PARFAITE

精密刀把系列 | CNC TOOL HOLDER

油壓刀把．熱縮刀把．HER筒夾刀把

HYDRAULIC CHUCK
SHRINK FIT CHUCK
HER COLLET CHUCK

www.parfaite.com.tw

1982 年成立的台灣普慧企業，以擁有接近四十年成熟穩健技術為基礎，專司於馬達內藏式高速主軸，精密刀柄，特殊刀具的設計、製作及銷售，亦是全球唯一可以同時生產這三項高品質技術產品的公司。在於航太、工具機、汽機車零件、機殼、模具等各類生產加工方面都以確保客戶品質為最高指標，並獲得業界各大廠的肯定。

普慧不僅在精密刀柄及特殊刀具領域取得卓越成就，更積極投入機械核心領域進行研發，持續打造競爭優勢。其中可協助機台提升轉速效率 - 特別在電動增速器榮獲創新研究獎後。 1995 年量產了台灣第一支馬達內藏式電動主軸，為公司建立了顯著的市場差異性。

除提升下游產業轉型，並延伸製造業的應用領域，整合到3C、醫療及綠能等新興領域，帶動產業創新的商機。普慧秉持著「挑戰技術的極限」精神，不斷的於技術上創新與改善，期待能為機械產業帶向新的紀元。

Parfaite Tool Co.,Ltd is founded in 1982 for the accumulation of almost 40 years of experience and craftsmanship in specializing the design, manufacture and sale of Motor built-in High Speed Spindle, High Precision Tool Holder and customized Tool. Parfaite is also the sole company of supplying the above mentioned high quality-technical products in the meantime.

For the various machining and manufacturing in the Industries such as Aerospace, Machining center, Automotive…etc, guaranteeing the quantity and making the clients fully rely on us is our supreme target.

We have been actively involved in the R & D of the mechanical core areas, in which, there is one product can help to enhance the speed efficiency of the machine- Spindle Speeder , this product once received the "Innovative Research Award" from Ministry of Economic Affairs,Taiwan. It was Taiwan's first motor built-in high frequency spindle in 1995. In addition to enhancing the downstream industries, manufacturing applications and can be extended again in the future into 3C, medical and other emerging areas of green energy, promote business opportunities in the domestic industrial innovation.

Parfaite keeps the spirit of challenging the technology limit to improve and innovate on the technology, also expect to lead the machinery industry to a new era.

目錄 | INDEX

油壓刀把 HYDRAULIC CHUCK

熱縮刀把 SHRINK FIT CHUCK

HER 刀把 HER COLLET CHUCK

Hydraulic Chuck
油壓刀把系列

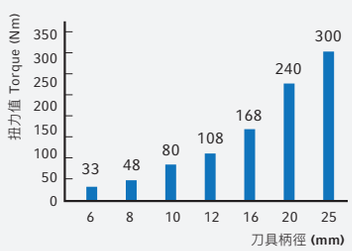
360度 且兩點夾持
360° and 2 Position Clamping

4X
4 X DIAMETER

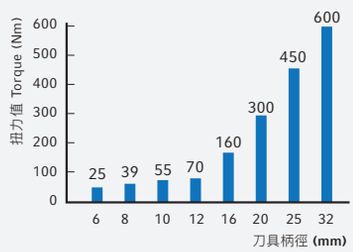
感受 4D 3μm 的精度
The new difinition of 3μm at 4D

夾持扭力
Clamping Torque

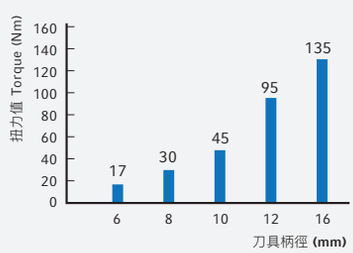
使用32mm筒夾夾持刀具
With 32mm Sleeves



直接夾持
Direct clamping



使用20mm筒夾夾持刀具
With 20mm Sleeves



掃描一下，能得到油壓刀把更詳細的相關資訊

刀具偏擺 ≤ 3μ
Run Out ≤ 3μ

減少刀具磨耗，降低刀具費用
大幅提升面粗度
刀具柄徑四倍長精度（最大80mm）
Ruduce to ling cost.
Better surface finish
4 x dø (max.80mm)

重複精度佳
High Repeat Accuracy

節省校刀時間
Reduce the down-times to set the tool to required accuracy compare to collet chuck.

含油壓油具減震功能
Vibration Dampening

提升面粗度
Significantly increase the surface quality.

夾刀操作簡單
Rapid and Tool Changing

約10秒內完成達到3μ精度
大幅降低精加工或需換刀之準備
不需昂貴複雜的周邊設備
10 sec to reach the accuracy of 3μ.
Reduce setup time for finishing or the process the needs to change cutting tool oftenly.
No need of peripheral equipment.

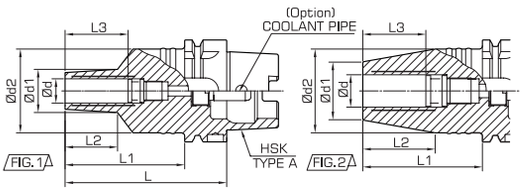
超冷處理
Cryogenic Tratment

降低變形，保持精度
To minimize the deformation of tool holder and attain the accuracy.

油壓刀把 | HYDRAULIC CHUCK

HSK-A

RUN-OUT 3μm HIGH PRECISION



Balancing / 動平衡

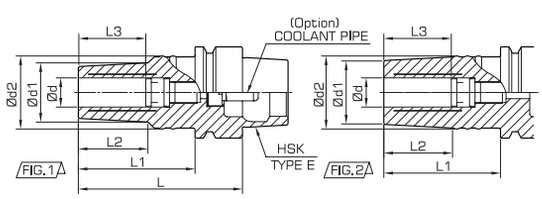
G6.3	*Option* / 選配 G2.5
Max. 25,000 RPM Or U ≤ 1gmm	Max. 25,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		FIG	ød	ød1	ød2	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	Screw 調整螺絲	Collet 筒 夾
HSK50A	HY06-080	1	6	26	40	80	54	24.5	31~36	HY06-M5	-
	HY08-080	1	8	28	40	80	54	25.5	31~36	HY08-M6	-
	HY10-080	1	10	30	40	80	54	35.5	35~40	HY08-M6	-
	HY12-090	1	12	32	40	90	64	40	39~45	HY08-M6	HY12-C
	HY14-090	1	14	34	40	90	64	40	39~45	HY14-M8	-
	HY16-090	2	16	35	40	90	64	40	42~48	HY14-M8	-
	HY18-090	2	18	37	42	90	64	40	42~48	HY18-M12	-
	HY20-090	2	20	37	42	90	64	11	44~50	HY18-M12	HY20-C
HSK63A	HY06-080	1	6	26	50	80	54	24.5	31~36	HY06-M5	-
	HY08-080	1	8	28	50	80	54	25.5	31~36	HY08-M6	-
	HY10-090	1	10	30	50	90	64	35.5	35~40	HY08-M6	-
	HY12-090	1	12	32	50	90	64	40	39~45	HY08-M6	HY12-C
	HY14-090	1	14	34	50	90	64	40	39~45	HY14-M8	-
	HY16-100	1	16	35	50	100	74	40	42~48	HY14-M8	-
	HY18-100	1	18	40	50	100	74	40	42~48	HY18-M12	-
	HY20-100	2	20	37	53	100	74	42	44~50	HY18-M12	HY20-C
	HY25-120	2	25	43	57	120	94	37	50~56	HY25-M16	-
	HY32-120	2	32	50.5	62.5	120	94	31	53~60	HY25-M16	HY32-C
HSK100A	HY10-100	1	10	30	50	100	71	35.5	35~40	HY08-M6	-
	HY12-100	1	12	32	50	100	71	40	39~45	HY08-M6	HY12-C
	HY14-100	1	14	34	50	100	71	40	39~45	HY14-M8	-
	HY16-100	1	16	35	50	100	71	40	42~48	HY14-M8	-
	HY18-100	1	18	40	50	100	71	40	42~48	HY18-M12	-
	HY20-105	2	20	37	53	105	76	42	44~50	HY18-M12	HY20-C
	HY25-120	2	25	43	57	120	91	37	50~56	HY25-M16	-
	HY32-120	2	32	50.5	62.5	120	91	31	53~60	HY25-M16	HY32-C

油壓刀把 | HYDRAULIC CHUCK

HSK-E

RUN-OUT 3μm HIGH PRECISION



Balancing / 動平衡

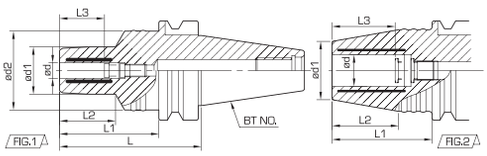
G6.3	*Option* / 選配 G2.5
Max. 30,000 RPM Or U ≤ 1gmm	Max. 30,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		FIG	ød	ød1	ød2	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	Screw 調整螺絲	Collet 筒 夾
HSK40E	HY06-070	1	6	26	33.8	70	50	24.5	31~36	HY06-M5	-
	HY08-070	1	8	28	33.8	70	50	25.5	31~36	HY08-M6	-
	HY10-080	1	10	30	33.8	80	60	35.5	35~40	HY08-M6	-
	HY12-080	1	12	32	33.8	80	60	40	39~45	HY08-M6	HY12-C
HSK50E	HY06-080	1	6	26	40	80	54	24.5	31~36	HY06-M5	-
	HY08-080	1	8	28	40	80	54	25.5	31~36	HY08-M6	-
	HY10-080	1	10	30	40	80	54	35.5	35~40	HY08-M6	-
	HY12-090	1	12	32	40	90	64	40	39~45	HY08-M6	HY12-C
	HY14-090	1	14	34	40	90	64	40	39~45	HY14-M8	-
	HY16-090	1	16	38	40	90	64	40	42~48	HY14-M8	-
	HY18-090	2	18	34	42	90	64	40	42~48	HY18-M12	-
	HY20-090	2	20	37	42	90	64	11	44~50	HY18-M12	HY20-C

油壓刀把 | HYDRAULIC CHUCK

3μm RUN-OUT HIGH PRECISION

BT



Balancing / 動平衡

G6.3

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

Option / 選配

G2.5

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

	Order No. 訂購編號	FIG	ød	ød1	ød2	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	Screw 調整螺絲	Collet 筒 夾
BT30 (BTT30)	HY06-075	1	6	26	45.5	75	53	24.5	31~36	HY06-M5	-
	HY08-075	1	8	28	45.5	75	53	25.5	31~36	HY08-M6	-
	HY10-075	1	10	30	45.5	75	53	35.5	35~40	HY08-M6	-
	HY12-090	1	12	32	45.5	90	68	40	39~45	HY08-M6	HY12-C
	HY16-090	1	16	38	45.5	90	68	40	42~48	HY14-M8	-
	HY20-090	2	20	37	51	90	68	42	44~50	HY18-M12	HY20-C
BT40 (BTT40)	HY03-090	1	3	32	50	90	63	40	20~25	HY03-M5	-
	HY04-090	1	4	32	50	90	63	40	20~25	HY03-M5	-
	HY06-090	1	6	26	50	90	63	24.5	31~36	HY06-M5	-
	HY08-090	1	8	28	50	90	63	25.5	31~36	HY08-M6	-
	HY10-090	1	10	30	50	90	63	35.5	35~40	HY08-M6	-
	HY12-090	1	12	32	50	90	63	40	39~45	HY08-M6	HY12-C
	HY14-090	1	14	34	50	90	63	40	39~45	HY14-M8	-
	HY16-090	1	16	38	50	90	63	40	42~48	HY14-M8	-
	HY18-090	1	18	40	50	90	63	40	42~48	HY18-M12	-
	HY20-090	2	20	37	53	90	63	42	44~50	HY18-M12	HY20-C
	HY25-100	2	25	43	57	100	73	37	50~56	HY25-M16	-
	HY32-105	2	32	50.5	62.5	105	78	31.5	53~60	HY25-M16	HY32-C
BT50 (BTT50)	HY06-100	1	6	26	49	100	62	24.5	31~36	HY06-M5	-
	HY08-100	1	8	28	49	100	62	25.5	31~36	HY06-M5	-
	HY10-100	1	10	30	50	100	62	35.5	35~40	HY08-M6	-
	HY12-100	1	12	32	50	100	62	40	39~45	HY08-M6	HY12-C
	HY14-100	1	14	34	50	100	62	40	39~45	HY14-M8	-
	HY16-100	1	16	38	50	100	62	40	42~48	HY14-M8	-
	HY18-105	1	18	40	50	105	67	40	42~48	HY18-M12	-
	HY20-105	2	20	37	53	105	67	42	44~50	HY18-M12	HY20-C
	HY25-115	2	25	43	57	115	77	37	50~56	HY25-M16	-
	HY32-115	2	32	50.5	62.5	115	77	31.5	53~60	HY25-M16	HY32-C

Remarks / 備註

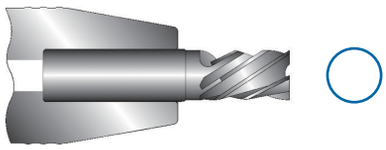
- 直接夾持精度 Direct Clamping
- 刀具柄徑公差 h6(h6 Tooling Diameter Tolerance)
- 若需搭配中心出水管，, 請另外參考普慧刀把目錄詳細規格
- 若需出水型刀把，, 請另外參考普慧刀把目錄詳細規格
- 調整螺絲及筒夾，, 請另外參考普慧刀把目錄規格

調整螺絲
Screw

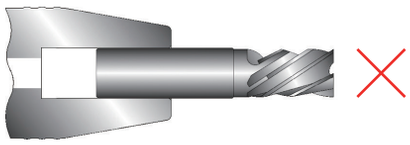
筒夾
Collet

Applications / 應用

油壓刀把使用注意事項
Caution for using Hydraulic Chuck



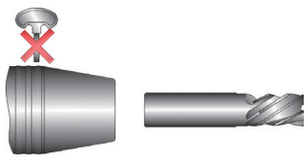
正確使用情形 Correct



刀具必須推到底，不可有間隙
Please insert the tool to the bottom.

刀具柄徑公差必須是h6
The tolerance of tool shank must be h6.

刀具柄徑必須是全圓周，不可有缺口
The tool shank must be fully cylindrical.



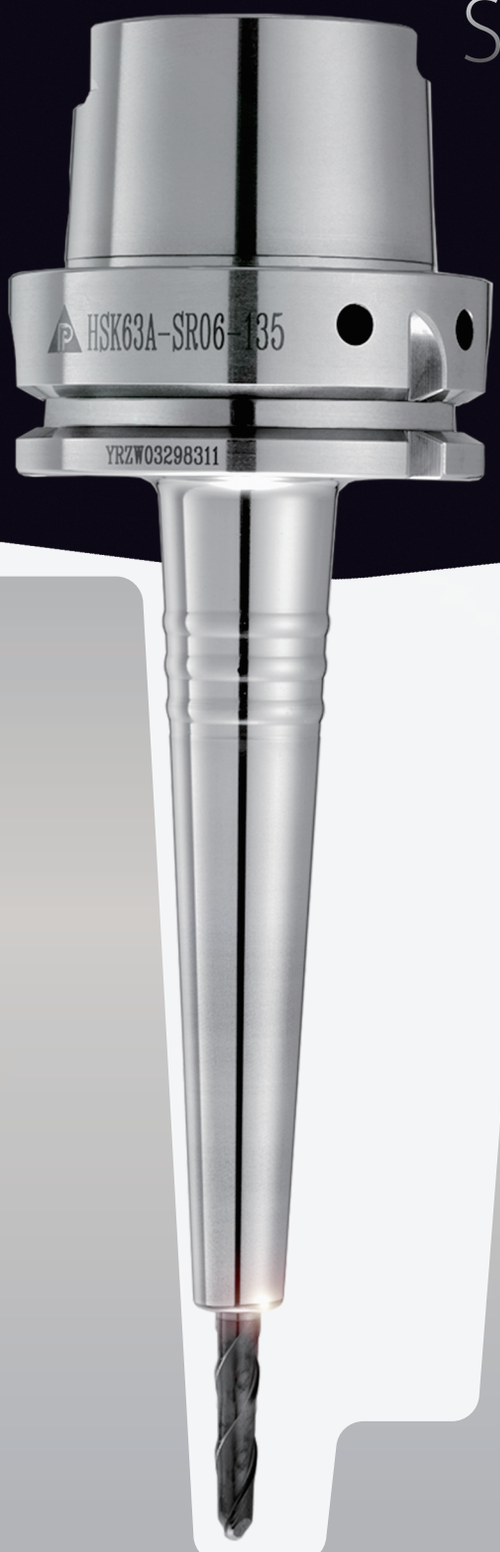
當刀具取出後，請勿作鎖緊的動作，否則將導致內襯因油壓擠壓而變形。
Do Not operate clamp bolt without tool in the chuck, or the chuck will be damaged.

3μm RUN-OUT

熱縮刀把

實現全方位超高精密加工夢想

SHRINK FIT CHUCK



SR 細長型
Slim Type

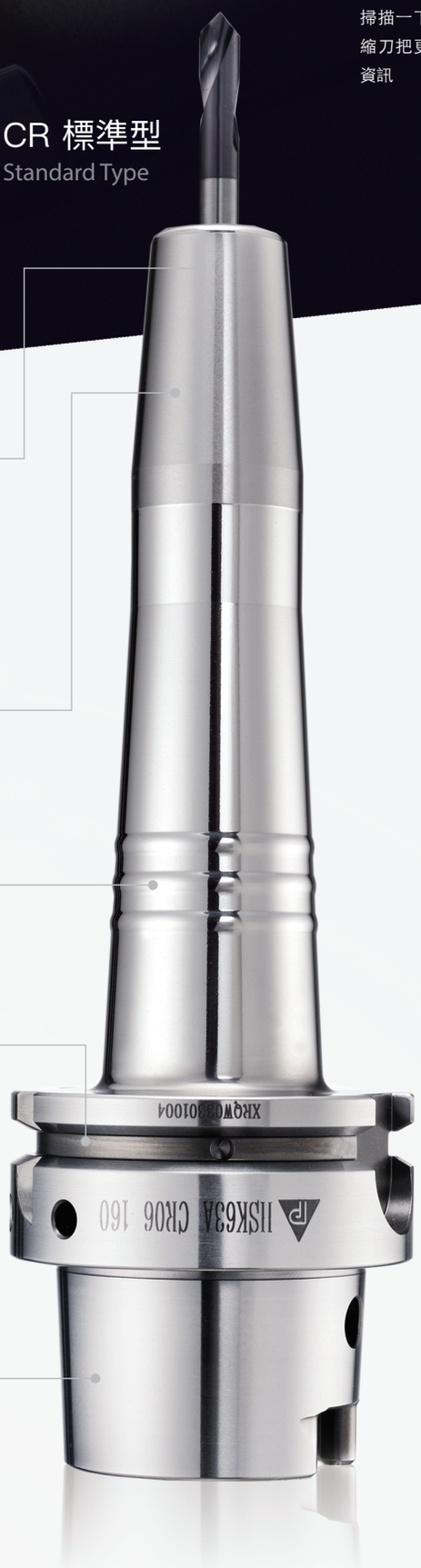
SLIM TYPE

克服干涉加工！

GTS-9000
加熱機

掃描一下，能得到熱縮刀把更詳細的相關資訊

CR 標準型
Standard Type



刀具偏擺 ≤ 3μ
減少刀具磨耗，降低刀具費用
大幅提升面粗度

Run Out ≤ 3μ
Ruduce tooling costs.
Better surface finish.

超強夾持力
粗加工或精加工皆可

Strong Clamping Force
Cood Roughing and Finish

一體肉厚式
剛性佳提高刀具壽命

High Rigidity
Longer tool life

超冷處理
防止變形保持精度

Cryogenic Treatment
Minimise the deformation and maintain the accuracy.

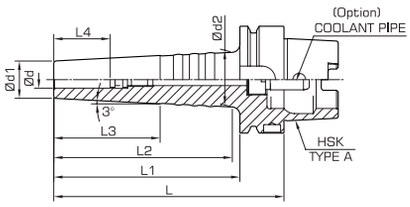
特殊材質
超長壽命

Special Material
Longer tool life

SR 細長型熱縮刀把 | SLIM SHRINK FIT CHUCK

RUN-OUT 3μm HIGH PRECISION

HSK-A



Balancing / 動平衡

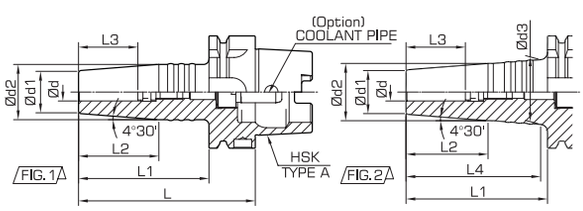
G6.3	*Option* / 選配 G2.5
Max. 25,000 RPM Or U ≤ 1gmm	Max. 25,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		ød	ød1	ød2	L	L1	L2	L3	Tool Clamping Depth L4 刀具夾持深度	Screw 調整螺絲
HSK50A	SR04-125	4	10	19.5	125	99	96.2	30	min18	-
	SR06-125	6	12	21.5	125	99	96.2	40	21.5~31.5	HY06-M5
	SR08-125	8	14	23.5	125	99	96.2	40	25.5~35.5	HY08-M6
	SR10-125	10	16	25.5	125	99	96.2	50	31.5~41.5	HY08-M6
HSK63A	SR04-120	4	10	18.8	120	94	89.3	30	min18	-
	SR04-150	4	10	21.8	150	124	119.3	30	min18	-
	SR06-120	6	12	20.8	120	94	89.3	40	21.5~31.5	HY06-M5
	SR06-150	6	12	23.8	150	124	119.3	40	21.5~31.5	HY06-M5
	SR08-120	8	14	22.8	120	94	89.3	40	25.5~35.5	HY08-M6
	SR08-150	8	14	25.8	150	124	119.3	40	25.5~35.5	HY08-M6
	SR10-120	10	16	24.9	120	94	89.3	50	31.5~41.5	HY08-M6
	SR10-150	10	16	27.9	150	124	119.3	50	31.5~41.5	HY08-M6
	SR12-120	12	18	27	120	94	91.2	55	36.5~46.5	HY14-M8
	SR12-150	12	18	30	150	124	121.2	55	36.5~46.5	HY14-M8
HSK100A	SR04-165	4	10	22	165	136	121.8	30	min18	-
	SR06-165	6	12	24.1	165	136	121.8	40	21.5~31.5	HY06-M5
	SR08-165	8	14	26.1	165	136	121.8	40	25.5~35.5	HY08-M6
	SR10-165	10	16	28.1	165	136	121.8	50	31.5~41.5	HY08-M6
	SR12-165	12	18	30.1	165	136	121.8	55	36.5~46.5	HY14-M8

CR 標準型熱縮刀把 | CR STANDARD SHRINK FIT CHUCK

RUN-OUT 3μm HIGH PRECISION

HSK-A



Balancing / 動平衡

G6.3	*Option* / 選配 G2.5
Max. 30,000 RPM Or U ≤ 1gmm	Max. 30,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		FIG	ød	ød1	ød2	ød3	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	L4	Screw 調整螺絲
HSK50A	CR04-060	1	4	16	21.2	-	60	34	-	min18	-	-
	CR04-080	1	4	16	23	-	80	54	40	min18	-	-
	CR06-080	1	6	21	27	-	80	54	34.3	21.5~31.5	-	HY06-M5
	CR08-080	1	8	21	27	-	80	54	34.3	25.5~35.5	-	HY08-M6
	CR10-085	1	10	24	32	-	85	59	47	31.5~41.5	-	HY08-M6
	CR12-090	1	12	24	32	-	90	64	47	36.5~46.5	-	HY14-M8
	CR16-095	1	16	27	34	-	95	69	40.7	39.5~49.5	-	HY18-M12

Order No. 訂購編號		FIG	ød	ød1	ød2	ød3	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	L4	Screw 調整螺絲
HSK63A	CR04-080	1	4	16	23	-	80	54	40	min18	-	-
	CR06-080	1	6	21	27	-	80	54	34.3	21.5~31.5	-	HY06-M5
	CR06-130	2	6	21	27	33.5	130	104	38.1	21.5~31.5	101.2	HY06-M5
	CR06-160	2	6	21	27	38.2	160	134	38.1	21.5~31.5	131.2	HY06-M5
	CR08-080	1	8	21	27	-	80	54	34.3	25.5~35.5	-	HY08-M6
	CR08-130	2	8	21	27	33.5	130	104	38.1	25.5~35.5	101.2	HY08-M6
	CR08-160	2	8	21	27	38.2	160	134	38.1	25.5~35.5	131.2	HY08-M6
	CR10-085	1	10	24	32	-	85	59	47	31.5~41.5	-	HY08-M6
	CR10-130	2	10	24	32	37.7	130	104	50.8	31.5~41.5	101.2	HY08-M6
	CR10-160	2	10	24	32	42.4	160	134	50.8	31.5~41.5	131.2	HY08-M6
	CR12-090	1	12	24	32	-	90	64	47	36.5~46.5	-	HY14-M8
	CR12-130	2	12	24	32	37.7	130	104	50.8	36.5~46.5	101.2	HY14-M8
	CR12-160	2	12	24	32	42.4	160	134	50.8	36.5~46.5	131.2	HY14-M8
	CR16-095	1	16	27	34	-	95	69	40.6	39.5~49.5	-	HY18-M12
	CR16-130	2	16	27	34	40.5	130	104	44.5	39.5~49.5	101.2	HY18-M12
	CR16-160	2	16	27	34	45.2	160	134	44.5	39.5~49.5	131.2	HY18-M12
	CR20-100	1	20	33	42	-	100	74	53.4	41.5~51.5	-	HY18-M12
	CR20-130	2	20	33	42	47.2	130	104	57.2	41.5~51.5	103.1	HY18-M12
	CR20-160	2	20	33	42	48.8	160	134	57.2	41.5~51.5	133.1	HY18-M12
	CR25-115	1	25	44	53	-	115	89	51.5	47.5~57.5	-	HY25-M16
	CR25-130	1	25	44	53	-	130	104	51.5	47.5~57.5	-	HY25-M16
	CR25-160	1	25	44	53	-	160	134	51.5	47.5~57.5	-	HY25-M16
	CR32-120	1	32	44	53	-	120	94	51.5	50.5~60.5	-	HY25-M16
	CR32-160	1	32	44	53	-	160	134	51.5	50.5~60.5	-	HY25-M16

Order No. 訂購編號		FIG	ød	ød1	ød2	ød3	L	L1	L2	L3	L4	Screw 調整螺絲
HSK100A	CR06-085	1	6	21	27	-	85	56	34.3	21.5~31.5	-	HY06-M5
	CR06-130	2	6	21	27	32	130	101	38.1	21.5~31.5	91.8	HY06-M5
	CR06-160	2	6	21	27	36.7	160	131	38.1	21.5~31.5	121.8	HY06-M5
	CR08-085	1	8	21	27	-	85	56	34.3	25.5~35.5	-	HY08-M6
	CR08-130	2	8	21	27	32	130	101	38.1	25.5~35.5	91.8	HY08-M6
	CR08-160	2	8	21	27	36.7	160	131	38.1	25.5~35.5	121.8	HY08-M6
	CR10-090	1	10	24	32	-	90	61	47	31.5~41.5	-	HY08-M6
	CR10-130	2	10	24	32	36.2	130	101	50.8	31.5~41.5	91.8	HY08-M6
	CR10-160	2	10	24	32	40.9	160	131	50.8	31.5~41.5	121.8	HY08-M6
	CR12-095	1	12	24	32	-	95	66	47	36.5~46.5	-	HY14-M8
	CR12-130	2	12	24	32	36.2	130	101	50.8	36.5~46.5	91.8	HY14-M8
	CR12-160	2	12	24	32	40.9	160	131	50.8	36.5~46.5	121.8	HY14-M8
	CR16-100	1	16	27	34	-	100	71	40.7	39.5~49.5	-	HY18-M12
	CR16-130	2	16	27	34	39	130	101	45.5	39.5~49.5	91.8	HY18-M12
	CR16-160	2	16	27	34	43.7	160	131	45.5	39.5~49.5	121.8	HY18-M12
	CR20-105	1	20	33	42	-	105	76	53.4	41.5~51.5	-	HY18-M12
	CR20-130	2	20	33	42	45.4	130	101	57.2	41.5~51.5	91.8	HY18-M12
	CR20-160	2	20	33	42	47	160	131	57.2	41.5~51.5	121.8	HY18-M12
	CR25-115	1	25	44	53	-	115	86	52.1	47.5~57.5	-	HY25-M16
	CR25-160	2	25	44	53	60.1	160	131	55.9	47.5~57.5	126.4	HY25-M16
	CR32-120	1	32	44	53	-	120	91	52.1	50.5~60.5	-	HY25-M16
	CR32-160	2	32	44	53	60.1	160	131	55.9	50.5~60.5	126.4	HY25-M16

Remarks / 備註

- 直接夾持精度 Direct Clamping
- 刀具柄徑公差 h6(h6 Tooling Diameter Tolerance)
- 若需搭配中心出水管，請另外參考普慧刀把目錄詳細規格
- 若需出水型刀把，請另外參考普慧刀把目錄詳細規格
- 調整螺絲，請另外參考普慧刀把目錄規格

調整螺絲
Screw

Applications / 應用

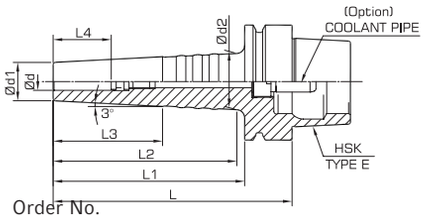
Drilling 鑽孔 | Reaming 鉸孔 | Endmilling 銑削 | Mini Diameter 小徑加工

For SR Type

SR 細長型熱縮刀把 | SLIM TYPE SHRINK FIT CHUCK

3μm RUN-OUT HIGH PRECISION

HSK-E



Balancing / 動平衡

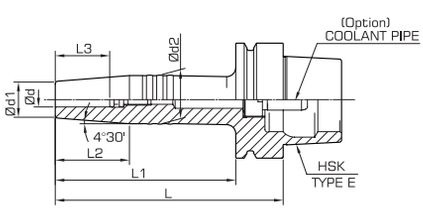
G6.3	*Option* / 選配 G2.5
Max. 30,000 RPM Or U ≤ 1gmm	Max. 30,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		ød	ød1	ød2	L	L1	L2	L3	Tool Clamping Depth L4 刀具夾持深度	Screw 調整螺絲
HSK25E	SR04-035	4	10	12.5	35	25	-	-	min18	-
	SR06-035	6	12	14.5	35	25	-	-	min24	-
HSK32E	SR04-060	4	10	14.1	60	40	-	-	min18	-
	SR04-090	4	10	16.7	90	70	-	30	min18	-
	SR06-060	6	12	16.1	60	40	-	-	min24	-
	SR06-090	6	12	18.7	90	70	-	40	21.5~31.5	HY06-M5
	SR08-060	8	14	18.1	60	40	-	-	min30	-
	SR08-090	8	14	20.7	90	70	-	40	25.5~35.5	HY08-M6
	SR10-060	10	16	20.1	60	40	-	-	min35	-
	SR10-090	10	16	22.7	90	70	-	50	31.5~41.5	HY08-M6
HSK40E	SR04-090	4	10	16.5	90	70	67.2	30	min18	-
	SR04-120	4	10	19.5	120	100	97.2	30	min18	-
	SR06-090	6	12	18.5	90	70	67.2	40	21.5~31.5	HY06-M5
	SR06-120	6	12	21.6	120	100	97.2	40	21.5~31.5	HY06-M5
	SR08-090	8	14	20.6	90	70	67.2	40	25.5~35.5	HY06-M5
	SR08-120	8	14	23.6	120	100	97.2	40	25.5~35.5	HY08-M6
	SR10-090	10	16	22.8	90	70	-	50	31.5~41.5	HY08-M6
	SR10-120	10	16	25.6	120	100	97.2	50	31.5~41.5	HY08-M6
HSK50E	SR04-125	4	10	19.4	125	99	96.2	30	min18	-
	SR06-125	6	12	21.5	125	99	96.2	40	21.5~31.5	HY06-M5
	SR08-125	8	14	23.5	125	99	96.2	40	25.5~35.5	HY08-M6
	SR10-125	10	16	25.5	125	99	96.2	50	31.5~41.5	HY08-M6

CR 標準型熱縮刀把 | CR STANDARD SHRINK FIT CHUCK

3μm RUN-OUT HIGH PRECISION

HSK-E



Balancing / 動平衡

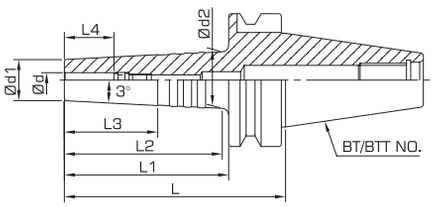
G6.3	*Option* / 選配 G2.5
Max. 30,000 RPM Or U ≤ 1gmm	Max. 30,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		ød	ød1	ød2	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	Screw 調整螺絲
HSK32E	CR04-060	4	15	20	60	40	31.8	min18	-
	CR06-070	6	21	26	70	50	31.8	21.5~31.5	HY06-M5
	CR08-070	8	21	26	70	50	31.8	25.5~35.5	HY08-M6
	CR10-080	10	24	26	80	60	44.7	31.5~41.5	HY08-M6
HSK40E	CR04-060	4	15	20	60	40	31.8	min18	-
	CR06-080	6	21	27	80	60	34.3	21.5~31.5	HY06-M5
	CR08-080	8	21	27	80	60	34.3	25.5~35.5	HY08-M6
	CR10-080	10	24	32	80	60	47	31.5~41.5	HY08-M6
HSK50E	CR04-060	4	16	21.2	60	34	-	min18	-
	CR04-080	4	16	23	80	54	34.3	min18	-
	CR06-080	6	21	27	80	54	34.3	21.5~31.5	HY06-M5
	CR08-080	8	21	27	80	54	34.3	25.5~35.5	HY08-M6
	CR10-085	10	24	32	85	59	47	31.5~41.5	HY08-M6
	CR12-090	12	24	32	90	64	47	36.5~46.5	HY14-M8
	CR16-095	16	27	34	95	69	40.7	39.5~49.5	HY18-M12

SR 細長型熱縮刀把 | SLIM TYPE SHRINK FIT CHUCK

3μm RUN-OUT HIGH PRECISION

BT



Balancing / 動平衡

G6.3

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

Option / 選配

G2.5

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		ød	ød1	ød2	L	L1	L2	L3	Tool Clamping Depth L4 刀具夾持深度	Screw 調整螺絲
BT30 (BTT30)	SR04-090	4	10	16.3	90	68	65.2	30	min18	-
	SR04-120	4	10	19.3	120	98	95.2	30	min18	-
	SR06-090	6	12	18.3	90	68	65.2	40	21.5~31.5	HY06-M5
	SR06-120	6	12	21.4	120	98	95.2	40	21.5~31.5	HY06-M5
	SR08-090	8	14	20.3	90	68	65.2	40	25.5~35.5	HY08-M6
	SR08-120	8	14	23.4	120	98	95.2	40	25.5~35.5	HY08-M6
	SR10-090	10	16	22.4	90	68	65.2	50	31.5~41.5	HY08-M6
	SR10-120	10	16	25.4	120	98	95.2	50	31.5~41.5	HY08-M6
BT40 (BTT40)	SR04-120	4	10	18.7	120	93	88.3	30	min18	-
	SR04-150	4	10	21.7	150	123	118.3	30	min18	-
	SR06-120	6	12	20.7	120	93	88.3	40	21.5~31.5	HY06-M5
	SR06-150	6	12	23.7	150	123	188.3	40	21.5~31.5	HY06-M5
	SR08-120	8	14	22.7	120	93	88.3	40	25.5~35.5	HY08-M6
	SR08-150	8	14	25.7	150	123	118.3	40	25.5~35.5	HY08-M6
	SR10-120	10	16	24.7	120	93	88.3	50	31.5~41.5	HY08-M6
	SR10-150	10	16	27.8	150	123	118.3	50	31.5~41.5	HY08-M6
	SR12-120	12	18	26.7	120	93	88..3	55	36.5~46.5	HY14-M8
	SR12-150	12	18	29.8	150	123	118.3	55	36.5~46.5	HY14-M8
BT50 (BTT50)	SR04-135	4	10	18.1	135	97	82.8	30	min18	-
	SR04-165	4	10	21.1	165	127	112.8	30	min18	-
	SR06-135	6	12	20.1	135	97	82.8	40	21.5~31.5	HY06-M5
	SR06-165	6	12	23.2	165	127	112.8	40	21.5~31.5	HY06-M5
	SR08-135	8	14	22.1	135	97	82.8	40	25.5~35.5	HY08-M6
	SR08-165	8	14	25.2	165	127	112.8	40	25.5~35.5	HY08-M6
	SR10-135	10	16	24.2	135	97	82.8	50	31.5~41.5	HY08-M6
	SR10-165	10	16	27.2	165	127	112.8	50	31.5~41.5	HY08-M6
	SR12-135	12	18	26.2	135	97	82.8	55	36.5~46.5	HY14-M8
	SR12-165	12	18	29.2	165	127	112.8	55	36.5~46.5	HY14-M8

Remarks / 備註

- 直接夾持精度 Direct Clamping
- 刀具柄徑公差 h6(h6 Tooling Diameter Tolerance)
- 若需搭配中心出水管，請另外參考普慧刀把目錄詳細規格
- 若需出水型刀把，請另外參考普慧刀把目錄詳細規格
- 調整螺絲，請另外參考普慧刀把目錄規格

調整螺絲
Screw

Applications / 應用

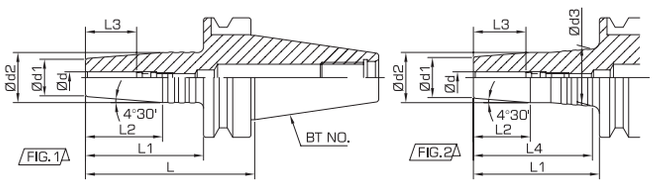
For SR Type

Drilling 鑽孔 | Reaming 鉸孔 | Endmilling 銑削 | Mini Diameter 小徑加工

CR 標準型熱縮刀把 | CR STANDARD SHRINK FIT CHUCK

3μm RUN-OUT HIGH PRECISION

BT



Balancing / 動平衡

G6.3

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

Option / 選配

G2.5

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		FIG	ød	ød1	ød2	ød3	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	L4	Screw 調整螺絲
BT30 (BTT30)	CR04-080	1	4	16	23	-	80	58	40.7	min18	-	-
	CR06-080	1	6	21	27	-	80	58	34.3	21.5~31.5	-	HY06-M5
	CR08-080	1	8	21	27	-	80	58	34.3	25.5~35.5	-	HY08-M6
	CR10-080	1	10	24	32	-	80	58	50.8	31.5~41.5	-	HY08-M6
	CR12-080	1	12	24	32	-	80	58	50.8	36.5~46.5	-	HY14-M8
	CR16-080	1	16	27	34	-	80	58	40.7	39.5~49.5	-	HY18-M12
BT40 (BTT40)	CR04-090	1	4	16	23	-	90	63	40.7	min18	-	-
	CR04-130	2	4	16	23	27.1	130	103	44.5	min18	100.2	-
	CR04-160	2	4	16	23	30.3	160	133	44.5	min18	130.2	-
	CR06-090	1	6	21	27	-	90	63	34.3	21.5~31.5	-	HY06-M5
	CR06-130	2	6	21	27	33.3	130	103	38.1	21.5~31.5	100.2	HY06-M5
	CR06-160	2	6	21	27	38.1	160	133	38.1	21.5~31.5	130.2	HY06-M5
	CR08-090	1	8	21	27	-	90	63	34.3	25.5~35.5	-	HY08-M6
	CR08-130	2	8	21	27	33.3	130	103	38.1	25.5~35.5	100.2	HY08-M6
	CR08-160	2	8	21	27	38.1	160	133	38.1	25.5~35.5	130.2	HY08-M6
	CR10-090	1	10	24	32	-	90	63	47	31.5~41.5	-	HY08-M6
	CR10-130	2	10	24	32	37.5	130	103	50.8	31.5~41.5	100.2	HY08-M6
	CR10-160	2	10	24	32	42.6	160	133	50.8	31.5~41.5	132.1	HY08-M6
	CR12-090	1	12	24	32	-	90	63	47	36.5~46.5	-	HY14-M8
	CR12-130	2	12	24	32	37.5	130	103	50.8	36.5~46.5	100.2	HY14-M8
	CR12-160	2	12	24	32	42.6	160	133	50.8	36.5~46.5	132.1	HY14-M8
	CR16-090	1	16	27	34	-	90	63	40.7	39.5~49.5	-	HY18-M12
	CR16-130	2	16	27	34	40.3	130	103	44.5	39.5~49.5	100.2	HY18-M12
	CR16-160	2	16	27	34	45.3	160	133	44.5	39.5~49.5	132.1	HY18-M12
	CR20-090	1	20	33	42	-	90	63	57.2	41.5~51.5	-	HY18-M12
	CR20-130	2	20	33	42	47	130	103	57.2	41.5~51.5	102.1	HY18-M12
	CR20-160	2	20	33	42	48.6	160	133	57.2	41.5~51.5	132.1	HY18-M12
	CR25-100	1	25	44	53	-	100	73	51.5	47.5~57.5	-	HY25-M16
	CR25-130	1	25	44	53	-	130	103	51.5	47.5~57.5	-	HY25-M16
	CR25-160	1	25	44	53	-	160	133	51.5	47.5~57.5	-	HY25-M16
	CR32-100	1	32	44	53	-	100	73	51.5	50.5~60.5	-	HY25-M16
	CR32-130	1	32	44	53	-	130	103	51.5	50.5~60.5	-	HY25-M16
	CR32-160	1	32	44	53	-	160	133	51.5	50.5~60.5	-	HY25-M16

Remarks / 備註

- 直接夾持精度 Direct Clamping
- 刀具柄徑公差 h6(h6 Tooling Diameter Tolerance)
- 若需搭配中心出水管，請另外參考普慧刀把目錄詳細規格
- 若需出水型刀把，請另外參考普慧刀把目錄詳細規格
- 調整螺絲，請另外參考普慧刀把目錄規格

調整螺絲
Screw

Applications / 應用

For SR Type

Drilling 鑽孔 | Reaming 鉸孔 | Endmilling 銑削 | Mini Diameter 小徑加工

Order No. 訂購編號		FIG	ød	ød1	ød2	ød3	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	L4	Screw 調整螺絲
BT50 (BTT50)	CR06-100	1	6	21	27	-	100	62	34.3	21.5~31.5	-	HY06-M5
	CR06-130	2	6	21	27	30.6	130	92	38.1	21.5~31.5	82.8	HY06-M5
	CR06-160	2	6	21	27	35.3	160	122	38.1	21.5~31.5	112.8	HY06-M5
	CR08-100	1	8	21	27	-	100	62	34.3	25.5~35.5	-	HY08-M6
	CR08-130	2	8	21	27	30.6	130	92	38.1	25.5~35.5	82.8	HY08-M6
	CR08-160	2	8	21	27	35.3	160	122	38.1	25.5~35.5	112.8	HY08-M6
	CR10-100	1	10	24	32	-	100	62	47	31.5~41.5	-	HY08-M6
	CR10-130	2	10	24	32	35.6	130	92	50.8	31.5~41.5	82.8	HY08-M6
	CR10-160	2	10	24	32	39.5	160	122	50.8	31.5~41.5	112.8	HY08-M6
	CR12-100	1	12	24	32	-	100	62	47	36.5~46.5	-	HY14-M8
	CR12-130	2	12	24	32	35.6	130	92	50.8	36.5~46.5	82.8	HY14-M8
	CR12-160	2	12	24	32	39.5	160	122	50.8	36.5~46.5	112.8	HY14-M8
	CR16-100	1	16	27	34	-	100	62	40.7	39.5~49.5	-	HY18-M12
	CR16-130	2	16	27	34	37.6	130	92	44.5	39.5~49.5	82.8	HY18-M12
	CR16-160	2	16	27	34	42.3	160	122	44.5	39.5~49.5	112.8	HY18-M12
	CR20-100	1	20	33	42	-	100	62	57.2	41.5~51.5	-	HY18-M12
	CR20-130	2	20	33	42	44.8	130	92	57.2	41.5~51.5	82.8	HY18-M12
	CR20-160	2	20	33	42	47.2	160	122	57.2	41.5~51.5	112.8	HY18-M12
	CR25-100	1	25	44	53	-	100	62	55.9	47.5~57.5	-	HY25-M16
	CR25-130	1	25	44	53	-	130	92	52.1	47.5~57.5	-	HY25-M16
	CR25-160	2	25	44	53	58.7	160	122	55.9	47.5~57.5	117.4	HY25-M16
	CR32-100	1	32	44	53	-	100	62	55.9	50.5~60.5	-	HY25-M16
	CR32-130	1	32	44	53	-	130	92	52.1	50.5~60.5	-	HY25-M16
	CR32-160	2	32	44	53	58.7	160	122	55.9	50.5~60.5	117.4	HY25-M16

加熱機及週邊備配

GTS-9000 加熱機

Model / **規格**	GTS-9000
Output / **加熱出力**	10kw
Diameter / **刀具柄徑**	≤ ø32mm（鎢鋼Carbide）
Size / 尺寸	W380xD405xH655mm
Weight / **重量**	15.1kg
Electric current supply / **電壓**	3相220v x 30A / 50 / 60Hz

高度調整塊：

專利開發的配件防止加熱時的高度錯置及正確快速的定位。

掃描一下，能瞭解更完整的加熱機操作相關資訊

5μm RUN-OUT

HER刀把 PAT.

梯形螺牙的威力

精度
偏擺 ≤ 5μ

Precise
Run Out ≤ 5μ

防塵
結合防水墊圈（選配）

Dust /Chip Free
Together with Sealingg Disk (option)

全圓螺帽
高速時風切聲低

Fully Round Nut
Low Noise in High r.p.m.

–195°C 超冷處理
防止變形保持精度

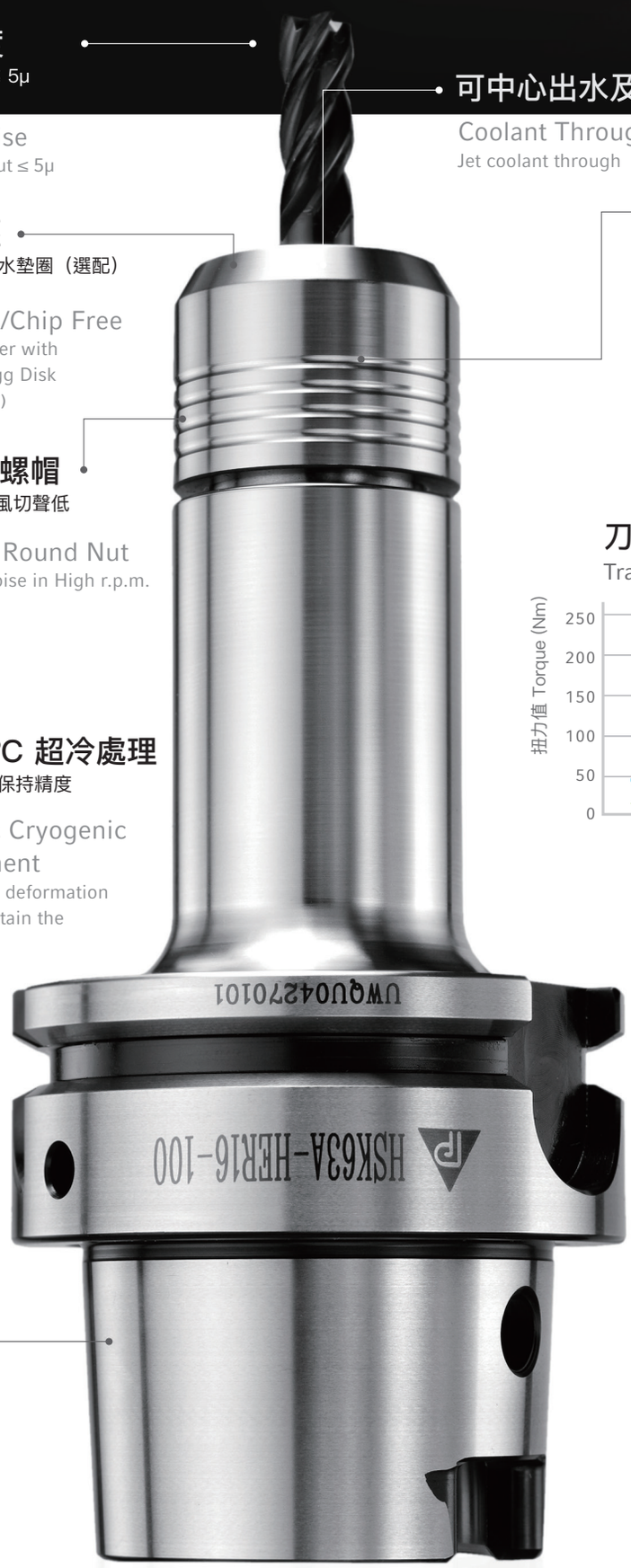
-195°c Cryogenic Treatment
Minimise deformation and maintain the accuracy.

可中心出水及端面出水

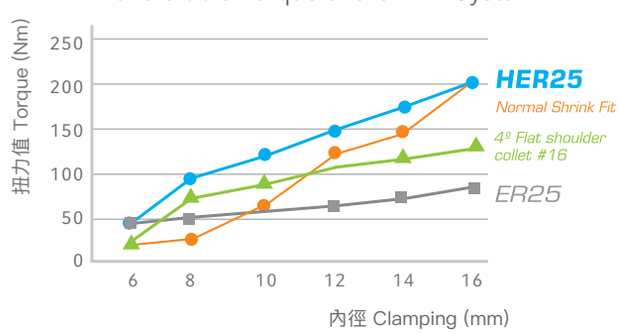
Coolant Through
Jet coolant through

高扭力、夾持力強
比4°筒夾刀把約大1.45倍
比一般ER筒夾刀把約大2.3倍
（內徑12mm，如下表）

Strong Clamping Force
145% Stronger than 4°
For ø12, 230% Stronger than ER colllet chuck (as the down graph)



刀把夾持扭力比較
Transferable Torque of the HER System



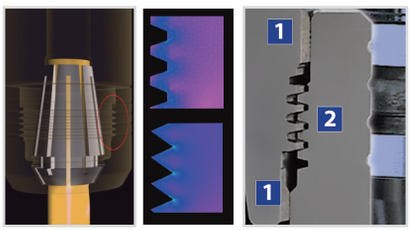
克服干涉 深孔加工

THER小徑刀把
THER Slim Collet Chuck

HER COLLET CHUCK

掃描一下，能得到HER刀把更詳細的相關資訊

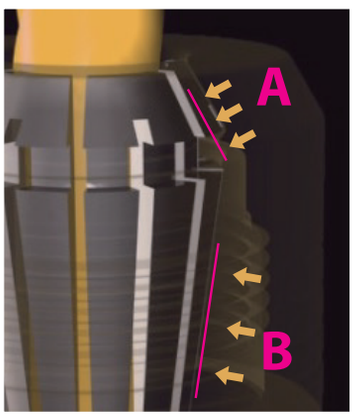
超完美精度 Unmistakable Precise



2倍長的超長導軌之特殊的構造 [1] 及梯形螺牙 [2] 可形成較大之傳導力，也大幅降低了摩擦力，因此，在鎖緊時，也確保螺帽在刀把的中心有完美的負載。
還有其他高夾持力、高同心度、高重複精度優點，同時短螺紋的設計也節省組裝刀把的時間。

The special mechanism of extra long double-length guide (2) with trapezoidal thread (1) delivers a stronger torque transmitting power but reduces frictional force when tightening and also ensures the perfect centering of the nut on the chuck. Other then the benefits of high concentricity and repeatability with stronger clamping force, the design of shorter thread further reduces the time needed to assembly the chuck.

穩定性 / 三點兩面夾持的優勢 Stable

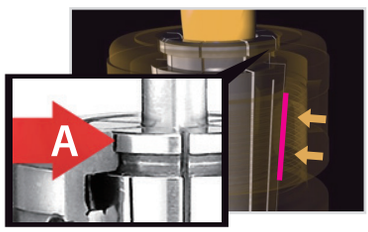


三點兩面夾持

The distribution of clamping force on the gripped area of the cutting tool shank Even Distribution of clamping force on the gripped area

The clamping force of HER system distributes evenly on A, B points

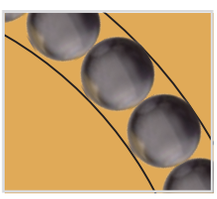
單面夾持



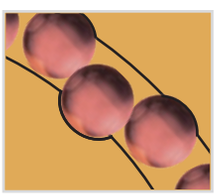
- 夾持力只分布在B面
Point B has clamping forces.

- A面夾持力較小，刀具在筒夾內發生斷刀進而造成整組刀把及筒夾損壞。
Point A has less clamping force. Cutting tool breaks easily inside the collet and resulting in total damage of the chuck.

耐久性 Durable



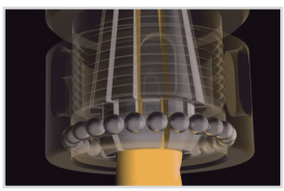
正常狀態
Normal type



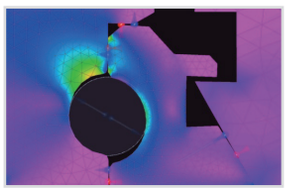
長時間使用後
After long-time operation

鋼珠為自由排列，會有不規則現象，在高速迴轉時，不平衡現象會顯現出來，有轉速上的限制。
The ball bearing nut can lose its balance during high speed rotation because the steel balls inside it are not fixed; therefore, there is a limitation of the rotation speed.

鋼珠或螺帽本體其一硬度較高，長時間下鋼珠或螺帽本體易變形，而造成精度變差。
Because the hardness of steel balls is higher than the nut body, the steel ball can cause of the nut to deform which leads to inaccuracy and vibration during the operation after the nut has been used for a period of time, or improperly locked.



螺帽之組裝件會留有間隙，細微之切屑會從此隙縫侵入，造成螺帽損害。
There are small gaps among parts in ball bearing nut units, and during machine operation, small pieces of chips or dirt may fall in and cause the nut to be unstable or damaged.

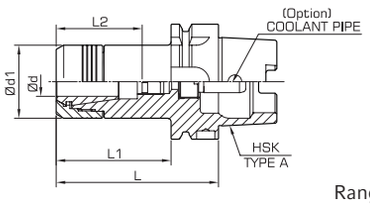


螺帽本體為組合式，在鋼珠之部位為剛性最差處，在過度或長時間使用下，會產生崩裂現象。
Ball bearing nut is made up of individual parts, and the weakest part is where the steel balls located. This part may chip or crack after a long period of time or excessive of use.

HER 筒夾刀把 | HER COLLET CHUCK

5 µm RUN-OUT HIGH PRECISION

HSK-A



Balancing / 動平衡

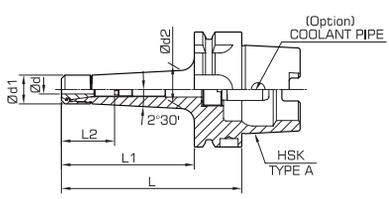
G6.3	*Option* / 選配 G2.5
Max. 25,000 RPM Or U ≤ 1gmm	Max. 25,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		Range ød 夾持範圍	ød1	L	L1	Tool Clamping Depth L2 刀具夾持深度	Nut 螺 帽	Screw 調整螺絲	Collet 筒 夾	Wrench 扳 手
HSK50A	HER16-100	1.0~10.0	30	100	74	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER20-100	1.0~13.0	32	100	74	32~56	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-100	1.0~16.0	40	100	74	35~56	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
HSK63A	HER16-100	1.0~10.0	30	100	74	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-160	1.0~10.0	30	160	134	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER20-100	1.0~13.0	32	100	74	32~56	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-160	1.0~13.0	32	160	134	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-100	1.0~16.0	40	100	74	35~55	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-160	1.0~16.0	40	160	134	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER32-100	2.0~20.0	50	100	74	41~55	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-160	2.0~20.0	50	160	134	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
HSK100A	HER16-100	1.0~10.0	30	100	71	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-160	1.0~10.0	30	160	131	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER20-100	1.0~13.0	32	100	71	32~50	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-160	1.0~13.0	32	160	131	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-100	1.0~16.0	40	100	71	35~53	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-160	1.0~16.0	40	160	131	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER32-100	2.0~20.0	50	100	71	41~52	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-160	2.0~20.0	50	160	131	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500

THER 小徑刀把 | THER SLIM COLLET CHUCK

5 µm RUN-OUT HIGH PRECISION

HSK-A



Balancing / 動平衡

G6.3	*Option* / 選配 G2.5
Max. 25,000 RPM Or U ≤ 1gmm	Max. 25,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		Range ød 夾持範圍	ød1	ød2	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	Nut 螺 帽	Screw 調整螺絲	Collet 筒 夾	Wrench 扳 手
HSK50A	THER11-100	1.0~7.0	16	20.6	100	74	69.2	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER16-100	1.0~10.0	22	26.2	100	74	69.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
HSK63A	THER11-100	1.0~7.0	16	20.3	100	74	66.3	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER11-130	1.0~7.0	16	22.9	130	104	96.3	19~48	CAPTHER11	ER-M8	ER11-HP	PHS-20-RO160
	THER11-160	1.0~7.0	16	25.5	160	134	126.3	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER16-100	1.0~10.0	22	26.2	100	74	69.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
	THER16-130	1.0~10.0	22	28.8	130	104	99.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
	THER16-160	1.0~10.0	22	31.4	160	134	129.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220

Remarks / 備註

- 需配合 3µ HP 筒夾　With 3µ HP Grade Collet
- 若需搭配中心出水管，請另外參考普慧刀把目錄詳細規格
- 若需出水型刀把，請另外參考普慧刀把目錄詳細規格
- 筒夾夾持為一對一整數值

螺帽 *Nut*　調整螺絲 *Screw*　筒夾 *Collet*　扳手 *Wrench*

Applications / 應用

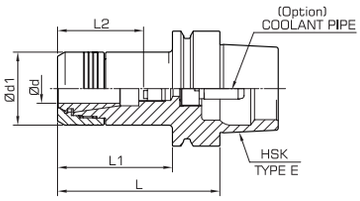
For THER Type

Drilling 鑽孔　Reaming 鉸孔　Endmilling 銑削　Tapping 攻牙　Mini Diameter 小徑加工

HER 筒夾刀把 | HER COLLET CHUCK

5 µm RUN-OUT HIGH PRECISION

HSK-E



Balancing / 動平衡

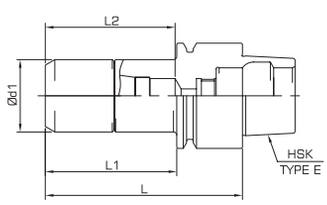
Option / 選配 G6.3	*Option* / 選配 G2.5
Max. 30,000 RPM Or U ≤ 1gmm	Max. 30,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		Range ød 夾持範圍	ød1	L	L1	Tool Clamping Depth L2 刀具夾持深度	Nut 螺 帽	Screw 調整螺絲	Collet 筒 夾	Wrench 扳 手
HSK40E	HER16-060	1.0~10.0	30	60	40	max39.5	CAP-HER16	-	ER16-HP	PHS-20-RO300
	HER20-080	1.0~13.0	32	80	60	32~41	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-080	1.0~16.0	40	80	60	35~42	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
HSK50E	HER16-100	1.0~10.0	30	100	74	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER20-100	1.0~13.0	32	100	74	32~56	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-100	1.0~16.0	40	100	74	35~56	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER32-100	2.0~20.0	50	100	74	41~55	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500

THER 小徑刀把 | THER SLIM COLLET CHUCK

5 µm RUN-OUT HIGH PRECISION

HSK-E



Balancing / 動平衡

HSK25E	HSK32E
U ≤ 1gmm	U ≤ 1gmm

Order No. 訂購編號		Range ød 夾持範圍	ød1	L	L1	Tool Clamping Depth L2 刀具夾持深度	Nut 螺 帽	Collet 筒 夾	Wrench 扳 手
HSK25E	THER16-043	0.6~10.0	22	43	33	max32	CAP-THER16	ER16-HP	PHS-20-RO220
HSK32E	THER16-060	0.6~10.0	22	76	40	max40	CAP-THER16	ER16-HP	PHS-20-RO220

Remarks / 備註

- 需配合 3µ HP 筒夾　With 3µ HP Grade Collet
- 若需搭配中心出水管，請另外參考普慧刀把目錄詳細規格
- 若需出水型刀把，請另外參考普慧刀把目錄詳細規格
- 筒夾夾持為一對一整數值

螺帽 *Nut*　調整螺絲 *Screw*　筒夾 *Collet*　扳手 *Wrench*

Applications / 應用

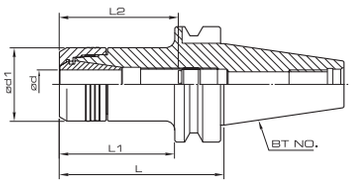
For THER Type

Drilling 鑽孔　Reaming 鉸孔　Endmilling 銑削　Tapping 攻牙　Mini Diameter 小徑加工

HER 筒夾刀把 | HER COLLET CHUCK

5 μm RUN-OUT HIGH PRECISION

BT



Balancing / 動平衡

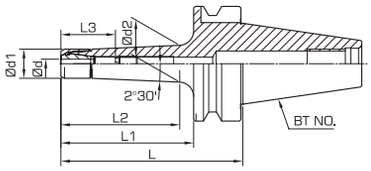
G6.3	*Option* / 選配 G2.5
BT30 Max. 25,000 RPM Or U ≤ 1gmm	BT30 Max. 25,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		Range ød 夾持範圍	ød1	L	L1	Tool Clamping Depth L2 刀具夾持深度	Nut 螺 帽	Screw 調整螺絲	Collet 筒 夾	Wrench 扳 手
BT30 (BTT30)	HER16-060	1.0~10.0	30	60	38	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-075	1.0~10.0	30	75	53	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-090	1.0~10.0	30	90	68	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-120	1.0~10.0	30	120	98	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER20-060	1.0~13.0	32	60	38	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-075	1.0~13.0	32	75	53	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-090	1.0~13.0	32	90	68	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-120	1.0~13.0	32	120	98	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-060	1.0~16.0	40	60	38	35~58	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-075	1.0~16.0	40	75	53	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-090	1.0~16.0	40	90	68	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-120	1.0~16.0	40	120	98	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER32-060	2.0~20.0	50	60	38	41~49	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-075	2.0~20.0	50	75	53	41~64	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-090	2.0~20.0	50	90	68	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
BT40 (BTT40)	HER16-075	1.0~10.0	30	75	48	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-090	1.0~10.0	30	90	63	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-120	1.0~10.0	30	120	93	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-150	1.0~10.0	30	150	123	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER20-075	1.0~13.0	32	75	48	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-090	1.0~13.0	32	90	63	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-120	1.0~13.0	32	120	93	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-150	1.0~13.0	32	150	123	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-075	1.0~16.0	40	75	48	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-090	1.0~16.0	40	90	63	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-120	1.0~16.0	40	120	93	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-150	1.0~16.0	40	150	123	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER32-075	2.0~20.0	50	75	48	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-090	2.0~20.0	50	90	63	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-120	2.0~20.0	50	120	93	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-150	2.0~20.0	50	150	123	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
BT50 (BTT50)	HER16-105	1.0~10.0	30	105	67	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-135	1.0~10.0	30	135	97	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER16-165	1.0~10.0	30	165	127	29~58	CAP-HER16	ER-M11	ER16-HP	PHS-20-RO300
	HER20-105	1.0~13.0	32	105	67	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-135	1.0~13.0	32	135	97	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER20-165	1.0~13.0	32	165	127	32~68	CAP-HER20	ER-M14	ER20-HP	PHS-20-RO320
	HER25-105	1.0~16.0	40	105	67	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-135	1.0~16.0	40	135	97	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-165	1.0~16.0	40	165	127	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER25-200	1.0~16.0	40	200	162	35~73	CAP-HER25	ER-M18	ER25-HP	PHS-20-RO400
	HER32-105	2.0~20.0	50	105	67	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-135	2.0~20.0	50	135	97	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-165	2.0~20.0	50	165	127	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500
	HER32-200	2.0~20.0	50	200	162	41~78	CAP-HER32	ER-M22	ER32-HP	PHS-20-RO500

THER 小徑刀把 | THER SLIM COLLET CHUCK

5μm RUN-OUT HIGH PRECISION

BT



Balancing / 動平衡

G6.3

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

Option / 選配

G2.5

BT30 / BT40	BT50
Max. 25,000 RPM Or U ≤ 1gmm	Max. 20,000 RPM Or U ≤ 1gmm

Order No. 訂購編號		Range ød 夾持範圍	ød1	ød2	L	L1	L2	Tool Clamping Depth L3 刀具夾持深度	Nut 螺 帽	Screw 調整螺絲	Collet 筒 夾	Wrench 扳 手
BT30 (BTT30)	THER11-100	1.0~7.0	16	20.9	100	78	73.2	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER16-100	1.0~10.0	22	26.5	100	78	73.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
BT40 (BTT40)	THER11-100	1.0~7.0	16	20.2	100	73	65.3	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER11-130	1.0~7.0	16	22.8	130	103	95.3	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER11-160	1.0~7.0	16	25.5	160	133	125.3	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER16-100	1.0~10.0	22	26.1	100	73	68.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
	THER16-130	1.0~10.0	22	28.7	130	103	98.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
	THER16-160	1.0~10.0	22	31.3	160	133	128.2	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
BT50 (BTT50)	THER11-100	1.0~7.0	16	18.7	100	62	47.7	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER11-130	1.0~7.0	16	21.3	130	92	77.7	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER11-160	1.0~7.0	16	23.9	160	122	107.7	19~48	CAP-THER11	ER-M8	ER11-HP	PHS-20-RO160
	THER16-100	1.0~10.0	22	24.3	100	62	47.7	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
	THER16-130	1.0~10.0	22	26.9	130	92	77.7	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220
	THER16-160	1.0~10.0	22	29.5	160	122	107.7	29~58	CAP-THER16	ER-M11	ER16-HP	PHS-20-RO220

Remarks / 備註

- 需配合 3μ HP 筒夾　With 3μ HP Grade Collet
- 若需搭配中心出水管，請另外參考普慧刀把目錄詳細規格
- 若需出水型刀把，請另外參考普慧刀把目錄詳細規格
- 筒夾夾持為一對一整數值

螺帽 *Nut*

調整螺絲 *Screw*

筒夾 *Collet*

扳手 *Wrench*

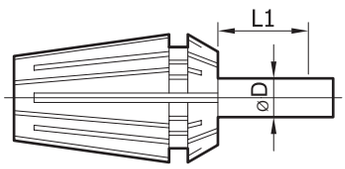
Applications / 應用

For THER Type

Drilling 鑽孔 | Reaming 鉸孔 | Endmilling 銑削 | Tapping 攻牙 | Mini Diameter 小徑加工

E R 筒夾偏擺精度

ER Collet Concentricity Charts



øD	L1	一般級 Normal	A 級
1.0-1.5	6	0.015	0.01
1.5-3.0	10	0.015	0.01
3.0-6.0	16	0.015	0.01
6.0-10.0	25	0.015	0.01
10.0-18.0	40	0.02	0.015
18.0-27.0	50	0.02	0.015
27.0-35.0	60	0.025	0.02

øD	L1	AA 級	HP 級
1.0-1.6	2-3	0.006	0.003
1.6-3.0	10	0.006	0.003
3.0-7.0	16	0.006	0.003
7.0-10.0	25	0.006	0.003
10.0-18.0	40	0.006	0.003
18.0-26.0	50	0.006	0.003
26.0-34.0	60	-	-

• 精度以筒夾整數為準

E R 筒夾分類

ER Collet Classification

掃描一下，能得到筒夾
更詳細的相關資訊

ER 標準型筒夾
ER Standard Collet
- 公制 Metric
- 英制 Inch

ER 攻牙筒夾
ER Tap Collet
- 公制 Metric
- 英制 Inch

ER 止水型筒夾
ER Standard Collet
- 公制 Metric
- 英制 Inch

ER 止水攻牙筒夾
ER Sealing Tap Collet
- 公制 Metric
- 英制 Inch

ER 端面出水筒夾
ER Jet Coolant Collet
- 公制 Metric

ER 端面出水攻牙筒夾
ER Jet Coolant Tap Collet
- 公制 Metric
- 英制 Inch

止水環
Sealing Disk

有些筒夾中心出水的方式需搭配止水環
和止水型螺帽方可達到中心出水效果

扭力扳手
TORQUE WRENCH

扭力扳手(接頭四方形)
Torque Wrench (Square Type)

Order No. 訂購編號	TORQUE RANGE 調整範圍	SQUARE 接頭尺寸	L 全長
PHS-TW-712-2DW	4~20 N.m	9X12	315
PHS-TW-712-3DW	10~60 N.m	9X12	315
PHS-TW-723-5DW	20~140 N.m	14X18	430

扳手
SPANNER

一體式全圓螺帽雙向扳手
Two-way Roller Bearing Wrench

Order No. 訂購編號	For NUT 適用螺帽
PHS-20-RO160	CAP-THER11
PHS-20-RO220	CAP-THER16 / CAP-THER16C
PHS-20-RO300	CAP-HER16 / CAP-HER16C
PHS-20-RO320	CAP-HER20 / CAP-HER20C
PHS-20-RO400	CAP-HER25 / CAP-HER25C / CAP-PFK16S
PHS-20-RO500	CAP-HER32 / CAP-HER32C

一體式全圓螺帽單向扳手
One-way Roller Bearing Wrench

Order No. 訂購編號	For NUT 適用螺帽
PHS-10-TW275	CAP-PFK10S
PHS-10-TW300	CAP-HER16 / CAP-HER16C
PHS-10-TW400	CAP-HER25 / CAP-HER25C / CAP-PFK16S
PHS-10-TW500	CAP-HER32 / CAP-HER32C

雙向替換接頭
Two-way Roller Bearing Head

Order No. 訂購編號	For NUT 適用螺帽	FOR Torque Wrench 適用扭力扳手
PHS-2H-DRO160	CAP-THER11	PHS-TW-712-2DW (9X12)
PHS-2H-DRO220	CAP-THER16 / CAP-THER16C	PHS-TW-712-3DW (9X12)
PHS-2H-DRO300	CAP-HER16 / CAP-HER16C	PHS-TW-723-5DW (14X18)
PHS-2H-DRO320	CAP-HER20 / CAP-HER20C	PHS-TW-723-5DW (14X18)
PHS-2H-DRO400	CAP-HER25 / CAP-HER25C / CAP-PFK16S	PHS-TW-723-5DW (14X18)
PHS-2H-DRO500	CAP-HER32 / CAP-HER32C	PHS-TW-723-5DW (14X18)

單向替換接頭
One-way Roller Bearing Head

Order No. 訂購編號	For NUT 適用螺帽	FOR Torque Wrench 適用扭力扳手
PHS-1H-TW275	CAP-PFK10S	PHS-TW-712-3DW (9X12)
PHS-1H-TW300	CAP-HER16 / CAP-HER16C	PHS-TW-712-3DW (9X12)
PHS-1H-TW400	CAP-HER25 / CAP-HER25C / CAP-PFK16S	PHS-TW-723-5DW (14X18)
PHS-1H-TW500	CAP-HER32 / CAP-HER32C	PHS-TW-723-5DW (14X18)

MORE SERIES PRODUCTS

- CNC TOOL HOLDER
- HIGH SPEED SPINDLE
- SPINDLE SPEEDER
- SPECIAL CARBIDE TOOL

PARFAITE
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