

(中切削) 两轴可调式T型

(Medium cutting) Type T with two adjustable spindles

- T型两轴可调式多轴器可做小距离之钻孔，攻牙作业，轻巧灵活，操作方便。
- T型两轴可调式多轴器结构轻巧，适合在普通台钻上使用，使机床发挥双倍效率。
- Type T multi-spindle tool with two adjustable spindles can be used for drilling small-distance holes and tapping work. It is very convenient and easy to operate.
- With a light structure, Type T multi-spindle head with two adjustable spindles, it is very suitable for the bench drill and make its efficiency double.



型号 Type	ST70	ST80	ST108	ST121	ST121	ST200	ST200
筒夹规格Collet/最大钻孔能力 Max. Drilling Capacity	D4	ER8/C5	ER11/7 C6/6	ER16/10 C9/9	ER20/13 C12/12	ER20/13 ER25/16	MT2/16M T3/18
转速比 Gear Ratio	1:1	1:1	1:1 1:2	1:1 1:2	1:1	1:1	1:1
最小距离(二轴间) Minimum Distance (Between Spindle)	10	12.5	18	24	27	45	45
最大轴心范围 Max. Range of Centers	70	80	108	121	121	200	200
轴数 Spindle Numbers	2	2	2	2	2	2	2

(中切削) 可调式样A型

(Medium cutting) Type A adjustable type

- A型四轴可调式多轴器用于小距离加工作业。
- 可依实际需求选用2-4轴。
- A型四轴可调式多轴器结构轻巧，适合在普通台钻上使用，使机床发挥四倍的效率。
- Type A multi-spindle tool with four adjustable spindles can be used for short-distance work.
- 2-4 spindles can be selected according to actual situation.
- With a light structure, Type A multi-spindle tool with four adjustable spindles is very suitable for the bench drill and may increase its efficiency by four times.



型号 Type	SA116	SA124	SA124
筒夹规格Collet/最大钻孔能力 Max. Drilling Capacity	ER11/7 C6/6	ER16/10 C9/9	ER20/13 C12/12
转速比 Gear Ratio	1:1.35	1:1.3	1:1.3
最小距离(二轴间) Minimum Distance (Between Spindle)	18	26	28
最大轴心范围 Max. Range of Centers	100	124	124
轴数 Spindle Numbers	2-4	2-4	2-4

(中切削) U型圆型多轴器

(Medium cutting) Type U round shaft multi-spindle tool

- 本体结构利用齿轮箱配合万向节头所组成，容易调整加工孔距不受齿轮所限制，节省调整的时间，也少有死角的限制，适合加工接近圆周分布孔的工作，是可调式中最容易操作使用的规格。为保万向节头之寿命，移动范围不得超过15度，等于垂直之前后左右30mm以内。
(尽量配合工作之孔距坐标，设计齿轮箱结构即定镗孔位)
- The distance of hole will be easy to control and not to be restricted by gears .
The basic frame consists of gear case and cardan joint. The distance of hole will be easy to control and not to be restricted by gears. The set up time is thus saved and it is mostly free of dead angles.
It is very suitable for working of round holes and is the easiest to operate among the adjustable type.
To ensure the lifetime of the cardan joint, the moving range should be confined within 15 degrees, which means within a distance of 30mm to the vertical status.
(We will design the structure of gear case, that is, the position of the boring hole as much as possible according to the coordinate of per hole.)



※ 万向节注意事项:

- 1、调整时不能超过规定的角度15度。
- 2、如超过此极限心轴易磨损或断裂。
- 3、工作时应经常加润滑油脂。

※ Note of cardan joint

- 1、Do not set the angle to more than the specified 15 degrees.
- 2、If the limit is exceeded, the shaft will be easy to wear or break.
- 3、During work, lubrication should be added frequently.

型号 Type	MU80	MU110	MU165	MU200	MU250	MU300
筒夹规格Collet/最大钻孔能力 Max. Drilling Capacity	D4	ER8/5 C5/5 ER11/7 C6/6 ER16/10 C9/9 ER20/13 C12/12				
转速比 Gear Ratio	1:1	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2
最小距离(二轴间) Minimum Distance (Between Spindle)	10	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28
最大轴心范围 Max. Range of Centers	80	110	165	200	250	300
轴数 Spindle Numbers	2-4	2-6	2-10	4-12	4-12	4-14

(中切削) U型方型多轴器

(Medium cutting) Type U Square shaft multi-spindle tool

- 方型可调式多轴器结构与圆型相同。工作孔距如属直线或长方形万向多轴器，以免移位量太大损害万向节接头寿命。使用方法与圆形相同。
(尽量配合工作之孔距坐标，设计齿轮箱结构即定镗孔位)
- The structure of the square shaft multi-spindle tool is the same as the structure of the round shaft multi-spindle tool. This multi-spindle tool is suitable for the straight line or the rectangular working hole. When using, don't move too much to reduce the lifetime of the cardan joint. The usage is also the same as the round shaft one.
(We will design the structure of gear case, that is, the position of the boring hole as much as possible according to the coordinate of per hole.)



※ 万向节注意事项:

- 1、调整时不能超过规定的角度15度。
- 2、如超过此极限心轴易磨损或断裂。
- 3、工作时应经常加润滑油脂。

※ Note of cardan joint

- 1、Do not set the angle to more than the specified 15 degrees.
- 2、If the limit is exceeded, the shaft will be easy to wear or break.
- 3、During work, lubrication should be added frequently.

型号 Type	MU100X165	MU120X200	MU120X300	MU160X450	MU220X360	MU250X500
筒夹规格Collet/最大钻孔能力 Max. Drilling Capacity	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12
转速比 Gear Ratio	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2
最小距离(二轴间) Minimum Distance (Between Spindle)	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28
最大轴心范围 Max. Range of Centers	100X165	120X200	120X300	160X450	220X360	250X500
轴数 Spindle Numbers	2-8	2-12	4-16	4-16	6-14	4-18

(中切削) U型方型多轴器

(Medium cutting) Type U Square shaft multi-spindle tool

- 方型可调式多轴器结构与圆形相同。工作孔距如属直线或长方形万向多轴器，以免移位量太大损害万向节接头寿命。使用方法与圆形相同。
(尽量配合工作之孔距坐标，设计齿轮箱结构即定镗孔位)
- The structure of the square shaft multi-spindle tool is the same as the structure of the round shaft multi-spindle tool. This multi-spindle tool is suitable for the straight line or the rectangular working hole. When using, don't move too much to reduce the lifetime of the cardan joint. The usage is also the same as the round shaft one.
(We will design the structure of gear case, that is, the position of the boring hole as much as possible according to the coordinate of per hole.)



※ 万向节注意事项:

- 1、调整时不能超过规定的角度15度。
- 2、如超过此极限心轴易磨损或断裂。
- 3、工作时应经常加润滑油脂。

※ Note of cardan joint

- 1、Do not set the angle to more than the specified 15 degrees.
- 2、If the limit is exceeded, the shaft will be easy to wear or break.
- 3、During work, lubrication should be added frequently.

型号 Type	MU170X200	MU300X400	MU400X550	MU450X550	MU150X800	MU300X1000
筒夹规格Collet/最大钻孔能力 Max. Drilling Capacity	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12	ER8/5 ER11/7 ER16/10 ER20/13 C5/5 C6/6 C9/9 C12/12
转速比 Gear Ratio	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2	1:1 1:2
最小距离(二轴间) Minimum Distance (Between Spindle)	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28	13 18 26 28
最大轴心范围 Max. Range of Centers	170X200	300X400	400X550	450X550	150X800	300X1000
轴数 Spindle Numbers	2-12	4-16	4-18	4-18	4-18	4-18

(中切削) 两轴可调式D型

(Medium cutting) Type D with two adjustable spindles

- D型二轴可调式多轴器轻巧灵活，操作方便。
- D型可调式多轴器，因使用钻夹头夹持，故适用于大距离之调整。
- D型可调式多轴器，可弥补A型调整不到的距离。
- Type D multi-spindle tool with two adjustable spindles is very convenient and easy to operate.
- Due to the application of drill chuck, Type D adjustable multi-spindle tool is suitable for big distance.
- Type D adjustable multi-spindle tool may be applied to the distance that Type A cannot reach.



型号 Type	SD177	SD240	SD340	SD390
最大钻孔能力 Max. Drilling Capacity	φ 10	φ 13	φ 13	φ 13
输出轴规格 Output Spindle	JT2	JT6	JT6	JT6
转速比 Gear Ratio	1:1.83	1:1.83	1:1.83	1:1.83
最小距离 (二轴间) Minimum Distance (Between Spindle)	38	56	56	56
最大轴心范围 Max. Range of Centers	177	240	340	390
轴数 Spindle Numbers	2	2	2	2

(中切削) 四轴可调式D型

(Medium cutting) Type D with four adjustable spindles

- D型四轴可调式多轴器轻巧灵活，操作方便。
- D型可调式多轴器，因使用钻夹头夹持，故意用于大距离之调整。
- D型可调式多轴器，可弥补A型调整不到的距离。
- Type D multi-spindle tool with four adjustable spindles is very convenient and easy to operate.
- Due to the application of drill chuck, Type D adjustable multi-spindle tool is suitable for big distance.
- Type D adjustable multi-spindle tool may be applied to the distance that Type A cannot reach.



型号 Type	SD177	SD240	SD340	SD390
最大钻孔能力 Max. Drilling Capacity	φ 10	φ 13	φ 13	φ 13
输出轴规格 Output Spindle	JT2	JT6	JT6	JT6
转速比 Gear Ratio	1:1.83	1:1.83	1:1.83	1:1.83
最小直径 (四轴间) Min-Diameter (Four Spindle)	55	85	208	245
最小距离 (二轴间) Minimum Distance (Between Spindle)	38	56	56	56
最大轴心范围 Max. Range of Centers	177	240	340	390
轴数 Spindle Numbers	4	4	4	4

特殊规格: 1、SD177输出轴规格JT2, 最大钻孔直径为13, 二轴间最小距离为48
2、SD177输出轴规格JT6, 最大钻孔直径为13, 二轴间最小距离为56

Special type: 1、SD177 output shaft type JT2, Max. Drilling diameter is 13, min. distance between two shafts is 48.
2、SD177 output shaft type JT6, Max. Drilling diameter is 13, min. distance between two shafts is 56.

(重切削) U型系列多轴器

(Heavy cutting) Type U multi-spindle tool

- 本体结构利用齿轮箱配合万向节头所组成，容易调整加工孔距不受齿轮所限制，节省调整的时间，也少有死角的限制，结合加工接近圆周分布孔的工件。其齿轮、轴承、输出轴、万向节均采用强力系列，适合加工钢件等强力场合。为保万向节头之寿命，移动范围不得超过15度，等于垂直之前后左右30mm以内。
(尽量配合工作之孔距坐标，设计齿轮箱结构即定镗孔位)
- The basic frame consists of gear case and cardan joint. The hole-distance is easy to control and will not be affected by the gears. The set up time is thus saved and it is mostly free of dead angles. It is very suitable for working of round holes. The gear, bearing, output shaft and cardan joint are all intensified, so it is good at machining hard parts such as steel parts. To ensure the lifetime of the cardan joint, the moving range should be confined within 15 degrees, which means within a distance of 30mm to the vertical status.
(we will design the structure of gear case, that is, the position of the boring hole as much as possible according to the coordinate of per hole.)



※ 万向节注意事项:

- 1、调整时不能超过规定的角度15度。
- 2、如超过此极限心轴易磨损或断裂。
- 3、工作时应经常加润滑油脂。

※ Note of cardan joint

- 1、Do not set the angle to more than the specified 15 degrees.
- 2、If the limit is exceeded, the shaft will be easy to wear or break.
- 3、During work, lubrication should be added frequently.

型号 Type	SWU165	SWU200	SWU250	SWU100X165	SWU120X200	SWU120X300
筒夹规格Collet/最大钻孔能力 Max. Drilling Capacity	ER20/13 C12/12	ER20/13 C12/12	ER20/13 C12/12	ER20/13 C12/12	ER20/13 C12/12	ER20/13 C12/12
转速比 Gear Ratio	1:1	1:1	1:1	1:1	1:1	1:1
最小距离 (二轴间) Minimum Distance (Between Spindle)	42	42	42	42	42	42
最大轴心范围 Max. Range of Centers	165	200	250	100X165	120X200	120X300
轴数 Spindle Numbers	2-10	4-12	4-12	3-8	4-12	6-14

固定式系列多轴器

Fixed multi-spindle tool

- 固定型机种轴数不拘，钻轴型式，尺寸大小可依客户之需求设计。
- 大量生产高精度之产品，请使用固定型多轴器，外型小，比活动式更耐用、更精确，并可减少调整加工孔距的时间。
- 可避免因调整错误，以致产品损坏所受的损失。
- 不同尺寸的钻头或不同牙距的丝攻可同时加工。
- 固定型多轴器，请加导孔治具，使用多轴头容易对准工件，提升产品品质。
- 轴距分布尺寸：在尺寸可调整到的范围之内均可制作成固定式。



WFB/FB型
(TYPE WFB/FB)



WFT/FT型
(TYPE WFT/FT)

- There are various options for the number of shafts and the shaft types of the fixed type. The dimension can also be designed per customer's request.
- The fixed multi-spindle tool is very good for the mass production of high-precision parts. It is small but more durable than the non-fixed type. It is also more precise and may help to reduce the set up time for the working hole.
- Error due to set up mistake, which may lead to part damage, can be avoided.
- Drill bits and taps of different sizes may run at the same time.
- When running fixed multi-spindle tool, please use fixture of guiding holes, which can help the multi spindles to accurately aim at the part so to improve the quality of the part.
- Shaft distance distribution: as long as the dimension is within the range, fixed type can be made.



D4



WFA/FA型
(TYPE WFA/FA)



FU/WFU方型
(FU/WFU SQUARE TYPE)



FU/WFU圓型
(FU/WFU ROUND TYPE)

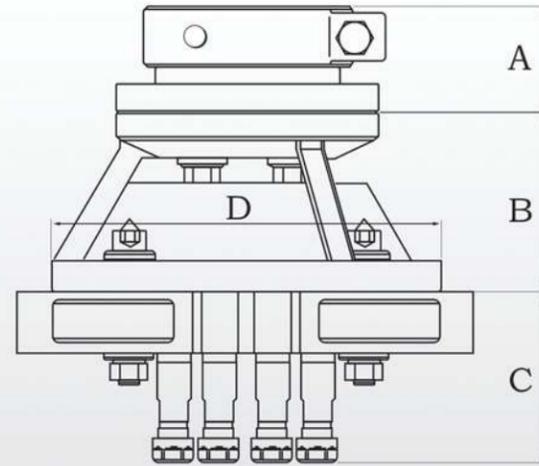
型号 Type	固定式 Fixed type
筒夹规格 Collet/最大钻孔能力 Max. Drilling Capacity	D4/4 ER8/5 C5/5 ER11/7 C6/6 ER16/10 C9/9 ER20/13 C12/12
转速比 Gear Ratio	1:1或特指 1:1 or specified
最小距离 (二轴间) Minimum Distance (Between Spindle)	D4:10 ER8/C5:13 ER11/C6:18 ER16/C9:24 ER20/C12:26
轴数 Spindle Numbers	按客户要求 Per customer request

型号 Type	最大轴心范围 Max. Axis scope	型号 Type	最大轴心范围 Max. Axis scope
FA124	φ 124	WFA-NC124	φ 124
FA200	φ 200	WFA-NC200	φ 200
FA250	φ 250	WFA-NC250	φ 250
FA160X250	160X250	WFA-NC160X250	160X250
FA250X320	250X320	WFA-NC250X320	250X320
FA200X400	200X400	WFA-NC200X400	200X400
FA200X600	200X600	WFA-NC200X600	200X600
FB90	φ 90	WFB130	φ 130
FB130	φ 130	WFB170	φ 170
FB170	φ 170	WFB210	φ 210
FB210	φ 210	WFB250	φ 250
FB300	φ 300	WFB300	φ 300
FB400	φ 400	WFB400	φ 400
FB450	φ 450	WFB450	φ 450
FB130X260	130X260	WFB130X260	130X260
FB300X400	300X400	WFB300X400	300X400
FT52	φ 52	WFT200	φ 200
FT121	φ 121	WFT250	φ 250
FT200	φ 200	WFT300	φ 300
FT300	φ 300	WFT110	φ 110
FT400	φ 400	WFT165	φ 152
FU110	φ 100	WFT200	φ 190
FU165	φ 165	WFT250	φ 240
FU200	φ 200	WFU100X165	90X152
FU250	φ 250	WFU120X200	102X190
FU300	φ 300	WFU120X300	102X290
FU100X165	100X165	WWFA124	φ 124
FU120X200	120X200	WWFA200	φ 200
FU120X300	120X300	WWFA250	φ 250
FU160X450	160X450	WWFA160X250	160X250
FU220X360	220X360	WWFA250X320	250X320
FU250X500	250X500	WWFA200X400	200X400
WFA124	φ 124	WWFA200X600	200X600
WFA200	φ 200	WWFB200	φ 200
WFA250	φ 250	WWFB300	φ 300
WFA160X250	160X250	WWFB400	φ 400
WFA250X320	250X320	WWFB500	φ 500
WFA200X400	200X400		
WFA200X600	200X600		

多轴器参数

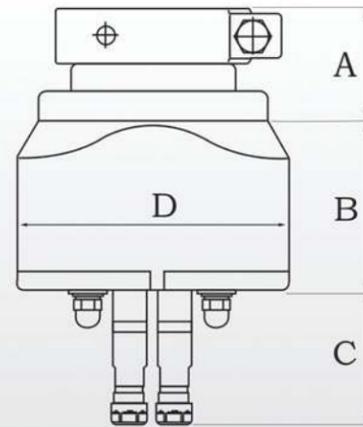
Specs of the multi-spindle tool

SA型 (SA Type)



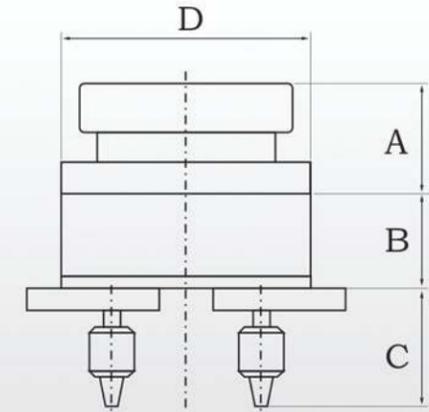
型号 Type	A			B	C							D	
	φ65 (MT2)	φ95 (MT3)	φ95 (MT4)		ER8	ER11	ER16	ER20	C5	C6	C9		C12
SA116	52	/		88	/	74	86	96	/	80	99	102	190
SA124	52	62		92	/	74	86	96	/	80	99	102	227

ST型 (ST Type)



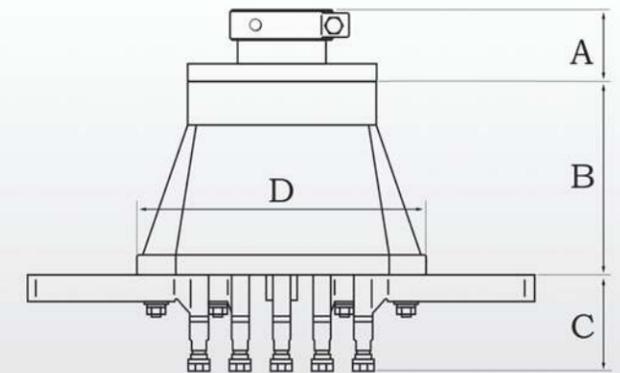
型号 Type	A			B	C								D	
	φ65 (MT2)	φ95 (MT3)	φ95 (MT4)		ER8	ER11	ER16	ER20	C5	C6	C9	C12		MT12
ST108	67	105	134	84										140X107
ST121	67	105	134	88	/	60	84	84	/	67	87	91	133	172X107
ST200	57	67	96	129.5										258.5X136

SD型 (SD Type)

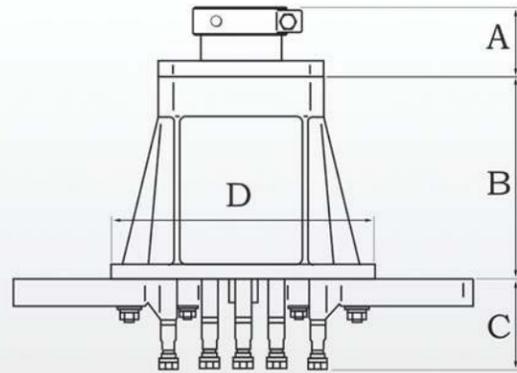


型号 Type	A			B	C		D
	φ65 (MT2)	φ95 (MT3)	φ95 (MT4)		10H	13XH	
SD177X2							φ215X114
SD177X4							φ215
SD240X2							φ285X150
SD240X4							φ285
SD340X2	69	80	109	36	148	166	φ285X150
SD340X4							φ285
SD390X2							φ285X150
SD390X4							φ285

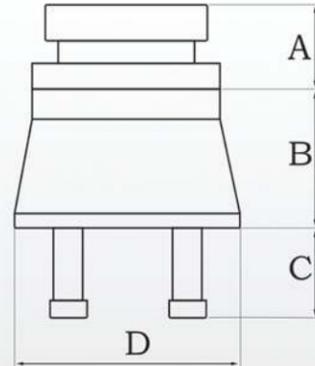
SU圆型 (SU Round Type)



型号 Type	A			B	C							D		
	φ65 (MT2)	φ95 (MT3)	φ95 (MT4)		ER8	ER11	ER16	ER20	D4	C5	C6		C9	C12
SU80														φ202
SU110														φ288
SU165				185										φ350
SU200	72	82	111		75	73	94	94	60	75	81	96	100	φ396
SU250				225										φ430
SU300														φ490



SU方型 (Su square type)



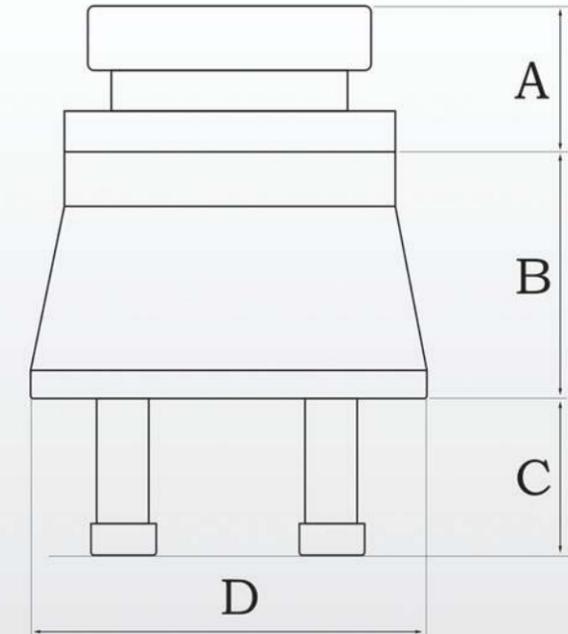
固定式 (Fixed type)

型号 Type	A			B	C								D
	φ 65 (MT2)	φ 95 (MT3)	φ 95 (MT4)		ER8	ER11	ER16	ER20	C5	C6	C9	C12	
SU100X165													342X288
SU120X200													390X302
SU120X300													490X304
SU160X450													585X285
SU220X360													520X380
SU250X500	72	82	111	225	75	73	94	94	75	81	96	100	660X400
SU170X200													客户指定
SU300X400													客户指定
SU400X550													客户指定
SU450X550													客户指定
SU150X800													客户指定
SU300X1000													客户指定

型号 Type	A			B	C						D		
	φ 65 (MT2)	φ 95 (MT3)	φ 95 (MT4)		ER11	ER16	ER20	C6	C9	C12			
FA124	57	67	96	122									φ 207
FA200													φ 272
FA250													φ 322
FA160X250	72	82	111	108	48	62.5	65.5	54.3	67.3	73.1			326x236
FA250X320													410x340
FA200X400													500x280

型号 Type	A			B	C								D
	φ 65 (MT2)	φ 95 (MT3)	φ 95 (MT4)		ER8	ER11	ER16	ER20	C5	C6	C9	C12	
FT52	67	76	105	72									φ 103
FT121				87.7	45								172X107
FT200	67	76	105	106	48	62.5	65.5		54.3	67.3	73.1		245X135
FT300													400X180
FT400	72	82	111	107.5	48	60.5	63.5		54.3	65.3	69.3		480X180

固定式
(Fixed type)



型号 Type	A			B	C								D
	φ 65 (MT2)	φ 95 (MT3)	φ 95 (MT4)		ER8	ER11	ER16	ER20	C5	C6	C9	C12	
FU110													φ 230
FU165													φ 288
FU200													φ 340
FU250													φ 347
FU300													φ 434
FU100X165	72	82	111	256	43.5	48	62.5	65.5	44.5	56	64.5	71.5	282X228
FU120X200													332X244
FU120X300													434X248
FU160X450													585X285
FU220X360													520X380
FU250X500													660X400

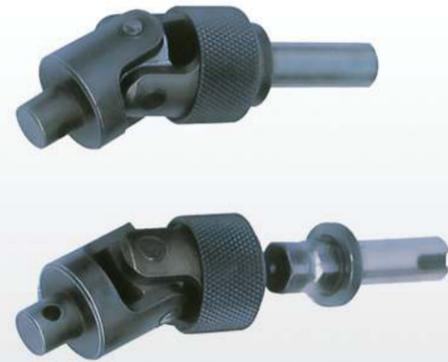
型号 Type	A			B	C								D
	φ 65 (MT2)	φ 95 (MT3)	φ 95 (MT4)		ER8	ER11	ER16	ER20	C5	C6	C9	C12	
FB90													φ 138
FB130													φ 188
FB170													φ 236
FB210													φ 268
FB300	72	82	111	56				54				60	326X350
FB450													指定
FB130X260													340X210
FB300X400													指定

配件

Accessory



传统万向节
Traditional cardan joint



快换万向节
Quick set-up cardan joint

品名 Name	型号 Type	连接内孔直径 Connect I.D. (inner diameter)	外圆直径 O.D. (outer diameter)
传统万向节 Traditional cardan joint	NSC-10-01AA	φ 10	φ 22
传统万向节 Traditional cardan joint	NSC-10-01A	φ 10	φ 19
传统万向节 Traditional cardan joint	NSC-08-01A	φ 8	φ 15
传统万向节 Traditional cardan joint	NSC-06-01A	φ 6	φ 12

用六角转动的快换万向节，具有高强度，高刚性，方便快捷之优点。

The hexagonal driven quick set-up cardan joint has the advantages of high strength, high rigidity, convenience and immediacy.

品名 Name	型号 Type	六角对边 Hexagonal subtense	外圆直径 O.D. (outer diameter)
快换万向节 Quick set-up cardan joint	NSC-14-06A6	12.8	φ 29.5



特殊摆臂
不同情况可灵活运用
Special swing arm
Apply actively under different cases

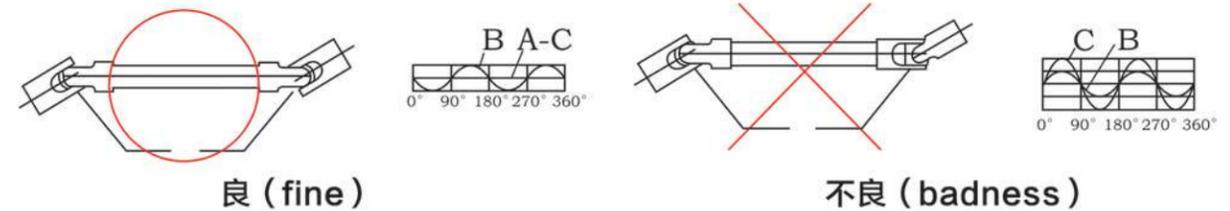


浮动输出轴不同牙距螺孔可同时加工
Floating output shaft Simultaneous
processing of screws
with different pitch

万向节组装注意事项 (Note of cardan joint installation)

U型多轴器输出轴组由上下2个万向节配合六角传动轴组成，组装时须注意万向节内侧爪须同一位置，方向，以免造成挠曲偏摆量过大损及其寿命。

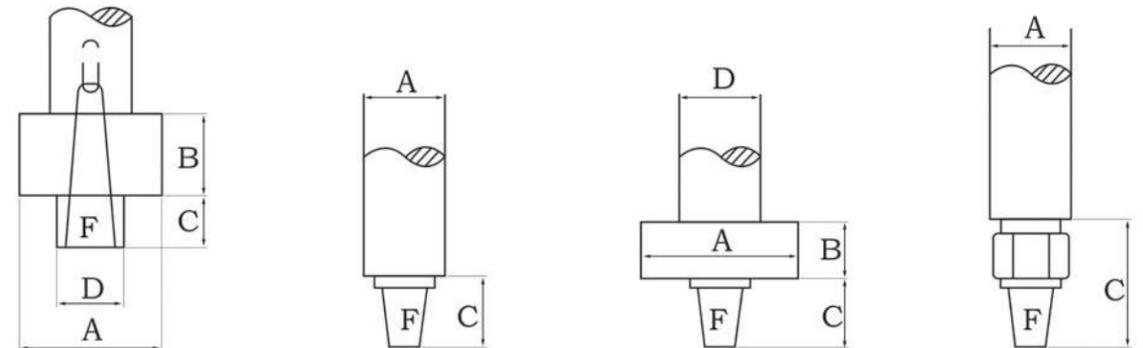
The output shafts of the Type U multi-spindle tool consist of two (up and down) cardan joint and hexagonal driven shafts. When installing, note to have the inner clutches of the cardan joint in the same position and direction, and avoid too much wobble or twist that may cause damage or influence the lifetime.



配合机种主轴端尺寸 (常用规格如下图，如特殊规格请另传真尺寸)

Dimension of spindle nose (round shaft is the standard type, for specific type please fax the specified dimension)

钻床、自动攻牙机、两用钻孔攻牙机、综合中心机、空油压动力头、专用机之钻孔主轴头、攻牙主轴头。
Drilling machine, automatic tapping machine, drilling and tapping machine, machining center, air and oil pressure drilling head, special drilling spindle head, tapping spindle head.



机台头部尺寸 (Dimension of machine/tool head)

厂牌 Manufacturer brand	机型 Machine type	A ± 0.01	B	C	D ± 0.01	F

A部尺寸请用千分尺测定。Survey a size, please use micrometer.

加工条件注意事项 (Note of machining condition)

加工方式 Process method	加工材质 Process material	轴数 Number of shafts	导孔板 Board of guiding hole	定位孔 Locating hole

订购时机种的选择注意事项:

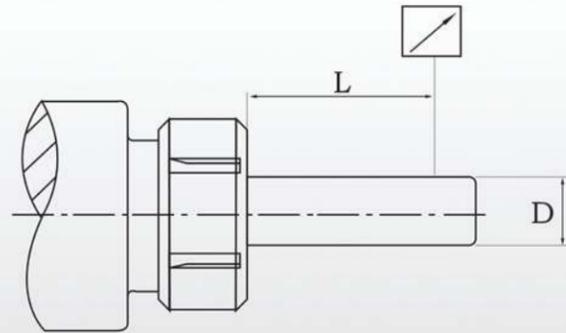
- 1、加工尺寸之中心距离、孔径、材料。
- 2、加工内容，钻床、攻牙、铰孔。
- 3、配合钻床之型式及厂牌编号。

Purchase Note:

- 1、Processed center distance, hole size and material.
- 2、Process content, drilling machine, tapping, reaming.
- 3、Be compatible with the drilling machine (type and brand).

筒夹尺寸

Collet dimension



ER筒夹 (ER Collet)

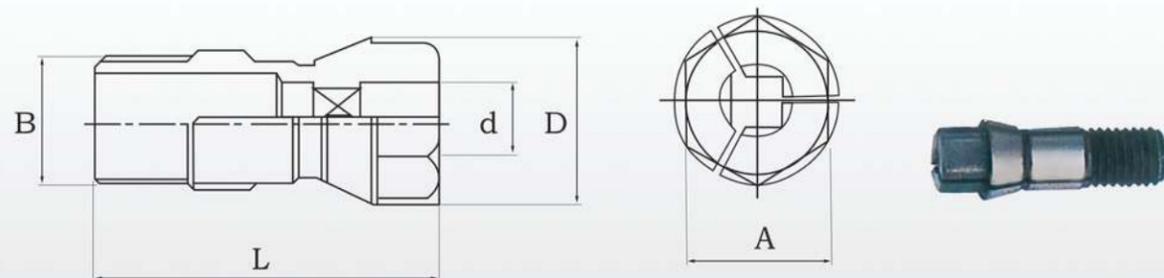


L	D	DIN6499
6	1.0-1.6	0.015
10	1.6-3.0	0.015
16	3.0-7.0	0.015
25	7.0-10.0	0.015
40	10.0-18.0	0.02
50	18.0-26.0	0.02

品名 Name	ER8	ER11	ER16	ER20	ER25	ER32
夹持范围 Collet clamping range	1.0-1.5	1.0-1.5	2-3	2-3	2-3	2-3
	1.5-2.0	1.5-2.0	3-4	3-4	3-4	3-4
	2.0-2.5	2.0-2.5	4-5	4-5	4-5	4-5
	2.5-3.0	2.5-3.0	5-6	5-6	5-6	5-6
	3.0-3.5	3.0-3.5	6-7	6-7	6-7	6-7
	3.5-4.0	3.5-4.0	7-8	7-8	7-8	7-8
	4.0-4.5	4.0-4.5	8-9	8-9	:	:
	4.5-5.0	4.5-5.0	9-10	9-10	:	:
		5.0-5.5		10-11	:	:
		5.5-6.0		11-12	14-15	18-19
	6.0-6.5		12-13	15-16	19-20	
	6.5-7.0					

CT: 攻牙用

CT: for tapping



注: d系为攻牙柄部直径 Note: d/ is the diameter of tap shank

型号 Type	φ d柄径 φ d shank diameter	φ D mm	L mm	B	A mm	最大夹持能力 (mm) Max. Chuck capacity (mm)
DT-4	φ 1~φ 4	φ 8.2	24	1/4-28UNF	6	M3.5X0.6
CT-5	φ 1~φ 5	φ 10.8	31.5	5/16-24UNF	8	M4X0.7
CT-6	φ 1~φ 6	φ 13.1	36	3/8-24UNF	10	M6X1.0
CT-9	φ 1~φ 7	φ 17	46	1/2-20UNF	14	M8X1.25
CT-12	φ 3~φ 9	φ 21	50	5/8-18UNF	17	M12X17.5
CT-14	φ 3~φ 12	φ 24.5	54	3/4-16UNF	21	M14X2.0
CT-16	φ 3~φ 14	φ 31	70	M24-2.0	26	M18X2.5

C: 钻孔用

C: for drilling

注: /d系为钻头柄径 (-0.04) 如属圆棒\铣刀须标明

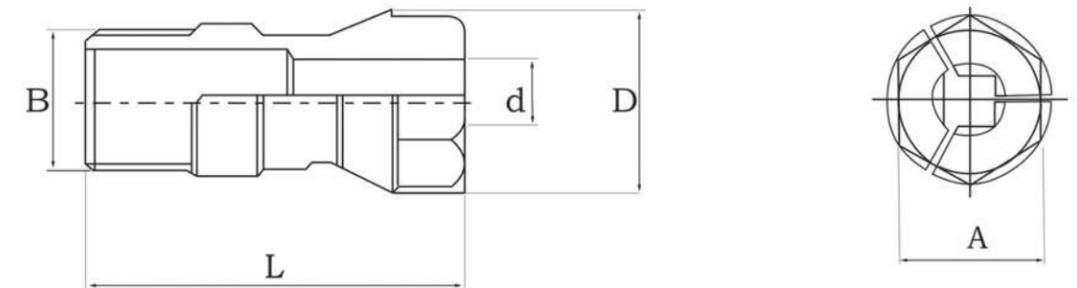
Note: /d is the shank diameter of the drill bit (-0.04) such as round rod/milling cutter and should be marked.

CS: 钻孔用 (内附牙可调整深度)

CS: for drilling (attached tap can be used to adjust the depth)

注: /d系为钻头柄径 (-0.04)

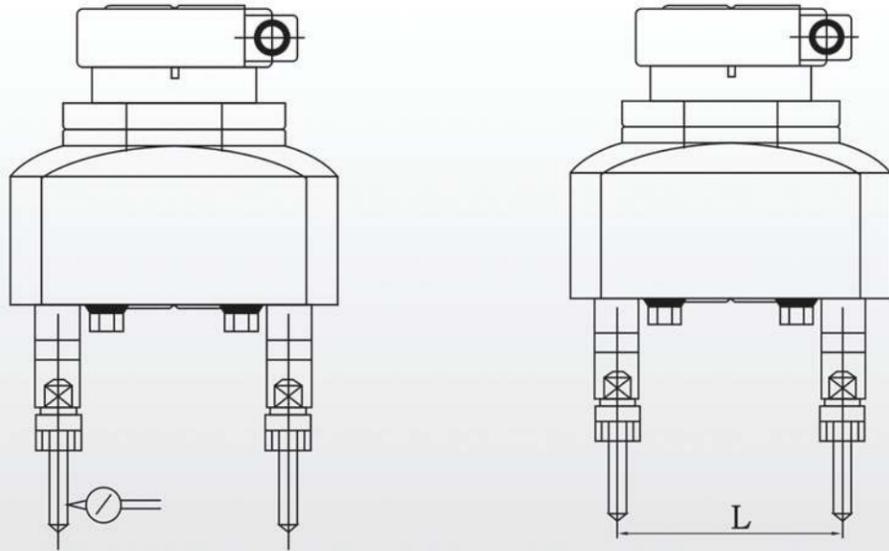
Note: /d is the shank diameter of the drill bit (-0.04)



型号 Type	φ d柄径 φ d shank diameter	φ D mm	L mm	B	A mm	最大夹持能力 (mm) Max. Chuck capacity (mm)
D-4	φ 2~φ 4	φ 8.2	24	1/4-28UNF	6	φ 4
C-5	φ 2~φ 5	φ 10.8	31.5	5/16-24UNF	8	φ 5
C-6	φ 2~φ 6	φ 13.1	36	3/8-24UNF	10	φ 6
C-9	φ 2~φ 9	φ 17	46	1/2-20UNF	14	φ 9
C-12	φ 3~φ 12	φ 21	50	5/8-18UNF	17	φ 12
C-14	φ 5~φ 14	φ 24.5	54	3/4-16UNF	21	φ 14
C-16	φ 5~φ 16	φ 31	70	M24-2.0	26	φ 16

多轴器主要精度要求

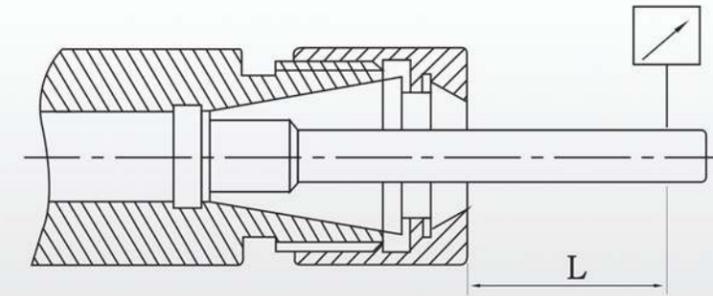
Main specifications of multi-spindle Unit



噪声 (由分贝仪测定)

Noise (measured by decibel meter)

型号 Type	转速 (rpm) Rotation rate (rpm)	测点距离 (cm) point distance (cm)	最大噪声值 (dB) Max. Noise level (dB)
A型 Type A	2000	30	88
T型 Type T	2000	30	83
D型 Type D	2000	30	88
U型 (8轴以内) 最大轴距 < 200mm Max. Shaft distance of Type U (equal or less than 8 spindles) : < 200mm	2000	30	85
U型 (8轴以内) 最大轴距 ≥ 200mm Max. Shaft distance of Type U (equal or less than 8 spindles) : ≥ 200mm	2000	30	90
U型 (8轴以上) 最大轴距 < 200mm Max. Shaft distance of Type U (more than eight spindles) : < 200mm	2000	30	88
U型 (8轴以上) 最大轴距 ≥ 200mm Max. Shaft distance of Type U (more than eight spindles) : ≥ 200mm	2000	30	93



径跳值由标准带ER锥度芯棒测得 Radial runout value (measured by standard ER taper rod)

输出轴径向跳动

Radial run-out of output shaft

型号 Type	距离L (mm) Distance (mm)	径向跳动 Radial runout
ER8	40	0.08
ER11	40	0.08
ER16	40	0.08
ER20	40	0.08
C5	40	0.12
C6	40	0.12
C9	40	0.12
C12	40	0.12

两孔孔距误差

Hole to hole distance L

类别 Category	距离L (mm) Distance (mm)
加导孔板 With board of guiding hole	±0.05
不加导孔板 Without board of guiding hole	±0.1

标准附件清单

Standard accessory list

- 1、V型支架1套
- 2、M14六角螺母1个
- 3、弹簧2支
- 4、M8x45六角螺栓4个
- 5、M8螺母4个



固定型加导孔板 (标准样式)

Fixed type with board of guiding hole (standard type)

固定型加导孔板多轴器准确耐用，在更换工件时，有很多空间取付方便，不会受到治具之妨碍。所加工出来的产品更精确，多轴器更耐用。使用多轴器最标准的方法。

Fixed multi-spindle tool with board of guiding hole is accurate and durable.

There is enough room for changing parts and work won't be affected by fixture either.

Parts machined with it are more accurate and the multi-spindle tool is more durable.

It is most standard multi-spindle tool solution.

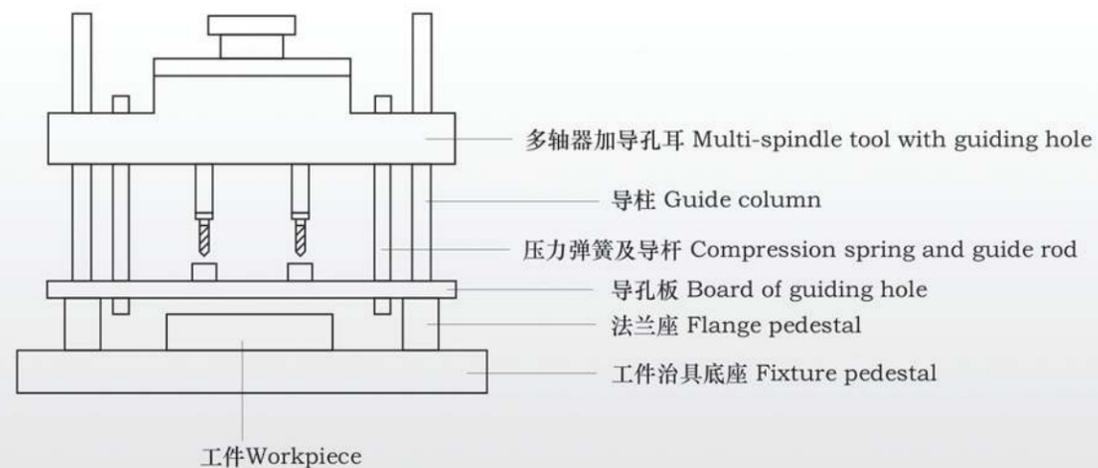
FIXED TYPE SPINDLE HEAD

- Fixed type spindle head is for mass product design. The spindle head depend on customer's requirement to design and make.
- The fixed type can save time to adjust and more durable. The fixed spindle head can avoid the worker make wrong adjustment to damage the materials. The fixed spindle head can add guide hole on the head to help the worker to adjust the tooling.
- The fixed type spindle head can add guide plate for special drilling, the guide plate can guide the correct position during the work and to avoid the bit slip.



多轴器加工结构图 (多轴器+导孔板与工件治具可分解模式)

Multi-spindle tool structure chart (multi-spindle tool +board of guiding hole+fixtues)



多轴器 (固定式系列)

Multi-Spindle head(Fixed series)



一钻一攻双头机，配合治具，加工气缸盖
Double head machine with one drill and one tap can process cylinder head using a jig.

超长型固定式多轴器
Extra length fixed multi-spindle tool

小距离加工的固定式
Fixed processing of small distance



缝纫机头加工样式
The head processing Sewing Machine



缝纫机头加工样式
The head processing mode of sartorius



缸体加工，侧面定位，双油缸夹紧
Cylinder process, side locate and double cylinder clamp



U型固定式，配合油压卡盘
(工件硬度28-32HRC)
U-type fixed model, with oil pressure chuck
(workpiece rigidity:28-32HRC)



冷却系统与多轴器的结合
Combination of cooling system and multi-spindle head



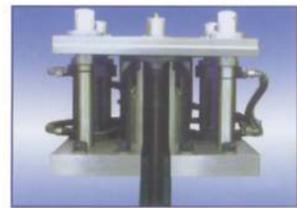
单轴偏位加工的方案
Solution of uniaxial deviation process

加工件实例 Processing work Pieces

可选主轴 Optional Spindle



加工件实例 (机动车半轴专用) Processing work Pieces (For Driver shaft)



型号 Model	ZB5220-8	ZB5217-10	ZB5214-12	ZB5212-14	ZB5211-16
主轴数 Spindles	8	10	12	14	16
主轴锥孔 Spindle Taper (莫氏)	MT2/ER25	MT2/ER25	MT2/ER25	MT2/ER25	MT2/ER25
最大钻孔直径 Max. Drilling capacity (mm)	铸铁 (Cast Iron) ϕ 23	铸铁 (Cast Iron) ϕ 20	铸铁 (Cast Iron) ϕ 17	铸铁 (Cast Iron) ϕ 15	铸铁 (Cast Iron) ϕ 14
	钢 (Steel) ϕ 20	钢 (Steel) ϕ 17	钢 (Steel) ϕ 14	钢 (Steel) ϕ 12	钢 (Steel) ϕ 11
最大加工范围 Max. Machining range (mm)	ϕ 350				
主轴端面到工作台距离 Distance spindle nose to table (mm)	220-460	220-460	220-460	220-460	220-460
工作台面 Dimension of worktable surface (mm)	600×550	650×550	650×550	650×550	650×550
中心轴至导轨距离 Distance spindle axis to column generating line (mm)	375	375	375	375	375
主轴转速 Spindle speeds range (r/min)	270-550	300-800	400-800	450-1000	450-1000
工作台送进行程 Table travel (mm)	180	180	180	180	180
送进运动 Feed motion	液压驱动、无级调速 Hydraulic drive, stepless speed regulation				
工作台最大送给力 Max. Table feed force (kg)	2500	2500	2500	2500	2500
主轴间最小距离 min. Distance between spindle (mm)	41/36	41/36	41/36	41/36	41/36
主电动机功率 Main motor (kW)	7.5	7.5	7.5	7.5	7.5
液压驱动电机 Coolant pump motor (kW)	1.5	1.5	1.5	1.5	1.5
净重/毛重 N.W/G.W (kg)	2200/2400	2200/2400	2200/2400	2200/2400	2200/2400
包装尺寸(L×W×H) Packing Dimension (cm)	203×97×262				

以上技术参数仅供参考，特殊订货按供需双方协议制作。