

Power Clamp Cylinder
with Manual Hand Lever

Series CKZT

Ø40, Ø50, Ø63, Ø80

How to Order

With Electrical Switch Cassette:

CKZT 50 - 120 - DCK 9412K

Bore Size

50	Ø 50mm Equivalent
63	Ø 63mm Equivalent
80	Ø 80mm Equivalent

Opening Angle

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

Manual Handle Position

9412K	Right for Ø50
9413K	Left for Ø50
9414K	Right for Ø63
9415K	Left for Ø63
9416K	Right for Ø80
9417K	Left for Ø80

* Not for Ø80 mm bore sizes.

With Pneumatic Switch Cassette:

CKZT 50 - 120 - DCK 9412K

Bore Size

50	Ø 50mm Equivalent
63	Ø 63mm Equivalent
80	Ø 80mm Equivalent

Opening Angle

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

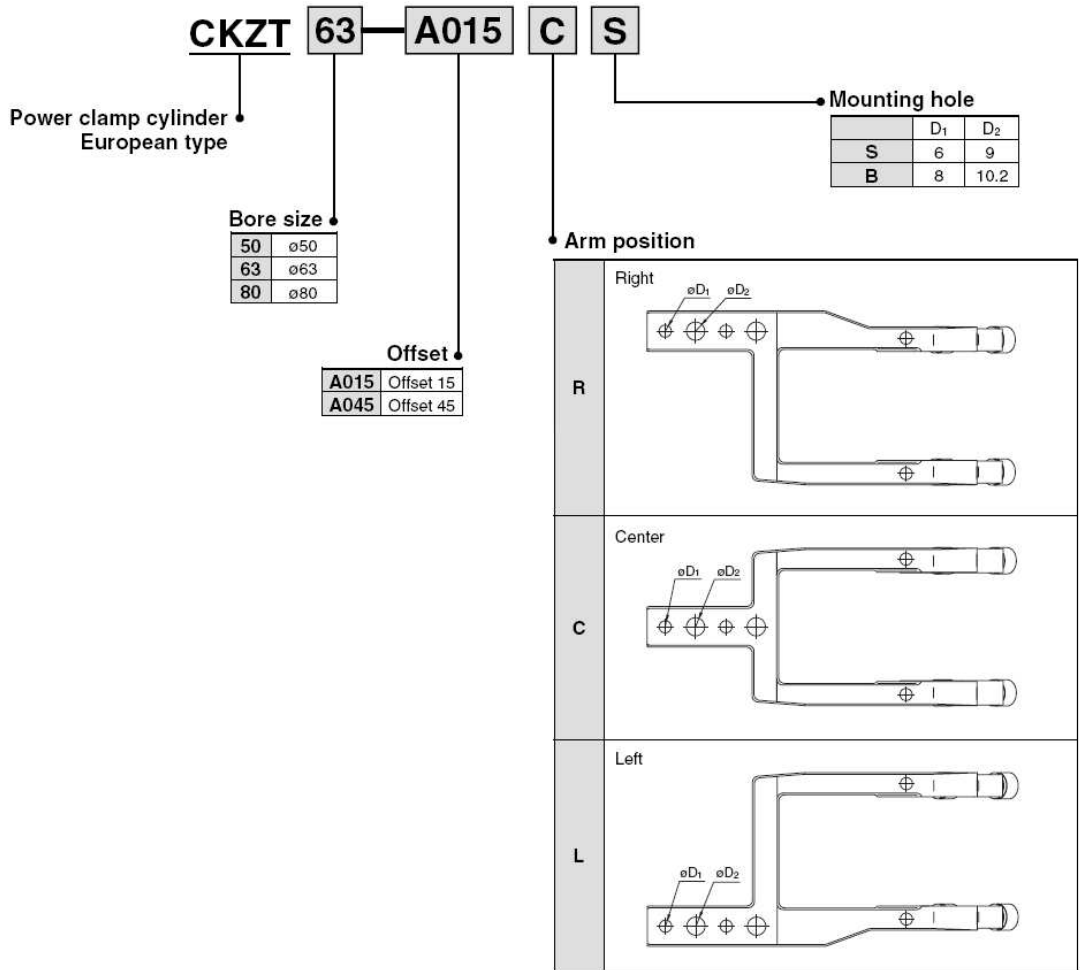
Manual Handle Position

9418K	Right for Ø50
9419K	Left for Ø50
9420K	Right for Ø63
9421K	Left for Ø63
9422K	Right for Ø80
9423K	Left for Ø80

* Not for Ø80 mm bore sizes.

Power Clamp Cylinder *Series CKZT*

Clamp Arm (50, 63, 80)



Series CKZT

Cylinder Specifications

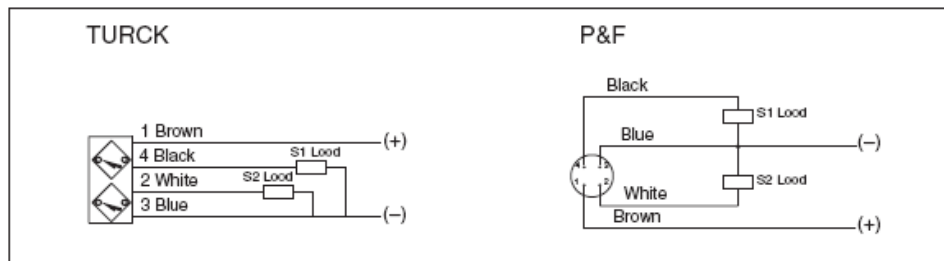
Bore size (mm)	40	50	63	80
Action	Double acting			
Fluid	Air			
Proof pressure	1.2 MPa (174 psi)			
Max. operating pressure	0.8 MPa (116 psi)			
Min. operating pressure	0.3 MPa (44 psi)			
Ambient and fluid temperature	-10 to 60°C (14 to 140°F)			
Cushion	Clamping side: None Unclamping side: Rubber bumper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

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

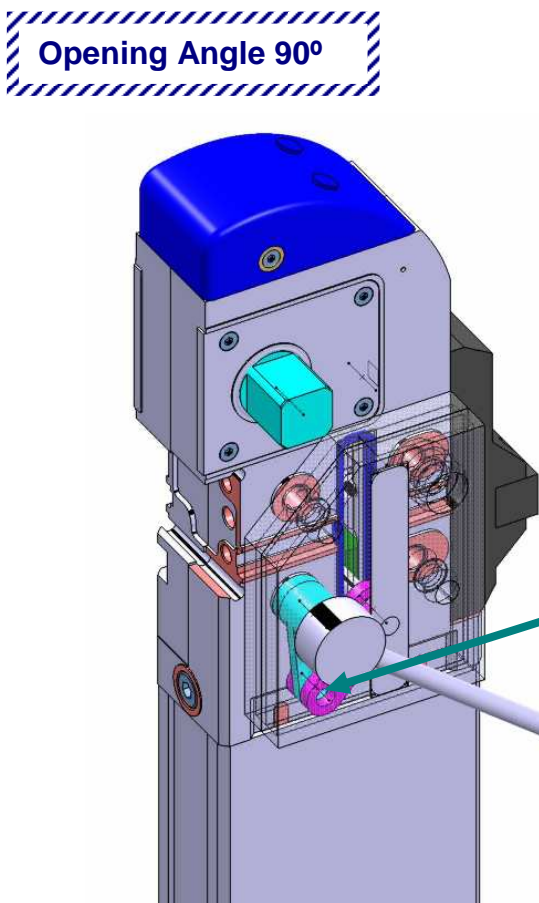
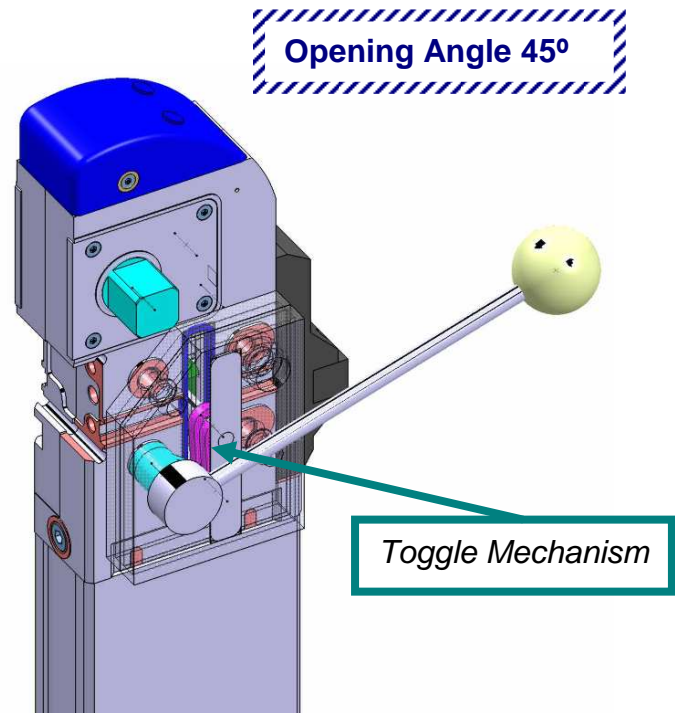
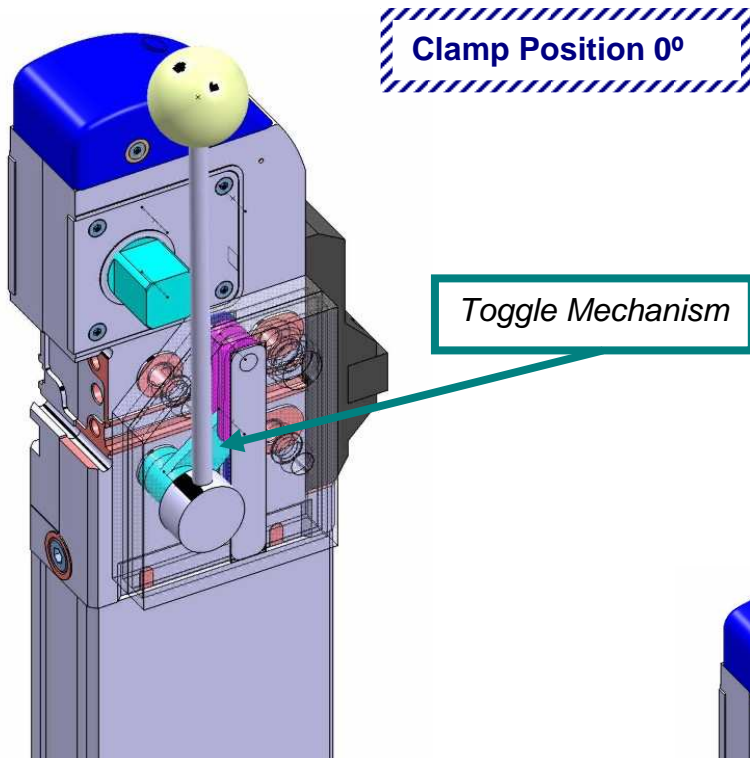


Pneumatic Switch Specifications

Manufacturer	SMC
Type	VM1000-4NU-01-X261
Operating Pressure	0.05 to 0.8 MPa
Ambient and Fluid Temperature	- 5° to 60°
Effective Area	1 mm ²

Power Clamp Cylinder *Series CKZT*

Schematic Function



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)

Bore size \ Angle	30°	45°	60°	75°	90°	105°	120°	135°
	40	26.8	33.3	39.6	45.9	52.3	58.4	63.6
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.)

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

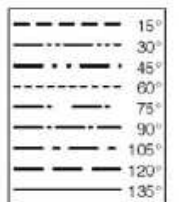
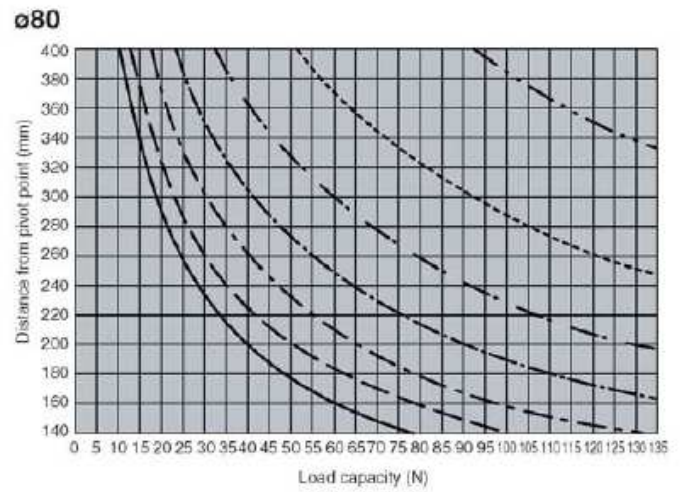
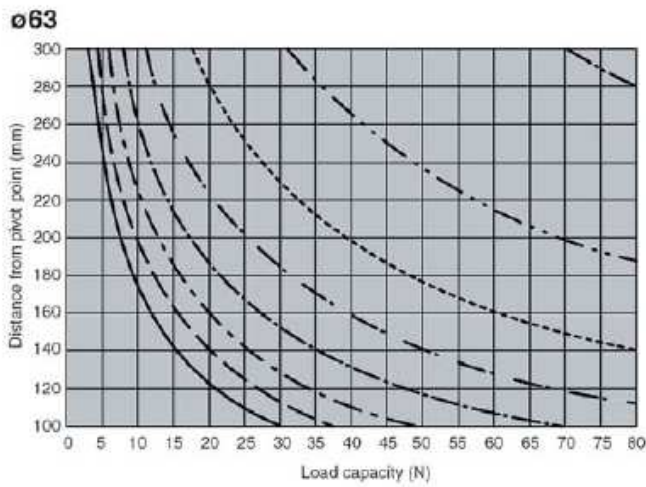
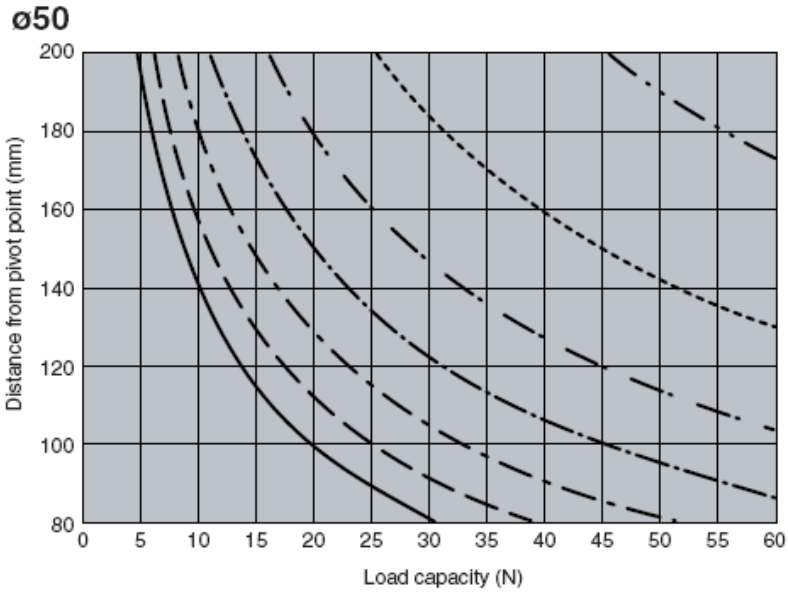
$$\text{lbf.} = \frac{\text{lbf·in (from chart)}}{\text{Distance from pivot to clamping point (in.)}} = \frac{1416 \text{ lbf·in}}{3.937 \text{ in.}} = 359.69 \text{ lbf}$$

$$\text{Verification: } N = \frac{\text{lbf}}{0.2248}$$

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

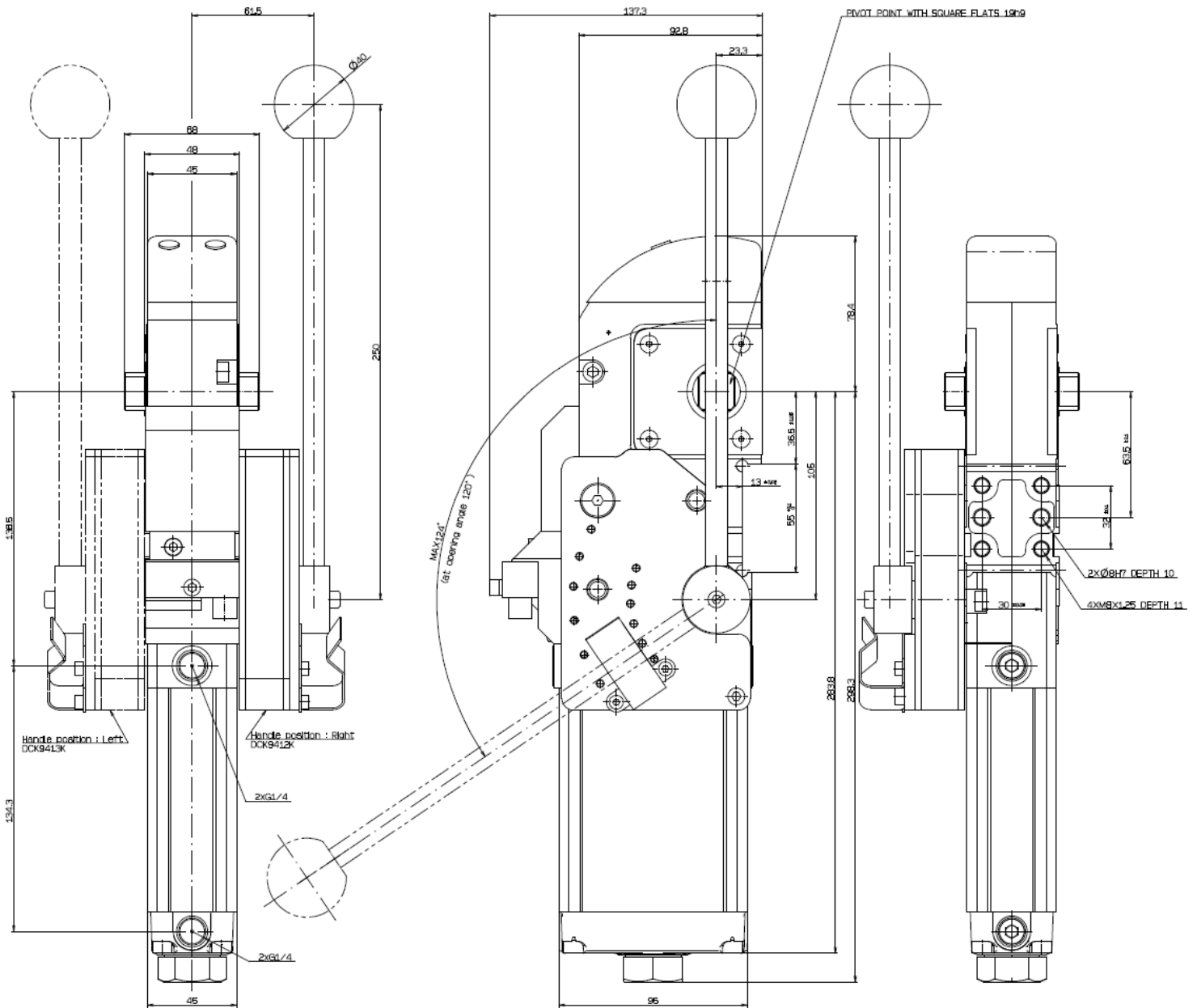
Series CKZT

Selection Graph



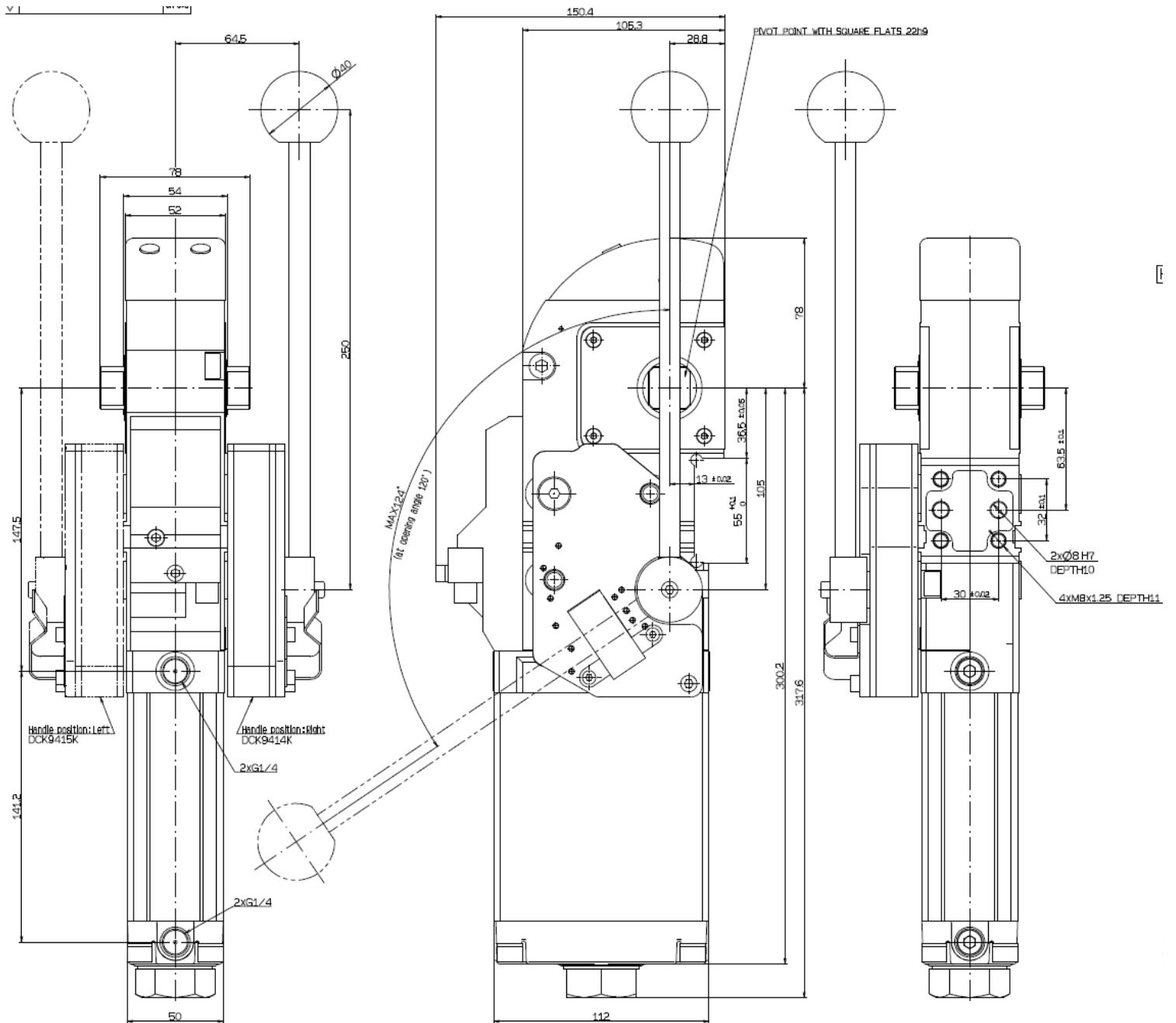
Series CKZT

CKZT50-##-DCK9412K (Dimensions)



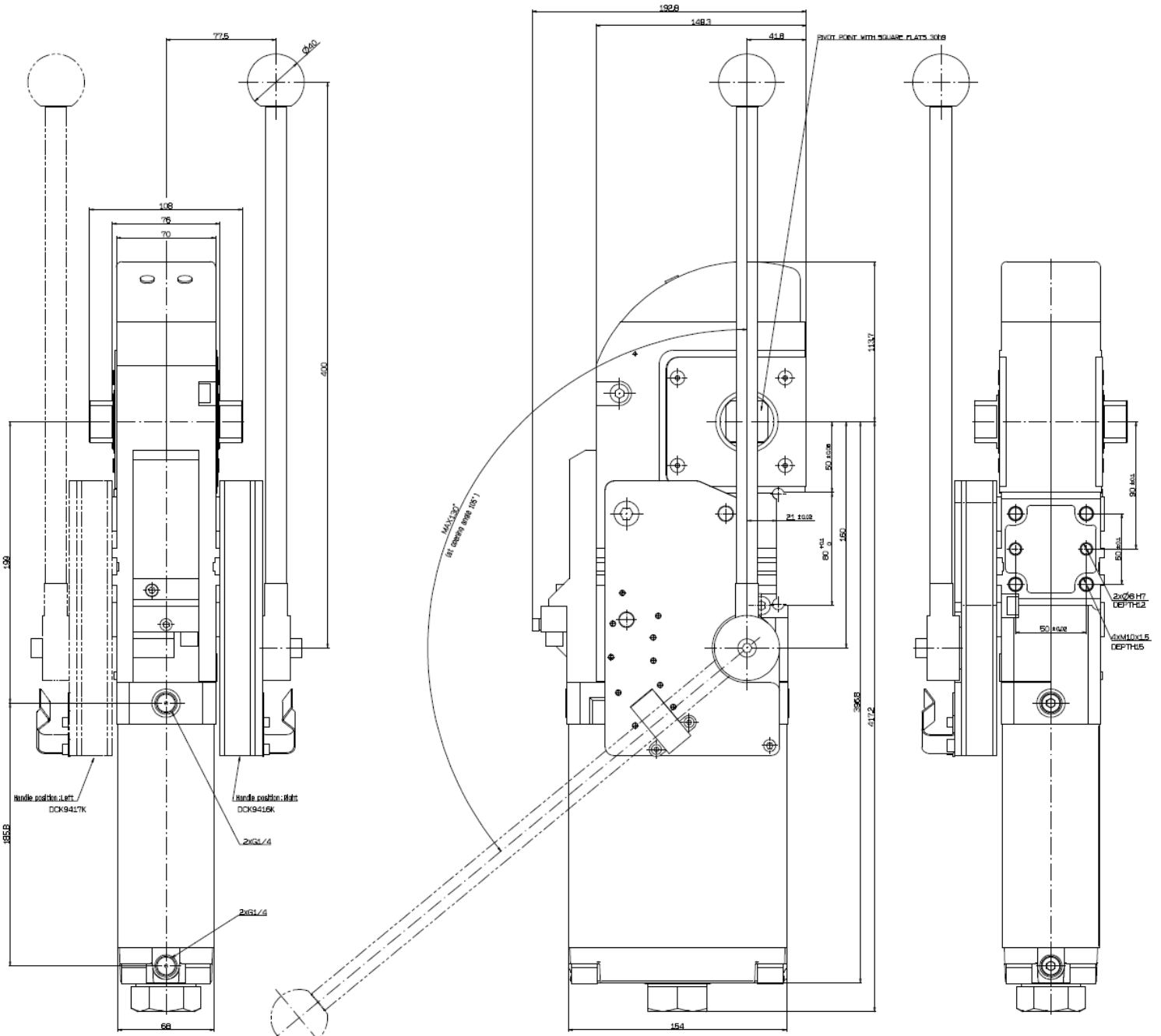
Series CKZT

CKZT63-##-DCK9414K (Dimensions)



Series *CKZT*

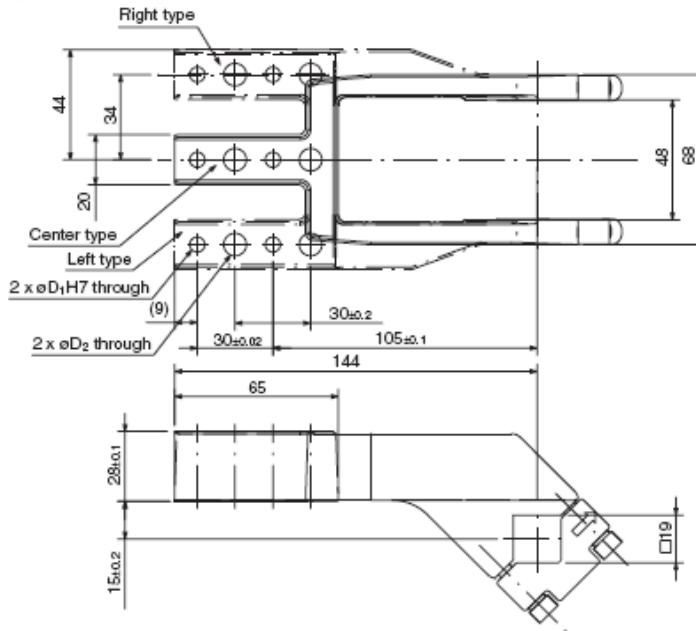
CKZT80-##-DCK9416K (Dimensions)



Series CKZT

Dimensions (Clamp Arm: Offset 15)

ø50



How to Order

CKZT50-A015 C S

Mounting hole

	D ₁	D ₂
S	6	9
B	8	10.2

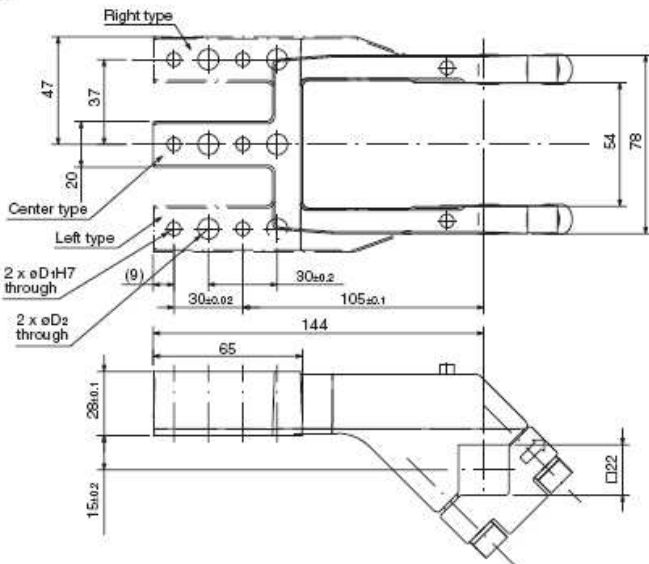
Arm position

C	Center
R	Right
L	Left

Weight

CKZ50-A015CS	0.79 kg
CKZ50-A015CB	0.78 kg
CKZ50-A015RS	0.90 kg
CKZ50-A015RB	0.89 kg
CKZ50-A015LS	0.90 kg
CKZ50-A015LB	0.89 kg

ø63



How to Order

CKZT63-A015 C S

Mounting hole

	D ₁	D ₂
S	6	9
B	8	10.2

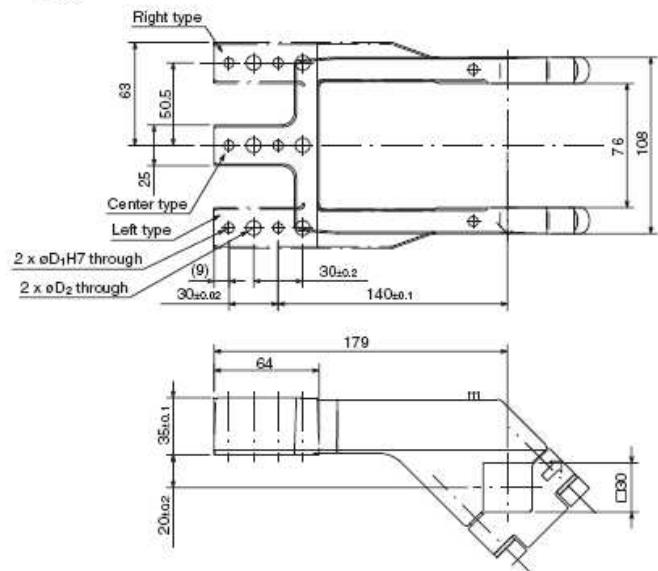
Arm position

C	Center
R	Right
L	Left

Weight

CKZ63-A015CS	1.02 kg
CKZ63-A015CB	1.01 kg
CKZ63-A015RS	1.10 kg
CKZ63-A015RB	1.08 kg
CKZ63-A015LS	1.10 kg
CKZ63-A015LB	1.08 kg

ø80



How to Order

CKZT80-A015 C S

Mounting hole

	D ₁	D ₂
S	6	9
B	8	10.2

Arm position

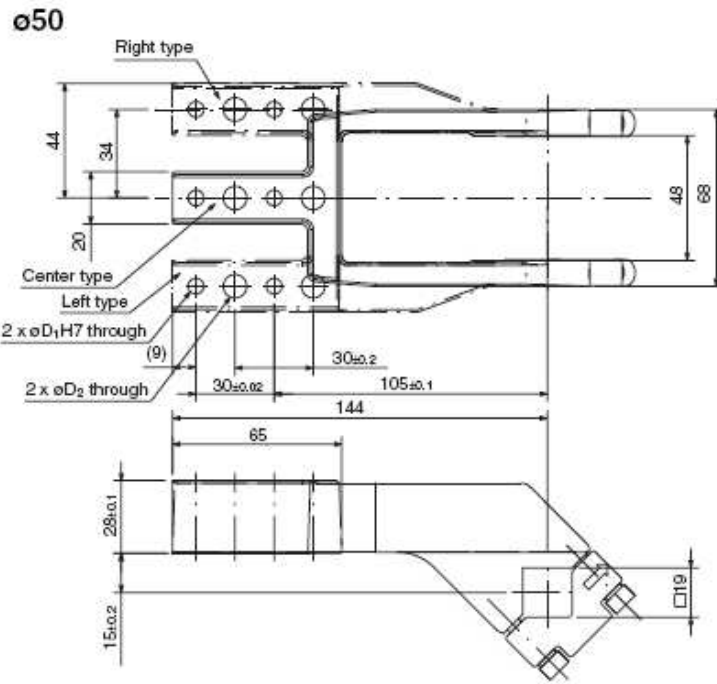
C	Center
R	Right
L	Left

Weight

CKZ80-A015CS	2.17 kg
CKZ80-A015CB	2.16 kg
CKZ80-A015RS	2.21 kg
CKZ80-A015RB	2.19 kg
CKZ80-A015LS	2.21 kg
CKZ80-A015LB	2.19 kg

Series CKZT

Dimensions (Clamp Arm: Offset 45)



How to Order

CKZT50-A015 C S

Mounting hole

	D ₁	D ₂
S	6	9
B	8	10.2

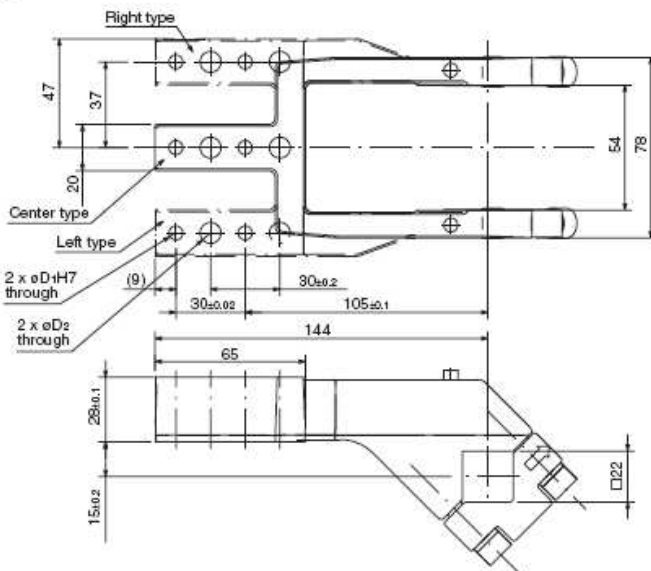
Arm position

C	Center
R	Right
L	Left

Weight

CKZ50-A015CS	0.79 kg
CKZ50-A015CB	0.78 kg
CKZ50-A015RS	0.90 kg
CKZ50-A015RB	0.89 kg
CKZ50-A015LS	0.90 kg
CKZ50-A015LB	0.89 kg

ø63



How to Order

CKZT63-A015 C S

Mounting hole

	D ₁	D ₂
S	6	9
B	8	10.2

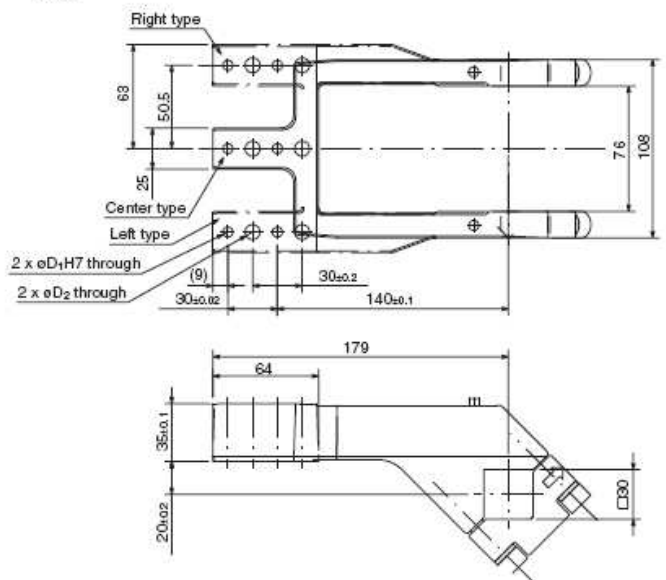
Arm position

C	Center
R	Right
L	Left

Weight

CKZ63-A015CS	1.02 kg
CKZ63-A015CB	1.01 kg
CKZ63-A015RS	1.10 kg
CKZ63-A015RB	1.08 kg
CKZ63-A015LS	1.10 kg
CKZ63-A015LB	1.08 kg

ø80



How to Order

CKZT80-A015 C S

Mounting hole

	D ₁	D ₂
S	6	9
B	8	10.2

Arm position

C	Center
R	Right
L	Left

Weight

CKZ80-A015CS	2.17 kg
CKZ80-A015CB	2.16 kg
CKZ80-A015RS	2.21 kg
CKZ80-A015RB	2.19 kg
CKZ80-A015LS	2.21 kg
CKZ80-A015LB	2.19 kg