



特點 Features

- 空壓轉角下壓缸主要使用在空間狹小，且無任何輔助壓板下，能輕易的夾持及放鬆工作。
- 本空壓轉角下壓缸為下拉式氣缸，並有五種規格及兩種可 360° 任意安裝之壓板供選擇。
- These swing clamps are used when it is required to keep the fixture workpiece loading and un-loading.
- This pneumatic clamping element is a pull type cylinder, there are five standard sizes, and for each size two versions of standard clamping arms, mounting of these clamping arms at angle within 360.

注意事項 Note

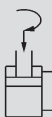
- 在使用空壓轉角下壓缸時，若需要增長壓板之長度時，請勿大於原長之 1.5 倍。
- 建議使用空壓轉角下壓缸時，請加裝流量控制閥，避免因速度過快而損壞缸體及內部零件。
- Please don't exceed 1.5 times of the original length, if it is necessary to increase the length of the clamping arm.
- Suggested to install a flow control valve protect cylinder barrel and internal components against fretting wear.

規格 Specification

型號 Model	FTAS (單邊壓板型) (Single side clamping arm)	FTAD (雙邊壓板型) (Double side clamping arm)
動作方式 Acting Type	複動型 Double acting	
氣缸內徑 (mm) Tube I.D. (mm)	25,32,40,50,63	32,40,50,63
使用流體 Power Fluid	過濾空氣 Filtered air with or without lubrication	
使用壓力範圍 The Range of Pressure	1 ~ 10.3 kgf/cm ²	
耐壓力 Max. Pressure	14.7 kgf/cm ²	
缸體材質 Material of Cylinder Barrel	鋁合金管 (硬質陽極處理) Anodised aluminium alloy	
標準旋轉角度 Standard Angle of Rotation	90° ± 2° (0°、45°、60° 為可供選擇之角度) (Angle of 0° , 45° and 60° are optional)	
旋轉方向 Rotating Direction	順時針 (CM) 或逆時針 (CCW) Clockwise or counter clockwise	
感應開關 Sensor Switch	LN40R	

FTAS/FTAD

複動單邊 / 雙邊壓板型
Single side clamping arm、Double sides clamping arm



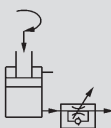
FTAS .F/FTAD .F

複動單邊 / 雙邊壓板型 (附磁型)
Single side clamping arm、Double side clamping arm
(Piston with magnet)



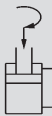
FTAS .FC/FTAD .FC

複動單邊 / 雙邊壓板型 (深孔附調速閥)
Single side clamping arm、Double side clamping arm
(Manifold with flow control)



FTAS .FA/FTAD .FA


複動單邊 / 雙邊壓板型 (法蘭型)
Single side clamping arm、Double side clamping arm
(Flange type)




訂購代碼 Ordering Code

FTAS L - 25M - CW - 90 - FC - B


- 垂直下壓行程**
無：標準型
L：加長型
Clamping Stroke
Blank: Standard
L: Lengthened
- 氣缸內徑**
Tube I.D.
- M: 附磁石**
※ 僅適用標準型。
M: Magnet
※ Only for standard type.
- 旋轉方向**
CCW: 逆時針旋轉
CW: 順時針旋轉
Rotating direction
CCW: Counter clockwise
CW: clockwise
- 旋轉角度**
90: 標準旋轉角度 90°
Rotating angle
90°: Standard rotation
- 壓板型式**
無：標準型
B: 加長型
Clamping arm type
Blank: Standard
B: Extension
- 固定型式**
Mounting type




FTAS



FTAD



FA

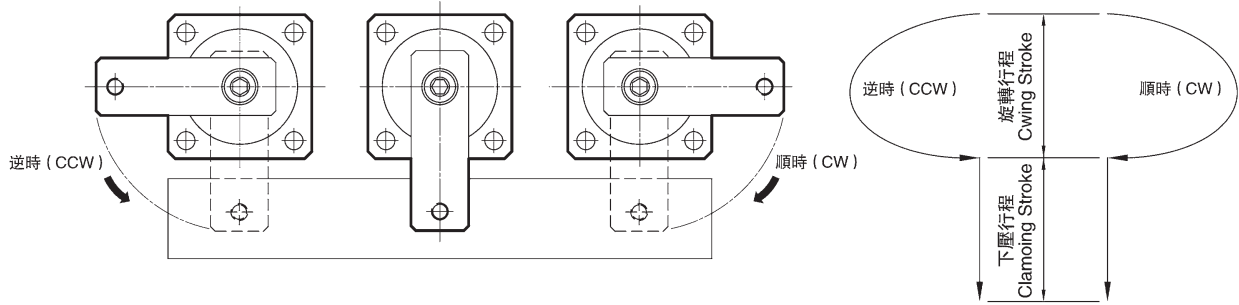


FC

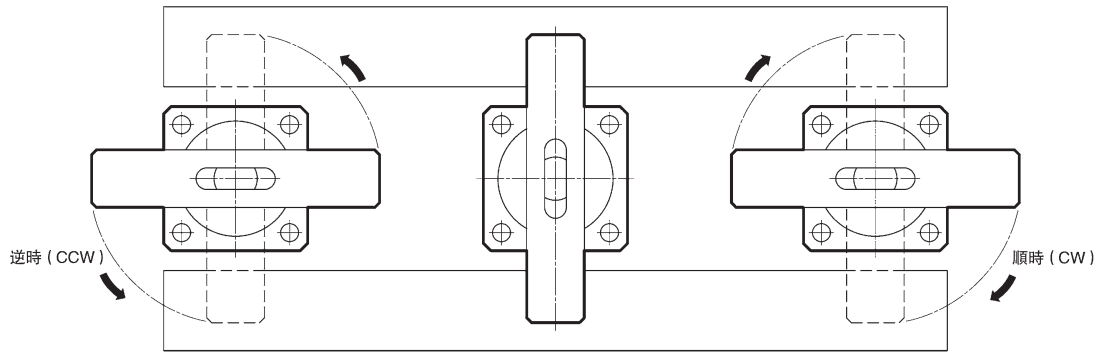
※ 僅適用於不附磁型。
※ 1: Only for without magnet type.
※ 2: FC type required with the manifolds.

操作注意事項 Precautions be sure to read before handling $\Phi 25 \sim \Phi 63$

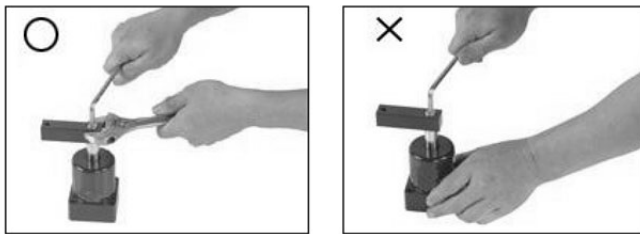
單邊壓板旋轉示意圖 Single side swing clamp



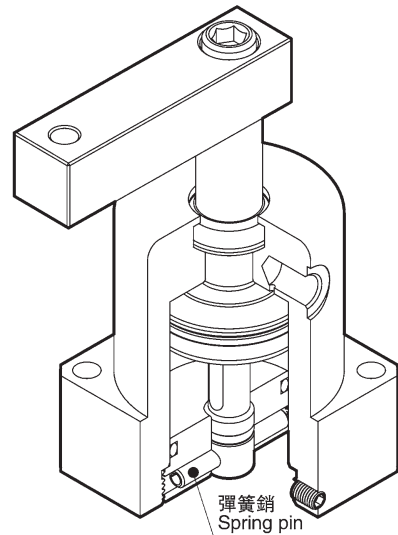
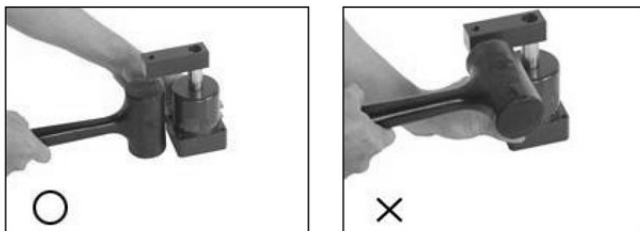
雙邊壓板旋轉示意圖 Double side swing clamp



壓板鎖緊操作方式 Clamping arm mounting methods

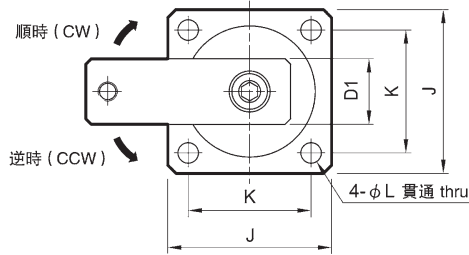


壓板拆卸操作方式 Clamping arm removing methods

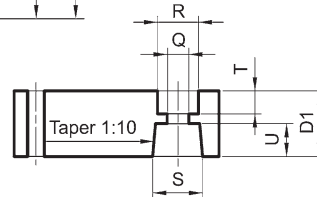
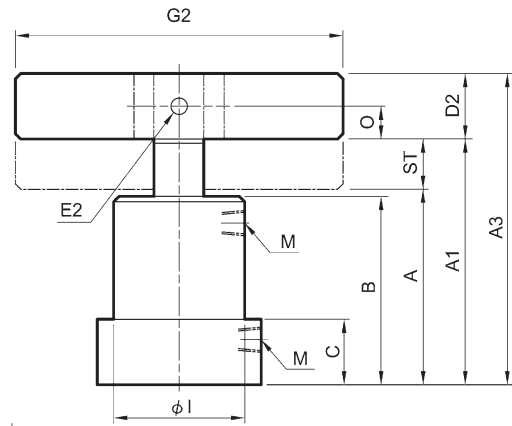
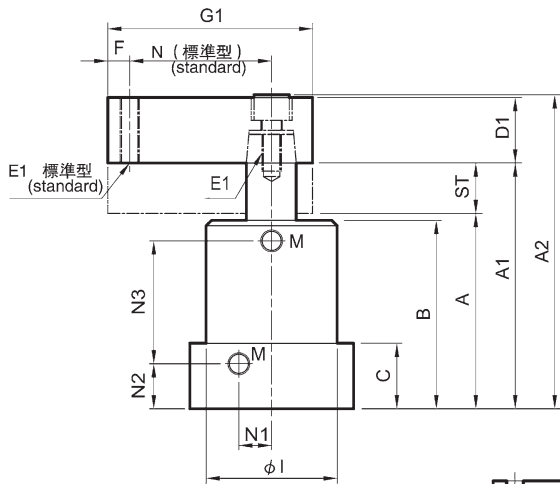
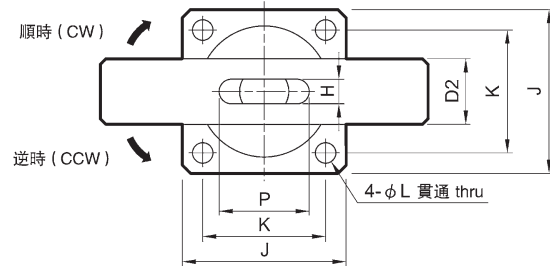


註：在錯誤方式鎖緊及拆卸壓板，彈簧銷易造成斷裂；使轉角缸作動時，會發生旋轉角度位置偏移或動作不順暢。
Note: If the clamping arm is wrong mounting and removing, the spring pin is broken easily.
Then the rotation angle is deviation or the action is not smooth when the cylinder works.

FTAS/FTASL



FTAD/FTADL



單邊壓板安裝尺寸
Single side clamping arm

型號 Model	氣缸內徑 Tube I.D. (mm)	活塞桿徑 Piston rod (mm)	轉角行程 Swing stroke (mm)	垂直下壓行程 Clamping stroke (mm)		受壓面積 壓側/拉側 Pressure area push/pull(mm ²)	理論加持力 Clamping force N(0.6Mpa)	板壓型式 Clamping arm type			
				標準 Standard	加長※ Extension			G1		G2	
FTAS-25	Φ25	Φ14	9	13	-	491/337	200	50	70	-	-
FTAS-32 FTAD-32	Φ32	Φ16	11	15	30	804/603	360	70	100	140	200
FTAS-40 FTAD-40	Φ40	Φ16	11	15	30	1257/1056	630	75	100	140	200
FTAS-50 FTAD-50	Φ50	Φ20	13	17	34	1963/1649	980	85	130	160	230
FTAS-63 FTAD-63	Φ63	Φ20	13	17	34	3117/2803	1680	95	130	160	230

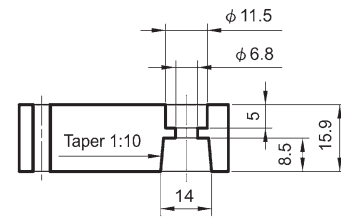
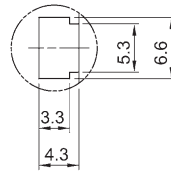
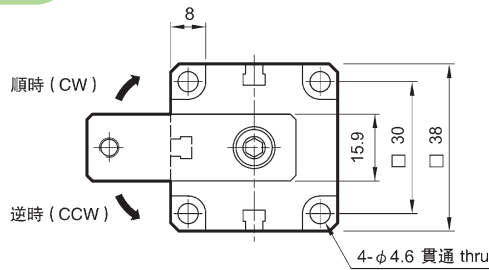
代號 Code 型號 Model	標準型 Standard type						垂直下壓行程加長型※ Clamping stroke lengthened type						C	D1	D2	E1	E2	F
	A	A1	A2	A3	B	ST	A	A1	A2	A3	B	ST						
FTAS-25	67	89	(105.9)	-	65	22	-	-	-	-	-	-	23	□ 15.9	-	M6 × 1.0	-	6
FTAS-32 FTAD-32	82	108	(128)	127	78	26	97	138	(158)	157	93	41	28	□ 19	□ 19	M8 × 1.25	Φ8	8
FTAS-40 FTAD-40	82	108	(128)	127	78	26	97	138	(158)	157	93	41	28	□ 19	□ 19	M8 × 1.25	Φ8	8
FTAS-50 FTAD-50	94	124	(150.4)	146.2	90	30	111	158	(184.4)	180.2	107	47	31	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10
FTAS-63 FTAD-63	94	124	(150.4)	146.2	90	30	111	158	(184.4)	180.2	107	47	31	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10

代號 Code 型號 Model	H	I	J	K	L	M	N	N1	N2	N3		O	P	Q	R	S	T	U
										標準 Standard	加長※ Extension							
FTAS-25	-	Φ35	38	30	Φ4.6	M5 × 8.0	35	8	16.5	39.5	-	-	-	Φ6.8	Φ11	Φ14	5	8.5
FTAS-32 FTAD-32	9	Φ46	50	40	Φ5.6	PT 1/8	50	11.5	19	45	60	9.5	25	Φ9	Φ14	Φ16	7	9.5
FTAS-40 FTAD-40	9	Φ55	60	48	Φ6.8	PT 1/8	55	14	19	45	60	9.5	25	Φ9	Φ14	Φ16	7	9.5
FTAS-50 FTAD-50	10	Φ65	70	57	Φ6.8	PT 1/8	60	17	21	54	71	11.1	29	Φ11	Φ17	Φ20	9	12.5
FTAS-63 FTAD-63	10	Φ78	83	67	Φ9	PT 1/8	70	20	21	54	71	11.1	29	Φ11	Φ17	Φ20	9	12.5

※ 垂直下壓行程加長型尺寸。 ※ Clamping stroke lengthened type.

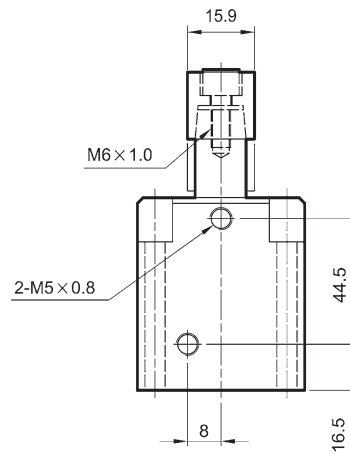
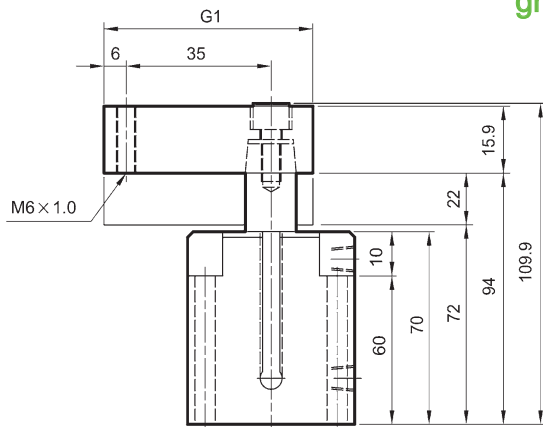
附磁型 / 外觀尺寸 Dimensions / With magnet type $\Phi 25$

FTAS



感應開關溝槽
Auto switch mounting
groove position

單邊壓板安裝尺寸
Single side clamping arm



型號 Model	氣缸內徑 Tube I.D. (mm)	活塞桿徑 Piston rod (mm)	轉角行程 Swing stroke (mm)	垂直下壓行程 Clamping stroke (mm)	受壓面積 壓側 / 拉側 Pressure area push pull(mm ²)	理論加持力 Clamping force N(0.6Mpa)	板壓型 G1 Clamping arm type	
							標準型 Standard	加長型 Extension
FTAS-25M	$\Phi 25$	$\Phi 14$	9	13	491/337	200	50	70

重量表 Cylinder weight

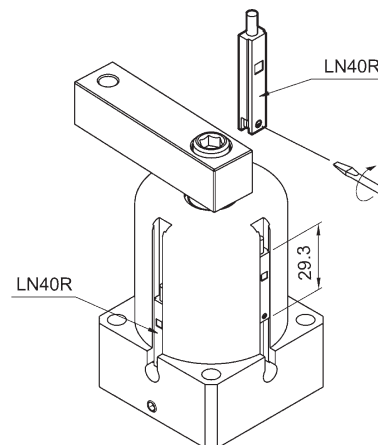
■標準型 Standard type

型號 Model	重量 Weight (kg)
FTAS-25	0.3
FTAS-32	0.7
FTAD-32	0.9
FTAS-40	0.9
FTAD-40	1.1
FTAS-50	1.6
FTAD-50	1.8
FTAS-63	2.1
FTAD-63	2.3

■附磁型 With magnet type

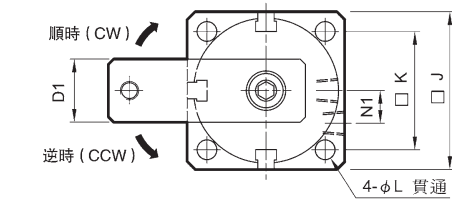
型號 Model	重量 Weight (kg)
FTAS-25M	0.4
FTAS-32M	0.73
FTAD-32M	0.93
FTAS-40M	0.95
FTAD-40M	1.15
FTAS-50M	1.65
FTAD-50M	1.85
FTAS-63M	2.22
FTAD-63M	2.42

感應開關 Installation of sensor switch LN40R

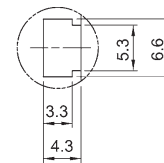
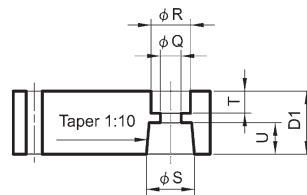
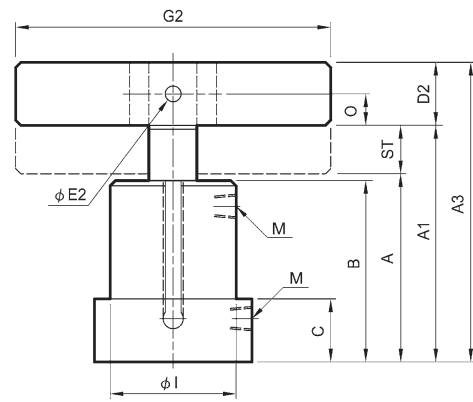
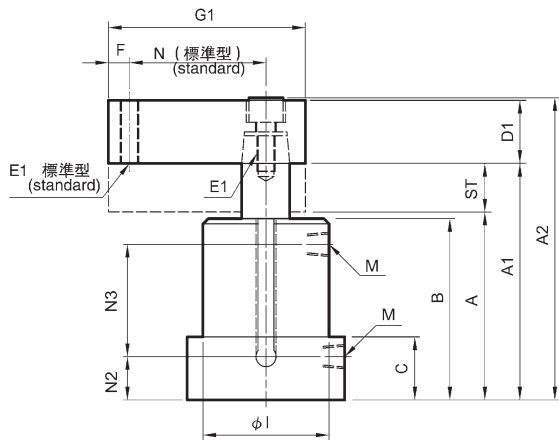
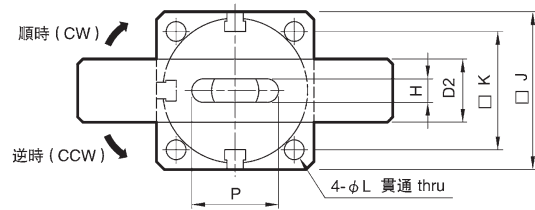


附磁型 / 外觀尺寸 Dimensions / With magnet type $\Phi 32M \sim \Phi 63M$

FTAS



FTAD



單邊壓板安裝尺寸
Single side clamping arm

感應開關溝槽
Auto switch mounting groove position

型號 Model	氣缸內徑 Tube I.D. (mm)	活塞桿徑 Piston rod (mm)	轉角行程 Swing stroke (mm)	垂直下壓行程 Clamping stroke (mm)	受壓面積 壓側 / 拉側 Pressure area push / pull (mm ²)	理論加持力 Clamping force N(0.6Mpa)	板壓型式 Clamping arm type				
							G1		G2		
							標準型 Standard	加長型 Extension	標準型 Standard	加長型 Extension	
FTAS-32M	FTAD-32M	Φ32	Φ16	11	15	804/603	360	70	100	140	200
FTAS-40M	FTAD-40M	Φ40	Φ16	11	15	1257/1056	630	75	100	140	200
FTAS-50M	FTAD-50M	Φ50	Φ20	13	17	1963/1649	980	85	130	160	230
FTAS-63M	FTAD-63M	Φ63	Φ20	13	17	3117/2803	1680	95	130	160	230

代號 Code		A	A1	A2	A3	B	C	D1	D2	E1	E2	F	H	I	J	K
FTAS-32M	FTAD-32M	87	113	(133)	132	83	28	□ 19	□ 19	M8 × 1.25	Φ8	8	9	Φ46	50	40
FTAS-40M	FTAD-40M	87	113	(133)	132	83	28	□ 19	□ 19	M8 × 1.25	Φ8	8	9	Φ55	60	48
FTAS-50M	FTAD-50M	99	129	(155.4)	151.2	95	31	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10	10	Φ65	70	57
FTAS-63M	FTAD-63M	99	129	(155.4)	151.2	95	31	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10	10	Φ78	83	67

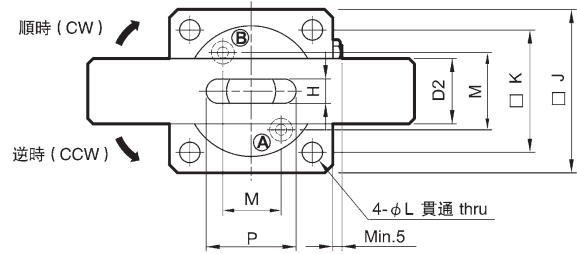
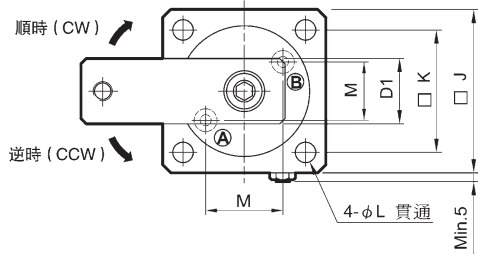
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FTAS-40M	FTAD-40M	Φ6.8	PT 1/8	55	14	19	50	9.5	25	Φ9	Φ14	Φ16	26	7	9.5
FTAS-50M	FTAD-50M	Φ6.8	PT 1/8	60	17	21	59	11.1	29	Φ11	Φ17	Φ17	30	9	12.5
FTAS-63M	FTAD-63M	Φ9	PT 1/8	70	20	21	59	11.1	29	Φ11	Φ17	Φ17	30	9	12.5

深孔附調速型 / 外觀尺寸 Dimensions / Manifold with flow control $\Phi 32 \sim \Phi 63$

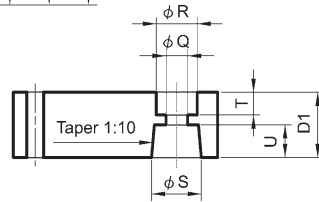
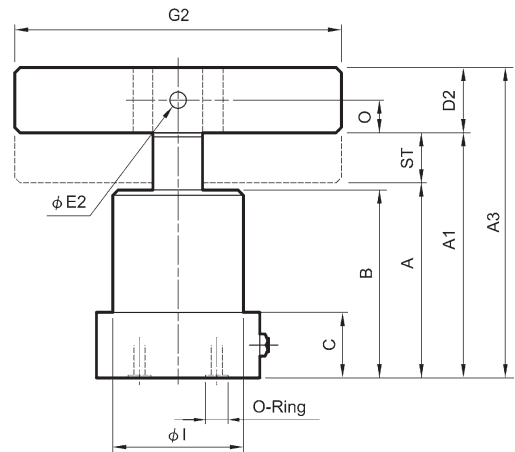
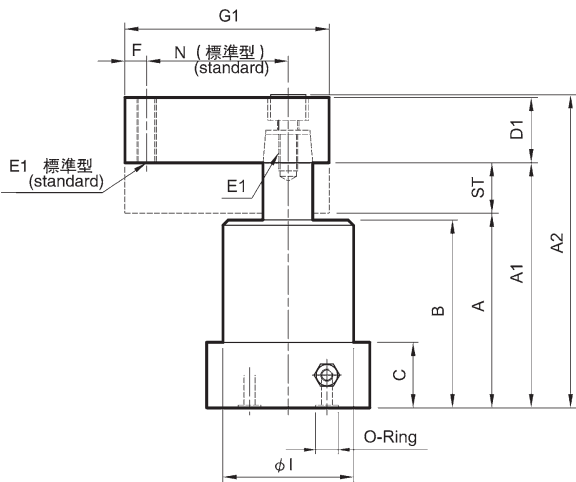
FC

FTAS

FTAD



- Ⓐ 夾持油孔 Clamp port
- Ⓑ 放鬆油孔 Release port



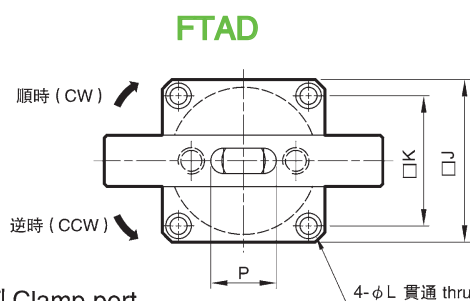
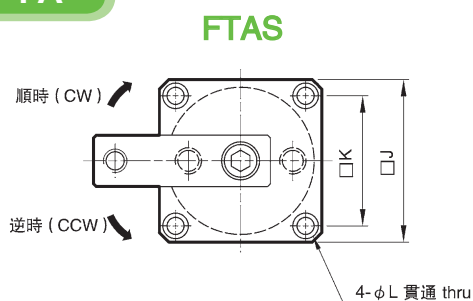
單邊壓板安裝尺寸 Single side clamping arm

型號 Model	氣缸內徑 Tube I.D. (mm)	活塞桿徑 Piston rod (mm)	轉角 行程 Swing stroke (mm)	垂直下壓行程 Clamping stroke (mm)	受壓面積 壓側 / 拉側 Pressure area push / pull (mm ²)	理論加持力 Clamping force N (0.6Mpa)	板壓型式 Clamping arm type			
							G1		G2	
							標準型 Standard	加長型 Extension	標準型 Standard	加長型 Extension
FTAS-32FC FTAD-32 FC	Φ32	Φ16	11	15	804/603	360	70	100	140	200
FTAS-40FC FTAD-40 FC	Φ40	Φ16	11	15	1257/1056	630	75	100	140	200
FTAS-50FC FTAD-50 FC	Φ50	Φ20	13	17	1963/1649	980	85	130	160	230
FTAS-63FC FTAD-63 FC	Φ63	Φ20	13	17	3117/2803	1680	95	130	160	230

代號 Code		A	A1	A2	A3	B	C	D1	D2	E1	E2	F	H	I	J	K
型號 Model																
FTAS-32 FC FTAD-32 FC		82	108	(129.5)	127	78	22	□ 19	□ 19	M8 × 1.25	Φ8	8	9	Φ46	50	40
FTAS-40 FC FTAD-40 FC		82	108	(129.5)	127	78	22	□ 19	□ 19	M8 × 1.25	Φ8	8	9	Φ55	60	48
FTAS-50 FC FTAD-50 FC		94	124	(152.4)	146.2	90	25	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10	10	Φ65	70	57
FTAS-63 FC FTAD-63 FC		94	124	(152.4)	146.2	90	25	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10	10	Φ78	83	67

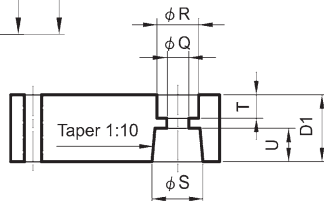
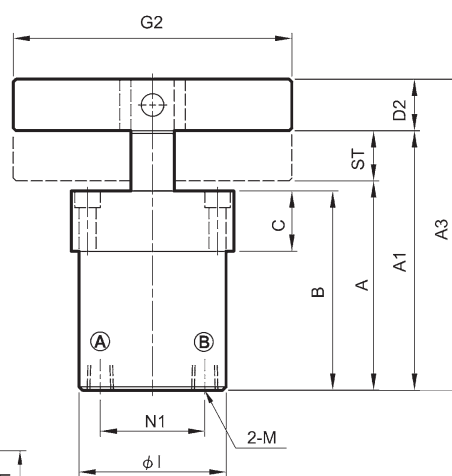
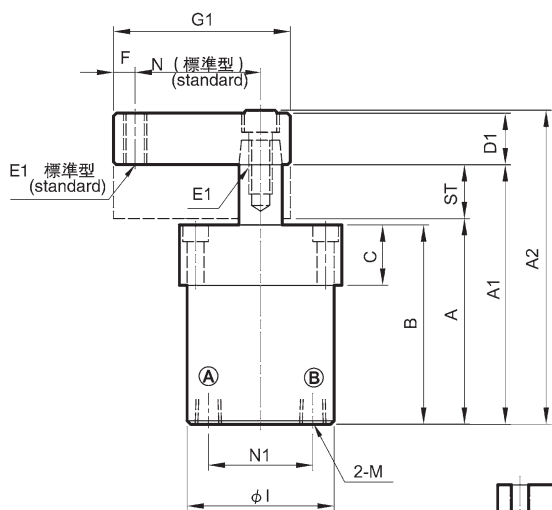
代號 Code		L	M	N	O	P	Q	R	S	ST	T	U	O-ring
型號 Model													
FTAS-32 FC FTAD-32 FC		Φ5.6	19	50	9.5	25	Φ9	Φ14	Φ16	26	7	9.5	P7
FTAS-40 FC FTAD-40 FC		Φ6.8	23	55	9.5	25	Φ9	Φ14	Φ16	26	7	9.5	P7
FTAS-50 FC FTAD-50 FC		Φ6.8	28	60	11.1	29	Φ11	Φ17	Φ20	30	9	12.5	P9
FTAS-63 FC FTAD-63 FC		Φ9	32	70	11.1	29	Φ11	Φ17	Φ20	30	9	12.5	P9

FA



Ⓐ 夾持油孔 Clamp port

Ⓑ 放鬆油孔 Release port



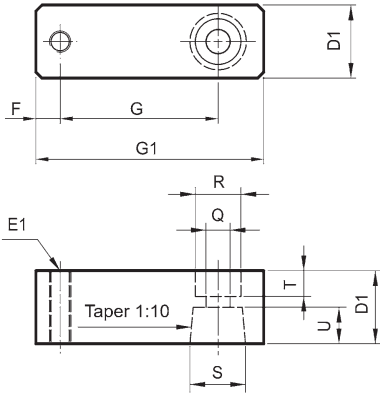
單邊壓板安裝尺寸 Single side clamping arm

型號 Model	氣缸內徑 Tube I.D. (mm)	活塞桿徑 Piston rod (mm)	轉角 行程 Swing stroke (mm)	垂直下壓行程 Clamping stroke (mm)	受壓面積 壓側 / 拉側 Pressure area push / pull (mm ²)	理論加持力 Clamping force N (0.6Mpa)	板壓型式 Clamping arm type			
							G1		G2	
							標準型 Standard	加長型 Extension	標準型 Standard	加長型 Extension
FTAS-32 FA FTAD-32 FA	Φ32	Φ16	11	15	804/603	360	70	100	140	200
FTAS-40 FA FTAD-40 FA	Φ40	Φ16	11	15	1257/1056	630	75	100	140	200
FTAS-50 FA FTAD-50 FA	Φ50	Φ20	13	17	1963/1649	980	85	130	160	230
FTAS-63 FA FTAD-63 FA	Φ63	Φ20	13	17	3117/2803	1680	95	130	160	230

代號 Code		A	A1	A2	A3	B	C	D1	D2	E1	E2	F	H	I	J	K
型號 Model																
FTAS-32 FA FTAD-32 FA		82	108	(129.5)	127	78	22	□ 19	□ 19	M8 × 1.25	Φ8	8	9	Φ46	50	40
FTAS-40 FA FTAD-40 FA		82	108	(129.5)	127	78	22	□ 19	□ 19	M8 × 1.25	Φ8	8	9	Φ55	60	48
FTAS-50 FA FTAD-50 FA		94	124	(152.4)	146.2	90	25	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10	10	Φ65	70	57
FTAS-63 FA FTAD-63 FA		94	124	(152.4)	146.2	90	25	□ 25.4	□ 22.2	M10 × 1.5	Φ8	10	10	Φ78	83	67

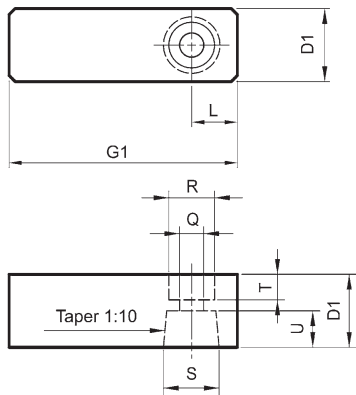
代號 Code		L	M	N	N1	O	P	Q	R	S	ST	T	U
型號 Model													
FTAS-32 FA FTAD-32 FA		Φ5.6, Φ9 × 5.5dp	PT 1/8	50	32	9.5	25	Φ9	Φ14	Φ16	26	7	9.5
FTAS-40 FA FTAD-40 FA		Φ6.8, Φ10.5 × 6.5dp	PT 1/8	55	40	9.5	25	Φ9	Φ14	Φ16	26	7	9.5
FTAS-50 FA FTAD-50 FA		Φ6.8, Φ10.5 × 6.5dp	PT 1/8	60	50	11.1	29	Φ11	Φ17	Φ20	30	9	12.5
FTAS-63 FA FTAD-63 FA		Φ9, Φ14 × 9dp	PT 1/8	70	63	11.1	29	Φ11	Φ17	Φ20	30	9	12.5

單邊壓板 (標準型)
Single side clamping arm
(Standard type with thread)



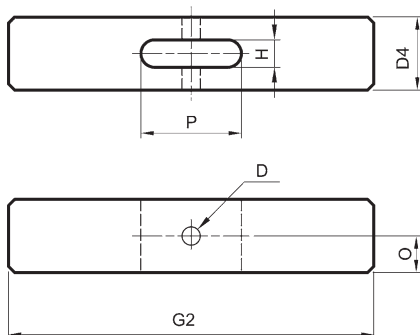
代號 Code 型號 Model	D1	F	G	G1	E1	Q	R	S	T	U
FTAS-25	□ 15.9	6	35	50	M6 × 1.0	Φ6.8	Φ11	Φ14	5	8.5
FTAS-32	□ 19	8	50	70	M8 × 1.25	Φ9	Φ14	Φ16	7	9.5
FTAS-40	□ 19	8	55	75	M8 × 1.25	Φ9	Φ14	Φ16	7	9.5
FTAS-50	□ 25.4	10	60	85	M10 × 1.5	Φ11	Φ17	Φ20	9	12.5
FTAS-63	□ 25.4	10	70	95	M10 × 1.5	Φ11	Φ17	Φ20	9	12.5

單邊壓板 B 型 (加長型無牙)
Single side clamping arm B type
(Extension type without thread)



代號 Code 型號 Model	D1	F	G1	L	Q	R	S	T	U
FTAS-25 B	□ 15.9	6	70	15	Φ6.8	Φ11	Φ14	5	8.5
FTAS-32 B	□ 19	8	100	20	Φ9	Φ14	Φ16	7	9.5
FTAS-40 B	□ 19	8	100	20	Φ9	Φ14	Φ16	7	9.5
FTAS-50 B	□ 25.4	10	130	25	Φ11	Φ17	Φ20	9	12.5
FTAS-63 B	□ 25.4	10	130	25	Φ11	Φ17	Φ20	9	12.5

雙邊壓板 (標準型/加長型)
Double side clamping arm
(Standard & Extension type)



雙邊壓板 (標準型)
Double side clamping arm (Standard type)

代號 Code 型號 Model	內徑 Tube I.D.	D	D4	G2	H	O	P
FTAD-32	Φ32	Φ8	□ 19	140	9	9.5	25
FTAD-40	Φ40	Φ8	□ 19	140	9	9.5	25
FTAD-50	Φ50	Φ8	□ 22.2	160	10	11.1	29
FTAD-63	Φ63	Φ8	□ 22.2	160	10	11.1	29

雙邊壓板 B 型 (加長型無牙)
Double side clamping arm B type (Extension type)

代號 Code 型號 Model	內徑 Tube I.D.	D	D4	G2	H	O	P
FTAD-32 B	Φ32	Φ8	□ 19	200	9	9.5	25
FTAD-40 B	Φ40	Φ8	□ 19	200	9	9.5	25
FTAD-50 B	Φ50	Φ8	□ 22.2	230	10	11.1	29
FTAD-63 B	Φ63	Φ8	□ 22.2	230	10	11.1	29