

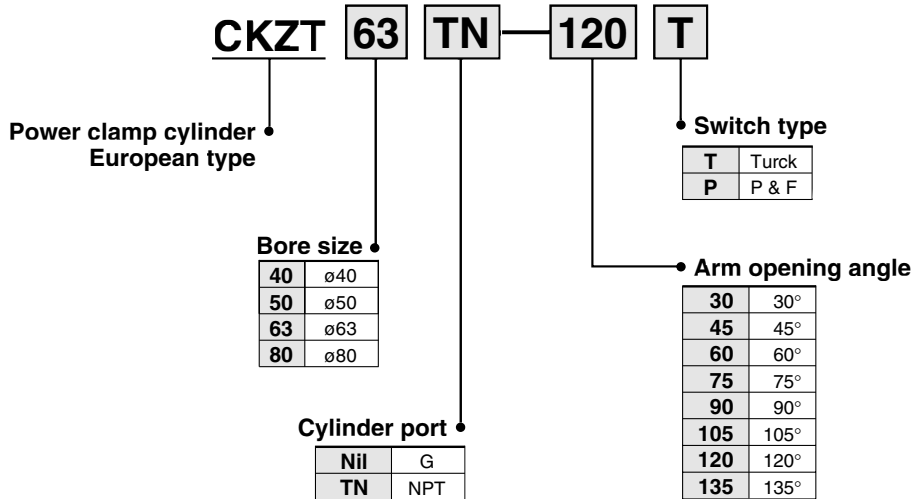
Power Clamp Cylinder

Series CKZT

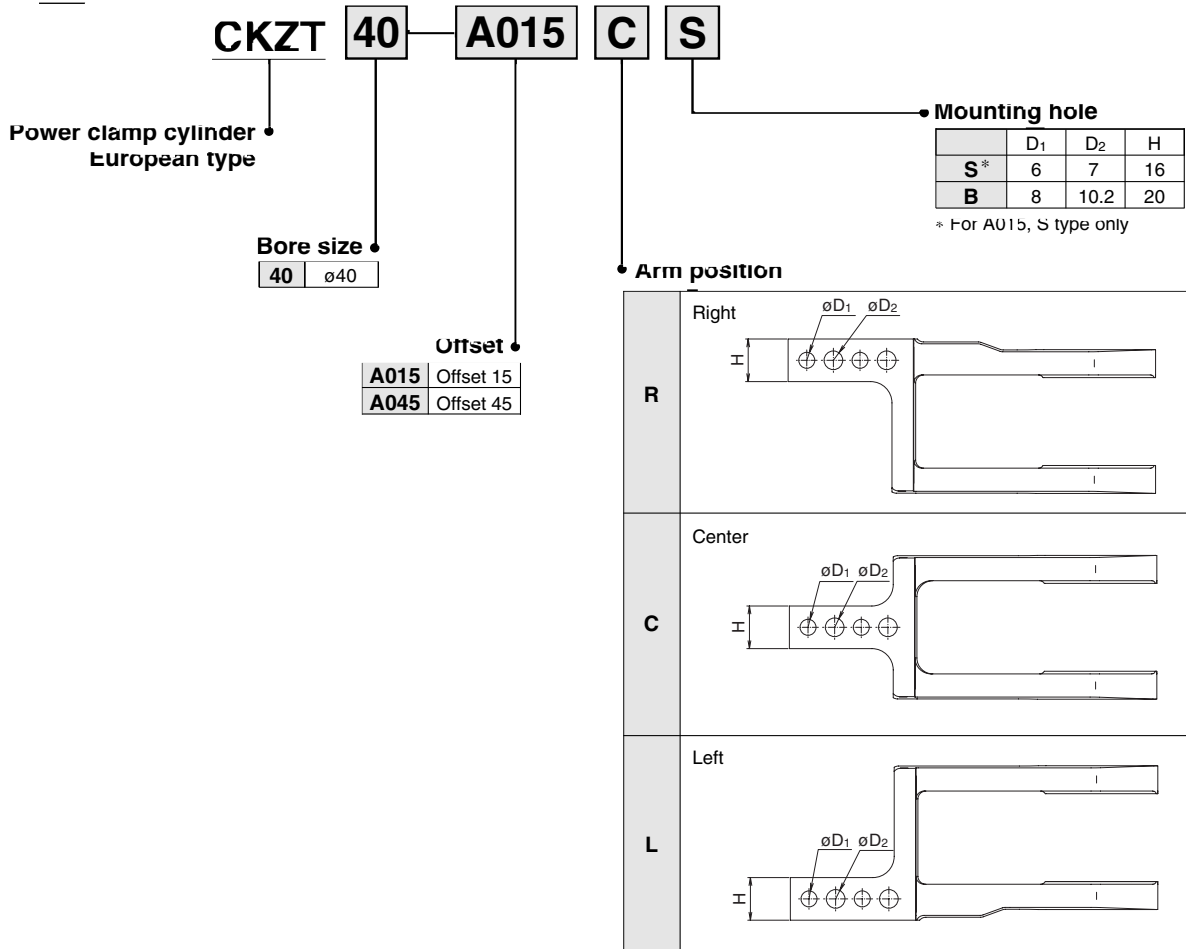
ø40, ø50 ø63, ø80

How to Order

Clamp Cylinder Without Arm



Clamp Arm (40)



Series CKZT

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)

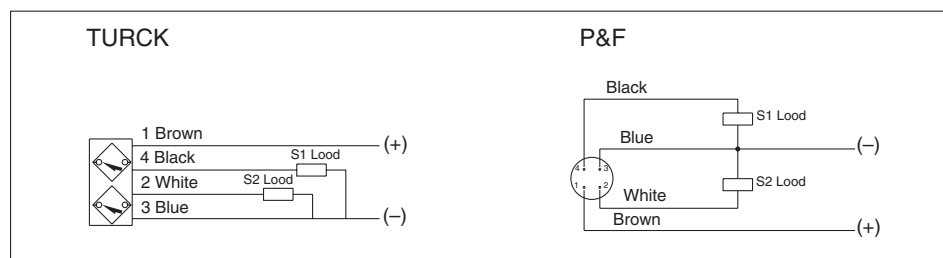
Bore size (mm)	Arm angle							
	30°	45°	60°	75°	90°	105°	120°	135°
40	1.57 (3.45)	1.57 (3.45)	1.57 (3.45)	1.57 (3.45)	1.56 (3.43)	1.56 (3.43)	1.56 (3.43)	1.56 (3.43)
50	5.21 (11.46)	5.19 (11.42)	5.17 (11.37)	5.15 (11.33)	5.12 (11.26)	5.09 (11.20)	5.07 (11.15)	5.06 (11.13)
63	7.37 (16.21)	7.34 (16.15)	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

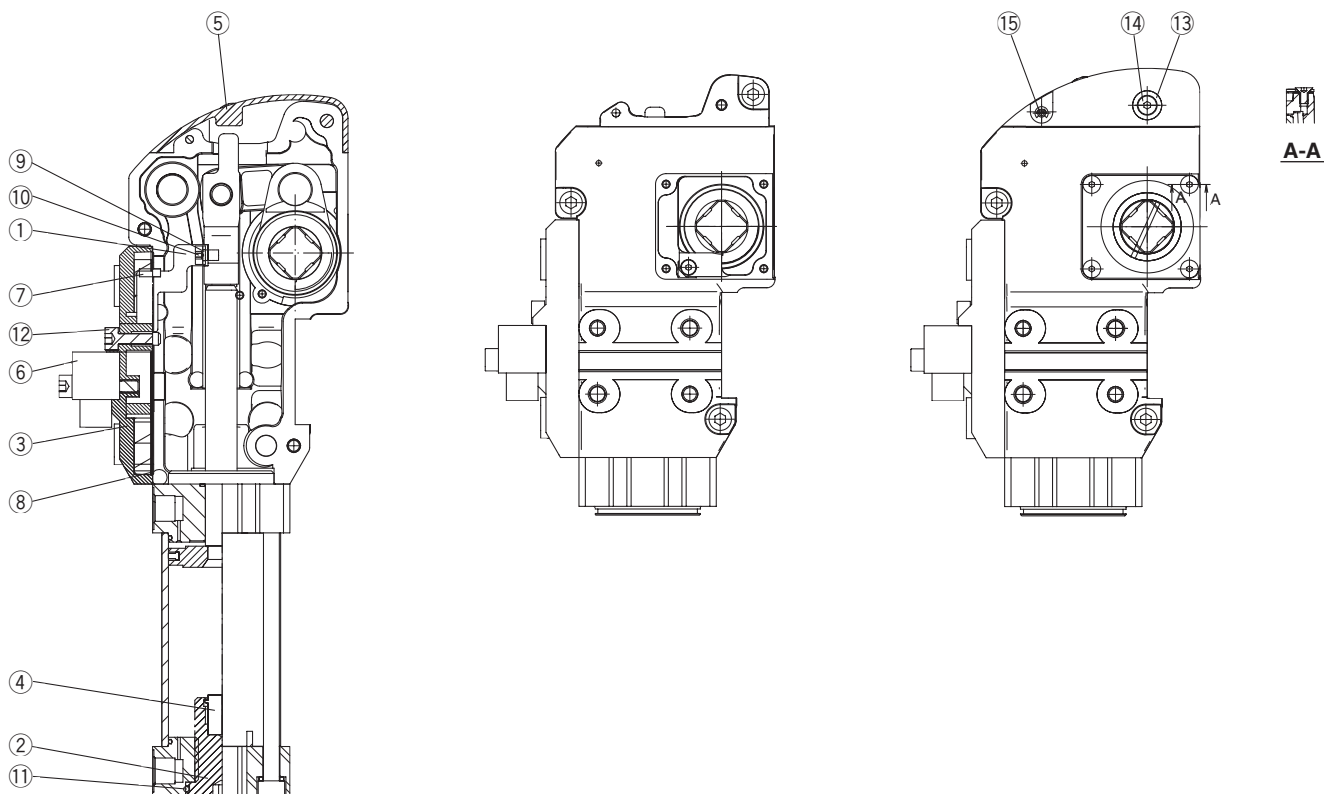
Manufacturer	TURCK	P & F
Operating range	2 mm ± 10%	2 mm ± 10%
Supply voltage	10 to 30 VDC	10 to 30 VDC
Output	N.O., PNP	N.O., PNP
Continuous load current	≤150 mA	≤100 mA
Response frequency	30 Hz	25 Hz
Housing material	PBT-GP30	PA6, PBT
Output indication	Clamping side: Red Unclamping side: Yellow	Clamping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

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

Wiring Diagram



Construction (40)



Replaceable Kits List

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

Table 1

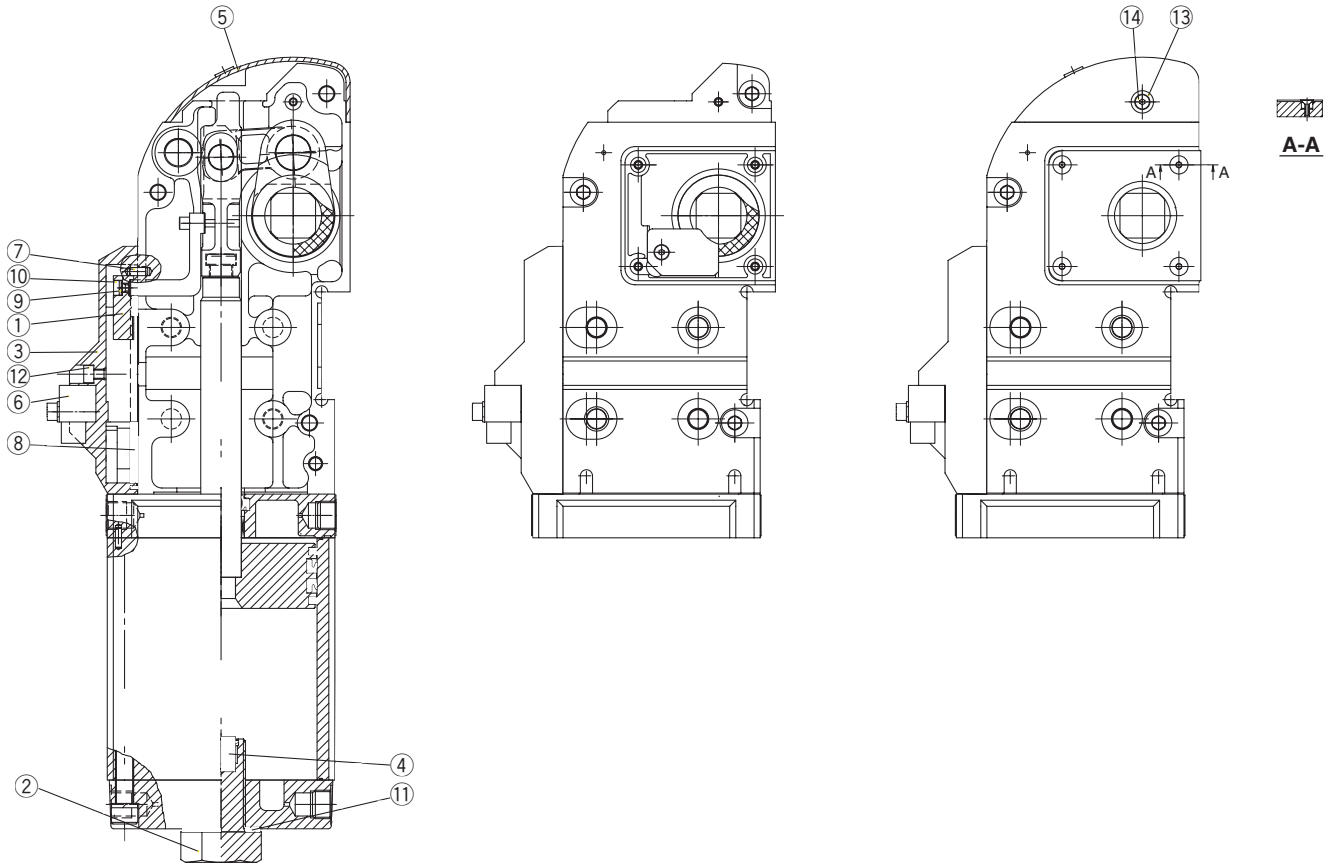
Opening angle	Code
30°	H
45°	G
60°	F
75°	E
90°	D
105°	C
120°	B
135°	A

Note 1) T TURCK, P P&F

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

Series CKZT

Construction (50, 63, 80)



Replaceable Kits List

Description	Bore	Kit no.	Contents
Switch cassette	50	CKZ1N-S050 _P (See Note 1)	③ Switch holder ⑥ Inductive switch
	63	CKZ1N-S063 _P (See Note 1)	⑦ Parallel pin ⑧ Sheet gasket
	80	CKZ1N-S080 _P (See Note 1)	⑧ Sheet gasket ⑫ Cover cap screw
Parts for changing opening angle of arm	50	CKZN-D050* (See Note 2)	① Switch actuator ⑨ Spring washer ⑩ Socket head cap screw
		CKZN-B050* (See Note 2)	② Stopper bolt ④ Bumper ⑪ Seal washer
		CKZN-K050* (See Note 2)	CKZ1N-D050* CKZN-B050*
	63	CKZN-D063* (See Note 2)	① Switch actuator ⑨ Spring washer ⑩ Short head cap screw
		CKZN-B063* (See Note 2)	② Stopper bolt ④ Bumper ⑪ Seal washer
		CKZN-K063* (See Note 2)	CKZ1N-D063* CKZN-B063*
	80	CKZN-D080* (See Note 2)	① Switch actuator ⑨ Spring washer ⑩ Socket head cap screw
		CKZN-B080* (See Note 2)	② Stopper bolt ④ Bumper ⑪ Seal washer
		CKZN-K080* (See Note 2)	CKZ1N-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

Maximum Cylinder Locking Moment

Bore size (mm)	Max. locking force	
	N•m	lbf•in
40	380	3363
50	800	7080
63	1500	13274
80	2500	22124

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

* at 0.5 MPa

Cylinder Stroke

Unit: (mm)

Angle \ Bore size	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

To determine actual clamp force.

Example: CKZT50, 0.5 MPa, distance from pivot to clamping point = 100 mm (3.937 in.)

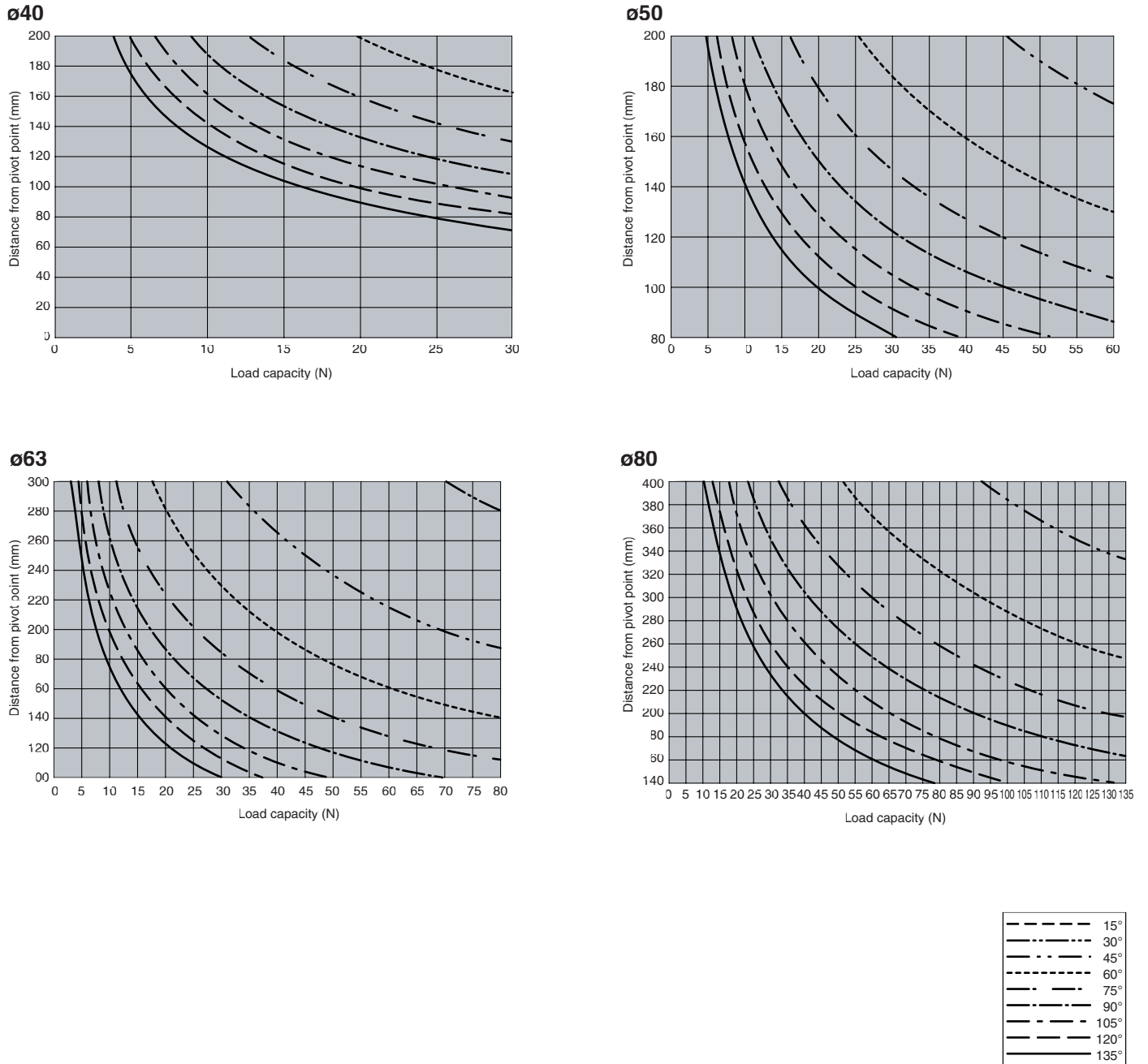
$$N = \frac{\text{N•m (from chart)} \times 1000}{\text{Distance from pivot to clamping point (mm)}} = \frac{160 \text{ N•m} \times 1000}{100\text{mm}} = 1600\text{N}$$

$$\text{lbf.} = \frac{\text{lbf•in (from chart)}}{\text{Distance from pivot to clamping point (in.)}} = \frac{1416 \text{ lbf•in}}{3.937 \text{ in.}} = 359.69 \text{ lbf}$$

$1600\text{N} \times 0.2248 = 359.68 \text{ lbf}$

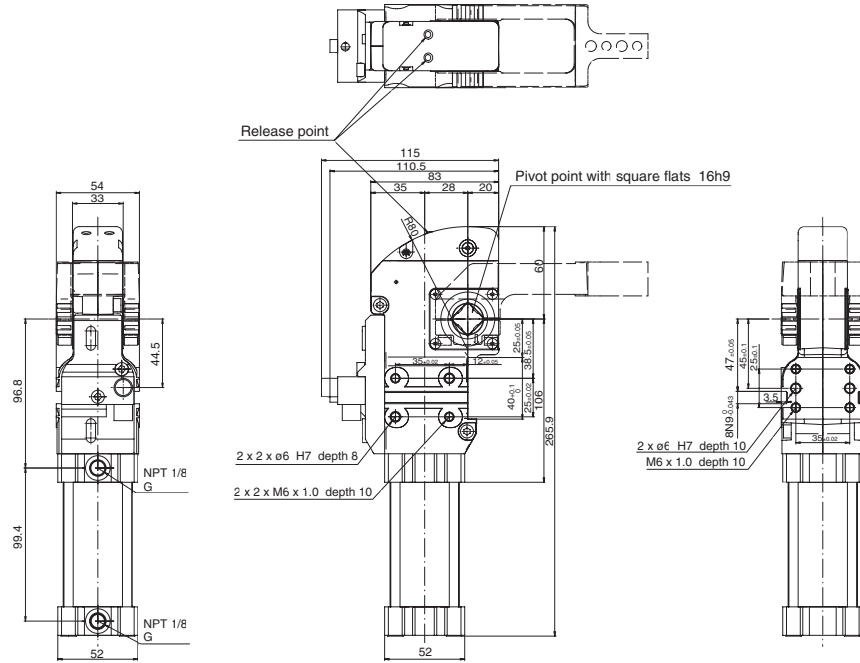
Series CKZT

Selection Graph

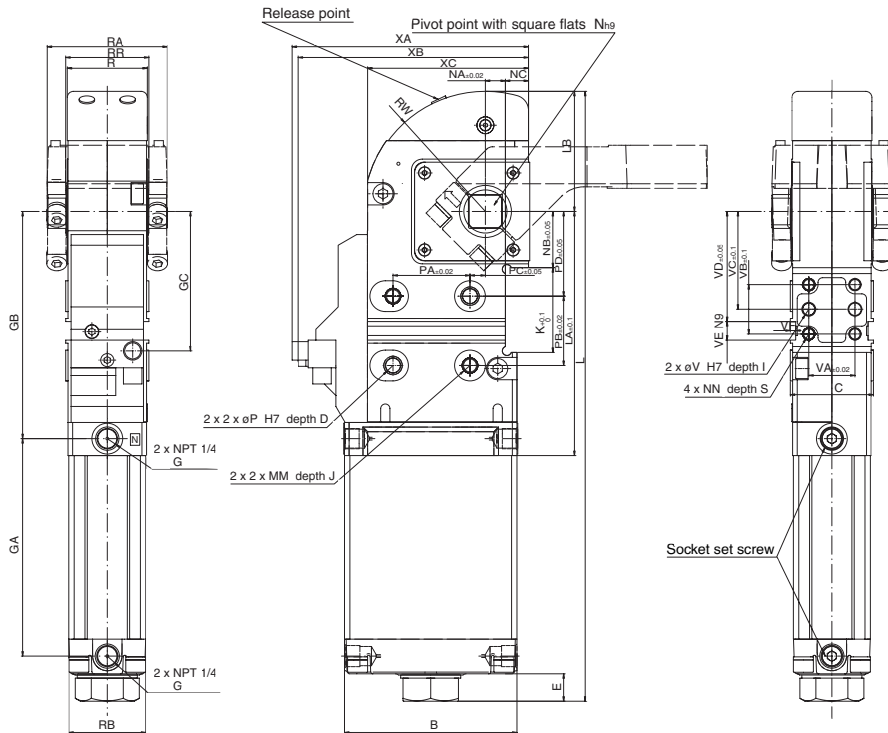


Dimensions (Clamp Cylinder Without Arm)

CKZT40



CKZT50, 63, 80



(mm)

Bore (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 (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