

夾頭 · 油壓缸 ·  
專業製造  
Power Chuck -  
Hydraulic Cylinder

PRODUCT CATALOGUE

 富茂精機股份有限公司  
FUTECH PRECISION CO., LTD.

◦ 活力與品質 ◦ 專注與穩定 ◦ 承襲與延伸 ◦ 創新與優化

· FAST PROGRESS · USER CLOSER · TECHNOLOGY ELITE  
· ENGINEER TEAM · COMPLETE · HIGH PRECISION



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 富茂精機股份有限公司  
FUTECH PRECISION CO., LTD.



## 富茂精機股份有限公司 FUTECH PRECISION CO., LTD.

成立於2015年初夏，由台灣富安有限公司與香港富安實業國際有限公司合資成立，資本額為四千萬台幣。初始營業項目為專業CNC車床、龍門高速加工機、CNC鑽銑攻牙機等專業設備製造；後於2017年4月，開始自製高速油壓動力夾頭與高速迴轉油壓缸及其他相關零配件，更與工研院合作研製出來頭專用檢測設備，以多達12項之檢測項目嚴格檢視每一套產品。

FUTECH PRECISION CO., LTD., established in 2015 by Hong Kong RICH SECURE INTERNATION LIMITED and Taiwan FOAN CO., LTD. The capital is 40 million New Taiwan Dollars. The initial business scope includes the manufacturing of professional equipment such as CNC lathes, gantry high-speed machining centers, and CNC drilling and milling machines. In April, 2017, produces High speed hydraulic chucks, Rotary hydraulic cylinders and other accessories. For higher quality, FUTECH and ITRI developed a chuck testing equipment, which examine strictly each set of chucks with 12 inspection items.



品質穩定，固若磐石，精準卓越，萬中選一；來自MIT的堅持與專注！  
每個小細節都不馬虎，發揮台灣匠人精神，堅持傳承與延伸！  
富茂精機於2020年11月取得歐盟CE認證；更於2023年5月通過ISO 9001評鑑。

Consistent quality, unyielding like a rock, precision at its finest, a rare gem;  
these qualities emanate from the unwavering commitment and focus of  
MIT!

No detail is overlooked, embodying the essence of Taiwanese craftsmanship,  
a dedication to preserving and expanding traditions!

In November 2020, FUTECH achieved the EU CE certification, and in May  
2023, it successfully underwent ISO 9001 accreditation, demonstrating its  
relentless pursuit of excellence.





# CH3

## 三爪中空油壓夾頭

### 3 - JAW THROUGH - HOLE HYDRAULIC CHUCK

- 楔形三爪大貫通孔徑，適合圓形棒材加工。
  - 摺動面均經硬化及精密研磨，並直接潤滑增加耐久性。
  - 高剛性結構及高夾持精度。
- 
- Wedge-shaped 3-jaw large through hole, suitable for bar machining.
  - Surfaces comes with harden and precised grinding processes with lubrication applied to increased durability.
  - High rigid structure and high clamping accuracy.

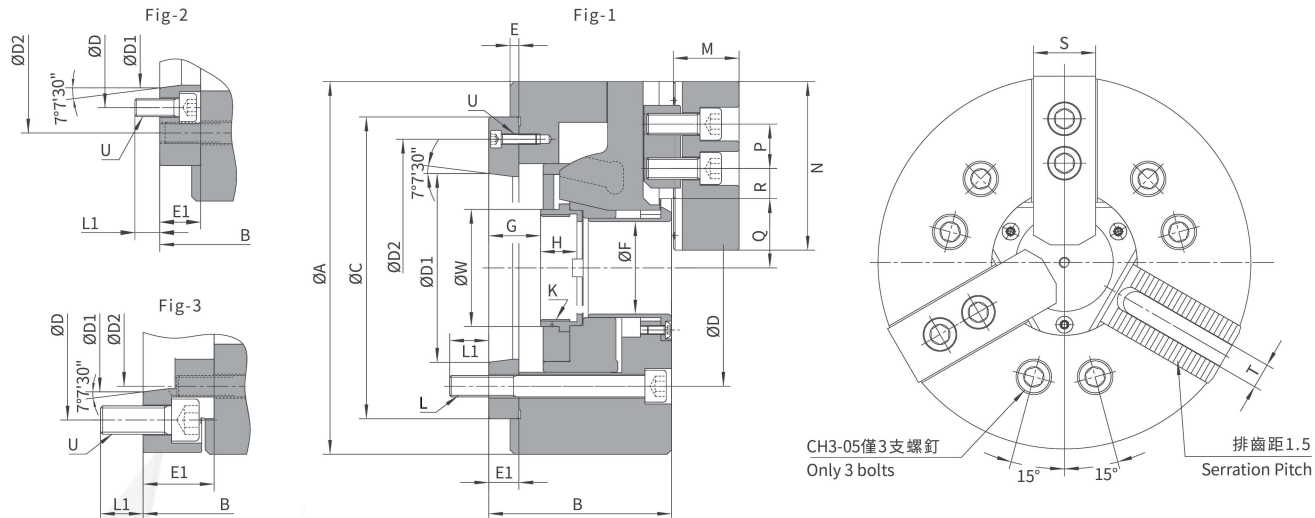
#### 規格 Spec.

型號 Model	連接形式 Taper type	楔心行程 Plunger Stroke	爪行程(直徑) Jaw Stroke (Dia.)	容許油缸拉力 Max. Pull Force	最大夾持力 Max. Chucking Force	最高轉數 Max. Speed
		mm	mm	kN	kN	r/min
CH3-05	A4	10	5.4	17.1	36	7000
	A5					
CH3-06	A4	12	5.5	21.5	57	6000
	A5					
	A6					
CH3-08	A5	16	7.4	34.3	87	5000
	A6					
	A8					
CH3-10	A6	19	8.8	42.6	111	4200
	A8					
	A11					
CH3-12	A6	23	10.6	54.9	144	3300
	A8					
	A11					
CH3-15	A8	23	10.6	70	179	2500
	A11					

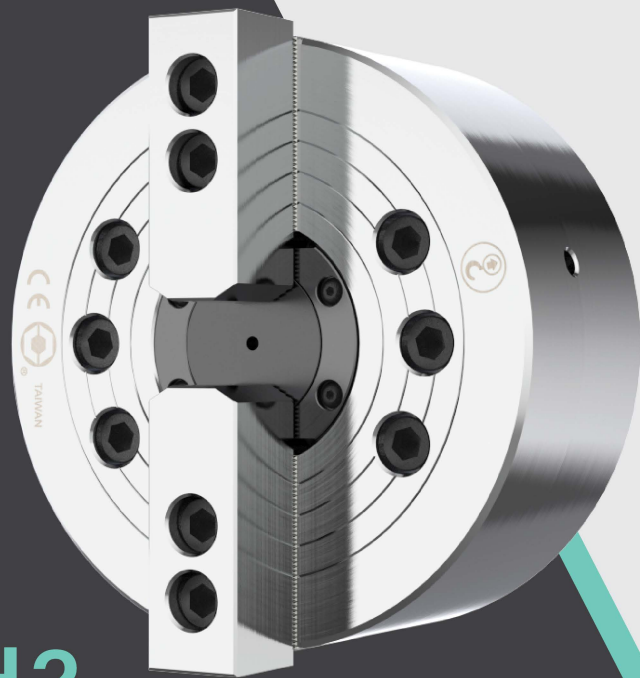
型號 Model	連接形式 Taper type	最大使用壓力 Max. Pressure	夾持直徑 Chucking Dia.		貫通孔徑 Thru-Hole	慣性矩 Moment of Inertia	重量 Weight	適用油缸型號 Matching Cylinder
		Mpa	Max.	Min.	mm	kg.m <sup>2</sup>	kg	
CH3-05	A4	2.8	135	6	33	0.02	7.8	HHS-536
	A5					0.023	9	
CH3-06	A4	2.8	169	15	45	0.065	15.5	HHR-646
	A5					0.062	14.7	
	A6					0.073	17.3	
CH3-08	A5	2.6	210	10	52	0.19	25.8	HHS-852
	A6					0.184	25	
	A8					0.217	29.3	
CH3-10	A6	2.7	254	25	75	0.37	40	HHS-1075
	A8					0.34	38	
	A11					0.436	48	
CH3-12	A6	2.7	304	30	91	0.809	62	HHS-1291
	A8					0.77	60	
	A11					0.912	70	
CH3-15	A8	2.4	381	35	117.5	2.255	125	HHS-1512
	A11					2.241	118	





尺寸 Dim.

型號 Model	A	B	C H6	D	D1	D2	E	E1	F	G max. min.	H	K max.	L	L1	M	N	P	Q max.	R max. min.	S	T	U	W	參考圖 Ref. drawing			
CH3-05	A4	135	71	82.55	63.513	96	4	15	33	16	6	20	M40x1.5	3-M10	15	31	62	14	26.3	20.5	5.2	25	10	3-M6 6-M10	45	Fig-1 Fig-3	
	A5	88	110	104.78	82.563	82.55		32		33	23																
CH3-06	A4		96	82.55	63.513	104.78		20		31	19														6-M10	Fig-2	
	A5	169	91	140	104.78	82.563	116	5	15	45	26	14	20	M55x2	6-M10	16	37	73	20	32.6	24.2	9.5	31	12	3-M6	60	Fig-1
	A6		111		133.35	106.375	104.78		35		46	34													6-M12	Fig-3	
CH3-08	A5		109	104.78	82.563	133.35		23		37.5	21.5				14										6-M10	Fig-2	
	A6	210	103	170	133.35	106.375	150	5	17	52	31.5	15.5	20.5	M60x2	6-M12	18	38	95	25	39.5	30.5	11.1	35	14	3-M6	66	Fig-1
	A8		126		171.45	139.719	133.35		40		54.5	38.5			24										6-M16	Fig-3	
CH3-10	A6		120	133.35	106.375	171.45		25		33.5	14.5				18										6-M12	Fig-2	
	A8	254	113	220	171.45	139.719	190	5	18	75	26.5	7.5	25	M85x2	6-M16	24	43	110	30	53.8	34.0	11.1	40	16	3-M8	94	Fig-1
	A11		145		235	196.869	171.45		50		58.5	39.5			28										6-M20	Fig-3	
CH3-12	A6		129	133.35	106.375	171.45		25		33	10				18										6-M12	Fig-2	
	A8	304	122	220	171.45	139.719	190	6	18	91	26	3	28	M100x2	6-M16	25	51	130	30	61	46.5	11.7	50	21	3-M8	108	Fig-1
	A11		154		235	196.869	171.45		50		58	35			28										6-M20	Fig-3	
CH3-15	A8	381	161	300	171.45	139.719	235	6	33	117.5	40	17	42.5	M130x2	6-M20	25	66	165	43	82.3	45	15	62	22	6-M16	139	Fig-2
	A11		150		235	196.869	260		22		29	6			27										3-M10	Fig-1	



# CH2

## 二爪中空油壓夾頭

### 2 - JAW THROUGH - HOLE HYDRAULIC CHUCK

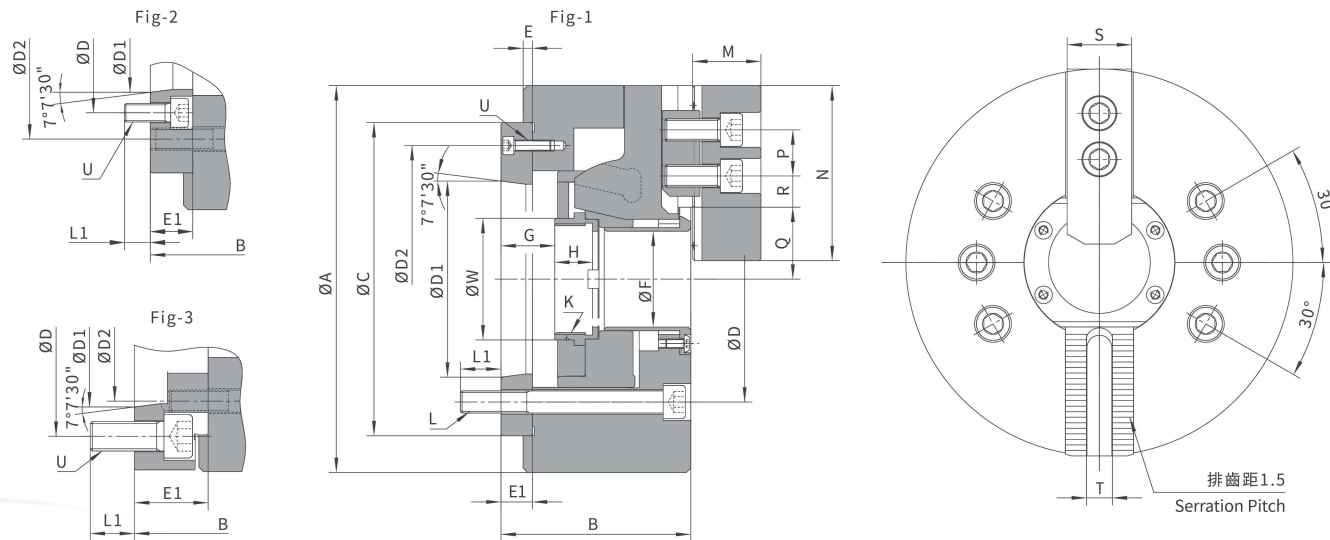
- 楔形二爪大貫通孔徑，特別適合不規則異形物加工。
  - 摺動面均經硬化及精密研磨，並直接潤滑增加耐久性。
  - 高剛性結構及高夾持精度。
- 
- Wedge-shaped 2-jaw large through hole, especially suitable for irregular shaped objects.
  - Surfaces comes with harden and precised grinding processes with lubrication applied to increased durability.
  - High rigid structure and high clamping accuracy.

#### 規格 Spec.

型號 Model	連接形式 Taper type	楔心行程 Plunger Stroke mm	爪行程(直徑) Jaw Stroke (Dia.) mm	容許油缸拉力 Max. Pull Force kN	最大夾持力 Max. Chucking Force kN	最高轉數 Max. Speed r/min
CH2-05	A4	10	5.4	11.7	23.9	7000
CH2-06	A5	12	5.5	14.4	37.9	6000
	A6					
CH2-08	A5	16	7.4	23.1	57.2	5000
	A6					
CH2-10	A8	19	8.8	28.4	73.9	4200
	A11					
CH2-12	A8	23	10.6	36.7	95.8	3300
	A11					
CH2-15	A8	23	10.6	46.9	119.6	2500
	A11					

型號 Model	連接形式 Taper type	最大使用壓力 Max. Pressure Mpa	夾持直徑 Chucking Dia. Max. Min. mm		貫通孔徑 Thru-Hole mm	慣性矩 Moment of Inertia kg.m2	重量 Weight kg	適用油缸型號 Matching Cylinder
CH2-05	A4	2.0	135	6	33	0.02	10.6	HHS-536
CH2-06	A5	1.9	169	15	45	0.06	14	HHS-646
	16.6							
CH2-08	A5	1.8	210	10	52	0.17	24.8	HHS-852
	24							
CH2-10	A6	1.8	254	25	75	0.31	28.3	HHS-1075
	40.0							
CH2-12	A8	1.8	304	30	91	0.7	37	HHS-1291
	47.4							
CH2-15	A8	1.7	381	50	117.5	2.42	58	HHS-1512
	68.4							
CH2-15	A11	1.7	381	50	117.5	2.42	120	HHS-1512
	113							



尺寸 Dim.

型號 Model	A	B	C	D	D1	D2	E	E1	F	G		H	K max.	L	L1	M	N	P	Q max.	R		S	T	U	W	參考圖 Ref. drawing					
										max.	min.									max.	min.										
CH2-05	A4	135	71	110	82.55	63.513	96	4	15	33	16	6	20	M40x1.5	4-M10	15	31	62	14	26.3	20.5	5.2	25	10	3-M6	45	Fig-1				
CH2-06	A5	169	91	140	104.78	82.563	116	5	15	45	26	14	20	M55x2	6-M10	16	37	73	20	32.6	24.2	9.5	31	12	3-M6	60	Fig-1 Fig-3				
	A6		111		133.35	106.375					104.78	35													46			34	6-M12		
CH2-08	A5	210	109	170	104.78	82.563	133.35	5	17	52	37.5	21.5	20.5	M60x2	6-M12	18	38	95	25	39.5	30.5	11.1	35	14	6-M10	66	Fig-2 Fig-1 Fig-3				
	A6		103		133.35	106.375					150	17													52			31.5	15.5	24	6-M16
	A8		126		171.45	139.719					133.35	40													54.5			38.5	24	6-M16	
CH2-10	A6	254	120	220	133.35	106.375	171.45	5	18	75	33.5	14.5	25	M85x2	6-M16	24	43	110	30	53.8	34.0	11.1	40	16	6-M12	94	Fig-2 Fig-1 Fig-3				
	A8		113		171.45	139.719					190	18													75			26.5	7.5	25	3-M8
	A11		145		235	196.869					171.45	50													58.5			39.5	28	6-M20	
CH2-12	A8	304	122	220	171.45	139.719	190	6	18	91	26	3	28	M100x2	6-M16	25	51	130	30	61	46.5	11.7	50	21	3-M8	108	Fig-1 Fig-3				
	A11		154		235	196.869					171.45	50													58			35	28	6-M20	
CH2-15	A8	381	161	300	171.45	139.719	235	6	33	117.5	40	17	42.5	M130x2	6-M20	25	66	165	43	82.3	45	15	62	22	6-M16	139	Fig-2 Fig-1				
	A11		150		235	196.869					260	22													29			6	27	3-M10	



# CH4

## 四爪中空油壓夾頭

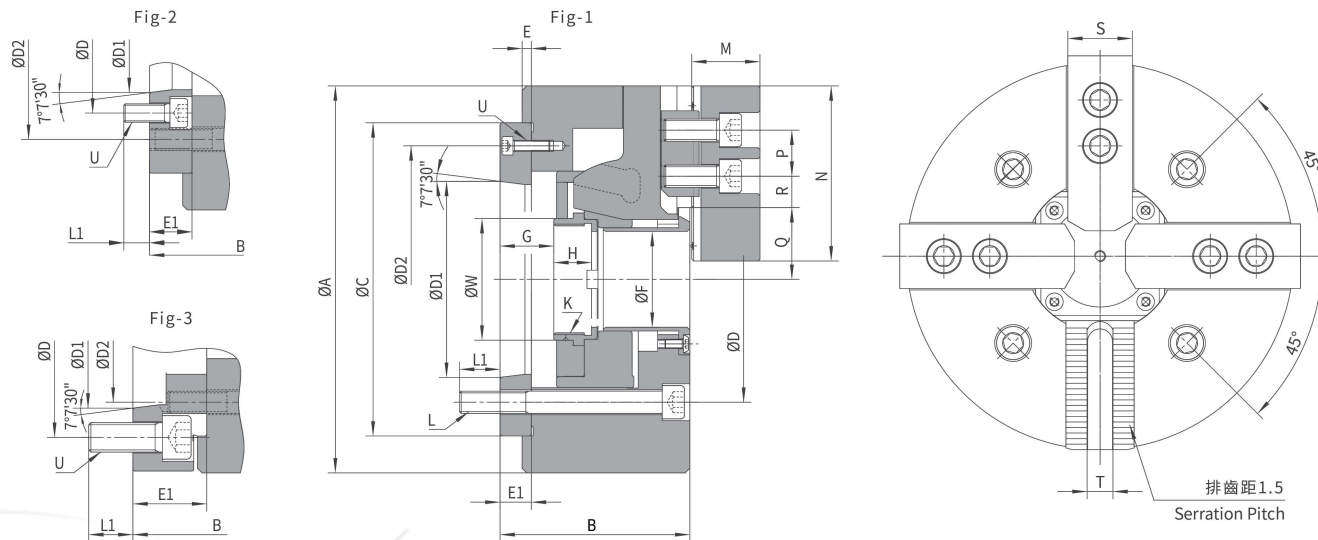
### 4 - JAW THROUGH - HOLE HYDRAULIC CHUCK

- 楔形四爪大貫通孔徑，特別適合異形物加工。
  - 摺動面均經硬化及精密研磨，並直接潤滑增加耐久性。
  - 高剛性結構及高夾持精度。
- 
- Wedge-shaped 4-jaw large through hole, especially suitable for irregular shaped objects.
  - Surfaces comes with harden and precised grinding processes with lubrication applied to increased durability.
  - High rigid structure and high clamping accuracy.

#### 規格 Spec.

型號 Model	連接形式 Taper type	楔心行程 Plunger Stroke	爪行程(直徑) Jaw Stroke (Dia.)	容許油缸拉力 Max. Pull Force	最大夾持力 Max. Chucking Force	最高轉數 Max. Speed
		mm	mm	kN	kN	r/min
CH4-06	A5	12	5.5	21.5	57	6000
	A6					
CH4-08	A5	16	7.4	34.3	87	5000
	A6					
	A8					
CH4-10	A6	19	8.8	42.6	111	4200
	A8					
	A11					
CH4-12	A8	23	10.6	54.9	144	3300
	A11					
CH4-15	A8	23	10.6	71	180	2500
	A11					

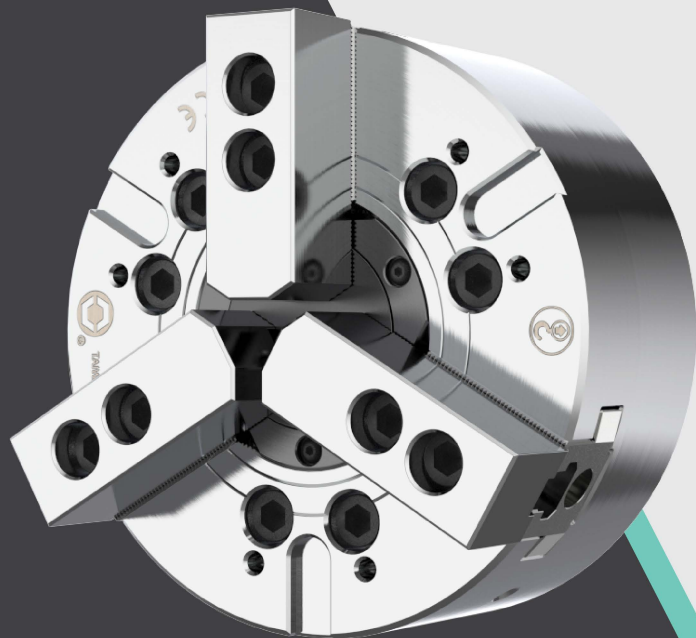
型號 Model	連接形式 Taper type	最大使用壓力 Max. Pressure	夾持直徑 Chucking Dia.		貫通孔徑 Thru-Hole	慣性矩 Moment of Inertia	重量 Weight	適用油缸型號 Matching Cylinder
		Mpa	Max.	Min.	mm	kg.m2	kg	
CH4-06	A5	2.8	169	15	45	0.07	14.9	HHS-646
	A6						17.5	
CH4-08	A5	2.6	210	10	52	0.19	26.8	HHS-852
	A6						26	
	A8						30.3	
CH4-10	A6	2.7	254	25	75	0.34	42	HHS-1075
	A8						39	
	A11						49.4	
CH4-12	A8	2.7	304	30	91	0.79	61.5	HHS-1291
	A11						71.9	
CH4-15	A8	2.4	381	50	117.5	2.5	128	HHS-1512
	A11					2.42	121	



尺寸 Dim.

型號 Model	A	B	C	D	D1	D2	E	E1	F	G		H	K max.	L	L1	M	N	P	Q		R		S	T	U	W	參考圖 Ref. drawing
										max.	min.								max.	min.							
CH4-06	A5	169	91	140	104.78	82.563	116	5	15	45	26	14	20	M55x2	4-M10	16	37	73	20	32.6	24.2	9.5	31	12	3-M6	60	Fig-1
	A6	111			133.35	106.375	104.78		35		46	34													6-M12		Fig-3
CH4-08	A5	109			104.78	82.563	133.35		23		37.5	21.5			14										6-M10		Fig-2
	A6	210	103	170	133.35	106.375	150	5	17	52	31.5	15.5	20.5	M60x2	4-M12	18	38	95	25	39.5	30.5	11.1	35	14	3-M6	66	Fig-1
	A8	126			171.45	139.719	133.35		40		54.5	38.5			24										6-M16		Fig-3
CH4-10	A6	120			133.35	106.375	171.45		25		33.5	14.5			18										6-M12		Fig-2
	A8	254	113	220	171.45	139.719	190	5	18	75	26.5	7.5	25	M85x2	4-M16	24	43	110	30	53.8	34.0	11.1	40	16	3-M8	94	Fig-1
	A11	145			235	196.869	171.45		50		58.5	39.5			28										6-M20		Fig-3
CH4-12	A8	122			171.45	139.719	190		18		26	3	28	M100x2	4-M16	25	51	130	30	61	46.5	11.7	50	21	3-M8	108	Fig-1
	A11	304	154	220	235	196.869	171.45	6	50	91	58	35			28										6-M20		Fig-3
CH4-15	A8	381	161	300	171.45	139.719	235	6	33	117.5	40	17	42.5	M130x2	4-M20	25	66	165	43	82.3	45	15	62	22	6-M16	139	Fig-2
	A11	150			235	196.869	260		22		29	6			27										3-M10		Fig-1





# CHU3

## 三爪中空大孔徑油壓夾頭

### 3 - JAW LARGE THROUGH - HOLE HYDRAULIC CHUCK

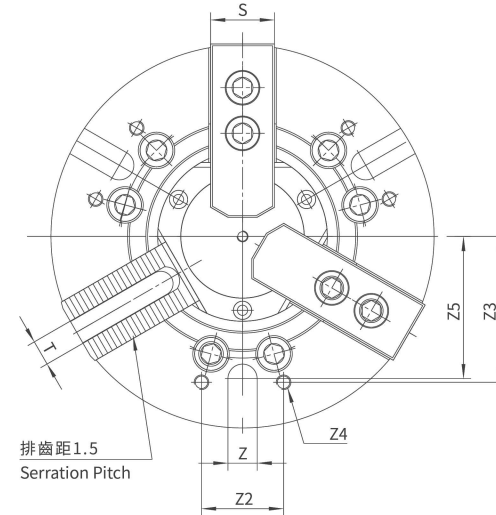
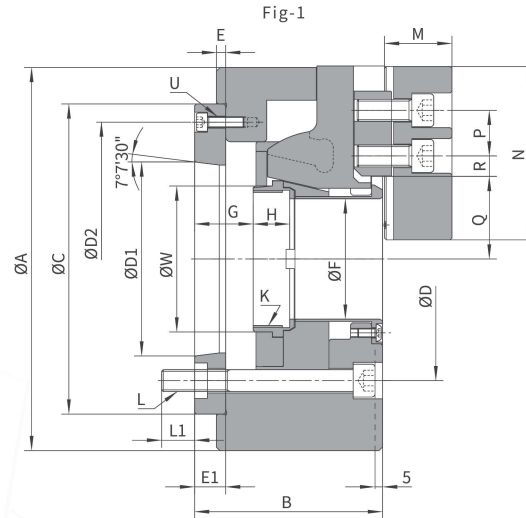
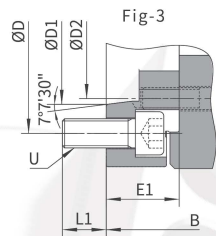
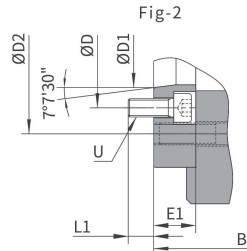
- 楔形三爪超大貫通孔徑，適合圓形棒材加工。
  - 摺動面均經硬化及精密研磨，並直接潤滑增加耐久性。
  - 高剛性結構及高夾持精度。
- 
- Wedge-shaped 3-jaw extremely large through hole, suitable for bar machining.
  - Surfaces comes with harden and precised grinding processes with lubrication applied to increased durability.
  - High rigid structure and high clamping accuracy.

#### 規格 Spec.

型號 Model	連接形式 Taper type	楔心行程 Plunger Stroke	爪行程(直徑) Jaw Stroke (Dia.)	容許油缸拉力 Max. Pull Force	最大夾持力 Max. Chucking Force	最高轉數 Max. Speed
		mm	mm	kN	kN	r/min
CHU3-06	A5 A6	12	5.4	21.9	56.9	6000
CHU3-08	A6	16	7.4	34.8	88.9	5000
CHU3-10	A8 A8	19	8.8	42.9 48.76	110.9 125.9	4200 4500
CHU3-12	A8 A11	23	10.6	56.9	146.9	3200

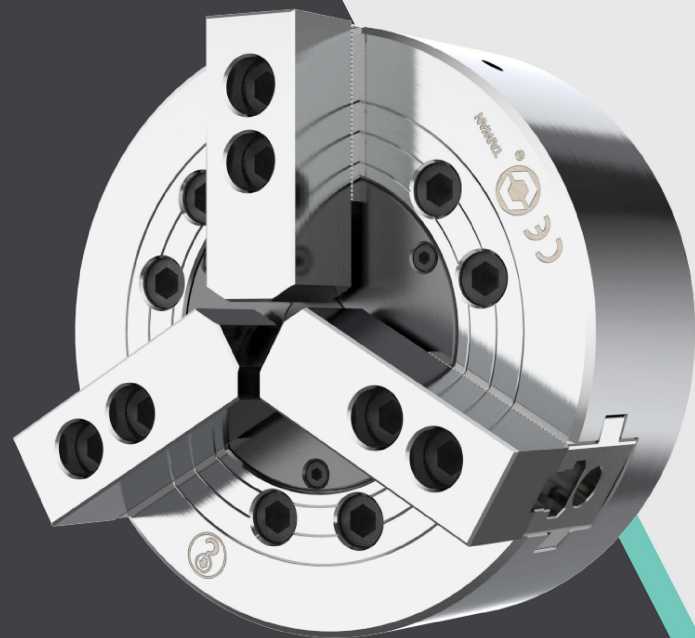
  

型號 Model	連接形式 Taper type	最大使用壓力 Max. Pressure	夾持直徑 Chucking Dia.	貫通孔徑 Thru-Hole	慣性矩 Moment of Inertia	重量 Weight	適用油缸型號 Matching Cylinder
		Mpa	Max. Min. mm	mm	kg.m2	kg	
CHU3-06	A5 A6	1.84	170 20	52	0.06 0.087	14 15.6	HHS-852
CHU3-08	A6	2.2	210 26	66	0.14	24	HHS-1068
CHU3-10	A8 A8	2.75 3.15	254 36 37	78 81	0.4 0.33	37.4 36.4	HHS-1078 HHS-1881K
CHU3-12	A8 A11	2.05	315 59	122	1.04 0.95	72.2 65	HHS-1512



尺寸 Dim.

型號 Model	A	B	C	D	D1	D2	E	E1	F	G max. min.	H	K max.	L	L1	M	N	P	Q max.	R max. min.	S	T	U	W	Z H12	Z2	Z3	Z4	Z5	參考圖 Ref. drawing		
CHU3-06	A5			104.78	82.563	116	15	15	52	26	14			14.5	37	73	20	37	18.25	9.25	31	12	3-M6	65	16	36	65	M8x15	63	Fig-1 Fig-3	
	A6	170	91	140	133.35	106.375	5	35		46	34	20	M60x2	6-M10	16								6-M12								
CHU3-08	A6	210	103	170	133.35	106.375	5	17	66	31.5	15.5	20	M75x2	6-M12	19.5	38	95	25	45.7	23.75	11.75	35	14	3-M6	80	16	45	80	M8x15	78	Fig-1
CHU3-10	A8			171.45	139.719	190	5	18	78	26.5	7.5	25	M87x2	6-M16	24	43	110	30	53	33.75	14.25	40	16	3-M8	94	16	60	102	M10x20	91	Fig-1
	A8	254	113	220	171.45	139.719	5	18	81				M90x2					54	32.25				97								
CHU3-12	A8			171.45	139.719	235	6	33	122	53	30	28	M135x2	6-M20	24	51	130	30	79.5	33.75	11.25	50	21	6-M16	143	20	60	138	M10x10	123	Fig-2 Fig-1
	A11	315	145	300	171.45	139.719	6	22		42	19												3-M10								



# CM3

## 三爪中實油壓夾頭 3 - JAW SOLID HYDRAULIC CHUCK

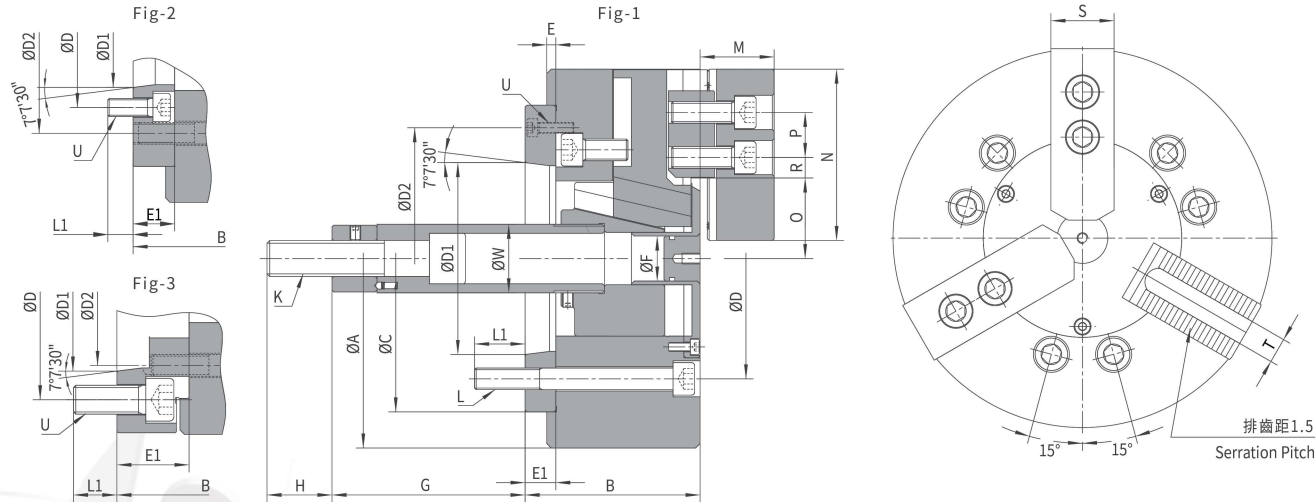
- 楔形三爪中實型。
- 高剛性結構及高夾持精度。
- Wedge-shaped 3-jaw solid power chuck.
- High rigid structure and high clamping accuracy.

### 規格 Spec.

型號 Model	連接形式 Taper type	楔心行程 Plunger Stroke	爪行程(直徑) Jaw Stroke (Dia.)	容許油缸拉力 Max. Pull Force	最大夾持力 Max. Chucking Force	最高轉數 Max. Speed
		mm	mm	kN	kN	r/min
CM3-06	A4	20	9.2	18	52.5	5200
	A5					
	A6					
CM3-08	A5	21	9.7	25	75	4500
	A6					
	A8					
CM3-10	A6	25	8.8	29	108	4000
	A8					
	A11					
CM3-12	A6	30	10.6	41	156	3300
	A8					
	A11					
CM3-15	A8	35	16	82	249	3000
	A11					

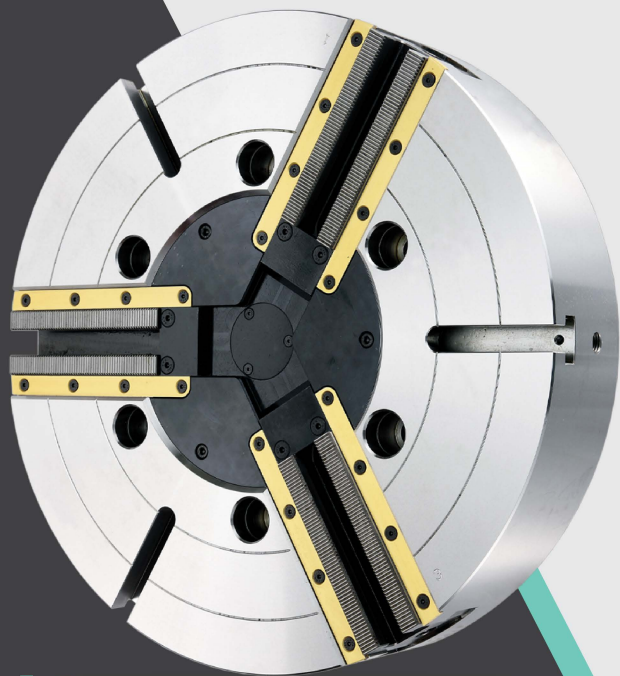
  

型號 Model	連接形式 Taper type	最大使用壓力 Max. Pressure	夾持直徑 Chucking Dia.		貫通孔徑 Thru-Hole	慣性矩 Moment of Inertia	重量 Weight	適用油缸型號 Matching Cylinder
		Mpa	Max.	Min.	mm	kg.m <sup>2</sup>	kg	
CM3-06	A4	2.6	165	18	21	0.062	14.5	MHR-100C/ MHR-100CS
	A5							
	A6							
CM3-08	A5	2.5	210	26	25	0.154	26.8	MHR-125C/ MHR-125CS
	A6							
	A8							
CM3-10	A6	2.8	254	26	34	0.35	41.8	MHR-125C/ MHR-125CS
	A8							
	A11							
CM3-12	A6	2.7	304	26	34	0.76	67.6	MHR-150C/ MHR-150CS
	A8							
	A11							
CM3-15	A8	3.2	381	68	-	2.12	119	MHR-200C/ MHR-200CS
	A11							



尺寸 Dim.

型號 Model	A	B	C H6	D	D1	D2	E	E1	F	G		H	K max.	L	L1	M	N	P	Q		R		S	T	U	W	參考圖 Ref. drawing
										max.	min.								max.	min.							
CM3-06	A4	89		82.55	63.513	104.78		20		84.6	64.6				16										6-M10	34	Fig-2
	A5	165	84	140	104.78	82.53	116	5	15	21	89.6	69.6	35	M16x2.0	6-M10	14	39	73	20	38.5	17.2	11	31	12	3-M6		Fig-1
	A6		104		133.35	106.375	104.78				35	69.6	49.6			16									6-M12		Fig-3
CM3-08	A5		103		104.78	82.563	133.35			23	109	88			14										6-M10		Fig-2
	A6	210	97	170	133.35	106.35	150	5	17	25	115	94	36	M20x2.5	6-M12	18	41	95	25	47.7	23	9.4	35	14	3-M6	38	Fig-1
	A8		120		171.45	139.719	133.35				40	92	71		24										6-M16		Fig-3
CM3-10	A6		110		133.35	106.375	171.45			25	133	108			18										6-M12		Fig-2
	A8	254	103	220	171.45	139.719	190	5	18	34	140	115	36	M20x2.5	6-M16	24	46	110	30	51.3	34	8.2	40	16	3-M8	45	Fig-1
	A11		135		235	196.869	171.45			50	108	83			28										6-M20		Fig-3
CM3-12	A6		123.5		133.35	106.375	171.45			25	138	108			18										6-M12		Fig-2
	A8	304	116.5	220	171.5	139.719	190	6	18	34	145	115	36	M20x2.5	6-M16	25.5	55.5	130	30	62.9	49	10.5	50	18	3-M8	50	Fig-1
	A11		148.5		235	196.869	171.45			50	113	83			28										6-M20		Fig-3
CM3-15	A8	381	141	300	171.45	139.719	235	6	33	-	71	36	55	M30x3.5	6-M20	24	63	165	43	77.5	49.75	21.25	62	25.5	6-M16	60	Fig-2
	A11		130		235	196.869	260			22	82	47			32										3-M10		Fig-1



# CMV3

## 立車用三爪中實油壓夾頭

### 3 - JAW SOLID HYDRAULIC CHUCK FOR VERTICAL LATHE

- 配置防塵條及蓋板，避免切削液及鐵屑等異物進入。
  - 可依需求選擇連接板。
  - 主軸依照ASA或DIN標準規範。
- 
- Equipped with dust-proof seals and covers to prevent coolant and iron scraps.
  - Different adapters according to your needs.
  - Spindle complies with ASA or DIN specifications.

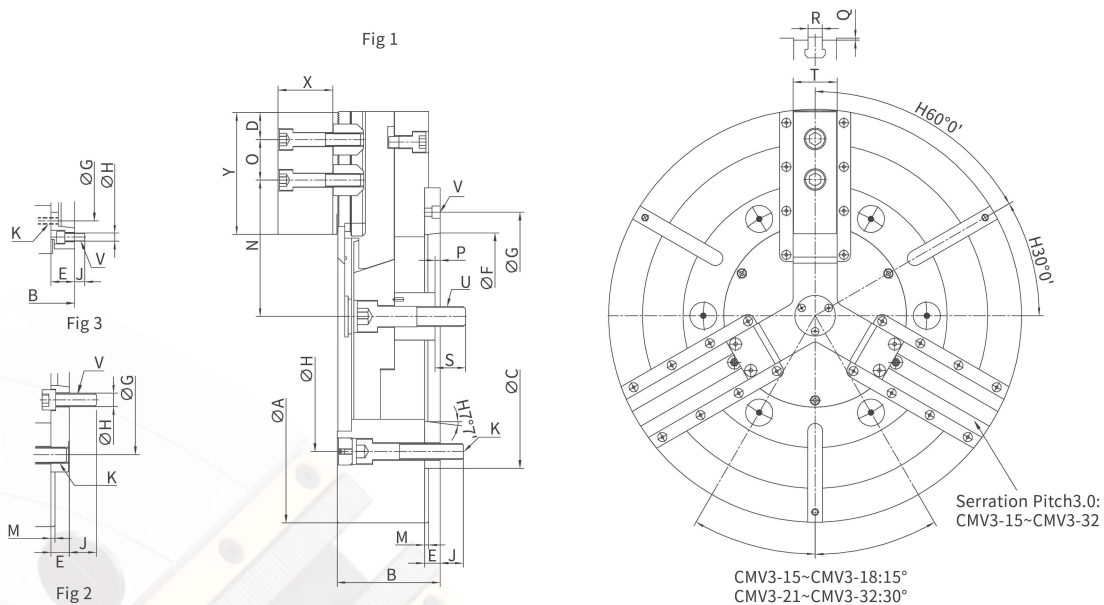
#### 規格 Spec.

型號 Model	連接形式 Taper type	楔心行程 Plunger Stroke mm	爪行程 (直徑) Jaw Stroke (Dia.) mm	容許油缸拉力 Max. Pull Force kgf	最大夾持力 Max. Chucking Force kgf	最高轉數 Max. Speed r/min	最大使用壓力 Max. Pressure Mpa
CMV3-15	A8	35	11.3	8311	25340	3000	32.5
	A11						
	A15						
CMV3-18	A8	35	11.3	8311	25340	2700	32.5
	A11						
	A15						
CMV3-21	A11	35	11.3	8506	27419	1920	33.5
	A15						
CMV3-24	A11	35	11.3	8506	27419	1730	33.5
	A15						
CMV3-32	A11	35	11.3	8506	27419	605	33.5
	A15						

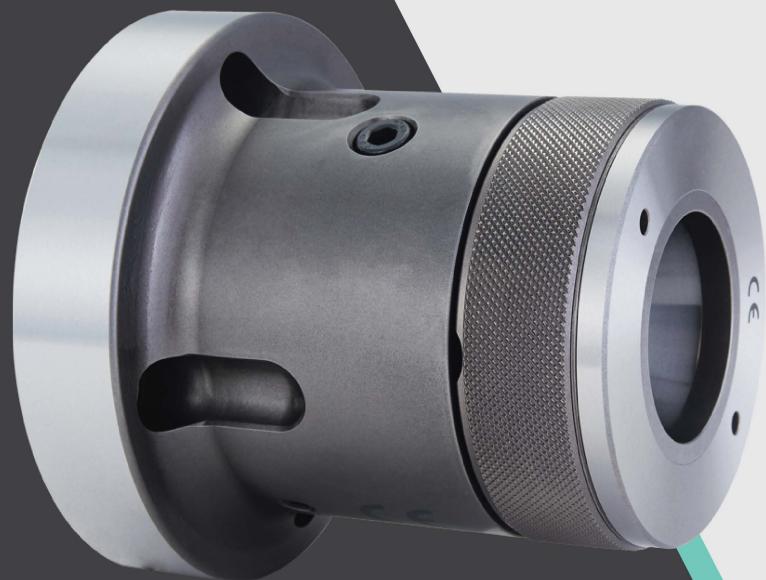
型號 Model	連接形式 Taper type	夾持直徑 Chucking Dia. Max. Min. mm	慣性矩 Moment of Inertia kg.m2	重量 Weight kg	適用軟爪型號 Matching Soft Jaws	適用硬爪型號 Matching Hard Jaws	適用油缸型號 Matching Cylinder
CMV3-15	A8	392 62	2.1	137	FSJ-15V	FHJ-15V	MHR-200C/ MHR-200CS
	A11		2.0	126			
	A15		2.3	150			
CMV3-18	A8	461 62	3.4	157	FSJ-24V	FHJ-15V	MHR-200C/ MHR-200CS
	A11		3.1	143			
	A15		3.6	167			
CMV3-21	A11	541 102	6.6	234	FSJ-24V	FHJ-21V	MHR-200C/ MHR-200CS
	A15		6.4	226			
CMV3-24	A11	621 102	7.7	280	FSJ-24V	FHJ-21V	MHR-200C/ MHR-200CS
	A15		7.4	271			
CMV3-32	A11	811 147	31	447	FSJ-32V	FHJ-32V	MHR-200C/ MHR-200CS
	A15		29	439			





尺寸 Dim.

型號 Model	A	B	C	D	E	F	G	H	J	K	M	N		O		P		Q	R	S	T	U	V	X	T	參考圖 Ref. drawing
												max.	min.	max.	min.	max.	min.									
CMV3-15	A8	162			33	139.719	235	171.45	25																	Fig-2
	A11	381	151	300	43	22	196.869	260	235	29	6-M20	6	77.5	50	24	-4.5	30.5	2	25	58.5	64	M30x3.5	6-M16	67.5	160	Fig-1
	A15		186			57	285.775	235	330.2	25						19.5	54.5						6-M24			Fig-3
CMV3-18	A8	162			33	139.719	235	171.45	25																	Fig-2
	A11	450	151	300	43	22	196.869	260	235	29	6-M20	6	108	50	24	-15.5	19.5	0.5	25	58.5	64	M30x3.5	3-M12	67.5	180	Fig-1
	A15		186			57	285.775	235	330.2	25						19.5	54.5						6-M24			Fig-3
CMV3-21	A11	530	156	380	60	27	196.869		235	31																Fig-2
	A15						285.775	330.2	330.2	35	6-M24	6	83	98	29	-7.5	27.5	0.5	25	60	64	M30x3.5	6-M20	67.5	180	Fig-1
CMV3-24	A11						196.869		235	31																Fig-2
	A15	610	156	380	60	27	285.775	330.2	330.2	35	6-M24	6	122	98	29	-7.5	27.5	0.5	25	60	64	M30x3.5	6-M20	67.5	180	Fig-1
CMV3-32	A11						196.869		235	31																Fig-2
	A15	800	166	380	80	27	285.775	330.2	330.2	35	6-M24	6	102	201	30	-24	11	2	25	60	74	M30x3.5	6-M20	86	210	Fig-1



# CCA

## 筒夾夾頭 COLLECT CHUCK

- 前推式設計，實現軸向之高度定位精度。
- 快拆式前擋蓋設計，可快速拆卸彈性筒夾。

- Front push design achieves high axial positioning accuracy.
- Quick-release front cover design allows quick removal of the Spring Collet.

### 規格 Spec.

型號 Model	主軸鼻端 Spindle Nose	通孔直徑 Thru-Hole	套筒行程 Sleeve Stroke	容許最大推力 Max. Push Force
		mm	mm	kN(kgf)
CC-30	A4 A2-4	30	5	20(2039)
CC-42	A5 A2-5 A6 A2-6	42	7	25(2549)
CC-52	A6 A2-6	52	7	27.4(2800)
CC-60	A6 A2-6	60	7	30(3059)

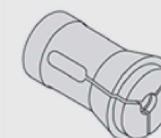
  

型號 Model	最大夾持力 Max. Chucking Force	最高轉數 Max. Speed	重量 Weight	適用筒夾 Matching Collect
	kN(kgf)	r/min	kg	
CC-30	A4 44(4486)	7000	4.2	163E
CC-42	A5 55(5608) A6	6000	6.5 8	173E
CC-52	A6 59(6020)	6000	9.4	177E
CC-60	A6 65(6628)	5000	11.9	185E

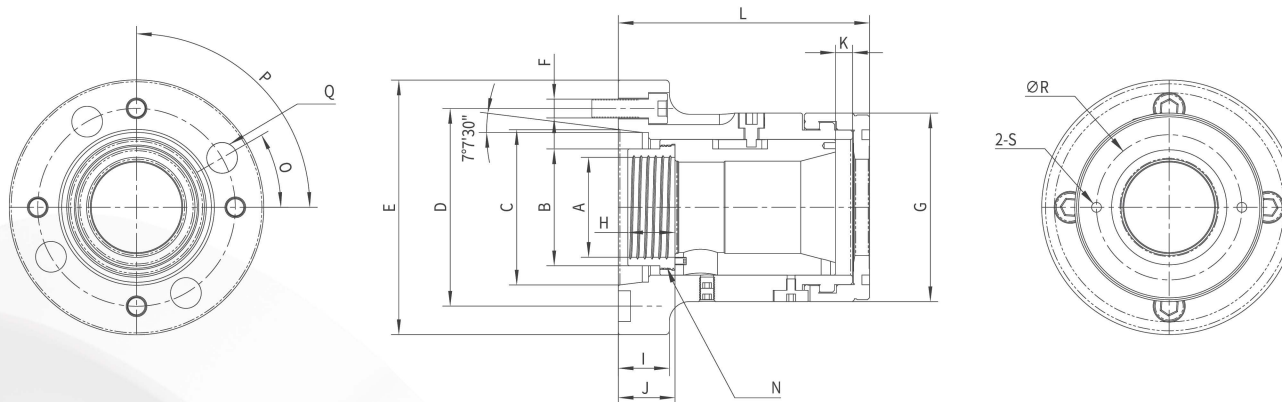
### 彈性筒夾 Spring Collet

型號 Model	圓棒 Round		六角棒材 Hexagon	方形棒材 Square
	Max.	Min.		
163E	30	3	4~25	5~20
173E	42	3	6~35	6~29
177E	52	3	6~44	6~36
185E	60	3	8~51	7~42

彈性筒夾使用DIN6343 規範  
The used spring collet must comply with specification of DIN6343.



彈性筒夾  
Spring Collet Drawing



尺寸 Dim.

型號 Model	A	B	C	D	E	F	G	H	I	J		K	L	N	O	P	Q	R	S	
										max.	min.									
CC-30	A4	M40x1.5	45	63.5	82.6	112	3-M10x35	85	15	30	28	23	6	109	M50x1.5	60	120	14.68x6.5	63	5.2
CC-42	A5	M55x2.0	60	82.55	104.8	135	4-M10x30	100	20	27	37	30	8.5	133	M66x1.5	30	90	16.28x6.5	77	5.2
	A6	M60x2.0	63	106.36	133.4	170	4-M12x30		22	28	38	31								
CC-52	A6	M60x2.0	70	106.36	133.4	170	4-M12x40	110	15	34.4	37	30	8.5	133	M70x1.5	30	90	19.46x6.5	95	5.2
CC-60	A6	M74x2.0	88	106.36	133.4	170	4-M12x30	130	15	27	37	30	8.5	149	M90x1.5	30	90	19.46x6.5	97	5.2



# HHS

## 短型中空迴轉油壓缸

### SHORT TYPE THRU - HOLE ROTARY HYDRAULIC CYLINDER

- 超短、大孔徑型迴轉油壓缸，設計輕量化高旋轉時性能更穩定，減輕主軸負載。
  - 內建逆止閥自鎖安全機構，確保異常斷電時壓力立即保持及內置壓力洩止閥。
  - 兩用型，安裝時可由前端與後端鎖固。
- 
- Ultra-short, large-diameter rotary hydraulic cylinder, lightweight design, more stable performance during high rotation, reducing spindle load.
  - The built-in safety self-locking valve ensures the pressure is immediately maintained during abnormal power outage and the built-in pressure relief valve.
  - Dual-purpose type, can be installed by the front and rear ends.

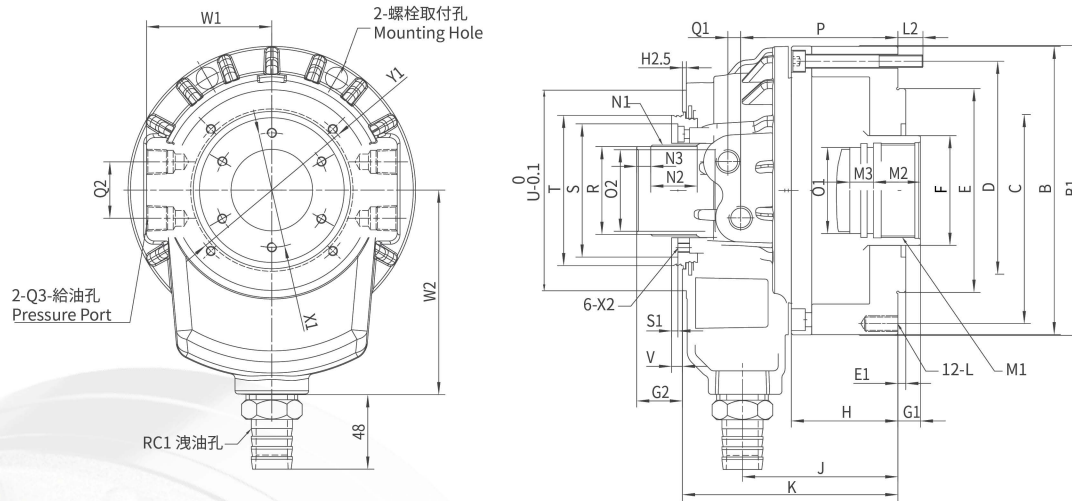
#### 規格 Spec.

型號 Model	活塞內徑 Piston I.D mm	中孔直徑 Thru-Hole Dia mm	活賽行程 Piston Stroke mm	活塞面積 Piston Area		最大輸出力	
				推側 Push cm <sup>2</sup>	拉側 Pull	推側 Push kgf(kN)	拉側 Pull
HHS-536	105	36	15	70.8	66.5	2690 (26.3)	2520 (24.6)
HHS-646	128	46	15	105	93	3990 (39.0)	3530 (34.5)
HHS-852	145	52	22	137	127	4922 (48.2)	4558 (44.6)
HHS-1068	170	68	25	171	171	6400 (63)	5630 (63)
HHS-1075	170	75	25	171	157	6400 (63)	5910 (58.0)
HHS-1078	170	78	25	171	157	6400 (63)	5910 (58.0)
HHS-1881K	180	81	25	188.5	173.6	7166 (70.2)	6599 (64.6)
HHS-1291	200	91	30	234	217.5	8870 (88.7)	8250 (81.6)
HHS-1512	250	120	30	336	315	11069 (110)	10377 (103)

型號 Model	最大使用壓力 Max. Operating Pressure kgf/cm <sup>2</sup> (Mpa)	最高轉數 Max. Speed r/min	慣性矩(I) Moment of Inertia kg.m <sup>2</sup>	重量 Weight kg	總流量 Total Leakage L/min
HHS-536	40.8 (4.0)	8000	0.013	6.9	3
HHS-646	40.8 (4.0)	7000	0.019	9.2	3
HHS-852	40.8 (4.0)	6300	0.057	12.5	3.9
HHS-1068	40.8 (4.0)	5500	0.07	22	4.2
HHS-1075	40.8 (4.0)	5500	0.07	17	4.2
HHS-1078	40.8 (4.0)	5500	0.07	20	4.2
HHS-1881K	40.8 (4.0)	4800	0.09	21	4.3
HHS-1291	40.8 (4.0)	3800	0.1	37	4.5
HHS-1512	35 (3.5)	2800	0.45	55	7





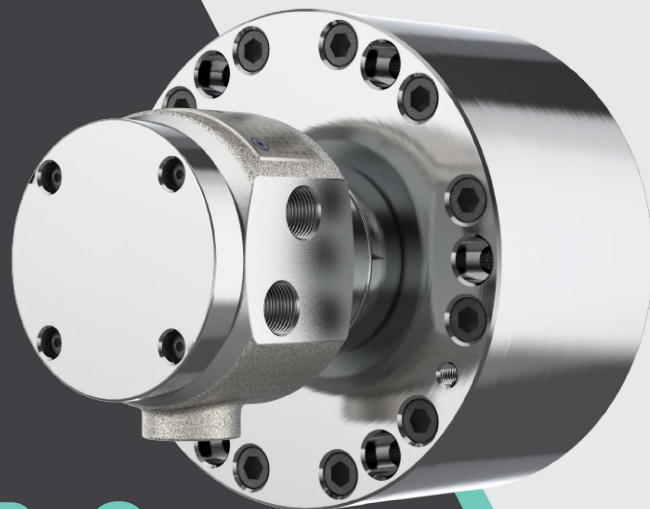
尺寸 Dim.

型號 Model	A I.D.	B	B1	C	D	E h7	E1	F	G1		G2		H	J	K	L	L1	L2	M1	M2	M3
									max.	min.	max.	min.									
HHS-536	105	138	143	115	125	100	5	48	15	0	40	25	63.5	99.5	134	12-M10x20	M8x70	15	M42x1.5	25	15
HHS-646	128	162	165	130	147	100	5	65	15	0	44	29	67.5	97	137.5	12-M10x20	M8x75	15	M55x2.0	30	15
HHS-852	145	185	184	170	165	130	5	70	21	-1	44	22	68.5	98	138	12-M10x20	M8x75	15	M60x2.0	30	15
HHS-1068	170	215	212	190	190	160	5	85	25	0	53	28	87	120	170	12-M10x20	M10x90	14	M75x2.0	35	15
HHS-1075	170	215	212	190	190	160	5	95	25	0	53	28	87	120	170	12-M10x20	M10x90	14	M85x2.0	35	15
HHS-1078	170	215	212	190	190	160	5	95	25	0	53	28	87	120	170	12-M10x20	M10x90	14	M87x2.0	35	15
HHS-1881K	180	225	229	205	205	168	5	100	23	-2	55	30	86	130	184.5	12-M12x24	M10x90	16	M90x2.0	35	15
HHS-1291	200	243	245	215	225	180	5	110	30	0	59	29	100	143	200	12-M12x24	M10x100	18	M100x2.0	35	15
HHS-1512	250	302	302	275	-	230	6	140	30	0	55	25	107	185	264	12-M16x32	-	21	M130x2.0	45	15

型號 Model	N1	N2	N3	O1 H8	O2 H8	P	Q1	Q2	Q3	R g7	S H7	S1	T	U	V	W1	W2	X1	X2	Y1	RC1
HHS-536	M44x1.5	27	9	38	36	95.5	8.5	30	PT1/4	42	64	4	74	98	6	66	109	55	M5x5	88.5/M5x6	1"
HHS-646	M52x1.5	29	9	50	46	99.5	8.5	36	PT3/8	52	76	4	85	116	6.5	76.5	120	64	M6x6	98/M5x6	1"
HHS-852	M58x1.5	30	9	55	52	100	8.5	36	PT3/8	56	85	4	96	128	7	80	130	73	M6x7	110/M6x8	1"
HHS-1068	M84x2.0	33	9	70	68	125	10	40	PT1/2	81	108	4	121	164	12	95	160	98	M6x10	155/M6x10	1"
HHS-1075	M84x2.0	33	9	80	75	125	10	40	PT1/2	81	108	4	121	164	12	95	160	98	M6x10	155/M6x10	1"
HHS-1078	M84x2.0	33	9	82	78	125	10	40	PT1/2	81	108	4	121	164	12	95	160	98	M6x10	155/M6x10	1"
HHS-1881K	M89x2.0	38	10.5	85	81	144	11	40	PT1/2	85.8	115	4	126	175	11	105	174	103	M6x10	166/M6x10	1"
HHS-1291	M90x2.0	38	9	95	91	145	15	45	PT1/2	96	120	4	138	180	12	110	186	108	M6x10	165/M6x10	1"
HHS-1512	M129x2.0	38	9	125	120	176	21	40	PT1/2	126	160	5	178	230	9	135	210	148	M6x10	206/M6x12	1"





# MHR-C

## 中實迴轉油壓缸 (附逆止閥)

### SOLID ROTARY HYDRAULIC CYLINDER (WITH CHECK VALVE)

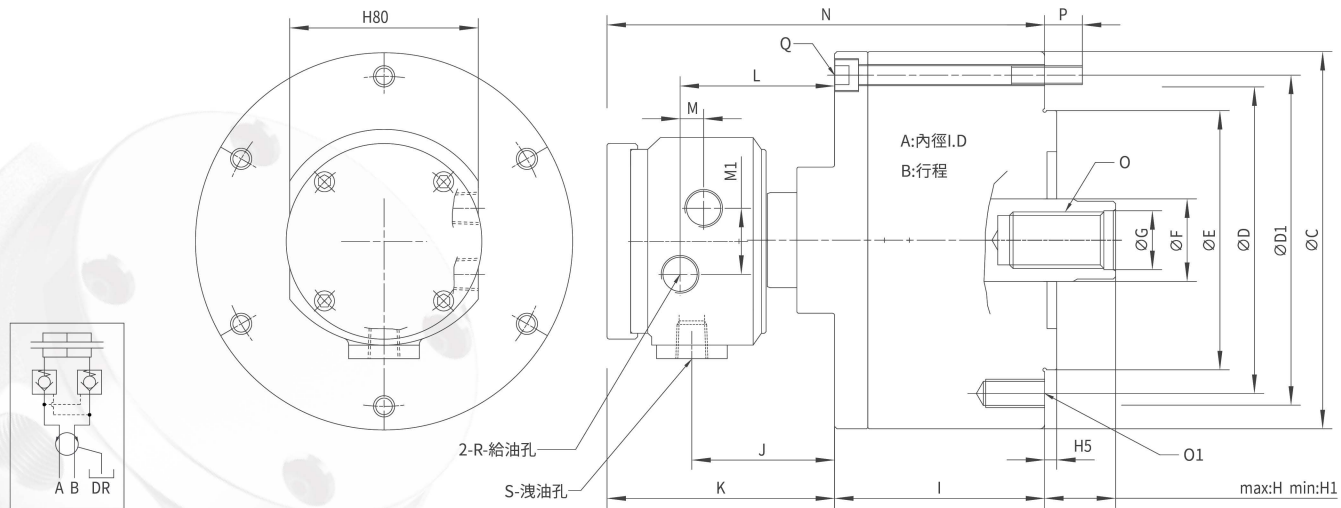
- 超短、高速，輕量型。
  - 內建逆止閥自鎖安全機構及內置壓力洩止閥。
  - 兩用型，安裝時可由前端與後端鎖固。
  - 洩油孔配管務必單獨接回油壓槽，以避免產生背壓。
- 
- Ultra-short, high speed, light weight.
  - Built-in safty self-locking valve and pressure relief valve.
  - Dual-purpose type, can be installed by the front and rear ends.
  - The oil pipe must be connected to the oil pressure tank separately to avoid back pressure.

#### 規格 Spec.

型號 Model	活塞內徑 Piston I.D mm	活賽行程 Piston Stroke mm	活塞面積 Piston Area		最大輸出力	
			推側 Push cm <sup>2</sup>	拉側 Pull	推側 Push kgf(kN)	拉側 Pull
MHR-100C	100	20	78	71	2950 (29.2)	2670 (26.4)
MHR-125C	125	25	122	113	4950 (45.4)	4250 (42.0)
MHR-150C	150	30	176	160	6600 (65.5)	6000 (59.5)
MHR-200C	200	35	314	290	11800 (116.9)	10900 (107.9)

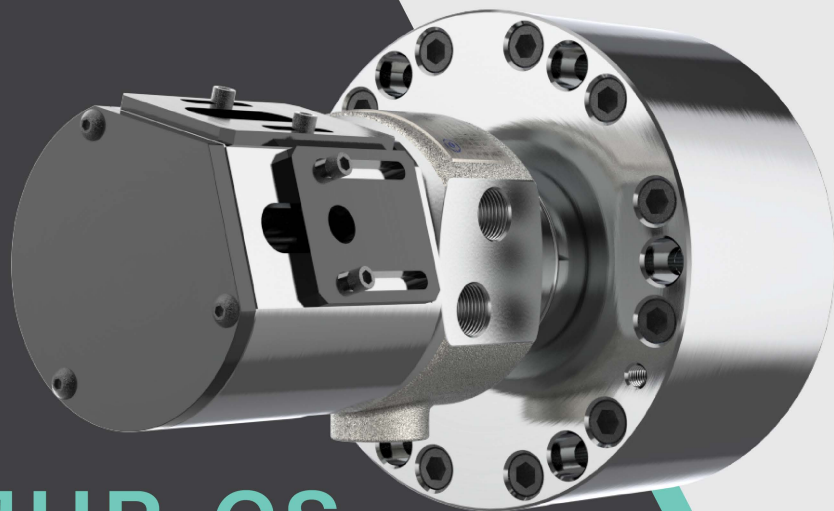
  

型號 Model	最大使用壓力 Max. Operating Pressure	最高轉數 Max. Speed	慣性矩(I) Moment of Inertia	重量 Weight	總流量 Total Leakage
	kgf/cm <sup>2</sup> (Mpa)	r/min	kg.m <sup>2</sup>	kg	L/min
MHR-100C	40.8 (4.0)	6000	0.03	4.3	0.8
MHR-125C	40.8 (4.0)	6000	0.05	8.3	0.8
MHR-150C	40.8 (4.0)	5500	0.09	11.9	0.8
MHR-200C	40.8 (4.0)	5500	0.28	15.2	0.8



尺寸 Dim.

型號 Model	A	B	C	D	D1	E h7	F	G	H max. min.		I	J	K	L	M	M1	N	O	O1	P	Q	R	S
MHR-100C	100	20	132	100	115	80	30	21	45	25	72	60	96	65	10	28	168	M20x30	6-M10x20	12	M8x75	RC3/8	RC1/4
MHR-125C	125	25	160	130	140	110	35	25	49	24	87	60	96	65	10	28	185	M24x44	6-M12x24	16	M10x90	RC3/8	RC1/4
MHR-150C	150	30	190	130	170	110	45	31	56	26	98	60	96	65	10	28	194	M30x45	12-M12x24	15	M10x100	RC3/8	RC1/4
MHR-200C	200	30	245	145	220	120	55	37	67	32	116	60	96	65	10	28	200	M36x60	12-M16x30	21	M10x125	RC1/2	RC1/4



# MHR-CS

## 中實迴轉油壓缸 (附逆止閥及檢知裝置)

### SOLID ROTARY HYDRAULIC CYLINDER (WITH CHECK VALVE AND STROKE CONTROL)

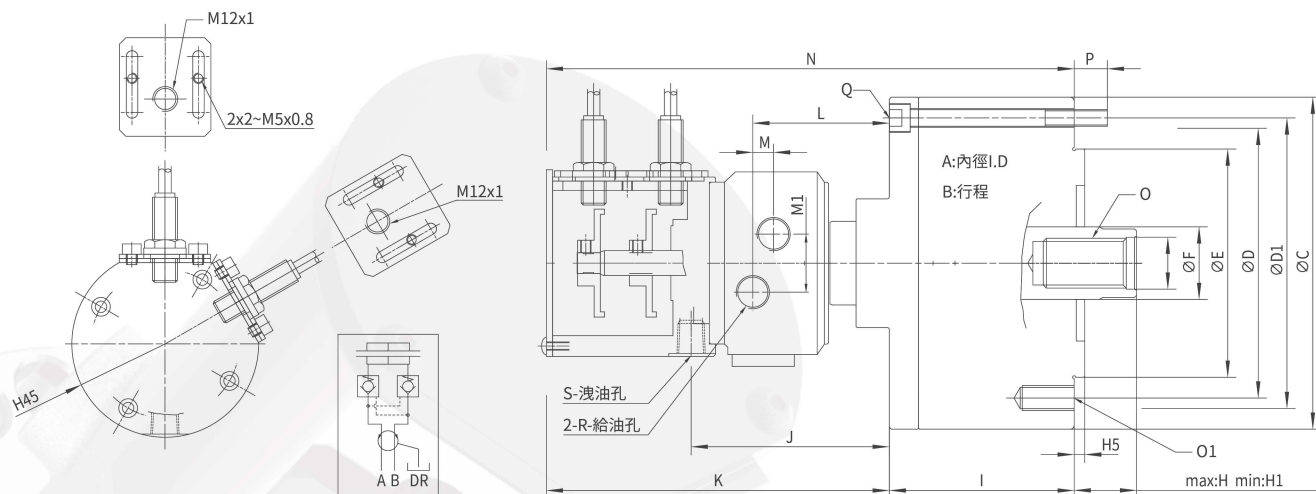
- 超短、高速，輕量型。
  - 設計有檢知裝置機構，可裝置感應式近接開關，行程容易調整，可確保油壓缸正確動作。
  - 內建逆止閥自鎖安全機構及內置壓力洩止閥。
  - 兩用型，安裝時可由前端與後端鎖固。
  - 洩油孔配管務必單獨接回油壓槽，以避免產生背壓。
- 
- Ultra-short, high speed, light weight.
  - Designed with a detection device, which can be equipped with an inductive proximity switch. Easy to adjust to ensure the correct operation of the hydraulic cylinder.
  - Built-in safety self-locking valve and pressure relief valve.
  - Dual-purpose type, can be installed by the front and rear ends.
  - The oil pipe must be connected to the oil pressure tank separately to avoid back pressure.

#### 規格 Spec.

型號 Model	活塞內徑 Piston I.D mm	活賽行程 Piston Stroke mm	活塞面積 Piston Area cm <sup>2</sup>		最大輸出力 kgf(kN)	
			推側 Push	拉側 Pull	推側 Push	拉側 Pull
MHR-100CS	100	20	78	71	2950 (29.2)	2670 (26.4)
MHR-125CS	125	25	122	113	4950 (45.4)	4250 (42.0)
MHR-150CS	150	30	176	160	6600 (65.5)	6000 (59.5)
MHR-200CS	200	35	314	290	11800 (116.9)	10900 (107.9)

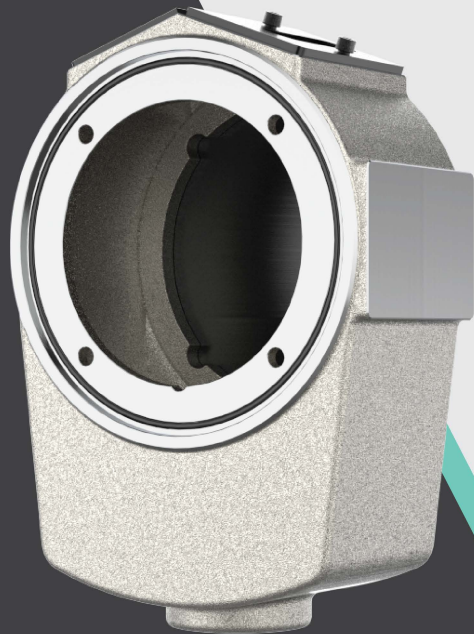
  

型號 Model	最大使用壓力 Max. Operating Pressure kgf/cm <sup>2</sup> (Mpa)	最高轉數 Max. Speed r/min	慣性矩(I) Moment of Inertia kg.m <sup>2</sup>	重量 Weight kg	總流量 Total Leakage L/min
MHR-100CS	40.8 (4.0)	6000	0.03	5.1	0.8
MHR-125CS	40.8 (4.0)	6000	0.05	9.1	0.8
MHR-150CS	40.8 (4.0)	5500	0.09	12.5	0.8
MHR-200CS	40.8 (4.0)	5500	0.28	16	0.8

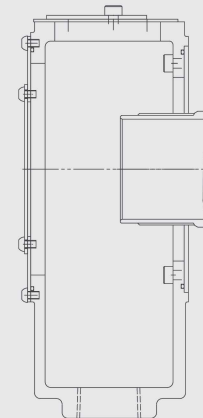
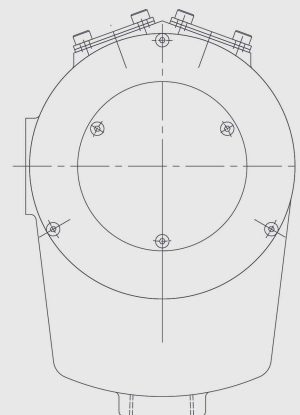


尺寸 Dim.

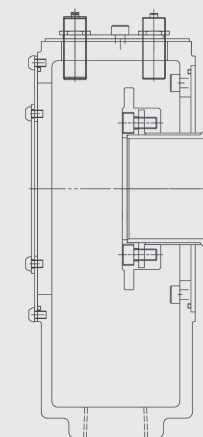
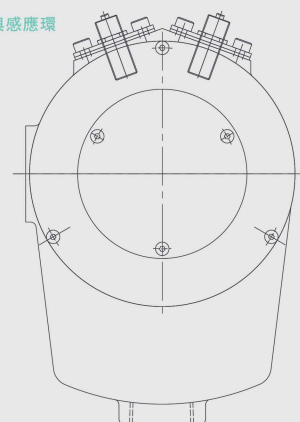
型號 Model	A	B	C	D	D1	E h7	F	G	H max. min.	I	J	K	L	M	M1	N	O	O1	P	Q	R	S
MHR-100CS	100	20	132	100	115	80	30	21	45 25	72	95	165	65	10	28	237	M20x30	6-M10x20	12	M8x75	RC3/8	RC1/4
MHR-125CS	125	25	160	130	140	110	35	25	49 24	87	95	165	65	10	28	254	M24x44	6-M12x24	16	M10x90	RC3/8	RC1/4
MHR-150CS	150	30	190	130	170	110	45	31	56 26	98	95	165	65	10	28	263	M30x45	12-M12x24	15	M10x100	RC3/8	RC1/4
MHR-200CS	200	30	245	145	220	120	55	37	67 32	116	95	165	65	10	28	268	M36x60	12-M16x30	21	M10x125	RC1/2	RC1/4



CW  
集水盒



CW-S  
集水盒與感應環



# CW/CW-S

## 集水盒

(適用HHS系列短型迴轉油壓缸)

COOLANT COLLECTOR

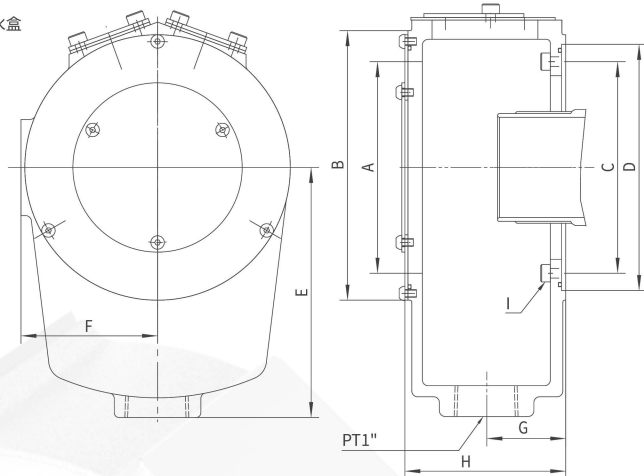
(Matching HHS Series Rotary Hydraulic Cylinder)

- 適配於HHS系列中空迴轉油壓缸。
- CW-S型號附帶行程控制裝置。

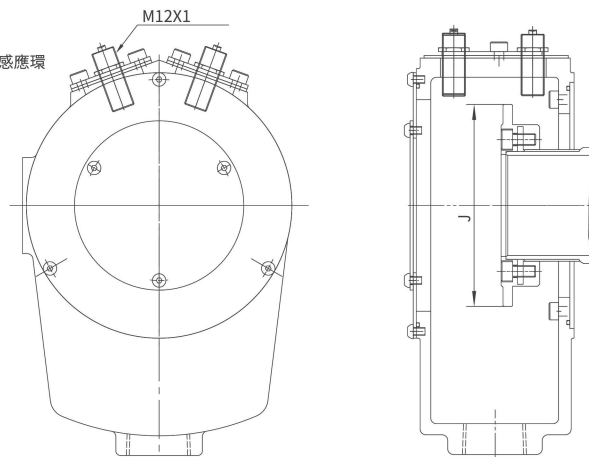
- Apply to HHR Series Rotary Hydraulic Cylinder.
- Model CW-S comes with stroke control device.



CW  
集水盒



CW-S  
集水盒與感應環



尺寸 Dim.

型號 Model	A	B	C	D	E	F	G	H	I	J	適用油壓缸 Matching Cylinder
CW-05 / CW-05S	87	110	88.5	98	110	57	31	64	M5x0.8	86	HHS-536
CW-06 / CW-06S	100	125	98	116	120	64.5	38	78	M6x1	94	HHS-646
CW-08 / CW-08S	110	138	110	128	130	71	41	84	M6x1	105	HHS-852
CW-10 / CW-10S	158	185	155	164	159	95	45	88	M6x1	130	HHS-1068/1075/1078
CW-12 / CW-12S	158	185	165	180	159	95	45	88	M6x1	145	HHS-1291
CW-15 / CW-15S	206	235	206	227	210	121	50	100	M6x1	190	HHS-1512

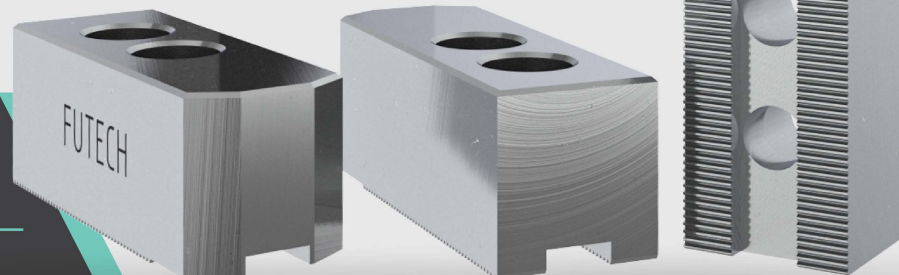
# FSJ

## 油壓夾頭用軟爪

### STANDARD SOFT JAWS FOR HYDRAULIC CHUCKS

- 標準型軟爪。
- 採用高強度鋼材。
- 易於修爪，用以夾持不同需求之工作。

- Standard soft jaw.
- Made of high strength steel.
- Easy to re-cut jaws to hold objects with different needs.



FSJ 油壓夾頭用軟爪

STANDARD SOFT JAWS FOR HYDRAULIC CHUCKS

FHJ 油壓硬爪

STANDARD HARD JAWS FOR HYDRAULIC CHUCKS

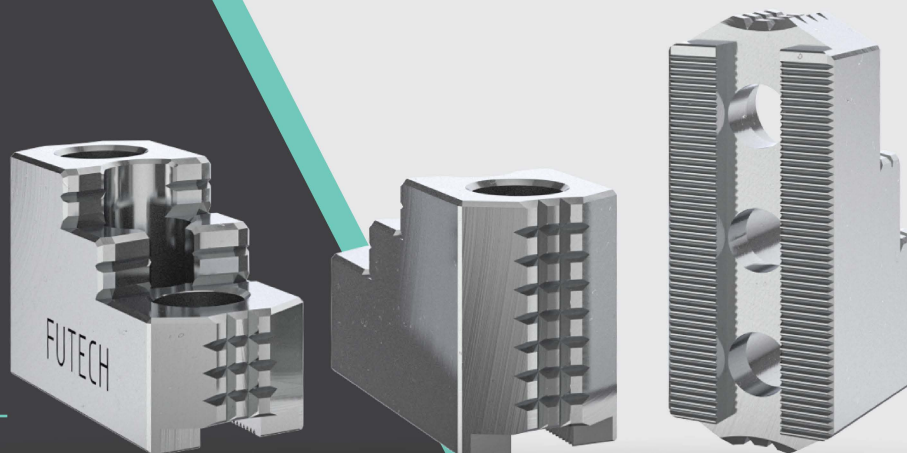
# FHJ

## 油壓硬爪

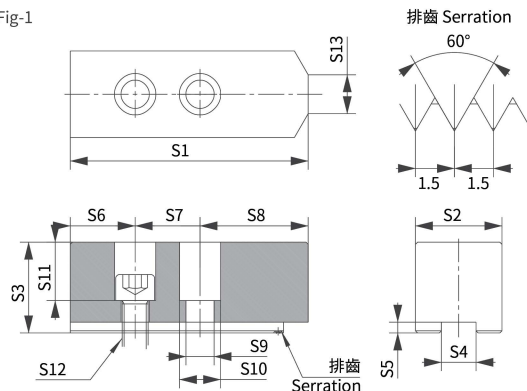
### STANDARD HARD JAWS FOR HYDRAULIC CHUCKS

- 標準型硬爪。
- 採購高強度鋼，可承受大夾持力。
- 硬度高、夾持穩固、夾持齒不易變形。

- Standard hard jaw.
- Made of high strength steel, which can bear high clamping force.
- High hardness, not easy to be damaged.



FSJ Fig-1



FHJ Fig-1

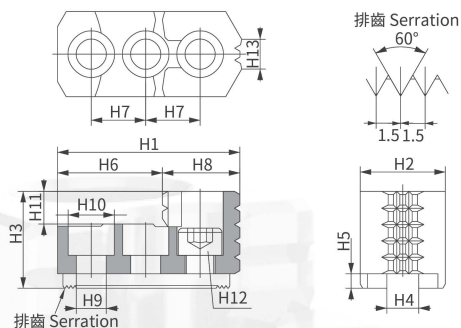
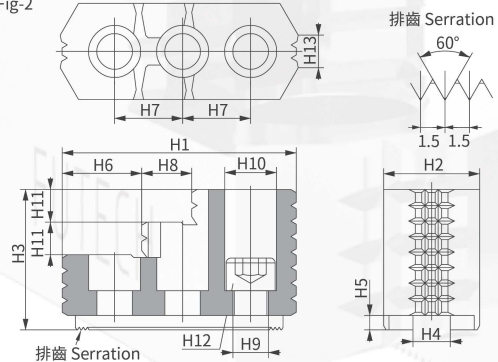


Fig-2



### FSJ 尺寸 Dim.

型號 Model	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	排齒節距 Serration	適合夾頭 Maching Chuck	三爪重量 3-jaw Weight (kg)
FSJ-05	62	25	30	10	5	10	14	38	9	14	20	M8	3	1.5x60°	CH3-05	0.7
FSJ-06	73	31	36	12	5	15	20	38	11	17	24	M10	14	1.5x60°	CH3-06, CH2-06, CHU3-06 CH4-06, CM3-06	1.5
FSJ-08	95	35	37	14	5	24	25	46	13	19	22	M12	16	1.5x60°	CH3-08, CH2-08, CHU3-08 CH4-08, CM3-08	2.4
FSJ-10	110	40	42	16	5	30	30	50	13	19	27	M12	18	1.5x60°	CH3-10, CH2-10, CHU3-10 CH4-10, CM3-10	3.7
FSJ-12	130	50	50	21	5	40	30	60	17	25	30	M16	23	1.5x60°	CH3-12, CHU3-12	6.5
FSJ-12M	130	50	50	18	5	40	30	60	15	23	30	M14	23	1.5x60°	CM3-12	6.6
FSJ-15	165	62	62	22	8	37	43	85	21	32	37	M20	-	1.5x60°	CH3-15	12.5
FSJ-15M	165	62	62	25.5	6	37	43	85	21	32	37	M20	-	1.5x60°	CM3-15	12.4

### FHJ 尺寸 Dim.

型號 Model	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	排齒節距 Serration	適合夾頭 Maching Chuck	三爪重量 3-jaw Weight (kg)	參考圖 Ref. Drawing
FHJ-05	53	23	27.5	10	4	30.5	14	22.5	8.5	13.5	10	M8	6	1.5x60°	CH3-05	0.4	Fig-2
FHJ-06	67	31	35	12	5	39.5	20	27.5	11	17	12	M10	11	1.5x60°	CH3-06, CH2-06, CHU3-06 CH4-06, CM3-06	1.0	Fig-2
FHJ-08	86	35	51	14	5	31	25	18	13	19	12	M12	12	1.5x60°	CH3-08, CH2-08, CHU3-08 CH4-08, CM3-08	1.9	Fig-1
FHJ-10	99.5	40	54	16	5	43	30	17	13	19	13	M12	15	1.5x60°	CH3-10, CH2-10, CHU3-10 CH4-10, CM3-10	2.9	Fig-1
FHJ-12	103	50	52	21	4	62.5	30	40.5	17	25	17	M16	30	1.5x60°	CH3-12, CHU3-12	3.5	Fig-2
FHJ-12M	103	50	52	18	5	62.5	30	40.5	15	22	17	M14	30	1.5x60°	CM3-12	3.6	Fig-2
FHJ-15	149	62	86	22	8	63	43	34	21	32	20	M20	40	1.5x60°	CH3-15	9.6	Fig-1
FHJ-15M	149	62	86	25.5	5	63	43	34	21	32	20	M20	40	1.5x60°	CM3-15	9.5	Fig-1

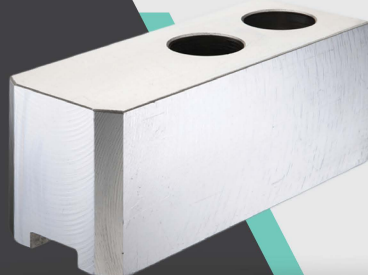
# FSJ-V

## 軟爪

(適配CMV3系列立車用中實油壓夾頭)

SOFT JAWS

(Maching CMV3 Series HYDRAULIC CHUCKS)



FSJ-V 軟爪  
SOFT JAWS

FHJ-V 硬爪  
HARD JAWS



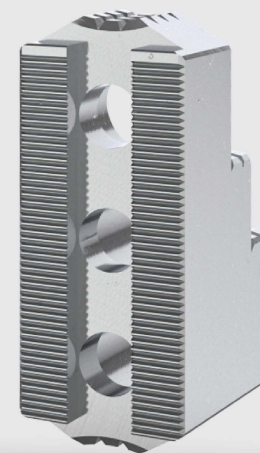
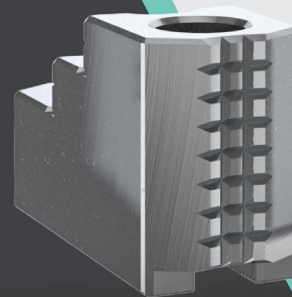
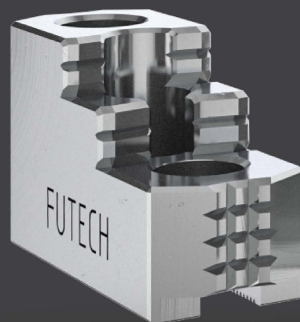
# FHJ-V

## 硬爪

(適配CMV3系列立車用中實油壓夾頭)

HARD JAWS

(Maching CMV3 Series HYDRAULIC CHUCKS)

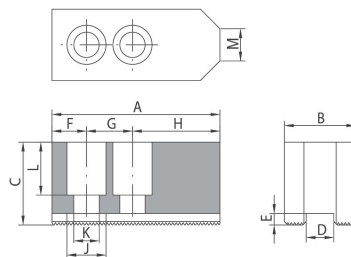


# FSJ-V/FHJ-V FSJ-V 軟爪 / FHJ-V 硬爪

FSJ-V SOFT JAWS (Maching CMV3 Series HYDRAULIC CHUCKS) /  
FHJ-V HARD JAWS (Maching CMV3 Series HYDRAULIC CHUCKS)

配件 ACCESSORIES

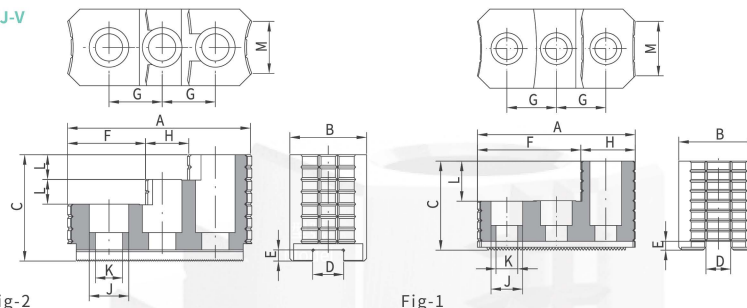
FSJ-V



FSJ-V 尺寸 Dim.

型號 Model	A	B	C	D	E	F	G	H	J	K	L	排齒節距 Serration	適合夾頭 Maching Chuck	三爪重量 3-jaw Weight (kg)
FSJ-15V	160	65	70	25	9	25	50	85	32	22	45	3.0x60°	CMV3-15	4.7
FSJ-24V	180	64	70	25	9	40	60	80	32	22	45	3.0x60°	CMV3-18, CMV3-21, CMV3-24	5.3
FSJ-32V	210	74	90	25	9	40	60	110	32	22	65	3.0x60°	CMV3-32	9.6

FHJ-V

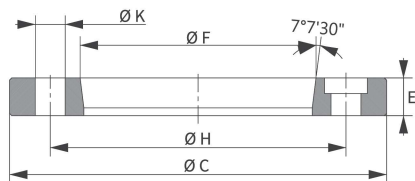


FHJ-V 尺寸 Dim.

型號 Model	A	B	C	D	E	F	G	H	J	K	L	M	排齒節距 Serration	適合夾頭 Maching Chuck	三爪重量 3-jaw Weight (kg)	參考圖 Ref. Drawing
FHJ-15V	149	62	86	25.5	9	63	43	34	32	22	20	42	1.5x60°	CMV3-15, CMV3-18	3.1	Fig-2
FHJ-21V	159.5	80	84	25	9	100	50	59.5	32	22	40	42	3.0x60°	CMV3-24, CMV3-21	3.3	Fig-1
FHJ-32V	159.5	80	90	25	9	97.5	50	62	32	22	40	60	3.0x60°	CMV3-32	5.1	Fig-1



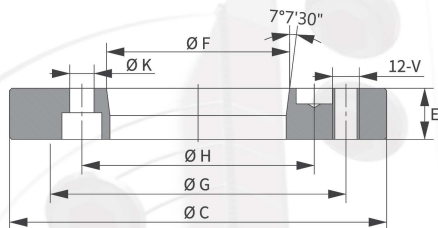
TYPE 1



TYPE-1 尺寸 Dim.

型號 Model	主軸鼻端 Spindle Nose	C	F	H	K	E	適合夾頭 Maching Chuck
FM1A4	A4	110	63.513	82.55	6-12	15	CH3-05, CH2-05
FM1A5	A5	140	82.563	104.78	12-12	15	CH3/CHU3-06, CH2-06, CH4-06, CM3-06
FM1A6	A6	170	106.375	133.35	12-13.5	17	CH3/CHU3-08, CH2-08, CH4-08, CM3-08
FM1A8	A8	220	139.719	171.45	12-17	18	CH3/CHU3-10, CH2-10, CH4-10, CM3-10, CH3/CHU3-12, CM3-12
FM1A11	A11	300	196.869	235	12-21	22	CH3-15

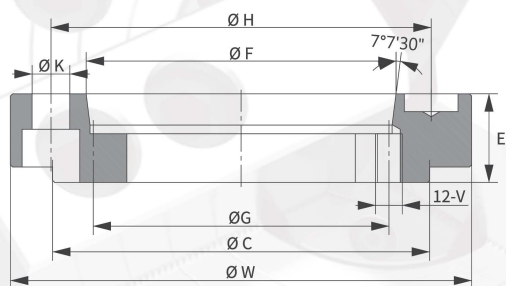
TYPE 2



TYPE-2 尺寸 Dim.

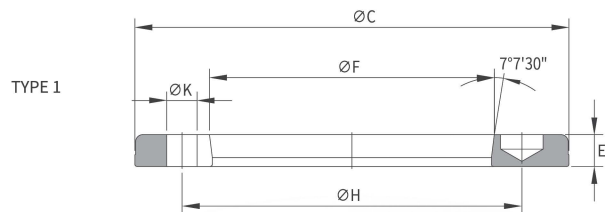
型號 Model	主軸鼻端 Spindle Nose	C	F	H	K	G	V	E	適合夾頭 Maching Chuck
FM2A4	A4	140	63.513	82.55	6-11	104.78	M10	20	CH3/CHU3-06, CH2-06, CH4-06, CM3-06
FM2A5	A5	170	82.563	104.78	6-11	133.35	M12	23	CH3/CHU3-08, CH2-08, CH4-08, CM3-08
FM2A6	A6	220	106.375	133.35	6-13.5	171.45	M16	25	CH3/CHU3-10, CH2-10, CH4-10, CM3-10, CH3/CHU3-12, CM3-12
FM2A8	A8	300	139.719	171.45	6-17	235	M20	33	CH3-15

TYPE 3



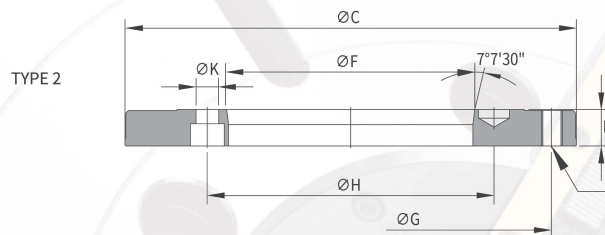
TYPE-3 尺寸 Dim.

型號 Model	主軸鼻端 Spindle Nose	C	F	H	K	G	V	W	E	適合夾頭 Maching Chuck
FM3A5	A5	110	82.563	104.78	6-11	82.55	M10	128	32	CH3-05, CH2-05
FM3A6	A6	140	106.375	133.35	6-13	104.78	M10	165	35	CH3-06, CH2-06, CH4-06, CM3-06
FM3A8	A8	170	139.719	171.45	6-17	133.35	M12	208	40	CH3-08, CH2-08, CH4-08, CM3-08
FM3A11	A11	220	196.869	235	6-21	171.45	M16	278	50	CH3-10, CH2-10, CH4-10, CM3-10, CH3-12, CM3-12



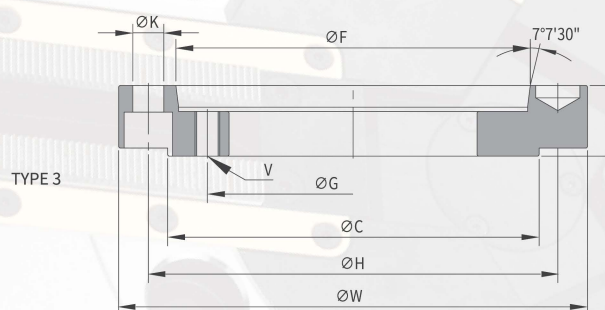
TYPE-1 尺寸Dim.

型號 Model	主軸鼻端 Spindle Nose	C	F	H	K	E	適合夾頭 Maching Chuck
PM1A11	A11	300	196.869	235	21	22	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32
PM1A15	A15	380	285.775	330.2	25	27	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32



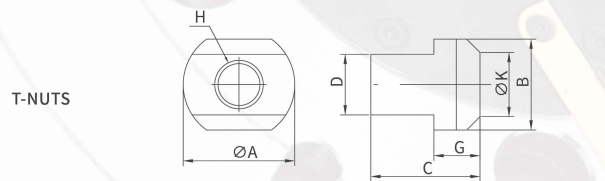
TYPE-2 尺寸Dim.

型號 Model	主軸鼻端 Spindle Nose	C	F	H	K	G	V	E	適合夾頭 Maching Chuck
PM2A8	A8	300	139.719	171.45	17	235	M20	33	CMV3-15, CMV3-18
PM2A8-1	A8	380	139.719	171.45	17	330.2	M24	33	CMV3-15, CMV3-18
PM2A11	A11	380	196.869	235	21	330.2	M24	27	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32
PM2A11-1	A11	520	196.869	235	21	463.6	M24	45	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32
PM2A11-2	A11	380	196.869	235	21	330.2	M24	41	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32
PM2A15	A15	520	285.775	330.2	25	463.6	M24	42	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32



TYPE-3 尺寸Dim.

型號 Model	主軸鼻端 Spindle Nose	C	F	H	K	G	V	W	E	適合夾頭 Maching Chuck
PM1A11	A11	220	196.869	235	21	171.45	M16	278	50	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32
PM1A15	A15	300	285.775	330.2	25	235	M20	378	57	CMV3-15, CMV3-18, CMV3-21, CMV3-24, CMV3-32



尺寸Dim.

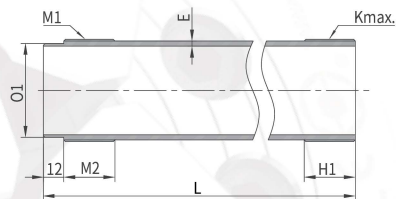
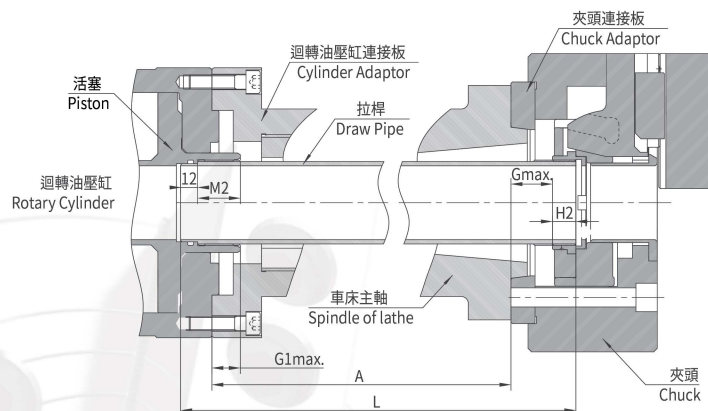
型號 Model	A	B	C	D	G	H	K
CMV-T	46	37.5	45	25	19	M20	26.5

# 中空拉桿的長度計算

## THE CALCULATION OF THRU - HOLE DRAW PIPE

- 材質：抗拉強度不低於400MPa、表面防銹處理。
- 製作：依拉桿及表格中對應的尺寸製作。

- Material: Tensile strength is not less than 400MPa, and surface is rust-proof.
- Manufacture: Please refer to the data of draw pipe and the table as below.



拉桿圖 Detail of Draw Pipe

$$L = A - G1_{max.} + M2 + 12 + Gmax. + H2$$

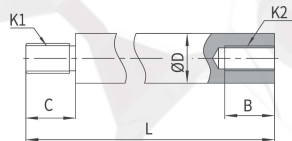
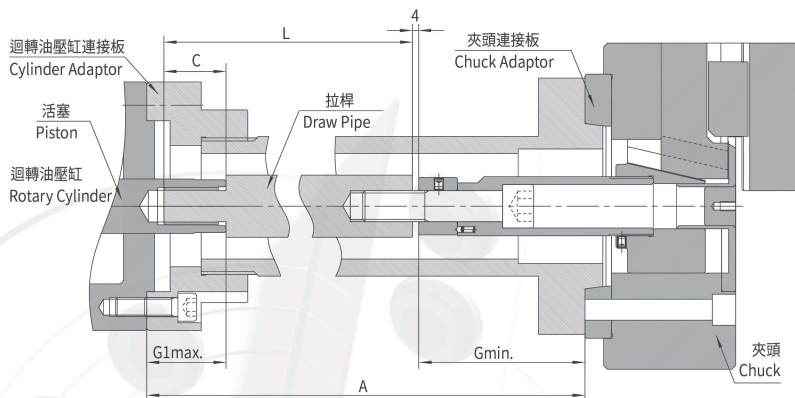
夾頭型式 Chuck Type	油缸型號 Cylinder Model	G1 max.	M1	M2	G max.	H2	L	O1 f7	K max.	H1	E
CH3-05 A4	HHS-536	15	M42x1.5	25	16	17	A+55	38	M40x1.5	25	3.5
CH3-05 A5	HHS-536	15	M42x1.5	25	33	17	A+72	38	M40x1.5	25	3.5
CH3-06 A4	HHS-646	15	M55x2	30	31	17	A+75	50	M55x2	25	5
CH3-06 A5	HHS-646	15	M55x2	30	26	17	A+70	50	M55x2	25	5
CH3-06 A6	HHS-646	15	M55x2	30	46	17	A+90	50	M55x2	25	5
CH3-08 A5	HHS-852	21	M60x2	30	37.5	16.5	A+75	55	M60x2	25	4
CH3-08 A6	HHS-852	21	M60x2	30	31.5	16.5	A+69	55	M60x2	25	4
CH3-08 A8	HHS-852	21	M60x2	30	54.5	16.5	A+92	55	M60x2	25	4
CH3-10 A6	HHS-1075	25	M85x2	35	33.5	20	A+75.5	80	M85x2	30	5
CH3-10 A8	HHS-1075	25	M85x2	35	26.5	20	A+68.5	80	M85x2	30	5
CH3-10 A11	HHS-1075	25	M85x2	35	58.5	20	A+100.5	80	M85x2	30	5
CH3-12 A6	HHS-1291	30	M100x2	35	33	23	A+73	95	M100x2	35	4.5
CH3-12 A8	HHS-1291	30	M100x2	35	26	23	A+66	95	M100x2	35	4.5
CH3-12 A11	HHS-1291	30	M100x2	35	58	23	A+98	95	M100x2	35	4.5
CH3-15 A8	HHS-1512	30	M130x2	45	40	37.5	A+104.5	125	M130x2	48	6
CH3-15 A11	HHS-1512	30	M130x2	45	29	37.5	A+93.5	125	M130x2	48	6

# 中實拉桿的長度計算

## THE CALCULATION OF SOLID DRAW PIPE

- 材質：抗拉強度不低於400MPa、表面防銹處理。
- 製作：依拉桿及表格中對應的尺寸製作。

- Material: Tensile strength is not less than 400MPa, and surface is rust-proof.
- Manufacture: Please refer to the data of draw pipe and the table as below.



拉桿圖 Detail of Draw Pipe

$$L = A - G1_{max.} + M2 + 12 + G_{min.} + H2$$

夾頭型式 Chuck Type	油缸型號 Cylinder Model	C	G1 max.	G min.	L	B	D	K1	K2
CM3-06 A5	MHR-100C/MHR-100CS	30	45	69.6	A-88.6	40	30	M20	M16
CM3-06 A6	MHR-100C/MHR-100CS	30	45	49.6	A-68.6	40	30	M20	M16
CM3-08 A5	MHR-125C/MHR-125CS	40	49	88	A-101	40	35	M24	M20
CM3-08 A6	MHR-125C/MHR-125CS	40	49	94	A-107	40	35	M24	M20
CM3-08 A8	MHR-125C/MHR-125CS	40	49	71	A-84	40	35	M24	M20
CM3-10 A6	MHR-125C/MHR-125CS	40	49	108	A-121	40	35	M24	M20
CM3-10 A8	MHR-125C/MHR-125CS	40	49	115	A-128	40	35	M24	M20
CM3-10 A11	MHR-125C/MHR-125CS	40	49	83	A-96	40	35	M24	M20
CM3-12 A6	MHR-150C/MHR-150CS	40	56	108	A-128	40	45	M30	M20
CM3-12 A8	MHR-150C/MHR-150CS	40	56	115	A-135	40	45	M30	M20
CM3-12 A11	MHR-150C/MHR-150CS	40	56	83	A-103	40	45	M30	M20
CM3-15 A8	MHR-200C/MHR-200CS	55	67	36	A-52	60	55	M36	M30
CM3-15 A11	MHR-200C/MHR-200CS	55	67	47	A-63	60	55	M36	M30