T8	8.4	3.5	0.8
SCLT10T308	HC	T15	10.3	4.0	0.8
SCLT110408	HC	T15	11.1	4.4	0.8
SCLT130508	HC	T20	13.3	5.0	0.8

推荐切削参数 RECOMMENDED CUTTING DATA

Material group	Strength Rm(N/mm ²) 强度	Hardness Hb 硬度	Material 材料	Geometry	CTPP425 (M/Min)			CTPP440 (M/Min)			CTPK415 (M/Min)		
					min	opt.	max	min	opt.	max	min	opt.	max
P	1.0	≤500	non-alloy steels非合金钢	_HCD	200	260	320	/	/	/	/	/	/
	2.0	500-900	non-alloy/low alloy steels非合金/低合金钢	_HCD	250	270	300	/	/	/	/	/	/
	2.1	<500	lead alloys铅合金	_HCD	200	260	320	/	/	/	/	/	/
	3.0	>900	low alloy steels;heat resistant structural, heat treated,nitride and tools steels 低合金钢,耐热结构钢,热处理钢,氮化物钢和工具钢	_HCD	140	180	220	/	/	/	/	/	/
	4.0	>900	high alloy steels高合金钢	_HCD	120	160	200	/	/	/	/	/	/
	4.1	/	HSS	_HCD	50	70	90	/	/	/	/	/	/
S	5.0	/	special alloys;Inconel,Hastelloy,Nimonic, stc.特殊合金, 镍基合金, 哈氏合金, nimonic合金	_HCD	/	/	/	20	40	60	/	/	/
	5.1	400	titanium,titanium alloy钛, 钛合金	_HCD	/	/	/	40	60	60	/	/	/
M	6.0	≤600	stainless steels不锈钢	_SCD	/	/	/	140	180	220	/	/	/
	6.1	<900	stainless steels不锈钢	_SCD	/	/	/	120	160	200	/	/	/
	7.0	>900	stainless/ reproof steels不锈钢/再生钢	_SCD	/	/	/	120	160	200	/	/	/
	8.0	/	gray cast iron灰铸铁	_CCD	/	/	/	/	/	/	160	240	320
	8.1	/	alloy gray cast iron合金灰铸铁	_CCD	/	/	/	/	/	/	100	140	180
K	9.0	≤600	spheroidal graphite cast iron,ferritic 球墨铸铁	_CCD	/	/	/	/	/	/	120	160	200
	9.1	/	spheroidal graphite cast iron,ferritic/pearlitic球墨铸铁, 铁素体/珠光体	_CCD	/	/	/	/	/	/	100	140	180
	10.0	>600	spheroidal graphite cast iron,pearlitic malleable iron球墨铸铁, 珠光体可锻铸铁	_CCD	/	/	/	/	/	/	90	120	150
	10.1	/	alloyed spheroidal graphite cast iron 合金球墨铸铁, 石墨铸铁	_CCD	/	/	/	/	/	/	90	120	150
	10.2	/	vermicular cast iron蠕墨铸铁	_CCD	/	/	/	/	/	/	70	100	130

Cutting values shown are relating to the basic recommendations for cutting materials given. 显示的切削值与切削材料的基本建议有关。



大研黄盒acckee yellow box



大研白盒acckee white box



防卡剂anti-seize



扳手(德国威汉) T6/T7/T8/T15 WRENCH(wlha)



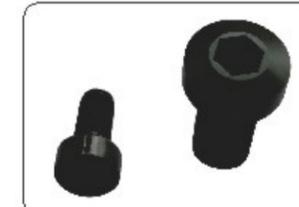
扳手(黑色大研) T6/T7/T8/T15 WRENCH(black acckee)



扳手(德国威汉) PLUS T6/T7/T8/T15 WRENCH(wlha)PLUS



镗刀刀柄侧固螺丝(1-6#) side fastening screw for chuck(1-6#)



压刀片底螺丝(1-6#) cutter block screw(1-6#)



堵头 end cap



粗镗刀配件-粗镗刀压紧杯头螺丝 rough boring head fitting-tightening screws for rough boring head



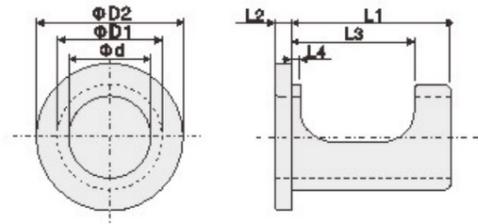
侧固螺丝/精镗球头螺丝 side fastening screw screw for finish boring head



梅花螺丝 screw



SHE型

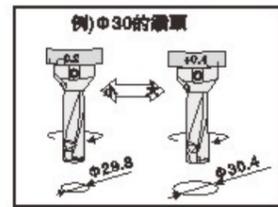


套筒尺寸

型號	庫存	尺寸(mm)							※加工徑調整範圍	中心高調整範圍
		Φd	ΦD1	ΦD2	L1	L2	L3	L4		
SHE2025-43	●	20	25	41	43	4	36	3.0	+0.4~-0.2	+0.2~-0.15
SHE2532-48	●	25	32	49	48	8	36	2.5	+0.4~-0.2	+0.2~-0.15
SHE3240-53	●	32	40	58	53	6	43	2.5	+0.4~-0.2	+0.2~-0.15
SHE4050-63	●	40	50	74	63	6	48	3.0	+0.6~-0.2	+0.2~-0.2

●:標準庫存

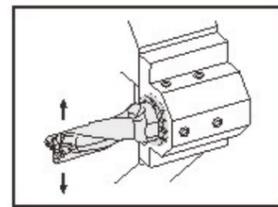
1.加工徑調整~在加工中心上進行偏心加工~



●加工徑調整範圍(mm)

刀杆直徑	調整量
Φ20	+0.4~-0.2
Φ25	
Φ32	
Φ40	+0.6~-0.2

2.調整中心高~在車床上通過調整中心高解決加工故障~



●中心高調整量(mm)

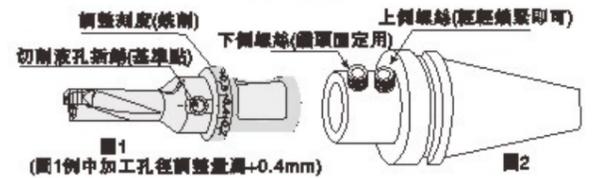
刀杆直徑	調整量
Φ20	+0.2~-0.15
Φ25	
Φ32	
Φ40	+0.3~-0.2

○使用方法

1.調整加工徑時

- 以鑽頭的偏心套筒基準用標示切削液插頭的中央為基準，對準套筒的法蘭外側的調整刻度(參閱圖1)
- 要擴大加工徑時，套筒向(+)方向轉動;要縮小加工徑時，套筒向(-)方向轉動。
- 轉動套筒時，把鑽頭附的扳手插入套筒凸緣上的小孔，即可轉動調整套筒。
- 使用固定式轉把的下側螺絲，從套筒的開口處固定調整螺絲。上側螺絲則在不備及套筒的情況下緊鎖。圖2

- 注意: 1.不可使用彈簧鉗夾固定型刀杆。
2.套筒上的刻度為標準量。調整後檢查實際加工徑。



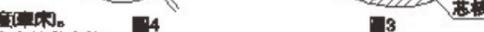
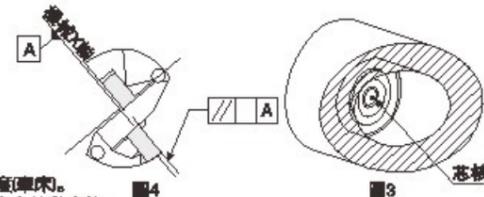
2.調整中心高時

車床上鑽頭加工故障的原因幾乎都是由中心高偏移引起的。芯核的高度是在加工盲孔時，如圖3在被加工孔內側端面的中心處殘留直徑為0.5mm的芯核，則中心高是合適的。

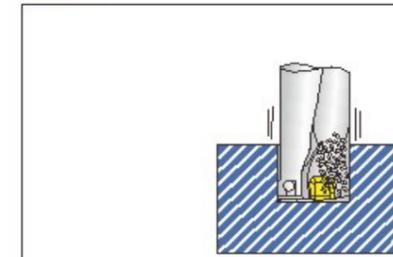
- 完全無芯核殘留 或者 ●直徑大于1mm以上的芯核殘留

- 設定鑽頭外刃與刀具控制機構的傾斜角度成平行狀態。(參閱圖4)
- 以裝在鑽頭法蘭上切削液孔插頭的中央為基準，對準套筒的法蘭端面上的調整刻度(車床)。
- 完全沒有芯核殘留時，向(+)方向轉動套筒;當芯核殘留直徑1mm以上時，向(-)方向轉動套筒。
- 轉動套筒時，把鑽頭的專用扳手插入套筒法蘭外側的孔內，即可轉動調整套筒。
- 用車床上的刀把固定螺絲時，從套筒開口處連接固定鑽頭。

注意: 通過偏心套筒來調整中心高時，加工徑同時會有所變化。設定完畢後，請必須確認孔徑尺寸。



振動



- 檢查鑽頭的安裝。
- 檢查工件的安裝。
- 提高進給量。如果是非常軟的材料，降低進給量并提高切削速度。
- 降低切削速度。

扭矩不足

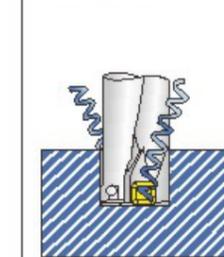
- 降低進給量。
- 選擇用于較低進給量的針對更硬材料斷屑的槽型。

功率不足

- 降低切削速度。
- 降低進給量。
- 選擇用于較低進給量的針對更硬材料斷屑的槽型。(SCGX-P1)

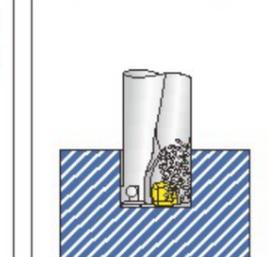
切屑堵塞問題

長切屑引起的切屑堵塞



- 提高進給量。如果是非常軟的材料，降低進給量并提高切削速度。
- 選擇用于較高進給量的針對更軟材料斷屑的槽型。(SCGX-P1)

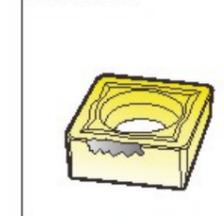
盡管是短切屑，切屑仍堵塞



- 提高冷卻液壓力/流量。
- 降低切削速度。

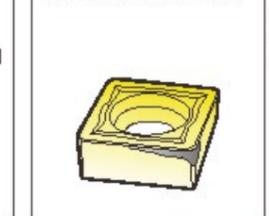
刀具壽命問題

外緣刀片微崩



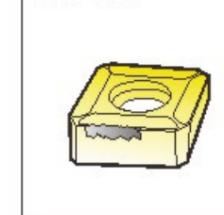
- 降低入口處的進給量。
- 選擇韌性更好的材質等級。
- 選擇用于較高進給量的針對更軟材料斷屑的槽型。(SCGX-P2)
- 降低進給量。
- 降低切削速度。

外緣刀片後刀面磨損太快



- 降低切削速度。
- 提高冷卻液壓力/流量。
- 選擇韌性更好的材質等級。

中心刀片微崩



- 檢查鑽頭的安裝。
- 檢查工件的安裝。
- 降低入口處的進給量。
- 提高進給量。
- 降低切削速度。

Lathe Machining Guidelines



Drill Installation

- ★Set the drill so that the peripheral insert is parallel to X axis of the machine (Fig.1).
- ★Fasten the bolt while the holder edge and the flange edge of the drill are closely attached.

Adjustment of machining diameter

- ★Machining diameter can be adjusted by moving X axis of the machine.
- ★It is always recommended that X axis is moved to positive (direction to expand the inner diameter). Negative direction (direction to shrink the inner diameter) is not recommended because the holder may interfere with (scrap) the machined Hole (Refer to Fig.1).
- ★The maximum adjustment (offset) varies depending on the drill diameter. Refer to the chart "Maximum offset distance in the radius direction" on p.8-15.

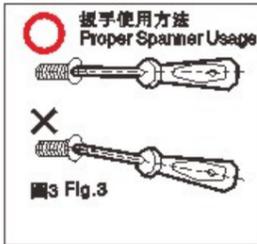


Other important notes

- ★When the drill is mounted on a lathe, the core height of the central insert is desired to be 0.15-0.2mm lower than the center of the main axis.
- ★It is reminded that if the main axis is largely misaligned and central insert is higher than the center of the main axis, the central insert may be damaged.
- ★In case of external machining or inner boring machining, the cut depth shall be set to 1/5 or less than the drill diameter (Maximum 5mm or less). (Example: When the drill diameter is φ20, the cut depth is 4mm or less).
- ★When cutting off the material with a lathe, discoid chips (Fig. 2) created during machining may scatter. If the machine is not equipped with a cover, please install a cover protection to prevent danger.

Notes on attaching and detaching inserts

- ★Before installing an insert, use an air dust blower to remove foreign particles present on the insert base.
- ★Spanner axis and screw axis shall be aligned and press the spanner while turning (See Fig.3)
- ★If the spanner axis is not aligned, the chip may not be clamped properly and the spanner edge and torx hole may deform. When the insert is mounted on the chip base, please confirm that there is no clearance between the insert base and the flute (Fig. 4, A).
- ★The appropriate images of the inserted chip are shown in Fig. 4.
- ★If there is no problem if there is clearance on the external face of the central insert as the clamping surface is inside and back of the insert.



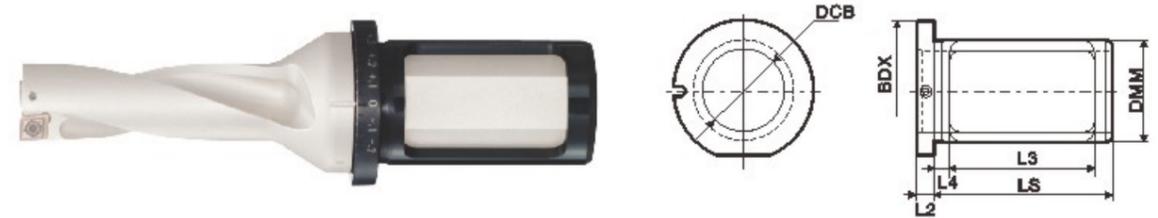
故障状况	现象	原因	对策
加工孔径的变化大	加工孔径大于目标值	◆轴向抗力增大, 刀杆弯曲	◆降低进给抗力, 降低进给速度。 ◆在X轴方向上进行调整。
	加工孔径小于目标值	◆刃尖不能咬住工件, 使工件上滑	◆提高进给速度。 ◆在X轴方向上进行调整。
	孔的入口和内部的孔径差较大	◆切削堵塞	◆提高进给速度, 增强切屑排出性能。 ◆使用切屑清除型L型切屑清除器。
加工孔表面不良	加工孔入口到内部的表面不良	◆切削阻力大 ◆工件刚性低	◆降低进给速度。 ◆调整加工形式, 提高刚性。
	加工孔内部表面不良	◆因切削原因加工面受到损伤	◆提高进给速度, 增强切屑排出性能。 ◆使用切屑清除型L型切屑清除器。
刀片缺损	中心刃中部缺损	◆切削速度不良 ◆刀片速度不足	◆调整切削速度。 ◆在车床上使用时, 请调整可旋转180° 后再安装。 ◆使用刀尖强化型L型切屑清除器。
	外周刃缺损	◆刃尖的加工负荷高	◆降低加工负荷, 降低进给速度。 ◆使用刀尖强化型L型切屑清除器。

Troubleshooting

Problem	Symptom	Cause	Countermeasures
Too much variation in hole diameter	Drilled hole is larger than desired	Deflection of the holder due to high thrust force	Decrease the feed rate to decrease the thrust force. Make an adjustment on the X axis.
	Drilled hole is smaller than desired	The cutting edge does not enter into the workpiece but bunks off	Increase the feed rate. Make an adjustment on the X axis.
	Pronounced difference in hole size at entrance and bottom	Packing of Chips	Increase the feed rate to improve chip evacuation. Use L type chipbreaker. (See P.6)
Poor or rough drilled hole surface	Poor drilled surface from entrance to bottom of hole	High cutting resistance Low rigidity of workpiece	Decrease the feed rate. Review tooling to improve rigidity.
	poor drilled surface at bottom of hole	Machined surfaces damaged by chips	Increase the feed rate to improve chip evacuation. Use L type chipbreaker. (See P. 6).
Insert breakage	Breakage on central insert (centre)	Improper adjustment of centre height Insert too weak	Adjust the height of the insert. If the drill is being used on a lathe, try flipping the drill 180° . Use a strong edge chipbreaker H type.
	Breakage on outer insert	High cutting load in cutting edge	Decrease the feed rate to decrease cutting load. Use a strong edge chipbreaker H type.

Decentered sleeve WAS Type

Using Drill specialized for WDX Type, decentered sleeve "WAS Type" the size of machining hole can be adjusted ±3mm.



本體Body (WAS型 WAS Type)

Dimensions:mm

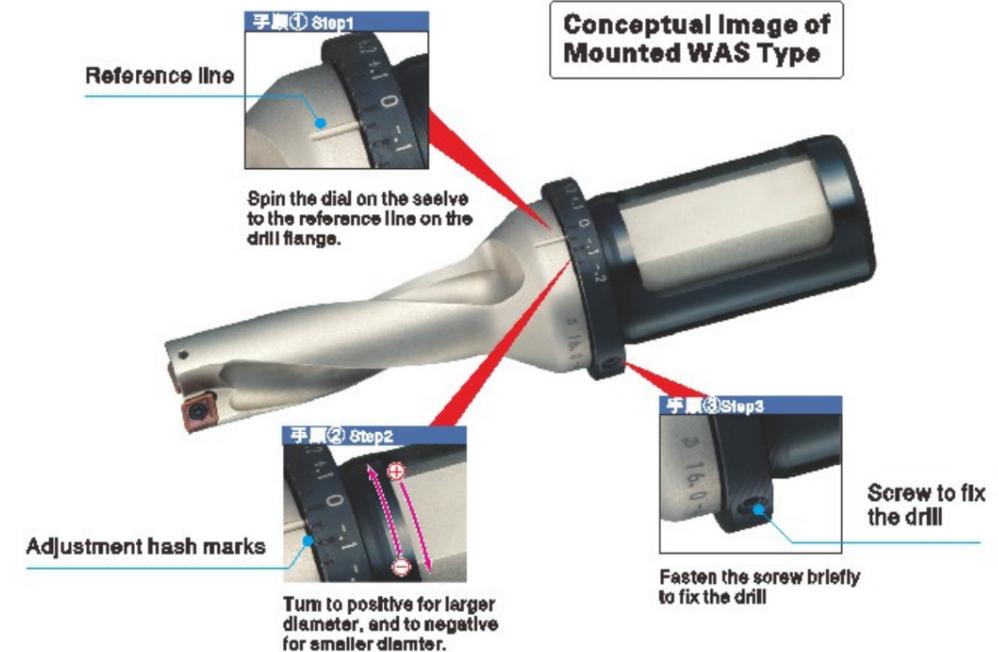
Cat. No.	Stock	Shank DGB	Shank DMM	Diameter BDX	Shank LS	Length L2	Length L3	Length L4	Adjustable range of machining diameter
WAS 2025-48	●	20	25	33	43	6	32	5	+0.3~-0.2
2532-80	●	25	32	42	80	7	48	6	+0.3~-0.3
3240-70	●	32	40	55	70	7	57	6	+0.3~-0.3
4050-85	●	40	50	60	80	7	64	6	+0.3~-0.3

*Adjustable range of machining diameter indicates adjustable range of diameter.

Important Notes

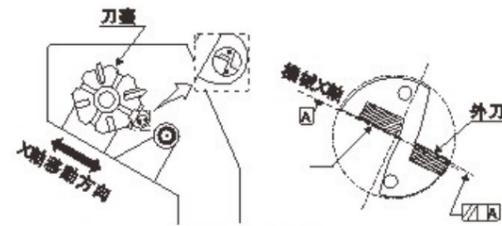
- Note 1: The dial is for reference purposes. Always measure the actual drilling diameter and adjust accordingly.
- Note 2: Not usable with collet chuck type holders. Use a side-locking holder.
- Note 3: Use this product on high rigidity drilling processes. This product is not recommended for deep hole drilling such as SD and machining of material with low rigidity.

How to adjust machining diameter



◎車床上正確的安裝方法

1. 外刃表面要與設備X軸平行狀態設定通過X軸的移動可以調整加工徑
2. 調整外刃的安裝朝向應使到外刃面向操作者。(如圖11但也可逆向180°) 使用當車床上有上下兩個轉塔時，當需要將鑽頭安裝在下轉塔上時，則外刃面一定要朝向操作者。此時逆向旋轉180°也可)



(圖1)在車床上的安裝狀態

◎加工徑的調整方法

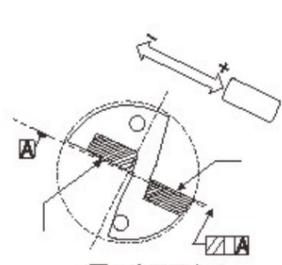
1. 加工徑的調整方法

- ① 可利用刀具的X軸方向移動來調整加工徑。X軸移動的方向取決於刀架的位置。
- ② 要擴大孔徑，可沿X軸向外刃方向移動刀具。(圖-2、圖-3)要減小孔徑，可沿X軸向相反方向移動刀具。這種平移叫偏刀但要確保孔徑不會比鑽頭直徑小超過0.2mm或更多。否則，刀柄就會與孔干涉。(圖-4)

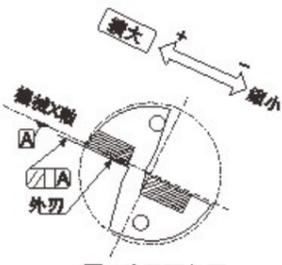
例在使用φ20的鑽頭時，孔徑不能小於19.8mm。

2. 加工徑的偏心極限值

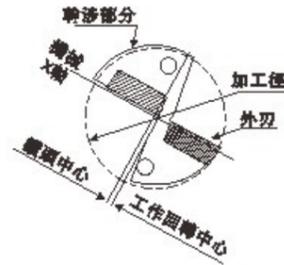
參考刀柄尺寸表中的“半徑方向偏心可能範圍”欄，可以得到加工徑偏心極限。(這個數據表示半徑方向上能設定多大的偏心的尺寸。)例可以使用φ20鑽頭時鑽出一個φ21的孔，這是因為“半徑方向偏心可能範圍”是+0.5mm



(圖2)外刃面向上



(圖3)外刃面向下



(圖4)過分偏心(較小的孔徑)

◎中心高的調整方法

1. 內刃的中心高

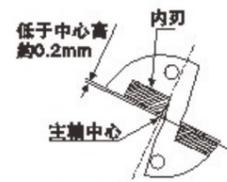
如圖-1所示方式安裝，內刃的中心高將低於中心高約0.2mm。(圖-5)這是通常的中心高自內刃被設計為這樣的高。但是，車床的轉塔與主軸中心偏移不準的時候，中心太高或太低的情況也是有的。為了穩定加工，確認內刃中心高是很重要的。

2. 如何確認內刃中心高

要確認內刃中心高，要看鑽孔凸出的端面中心部的殘留芯核。(圖-6)若內刃中心高在正常位置，殘留芯核的直徑應約為0.5mm。若有以下情況，則要調整中心高：

1. 無殘留芯核
2. 芯核直徑大於1mm

★試切確認中心高時，先以0.1mm/刃以下的小進給量，作深度為10mm的鑽孔加工。



(圖5)鑽頭正面圖



(圖6)中心部芯核

3. 內刃中心高的調整方法

a) 完全無芯核殘留或者是非常小的芯核殘留

這是在內刃高于中心高時發生的。

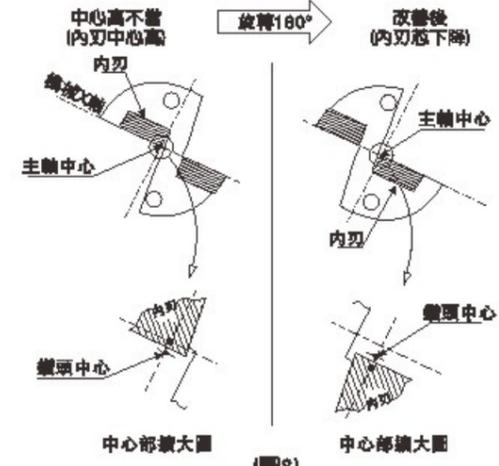
在這種情況下，內刃靠近鑽頭中心時，特別容易發生崩損，所以必須校正。(圖-7)



(圖7)內刃靠近鑽頭中心時崩損

【調整方法】

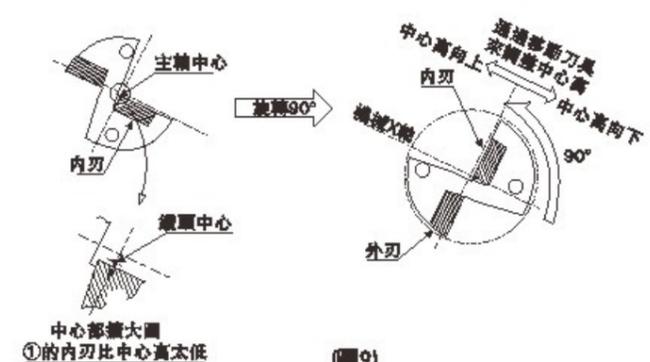
- ① 使鑽頭本體成180°旋轉進行安裝。大部分問題都可以通過這個方法解決。(圖8)



(圖8)

【調整方法】

- ② 通過1進行安裝，加工後仍然存在大芯核時，如圖-9所示，將鑽頭本體成90°旋轉，外刃靠下側，沿設備X軸方向移動刀具來調整中心高。但是，這就不可能調整加工徑此外，若用相反的方法安裝刀柄外刃靠上側，則加工徑變小，這可能會引起刀柄與鑽孔的干涉，請注意。根本的對策是調整轉塔本身的中心高。



(圖9)

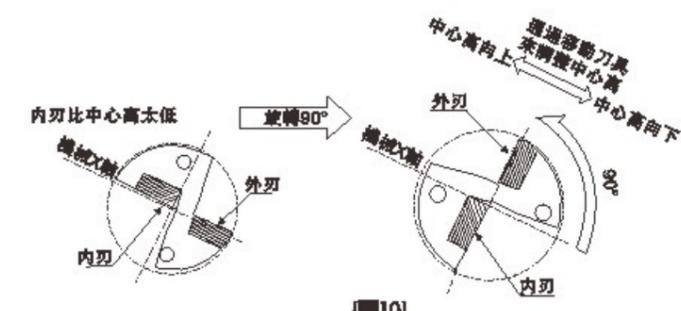
b) 芯核直徑過大(1mm以上)

這是在內刃低於中心高時發生的。

這會影響切屑排出性，有必要調整。

【調整方法】

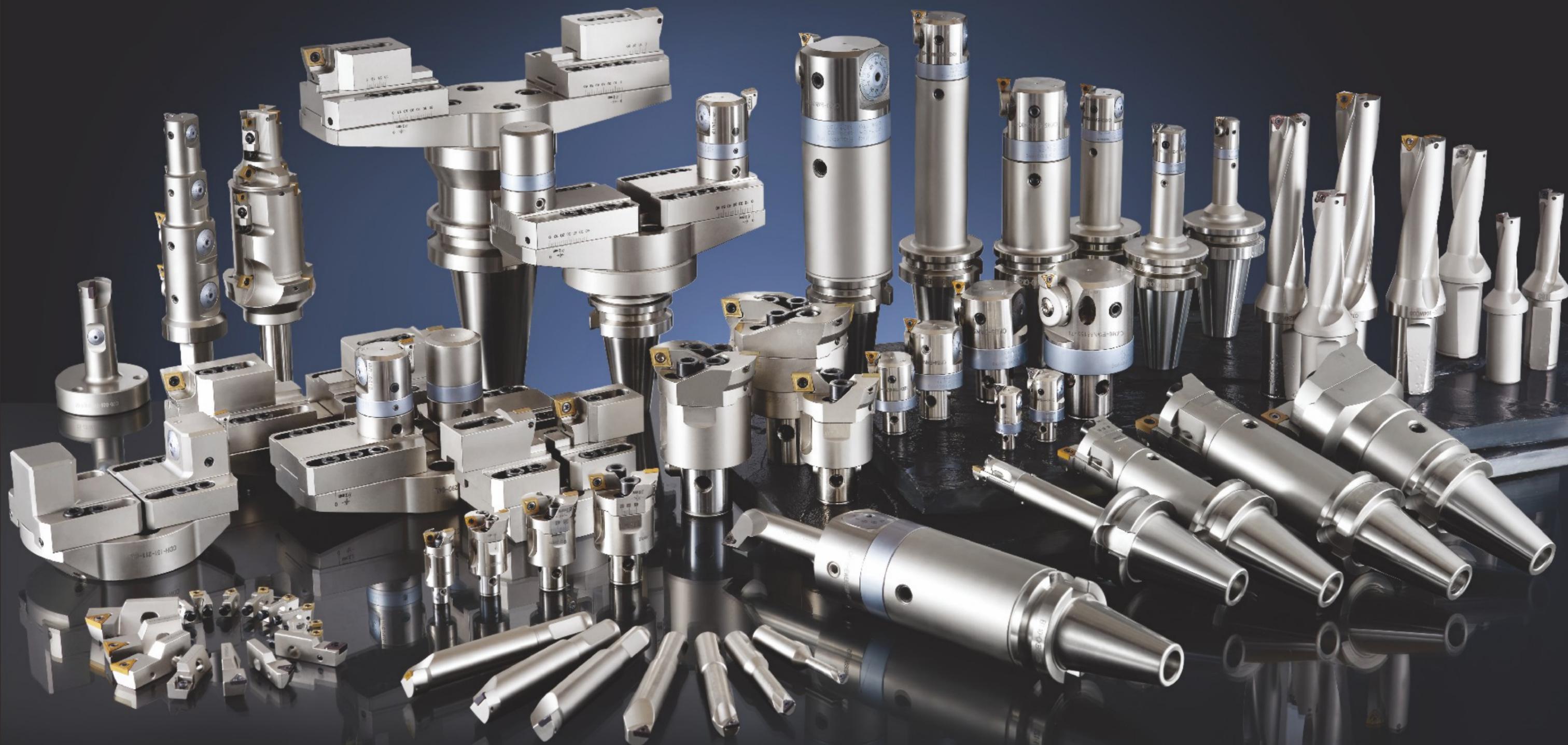
- 逆時針旋轉90°安裝鑽頭，如圖-10所示。(外刃靠上側)且沿X軸方向移動工具來調整中心高。(但是，這就不可能調整加工徑此外，若用相反的方法安裝刀柄外刃靠下側，則加工徑變小了，這可能會引起刀柄與鑽孔的干涉。根本的對策是調整轉塔本身的中心高。



(圖10)

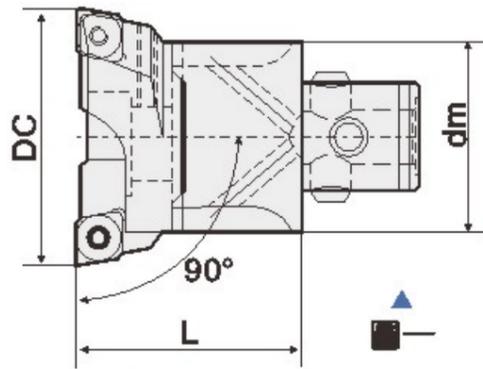
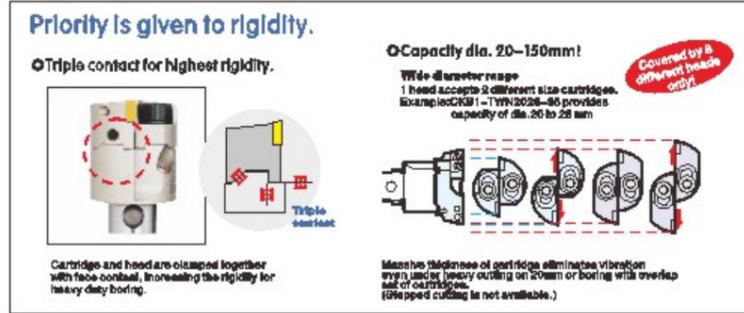
鏢刀世界
U 钻天下

ACC KEE 大研

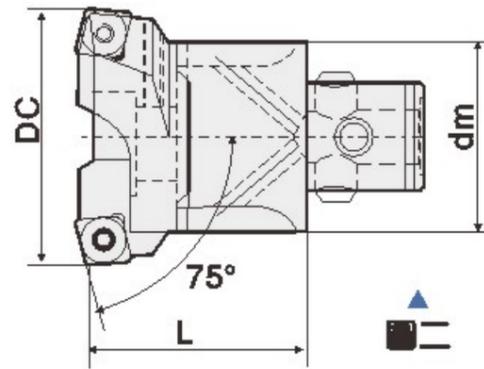


TWN Twin-Cutter Boring Head TWN系列双刃粗镗刀

- 加工範圍: $\phi 20 - \phi 150$
- 重視粗加工時的剛性
- 刀片座和鑽頭間採用三個面貼緊方式緊固, 增強剛性
- 刀片座等高誤差 $\leq 0.02\text{mm}$



盲孔用
Blind hole



通孔用
Through hole
定制款 Made to order item

盲孔用粗鑽刀-90° (Rough boring head for blind hole-90°)

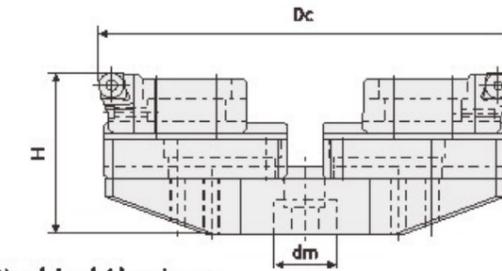
型號 Specification	Dc	dm	L	適用刀片 Insert	螺釘 Screw	扳手 Wrench	適用刀片座 Cutter block	緊定螺釘 Screw	kg
CKB1-TWN2026-35	20-26	19	35	CC..0602..	M2.5×6.5	T8	TW20-26M	TW20TS	0.07
CKB2-TWN2533-38	25-33	24	38	CC..0602..	M2.5×6.5	T8	TW25-33M	TW25TS	0.14
CKB3-TWN3242-43	32-42	31	43	CC..09T3..	M4×10	T15	TW32-42M	TW30TS	0.23
CKB4-TWN4154-50	41-54	39	50	CC..09T3..	M4×10	T15	TW41-54M	TW40TS	0.43
CKB5-TWN5372-80	53-72	49	60	CC..1204..	M5×13	T20	TW53-72M	TW50TS	0.82
CKB6-TWN6890-75	68-90	63	75	CC..1204..	M5×13	T20	TW68-90M	TW50TS	1.75
CKB8-TWN89120-75	89-120	63	75	CC..1204..	M5×13	T20	TW89-120M	TW50TS	2.25
CKB8-TWN115150-75	115-150	63	75	CC..1204..	M5×13	T20	TW115-150M	TW50TS	2.35

通孔用粗鑽刀-75° (Rough boring head for through holes-75°)

型號 Specification	Dc	dm	L	適用刀片 Insert	螺釘 Screw	扳手 Wrench	適用刀片座 Cutter block	緊定螺釘 Screw	kg
CKB5-TWN5372-80-T	53-72	49	60	CC..1204..	M5×13	T20	TW53-72M	TW50TS	0.82
CKB6-TWN6890-75-T	68-90	63	75	CC..1204..	M5×13	T20	TW68-90M	TW50TS	1.75
CKB6-TWN89120-75-T	89-120	63	75	CC..1204..	M5×13	T20	TW89-120M	TW50TS	2.25
CKB6-TWN115150-75-T	115-150	63	75	CC..1204..	M5×13	T20	TW115-150M	TW50TS	2.35

TWN Large Diameter Boring Head 橋式大孔径双刃粗鑽刀 ($\phi 151 - \phi 750$)

加工範圍 Diameter: $\phi 151 - \phi 750$

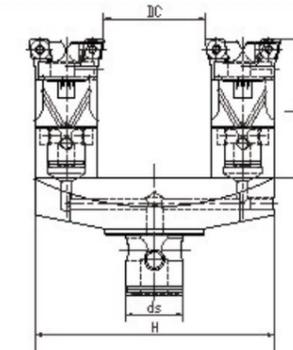


兩種材質: 鋼制和鋁制 Two Kinds Of Material, Steel And Aluminum.

型號 Specification	Dc	dm	L	適用刀片 Insert	螺釘 Screw	扳手 Wrench	橋板緊固螺釘 Screw	滑板緊固螺釘 Screw	kg
RDH-D151-211-80L	151-211	32	80	CC..1204..	M5×13	T20	4-M12	12-M8	4.96
RDH-D210-290-80L	210-290	32	80	CC..1204..	M5×13	T20	4-M12	12-M8	6.86
RDH-D290-370-80L	290-370	32	80	CC..1204..	M5×13	T20	4-M12	12-M8	6.81
RDH-D370-450-80L	370-450	32	80	CC..1204..	M5×13	T20	4-M12	12-M8	7.80
RDH-D450-550-80L	450-550	32	80	CC..1204..	M5×13	T20	4-M12	12-M8	8.75
RDH-D550-650-80L	550-650	32	80	CC..1204..	M5×13	T20	4-M12	12-M8	9.85
RDH-D650-750-80L	650-750	32	80	CC..1204..	M5×13	T20	4-M12	12-M8	10.85

Pin Turning Boring Head-for Roughing Boring 套鑽粗鑽刀 ($\phi 13 - \phi 128$)

加工範圍 Diameter: $\phi 13 - \phi 128$

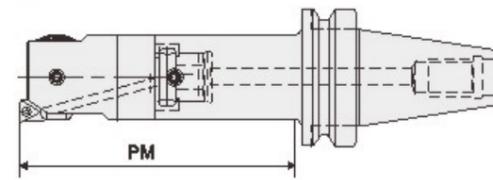


型號 Specification/Item	鑽孔範圍DC		外圈範圍	接口 ds	深度 depth (L)	長度 length (H)	鑽刀機塊 Head Model
CKB5-TW1330-56CK2	TWN2-1	21-30	/	28	56	79	CKB2-TWN2533-38
	TWN2-2	13-22	/				
CKB5-TW3140-56CK2	TWN2-1	31-40	89-96	28	56	89	CKB3-TWN3242-43
	TWN3-1	45-56	117-125				
CKB5-TW3556-67CK3	TWN3-2	35-46	/	28	67	118	CKB3-TWN3242-43
	TWN3-1	55-66	128-136				
CKB6-TW5566-67CK3	TWN3-1	55-66	128-136	36	67	128	CKB4-TWN4154-50
	TWN3-1	65-76	/				
CKB6-TW6576-67CK3	TWN3-1	65-76	/	36	67	138	CKB4-TWN4154-50
	TWN4-1	87-101	138-147				
CKB6-TW73101-77CK4	TWN4-2	73-87	/	36	77	179	CKB4-TWN4154-50
	TWN4-1	114-128	206-219				
CKB6-TW101128-77CK4	TWN4-1	114-128	206-219	36	77	206	CKB4-TWN4154-50
	TWN4-2	101-115	/				

問題與對策

問題	可能的原因	解決方案
切屑控制差	進給量太低	提高進給量
	切削深度過大	使用階梯鏜削加工法
振顫和振動	速度過高	降低切削速度，而不是進給量
	過大的L/D比	縮短刀具以提高剛度
		提高夾換柄和接長杆的外徑
		使用硬質合金或重金屬接長杆
	刀尖圓角半徑過大	使用刀尖圓角半徑更小的刀杆
不穩定的工件	改善夾具和夾持支撐	
刀片刃口微崩或斷裂	主偏角K為80°	改變至K = 90°，CC型刀片
	錯誤的刀片	改變為韌性更好的刀片材質等級
		如果可行，使用更大的刀尖圓角半徑
	嚴重的斷續切削	降低速度，降低進給量
切屑堵塞和再次切削	檢查鑽杆/孔徑的間隙 改善切屑控制，提高進給量	
刀具壽命差	錯誤的刀片	改變至韌性更高的材質等級
	過高的切削速度	降低速度
	刀片刃口微崩	檢查切削深度和進給量
	過低的冷卻液壓力	提高冷卻液壓力
切屑不能排出	鑽杆過大	當可能時，降為帶有加長柄的較小的刀頭
	過大的切削深度	使用階梯鏜削方法
	孔下方的空間不足	將工件置于工作臺更高的地方
機床功率不足	切屑控制差	如上所述
	過高的進給量	減少進給量(不小于刀尖圓角半徑的25%)
		過大的切削深度
	機床功率低	轉速處于主軸低扭矩區域:提高速度
		轉速處于換塔區域:調節速度
		將刀片改變為更高的前角在極端情況下換成HSS
過大的孔出口毛刺	減少切削深度	
	過高的進給量	降低進給量
	CC型刀夾90°	使用80°方刀片刀夾
	切削力過大	減小刀尖圓角半徑

OMAS 403 BT40



BT40 MAS 403 BT (ISO40)

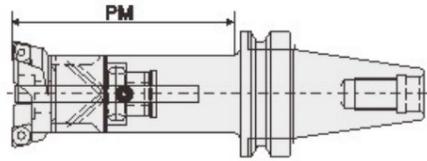
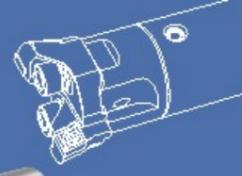
型號 Specification	被加工材料 Material	PM	刀尖半徑R Nose radius	切削速度Vc (m/min)	切削量ap (mm/φ)	進給率f (mm/rev)	
						推薦值 Recommend	最大值 MAX
CKB1-EWN2036-32.5	P 碳鋼/合金鋼	78	0.2	130	0.18	0.05	0.12
	M 不銹鋼		0.2	100	0.18	0.05	0.12
	N 淬火鋼		0.2	65	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	170	0.25	0.05	0.12
CKB2-EWN2547-35.5	P 碳鋼/合金鋼	93	0.2	150	0.25	0.05	0.12
	M 不銹鋼		0.2	120	0.25	0.05	0.12
	N 淬火鋼		0.2	80	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	180	0.25	0.08	0.12
CKB3-EWN3280-40	P 碳鋼/合金鋼	105	0.2	150	0.30	0.05	0.12
	M 不銹鋼		0.2	120	0.30	0.05	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.10
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB4-EWN4174-47	P 碳鋼/合金鋼	105	0.4	150	0.30	0.06	0.12
	M 不銹鋼		0.4	120	0.30	0.06	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB5-EWN5395-57 CKB6-EWN68150-71	P 碳鋼/合金鋼	106	0.4	150	0.30	0.06	0.12
	M 不銹鋼		0.4	120	0.30	0.06	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12

BT50 MAS 403 BT (ISO50)

型號 Specification	被加工材料 Material	PM	刀尖半徑R Nose radius	切削速度Vc (m/min)	切削量ap (mm/φ)	進給率f (mm/rev)	
						推薦值 Recommend	最大值 MAX
CKB1-EWN2036-32.5	P 碳鋼/合金鋼	78	0.2	130	0.18	0.05	0.12
	M 不銹鋼		0.2	100	0.18	0.05	0.12
	N 淬火鋼		0.2	65	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	170	0.25	0.05	0.12
CKB2-EWN2547-35.5	P 碳鋼/合金鋼	106	0.2	150	0.25	0.05	0.12
	M 不銹鋼		0.2	120	0.25	0.05	0.12
	N 淬火鋼		0.2	80	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	180	0.25	0.08	0.12
CKB3-EWN3280-40	P 碳鋼/合金鋼	122	0.2	150	0.30	0.05	0.12
	M 不銹鋼		0.2	120	0.30	0.05	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.10
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB4-EWN4174-47	P 碳鋼/合金鋼	122	0.4	150	0.30	0.06	0.12
	M 不銹鋼		0.4	120	0.30	0.06	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB5-EWN5395-57 CKB6-EWN68150-71	P 碳鋼/合金鋼	138	0.4	150	0.30	0.06	0.12
	M 不銹鋼		0.4	120	0.30	0.06	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	230	0.35	0.08	0.12

TWN Rough Boring Cutting Conditions-BT40/BT50

TWN系列双刃粗镗刀切削条件表



ØBT40 MAS 403 BT (ISO40)

型號 Specification	被加工 材料 Material	PM	刀尖半徑 Nose radius	切削速度 Vc(m/min)	切削量ap (mm/φ)		進給率f (mm/rev)	
					推薦值 Recommend	最大值 MAX	推薦值 Recommend	最大值 MAX
CKB1-TWN2026-35	P 低硬鋼	73	0.4	110	1.7	2.0	0.18	0.20
	M 合金鋼			85	1.4	2.0	0.13	0.20
	K 不銹鋼			80	1.4	2.0	0.14	0.20
	S 鋁合金			80	1.7	2.0	0.19	0.20
	S 鋁合金			130	2.0	2.5	0.20	0.26
CKB2-TWN2533-38	P 低硬鋼	89	0.4	110	2.2	3.0	0.18	0.25
	M 合金鋼			85	1.8	3.0	0.16	0.26
	K 不銹鋼			80	2.0	3.0	0.18	0.25
	S 鋁合金			80	2.2	3.0	0.18	0.25
	S 鋁合金			130	3.0	4.0	0.26	0.30
CKB3-TWN3242-43	P 低硬鋼	105	0.8	150	3.2	4.0	0.22	0.30
	M 合金鋼			130	2.7	3.5	0.18	0.28
	K 不銹鋼			70	2.7	3.5	0.22	0.30
	S 鋁合金			80	3.2	4.0	0.18	0.25
	S 鋁合金			130	3.5	5.0	0.26	0.30
CKB4-TWN4154-50	P 低硬鋼	113	0.8	150	3.5	4.5	0.22	0.32
	M 合金鋼			130	3.5	4.5	0.20	0.30
	K 不銹鋼			70	3.2	4.3	0.20	0.30
	S 鋁合金			80	3.5	5.5	0.20	0.30
	S 鋁合金			130	4.5	6.5	0.28	0.36
CKB5-TWN5372-80	P 低硬鋼	122	0.8	150	5.3	6.5	0.25	0.35
	M 合金鋼			130	5.3	6.5	0.20	0.28
	K 不銹鋼			70	4.5	5.5	0.20	0.28
	S 鋁合金			80	6.3	7.5	0.26	0.32
	S 鋁合金			130	7.5	9.0	0.30	0.38
CKB6-TWN6890-75	P 低硬鋼	138	0.8	150	7.0	9.0	0.25	0.35
M 合金鋼	130			6.3	9.0	0.22	0.30	
K 不銹鋼	70			6.3	8.0	0.22	0.30	
S 鋁合金	80			7.2	9.0	0.26	0.32	
CKB6-TWN115150-75	S 鋁合金			130	8.0	10.0	0.30	0.38

ØBT50 MAS 403 BT (ISO50)

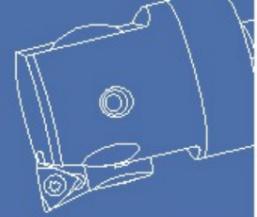
型號 Specification	被加工 材料 Material	PM	刀尖半徑 Nose radius	切削速度 Vc(m/min)	切削量ap (mm/φ)		進給率f (mm/rev)	
					推薦值 Recommend	最大值 MAX	推薦值 Recommend	最大值 MAX
CKB1-TWN2026-35	P 低硬鋼	81	0.4	110	1.7	2.0	0.18	0.20
	M 合金鋼			85	1.4	2.0	0.13	0.20
	K 不銹鋼			80	1.4	2.0	0.14	0.20
	S 鋁合金			80	1.7	2.0	0.13	0.20
	S 鋁合金			130	2.0	2.5	0.20	0.25
CKB2-TWN2533-38	P 低硬鋼	98	0.4	120	2.2	3.2	0.18	0.25
	M 合金鋼			110	1.8	3.2	0.16	0.26
	K 不銹鋼			70	2.0	3.2	0.18	0.25
	S 鋁合金			85	2.2	3.2	0.16	0.26
	S 鋁合金			130	3.0	4.5	0.26	0.30
CKB3-TWN3242-43	P 低硬鋼	125	0.8	170	3.2	4.5	0.22	0.30
	M 合金鋼			150	2.7	4.0	0.18	0.28
	K 不銹鋼			85	2.7	3.5	0.22	0.30
	S 鋁合金			85	3.2	4.5	0.18	0.25
	S 鋁合金			130	3.5	5.0	0.25	0.30
CKB4-TWN4154-50	P 低硬鋼	130	0.8	170	4.0	4.5	0.22	0.32
	M 合金鋼			150	3.5	4.5	0.20	0.30
	K 不銹鋼			85	3.5	4.5	0.20	0.30
	S 鋁合金			85	3.5	5.5	0.20	0.30
	S 鋁合金			150	4.5	6.5	0.28	0.35
CKB5-TWN5372-80	P 低硬鋼	140	0.8	180	6.3	7.2	0.25	0.38
	M 合金鋼			150	6.3	7.2	0.20	0.32
	K 不銹鋼			100	5.3	6.3	0.20	0.32
	S 鋁合金			85	7.2	9.0	0.25	0.35
	S 鋁合金			170	8.0	11.0	0.30	0.40
CKB6-TWN6890-75	P 低硬鋼	150	0.8	180	8.0	10.0	0.26	0.38
M 合金鋼	150			7.0	10.0	0.26	0.32	
K 不銹鋼	100			6.5	8.0	0.25	0.32	
S 鋁合金	85			8.0	10.0	0.25	0.35	
CKB6-TWN115150-75	S 鋁合金			170	9.0	11.0	0.30	0.40



- S
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- X
- 刀柄系列 Chuck
- 刀片系列 Carbide inserts
- 粗鏜刀系列 Rough Boring Head
- 精鏜刀系列 Finish Boring Head
- 鏜刀柄系列 Chuck
- 小刀夾系列 Accessories
- 鏜刀倒角系列 Chamfering Tools
- 刀系列槽刀 Slot Milling Cutters

EWN Precision Boring Head EWN系列微调精镗刀

ABS-EWN Precision Boring Head ABS-EWN系列微调精镗刀



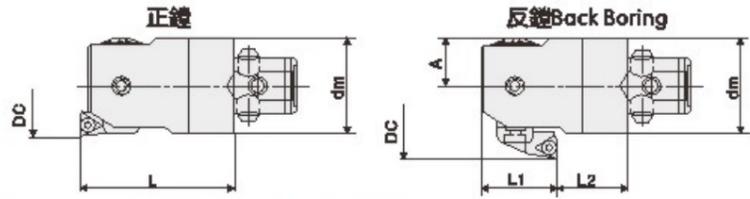
有預平衡設計，可獲得穩定的加工精度

Reliable scale screw, 1 div=0.01mm on diameter and vernier scale.
Stable and higher precision achieved by pre-balanced design.
Back boring is available as standard feature for greater versatility.

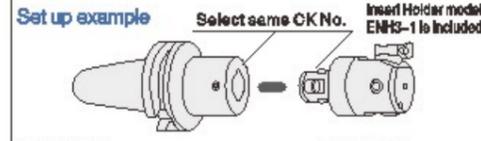
PAT. Diameter $\phi 20 - \phi 203$

Coolant-Through hole

Vc max. 1200m/min



◎微調精度:D0.01mm/格 ◎加工範圍:D20-D203
◎1div=0.01mm ◎PAT. Diameter $\phi 20 - \phi 203$



Set up example Select same CK No. Insert Holder model ENH3-1 is included
CK SHANK BT40-CK3-95 EWN HEAD CKB3-EWN3260-40

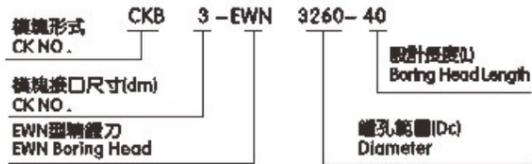
反鏢時 Back Boring: $d > Dc/2 + A$

調節更精確
1刻度=0.01mm/φ

型號 Specification	正鏢 Boring				反鏢 Counter boring				適配 刀片 Insert Size	螺釘 Clamp screw	扳手 wrench	重量 kg	
	Dc	dm	L	刀片座 Cutter block	加工範圍 Dc	L1	L2	A					刀片座 Cutter block
CKB1-EWN2036-32.5	20-26	19	32.5	ENH1-1	30-31	20	10	10	ENH1-2	TP..0802..	M2.2x6	T7	0.09
	25-31			ENH1-2									
	30-36			ENH1-3									
CKB2-EWN2547-35.5	25-33	24	35.5	ENH2-1	36-40	22	10	12.5	ENH2-2	TP..0902..	M2.2x6	T7	0.15
	32-40			ENH2-2									
	39-47			ENH2-3									
CKB3-EWN3260-40	32-42	31	40	ENH3-1	46-51	25	9	16	ENH3-2	TP..0902..	M2.2x6	T7	0.25
	41-51			ENH3-2									
	50-60			ENH3-3									
CKB4-EWN4174-47	41-54	39	47	ENH4-1	58-66	30	13	20	ENH4-2	TC..1102..	M2.5x8	T8	0.43
	53-66			ENH4-2									
	61-74			ENH4-3									
CKB5-EWN5395-57	53-70	49	57	ENH5-1	66-87	34	19	25.5	ENH5-2	TP..1103..	M2.5x8	T8	1.25
	68-85			ENH5-2									
	78-95			ENH5-3									
CKB6-EWN68150-71	68-100	63	71	ENH6-1	92-125	46	23	32.5	ENH6-2	TC..1102..	M3x8	T8	1.78
	93-125			ENH6-2									
	125-150			ENH6-3									
CKB6-EWN100203-71	100-153	63	71	ENH6-1	106-154	45	23	45.5	ENH6-2	TP..1103..	M3x8	T8	2.53
	125-178			ENH6-2									
	150-203			ENH6-3									

◎鏢刀模塊型號說明

Part Number Structure of Finish Boring Head



- ◎附帶ENH0-1刀片座。ENH0-2、ENH0-3刀片座需要另購。
- ◎反鏢加工時，主軸應反轉。
- ◎不附帶刀片。

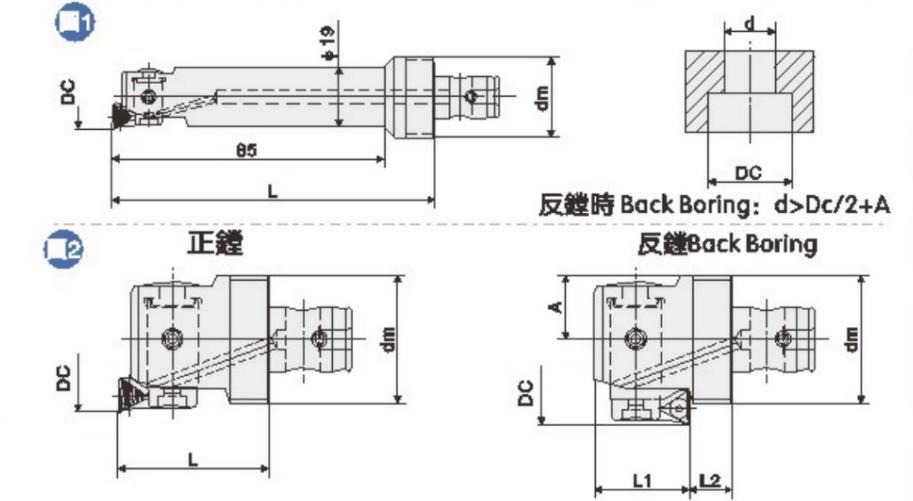
1. Insert Holder model ENH-1 is included. ENH-2 and ENH-3 are optional accessories.
2. Rotation becomes reverse when back-boring.
3. Insert must be ordered separately.

有預平衡設計，可獲得穩定的加工精度

◎微調精度:D0.01mm/格 ◎加工範圍:D20-D150



調節更精確
1刻度=0.01mm/φ



反鏢時 Back Boring: $d > Dc/2 + A$

型號 Specification	刀片座 Cutter block	正鏢 Boring				反鏢 Counter boring				適配 刀片 Insert Size	螺釘 Clamp screw	扳手 wrench	重量 kg
		Dc	dm	L	加工範圍 Dc	L1	L2	A	刀片座 Cutter block				
21CD25-EWN2036-35	ENH1-1	20-26	25	101	30-31	20	10	10	ENH1-2	TP..0802..	M2x6	T8	0.13
	ENH1-2	30-36			ENH1-3								
	ENH1-3	30-36			ENH1-3								
21CD25-EWN2647-36.5	ENH2-1	26-33	25	35.5	36-40	22	10	12.5	ENH2-2	TP..0802..	M2x6	T8	0.16
	ENH2-2	36-40			ENH2-3								
	ENH2-3	39-47			ENH2-3								
21CD32-EWN3360-40	ENH3-1	32-40	32	40	46-51	25	9	16	ENH3-2	TP..0902..	M2.5x6	T8	0.27
	ENH3-2	46-51			ENH3-3								
	ENH3-3	50-60			ENH3-3								
21CD40-EWN4174-47	ENH4-1	41-54	40	47	58-63	30	13	20	ENH4-2	TC..1102..	M2.5x8	T8	0.47
	ENH4-2	58-63			ENH4-3								
	ENH4-3	61-74			ENH4-3								
21CD50-EWN5395-57	ENH5-1	53-70	50	57	66-87	34	19	25.5	ENH5-2	TP..1103..	M3x8	T10	1.32
	ENH5-2	66-87			ENH5-3								
	ENH5-3	78-95			ENH5-3								
21CD68-EWN68150-71	ENH6-1	68-100	63	71	92-125	46	23	32.5	ENH6-2	TC..1102..	M2.5x8	T8	1.78
	ENH6-2	92-125			ENH6-3								
	ENH6-3	118-150			ENH6-3								

CAUTION

The max. allowable spindle speed for the EWN Head is 1200m/min. However, since the rigidity of machine spindle and workpiece, the length of boring tool and usage of Extension and Reduction adapters influence the condition, please increase the speed gradually to determine the best cutting condition.

刀片座(另售) Insert Holder Pat.(Option)



刀片座 Cutter block	形狀 Figure	對應鏢刀模塊 Head Model	加工範圍 Diameter φ
ENH1-1	對皮刀片 TP0802	CKB1-EWN2036-32.5	20-26
ENH1-2			25-31
ENH1-3			30-36
ENH2-1		CKB2-EWN2547-35.5	26-33
ENH2-2			32-40
ENH2-3			39-47
ENH3-1	對皮刀片 TP1103	CKB3-EWN3260-40	32-42
ENH3-2			41-51
ENH3-3			50-60
ENH4-1		CKB4-EWN4174-47	41-54
ENH4-2			53-70
ENH4-3			61-74
ENH5-1	對皮刀片 TP1103	CKB5-EWN5395-57	53-70
ENH5-2			66-86
ENH5-3			78-95
ENH6-1		CKB6-EWN68150-71	68-100
ENH6-2			93-125
ENH6-3			126-150
ENH6-1	CKB6-EWN100203-71	100-153	
ENH6-2		126-178	
ENH6-3		150-203	

EWN Precision Boring Head

EWN系列微调精镗刀

有預平衡設計，可獲得穩定的加工精度

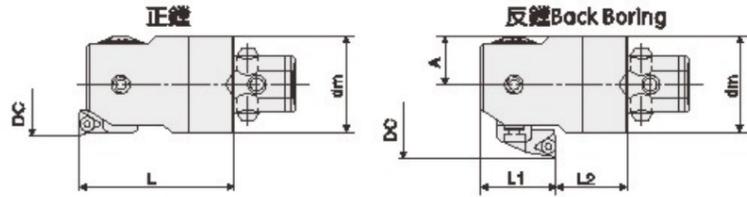
Reliable scale screw, 1 div=0.01mm on diameter and vernier scale.

◎ Stable and higher precision achieved by pre-balanced design.
◎ Back boring is available as standard feature for greater versatility.

PAT. Diameter $\phi 20 - \phi 203$

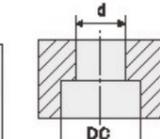
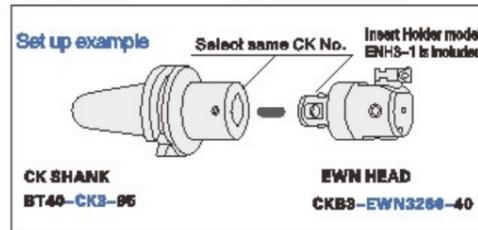
Coolant-Through hole

Vc max. 1200m/min



◎ 微調精度: 0.01mm/格
◎ 1 div = 0.01mm

◎ 加工範圍: D20-D203
◎ PAT. Diameter $\phi 20 - \phi 203$



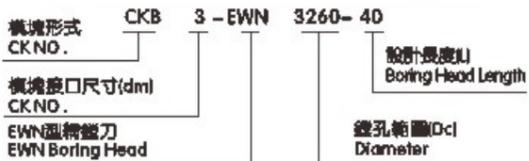
反鏜時 Back Boring: $d > Dc/2 + A$

調節更精確
1刻度=0.01mm/φ

型號 Specification	正鏜 Boring			反鏜 Counter boring				刀片座 Cutter block	適配 刀片 Insert Size	螺釘 Clamp screw	扳手 wrench	kg	
	Dc	dm	L	加工範圍 Dc	L1	L2	A						
CKB1-EWN2036-32.5	20-26	19	32.5	ENH1-1	20	10	10	ENH1-1	TP..0802..	M2.2x5	T7	0.09	
	26-31			ENH1-2				30-31					ENH1-2
	30-36			ENH1-3				30-36					ENH1-3
CKB2-EWN2547-35.5	26-33	24	35.5	ENH2-1	22	10	12.5	ENH2-1	TP..1102..	M2.2x5	T7	0.15	
	32-40			ENH2-2				36-40					ENH2-2
	38-47			ENH2-3				38-47					ENH2-3
CKB3-EWN3260-40	32-42	31	40	ENH3-1	25	9	16	ENH3-1	TP..1103..	M2.5x6	T8	0.25	
	41-51			ENH3-2				46-51					ENH3-2
	50-60			ENH3-3				50-60					ENH3-3
CKB4-EWN4174-47	41-54	39	47	ENH4-1	30	13	20	ENH4-1	TC..1102..	M2.5x6	T8	0.43	
	53-66			ENH4-2				58-66					ENH4-2
	61-74			ENH4-3				61-74					ENH4-3
CKB5-EWN5395-57	53-70	49	57	ENH5-1	34	19	26.5	ENH5-1	TP..1103..	M3x6	T8	1.26	
	68-85			ENH5-2				69-85					ENH5-2
	78-95			ENH5-3				78-95					ENH5-3
CKB6-EWN68150-71	68-100	63	71	ENH6-1	45	23	32.5	ENH6-1	TC..1102..	M3x6	T8	1.78	
	93-125			ENH6-2				93-125					ENH6-2
	126-150			ENH6-3				126-150					ENH6-3
CKB6-EWN100203-71	100-153	63	71	ENH6-1	45	23	45.5	ENH6-1	TP..1103..	M3x6	T8	2.53	
	125-178			ENH6-2				125-178					ENH6-2
	150-203			ENH6-3				150-203					ENH6-3

鏗刀模塊型號說明

Part Number Structure of Finish Boring Head

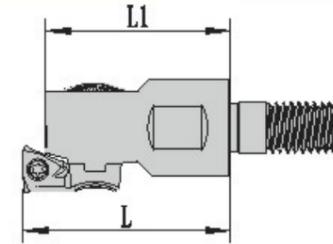


◎ 附帶ENH0-1刀片座。ENH0-2、ENH0-3刀片座需要另購。
◎ 反鏜加工時，主軸應反轉。
◎ 不附帶刀片。

1. Insert Holder model ENH-1 is included. ENH-2 and ENH-3 are optional accessories.
2. Rotation becomes reverse when back-boring.
3. Insert must be ordered separately.



High Accuracy Precision Boring Head EWN 螺纹接口小径精镗刀



刀具型号	L1	L	镗孔范围	配套刀片
M8-EWN1626-32.5	30	33.5	16-21/21-26	TPGT0802
M10-EWN2036-32.5	29.5	32.5	20-26/25-31/30-36	TPGT0802
M12-EWN2547-35.5	32.5	35.5	25-33/32-40/39-47	TPGT0802
M16-EWN3260-40	35	40	32-42/41-51/50-60	TPGT0802

Carbide boring head holder 超硬整体钨钢抗震精镗刀杆



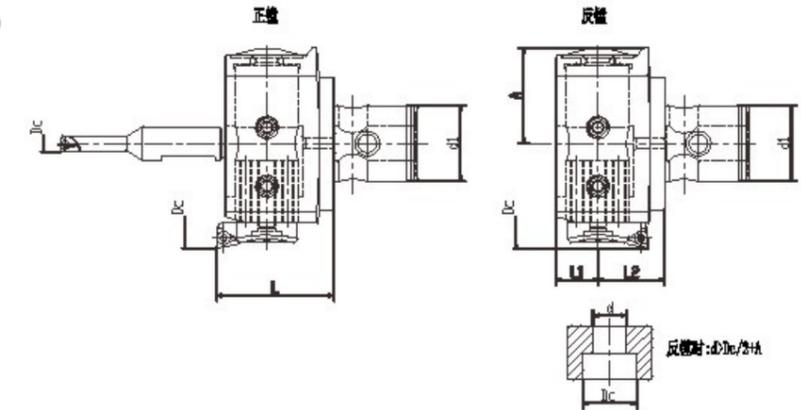
对应刀柄型号	柄径D	螺纹M	长度
14-M8-100	14	M8	100
14-M8-150	14	M8	150
14-M8-200	14	M8	200
15-M8-100	15	M8	100
15-M8-150	15	M8	150
15-M8-200	15	M8	200
15.6-M8-100	15.6	M8	100
15.6-M8-150	15.6	M8	150
15.6-M8-200	15.6	M8	200
15.6-M8-250	15.6	M8	250
16-M8-100	16	M8	100
16-M8-150	16	M8	150
16-M8-200	16	M8	200
16-M8-250	16	M8	250
16-M8-300	16	M8	300
19-M10-100	19	M10	100
19-M10-150	19	M10	150
19-M10-200	19	M10	200
19-M10-250	19	M10	250

对应刀柄型号	柄径D	螺纹M	长度
20-M10-100	20	M10	100
20-M10-150	20	M10	150
20-M10-200	20	M10	200
20-M10-250	20	M10	250
20-M10-300	20	M10	300
24-M12-150	24	M12	150
24-M12-200	24	M12	200
24-M12-250	24	M12	250
24-M12-300	24	M12	300
25-M12-150	25	M12	150
25-M12-200	25	M12	200
25-M12-250	25	M12	250
25-M12-300	25	M12	300
32-M16-150	32	M16	150
32-M16-200	32	M16	200
32-M16-250	32	M16	250
32-M16-300	32	M16	300
32-M16-350	32	M16	350

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- 刀柄系列 Chuck
- 刀片系列 Carbide Inserts
- 粗镗刀系列 Rough Boring Head
- 精镗刀系列 Finish Boring Head
- 镗刀柄系列 Chuck
- 小刀架系列 Accessories
- 镗刀倒角工具系列 Chamfering Tools
- 刀架系列 Slot Milling Cutters

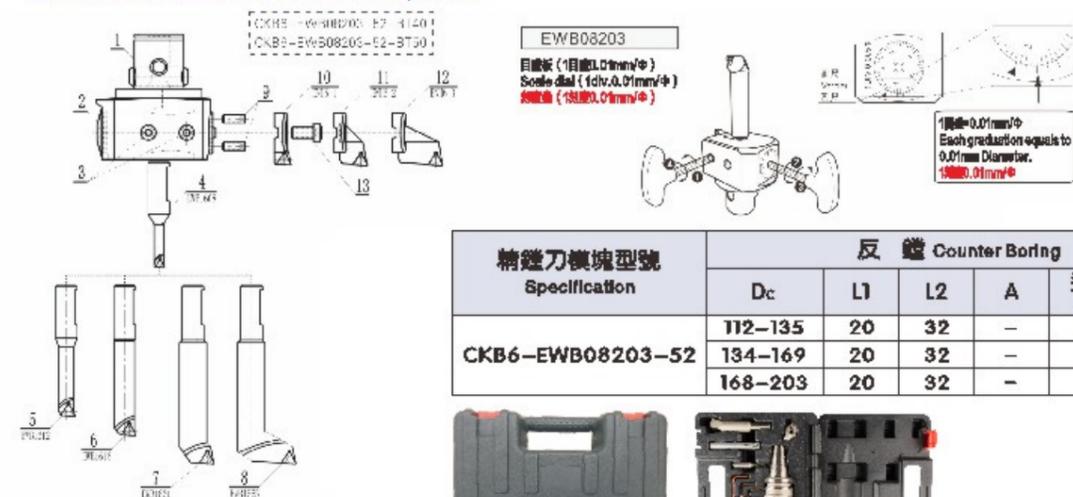
High Accuracy Precision Boring Head (2084) 高精度多功能鏜刀 (2084)

- ◎ 微調精度: $\pm 0.01\text{mm}/\text{格}$
- ◎ 加工範圍: $\phi 8 - \phi 203\text{mm}$
- ◎ 反鏜功能: $\phi 112 - \phi 203\text{mm}$
- ◎ 1 div = 0.01mm
- ◎ PAT. Diameter $\phi 8 - \phi 203$
- ◎ Counter Boring Functions: $\phi 112 - \phi 203\text{mm}$



精鏜刀模塊型號 Specification	正鏜 Boring			適用鏜刀座 Cutter Block	適配刀片 Insert	螺釘 Clamp screw	扳手 wrench	重量 kg
	Dc	d1	L					
CKB6-EWB08203-52	08-43	63	52	EWB1608	TBGT060102	M2.2×5	T07	0.11
	12-47			EWB1612	TPGH090204L	M2.5×6	T08	0.12
	16-51			EWB1616				0.18
	31-66			EWB1631	TPGH110S04L	M3×8	T08	0.47
	65-100			EWB1665				0.85
	100-135			ENH6-1				-
	134-169			ENH6-2F	-	-	-	-
	168-203			ENH6-3F	-	-	-	-

◎ 鏜刀模塊型號說明 Part Number Structure of Finish Boring Head

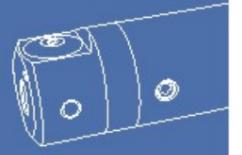


精鏜刀模塊型號 Specification	反鏜 Counter Boring				
	Dc	L1	L2	A	適用鏜刀座 Cutter Block
CKB6-EWB08203-52	112-135	20	32	-	ENH6-1
	134-169	20	32	-	ENH6-2F
	168-203	20	32	-	ENH6-3F

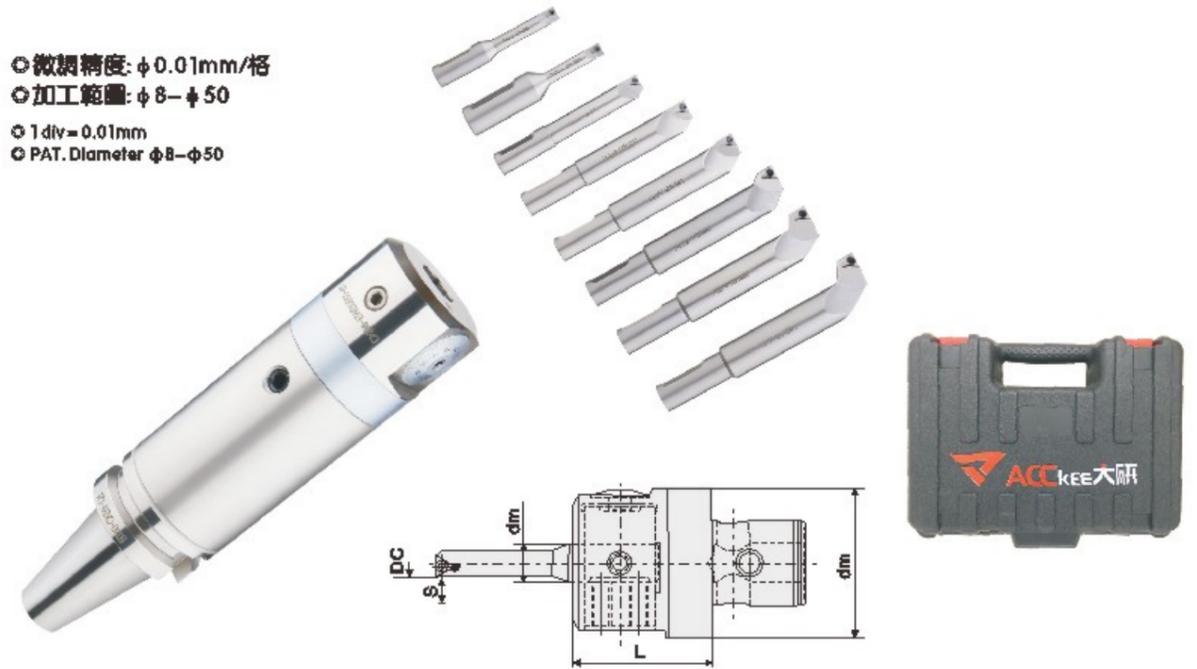


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刀柄系列
Chuck
刀片系列
Carbide Inserts
粗鏜刀系列
Rough Boring Head
精鏜刀系列
Finish Boring Head
鏜刀柄系列
Chuck
小刀夾系列
Accessories
鏜刀倒角模塊系列
Chamfering Tools
D系列槽銑刀
Slot Milling Cutters

EWB Precision Boring Heads EWB小孔径微调精镗刀

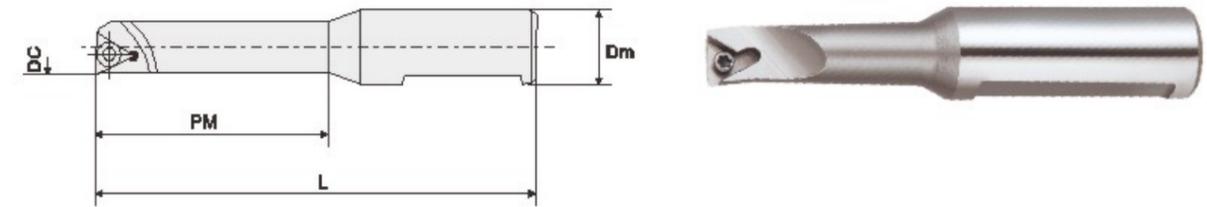


- ◎ 微调精度: $\pm 0.01\text{mm/格}$
- ◎ 加工范围: $\phi 8 - \phi 50$
- ◎ 1 div = 0.01mm
- ◎ PAT. Diameter $\phi 8 - \phi 50$



型号 Specification	镗孔范围Dc Boring range	适用镗杆D1 Modular Holder	微调行程S Micro distance	L	dm	kg
CKB6-EWB0850-66	08-60	YBJ16	3.5	65	63	1.1

EWB Boring Bar System EWB镗杆系列



型号 Specification	尺寸				适配刀片 Insert	螺钉 Clamp screw	扳手 wrench	kg		
	Dc	dm	PM	L						
EWB1608-32	08-15	18	32	80	TBGT060102	M2.2 x 6	T07	0.11		
EWB1612-50	12-19		50	98				TPGH090204L	M2.5 x 6	0.12
EWB1616-65	16-23		65	116						0.18
EWB1620-85	20-27		85	135	0.29					
EWB1625-90	25-32		90	145	0.37					
EWB1631-90	31-38		90	146	TPGH110304L	M3 x 8	T08			0.47
EWB1637-90	37-44		90	146				0.58		
EWB1643-90	43-50		90	145				0.65		

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刀柄系列
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Rough Boring Head
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Finish Boring Head
镗刀柄系列
Chuck
小刀架系列
Accessories
镗刀倒角镗系列
Chamfering Tools
D系列槽铣刀
Slot Milling Cutters

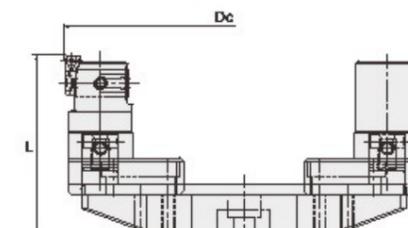
EWN Large Diameter Boring Head 桥式大孔径微调精镗刀



加工範圍: $\phi 151-\phi 750$ PAT. Diameter $\phi 151-\phi 750$ 微調精度: $\phi 0.01\text{mm}/\text{格}$ $1\text{div}=0.01\text{mm}$



鋁制 Aluminum



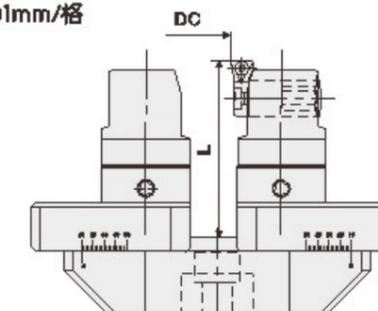
鋼制 Steel

兩種材質: 鋼制和鋁制 Two Kinds Of Material, Steel And Aluminum.

型號 Specification	Dc	L	適用刀片 Insert	螺釘 Screw	扳手 Wrench	構板緊固螺釘	滑板緊固螺釘	kg
GDH-D151-211-84L	151-211	84	TP1103...	M3×7	T8	4-M12	8-M8	4.75
GDH-D210-290-84L	210-290	84	TP1103...	M3×7	T8	4-M12	8-M8	5.15
GDH-D290-370-84L	290-370	84	TP1103...	M3×7	T8	4-M12	8-M8	6.12
GDH-D370-450-84L	370-450	84	TP1103...	M3×7	T8	4-M12	8-M8	7.06
GDH-D450-550-84L	450-550	84	TP1103...	M3×7	T8	4-M12	8-M8	8.00
GDH-D550-650-84L	550-650	84	TP1103...	M3×7	T8	4-M12	8-M8	9.05
GDH-D650-750-84L	650-750	84	TP1103...	M3×7	T8	4-M12	8-M8	10.05

Pin Turning Boring Head – For Finishing Boring 套鏜外径微调精镗刀

加工範圍: $\phi 8-\phi 120$ 微調精度: $\phi 0.01\text{mm}/\text{格}$
PAT. Diameter $\phi 8-\phi 120$ $1\text{div}=0.01\text{mm}$



兩種材質: 鋼制和鋁制 Two Kinds Of Material, Steel And Aluminum.

型號 Specification	Dc	L	適配刀片 Insert	螺釘 Clamp screw	扳手 wrench	kg
CDH2-D8-65-78L	8-55	78	TP1103...	M3X7	T8	2.9
CDH3-D30-120-78L	30-120	78	TP1103...	M3X7	T8	3.4



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刀柄系列
Chuck
刀片系列
Carbide Inserts
粗鏜刀系列
Rough Boring Head
精鏜刀系列
Finish Boring Head
鏜刀柄系列
Chuck
小刀夾系列
Accessories
鏜刀倒角鏜系列
Chamfering Tools
O型系列槽銑刀
Slot Milling Cutters

Pin Turning Boring Head—for Finishing Boring 套镗精镗刀

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刀柄系列
Chuck

刀片系列
Carbide Inserts

粗镗刀系列
Rough Boring Head

精镗刀系列
Finish Boring Head

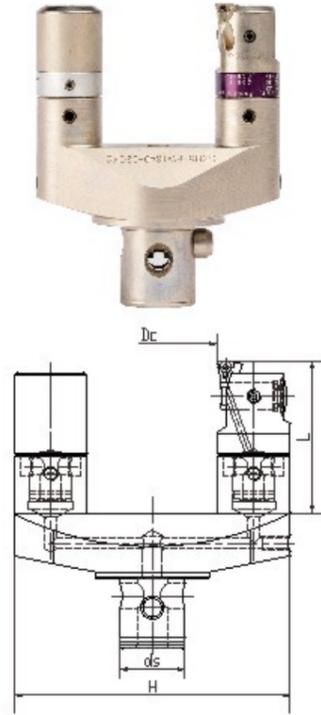
镗刀柄系列
Chuck

小刀夾系列
Accessories

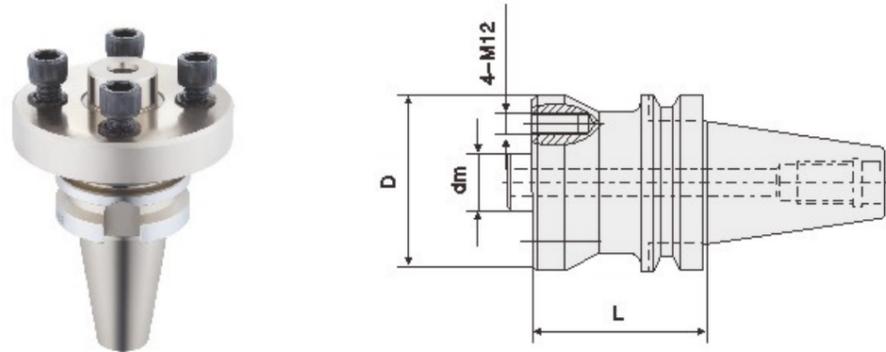
镗刀倒角環系列
Chamfering Tools

刀系列
Slot Milling Cutters

型號 Specification/Item	鑽孔範圍DC		外圓範圍	接口 ds	深度 depth (L)	長度 length (H)	鑽刀機頭 Head Model
	ENH2-1	ENH2-2					
CKB5-EW0830-62CK2	22-30	/	/	28	52	79	CKB2-EWN2647-36.6
	15-23	/					
CKB5-EW1840-52CK2	32-40	88-98	88-98 92-106	28	52	89	CKB2-EWN2647-36.6
	25-33						
CKB5-EW2856-63CK3	46-56	116-129	116-129 125-136	28	63	118	CKB3-EWN3290-40
	37-47						
CKB5-EW3866-63CK3	58-68	127-134	127-134 139-148	36	63	128	CKB3-EWN3290-40
	47-57						
CKB5-EW4876-63CK3	68-76	127-148	127-148 146-157	36	63	136	CKB3-EWN3290-40
	57-67						
CKB6-EW88101-75CK4	89-101	169-180	169-180 182-202	36	75	179	CKB4-EWN4174-47
	76-88						
CKB6-EW95128-75CK4	115-128	206-220	206-220 219-233	36	75	206	CKB4-EWN4174-47
	103-116						



Chuck for Large Diameter Boring Head 桥式镗刀柄



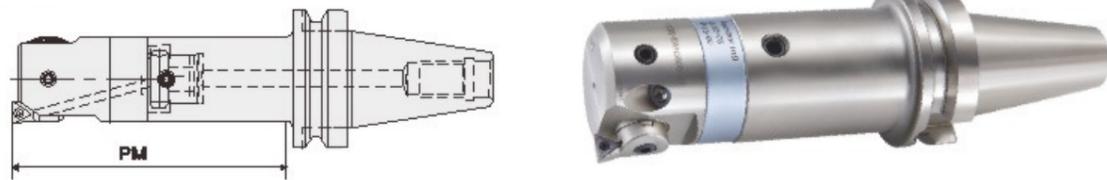
型號 Specification	L	D	dm	G	kg
BT40-DM32-80	80	100	32	4-M12	2.42
BT50-DM32-100	100	100	32	4-M12	6.3
BT50-DM32-150	150	100	32	4-M12	9.2
BT50-DM32-200	200	100	32	4-M12	11.1
BT50-DM32-250	250	100	32	4-M12	12.9
BT50-DM32-300	300	100	32	4-M12	14.8



EWN Precision Boring Bar Cutting Conditions-BT40/BT50

EWN系列精鏜刀切削条件表

◎MAS 403 BT40



◎BT40 MAS 403 BT (ISO40)

型號 Specification	被加工材料 Material	PM	刀尖半徑R Nose radius	切削速度Vc (m/min)	切削量ap (mm/φ)	進給率 (mm/rev)	
						推薦值 Recommend	最大值 MAX
CKB1-EWN2038-32.5	P 碳鋼/合金鋼	78	0.2	130	0.18	0.05	0.12
	M 不銹鋼		0.2	100	0.18	0.05	0.12
	N 淬火鋼		0.2	85	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	170	0.25	0.05	0.12
CKB2-EWN2547-35.5	P 碳鋼/合金鋼	89	0.2	150	0.25	0.05	0.12
	M 不銹鋼		0.2	120	0.25	0.05	0.12
	N 淬火鋼		0.2	80	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	180	0.25	0.08	0.12
CKB3-EWN3260-40	P 碳鋼/合金鋼	105	0.2	150	0.30	0.05	0.12
	M 不銹鋼		0.2	120	0.30	0.05	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.10
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB4-EWN4174-47	P 碳鋼/合金鋼	105	0.4	150	0.30	0.06	0.12
	M 不銹鋼		0.4	120	0.30	0.06	0.12
	N 淬火鋼		0.4	80	0.15	0.08	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB5-EWN5395-57 CKB6-EWN68150-71 CKB6-EWN100203-71	P 碳鋼/合金鋼	105	0.4	150	0.30	0.08	0.12
	M 不銹鋼		0.4	120	0.30	0.08	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12

◎BT50 MAS 403 BT (ISO50)

型號 Specification	被加工材料 Material	PM	刀尖半徑R Nose radius	切削速度Vc (m/min)	切削量ap (mm/φ)	進給率 (mm/rev)	
						推薦值 Recommend	最大值 MAX
CKB1-EWN2036-32.5	P 碳鋼/合金鋼	78	0.2	130	0.18	0.05	0.12
	M 不銹鋼		0.2	100	0.18	0.05	0.12
	N 淬火鋼		0.2	85	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	170	0.25	0.05	0.12
CKB2-EWN2547-35.5	P 碳鋼/合金鋼	105	0.2	150	0.25	0.05	0.12
	M 不銹鋼		0.2	120	0.25	0.05	0.12
	N 淬火鋼		0.2	80	0.15	0.04	0.08
	K 鑄鐵		0.2	80	0.25	0.05	0.10
	S 鋁合金		0.4	180	0.25	0.08	0.12
CKB3-EWN3260-40	P 碳鋼/合金鋼	122	0.2	150	0.30	0.05	0.12
	M 不銹鋼		0.2	120	0.30	0.05	0.12
	N 淬火鋼		0.4	80	0.15	0.08	0.10
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB4-EWN4174-47	P 碳鋼/合金鋼	122	0.4	150	0.30	0.08	0.12
	M 不銹鋼		0.4	120	0.30	0.08	0.12
	N 淬火鋼		0.4	80	0.15	0.06	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	210	0.35	0.08	0.12
CKB5-EWN5395-57 CKB6-EWN68150-71 CKB6-EWN100203-71	P 碳鋼/合金鋼	138	0.4	150	0.30	0.08	0.12
	M 不銹鋼		0.4	120	0.30	0.06	0.12
	N 淬火鋼		0.4	80	0.15	0.08	0.08
	K 鑄鐵		0.4	80	0.35	0.08	0.12
	S 鋁合金		0.4	230	0.35	0.08	0.12



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刀柄系列
Chuck

刀片系列
Carbide inserts

粗鏜刀系列
Rough Boring Head

精鏜刀系列
Finish Boring Head

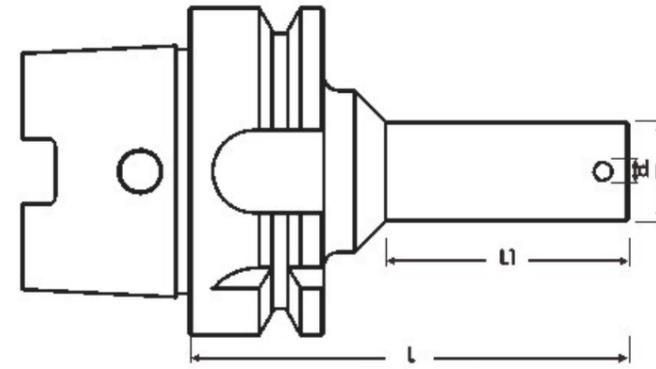
鏜刀柄系列

小刀夾系列
Accessories

鏜刀倒角鏜系列
Chamfering Tools

刀系列槽鏜刀
Slot Milling Cutters

HSK Holder HSK 刀柄



Runout: 0.005 mm
 Bore Tolerance: H5
 Balancing: G6.3/15000 RPM
 Balancing G2.5 can be made by request.
 Usage: for clamping tools with straight shank and inclined flat DIN1835-B.

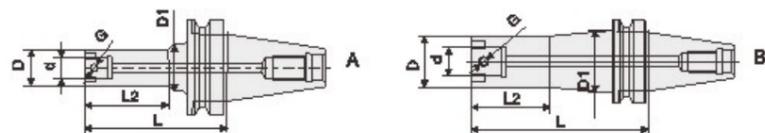
型號 Specification	D	d	L	L1	kg
HSK63A-CKB1-85	19	11	85	47	1.18
HSK63A-CKB1-115	19	11	115	77	1.21
HSK63A-CKB2-85	24	14	85	47	1.21
HSK63A-CKB2-115	24	14	115	77	1.27
HSK63A-CKB2-145	24	14	145	107	1.30
HSK63A-CKB3-95	31	18	95	69	1.32
HSK63A-CKB3-125	31	18	125	99	1.48
HSK63A-CKB3-155	31	18	155	129	1.62
HSK63A-CKB4-95	39	22	95	69	1.54
HSK63A-CKB4-125	39	22	125	99	1.86
HSK63A-CKB4-155	39	22	155	129	2.15
HSK63A-CKB5-95	50	28	95	69	1.81
HSK63A-CKB5-125	50	28	125	99	2.35
HSK63A-CKB5-155	50	28	155	129	2.76
HSK63A-CKB6-95	63	36	95	69	2.76
HSK63A-CKB6-125	63	36	125	99	3.2
HSK63A-CKB6-155	63	36	155	129	3.4

Unit: mm



- S
- O
- W
- C
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- P
- D
- L
- W
- D
- X
- 刀柄系列
- Chuck
- 刀片系列
- Carbide Inserts
- 粗鏜刀系列
- Rough Boring Head
- 精鏜刀系列
- Finish Boring Head
- 鏜刀柄系列
- Chuck
- 小刀夾系列
- Accessories
- 鏜刀倒角鑿系列
- Chamfering Tools
- 刀夾系列
- Slot Milling Cutters

CKB Chuck CKB系列鏜刀柄



◎BT40 MAS 403 BT (IOS40)

型號 Specification	Figure	L	L2	D	d	D1	G	重量 kg	
BT30-CKB1-80		80	46	19	11	31	M4×0.5	0.75	
BT30-CKB2-80		80	46	24	14	31	M5×0.5	0.83	
BT30-CKB3-80		80	58	31	18	31	M6×0.75	0.91	
BT30-CKB4-80		80	58	39	22	39	M8×0.75	1.02	
BT30-CKB5-85									
BT30-CKB6-60									
BT40-CKB1-86	A	86	49	19	11	31	M4×0.5	1.18	
BT40-CKB1-116		116	79	19	11	31	M4×0.5	1.21	
BT40-CKB2-86		86	49	24	14	31	M5×0.5	1.21	
BT40-CKB2-116		116	79	24	14	31	M5×0.5	1.27	
BT40-CKB2-145		145	105	24	14	31	M5×0.5	1.3	
BT40-CKB3-95	B	95	68	31	18	31	M6×0.75	1.32	
BT40-CKB3-125		125	80	31	18	37	M6×0.75	1.46	
BT40-CKB3-166		166	86	31	18	37	M6×0.75	1.62	
BT40-CKB3-186		186	115	31	18	37	M6×0.75	1.75	
BT40-CKB4-96	A	96	68	39	22	39	M8×0.75	1.54	
BT40-CKB4-125		125	98	39	22	39	M8×0.75	1.86	
BT40-CKB4-155		155	128	39	22	40	M8×0.75	2.15	
BT40-CKB4-185	B	185	120	39	22	46	M8×0.75	2.42	
BT40-CKB5-95		95	68	49	28	49	M10×1	1.81	
BT40-CKB5-126	A	126	98	49	28	49	M10×1	2.35	
BT40-CKB5-166		166	128	49	28	49	M10×1	2.75	
BT40-CKB5-186		186	155	49	28	49	M10×1	3.05	
BT40-CKB5-215		215	180	49	28	49	M10×1	3.30	
BT40-CKB6-70		70	43	63	36	63	M12×1	2.20	
BT40-CKB6-95		95	68	63	36	63	M12×1	2.75	
BT40-CKB6-126		126	98	63	36	63	M12×1	3.20	
BT40-CKB6-166		166	128	63	38	63	M12×1	3.40	
BT40-CKB6-186		186	158	63	38	63	M12×1	3.60	
BT40-CKB6-216		216	188	63	38	63	M12×1	3.80	

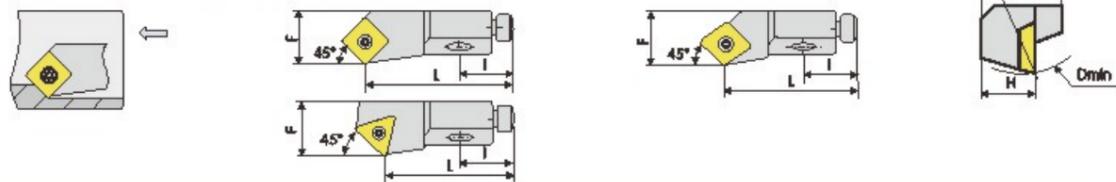
◎BT50 MAS 403 BT (IOS50)

型號 Specification	Figure	L	L2	D	d	D1	G	重量 kg
BT50-CKB1-125	A	125	67	19	11	27	M4×0.5	3.93
BT50-CKB1-166	B	166	75	19	11	27	M4×0.5	4.05
BT50-CKB2-125	A	125	67	24	14	31	M5×0.5	4.08
BT50-CKB2-166	B	166	75	24	14	35	M5×0.5	4.20
BT50-CKB3-125	A	125	76	31	18	36	M6×0.75	4.10
BT50-CKB3-166		166	90	31	18	36	M6×0.75	4.35
BT50-CKB3-205	B	205	130	31	18	36	M6×0.75	4.70
BT50-CKB4-126		126	82	39	22	45	M8×0.75	4.35
BT50-CKB4-185	A	165	95	39	22	45	M8×0.75	4.70
BT50-CKB4-206		205	110	39	22	45	M8×0.75	5.02
BT50-CKB4-245	B	245	150	39	22	46	M8×0.75	5.30
BT50-CKB5-126		126	82	49	28	49	M10×1	4.75
BT50-CKB5-185	A	165	95	49	28	58	M10×1	5.20
BT50-CKB5-206		205	110	49	28	58	M10×1	5.58
BT50-CKB5-245	B	245	150	49	28	58	M10×1	5.95
BT50-CKB6-126		126	87	63	36	73	M12×1	5.15
BT50-CKB6-185	A	165	127	63	36	73	M12×1	6.10
BT50-CKB6-206		205	185	63	36	73	M12×1	7.40
BT50-CKB6-245	B	245	150	63	36	73	M12×1	7.75
BT50-CKB6-285		285	185	63	36	73	M12×1	8.10



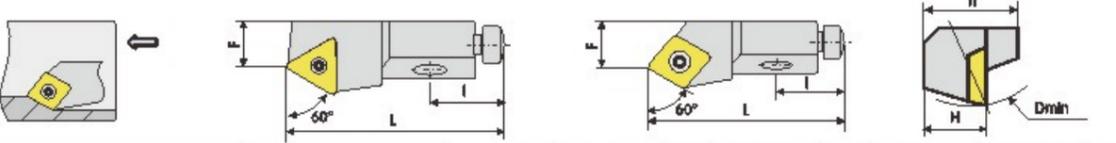
Accessories for Special Tools 可转位精密小刀夹

S□S□R/L45° 小刀夹



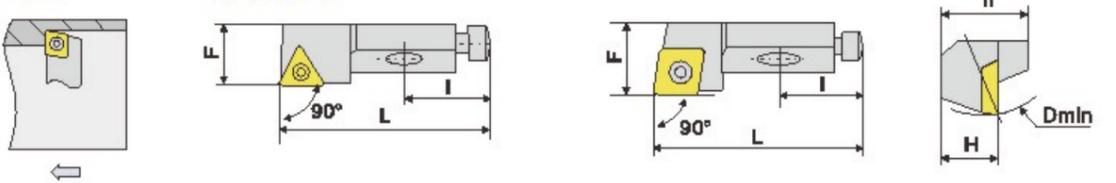
型號 Specification		尺寸 Size						刀片 Inserts	螺釘 Screw	扳手 Wrench	螺釘 Screw	扳手 Wrench	螺釘 Screw	螺釘 Screw	螺釘 Screw	扳手 Wrench
左刀 Left	右刀 Right	H	F	h	I	L	Dmin	△ □	⊕	□	⌒	⌒	⌒	⌒	⌒	
SCSCL06CA-08	SCSCR08CA-08	6	8	8.5	12	21	20	CC..060204	SIC025065	FT07	SDC035120	S2.5	SAC030085	SSC030050	S1.5	
SCSCL08CA-08	SCSCR08CA-08	8	10	11	17	28	25	CC..060204	SIC025065	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
STSCCL08CA-09	STSCR08CA-09	8	10	11	17	28	25	TC..09T308	SIC022063	FT07	SCC040160	S3	SAC040130	SSC040080	S2	
SCSCL10CA-09	SCSCR10CA-09	10	14	15	20	44	40	CC..09T308	SIC035080	FT15	SCC060200	S4	SAC050145	SSC040080	S2	
SSSCL10CA-09	SSSCR10CA-09	10	14	15	20	44	40	SC..09T308	SIC035080	FT15	SCC060200	S4	SAC050145	SSC040080	S2	
STSCCL10CA-11	STSCR10CA-11	10	14	15	20	44	40	TC..110204	SIC025065	FT07	SCC060200	S4	SAC050145	SSC040080	S2	
SSSCL12CA-09	SSSCR12CA-09	12	20	20	20	47	50	SC..09T308	SIC035080	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SSSCL12CA-12	SSSCR12CA-12	12	20	20	20	47	50	SC..120408	SID040110	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
STSCCL12CA-16	STSCR12CA-16	12	20	20	20	47	50	TC..16T308	SIC035080	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SSSCL16CA-12	SSSCR16CA-12	16	25	25	25	53	60	SC..120408	SID040110	FT15	SCC080350	S5	SAC080145	SSC060160	S3	
STSCCL16CA-18	STSCR16CA-18	16	25	25	25	53	60	TC..16T308	SIC035080	FT15	SCC080350	S5	SAC080145	SSC060160	S3	

S□T□R/L60° 小刀夹



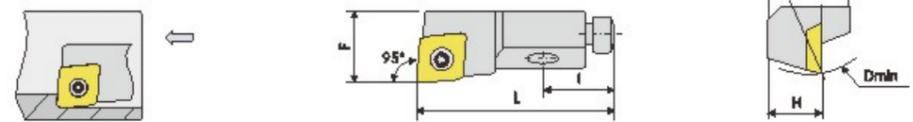
型號 Specification		尺寸 Size						刀片 Inserts	螺釘 Screw	扳手 Wrench	螺釘 Screw	扳手 Wrench	螺釘 Screw	螺釘 Screw	螺釘 Screw	扳手 Wrench
左刀 Left	右刀 Right	H	F	h	I	L	Dmin	△ □	⊕	□	⌒	⌒	⌒	⌒	⌒	
SCTCL08CA-08	SCTCR08CA-08	6	5.5	8.5	12	25	20	CC..060204	SIC025065	FT07	SDC035120	S2.5	SAC030085	SSC030050	S1.5	
SCTCL08CA-08	SCTCR08CA-08	8	8	11	17	32	25	CC..060204	SIC025065	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
STTCL08CA-09	STTCR08CA-09	8	8	11	17	32	25	TC..090204	SIC022063	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
STTCL10CA-11	STTCR10CA-11	10	9	15	20	50	40	TC..110204	SIC025065	FT07	SCC080200	S4	SAC050145	SSC040080	S2	
STTCL12CA-16	STTCR12CA-16	12	13	20	20	55	50	TC..16T308	SIC035080	FT15	SCC080250	S4	SAC060145	SSC050120	S2.5	
STTCL16CA-16	STTCR16CA-16	16	15	25	25	63	60	CC..09T308	SIC035080	FT15	SCC080350	S5	SAC060145	SSC060160	S3	
SCTCL10CA-09	SCTCR10CA-09	10	9	15	20	50	40	CC..09T308	SIC035080	FT15	SCC080200	S4	SAC050145	SSC040080	S2	

S□G□R/L90° 小刀夹



型號 Specification		尺寸 Size						刀片 Inserts	螺釘 Screw	扳手 Wrench	螺釘 Screw	扳手 Wrench	螺釘 Screw	螺釘 Screw	螺釘 Screw	扳手 Wrench
左刀 Left	右刀 Right	H	F	h	I	L	Dmin	△ □	⊕	□	⌒	⌒	⌒	⌒	⌒	
SCGCL08CA-06	SCGCR08CA-06	8	10	11	17	32	25	CC..060204	SIC025065	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
SCGCL10CA-08	SCGCR10CA-08	10	14	15	20	50	40	CC..09T308	SIC035080	FT15	SCC060200	S4	SAC050145	SSC040080	S2	
SCGCL12CA-08	SCGCR12CA-08	12	20	20	20	55	50	CC..09T308	SIC035080	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SCGCL12CA-12	SCGCR12CA-12	12	20	20	20	55	50	CC..120408	SID040110	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SCGCL16CA-12	SCGCR16CA-12	16	25	25	25	63	60	CC..120408	SID040110	FT15	SCC080350	S5	SAC080145	SSC060160	S3	
STGCL08CA-08	STGCR08CA-08	8	10	11	17	32	25	TC..090204	SIC022063	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
STGCL10CA-11	STGCR10CA-11	10	14	15	20	50	40	TC..110204	SIC025065	FT07	SCC060200	S4	SAC050145	SSC040080	S2	
STGCL12CA-16	STGCR12CA-16	12	20	20	20	55	50	TC..16T308	SIC035080	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
STGCL16CA-18	STGCR16CA-18	16	25	25	25	63	60	TC..16T308	SIC035080	FT15	SCC080350	S5	SAC080145	SSC060160	S3	

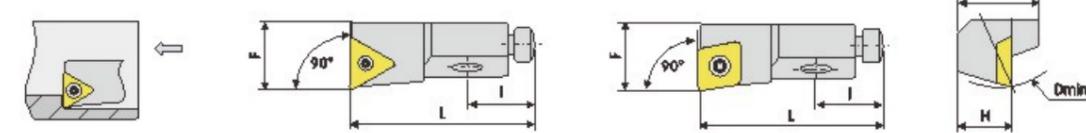
S□L□R/L95° 小刀夹



型號 Specification		尺寸 Size						刀片 Inserts	螺釘 Screw	扳手 Wrench	螺釘 Screw	扳手 Wrench	螺釘 Screw	螺釘 Screw	螺釘 Screw	扳手 Wrench
左刀 Left	右刀 Right	H	F	h	I	L	Dmin	△ □	⊕	□	⌒	⌒	⌒	⌒	⌒	
SCLCL06CA-06	SCLCR06CA-06	6	8	8.5	12	25	20	CC..060204	SIC025065	FT07	SDC035120	S2.5	SAC030085	SSC030050	S1.5	
SCLCL08CA-08	SCLCR08CA-08	8	10	11	17	32	25	CC..060204	SIC025065	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
SCLCL10CA-09	SCLCR10CA-09	10	14	15	20	50	40	CC..09T308	SIC035080	FT15	SCC060200	S4	SAC050145	SSC040080	S2	
SCLCL12CA-12	SCLCR12CA-12	12	20	20	20	55	50	CC..120408	SID040110	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	

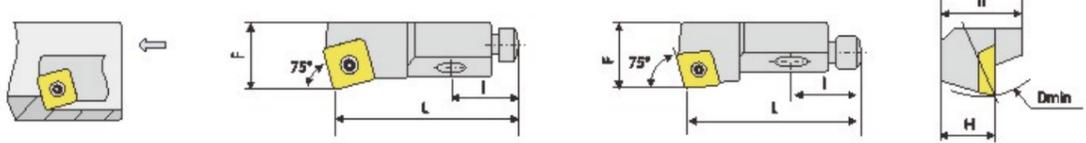
Accessories for Special Tools 可转位精密小刀夹

S□F□R/L90° 小刀夹



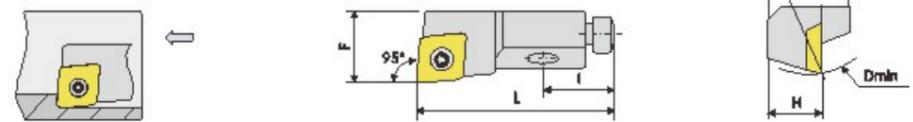
型號 Specification		尺寸 Size						刀片 Inserts	螺釘 Screw	扳手 Wrench	螺釘 Screw	扳手 Wrench	螺釘 Screw	螺釘 Screw	螺釘 Screw	扳手 Wrench
左刀 Left	右刀 Right	H	F	h	I	L	Dmin	△ □	⊕	□	⌒	⌒	⌒	⌒	⌒	
SCFCL06CA-06	SCFCR06CA-06	6	8	8.5	12	25	20	CC..060204	SIC025065	FT07	SDC035120	S2.5	SAC030085	SSC030050	S1.5	
SCFCL08CA-06	SCFCR08CA-06	8	10	11	17	32	25	CC..060204	SIC025065	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
SCFCL10CA-09	SCFCR10CA-09	10	14	15	20	50	40	CC..09T308	SIC035080	FT15	SCC060200	S4	SAC050145	SSC040080	S2	
SCFCL12CA-09	SCFCR12CA-09	12	20	20	20	55	50	CC..09T308	SIC035080	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SCFCL12CA-12	SCFCR12CA-12	12	20	20	20	55	50	CC..120408	SID040110	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SCFCL16CA-12	SCFCR16CA-12	16	25	25	25	63	60	CC..120408	SID040110	FT15	SCC080350	S5	SAC080145	SSC060160	S3	
STFCL08CA-08	STFCR08CA-08	8	10	11	17	32	25	TC..090204	SIC022063	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
STFCL10CA-11	STFCR10CA-11	10	14	15	20	50	40	TC..110204	SIC025065	FT07	SCC060200	S4	SAC050145	SSC040080	S2	
STFCL12CA-18	STFCR12CA-18	12	20	20	20	55	50	TC..16T308	SIC035080	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
STFCL16CA-18	STFCR16CA-18	16	25	25	25	63	60	TC..16T308	SIC035080	FT15	SCC080350	S5	SAC080145	SSC060160	S3	

S□k□R/L75° 小刀夹



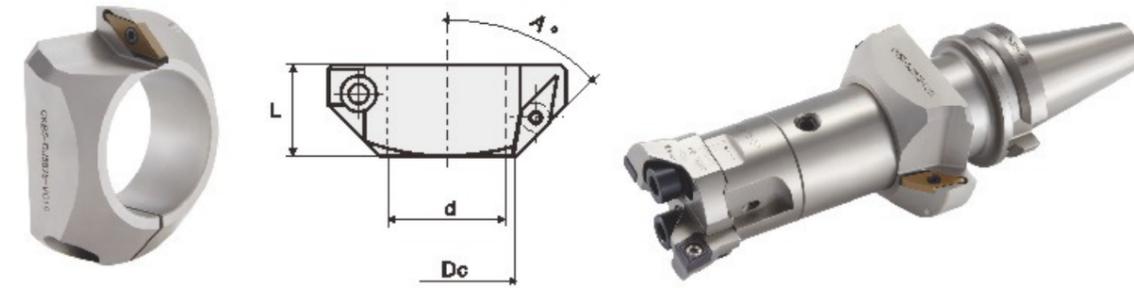
型號 Specification		尺寸 Size						刀片 Inserts	螺釘 Screw	扳手 Wrench	螺釘 Screw	扳手 Wrench	螺釘 Screw	螺釘 Screw	螺釘 Screw	扳手 Wrench
左刀 Left	右刀 Right	H	F	h	I	L	Dmin	△ □	⊕	□	⌒	⌒	⌒	⌒	⌒	
SKKCL08CA-05	SKKCR08CA-05	6	8	8.5	12	25	20	CC..060204	SIC025063	FT07	SDC035120	S2.5	SAC030085	SSC030050	S1.5	
SKKCL08CA-08	SKKCR08CA-08	8	10	11	17	32	25	CC..060204	SIC025065	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
SSKCL10CA-09	SSKCR10CA-09	10	14	15	20	50	40	SC..09T308	SIC035080	FT15	SCC060200	S4	SAC050145	SSC040080	S2	
SSKCL12CA-09	SSKCR12CA-09	12	20	20	20	55	50	SC..09T308	SIC035080	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SSKCL12CA-12	SSKCR12CA-12	12	20	20	20	55	50	SC..120408	SID040110	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	
SSKCL16CA-12	SSKCR16CA-12	16	25	25	25	63	60	SC..120408	SID040110	FT15	SCC080350	S5	SAC080145	SSC060160	S3	

S□L□R/L95° 小刀夹



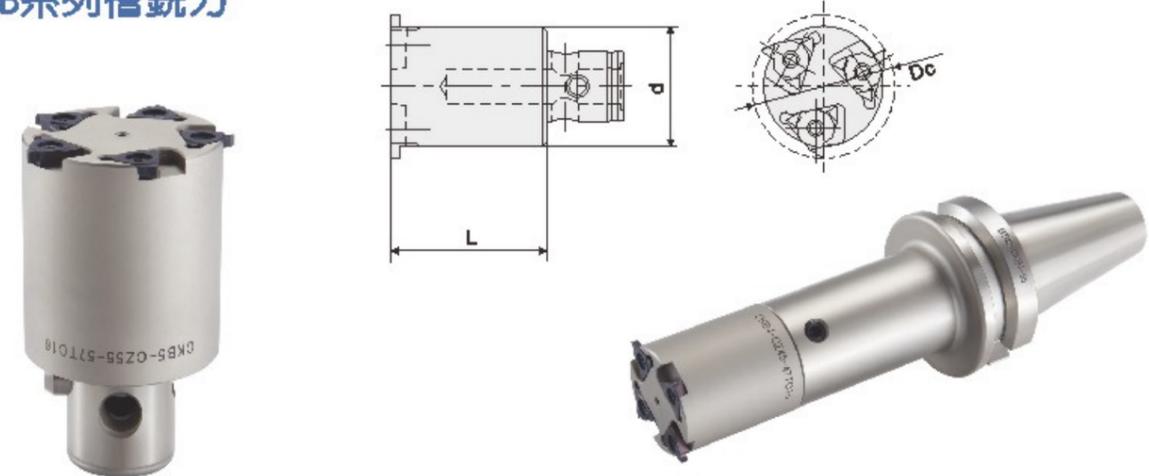
型號 Specification		尺寸 Size						刀片 Inserts	螺釘 Screw	扳手 Wrench	螺釘 Screw	扳手 Wrench	螺釘 Screw	螺釘 Screw	螺釘 Screw	扳手 Wrench
左刀 Left	右刀 Right	H	F	h	I	L	Dmin	△ □	⊕	□	⌒	⌒	⌒	⌒	⌒	
SCLCL06CA-06	SCLCR06CA-06	6	8	8.5	12	25	20	CC..060204	SIC025065	FT07	SDC035120	S2.5	SAC030085	SSC030050	S1.5	
SCLCL08CA-08	SCLCR08CA-08	8	10	11	17	32	25	CC..060204	SIC025065	FT07	SCC040160	S3	SAC040130	SSC030050	S1.5	
SCLCL10CA-09	SCLCR10CA-09	10	14	15	20	50	40	CC..09T308	SIC035080	FT15	SCC060200	S4	SAC050145	SSC040080	S2	
SCLCL12CA-12	SCLCR12CA-12	12	20	20	20	55	50	CC..120408	SID040110	FT15	SCC060250	S4	SAC060145	SSC050120	S2.5	

Chamfering Tools TWN系列鏢刀倒角環



型號 Specification	Dc	d	L	A	適用刀片 Insert	螺釘 Screw	扳手 Wrench	庫存 Store
CKB1-DJ2228-20A	22-28	19	20	45°	VCMT110304	M2.5X6.5	T8	○
CKB1-DJ2430-20B	24-30	19	20	30°	VCMT110304	M2.5X6.5	T8	○
CKB2-DJ2735-20A	27-35	24	20	45°	VCMT110304	M2.5X6.5	T8	○
CKB2-DJ2837-20B	29-37	24	20	30°	VCMT110304	M2.5X6.5	T8	○
CKB2-DJ3038-20A	30-38	24	20	45°	VCMT110304	M2.5X6.5	T8	○
CKB2-DJ3240-20B	32-40	24	20	30°	VCMT110304	M2.5X6.5	T8	○
CKB3-DJ3848-20A	38-48	31	20	45°	VCMT110304	M2.5X6.5	T8	○
CKB3-DJ4151-20B	41-51	31	20	30°	VCMT110304	M2.5X6.5	T8	○
CKB4-DJ4861-30A	48-61	39	30	45°	VCMT160408	M4X10	T15	○
CKB4-DJ5063-30B	50-63	39	30	30°	VCMT160408	M4X10	T15	○
CKB5-DJ6077-30A	60-77	49	30	45°	VCMT160408	M4X10	T15	○
CKB5-DJ6279-30B	62-79	49	30	30°	VCMT160408	M4X10	T15	○
CKB6-DJ7898-30A	76-98	63	30	45°	VCMT160408	M4X10	T15	○
CKB6-DJ78100-30B	78-100	63	30	30°	VCMT160408	M4X10	T15	○

Slot Milling Cutters CKB系列槽銑刀



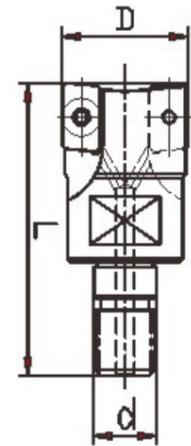
型號 Specification	Dc	d	L	適用刀片 Insert	螺釘 Screw	刃數 Teeth	扳手 Wrench	緊定螺釘 Screw	庫存 Store
CKB2-CZ28-35TGF32	28	24	35	TGF32L3050-TGF32L3280	M4X10	2	T15	TW40TS	0.14 ○
CKB3-CZ37-40TGF32	37	31	40	TGF32L3050-TGF32L3280	M4X10	3	T15	TW40TS	0.23 ○
CKB4-CZ45-47TGF32	45	39	47	TGF32L3050-TGF32L3280	M4X10	4	T15	TW40TS	0.43 ○
CKB5-CZ55-57TGF32	55	50	57	TGF32L3050-TGF32L3280	M4X10	5	T15	TW40TS	0.82 ○
CKB6-CZ70-70TGF32	70	63	70	TGF32L3050-TGF32L3280	M4X10	6	T15	TW40TS	1.75 ○

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刀柄系列
Chuck
刀片系列
Cutting Inserts
粗鏢刀系列
Rough Boring Head
精鏢刀系列
Finish Boring Head
鏢刀柄系列
Chuck
小刀夾系列
Accessories
鏢刀倒角環系列
Chamfering Tools
CKB系列槽銑刀
Slot Milling Cutters

Modular Type Milling Cutter 可換式鎖牙刀頭



型號 Specification	尺寸毫米 Dimensions(mm)				牙Teeth	刀片規格Insert	kg
	D	d	L	M			
300R-16-M8-2T	16	8.5	25	M8	2	APMT1135	0.06
300R-17-M8-2T	17	8.5	25	M8	2		0.06
300R-20-M10-2T	20	10.5	30	M10	2		0.07
300R-20-M10-3T	20	10.5	30	M10	3		0.07
300R-21-M10-2T	21	10.5	30	M10	2		0.07
300R-21-M10-3T	21	10.5	30	M10	3		0.07
300R-22-M10-3T	22	10.5	30	M10	3		0.09
300R-25-M12-3T	25	12.5	35	M12	3		0.12
300R-25-M12-3T	25	12.5	35	M12	4		0.11
300R-26-M12-3T	26	12.5	35	M12	3		0.12
300R-26-M12-3T	26	12.5	35	M12	4		0.12
300R-32-M16-4T	32	17	43	M16	4		0.24
300R-32-M16-5T	32	17	43	M16	5		0.23
300R-33-M16-4T	33	17	43	M16	4		0.25
300R-33-M16-5T	33	17	43	M16	5		0.24
300R-35-M16-4T	35	17	43	M16	4		0.31
300R-35-M16-5T	35	17	43	M16	5		0.31
300R-36-M16-5T	36	17	43	M16	5		0.32
400R-25-M12-2T	25	12.5	38	M12	2	APMT1604	0.13
400R-26-M12-2T	26	12.5	38	M12	2		0.14
400R-32-M16-2T	32	17	43	M16	2		0.26
400R-32-M16-3T	32	17	43	M16	3	APMT1604	0.25
400R-33-M16-2T	33	17	43	M16	2		0.27
400R-33-M16-3T	33	17	43	M16	3		0.27
400R-35-M16-3T	35	17	43	M16	3	0.30	



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- 刀柄系列
Chuck
- 刀片系列
Carbide Inserts
- 粗鏢刀系列
Rough Boring Head
- 精鏢刀系列
Finish Boring Head
- 鏢刀柄系列
Chuck
- 小力夾系列
Accessories
- 鏢刀倒角鑿系列
Chamfering Tools
- Q系列槽銑刀
Slot Milling Cutters

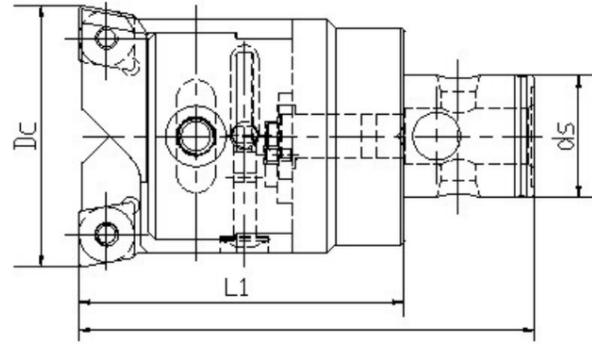
YZB Rough Boring Modular YZB 粗鏜刀模块

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刀柄系列
Chuck

刀片系列
Carbide Inserts

粗鏜刀系列
Rough Boring Head



型號 Specification/Item	數據 Data			適用刀片 Applicable Insert	螺釘 Screw	扳手 WBHCH	kg
	Dc	dm	L1				
C20-TWN1821-50	18-21	20	65	CC..0602..	M2.5*6.5	T8	0.07
CKB2-YZB2533-50	25-33	19	50	CC..0802..	M2.5*6.5	T8	0.14
CKB3-YZB3345-55	33-45	24	55	CC..09T3..	M4*10	T15	0.23
CKB4-YZB4255-65	42-55	31	65	CC..09T3..	M4*10	T15	0.43
CKB5-YZB5475-70	54-75	38	70	CC..1204..	M5*13	T20	0.82
CKB6-YZB6895-75	68-95	63	75	CC..1204..	M5*13	T20	1.76
CKB6-YZB89125-75	89-125	63	75	CC..1204..	M5*13	T20	2.25
CKB6-YZB120160-75	120-160	63	75	CC..1204..	M5*13	T20	2.35

Counter Rough Boring Modular 反鏜刀粗鏜刀模块

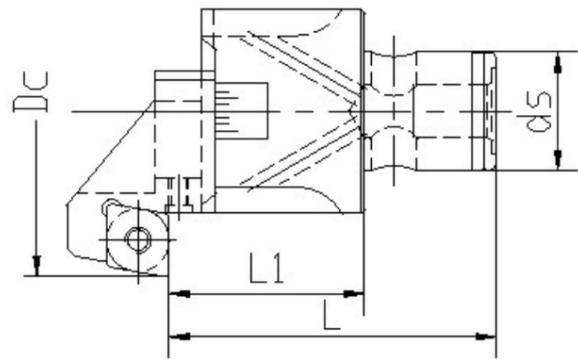
精鏜刀系列
Finish Boring Head

鏜刀柄系列
Chuck

小刀夾系列
Accessories

鏜刀倒角鏜系列
Chamfering Tools

刀系列槽鏜刀
Slot Milling Cutters



型號 Specification/Item	數據 Data				適用刀片 Applicable Insert	螺釘 Screw	扳手 WBHCH	kg
	DC	ds	L1	L				
CKB2-TWN3038F-29	30-38	14	29	65	CC..0802..	M2.5*6.5	T8	0.049
CKB3-TWN3747F-30	37-47	18	30	50	CC..09T3..	M4*10	T15	0.098
CKB4-TWN4860F-36	46-60	22	36	55	CC..09T3..	M4*10	T15	0.161
CKB5-TWN6081F-41	60-61	28	41	65	CC..1204..	M5*13	T20	0.301
CKB6-TWN79101F-50	79-101	36	58	70	CC..1204..	M5*13	T20	0.574
CKB6-TWN99130F-50	89-130	36	58	75	CC..1204..	M5*13	T20	1.225
CKB6-TWN129180F-50	128-160	36	58	75	CC..1204..	M5*13	T20	1.575





BRAZED GUNDRILLS 焊接式枪钻



◎ 焊接式单刃枪钻库存表 Stock of brazed single flute gun drills

specification 规格	235mm(L)		270mm(L)		handle/driver 刀柄	800mm (L)	1000mm (L)	1200mm (L)	1440mm (L)	1650mm (L)	1800mm (L)	handle/driver 刀柄
	standrad 标准	coating 涂层	standrad 标准	coating 涂层								
Φ3.02	◆	◆			10*40	◆	◆					25*70
Φ3.52	◆	◆				◆	◆					
Φ4.02	◆	◆				◆	◆	◆				
Φ4.52	◆	◆				◆	◆	◆				
Φ5.02	◆	◆				◆	◆	◆	◆			
Φ5.52	◆	◆					◆	◆	◆			
Φ6.02	◆	◆					◆	◆	◆	◆		
Φ6.52	◆	◆					◆	◆	◆	◆		
Φ7.02	◆	◆	◆				◆	◆	◆	◆		
Φ7.52	◆	◆					◆	◆	◆	◆		
Φ8.02	◆	◆	◆					◆	◆	◆	◆	
Φ8.52	◆	◆						◆	◆	◆		
Φ9.02	◆	◆	◆					◆	◆	◆		
Φ9.52	◆	◆						◆	◆	◆		
Φ10.02	◆	◆	◆					◆	◆	◆	◆	
Φ10.52	◆	◆						◆	◆	◆		
Φ11.02	◆	◆	◆						◆	◆		
Φ11.52	◆	◆							◆	◆		
Φ12.02	◆	◆	◆					◆	◆	◆		

◆ = available stock



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Chuck
- 刀片系列
Carbide Inserts
- 粗镗刀系列
Rough Boring Head
- 精镗刀系列
Finish Boring Head
- 镗刀柄系列
Chuck
- 小力夾系列
Accessories
- 镗刀倒角鑿系列
Chamfering Tools
- 刀系列槽銼刀
Slot Milling Cutters

BRAZED GUNDRILLS 焊接式枪钻

BRAZED GUNDRILLS 焊接式枪钻

◎ 焊接式枪钻标准柄 Standard driver of the brazed gun drills

specification 规格	diameter Φdia.(mm) 外形尺寸 Φdia.(mm)	drawing 简图	tool length calculation 刀具长度计算		fix position X 定位槽 X	screw spec M 螺纹规格 M
			clamping part D 钻柄夹紧部 D	transitional part L 钻柄过渡部 L		
SH10-00	10		40		24.0	
SH16-03	16		45	53	31.0	
SH25-00	25		70	78	34.0	
SH10-01	10		40	57	24.0	
SH16-04	16		45	72	31.0	
SH25-01	25		70	105	34.0	
SH16-02	16		50	58	47.5	
SH16-33	16		50	77	47.5	
SH10-06	10		60			M6x0.5
SH16-15	16		80			M10x1
SH25-08	25		100			M16x1.5
SH10-28	10		60	77		M6x0.5
SH16-22	16		60	105		M10x1
SH25-10	25		100	140		M16x1.5
SH12.7-00	12.7			38.1		
SH19.05-01	19.05		70			45.0
SH25.4-00	25.4		70			57.5
SH31.7-00	31.7		70			57.5
SH38.1-01	38.1		70			57.5
SH19.05-11	19.05		70	97		45.0
SH25.4-11	25.4		70	100		57.5
SH31.7-01	31.7		70	111		57.5
SH38.1-01	38.1		70	110		57.5
SH10-44	10			60	68	35
SH16-31	16		80	90	37	M10x1
SH25-34	25		100	100	45	M16x1.5
SH16-66	16			80	80	37
SH25-40	25		100	100	45	M16x1.5
SH10-30	10		40	40		28.0
SH12-14	12		45	45		33.0
SH16-70	16		48	48		36.0
SH20-56	20		50	50		38.0

specification 规格	diameter Φdia.(mm) 外形尺寸 Φdia.(mm)	drawing 简图	tool length calculation 刀具长度计算		fix position X 定位槽 X	screw spec M 螺纹规格 M
			clamping part D 钻柄夹紧部 D	transitional part L 钻柄过渡部 L		
SH16-00	16		112		73.0	TR16x1.5
SH20-00	20		126		82.0	TR 20x2
SH28-00	28		126		82.0	TR 28x2
SH36-00	36		162		109.0	TR 36x2
SH16-21	16		40			28.0
SH25-16	25		50			35.0
SH35-00	35		60			40.0
SH16-30	16		40	67		28.0
SH25-20	25		50	77		35.0
SH35-01	35		60	100		40.0
SH10-40	10		40			
SH12-18	12		45			
SH16-11	16		48			
SH20-01	20		50			
SH25-11	25		56			
SH32-24	32		60			
SH40-03	40		70			
SH10-41	10		40	57		
SH12-19	12		45	62		
SH16-20	16		48	75		
SH20-60	20		50	77		
SH25-21	25		56	86		
SH32-23	32		60	100		
SH40-04	40		70	110		
SH10-11	10		40			23.5
SH12-07	12		45			26.5
SH16-32	16		48			29.0
SH20-29	20		50			30.5
SH25-22	25		56			38.0
SH32-10	32		60			43.0
SH40-13	40		70			47.0
SH10-23	10		40	57		23.5
SH12-02	12		45	62		26.5
SH16-53	16		48	75		29.0
SH20-34	20		50	77		30.5
SH25-31	25		56	86		38.0
SH32-11	32		60	100		43.0
SH40-14	40		70	110		47.0
SH10-20	10		40			28.0
SH12-08	12		45			33.0
SH16-47	16		48			36.0
SH20-40	20		50			38.0
SH25-36	25		56			44.0
SH32-12	32		60			48.0
SH40-18	40		70			66.0
SH10-24	10		40	57		28.0
SH12-05	12		45	62		33.0
SH16-51	16		48	75		36.0
SH20-43	20		50	77		38.0
SH25-37	25		56	86		44.0
SH32-13	32		60	100		48.0
SH40-17	40		70	110		66.0
SH10-29	10		40			28.0
SH12-13	12		45			33.0
SH16-62	16		48			36.0
SH20-55	20		50			38.0

BRAZED GUNDRILL 焊接式枪钻

BRAZED GUNDRILL 焊接式枪钻

◎ 焊接式单刃枪钻加工参数表 Machining parameters of the brazed single flute gun drill

workpiece material 工件材质	spring steel prehardened steel cast iron chilled cast iron titanium alloy special steel (nickel base heat resistant alloy nickel alloy) 弹簧钢 淬硬钢 耐热钢 铸钢 冷硬铸铁 钛合金 特殊合金 (镍基耐热合金钛合金等)	stainless steel anti corrosive stainless steel austenitic stainless steel 18-25%Cr NI > 8% 不锈钢 耐酸不锈钢 奥氏体不锈钢 18~25%Cr NI > 8%	martensitic stainless steel ferritic steel (normal stainless steel cast stainless steel) 13-25%Cr free cutting steel (sulphurized steel) 马氏体不锈钢 铁素体不锈钢 (普通不锈钢或沉淀硬化) 13~25%Cr 易切削钢(硫磺钢)	alloy steel quenching and tempered steel case hardened steel nitriding steel tool steel (> 900N/mm ²) 合金钢 调质钢 表面硬化钢 氮处理钢 工具钢 (> 900N/mm ²)
cutting speed m/min 切削速度 m/min	25~60	30~60	40~70	60~80

cast iron grey cast iron (< 300N/mm ²) nodular cast iron (< 400N/mm ²) 铸铁 灰口铸铁 (< 300N/mm ²) 球墨铸铁 (< 400N/mm ²)	cast iron grey cast iron (< 300N/mm ²) grey cast iron (< 400N/mm ²) malleable cast iron white heart malleable cast iron black heart malleable cast iron 铸钢灰口铸铁 (< 300N/mm ²) 球墨铸铁 (< 400N/mm ²) 可锻铸铁 白心可锻铸铁 黑心可锻铸铁	structural steel quenching and tempered steel high carbon low alloy steel case hardened steel nitriding steel tool steel (> 900N/mm ²) free cutting steel 结构钢 调质钢 高碳低合金钢 表面硬化钢 氮处理钢 工具钢 (> 900N/mm ²) 易切削钢	brass bronze copper plastic 黄铜 青铜 紫铜 塑料	aluminum cast aluminum SI > 5% free cutting aluminum 铝 铸铝 SI > 5% 易加工铝	aluminum cast aluminum SI > 5% non quenched aluminum 铝 铸铝 SI > 5% 非淬硬铝
60~90	70~100	70~100	80~150	80~160	100~300

diameter Φ 直径Φ	feed rate: mm/rev 进给速度:毫米/转: mm/rev			
2.0-2.49	0.001~0.002	0.002~0.005	0.002~0.006	0.002~0.005
2.5-2.99	0.001~0.005	0.004~0.007	0.004~0.007	0.004~0.006
3.0-3.49	0.002~0.007	0.006~0.008	0.005~0.009	0.005~0.007
3.5-3.99	0.004~0.008	0.008~0.009	0.007~0.011	0.007~0.010
4.0-4.49	0.006~0.009	0.009~0.010	0.008~0.013	0.008~0.012
4.5-4.99	0.008~0.011	0.010~0.013	0.009~0.017	0.011~0.015
5.0-5.99	0.010~0.014	0.012~0.015	0.013~0.019	0.013~0.018
6.0-6.99	0.012~0.016	0.014~0.017	0.015~0.023	0.015~0.022
7.0-7.99	0.015~0.018	0.016~0.019	0.18~0.026	0.018~0.025
8.0-8.99	0.018~0.021	0.018~0.021	0.020~0.031	0.020~0.027
9.0-9.99	0.021~0.025	0.020~0.028	0.023~0.034	0.023~0.030
10.0-11.99	0.025~0.030	0.025~0.033	0.025~0.041	0.025~0.038
12.0-13.99	0.027~0.033	0.030~0.044	0.030~0.045	0.029~0.044
14.0-15.99	0.029~0.040	0.035~0.044	0.035~0.052	0.035~0.050
16.0-17.99	0.033~0.044	0.041~0.050	0.042~0.060	0.039~0.053
18.0-19.99	0.037~0.049	0.045~0.062	0.045~0.067	0.044~0.060
20.0-23.99	0.041~0.054	0.049~0.071	0.050~0.079	0.049~0.069
24.0-27.99	0.045~0.057	0.052~0.083	0.054~0.090	0.054~0.077
28.0-31.99	0.049~0.062	0.057~0.091	0.059~0.098	0.059~0.085
32.0-40.0	0.052~0.065	0.063~0.098	0.065~0.107	0.063~0.098

feed rate: mm/rev 进给速度:毫米/转: mm/rev					
0.005~0.018	0.005~0.019	0.003~0.007	0.003~0.015	0.002~0.012	0.005~0.005
0.008~0.028	0.008~0.02	0.005~0.010	0.005~0.020	0.004~0.026	0.004~0.008
0.009~0.038	0.009~0.038	0.007~0.012	0.006~0.030	0.006~0.037	0.006~0.012
0.011~0.042	0.011~0.046	0.009~0.015	0.007~0.045	0.007~0.055	0.007~0.025
0.012~0.047	0.012~0.050	0.012~0.019	0.008~0.050	0.008~0.071	0.008~0.026
0.016~0.052	0.016~0.057	0.014~0.020	0.009~0.057	0.009~0.094	0.009~0.028
0.018~0.065	0.018~0.068	0.016~0.026	0.010~0.069	0.010~0.109	0.010~0.036
0.024~0.071	0.024~0.074	0.018~0.028	0.012~0.079	0.012~0.125	0.012~0.045
0.028~0.084	0.028~0.085	0.021~0.035	0.014~0.092	0.018~0.130	0.014~0.049
0.032~0.092	0.032~0.096	0.024~0.036	0.016~0.101	0.020~0.144	0.016~0.056
0.36~0.110	0.036~0.114	0.027~0.040	0.018~0.113	0.023~0.158	0.018~0.034
0.045~0.116	0.050~0.120	0.030~0.04	0.020~0.139	0.025~0.174	0.020~0.074
0.051~0.126	0.060~0.138	0.036~0.060	0.024~0.156	0.030~0.182	0.024~0.087
0.057~0.138	0.070~0.154	0.042~0.071	0.028~0.179	0.035~0.194	0.028~0.099
0.620~0.158	0.079~0.170	0.048~0.079	0.033~0.199	0.050~0.209	0.033~0.108
0.066~0.173	0.090~0.191	0.054~0.091	0.036~0.244	0.054~0.228	0.036~0.130
0.069~0.189	0.106~0.207	0.060~0.107	0.040~0.249	0.060~0.254	0.040~0.146
0.076~0.210	0.120~0.221	0.069~0.117	0.048~0.291	0.072~0.295	0.048~0.169
0.079~0.212	0.140~0.237	0.079~0.134	0.056~0.327	0.084~0.360	0.056~0.194
0.086~0.228	0.160~0.245	0.085~0.154	0.064~0.380	0.096~0.455	0.064~0.221

● The cutting speed and feed rate depend on: tool diameter, tool length, cutting fluid, workpiece material, characterization of machine and clamping condition. The processing parameters in the above table are the standard normal value for reference. The practical actual working conditions on site are the true value.
切削速度和进给量取决于: 刀具直径、刀具长度、切削液、工件材质、机床组件的稳定性和工装夹紧情况, 以上表格中的加工参数为标准参考值, 以现场实际工况为准。

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BRAZED GUNDRILLS

整体硬质合金枪钻

BRAZED GUNDRILLS

整体硬质合金枪钻

■ Solid carbide gun drill

The solid carbide gun drill is made of drill body (drill tip and drill rod integrated) and the drill handle from two parts by welding as a whole. It can also be made by the whole carbide (drill tip, drill rod and handle integrated) its stability, efficiency and useful life are better than the welding type. This design ensures higher reliability and cutting performance, while it compromise higher rigidity and less distorted vibration. It is therefore enjoy a longer tool life.

整体硬质合金枪钻
整体硬质合金枪钻是由钻身(钻尖与钻杆一体)钻柄两部分通过焊接成一个整体,也可以为全部整体硬质合金制成而成(钻尖、钻杆、钻柄一体),它的稳定性、效率以及寿命均优于焊接式。这种设计能够保证更高的可靠性、切削性能,同时它较高的刚性和较低的扭曲振动可以使刀具寿命更长。

Drilling diameter range: 1.00- 12.00
制作范围 $\phi 1.0 \sim \phi 12.0$

Made it up for maximum 550mm overall length
制作长度-550mm



Solid carbide gun drill stock table
整体硬质合金枪钻库存表

$\phi 1.52 \times 160-10 \times 55$	$\phi 2.0 \times 250-10 \times 135$	$\phi 3.8 \times 185-4 \times 38/50-L$
$\phi 1.80 \times 160-10 \times 55$	$\phi 2.2 \times 170-4 \times 38/50$	$\phi 3.8 \times 240-10 \times 100-L$
$\phi 2.02 \times 160-10 \times 55$	$\phi 2.5 \times 175-4 \times 38/50-L$	$\phi 3.8 \times 275-10 \times 135-L$
$\phi 2.02 \times 180-10 \times 55$	$\phi 2.5 \times 230-10 \times 100-L$	$\phi 4.0 \times 185-4 \times 38/50-L$
$\phi 2.02 \times 180-10 \times 55-L$	$\phi 2.5 \times 265-10 \times 135-L$	$\phi 4.0 \times 240-10 \times 100-L$
$\phi 2.02 \times 200-10 \times 55$	$\phi 2.6 \times 175-4 \times 38/50-L$	$\phi 4.0 \times 275-10 \times 135-L$
$\phi 2.02 \times 200-10 \times 55-L$	$\phi 2.6 \times 265-10 \times 135-L$	$\phi 4.2 \times 185-4 \times 38/50-L$
$\phi 2.52 \times 180-10 \times 55$	$\phi 2.8 \times 175-4 \times 38/50-L$	$\phi 4.2 \times 240-10 \times 100-L$
$\phi 2.52 \times 180-10 \times 55-L$	$\phi 2.8 \times 265-10 \times 135-L$	$\phi 4.2 \times 275-10 \times 135-L$
$\phi 3.02 \times 180-10 \times 55$	$\phi 3.0 \times 175-4 \times 38/50-L$	$\phi 4.5 \times 285-10 \times 135-L$
$\phi 3.02 \times 200-10 \times 55$	$\phi 3.0 \times 230-10 \times 100-L$	$\phi 4.8 \times 250-10 \times 100-L$
$\phi 3.02 \times 200-10 \times 55-L$	$\phi 3.0 \times 265-10 \times 135-L$	$\phi 5.0 \times 250-10 \times 100-L$
$\phi 2.8 \times 170-2.9 \times 30-L$	$\phi 3.2 \times 180-4 \times 38/50-L$	$\phi 5.0 \times 260-10 \times 100-L$
$\phi 3.0 \times 170-2.9 \times 30-L$	$\phi 3.2 \times 230-10 \times 100-L$	$\phi 6.0 \times 260-10 \times 100-L$
$\phi 3.2 \times 170-3.1 \times 30-L$	$\phi 3.2 \times 265-10 \times 135-L$	$\phi 6.0 \times 295-10 \times 135-L$
$\phi 1.80 \times 200-10 \times 100$	$\phi 3.5 \times 180-4 \times 38/50-L$	$\phi 7.0 \times 280-10 \times 100-L$
$\phi 2.0 \times 170-4 \times 38/50$	$\phi 3.5 \times 230-10 \times 100-L$	$\phi 9.0 \times 280-10 \times 100-L$
$\phi 2.0 \times 220-10 \times 100$	$\phi 3.5 \times 265-10 \times 135-L$	$\phi 10.0 \times 280-10 \times 100-L$

● L: TIALN

◎ 整体硬质合金枪钻标准刀柄表 Table of solid carbide gun drill handle

specification 规格	diamete(mm) ϕ dia. 外形尺寸(mm) ϕ dia.	drawing 图纸	handle length calculation 刀具长度计算		fix position x 定位槽 x	screw spec M 螺纹规格 M
			clamping part D 钻柄夹持部 D	transitional part L 钻柄过渡部 L		
SH6-03	6		30	45	17	
SH10-15	10		55	70		M6*0.5
SH10-37	10		40	55	32.7	M6*0.5
SH10-42	10		40	55	24	
SH12.7-01	12.7		38	48	25.4	
SH12.7-09	12.7		51	65		M6*0.5
SH16-75	16		80	105	37	M10*1
SH4-08	4		34	46		
SH6-12	6		36	50		
SH10-51	10		40	55		
SH12-27	12		45	60		
SH16-86	16		48	63		
SH6-13	6		36	50	20	
SH10-47	10		40	55	23.5	
SH12-30	12		45	60	26.5	
SH16-78	16		48	63	29	
SH6-01	6		36	50	25	
SH10-49	10		40	55	28	
SH12-28	12		45	60	33	
SH16-84	16		48	63	36	

BRAZED GUNDRILLS 整体硬质合金枪钻

BRAZED GUNDRILLS 整体硬质合金枪钻

◎ 整体硬质合金枪钻加工参数表 Solid carbide gun drill machining parameters

workpiece material 工件材质	spring steel prehardened steel hot work steel cast iron steel chilled cast iron titanium alloy special alloy (Ni base alloy nickel alloy) 弹簧钢 淬硬钢 耐热钢 铸钢 冷硬铸铁 钛合金 特殊合金 (镍基耐热合金 镍合金等)	stainless steel corrosive resistant steel austenitic steel 18~25% Cr Ni > 8% 不锈钢 耐酸不锈钢 奥氏体不锈钢 18~25% Cr Ni > 8%	martensitic steel ferritic steel (normal stainless steel cast stainless steel) 13~25% Cr free cutting steel (sulphurized steel) 马氏体不锈钢 铁素体不锈钢 (普通不锈钢 或不锈钢) 13~25% Cr 易切削钢 (硫化的)	alloy steel quenching and tempered steel case hardened steel nitriding steel tool steel (>900N/mm ²) 合金钢 调质钢 表面硬化钢 氮处理钢 工具钢 (>900N/mm ²)
cutting speed m/min 切削速度 m/min	25~60	30~60	40~70	60~80

cast iron grey cast iron (<300N/mm ²) nodular cast iron (<400N/mm ²) 铸铁 灰口铸铁 (<300N/mm ²) 球墨铸铁 (<400N/mm ²)	cast iron grey cast iron (<300N/mm ²) nodular cast iron (<400N/mm ²) malleable cast iron white heart malleable cast iron black heart malleable cast iron 铸钢 灰口铸钢 (<300N/mm ²) 球墨铸钢 (<400N/mm ²) 可锻铸钢 白心可锻铸钢 黑心可锻铸钢	structural steel quenching and tempered steel high carbon low alloy steel case hardened steel nitriding steel tool steel (>900N/mm ²) free cutting steel 结构钢 调质钢 高碳低合金钢 表面硬化钢 氮处理钢 工具钢 (>900N/mm ²) 易切削钢	brass bronze copper plastic 黄铜 青铜 紫铜 塑料	aluminum cast aluminum SI> 5% free cutting aluminum 铝 铸铝 SI> 5% 易加工铝	aluminum cast aluminum SI> 5% non quenched aluminum 铸铝 SI> 5% 非淬硬铝
60~90	70~100	70~100	80~150	80~160	100~300

diameter Φ 直径Φ	feed rate: mm/rev 进给速度:毫米/转: mm/rev			
0.7~0.79	0.0004~0.0012	0.0005~0.0012	0.0007~0.0012	0.0005~0.0012
0.8~0.89	0.0006~0.0016	0.0070~0.0015	0.0011~0.0014	0.0006~0.0015
0.9~0.99	0.0009~0.0020	0.0011~0.0019	0.0014~0.0017	0.0009~0.0019
1.0~1.09	0.0013~0.0024	0.0014~0.0022	0.0019~0.0022	0.0010~0.0023
1.1~1.19	0.0017~0.0028	0.0017~0.0025	0.0022~0.0026	0.0013~0.0029
1.2~1.29	0.0020~0.0033	0.0020~0.0027	0.0024~0.0028	0.0015~0.0035
1.3~1.39	0.0023~0.0036	0.0022~0.0029	0.0031~0.0035	0.0020~0.0041
1.4~1.49	0.0026~0.0038	0.0023~0.0031	0.0034~0.0037	0.0021~0.0047
1.5~1.59	0.0029~0.0042	0.0024~0.0035	0.0035~0.0042	0.0021~0.0051
1.6~1.79	0.0035~0.0054	0.0036~0.0049	0.0040~0.0051	0.0024~0.0066
1.8~1.99	0.0040~0.0065	0.0040~0.0065	0.0050~0.0065	0.0030~0.0075
2.0~2.49	0.0050~0.0075	0.0050~0.0075	0.0050~0.0075	0.0030~0.0095
2.5~2.99	0.0060~0.0095	0.0060~0.0095	0.0060~0.0110	0.0040~0.0110
3.0~3.49	0.0080~0.0110	0.0080~0.0110	0.0080~0.0130	0.0050~0.0140
3.5~3.99	0.0090~0.0125	0.0100~0.0160	0.0090~0.0160	0.0070~0.0160
4.0~4.49	0.0100~0.0135	0.0110~0.0180	0.0100~0.0190	0.0080~0.0190
4.5~4.99	0.0110~0.0160	0.0140~0.0220	0.0110~0.0220	0.0110~0.0210
5.0~5.99	0.0130~0.0220	0.0150~0.0240	0.0130~0.0250	0.0120~0.0250
6.0~7.99	0.0150~0.0300	0.0180~0.0290	0.0150~0.0370	0.0150~0.0330
8.0~12.0	0.0180~0.0380	0.0210~0.0330	0.0170~0.0410	0.0180~0.0380

feed rate: mm/rev 进给速度:毫米/转: mm/rev					
0.0009~0.0014	0.0007~0.0018	0.0004~0.0018	0.0005~0.0012	0.0007~0.0012	0.0005~0.0009
0.0012~0.0018	0.0010~0.0023	0.0004~0.0022	0.0008~0.0015	0.0012~0.0014	0.0008~0.0012
0.0015~0.0024	0.0014~0.0028	0.0007~0.0026	0.0011~0.0019	0.0017~0.0020	0.0011~0.0017
0.0019~0.0029	0.0018~0.0032	0.0010~0.0032	0.0015~0.0024	0.0020~0.0024	0.0015~0.0024
0.0025~0.0035	0.0022~0.0038	0.0014~0.0038	0.0019~0.0029	0.0022~0.0029	0.0019~0.0034
0.0031~0.0041	0.0030~0.0048	0.0018~0.0041	0.0024~0.0034	0.0024~0.0034	0.0024~0.0041
0.0040~0.0051	0.0039~0.0060	0.0020~0.0050	0.0028~0.0039	0.0026~0.0045	0.0026~0.0044
0.0047~0.0060	0.0049~0.0079	0.0021~0.0054	0.0031~0.0047	0.0028~0.0055	0.0032~0.0048
0.0053~0.0068	0.0056~0.0100	0.0021~0.0067	0.0032~0.0053	0.0035~0.0066	0.0038~0.0059
0.0064~0.0095	0.0064~0.0150	0.0028~0.0075	0.0035~0.0095	0.0040~0.0085	0.0040~0.0075
0.0070~0.0130	0.0070~0.0220	0.0030~0.0095	0.0040~0.0130	0.0050~0.0110	0.0050~0.0110
0.0100~0.0220	0.0090~0.0330	0.0040~0.0120	0.0040~0.0180	0.0050~0.0200	0.0070~0.0130
0.0130~0.0320	0.0110~0.0430	0.0050~0.0160	0.0050~0.0250	0.0060~0.0360	0.0080~0.0170
0.0150~0.0390	0.0140~0.0530	0.0080~0.0180	0.0060~0.0370	0.0080~0.0540	0.0100~0.0200
0.0180~0.0480	0.0180~0.0620	0.0090~0.0230	0.0070~0.0490	0.0110~0.0750	0.0100~0.0250
0.0200~0.0560	0.0200~0.0690	0.0120~0.0260	0.0080~0.0600	0.0120~0.0950	0.0130~0.0300
0.0230~0.0640	0.0230~0.0780	0.0140~0.0280	0.0090~0.0690	0.0140~0.1300	0.0160~0.0360
0.0250~0.0760	0.0250~0.0950	0.0150~0.0380	0.0100~0.0800	0.0150~0.1550	0.0200~0.0470
0.0300~0.1100	0.0300~0.1250	0.0180~0.0490	0.0120~0.0960	0.0180~0.0250	0.0260~0.0660
0.0330~0.1190	0.0350~0.1360	0.0210~0.0570	0.0140~0.1100	0.0210~0.2080	0.0290~0.0780

● The cutting speed and feed rate depend on: tool diameter, tool length, cutting fluid, workpiece material, characterization of machine and clamping condition. The processing parameters in the above table are the standard normal value for reference. The practical actual working conditions on site are the true value.
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