



Spindle Clamping Systems

主軸配件



Spindle Clamping Systems

MAS 403 PULL STUD TYPE CLAMPING 四瓣爪 MAS 403 PULL STUD TYPE CLAMPING

主軸配件

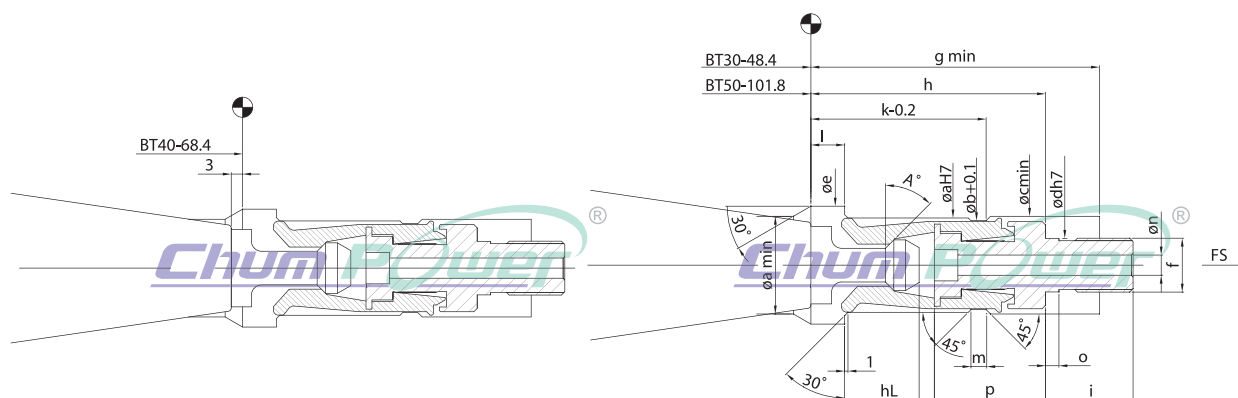


Design Features :

1. All the above materials are composed of alloy steel.
2. The Gripper is according to the global standard of Pull Stud JIS3699 (MAS403) system.
3. Grippers are developed for integrated and comprise four clamping segments ,which is suitable for high and low-speed turning spindles.
4. The surfaces of Grippers are wear-resisting, anticorrosive and special tensile force treatment. The tensile force can hold 1,000 KG force which means 3 million times of lifetime testing circle in our each Grippers. (**ie.BT40)
5. Easy to assemble and suitable for every type of spindles.
6. Ours Grippers adopt the rules of BERG, OTT and RöhM standards.

特 點

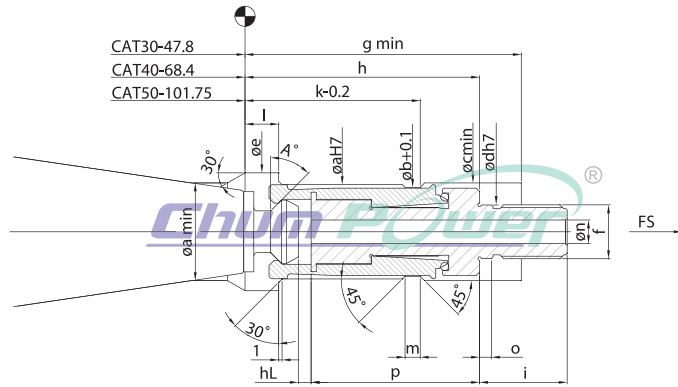
1. 四瓣爪材料皆以合金鋼製成
2. 此四瓣爪依據拉栓JIS6339(MAS 403)標準製作
3. 一體式分隔爪片設計適用於各種高低轉速之主軸
4. 爪片表面經耐磨耗、防腐蝕之特殊處理，拉力經循環壽命測試機測試可承受1000Kg、300萬次 (**BT40.為例)
5. 採用易拆裝設計，適於各型系列主軸使用
6. 同步採用德國OTT、BERG、及ROHM之說明規範



Code No. 型號	Spec. 規格	A°	a	b	c	d	e	g	h	f
90001	BT30-45°	45°	19	17.8	20.2	10	24	50	47	M10*1.5P
90002	BT30-60°	60°								
90014	BT30-90°	90°								
90003	BT40-45°	45°	28	26.4	28.5	16	35	82	70	M16*1.5P
90004	BT40-60°	60°								
90005	BT40-90°	90°								
90006	BT50-45°	45°	43	40.4	43.5	22	54	98	90	M22*1.5P
90007	BT50-60°	60°								
90015	BT50-90°	90°								

Code No. 型號	Spec. 規格	i	k	l	m	n	o	p	hL	Fs max kN
90001	BT30-45°	20	37	7.5	3.5	3	3	20.5	3.5	10
90002	BT30-60°									
90014	BT30-90°									
90003	BT40-45°	26	52	10	4.5	6	4	33	5	18
90004	BT40-60°									
90005	BT40-90°									
90006	BT50-45°	35	69	16	5	9.5	5	37	8	35
90007	BT50-60°									
90015	BT50-90°									

CAT PULL STUD TYPE CLAMPING 四瓣爪 CAT PULL STUD TYPE CLAMPING



Design Features :

1. All the above materials are composed of alloy steel.
2. The Gripper is according to the global standard of Pull Stud JIS3699 (MAS403) system.
3. Grippers are developed for integrated and comprise four clamping segments ,which is suitable for high and low-speed turning spindles.
4. The surfaces of Grippers are wear-resisting, anticorrosive and special tensile force treatment. The tensile force can hold 1,000 KG force which means 3 million times of lifetime testing circle in our each Grippers. (**ie.CAT40)
5. Easy to assembly and suitable for every type of spindles.
6. Ours Grippers adopt the rules of BERG, OTT and Röhm standards.

特 點

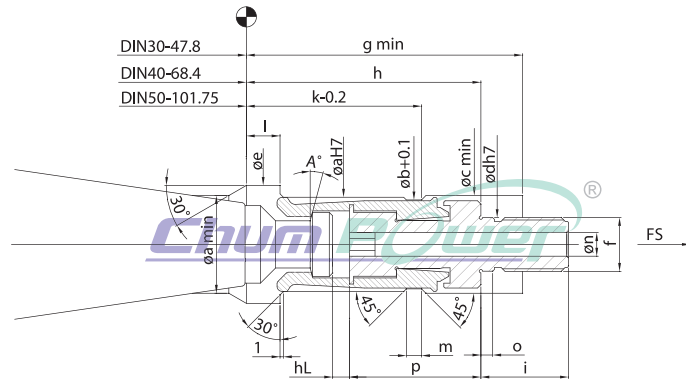
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2. 此四瓣爪依據拉栓JIS6339(MAS 403)標準製作
3. 一體式分隔爪片設計適用於各種高低轉速之主軸
4. 爪片表面經耐磨耗、防腐蝕之特殊處理，拉力經循環壽命測試機測試可承受1000Kg、300萬次 (**CAT40為例)
5. 採用易拆裝設計，適於各型系列主軸使用
6. 同步採用德國OTT、BERG、及ROHM之說明規範

Code No. 型號	Spec. 規格	A°	a	b	c	d	e	g	h	f
90008	CAT30	45°	19	17.8	19.5	10	24	50	47	M10*1.5P
90009	CAT40		28	26.4	28.5	16	35	82	70	M16*1.5P
90010	CAT50		43	40.4	43.5	22	54	98	90	M22*1.5P

Code No. 型號	Spec. 規格	i	k	l	m	n	o	p	hL	Fs max kN
90008	CAT30	20	37	7.5	3.5	4	3	33	2.5	10
90009	CAT40	26	52	10	4.5	7	4	50	4	18
90010	CAT50	35	69	16	5	9.5	5	58	6.5	35

Spindle Clamping Systems

DIN69872 PULL STUD TYPE CLAMPING 四瓣爪 DIN69872 PULL STUD TYPE CLAMPING



Design Features :

1. All the above materials are composed of alloy steel.
2. The Gripper is according to the global standard of Pull Stud JIS3699 (MAS403) system.
3. Grippers are developed for integrated and comprise four clamping segments ,which is suitable for high and low-speed turning spindles.
4. The surfaces of Grippers are wear-resisting, anticorrosive and special tensile force treatment. The tensile force can hold 1,000 KG force which means 3 million times of lifetime testing circle in our each Grippers. (**ie.DIN40)
5. Easy to assembly and suitable for every type of spindles.
6. Ours Grippers adopt the rules of BERG, OTT and Röhm standards.

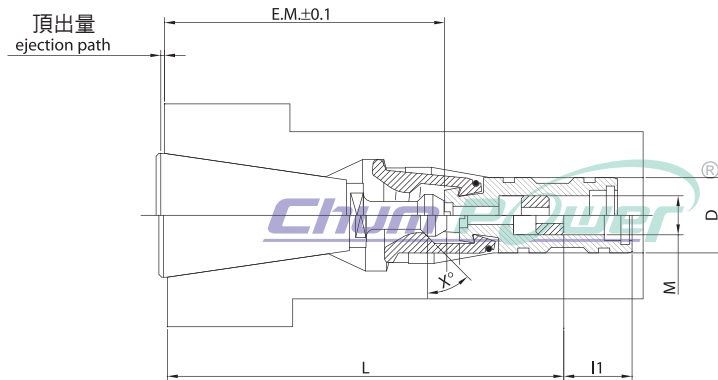
特點

1. 四瓣爪材料皆以合金鋼製成
2. 此四瓣爪依據拉栓JIS6339(MAS 403)標準製作
3. 一體式分隔爪片設計適用於各種高低轉速之主軸
4. 爪片表面經耐磨耗、防腐蝕之特殊處理，拉力經循環壽命測試機測試可承受1000Kg、300萬次 (**DIN40為例)
5. 採用易拆裝設計，適於各型系列主軸使用
6. 同步採用德國OTT、BERG、及ROHM之說明規範

Code No. 型號	Spec. 規格	A°	a	b	c	d	e	g	h	f
90011	DIN30	15°	19	17.8	19.5	10	24	50	47	M10*1.5P
90012	DIN40		28	26.4	28.5	16	35	82	70	M16*1.5P
90013	DIN50		43	40.4	43.5	22	54	98	90	M22*1.5P

Code No. 型號	Spec. 規格	i	k	l	m	n	o	p	hL	Fs max kN
90011	DIN30	20	37	7.5	3.5	4	3	19.5	3.5	10
90012	DIN40	26	52	10	4.5	7	4	39	5	18
90013	DIN50	35	69	16	5	9.5	5	48	8	35

OTT PULL STUD TYPE CLAMPING 四瓣爪 OTT PULL STUD TYPE CLAMPING



Design Features :

1. All the above materials are composed of alloy steel.
2. The Gripper is according to the global standard of Pull Stud JIS3699 (MAS403) system.
3. The surfaces of Grippers are wear-resisting, anticorrosive and special tensile force treatment. The tensile force can hold 1,000 KG force which means 3 million times of lifetime testing circle in our each Grippers. (**ie.BT40)
4. Easy to assembly and suitable for every type of spindles.
5. Ours Grippers were followed the examples of OTT and Röhm standards.

特點

1. 四瓣爪材料皆以合金鋼製成
2. 此四瓣爪依據拉栓JIS6339(MAS 403)標準製作
3. 爪片表面經耐磨耗、防腐蝕之特殊處理，拉力經循環壽命測試機測試可承受1000Kg、300萬次 (**BT40為例)
4. 採用易拆裝設計，適於各型系列主軸使用
5. 同步採用德國OTT 及ROHM之說明規範

BT

Code No. 型號	Spec. BT X° 規格	D	L	l1	E.M	M	ejection path 頂出量
90051	BT30-45°	19	109	23	70.4	M10x1.25	1
90052	BT30-60°	19	109	23	70.4	M10x1.25	1
90053	BT30-90°	19	109	23	70.4	M10x1.25	1
90054	BT40-45°	27	143	24.5	99.7	M14x1.5	0.65
90055	BT40-60°	27	143	24.5	99.7	M14x1.5	0.65
90056	BT40-90°	27	143	24.5	99.7	M14x1.5	0.65
90057	BT50-45°	40	188.5	31.5	145.75	M16x1.5	1
90058	BT50-60°	40	188.5	31.5	145.75	M16x1.5	1
90059	BT50-90°	40	188.5	31.5	145.75	M16x1.5	1

CAT

Code No. 型號	Spec. 規格	D	L	l1	E.M	M	ejection path 頂出量
90060	CAT 30	19	109	23	57.7	M10x1.25	1.6
90061	CAT 40	27	143	24.5	82.9	M14x1.5	1.6
90062	CAT 50	40	188.5	31.5	126	M16x1.5	1

DIN

Code No. 型號	Spec. 規格	D	L	l1	E.M	M	ejection path 頂出量
90063	DIN 30	19	109	23	70.7	M10x1.25	1
90064	DIN 40	27	143	24.5	93.6	M14x1.5	0.65
90065	DIN 50	40	188.5	31.5	134.6	M16x1.5	1

Spindle Clamping Systems

Shaft Coupling 連軸器

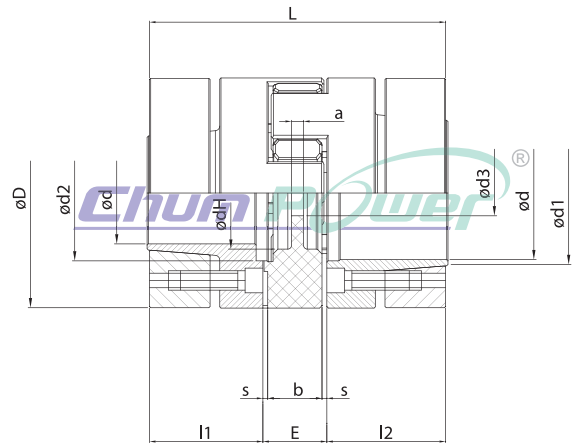


Features :

- According to DIN 69002 ,which is suitable for multiple spindle drives.
- Developed for stub spindles
- Integrated clamping system
- Designed for main spindle drives with high speeds
- Suitable for peripheral speeds of 50 m/s and more
- Backlash-free and high precisely shaft coupling
- Easy assembly by clamping and simply screws inside

特點

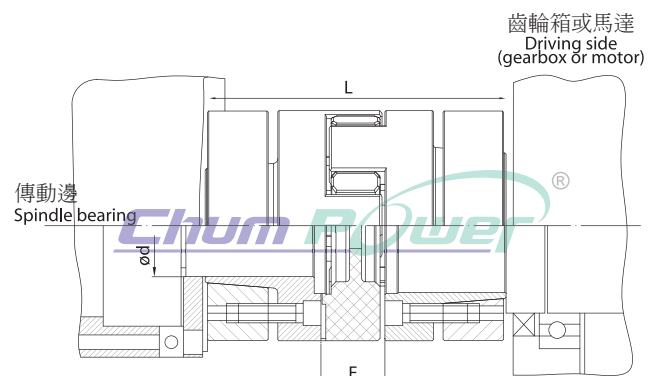
- 依據DIN69002標準製作，適用於複合加工機
- 具完備的短軸規格
- 結合完整的夾具系統
- 針對高轉速主軸設計
- 可適用於圓周回轉速50m/s以上
- 具高精度、動平衡結構
- 易拆裝



Code No. 型號	Size 尺寸	Dimensions(mm) 規格											
		d	D	d _H	L	l ₁ :l ₂	E	b	s	a	d ₁	d ₂	d ₃
SAA0001	14P	14"	32	10.5	50	18.5	13	10	1.5	2	17	17	8.5
SAA0002	19P37.5	16"	37.5	18	66	25	16	12	2	3	20	19	9.5
SAA0003	19P	19"	40	18	66	25	16	12	2	3	23	22	9.5
SAA0004	24P50	24"	50	27	78	30	18	14	2	3	28	29	12.5
SAA0005	24P	25"	55	27	78	30	18	14	2	3	30	30	12.5
SAA0006	28P	35"	65	30	90	35	20	15	2.5	4	40	40	14.5
SAA0007	38P	40"	80	38	114	45	24	18	3	4	46	46	16.5
SAA0008	42P	42"	95	46	126	50	26	20	3	4	52	55	18.5
SAA0009	48P	45"	105	51	140	56	28	21	3.5	4	52	60	20.5
SAA0010	55P	50"	120	60	160	65	30	22	4	4.5	55	72	22.5

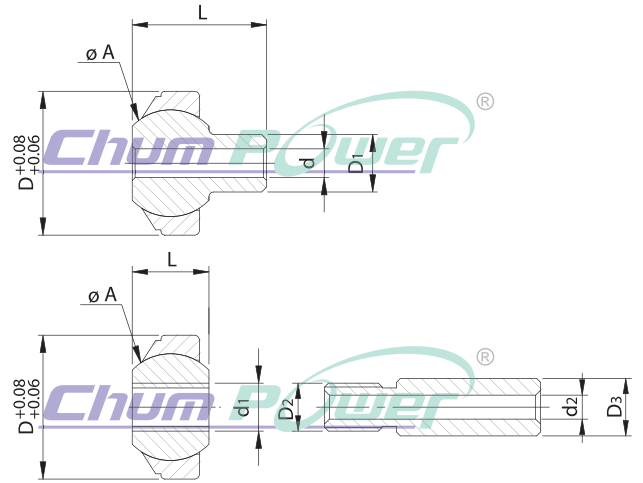
Selection for stub spindles

Spindle drive Size	Size	Dimensions(mm)				
		d	D	l ₁ /l ₂	L	E
25x20	14 P	14	32	18.5	50	13
32kx25	19 P37.5	16	37.5	25	66	16
32gx30	19 P	19	40	25	66	16
40x35	24 P50	24	50	30	78	18
50x45	24 P	25	55	30	78	18
63x55	28 P	35	65	35	90	20



Spray Nozzle Series

Press Fit Type



The Coolant Spray Nozzle could easily adjust its direction and spray precisely. When the coolants correspondent with three pressures-low, medium and high pressures, it can precisely aim at workpiece. They are suitable for CNC Machine Center, CNC Lathes, CNC Milling Machine, Grinding Machine and so on. The products can enhance the processing efficiency and accuracy, and also is helpful for extending the lifetime of tools, and decrease the cost.

噴水頭系列 壓配型

可任意調整噴口水口角度，並有效對應低、中、高冷卻液液壓，正確噴向瞄準點。適用於綜合切削機、銑床、車床等各式工具機。此項產品除可提高加工效率及精度外，亦有助於延長工具使用壽命和減少成本消耗。

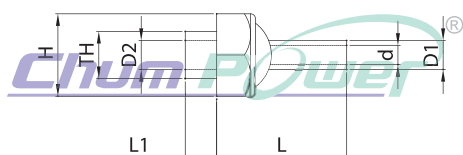
Code No. 型號	Nominal dimensions mm 規格							Ball dia 球徑	Allowable tilting angle degree 可調整角度	
	D	D ₁	D ₂	D ₃	L	d	d ₁	d ₂	A	α
90101	15				8		ø4		7/16"	29
90102	15	ø6			14	ø6x6L			7/16"	29
90103	15		M5x0.8	ø6	8		M5x0.8	2.5	7/16"	29
90104	12				7		M5x0.8		9mm	28
90108	10				5.5		M4x0.7		9mm	23

Spray Nozzle Series Thread Mount Type

The Coolant Spray Nozzle could easily adjust its direction and spray precisely. When the coolants correspondent with three pressures-low, medium and high pressures, it can precisely aim at workpiece. They are suitable for CNC Machine Center, CNC Lathes, CNC Milling Machine, Grinding Machine and so on. The products can enhance the processing efficiency and accuracy, and also is helpful for extending the lifetime of tools, and decrease the cost.

噴水頭系列 螺紋型

可任意調整噴水口角度，並有效對應低、中、高冷卻液液壓，正確噴向瞄準點。適用於綜合切削機、銑床、車床等各式工具機。此項產品除可提高加工效率及精度外，亦有助於延長工具使用壽命和減少成本消耗。



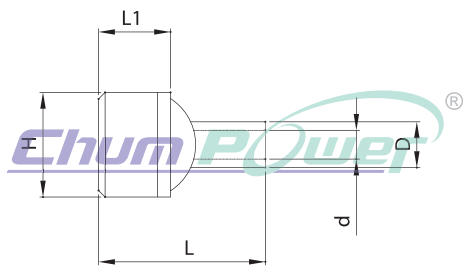
Code No. 型號	Thread mount 螺紋組接	L	L1	D1	D2	d	H
90111	PT 1/8	20	10	6	6	4	17
90112	PT 1/8	40					
90110	PT 1/8	60					
90113	PT 1/4	20	10	6	6	4	17
90114	PT 1/4	40					
90115	PT 1/4	60					
90116	PT 3/8	30	13	8	10	6	24
90117	PT 3/8	50					
90118	PT 3/8	70					
90119	1/2-20UNF	40	18	10	12	8	32
90120	1/2-20UNF	60					
90121	1/2-20UNF	80					
90122	M10*1.25P	20	8	6	6	4	17
90123	M10*1.25P	40					
90124	M10*1.25P	60					
90125	M20*1.5P	30	13	8	10	6	24
90126	M20*1.5P	50					
90127	M20*1.5P	70					
90128	M24*2.0P	40	18	10	12	8	32
90129	M24*2.0P	60					
90130	M24*2.0P	80					

Spray Nozzle Series ▶ Plastic Type

The Coolant Spray Nozzle could easily adjust its direction and spray precisely. When the coolants correspondent with three pressures-low, medium and high pressures, it can precisely aim at workpiece. They are suitable for CNC Machine Center, CNC Lathes, CNC Milling Machine, Grinding Machine and so on. The products can enhance the processing efficiency and accuracy, and also is helpful for extending the lifetime of tools, and decrease the cost.

噴水頭系列 ▶ 塑材型

可任意調整噴水口角度，並有效對應低、中、高冷卻液液壓，正確噴向瞄準點。適用於綜合切削機、銑床、車床等各式工具機。此項產品除可提高加工效率及精度外，亦有助於延長工具使用壽命和減少成本消耗。



Code No. 型號	H	L	L1	D	d
90151	10		7	6	3
90152	12		8	M5	
90154	14	22	10	M6	3.8
90156	16	25.5	11	M7	4.4

Spindle Accuracy Testing Bar

主軸精度測試棒

Features:

1. Accuracy Guarantee
2. Complete Product Range

特點

1. 精度保證
2. 具備完整規格



Code No. 型號	Size 規格	D	L
SWA0001	BT30-250	30	250
SWA0002	BT40-350	40	350
SWA0003	BT50-350	63	350
SWA0004	NT30-250	30	250
SWA0005	NT40-350	40	350
SWA0006	NT50-350	63	350
SWA0007	HSK30-250	30	250
SWA0008	HSK50-250	40	250
SWA0009	HSK63-350	63	350

Testing Bar

Annular Supplementary Spray loop

Custom-Built product

Features:

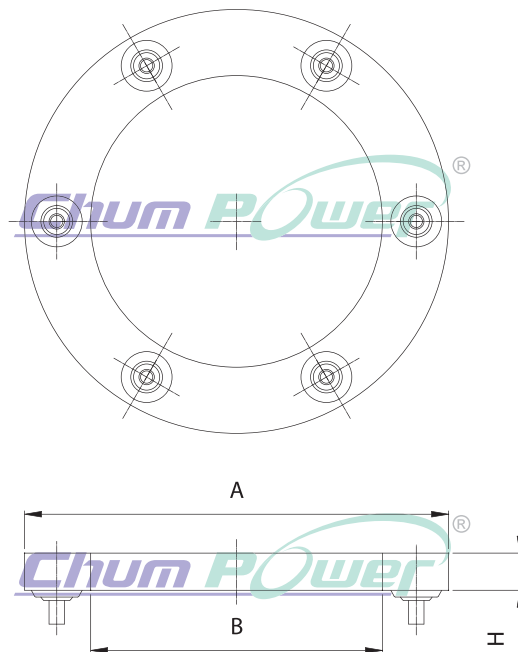
1. Enhance the traditional spray system.
2. Improve the imperfection of traditional spindle that can not cooling completely.
3. Accuracy Guarantee.
4. Custom-Built product can fit the special machine usage.
5. One year guarantee

環噴輔助環

依客制尺寸製作

特點：

1. 加強傳統噴水系統
2. 改善傳統主軸不完全的冷卻能力
3. 精度保證
4. 依客制尺寸製作最適合主軸使用的產品
5. 一年保固



Order form:

A-B-H-The numbers of spray hole -The code no. of spray nozzle

Example: 350mm-280mm-150mm- 6 - 90132

客制格式參考：

A-B-H-噴水口數量-噴水頭型號

例：350mm-280mm-150mm-6-90132

EZ-BAR

LASER COOLANT POINTER 雷射導水筆

Introduction & Features

- The Laser Coolant Pointer is designed for the machines where you need to adjust the coolant Spray Nozzles of the spindle.
- The main purpose is for the operator to correct the angle of coolant water and to prevent the operator from being sprayed by the coolant water. Leading by the laser coolant pointer can be adaptable for every kinds of cutting process (as Fig.1 and Fig.2).
- At the same time, it can improve the trouble of occupying too much space for the traditional adjustable coolant system hoses.

特點:

- 雷射導水筆搭配主軸噴水頭即能簡便地校正冷卻水柱與刀具散熱點的角度。
- 雷射導水筆的導引與主軸噴水頭的配合，適用於工具機上的各種切削加工，(如圖1、圖2)並且有助於減少使用者與切削水直接接觸。
- 同時此項產品的設計亦可有效解決傳統噴水軟管占空間的困擾。

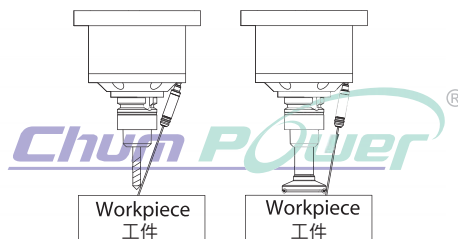


Fig. 1. Drilling Fig. 2. Face Milling
圖1 鑽孔 圖2 面銑

Name of each parts (Fig. 3)

1. Laser Head
2. Big O-Ring
3. Battery
4. Body
5. Small O-Ring
6. Adjust Link Stick

各部位名稱(圖3)

1. 雷射頭
2. 大O型環
3. 電池
4. 本體
5. 小O型環
6. 調整接桿

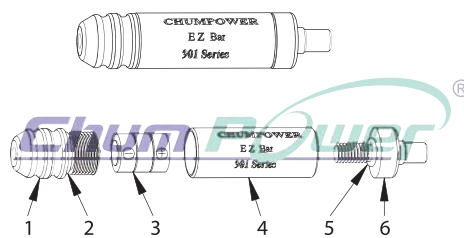


Fig. 3. Exploded drawing
圖3 分解圖

The Code No. & Spec. of the Adjust Link Stick (Fig.4)

調整接桿編號與規格，如下表及圖4所示

Code No.	Spec.			
	A	B	C	D
90100L				
90100L-AA	ø6mm	5mm	-	-
90100L-BB	-	-	ø4mm	7mm
90100L-CC	-	-	ø5mm	7mm
90100L-DD	-	-	ø6mm	7mm

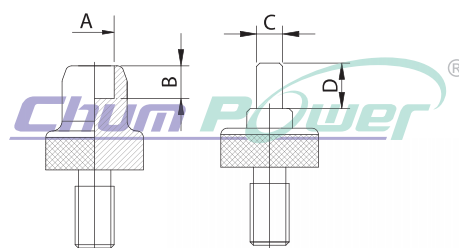


Fig. 4. Adapter Spec.
圖4 調整接桿規格

R

Installations & Attentions

※ Please confirm the following steps before installing :

- Please confirm the neck of Laser Head & Adjust Link Stick shall wear the Big O-Ring & Small O-Ring to avoid infiltrating the water.
- The negative of battery shall be headed forward the Laser Head.
- The inner of the Body shall insert the plastic cushion to avoid the results of short circuit in the negative of battery & Body.

※ Installation :

- After you confirmed as above, you can assemble the all parts according to Fig.3.

安裝步驟與注意事項

安裝前請確認

- 為避免滲水，請確認雷射頭與調整接桿之頸部套有大O型環及小O型環。
- 電池負極需朝向雷射頭。
- 本體內部嵌入塑膠墊片，用以避免電池負極與本體造成短路。

安裝

- 確認工作完畢後，依照圖3爆炸圖順序裝入即可。



Attentions on Usage & Maintenance

- When the Adjust Link Stick is screwed in the Body completely, the Laser Collation Bar is under the condition of "ON".
- After correcting the position of the Fountain Outlet, please screw out the Adjust Link Stick slightly. It'll avoid the unnecessary consumption for electric power.
- To check the cleanness of the lens of Laser Head as regular. If it is dirty, you can wipe it with the cotton bud.
- To check the O-Ring as regular, if it keeps the elasticity and without transfiguration to avoid infiltrating the water.
- You may not aim to your eyes by 650nm Diode Laser. Otherwise, it'll hurt your retina.

使用與保養注意事項

- 當調整接桿完全旋入本體時，雷射導水筆處於開啓的狀態。
- 噴水口角度位置校正結束後，請將調整接桿略為旋出，避免電量消耗。
- 定期檢查雷射頭鏡面之清潔，骯髒時可使用棉花棒進行擦拭。
- 定期檢查O型環是否保持彈性及變形，以避免滲水。
- 不可將紅外線二極體雷射對準眼睛，以避免傷害到視網膜。