

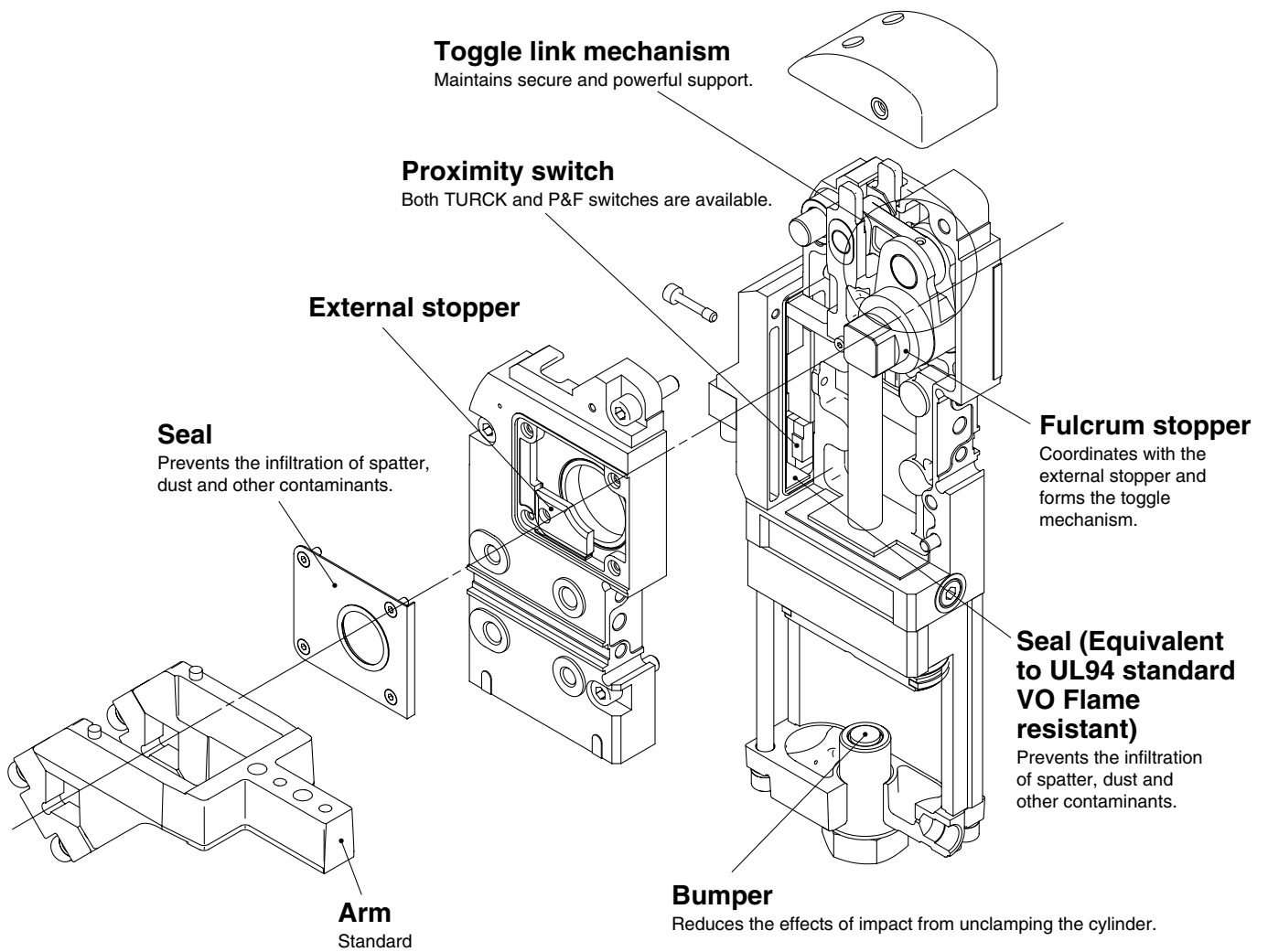
Power Clamp Cylinder

Series CKZT

New



Special	CK□/M(D)UKA
For France	CLKZ1R
For Europe	CKZT
For North America	CKZ2N
For Asia	MK2T/MK2/MK
	C(L)KQ□
	CLK2
	CK□1



■ 3D CAD

Software
CATIA
UNIGRAPHICS
FIDES
AUTO CAD
SOLID WORKS

* For additional formats, please log on to the SMC web site www.smcusa.com and click on the E-Tech icon.

■ Series Variations

Series	CKZT			
Bore size (mm)	ø40	ø50 Equivalent	ø63 Equivalent	ø80 Equivalent
Arm opening angle	30°, 45°, 60°, 75° 90°, 105°, 120°, 135°			
Switch	TURCK/P&F			
Port thread type	G/NPT			

Series CKZT

Model Selection

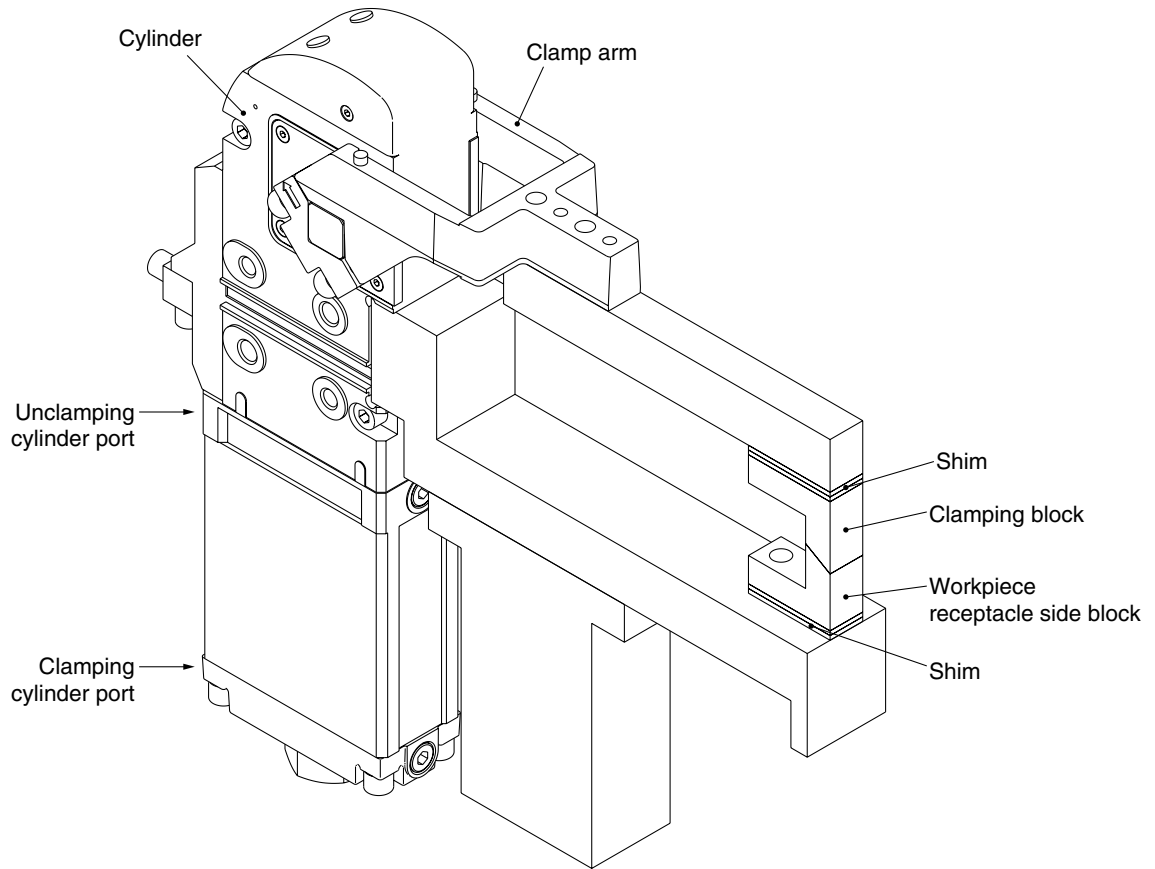
1 Common precautions for each size

- 1) Use air filtered through a 5- μ m-element filter.
- 2) Before piping is connected to the slim-line power clamp cylinder it should be thoroughly flushed with air.
- 3) Only use the clamp arm in our catalog. Do not weld an arm to the cylinder.
- 4) Make sure to use a speed controller and adjust it to more than 1sec. when changing from clamping to unclamping (or vice versa).

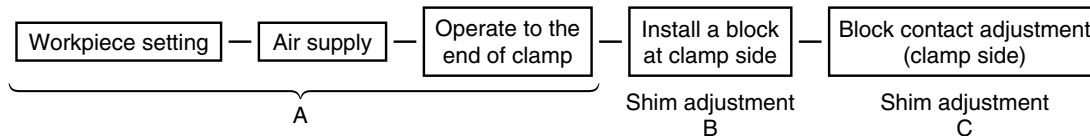
2 Slim-line power clamp cylinder mounting

When clamping by using clamping force only

Example)



Mounting process



Procedure

- A) Place the workpiece, supply air at clamp side without installing clamping block, operate the clamp arm to the end of clamp.
- B) Under the above conditions, adjust shim so that the space between the workpiece and the clamping block is about 0 mm. Theoretically there is no clamping force for holding a workpiece under this condition.
- C) In order to generate clamping force from the state described in step B, insert additional shim. The thickness of the shim differs depending on the arm length and pressure, so please refer to the graph on pages 186 and 187 as a guide. About 10% error may occur due to the difference in tolerance of the power clamp cylinder body.

For Asia CK□1
CLK2
C(L)KQ□
MK2T/MK2/MK
For North America CKZ2N
For Europe CKZT
For France CLKZ1R
Special CK□/M(D)UKA

Model Selection

2 Slim-line power clamp cylinder mounting

Relation between shim thickness and clamping force

Note) When a shim that exceeds the clamping force peak plotted on the graph is inserted, the self-locking mechanism doesn't work. Insert a shim with appropriate thickness.

* Arm length "L" indicates the distance between the clamp arm shaft and the clamping position. For distance "A" between knock positioning pinhole and clamp arm shaft, refer to the Table 1.

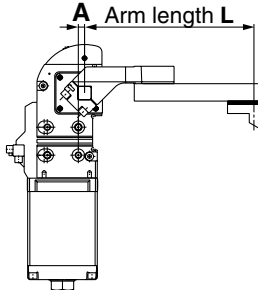
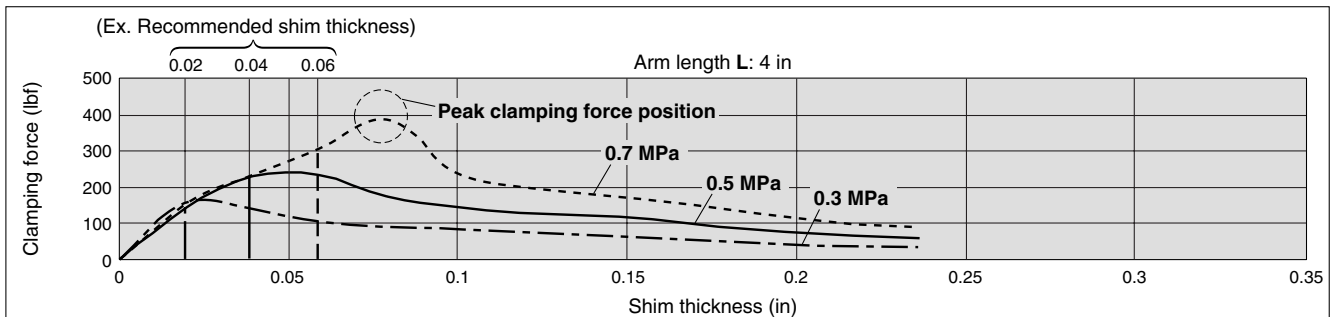
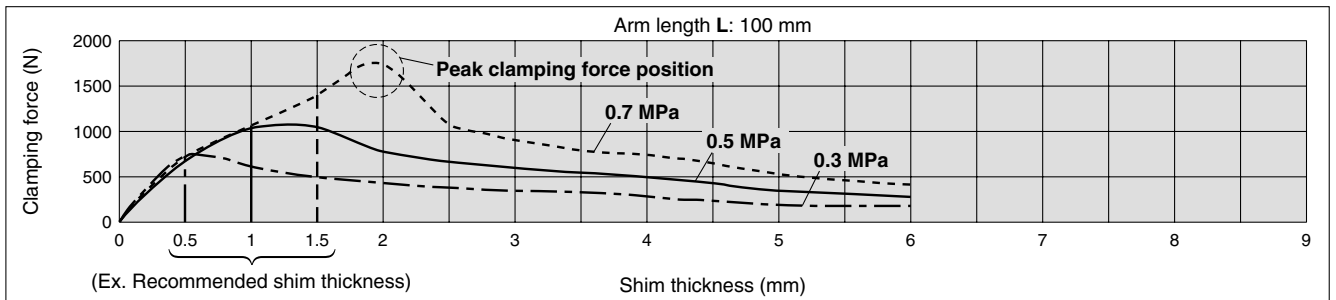


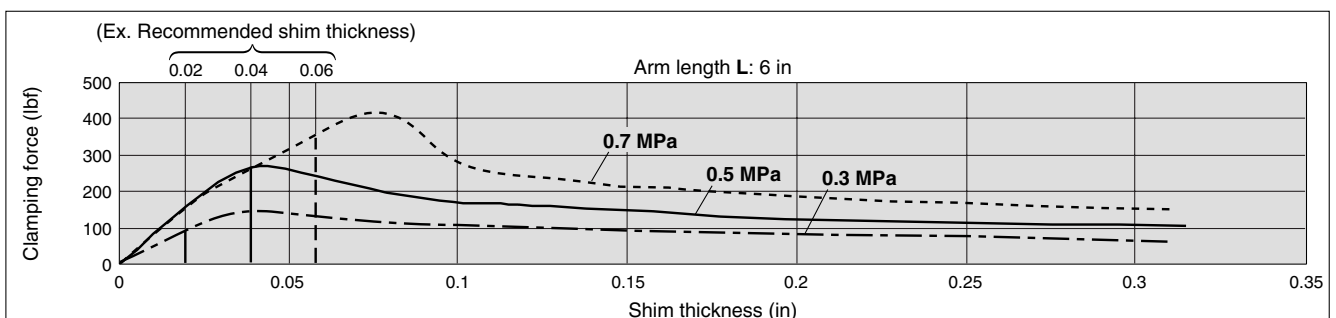
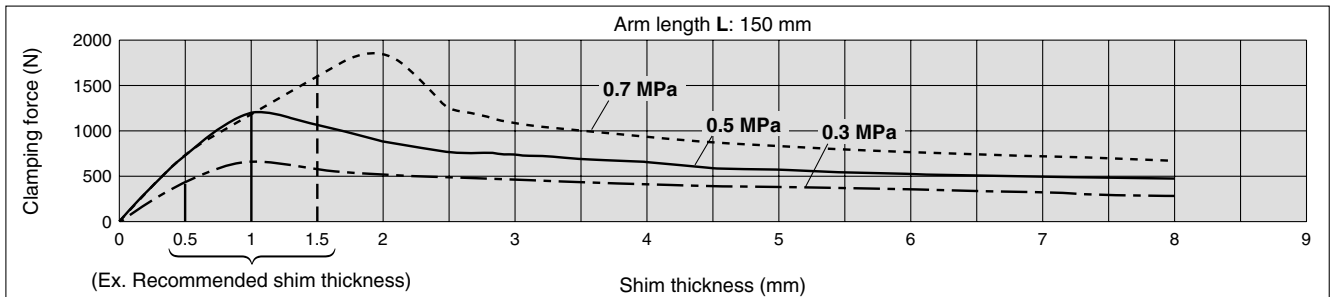
Table 1

Model	A
CKZT40	0
CKZT50	5
CKZT63	10
CKZT80	15

ø40

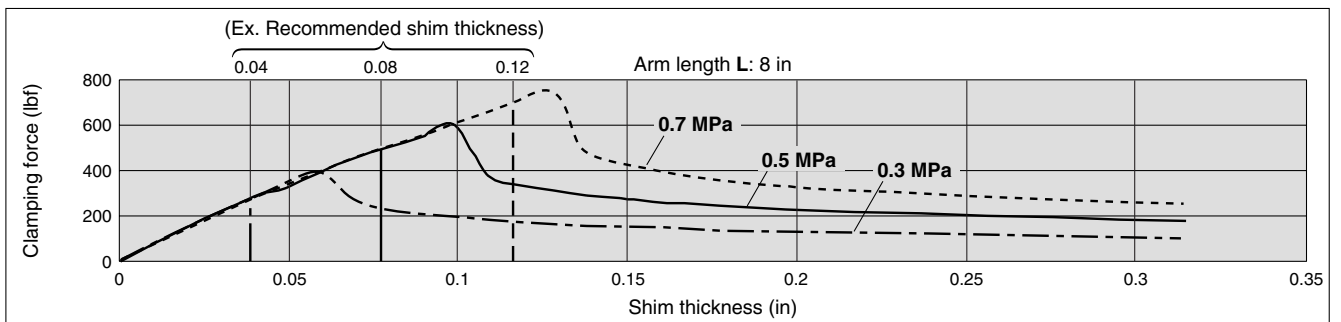
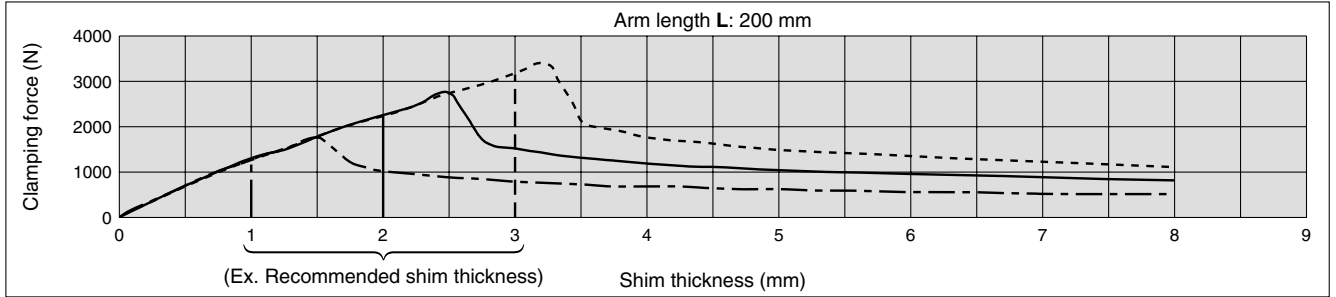


ø50

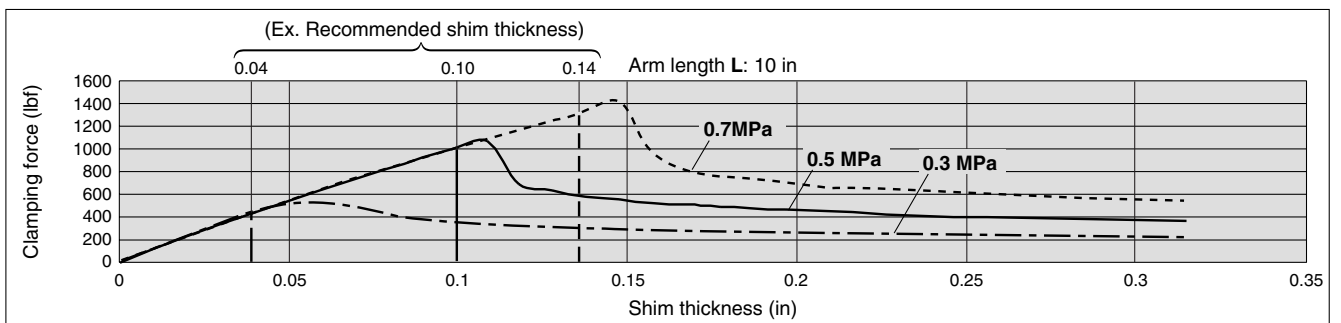
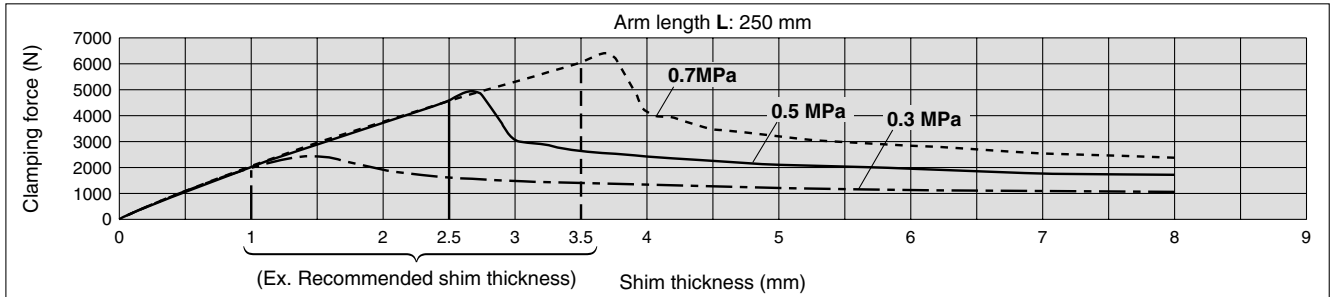


2 Slim-line power clamp cylinder mounting

ø63



ø80



CK□1

CLK2

For Asia

C(L)KQ□

MK2T/MK2/MK

For North America

CKZ2N

For Europe

CKZT

For France

CLKZ1R

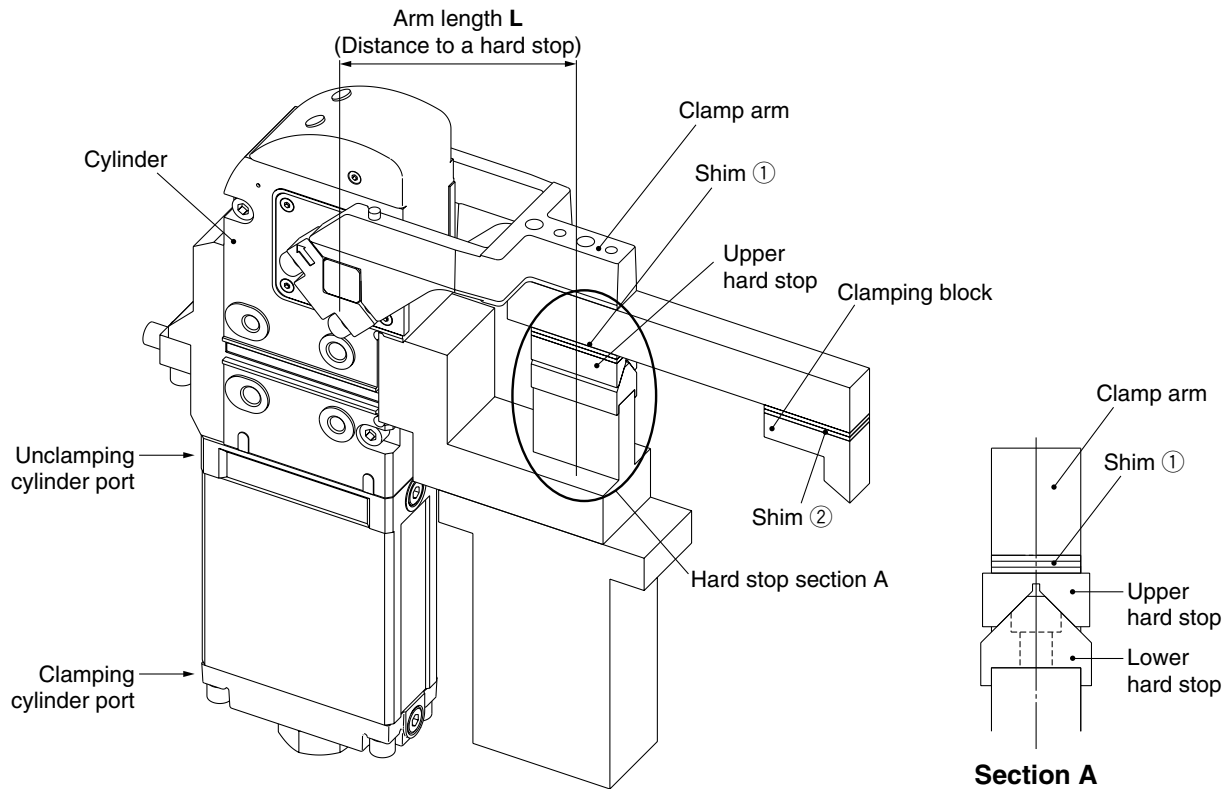
Special

CK□/M(D)JUKA

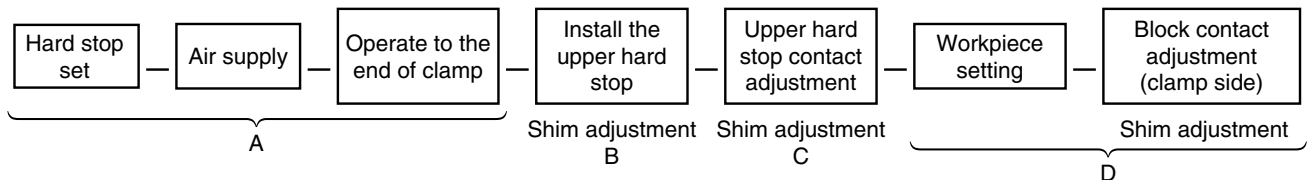
Model Selection

2 Slim-line power clamp cylinder mounting

When using a hard stop



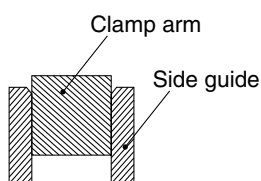
Mounting process



Procedure

- Supply air at clamp side without installation of upper hard stop, and operate the clamp arm to the end of clamp.
- Under the above conditions, adjust shim ① so that the space between the upper hard stop and the lower hard stop is about 0 mm. Theoretically there is no clamping force to the lower hard stop under this condition.
- In order to generate clamping force from the state described in step B, insert additional shim. The thickness of the shim differs depending on the arm length and pressure, so please refer to the graph on pages 186 and 187 as a guide. About 10% error may occur due to the difference in tolerance of the power clamp cylinder body.
- Under the state described in step C, adjust shim ② so there is contact between the clamping block and the workpiece.

When using the side guide



Precautions

When using the side guide to the clamp arm to prevent lateral motion, make sure not to apply a lateral load or galling to the clamp arm.

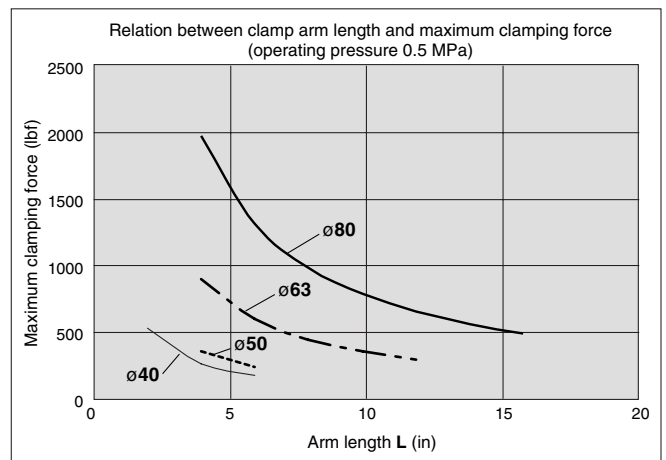
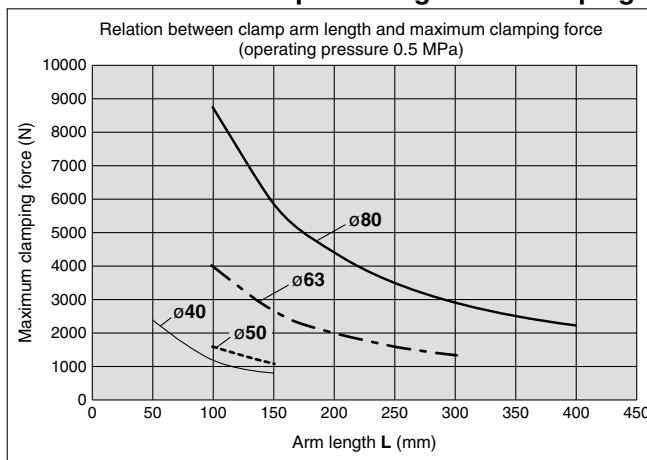
3 Clamp arm

Use the clamp arm in the catalog.

The length of the clamp arm "L" should be the length given below or less.

Model	Arm length L
CKZT40	150 mm
CKZT50	150 mm
CKZT63	300 mm
CKZT80	400 mm

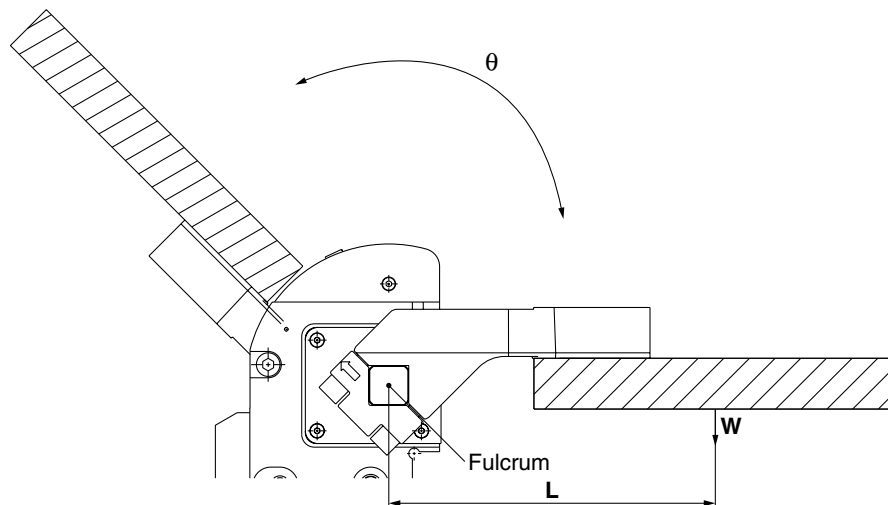
Relation between clamp arm length and clamping force



Allowable load for clamp arm end

Refer to the graph on pages 190 and 191 for parts weight of the arm.

Use within the allowable arm end load range according to the distance "L" from the fulcrum to the mounting tool's center position and the arm opening angle "θ".

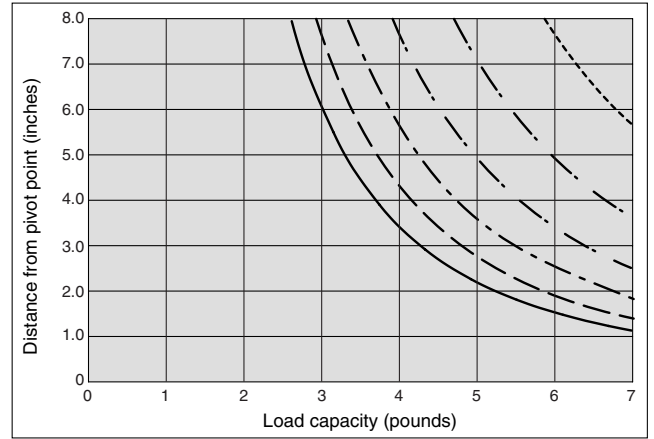
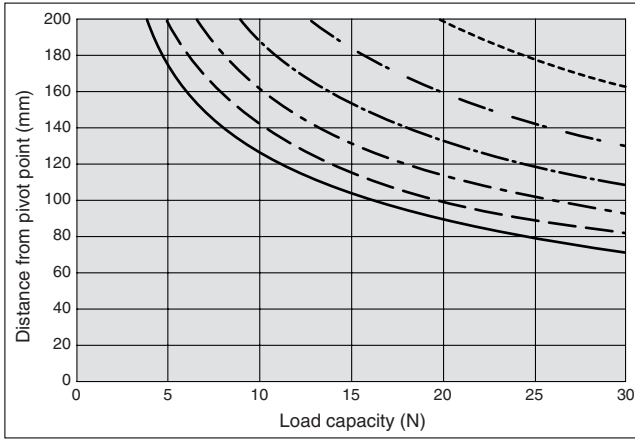


- CK□1
- CLK2
- For Asia C(L)KQ□
- MK2T/MK2/MK
- For North America CKZ2N
- For Europe CKZT
- For France CLKZ1R
- Special CK□/M(D)UKA

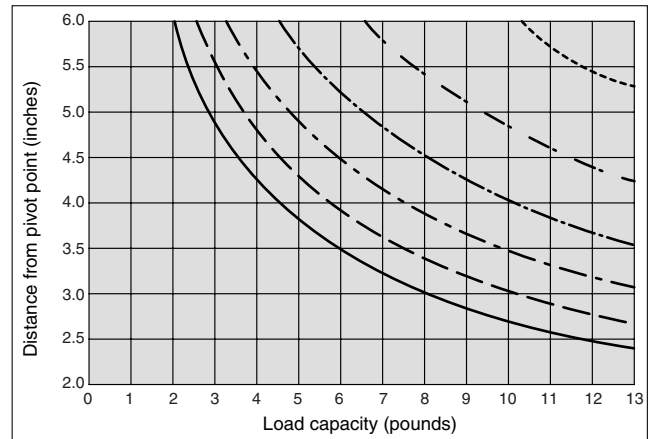
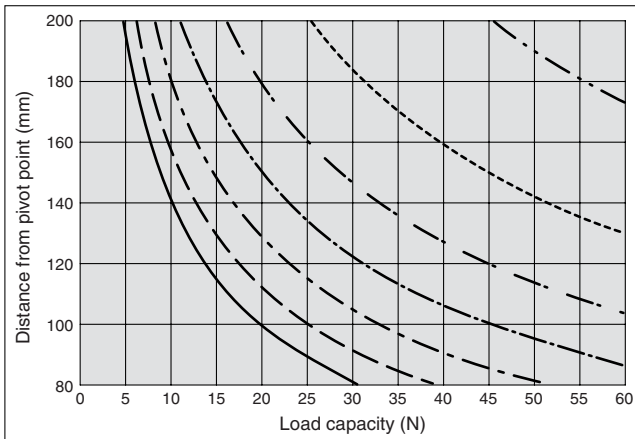
Model Selection

3 Clamp arm

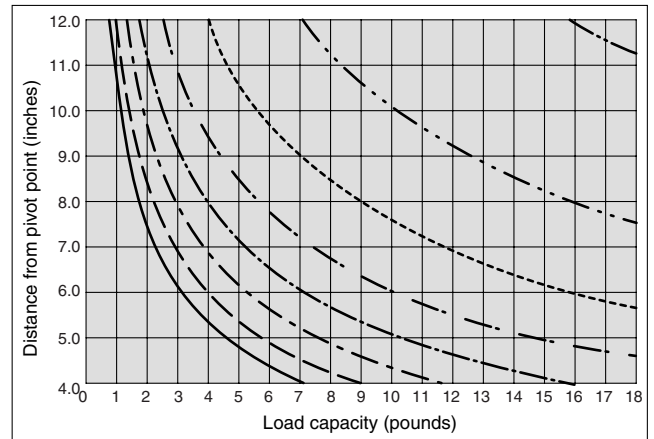
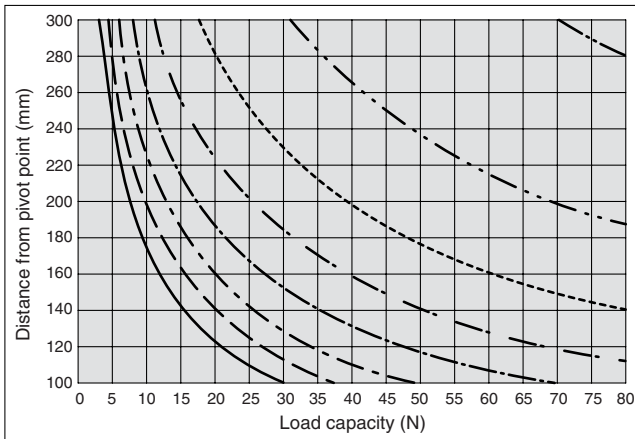
ø40



ø50



ø63

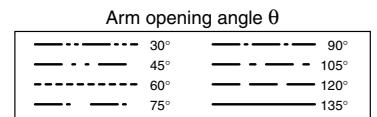
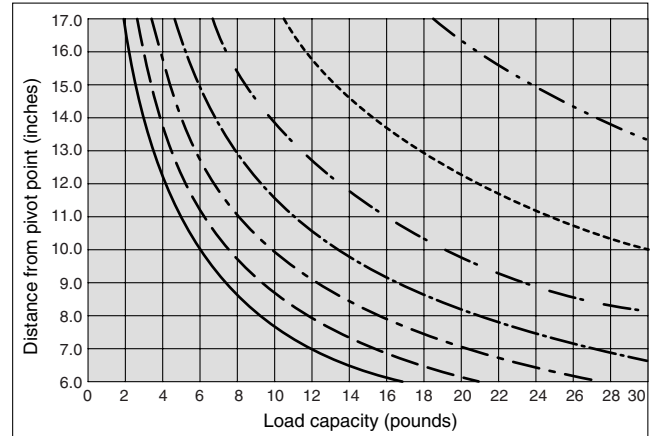
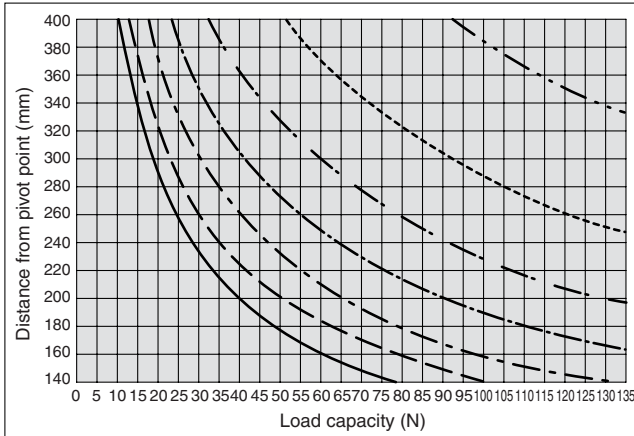


Arm opening angle θ

—	30°	—	90°
- - -	45°	- - -	105°
· · ·	60°	· · ·	120°
- · -	75°	- · -	135°

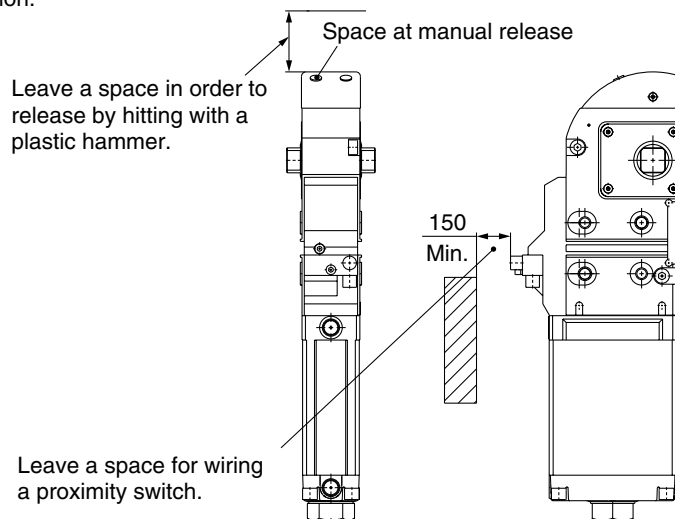
3 Clamp arm

ø80



4 Space in design

Leave a space in the below position.



For Asia
 CK□1
 CLK2
 C(L)KQ□
 MK2T/MK2/MK
 For North America
 CKZ2N
 For Europe
 CKZT
 For France
 CLKZ1R
 Special
 CK□/M(D)UKA

Power Clamp Cylinder

Series CKZT

ø40, ø50, ø63, ø80



How to Order

Clamp Cylinder (Without Arm)

CKZT 63 TN - 120 T

Power clamp cylinder
European type

Bore size

40	ø40
50	ø50
63	ø63
80	ø80

Cylinder port

Nil	G
TN	NPT

Switch type

T	TURCK
P	P&F

Arm mounting position

30	30°
45	45°
60	60°
75	75°
90	90°
105	105°
120	120°
135	135°

Clamp Arm

CKZT 40 - A015 C S

Power clamp cylinder
European type

Bore size

40	ø40
50	ø50
63	ø63
80	ø80

Offset

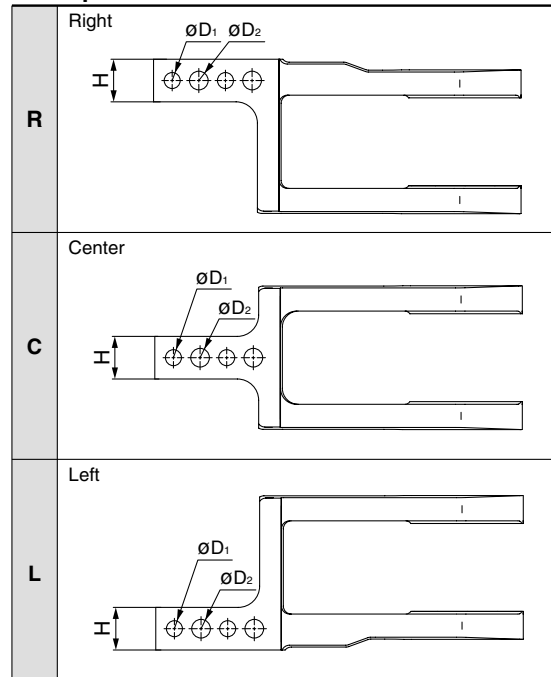
A015	Offset 15
A045	Offset 45

Mounting hole

Symbol	Bore size	D ₁	D ₂	H
S	40*	6	7	16
	50	6	9	20
	63	6	9	20
	80	6	9	25
B	40	8	10.2	20
	50	8	10.2	20
	63	8	10.2	20
	80	8	10.2	25

* For ø40 of A015, S type only

Arm position



Cylinder Specifications

Bore size (mm)	40	50	63	80
Action	Double acting			
Fluid	Air			
Proof pressure	1.2 MPa (174 psi)			
Max. operating pressure	0.8 MPa (116 psi)			
Min. operating pressure	0.3 MPa (44 psi)			
Ambient and fluid temperature	-10 to 60°C (14 to 140°F)			
Cushion	Clamping side: None Unclamping side: Rubber bumper			
Min. operating time	1.0 second to clamp, 1.0 second to unclamp			

Weight (Cylinder Without Arm)

Unit: kg (lbs)

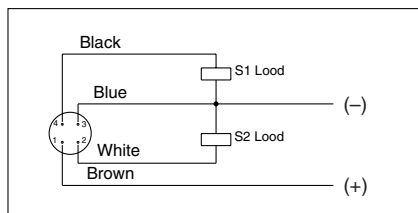
Bore size (mm)	Arm angle							
	30°	45°	60°	75°	90°	105°	120°	135°
40	1.57 (3.45)	1.57 (3.45)	1.57 (3.45)	1.57 (3.45)	1.56 (3.43)	1.56 (3.43)	1.56 (3.43)	1.56 (3.43)
50	5.21 (11.46)	5.19 (11.42)	5.17 (11.37)	5.15 (11.33)	5.12 (11.26)	5.09 (11.20)	5.07 (11.15)	5.06 (11.13)
63	7.37 (16.21)	7.34 (16.15)	7.31 (16.08)	7.28 (16.02)	7.24 (15.93)	7.21 (15.86)	7.18 (15.80)	7.16 (15.75)
80	17.20 (37.84)	17.13 (37.69)	17.07 (37.55)	17.00 (37.40)	16.93 (37.25)	16.86 (37.09)	16.80 (36.96)	16.76 (36.87)

Switch Specifications

Manufacturer	TURCK	P&F
Operating range	2 mm ± 10%	2 mm ± 10%
Supply voltage	10 to 30 VDC	10 to 30 VDC
Output	N.O., PNP	N.O., PNP
Continuous load current	150 mA	100 mA
Response frequency	30 Hz	25 Hz
Housing material	PBT-GP30	PA6, PBT
Output indication	Clamping side: Red Unclamping side: Yellow	Clamping side: Red Unclamping side: Yellow
Voltage indication	Green	Green

Note) Switch specifications are corresponding to manufacturer's technical information.

Wiring Diagram



Note) Both TURCK and P&F are common.

CK□1

CLK2

For Asia

C(L)K□

MK2T/MK2/MK

For North America

CKZ2N

For Europe

CKZT

For France

CLKZ1R

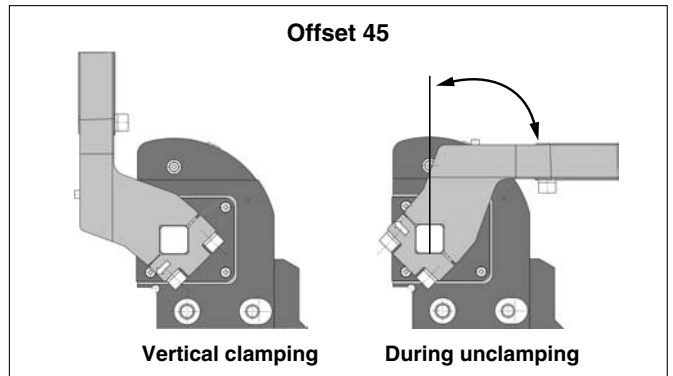
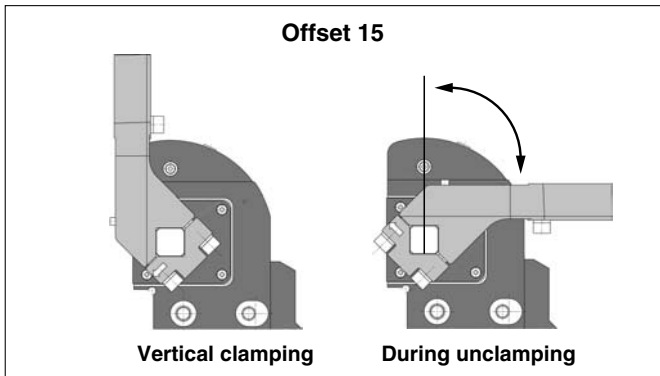
Special

CK□/M(D)JKA

⚠ Caution

1. When mounted vertically, the maximum opening angle is different from the standard specifications.

The opening angle is different from standard specifications depending on the arm offset, bore size and clamp arm. Refer to the following for details.



Offset 15

Bore size (mm)	Opening angle range	Clamp arm part no.	Mounting hole	
			Recommended mounting bolt*	
40	30° to 105°	CKZT40-A015□S	ø7	M6
			ø9	M8
50	30° to 90°	CKZT50-A015□S	ø10.2	M10
			ø9	M8
	30° to 105°	CKZ50-42 ^A _B 3680N-R**	ø10.2	M10
			ø9	M8
63	30° to 90°	CKZT63-A015□S	ø10.2	M10
			ø9	M8
	30° to 105°	CKZ63-42 ^A _B 3680N-R**	ø10.2	M10
			ø9	M8
80	30° to 90°	CKZT80-A015□S	ø10.2	M10
			ø9	M8
	30° to 105°	CKZ80-42 ^A _B 3680N-R**	ø10.2	M10
			ø9	M8

Offset 45

Bore size (mm)	Opening angle range	Clamp arm part no.	Mounting hole	
			Recommended mounting bolt*	
40	30° to 135°	CKZT40-A045□S	ø7	M6
			ø10.2	M10
50	30° to 120°	CKZT50-A045□S	ø9	M8
			ø10.2	M10
63	30° to 120°	CKZT63-A045□S	ø9	M8
			ø10.2	M10
80	30° to 105°	CKZT80-A045□S	ø9	M8
			ø10.2	M10

* For mounting bolt, a hexagon socket head cap screw and a spring washer No. 2 are recommended.

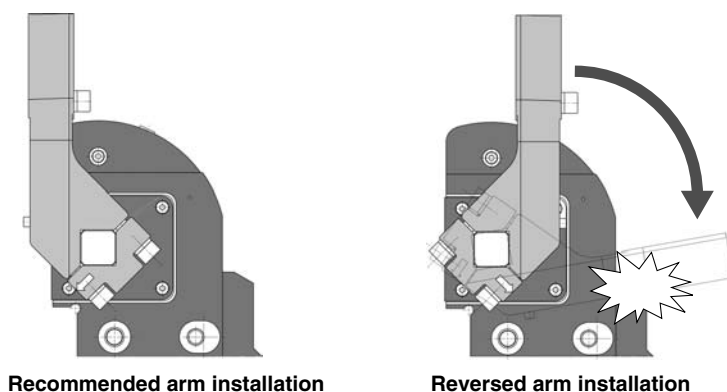
* For mounting bolt, a hexagon socket head cap screw and a spring washer No. 2 are recommended.

** Use the attached spring washer.

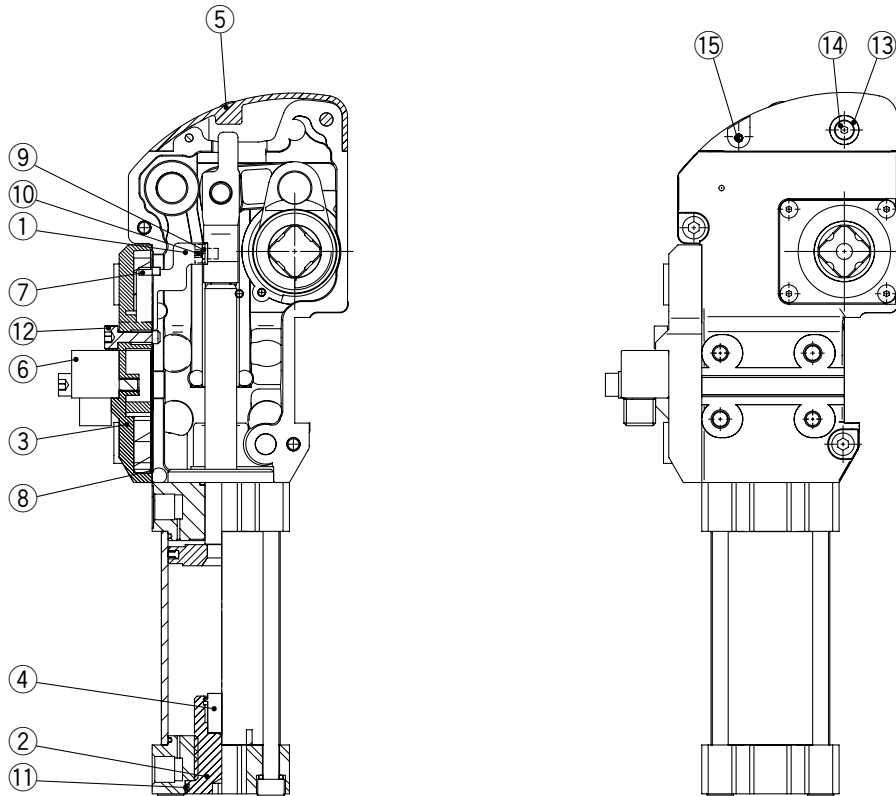
2. When mounted vertically, use caution since the arm may interfere with the equipment, jig or mounting bolt.

Please follow the "Recommended arm installation" instructions when setting the arm in a vertical clamping position.

When installing the arm backwards, use caution as the arm may interfere with the equipment, jig or mounting bolt.



Construction (40)



Replaceable Kits List

Description	Bore size (mm)	Kit no.	Contents
Switch cassette	40	CKZT-S040 ^T Note 1) _P	③ Switch holder ⑥ Proximity switch ⑦ Parallel pin ⑧ Sheet gasket ⑫ Cover cap screw
Kits for changing opening angle of arm	40	CKZT-D040□ ^{Note 2)}	① Stay ⑨ Spring washer ⑩ Socket head cap screw
		CKZT-B040□ ^{Note 2)}	② Stopper bolt ④ Bumper ⑪ O ring
		CKZT-K040□ ^{Note 2)}	CKZT-D040□ CKZT-B040□
Top cover kits	40	CKZT-T040	⑤ Top cover ⑬ Spacer ⑭ Short head cap screw ⑮ Spring pin

Note 1) T = TURCK, P = P&F

Note 2) Please specify the opening angle by the code in Table 1.

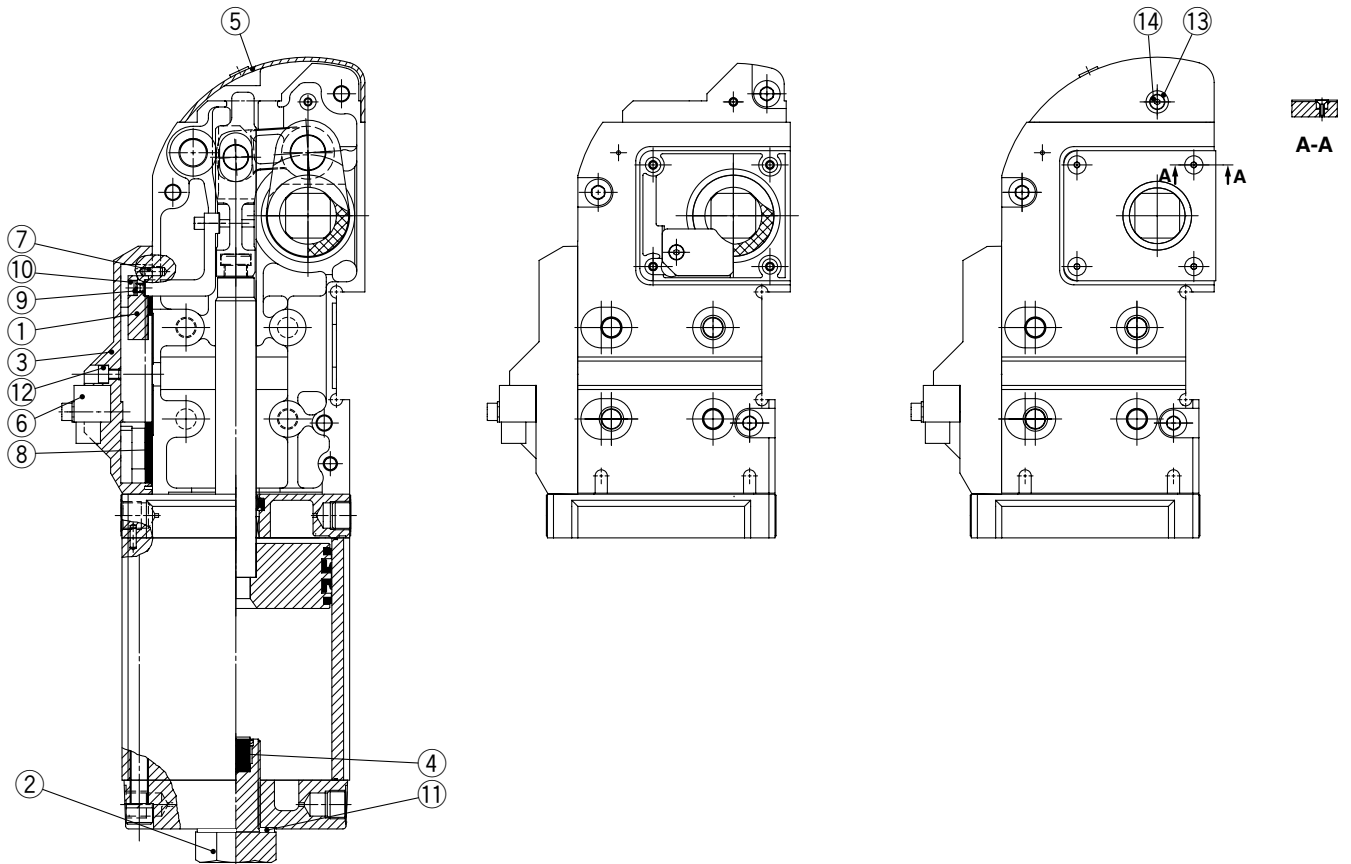
Table 1

Opening angle	Code
30°	H
45°	G
60°	F
75°	E
90°	D
105°	C
120°	B
135°	A

For Asia: CK□1, CLK2, C(L)KQ□, MK2T/MK2/MK
 For North America: CKZ2N
 For Europe: CKZT
 For France: CLKZ1R
 Special: CK□/M(D)JKA

Series CKZT

Construction (50, 63, 80)



Replaceable Kits List

Description	Bore size (mm)	Kit no.	Contents
Switch cassette	50	CKZ1N-S050 ^T Note 1) _P	③ Switch holder ⑥ Proximity switch
	63	CKZ1N-S063 ^T Note 1) _P	⑦ Parallel pin ⑧ Sheet gasket
	80	CKZ1N-S080 ^T Note 1) _P	⑫ Cover cap screw
Kits for changing opening angle of arm	50	CKZN-D050□ Note 2)	① Switch actuator ⑨ Spring washer ⑩ Socket head cap screw
		CKZN-B050□ Note 2)	② Stopper bolt ④ Bumper ⑪ Seal washer
		CKZN-K050□ Note 2)	CKZN-D050□ CKZN-B050□
	63	CKZN-D063□ Note 2)	① Switch actuator ⑨ Spring washer ⑩ Socket head cap screw
		CKZN-B063□ Note 2)	② Stopper bolt ④ Bumper ⑪ Seal washer
		CKZN-K063□ Note 2)	CKZN-D063□ CKZN-B063□
	80	CKZN-D080□ Note 2)	① Switch actuator ⑨ Spring washer ⑩ Socket head cap screw
		CKZN-B080□ Note 2)	② Stopper bolt ④ Bumper ⑪ Seal washer
		CKZN-K080□ Note 2)	CKZN-D080□ CKZN-B080□
Top cover kits	50	CKZ2N-T050	⑤ Top cover
	63	CKZ2N-T063	⑬ Spacer
	80	CKZ2N-T080	⑭ Short head cap screw

Table 1

Opening angle	Code
30°	H
45°	G
60°	F
75°	E
90°	D
105°	C
120°	B
135°	A

Note 1) T = TURCK, P = P&F

Note 2) Please specify the opening angle by the code in Table 1.

Allowable Locking Moment

Bore size (mm)	Allowable locking moment	
	N·m	lbf·in
40	380	3363
50	800	7080
63	1500	13274
80	2500	22124

* The moment when the clamp arm is locked at the time of air release in the clamped state.

Maximum Clamping Moment

Bore size (mm)	Max. clamping force											
	0.3 MPa		0.4 MPa		0.5 MPa		0.6 MPa		0.7 MPa		0.8 MPa	
	N·m	lbf·in	N·m	lbf·in	N·m	lbf·in	N·m	lbf·in	N·m	lbf·in	N·m	lbf·in
40	35	310	76	673	118	1044	154	1363	178	1575	194	1717
50	100	885	130	1150	160	1416	190	1681	220	1947	250	2212
63	300	2655	350	3097	400	3540	450	3982	500	4425	550	4867
80	560	4956	720	6372	880	7788	1040	9204	1200	10619	1360	12035

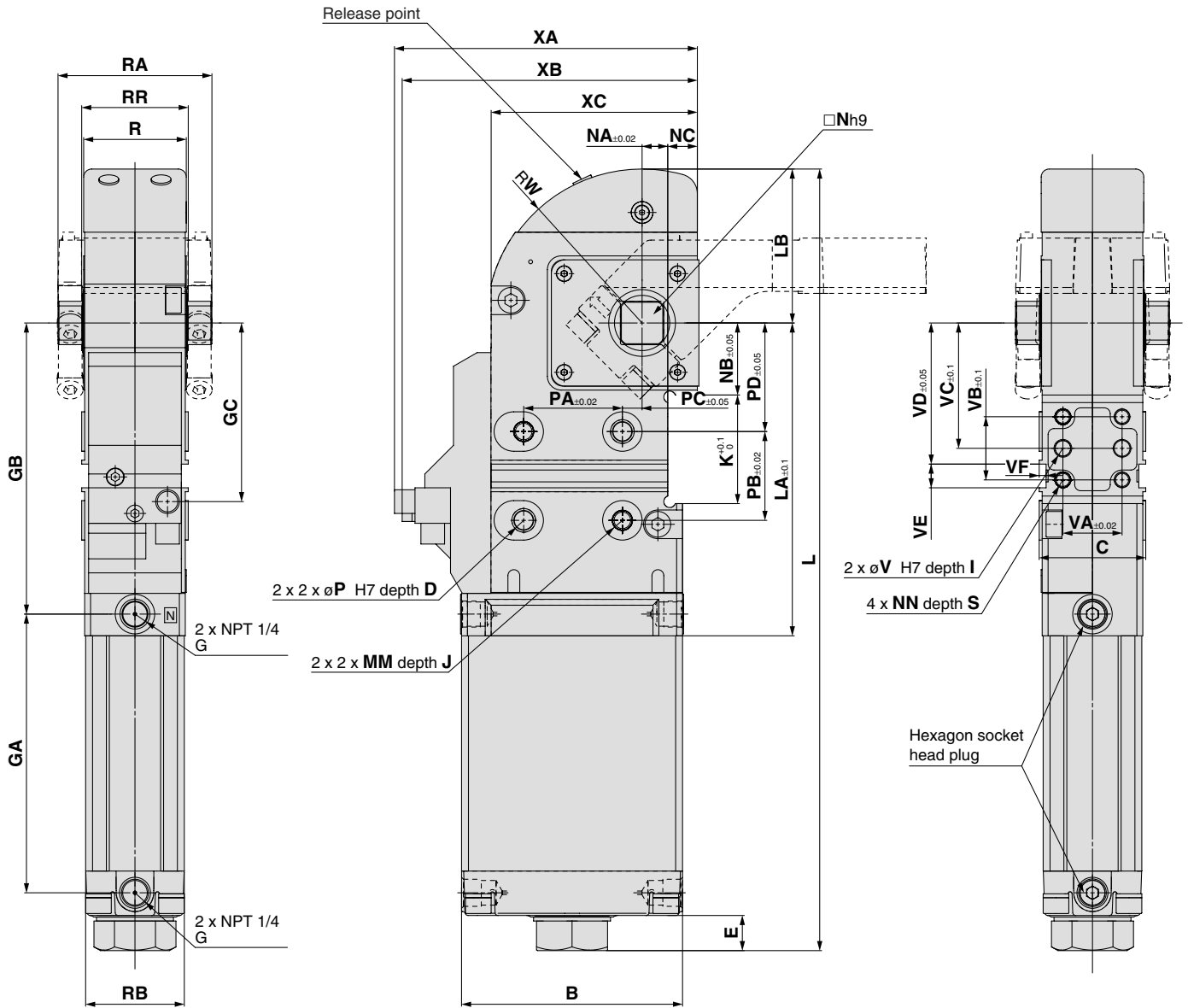
Cylinder Stroke

Angle \ Bore size		Unit: (mm)							
		30°	45°	60°	75°	90°	105°	120°	135°
40		26.8	33.3	39.6	45.9	52.3	58.4	63.6	67.3
50		31.1	38.9	46.4	54.1	61.9	69.6	76.4	81.3
63		34.1	42.5	50.5	58.6	66.8	74.7	81.5	86.3
80		47.3	59.4	71.1	83.2	95.7	108.0	119.1	127.3

CK□1
CLK2
C(L)KQ□
MK2T/MK2/MK
CKZ2N
CKZT
CLKZ1R
CK□/M(D)UKA

Dimensions (Clamp Cylinder Without Arm)

CKZT50, 63, 80



Bore size (mm)	B	C	D	E	GA	GB	GC	I	J	K	L	LA	LB	MM	N	NA	NB	NC	NN	P
50	95	48	12	13.7	134.3	138.5	93	10	12	55	376.4	149.5	78.4	M10 x 1.5	19	13	36.5	10.3	M8 x 1.25	10
63	112	54	12	16.6	141.2	147.5	90.5	10	12	55	395.6	158.5	78	M10 x 1.5	22	13	36.5	15.8	M8 x 1.25	10
80	154	76	13	19.6	185.8	199	137.5	12	18	80	530.9	214	113.7	M12 x 1.75	30	21	50	20.8	M10 x 1.5	12

Bore size (mm)	PA	PB	PC	PD	R	RA	RB	RR	S	V	VA	VB	VC	VD	VE	VF	W	XA	XB	XC
50	50	45	10	55	45	68	45	48	11	8	30	32	63.5	71.5	12	3.5	78.4	141.8	137.3	92.8
63	50	45	10	55	52	78	50	54	11	8	30	32	63.5	71.5	12	3.5	78	154.4	150.4	105.3
80	70	75	15	65	70	108	68	76	15	8	50	50	90	96.5	12	3.5	113.7	197.3	192.8	148.3

For Asia: CK□1, CLK2, C(L)K□, MK2T/MK2/MK, CKZ2N

For North America: CKZ2N

For Europe: CKZT

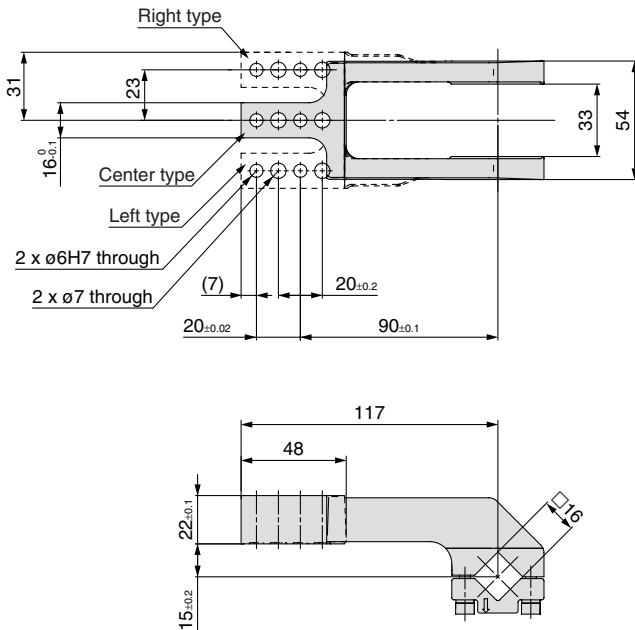
For France: CLKZ1R

Special: CK□(M/D)UKA

Series CKZT

Dimensions (Clamp Arm: Offset 15)

ø40



How to Order

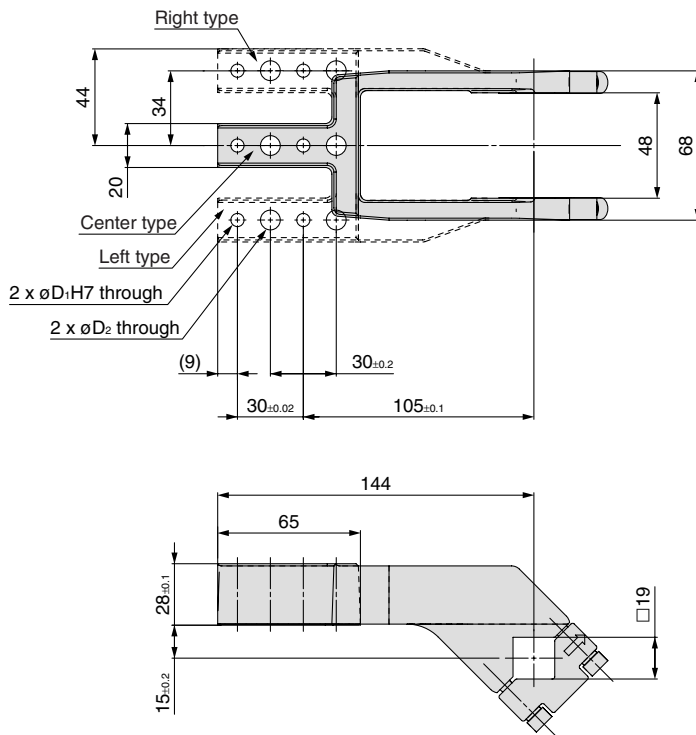
CKZT40-A015 C S

Arm position

C	Center
R	Right
L	Left

Weight	kg (lbs)
CKZT40-A015CS	0.49 (1.08)
CKZT40-A015RS	0.51 (1.12)
CKZT40-A015LS	0.51 (1.12)

ø50



How to Order

CKZT50-A015 C S

Arm position

C	Center
R	Right
L	Left

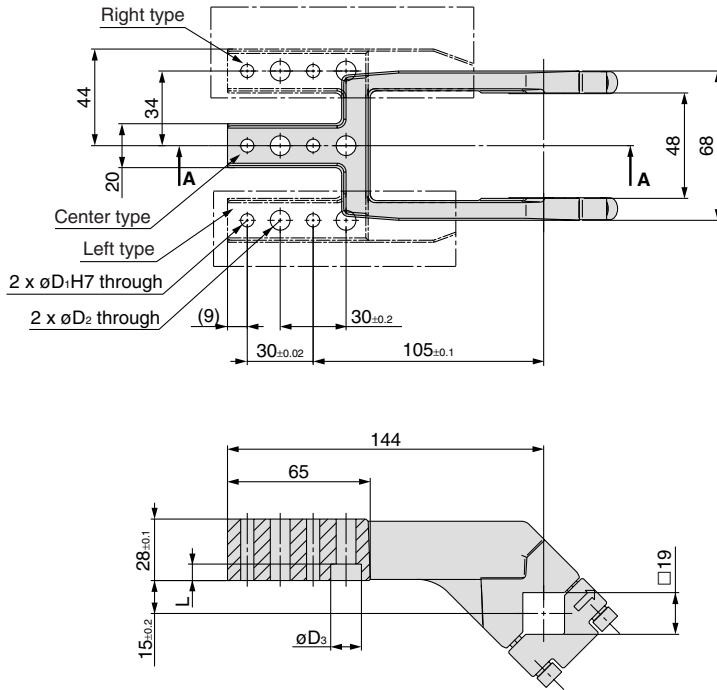
Mounting hole

Symbol	D ₁	D ₂
S	6	9
B	8	10.2

Weight	kg (lbs)
CKZT50-A015CS	0.79 (1.74)
CKZT50-A015CB	0.78 (1.72)
CKZT50-A015RS	0.90 (1.98)
CKZT50-A015RB	0.89 (1.96)
CKZT50-A015LS	0.90 (1.98)
CKZT50-A015LB	0.89 (1.96)

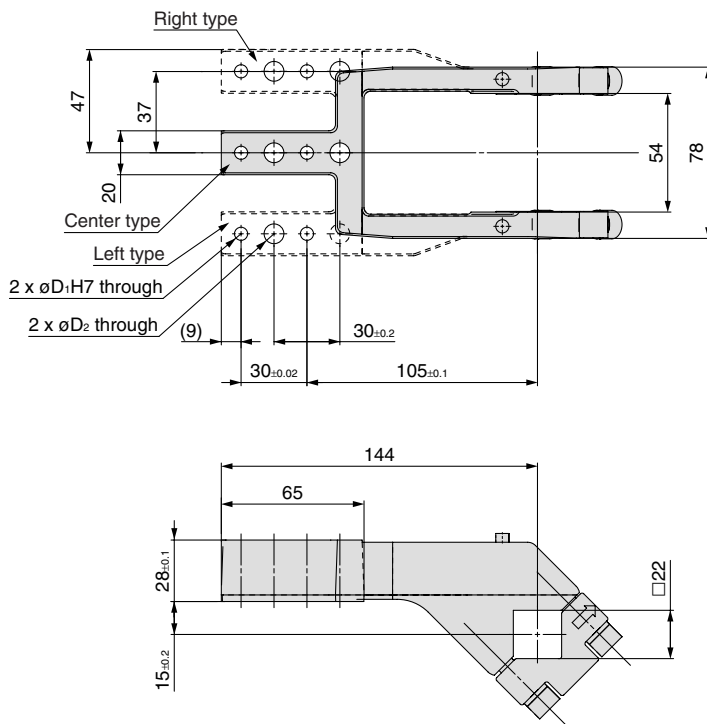
Dimensions (Clamp Arm: Offset 15)

ø50



Sectional view A-A (1:1)

ø63



How to Order

CKZ50-42 **3680N-R**

• **Arm position/Mounting hole**

Symbol	Arm position	Mounting hole			
		D ₁	D ₂	D ₃	L
A	Center	6	9	14	7.5
B	Right	6	9	14	7.5
C	Left	6	9	14	7.5
D	Center	8	10.2	17.5	10.5
E	Right	8	10.2	17.5	10.5
F	Left	8	10.2	17.5	10.5

How to Order

CKZT63-A015 C S

• **Arm position**

C	Center
R	Right
L	Left

• **Mounting hole**

Symbol	D ₁	D ₂
S	6	9
B	8	10.2

Weight kg (lbs)

CKZT63-A015CS	1.02 (2.25)
CKZT63-A015CB	1.01 (2.23)
CKZT63-A015RS	1.10 (2.43)
CKZT63-A015RB	1.08 (2.38)
CKZT63-A015LS	1.10 (2.43)
CKZT63-A015LB	1.08 (2.38)

CK□1

CLK2

For Asia
C(L)KQ□

MK2T/MK2/MK

For North America
CKZ2N

For Europe
CKZT

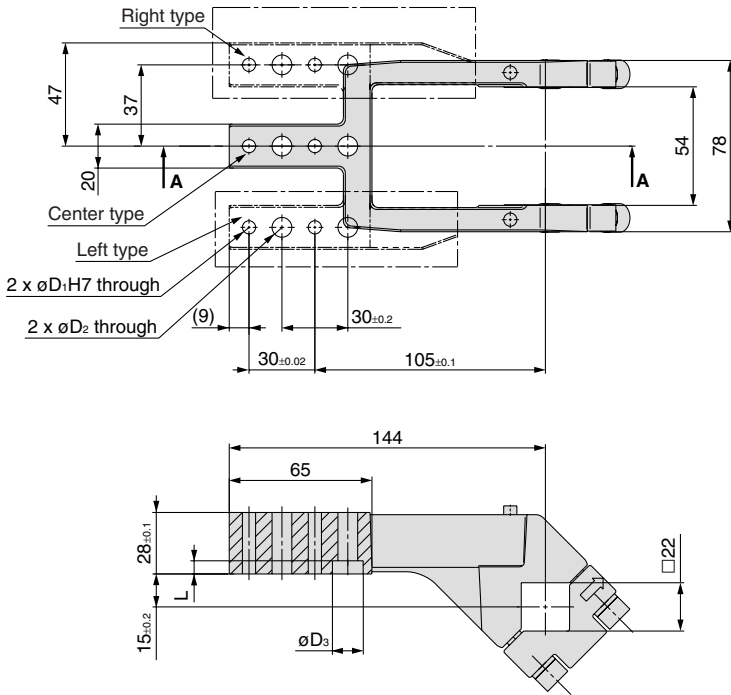
For France
CLKZ1R

Special
CK□/M(D)UKA

Series CKZT

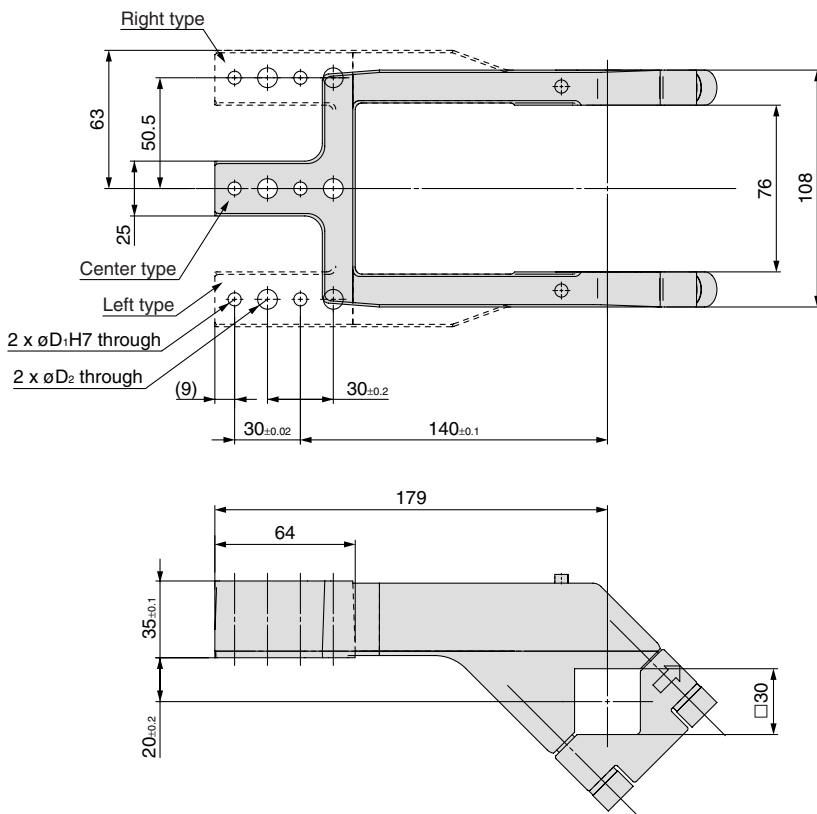
Dimensions (Clamp Arm: Offset 15)

ø63



Sectional view A-A (1:1)

ø80



How to Order

CKZ63-42 **3681N-R**

• Arm position/Mounting hole

Symbol	Arm position	Mounting hole			
		D ₁	D ₂	D ₃	L
A	Center	6	9	14	6
B	Right	6	9	14	6
C	Left	6	9	14	6
D	Center	8	10.2	17.5	8
E	Right	8	10.2	17.5	8
F	Left	8	10.2	17.5	8

How to Order

CKZT80-A015 C S

• Arm position

C	Center
R	Right
L	Left

• Mounting hole

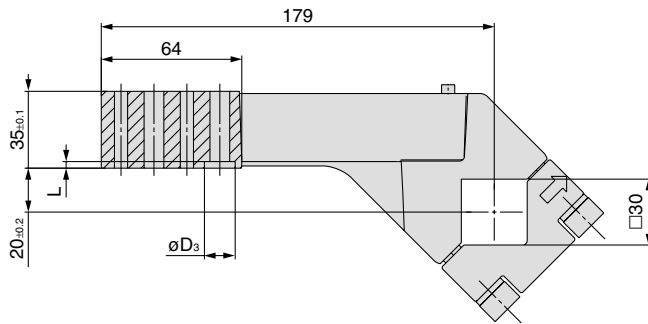
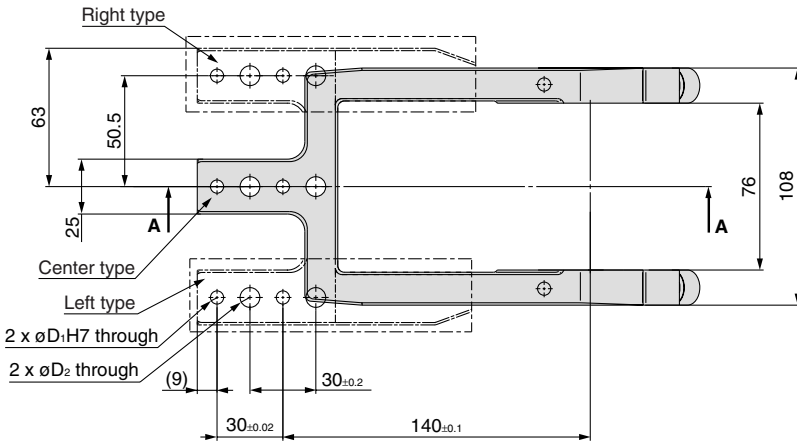
Symbol	D ₁	D ₂
S	6	9
B	8	10.2

Weight kg (lbs)

CKZT80-A015CS	2.17 (4.78)
CKZT80-A015CB	2.16 (4.76)
CKZT80-A015RS	2.21 (4.87)
CKZT80-A015RB	2.19 (4.83)
CKZT80-A015LS	2.21 (4.87)
CKZT80-A015LB	2.19 (4.83)

Dimensions (Clamp Arm: Offset 15)

ø80



Sectional view A-A (1:1)

How to Order

CKZ80-42 **3682N-R**

• **Arm position/Mounting hole**

Symbol	Arm position	Mounting hole			
		D ₁	D ₂	D ₃	L
A	Center	6	9	14	3
B	Right	6	9	14	3
C	Left	6	9	14	3
D	Center	8	10.2	17.5	5.5
E	Right	8	10.2	17.5	5.5
F	Left	8	10.2	17.5	5.5

For Asia

For North America

For Europe

For France

Special

CK□1

CLK2

C(L)KQ□

MK2T/MK2/MK

CKZ2N

CKZT

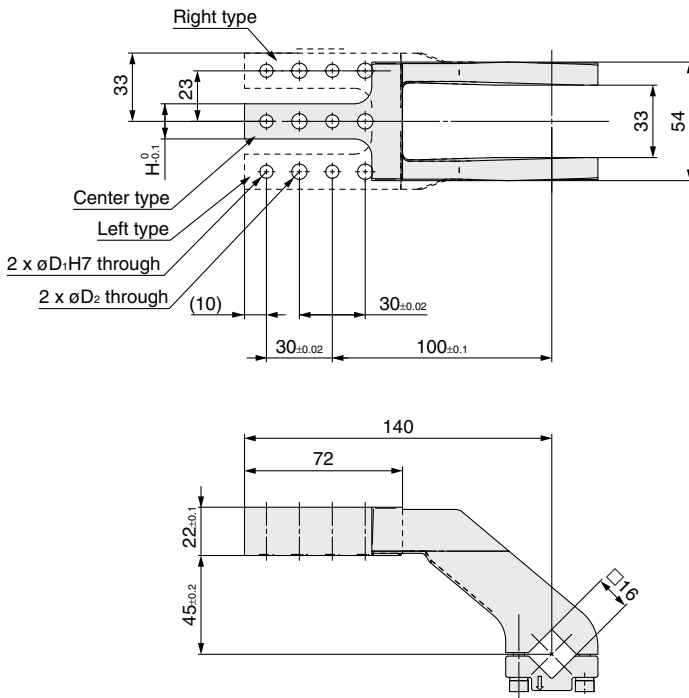
CLKZ1R

CK□/M(D)UKA

Series CKZT

Dimensions (Clamp Arm: Offset 45)

ø40



How to Order

CKZT40 – A045 C S

Arm position ●

C	Center
R	Right
L	Left

Mounting hole ●

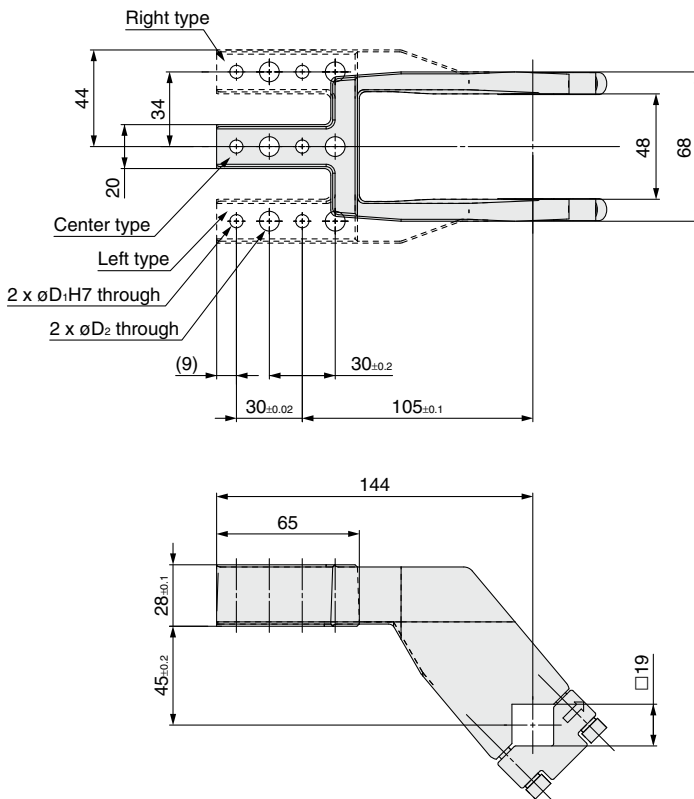
Symbol	D ₁	D ₂	H
S	6	7	16
B	8	10.2	20

Weight

kg (lbs)

CKZT40-A045CS	0.63 (1.39)
CKZT40-A045CB	0.64 (1.41)
CKZT40-A045RS	0.64 (1.41)
CKZT40-A045RB	0.66 (1.46)
CKZT40-A045LS	0.64 (1.41)
CKZT40-A045LB	0.66 (1.46)

ø50



How to Order

CKZT50 – A045 C S

Arm position ●

C	Center
R	Right
L	Left

Mounting hole ●

Symbol	D ₁	D ₂
S	6	9
B	8	10.2

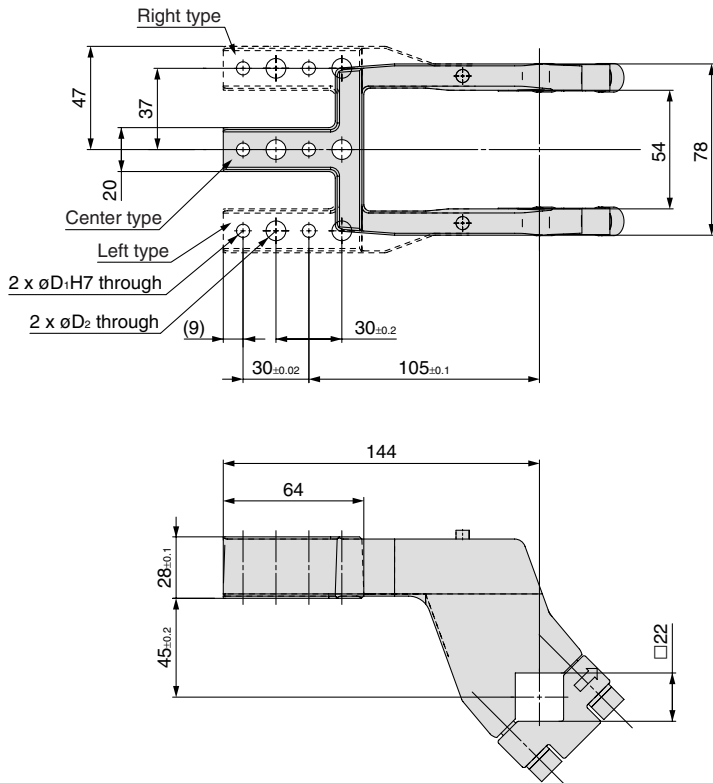
Weight

kg (lbs)

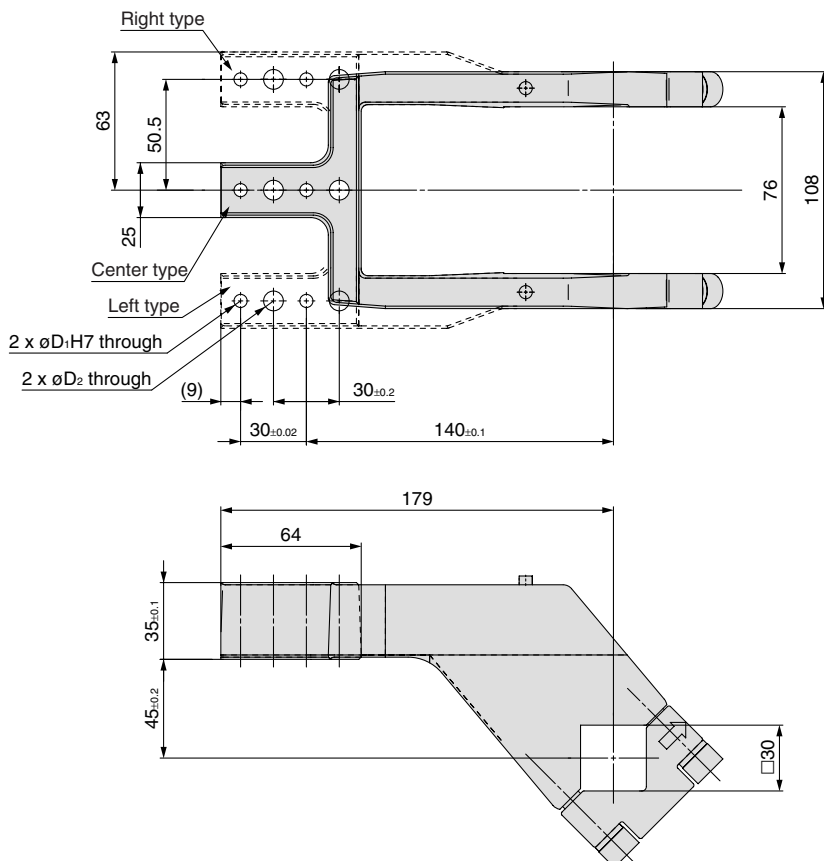
CKZT50-A045CS	0.93 (2.05)
CKZT50-A045CB	0.92 (2.03)
CKZT50-A045RS	1.02 (2.25)
CKZT50-A045RB	1.01 (2.23)
CKZT50-A045LS	1.02 (2.25)
CKZT50-A045LB	1.01 (2.23)

Dimensions (Clamp Arm: Offset 45)

ø63



ø80



How to Order

CKZT63 – A045 C S

Arm position

C	Center
R	Right
L	Left

Mounting hole

Symbol	D ₁	D ₂
S	6	9
B	8	10.2

Weight kg (lbs)

CKZT63-A045CS	1.19 (2.62)
CKZT63-A045CB	1.18 (2.60)
CKZT63-A045RS	1.25 (2.76)
CKZT63-A045RB	1.23 (2.71)
CKZT63-A045LS	1.25 (2.76)
CKZT63-A045LB	1.23 (2.71)

How to Order

CKZT80 – A045 C S

Arm position

C	Center
R	Right
L	Left

Mounting hole

Symbol	D ₁	D ₂
S	6	9
B	8	10.2

Weight kg (lbs)

CKZT80-A045CS	2.46 (5.42)
CKZT80-A045CB	2.44 (5.38)
CKZT80-A045RS	2.61 (5.75)
CKZT80-A045RB	2.59 (5.71)
CKZT80-A045LS	2.61 (5.75)
CKZT80-A045LB	2.59 (5.71)

For Asia: CK□1, CLK2, C(L)KQ□, MK2T/MK2/MK

For North America: CK22N

For Europe: CKZT

For France: CLKZ1R

Special: CK□/M(D)UKA

Series CKZT Made to Order 1

Contact SMC for detailed dimensions, specifications and delivery.



1 Power clamp cylinder with metal cover



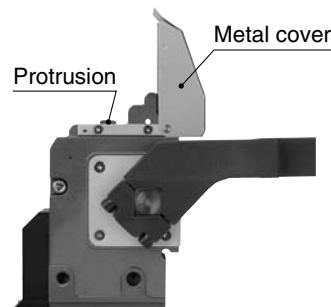
- Applicable model
CKZT40, 50, 63, 80
- Applicable to Arc-melting-resistant line
- In addition to the existing rubber cover type, Opening/closing metal cover type is available for releasing part of the toggle construction.

Cylinder Specifications

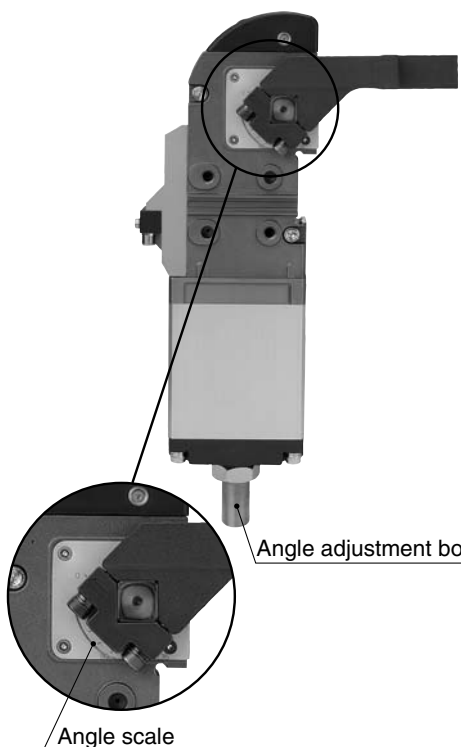
Bore size (mm)	50	63	80
Angle	30°, 45°, 60°, 75°, 90°, 105°, 120°, 135°		
Cushion	Unclamping side: Rubber bumper		
Maximum operating pressure	0.8 MPa (116 psi)		
Ambient and fluid temperature	-10 to 60°C (14 to 140°F)		
Minimum operating time	1.0 sec. to clamp, 1.0 sec. to unclamp		

Manual toggle release

The toggle link mechanism can be released easily by opening the metal cover and hitting the portion of the protrusion by using of plastic hammer (hammer made of soft material), etc.



2 Power clamp cylinder with angle adjustment



- Applicable model
CKZT40, 50, 63, 80
- Unclamped opening angle can be adjusted by one process. (no need to adjust the proximity switch)
- Adjustable range: 30° to 135°
- With angle scale

Cylinder Specifications

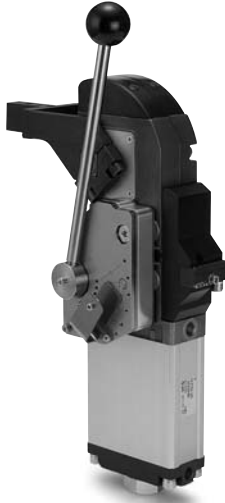
Bore size (mm)	40	50	63	80
Angle	30° to 135°			
Cushion	Unclamping side: Rubber bumper			
Maximum operating pressure	0.8 MPa (116 psi)			
Ambient and fluid temperature	-10 to 60°C (14 to 140°F)			
Minimum operating time	1.0 sec. to clamp, 1.0 sec. to unclamp			

Series CKZT Made to Order 2

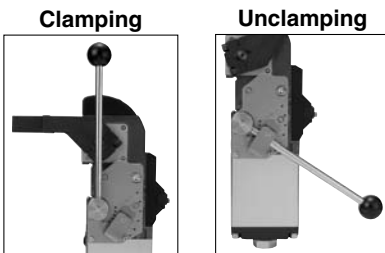
Contact SMC for detailed dimensions, specifications and delivery.



3 Power clamp cylinder with manually operated handle



* The photo shows handle position L.



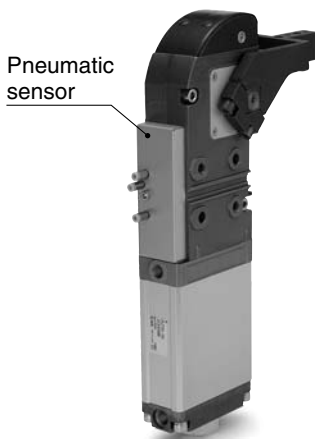
- Applicable model
CKZT50, 63, 80
- Applicable to equipment requiring manual clamps.
- Self-weight drop prevention when unclamping

Series	Angle	Special order part no.	
		Handle position R	Handle position L
CKZT50	30°, 45°, 60°, 75°	CKZT50-□-DCN017AN	CKZT50-□-DCN018AN
CKZT63	90°, 105°, 120°	CKZT63-□-DCN019AN	CKZT63-□-DCN020AN
CKZT80	30°, 45°, 60°, 75°, 90°, 105°	CKZT80-□-DCN021AN	CKZT80-□-DCN022AN

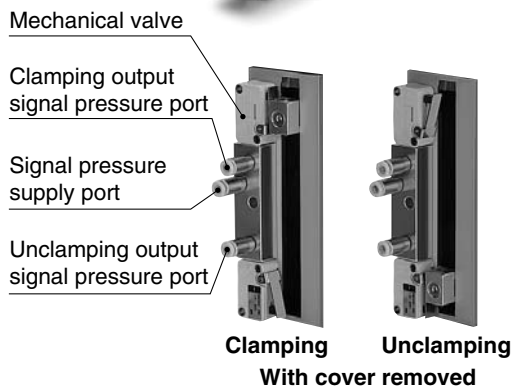
Cylinder Specifications

Bore size (mm)	50	63	80
Angle	30°, 45°, 60°, 75°, 90°, 105°, 120°		30°, 45°, 60°, 75°, 90°, 105°
Cushion	Unclamping side: Rubber bumper		
Maximum operating pressure	0.8 MPa (116 psi)		
Ambient and fluid temperature	-10 to 60°C (14 to 140°F)		
Minimum operating time	1.0 sec. to clamp, 1.0 sec. to unclamp		

4 Power clamp cylinder with pneumatic sensor



Pneumatic sensor



- Applicable model
CKZT50, 63, 80
- Applicable to all air circuit equipment.
- Built-in mechanical valve. Position detection is possible at clamping or unclamping according to the signal received from the mechanical valve.

Cylinder Specifications

Bore size (mm)	50	63	80
Angle	30°, 45°, 60°, 75°, 90°, 105°, 120°, 135°		
Cushion	Unclamping side: Rubber bumper		
Maximum operating pressure	0.8 MPa (116 psi)		
Ambient and fluid temperature	-10 to 60°C (14 to 140°F)		
Minimum operating time	1.0 sec. to clamp, 1.0 sec. to unclamp		

For Asia: CK□1, CLK2, C(L)K□□, MK2T/MK2/MK
 For North America: CKZ2N
 For Europe: CKZT
 For France: CLKZ1R
 Special: CK□/M(D)JKA

Series CKZT

Made to Order 3

Contact SMC for detailed dimensions, specifications and delivery.



5 Unclamped opening angle 15° kit (for change of angle)



- Applicable model
CKZT40, 50, 63, 80
- In addition to the standard unclamped opening angle, 15° specification is available.
- Unclamped opening angle can be changed to 15° without disassembling the toggle construction.

Cylinder Specifications

Bore size (mm)	50	63	80
Angle	15°		
Cushion	Unclamping side: Rubber bumper		
Maximum operating pressure	0.8 MPa (116 psi)		
Ambient and fluid temperature	-10 to 60°C (14 to 140°F)		
Minimum operating time	1.0 sec. to clamp, 1.0 sec. to unclamp		



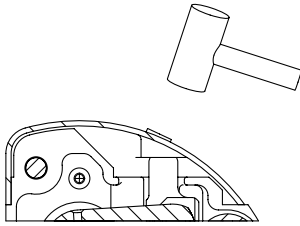
Series CKZT Specific Product Precautions

Be sure to read this before handling. Refer to pages 222 and 223 for Safety Instructions and “Precautions for Handling Pneumatic Devices” (M-03-E3A) for Actuator Precautions.

1. Manual toggle release

The toggle link mechanism can be released easily by hitting the portion of round shaped projection on the cover by using of plastic hammer (hammer made of soft material), etc.

Please be sure to perform manual toggle release after safety has been confirmed because the clamp arm can suddenly move up during manual release.



2. Do not disassemble the power clamp

No special maintenance is necessary because the power clamp has a fully enclosed design to protect the clamp against welding spatter, and also the power clamp has a contamination resistant construction. So, please do not disassemble the power clamp except changing replaceable parts as there is a possibility of deterioration of the clamp performance.

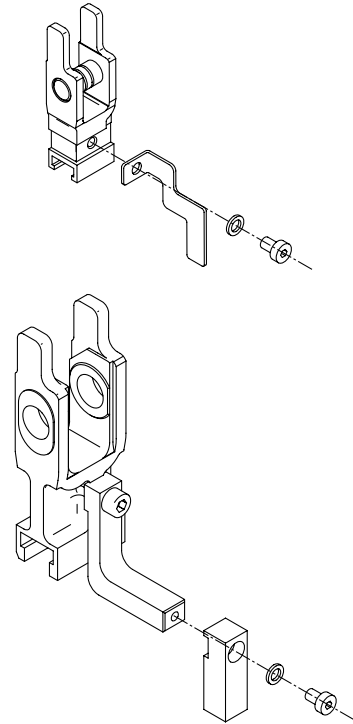
3. Tightening torque of spare parts

Please make sure to tighten spare parts recommended in accordance with the following torque shown in the table.

Description	Bore size (mm)	Tightening torque	
		N·m	lbf·in
Switch cassette kit	40	3.0 to 4.0	27 to 35
	50	5.0 to 7.0	44 to 62
	63	5.0 to 7.0	44 to 62
	80	5.0 to 7.0	44 to 62
Switch bracket kit	40	1.5 to 2.0	13 to 18
	50	3.0 to 4.0	27 to 35
	63	3.0 to 4.0	27 to 35
	80	3.0 to 4.0	27 to 35
Stopper bolt kit	40	12.5 to 17.0	110 to 150
	50	130 to 150	1150 to 1327
	63	160 to 200	1416 to 1770
	80	480 to 520	4248 to 4600
Top cover kit	40	1.5 to 2.0	13 to 18
	50	2.5 to 3.0	22 to 27
	63	2.5 to 3.0	22 to 27
	80	3.0 to 5.0	27 to 44

Note: (1) Please make sure that the switch cassette is tightly secured to the body when it has been replaced with a new one.

(2) Please make sure that the dog is mounted so that the stamped side is secured as shown below if replacing.



4. Clamp Arm Tightening Torque

Bore size (mm)	Tightening torque	
	N·m	lbf·in
40	6 to 9	53 to 80
50	12 to 15	106 to 133
63	15 to 20	133 to 177
80	18 to 24	159 to 212

For Asia CK□1
 CLK2
 C(L)KQ□
 MK2T/MK2/MK
 For North America CKZ2N
 For Europe CKZT
 For France CLKZ1R
 Special CK□/M(D)UKA