Swing clamp cylinders

TAS, TASL
Double Acting - Single Side Clamping Arm

TAS..M
Double Acting - Single Side Clamping Arm (piston with magnet)

TAD, TADL
Double Acting - Double Side Clamping Arm

TAD..M
Double Acting - Double Side Clamping Arm (piston with magnet)

- These swing clamps are used when it is required to keep the fixture workpiece area free of straps and clamping components for unrestricted 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 any angle within 360° .

NOTE:

- 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.

Specification

Type	TAS TAS..M					TASL TADL TAD TAD..M			
Bore sizes of cylinder (mm)	ϕ25	ϕ32	ϕ40	ϕ50	ϕ63	ϕ32	ϕ40	ϕ50	ϕ63
Operation	Double acting								
Power fluid	Filtered air with or without lubrication								
Max. pressure (MPa)	1.03								
The range of pressure (MPa)	0.1~0.7								
Material of cylinder barrel	Anodised aluminium alloy								
Standard angle of rotation	90°±2° (Angle of 0°, 45°and 60°are optional)								
Rotating direction	Clockwise or counter clockwise								

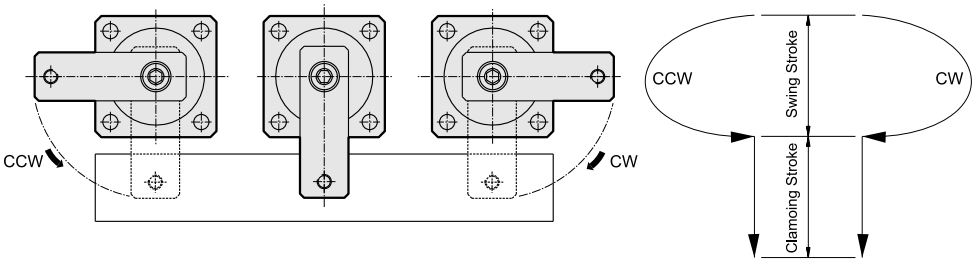
How to order

TAS	25	CW	M	90	B	LN40R	×	2
Type	Bore	Rotating direction	Magnet	Rotating angle	Clamping arm type	Sensor switch		Quantity
TAS TASL	25—ϕ25mm 32—ϕ32mm 40—ϕ40mm 50—ϕ50mm 63—ϕ63mm	CCW: Counter clockwise CW: Clockwise	M: With magnet N: No magnet	90: 90° -Standard rotation	None: Standard B: Extension	LN40R		1: 1pc 2: 2pcs

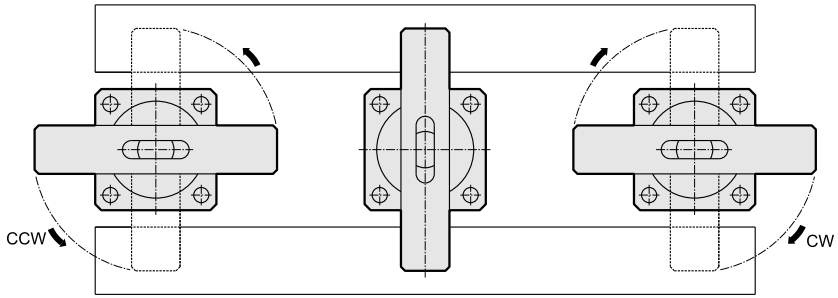
TAD TADL | TAS-M | TAD-M

Note:
1.Can choose NPN or PNP type (3-Wire type, 24VDC).
2.Can choose plug-in cable.
3.For details see page 4-1.6.

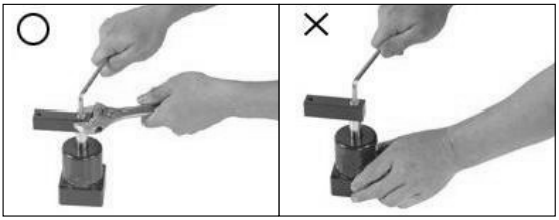
Single side swing clamp



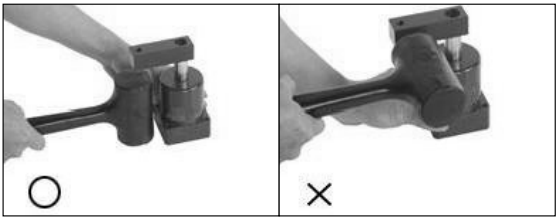
Double side swing clamp

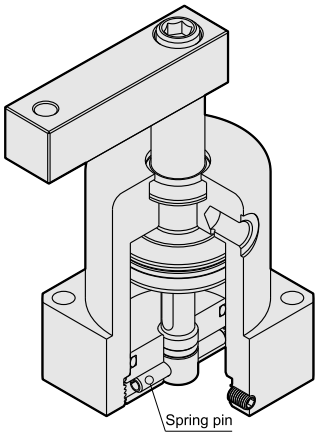


Clamping arm mounting methods



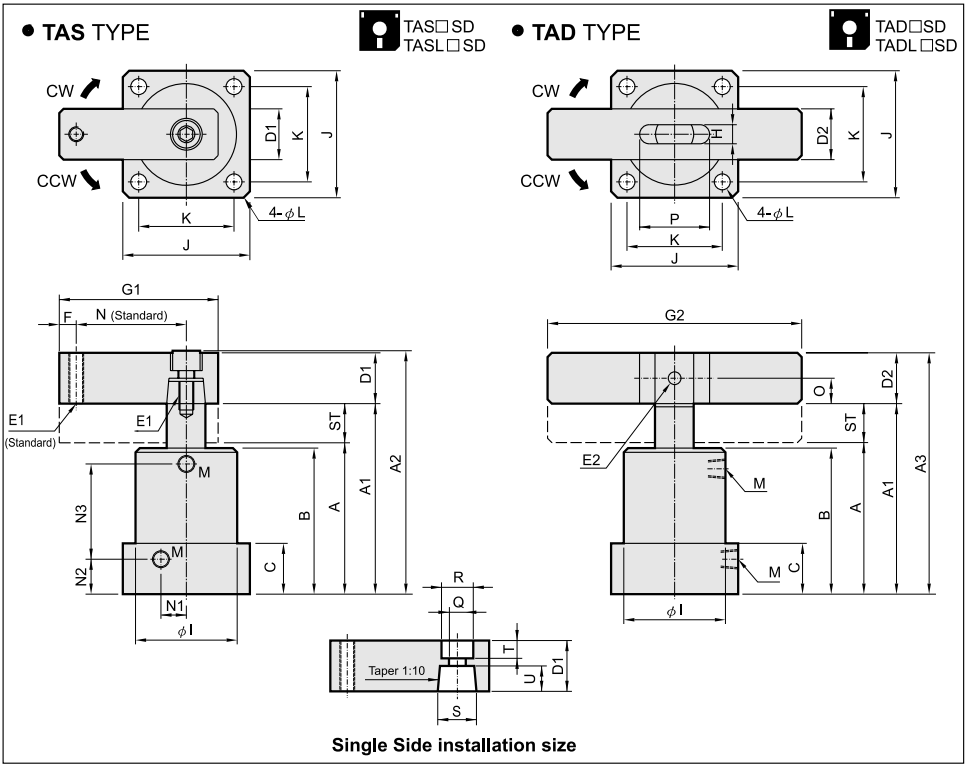
Clamping arm removing methods





Note: spring pin is liable to be broken in pressure plate dismantling or when locked in a wrong direction; rotating angle deviation or unsmooth operating may occur when swing cylinders are started.

Dimensional features



Single Side installation size

Dimensional Table

※TASL, TADL = Clamping stroke Incr type

Type		Bore	Piston rod	Swing stroke	Clamping stroke (mm)	Pressure area push / pull	Clamping force (N)	Clamping arm front			
								G1		G2	
std. / Incr	std. / Incr	(mm)	(mm)	(mm)	std. / Incr	(mm^2)	(0.6MPa)	Standard	Extension	Standard	Extension
TAS-25		ϕ25	ϕ14	9	13/—	491/337	200	50	70	—	—
TAS-32/TASL-32	TAD-32/TADL-32	ϕ32	ϕ16	11	15/30	804/603	360	70	100	140	200
TAS-40/TASL-40	TAD-40/TADL-40	ϕ40	ϕ16	11	15/30	1257/1056	630	75	100	140	200
TAS-50/TASL-50	TAD-50/TADL-50	ϕ50	ϕ20	13	17/34	1963/1649	980	85	130	160	230
TAS-63/TASL-63	TAD-63/TADL-63	ϕ63	ϕ20	13	17/34	3117/2803	1680	95	130	160	230

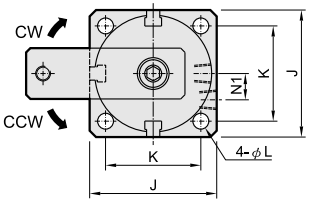
Type		TA□ Standard type							TA□L Clamping stroke Incr type							C	D1	D2	E1
		ST	A	A1	A2	A3	B	N3	ST	A	A1	A2	A3	B	N3				
TAS-25		22	67	89	(105.9)	—	65	39.5	—	—	—	—	—	—	—	23	□15.9	-	M6×1.0P
TAS-32/TASL-32	TAD-32/TADL-32	26	82	108	(128)	127	78	45	41	97	138	(158)	157	93	60	28	□19	□19	M8×1.25P
TAS-40/TASL-40	TAD-40/TADL-40	26	82	108	(128)	127	78	45	41	97	138	(158)	157	93	60	28	□19	□19	M8×1.25P
TAS-50/TASL-50	TAD-50/TADL-50	30	94	124	(150.4)	146.2	90	54	47	111	158	(184.4)	180.2	107	71	31	□25.4	□22.2	M10×1.5P
TAS-63/TASL-63	TAD-63/TADL-63	30	94	124	(150.4)	146.2	90	54	47	111	158	(184.4)	180.2	107	71	31	□25.4	□22.2	M10×1.5P

Type		E2	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	N1	N2
TAS-25		-	6	-	ϕ35	38	30	ϕ4.6	M5×0.8P	35	-	-	ϕ6.8	ϕ11	ϕ14	5	8.5	8	16.5
TAS-32/TASL-32	TAD-32/TADL-32	ϕ8	8	9	ϕ46	50	40	ϕ5.6	PT1/8	50	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5	11.5	19
TAS-40/TASL-40	TAD-40/TADL-40	ϕ8	8	9	ϕ55	60	48	ϕ6.8	PT1/8	55	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5	14	19
TAS-50/TASL-50	TAD-50/TADL-50	ϕ8	10	10	ϕ65	70	57	ϕ6.8	PT1/8	60	11.1	29	ϕ11	ϕ18	ϕ20	9	12.5	17	21
TAS-63/TASL-63	TAD-63/TADL-63	ϕ8	10	10	ϕ78	83	67	ϕ9	PT1/8	70	11.1	29	ϕ11	ϕ18	ϕ20	9	12.5	20	21

Dimensional features (Piston with magnet)

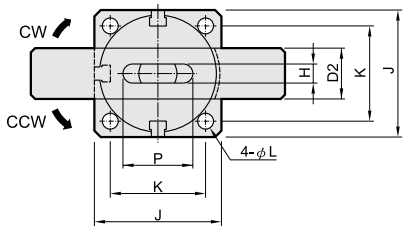
● **TAS...M** TYPE
Bore ϕ32~ϕ63

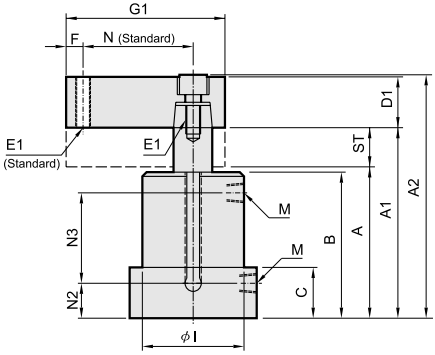
TAS□M

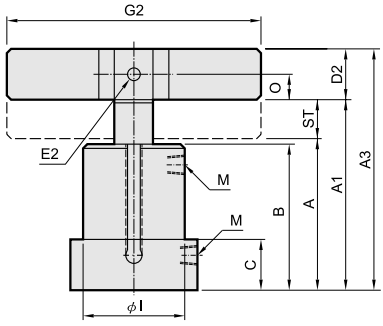


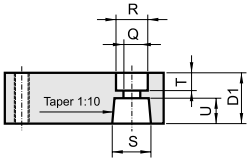
● **TAD...M** TYPE
Bore ϕ32~ϕ63

TAD□M

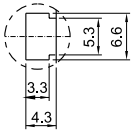








Single Side installation size



Sensor switch groove

Dimensional Table

Type		Bore (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)	Pressure area push / pull (mm^2)	Clamping force (N) (0.6MPa)	Clamping arm front			
								G1		G2	
								Standard	Extension	Standard	Extension
TAS-32-M	TAD-32-M	ϕ32	ϕ16	11	15	804/603	360	70	100	140	200
TAS-40-M	TAD-40-M	ϕ40	ϕ16	11	15	1257/1056	630	75	100	140	200
TAS-50-M	TAD-50-M	ϕ50	ϕ20	13	17	1963/1649	980	85	130	160	230
TAS-63-M	TAD-63-M	ϕ63	ϕ20	13	17	3117/2803	1680	95	130	160	230

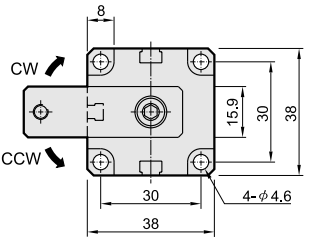
Type		ST	A	A1	A2	A3	B	C	D1	D2	E1	E2	F	H	I
TAS-32-M	TAD-32-M	26	87	113	(133)	132	83	28	□19	□19	M8×1.25P	ϕ8	8	9	ϕ46
TAS-40-M	TAD-40-M	26	87	113	(133)	132	83	28	□19	□19	M8×1.25P	ϕ8	8	9	ϕ55
TAS-50-M	TAD-50-M	30	99	129	(155.4)	151.2	95	31	□25.4	□22.2	M10×1.5P	ϕ8	10	10	ϕ65
TAS-63-M	TAD-63-M	30	99	129	(155.4)	151.2	95	31	□25.4	□22.2	M10×1.5P	ϕ8	10	10	ϕ78

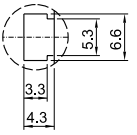
Type		J	K	L	M	N	O	P	Q	R	S	T	U	N1	N2	N3
TAS-32-M	TAD-32-M	50	40	ϕ5.6	PT1/8	50	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5	11.5	19	50
TAS-40-M	TAD-40-M	60	48	ϕ6.8	PT1/8	55	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5	14	19	50
TAS-50-M	TAD-50-M	70	57	ϕ6.8	PT1/8	60	11.1	29	ϕ11	ϕ17	ϕ20	9	12.5	17	21	59
TAS-63-M	TAD-63-M	83	67	ϕ9	PT1/8	70	11.1	29	ϕ11	ϕ17	ϕ20	9	12.5	20	21	59

Dimensional features (Piston with magnet)

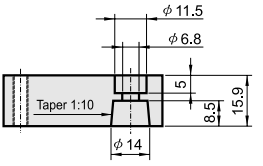
● **TAS25M** TYPE

TAS25M

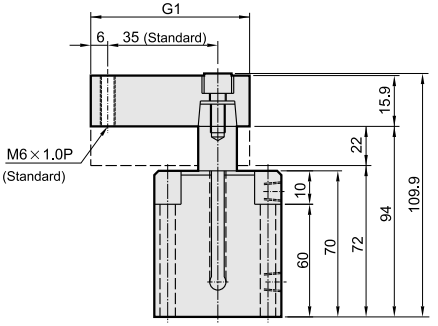


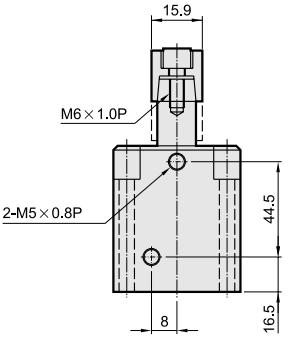


Sensor switch groove



Single Side installation size





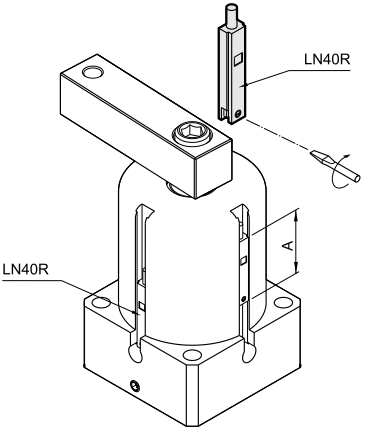
Dimensional Table

Type	Bore (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)	Pressure area push / pull (mm^2)	Clamping force (N) (0,6MPa)	Clamping arm front G1	
							Standard	Extension
TAS-25-M	ϕ25	ϕ14	9	13	491/337	200	50	70

Cylinder weight

Model No.	Weight
TAS-25	0.3
TAS-32	0.7
TAD-32	0.9
TAS-40	0.9
TAD-40	1.1
TAS-50	1.6
TAD-50	1.8
TAS-63	2.1
TAD-63	2.3

Model No.	Weight
TAS-25M	0.4
TAS-32M	0.73
TAD-32M	0.93
TAS-40M	0.95
TAD-40M	1.15
TAS-50M	1.65
TAD-50M	1.85
TAS-63M	2.22
TAD-63M	2.42

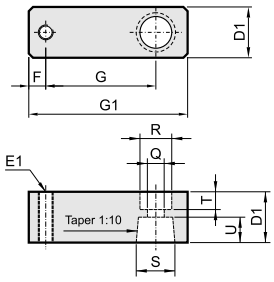


Installation of sensor switchs

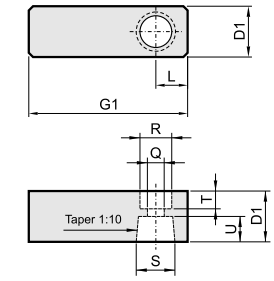
Bore	Sensor switchs	A
ϕ25	LN40R	29.3
ϕ32	LN40R	29.3
ϕ40	LN40R	29.3
ϕ50	LN40R	29.3
ϕ63	LN40R	29.3

Air swing clamp cylinder single-side clamping arm

● **A** TYPE (Standard type with thread)



● **B** TYPE (Extension type without thread)



Dimensional Table

TAS □ A

Type	D1	F	G	G1	E1	R	S	T	Q	U
TAS25A	□15.9	6	35	50	M6×1.0	ϕ11	ϕ14	5	ϕ6.8	8.5
TAS32A	□19	8	50	70	M8×1.25	ϕ14	ϕ16	7	ϕ9	9.5
TAS40A	□19	8	55	75	M8×1.25	ϕ14	ϕ16	7	ϕ9	9.5
TAS50A	□25.4	10	60	85	M10×1.5	ϕ17	ϕ20	9	ϕ11	12.5
TAS63A	□25.4	10	70	95	M10×1.5	ϕ17	ϕ20	9	ϕ11	12.5

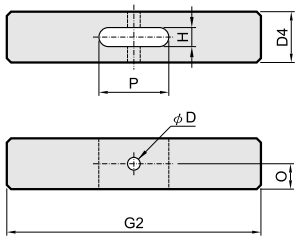
Dimensional Table

TAS □ B

Type	D1	F	L	G1	E1	R	S	T	Q	U
TAS25B	□15.9	—	9	70	—	ϕ11	ϕ14	5	ϕ6.8	8.5
TAS32B	□19	—	12	100	—	ϕ14	ϕ16	7	ϕ9	9.5
TAS40B	□19	—	12	100	—	ϕ14	ϕ16	7	ϕ9	9.5
TAS50B	□25.4	—	15	130	—	ϕ17	ϕ20	9	ϕ11	12.5
TAS63B	□25.4	—	15	130	—	ϕ17	ϕ20	9	ϕ11	12.5

Air swing clamp cylinder double-side clamping arm

● **A&B** TYPE (Standard & Extension type)



Dimensional Table

TAD □ A

Type	Bore	D4	D	O	P	H	G2
THD25A	ϕ32	□19	ϕ8	9.5	25	9	140
	ϕ40	□19	ϕ8	9.5	25	9	140
THD32A	ϕ50	□22.2	ϕ8	11.1	29	10	160
	ϕ63	□22.2	ϕ8	11.1	29	10	160

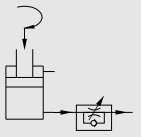
TAD □ B

Type	Bore	D4	D	O	P	H	G2
THD25B	ϕ32	□19	ϕ8	9.5	25	9	200
	ϕ40	□19	ϕ8	9.5	25	9	200
THD32B	ϕ50	□22.2	ϕ8	11.1	29	10	230
	ϕ63	□22.2	ϕ8	11.1	29	10	230

Pneumatic-swing clamp cylinders (Manifold type)

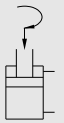
TAS_FC
Double Acting - Single Side Clamping Arm (Manifold with flow control)

TAD_FC
Double Acting - Double Side Clamping Arm (Manifold with flow control)



TAS_FA
Double Acting - Single Side Clamping Arm (Flange type)

TAD_FA
Double Acting - Double Side Clamping Arm (Flange type)



- These swing clamps are used when it is required to keep the fixture workpiece area free of straps and clamping components for unrestricted 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 any angle within 360° .

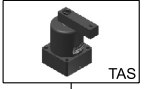
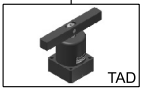
NOTE:

- 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.

Specification

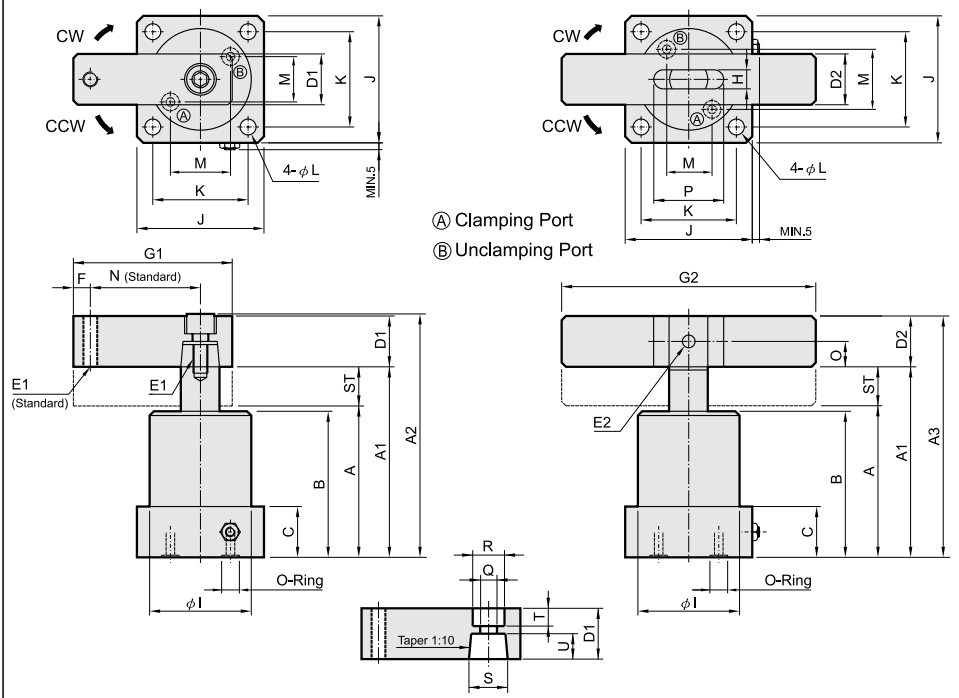
Type	TAS_FC TAD_FC				TAS_FA TAD_FA			
Bore sizes of cylinder (mm)	ϕ32	ϕ40	ϕ50	ϕ63	ϕ32	ϕ40	ϕ50	ϕ63
Operation	Double acting							
Power fluid	Filtered air with or without lubrication							
Max. pressure (MPa)	1.47							
The range of pressure (MPa)	0.1~1.03							
Material of cylinder barrel	Anodised aluminium alloy							
Standard angle of rotation	90°±2° (Angle of 0°, 45°and 60°are optional)							
Rotating direction	Clockwise or counter clockwise							

How to order

TAS	32	CW	90	FC	B
Type	Bore	Rotating direction	Rotating angle	Mounting type	Clamping arm type
 TAS  TAD	32—ϕ32mm 40—ϕ40mm 50—ϕ50mm 63—ϕ63mm	CCW: Counter clockwise CW: Clockwise	90: 90° -Standard rotation	 FC  FA	None: Standard B: Extension

Pneumatic swing clamp cylinders (Manifold with flow control)

● **TAS_FC** TYPE TAS□FC ● **TAD_FC** TYPE TAD□FC



Single Side installation size

Dimensional Table

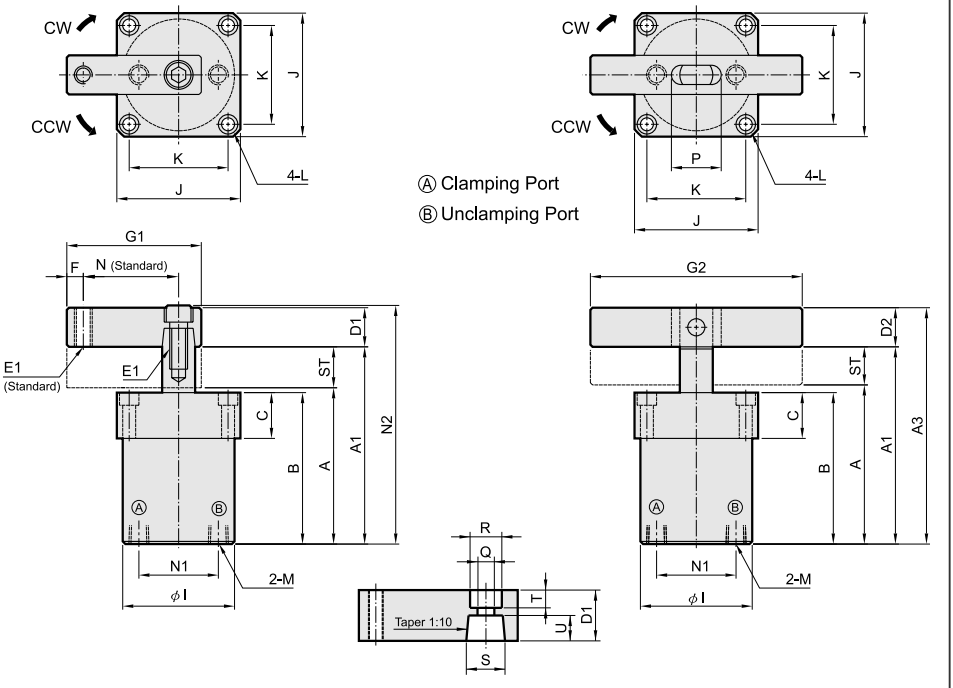
Type		Bore (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)	Pressure area push / pull (mm²)	Clamping force (N) (0.6MPa)	Clamping arm front G1 Standard	G1 Extension	G2 Standard	G2 Extension
TAS-32FC	TAD-32FC	ϕ32	ϕ16	11	15	804/603	360	70	100	140	200
TAS-40FC	TAD-40FC	ϕ40	ϕ16	11	15	1257/1056	630	75	100	140	200
TAS-50FC	TAD-50FC	ϕ50	ϕ20	13	17	1963/1649	980	85	130	160	230
TAS-63FC	TAD-63FC	ϕ63	ϕ20	13	17	3117/2803	1680	95	130	160	230

Type		ST	A	A1	A2	A3	B	C	D1	D2	E1	E2	F	O-ring
TAS-32FC	TAD-32FC	26	82	108	(128)	127	78	22	□19	□19	M8×1.25P	ϕ8	8	P7
TAS-40FC	TAD-40FC	26	82	108	(128)	127	78	22	□19	□19	M8×1.25P	ϕ8	8	P7
TAS-50FC	TAD-50FC	30	94	124	(150.4)	146.2	90	25	□25.4	□22.2	M10×1.5P	ϕ8	10	P9
TAS-63FC	TAD-63FC	30	94	124	(150.4)	146.2	90	25	□25.4	□22.2	M10×1.5P	ϕ8	10	P9

Type		H	I	J	K	L	M	N	O	P	Q	R	S	T	U
TAS-32FC	TAD-32FC	9	ϕ46	50	40	ϕ5.6	19	50	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5
TAS-40FC	TAD-40FC	9	ϕ55	60	48	ϕ6.8	23	55	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5
TAS-50FC	TAD-50FC	10	ϕ65	70	57	ϕ6.8	28	60	11.1	29	ϕ11	ϕ17	ϕ20	9	12.5
TAS-63FC	TAD-63FC	10	ϕ78	83	67	ϕ9	32	70	11.1	29	ϕ11	ϕ17	ϕ20	9	12.5

Pneumatic swing clamp cylinders (Flange type)

● **TAS_FA** TYPE TAS□FA ● **TAD_FA** TYPE TAD□FA



Single Side installation size

Dimensional Table

Type		Bore (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)	Pressure area push / pull (mm^2)	Clamping force (N) (0.6MPa)	Clamping arm front			
								G1		G2	
								Standard	Extension	Standard	Extension
TAS-32FA	TAD-32FA	ϕ32	ϕ16	11	15	804/603	360	70	100	140	200
TAS-40FA	TAD-40FA	ϕ40	ϕ16	11	15	1257/1056	630	75	100	140	200
TAS-50FA	TAD-50FA	ϕ50	ϕ20	13	17	1963/1649	980	85	130	160	230
TAS-63FA	TAD-63FA	ϕ63	ϕ20	13	17	3117/2803	1680	95	130	160	230

Type		ST	A	A1	A2	A3	B	C	D1	D2	E1	E2	F	H	I
TAS-32FA	TAD-32FA	26	82	108	(128)	127	78	22	□19	□19	M8×1.25P	ϕ8	8	9	ϕ46
TAS-40FA	TAD-40FA	26	82	108	(128)	127	78	22	□19	□19	M8×1.25P	ϕ8	8	9	ϕ55
TAS-50FA	TAD-50FA	30	94	124	(150.4)	146.2	90	25	□25.4	□22.2	M10×1.5P	ϕ8	10	10	ϕ65
TAS-63FA	TAD-63FA	30	94	124	(150.4)	146.2	90	25	□25.4	□22.2	M10×1.5P	ϕ8	10	10	ϕ78

Type		J	K	L	M	N	N1	O	P	Q	R	S	T	U
TAS-32FA	TAD-32FA	50	40	ϕ5.6, ϕ9×5.5dp	PT1/8	50	32	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5
TAS-40FA	TAD-40FA	60	48	ϕ6.8, ϕ10.5×6.5dp	PT1/8	55	40	9.5	25	ϕ9	ϕ14	ϕ16	7	9.5
TAS-50FA	TAD-50FA	70	57	ϕ6.8, ϕ10.5×6.5dp	PT1/8	60	50	11.1	29	ϕ11	ϕ17	ϕ20	9	12.5
TAS-63FA	TAD-63FA	83	67	ϕ9, ϕ14×9dp	PT1/8	70	63	11.1	29	ϕ11	ϕ17	ϕ20	9	12.5