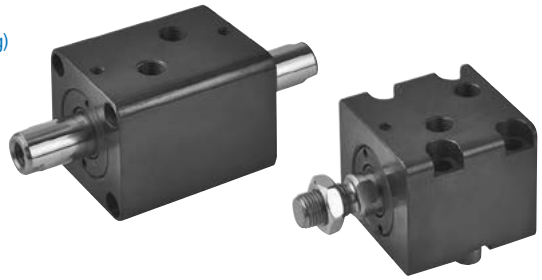
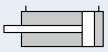
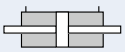
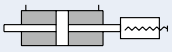
MHC* series

COMPACT **HYDRAULIC CYLINDER**

Caution for safety
(Read before installing)



MHCB **MHCQ**	Front mounting (Single rod type) Side mounting (Single rod type)	
MHCB-D **MHCQ-D**	Front mounting (Double rod type) Side mounting (Double rod type)	
MHC*-DA **MHC*-DB**	Adjustable forward 25/50mm stroke cylinder (Double rod type)	

Features

- Compact body design keeps overall length to a minimum.
- Cylinder barrel internally honed to ensure smooth and consistent piston movement.
- High quality materials are used throughout construction.

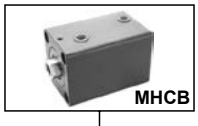
Specification

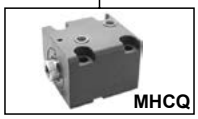
Model	MHC*						
Tube I.D. (mm)	20	25	32	40	50	63	80
The range of stroke (mm)	30		60	80	90	100	
Medium	Filtered oil						
Material	Carbon steel						
Max. operating pressure	14 MPa						
Ambient temperature	-10~+60°C (No freezing)						

Order example

MHCB — 50 — 30 — ZDA

MODEL

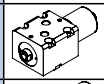
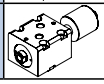


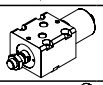
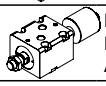


TUBE I.D.

STROKE

ROD END TYPE **D**: Double rod

Blank		Single rod / Female thread
Z		Single rod / Male thread
D		Double rod / Female thread
DA		Double rod / Female thread / Adjustable stroke 25mm
DB		Double rod / Female thread/ Adjustable stroke 50mm

ZD		Double rod / Male thread
ZDA		Double rod / Male thread / Adjustable stroke 25mm
ZDB		Double rod / Male thread / Adjustable stroke 50mm
LD		Double rod / One female thread, One male thread
RD (*)		Double rod / One male thread, One female thread

* Only for **MHCQ** model.

Standard stroke

● Standard products ○ Made to order

Model	Stroke / Tube I.D.	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
MHCB MHCB-Z	ø20	○	●	○	●	○	●	○	●	—	—	—	—	—	—	—
	ø25	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø32	●	●	●	●	●	●	○	●	○	●	●	—	—	—	—
	ø40	●	●	●	●	●	●	○	●	○	●	●	●	●	—	—
	ø50	●	●	●	●	●	●	○	●	○	●	●	●	●	●	—
	ø63	●	●	●	●	●	●	○	●	○	●	●	●	●	●	●
	ø80	●	●	●	●	●	●	○	●	○	●	●	●	●	●	●
MHCB-D MHCB-ZD MHCB-LD	ø32	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø40	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø50	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø63	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø80	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
MHCB-DA MHCB-ZDA MHCB-DB MHCB-ZDB	ø32	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø40	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø50	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø63	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø80	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—

Model	Stroke / Tube I.D.	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
MHCQ MHCQ-Z	ø32	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø40	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø50	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø63	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
MHCQ-D MHCQ-ZD MHCQ-RD MHCQ-LD	ø32	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø40	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø50	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø63	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
MHCQ-DA MHCQ-ZDA MHCQ-DB MHCQ-ZDB	ø32	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø40	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø50	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—
	ø63	○	●	○	●	○	●	○	●	○	●	—	—	—	—	—

Theoretic force

Unit: KN

Tube I.D. (mm)	Rod (mm)	Area (mm^2)		Operating pressure (MPa) 6	7	8	9	10	11	12	13	14
ø20	ø12	A	314	1.88	2.20	2.51	2.83	3.14	3.46	3.77	4.08	4.40
		B	201	1.21	1.41	1.61	1.81	2.01	2.21	2.41	2.61	2.81
ø25	ø14	A	491	2.95	3.44	3.93	4.42	4.91	5.40	5.89	6.38	6.87
		B	337	2.02	2.36	2.70	3.03	3.37	3.71	4.04	4.38	4.72
ø32	ø20	A	804	4.83	5.63	6.43	7.24	8.04	8.85	9.65	10.46	11.26
		B	490	2.94	3.43	3.92	4.41	4.90	5.39	5.88	6.37	6.86
ø40	ø25	A	1257	7.54	8.80	10.05	11.31	12.57	13.82	15.08	16.34	17.59
		B	766	4.59	5.36	6.13	6.89	7.66	8.42	9.19	9.95	10.72
ø50	ø30	A	1963	11.78	13.74	15.71	17.67	19.63	21.60	23.56	25.53	27.49
		B	1257	7.54	8.80	10.05	11.31	12.57	13.82	15.08	16.34	17.59
ø63	ø35	A	3117	18.70	21.82	24.94	28.06	31.17	34.29	37.41	40.52	43.64
		B	2155	12.93	15.09	17.24	19.40	21.55	23.71	25.86	28.02	30.17
ø80	ø45	A	5027	30.16	35.19	40.21	45.24	50.27	55.29	60.32	65.35	70.37
		B	3436	20.62	24.05	27.49	30.93	34.36	37.80	41.23	44.67	48.11

The method of calculation

(Hydraulic cylinders' force)

$$F = P \times A - f$$

F:	Cylinders' force	(N)
P:	Operating pressure	(MPa)
A:	Piston area	(mm^2)
f :	Friction drag	(N)

How to order the seal kit

MHC□SK □

B
Q

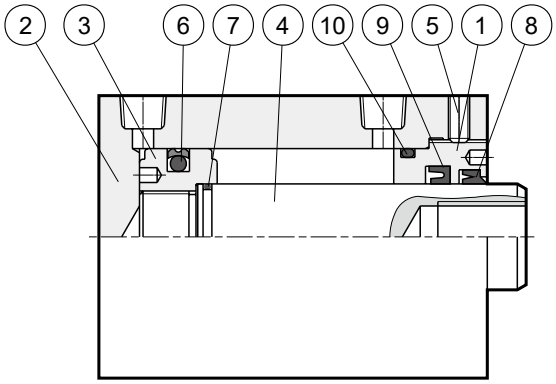
Tube I.D.	Seal kit
20	MHCB20 - Including No.6,7,8,9,10
25	MHCB25 - Including No.6,7,8,9,10
32	MHCB32,MHCQ32 - Including No.6,7,8,9,10
40	MHCB40,MHCQ40 - Including No.6,7,8,9,10
50	MHCB50,MHCQ50 - Including No.6,7,8,9,10
63	MHCB63,MHCQ63 - Including No.6,7,8,9,10
80	MHCB80 - Including No.6,7,8,9,10

MHC□SK □ D

B
Q

Tube I.D.	Seal kit
32	MHCB32D,MHCQ32D - Including No.6,7,8,9,10
40	MHCB40D,MHCQ40D - Including No.6,7,8,9,10
50	MHCB50D,MHCQ50D - Including No.6,7,8,9,10
63	MHCB63D,MHCQ63D - Including No.6,7,8,9,10
80	MHCB80D - Including No.6,7,8,9,10

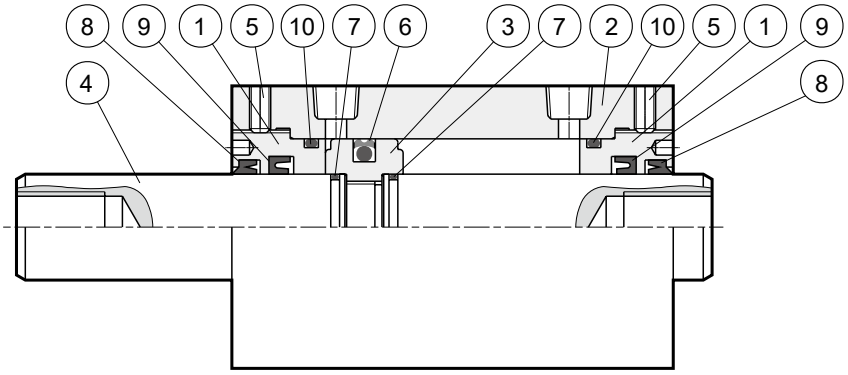
MHCB
MHCQ



Parts list

No.	Part name	Q'y	No.	Part name	Q'y	No.	Part name	Q'y
1	Rod cover	1	5	Set screw	1	9	Rod packing	1
2	Cylinder tube	1	6	Piston packing	1	10	Cylinder gasket	1
3	Piston	1	7	Piston gasket	1	11		
4	Piston rod	1	8	Dust wiper	1	12		

MHCB-D
MHCQ-D



Parts list

No.	Part name	Q'y	No.	Part name	Q'y	No.	Part name	Q'y
1	Rod cover	2	5	Set screw	2	9	Rod packing	2
2	Cylinder tube	1	6	Piston packing	1	10	Cylinder gasket	2
3	Piston	1	7	Piston gasket	2	11		
4	Piston rod	1	8	Dust wiper	2	12		

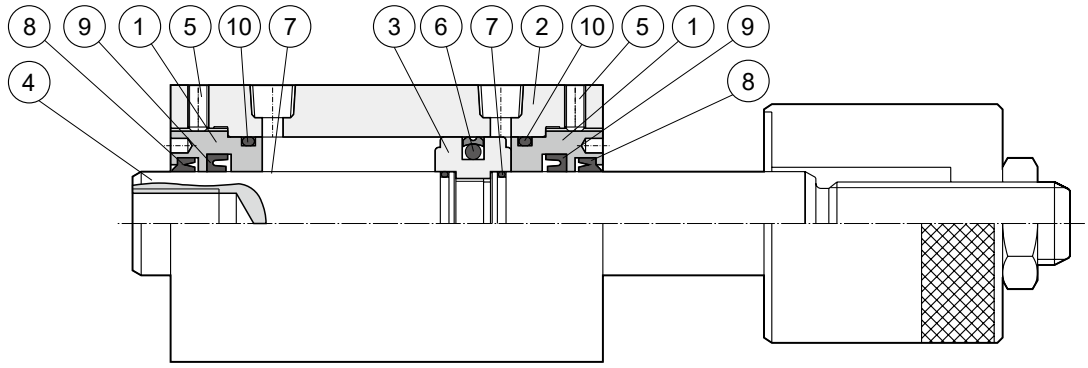
How to order the seal kit

MHC□SK□D

B
Q

Tube I.D.	Seal kit
32	MHCBSK32D,MHCQSK32D - Including No.6,7,8,9,10
40	MHCBSK40D,MHCQSK40D - Including No.6,7,8,9,10
50	MHCBSK50D,MHCQSK50D - Including No.6,7,8,9,10
63	MHCBSK63D,MHCQSK63D - Including No.6,7,8,9,10
80	MHCBSK80D - Including No.6,7,8,9,10

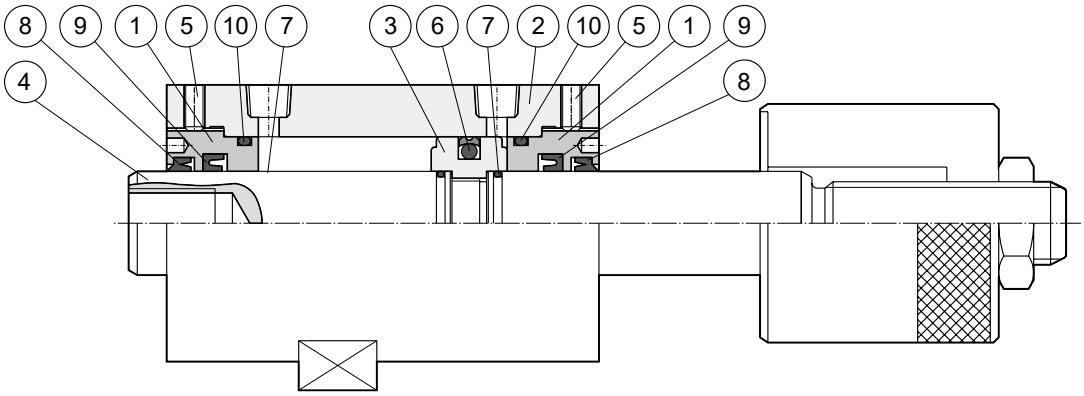
MHCB-DA MHCB-DB



Parts list

No.	Part name	Q'y	No.	Part name	Q'y	No.	Part name	Q'y
1	Rod cover	1	5	Set screw	1	9	Rod packing	1
2	Cylinder tube	1	6	Piston packing	1	10	Cylinder gasket	1
3	Piston	1	7	Piston gasket	1	11		
4	Piston rod	1	8	Dust wiper	1	12		

MHCQ-DA MHCQ-DB



Parts list

No.	Part name	Q'y	No.	Part name	Q'y	No.	Part name	Q'y
1	Rod cover	2	5	Set screw	2	9	Rod packing	2
2	Cylinder tube	1	6	Piston packing	1	10	Cylinder gasket	2
3	Piston	1	7	Piston gasket	2	11		
4	Piston rod	1	8	Dust wiper	2	12		

Cylinder weight (Including the mounting nut)

Tube I.D.	ø20		ø25		ø32				ø40				ø50				ø63				ø80	
Model	MHCB		MHCB		MHCB		MHCQ		MHCB		MHCQ		MHCB		MHCQ		MHCB		MHCQ		MHCB	
Stroke	N	Z	N	Z	N	Z	N	Z	N	Z	N	Z	N	Z	N	Z	N	Z	N	Z	N	Z
5	0.64	0.69	0.88	0.93	1.61	1.71	1.72	1.82	2.00	2.20	2.21	2.41	2.78	3.03	3.27	3.52	4.24	4.69	5.28	5.73	7.46	8.31
10	0.63	0.68	0.87	0.92	1.73	1.83	1.71	1.81	2.15	2.35	2.19	2.39	2.96	3.21	3.24	3.49	4.48	4.93	5.22	5.67	7.80	8.65
15	0.75	0.80	1.02	1.07	1.85	1.95	1.98	2.08	2.30	2.50	2.55	2.75	3.14	3.39	3.71	3.96	4.72	5.17	5.90	6.35	8.14	8.99
20	0.74	0.79	1.01	1.06	1.97	2.07	1.97	2.07	2.45	2.65	2.53	2.73	3.32	3.57	3.68	3.93	4.96	5.41	5.84	6.29	8.48	9.33
25	0.86	0.91	1.16	1.21	2.09	2.19	2.24	2.34	2.60	2.80	2.89	3.09	3.50	3.75	4.15	4.40	5.20	5.65	6.52	6.97	8.82	9.67
30	0.85	0.90	1.15	1.20	2.21	2.31	2.23	2.33	2.75	2.95	2.87	3.07	3.68	3.93	4.12	4.37	5.44	5.89	6.46	6.91	9.16	10.01
35	0.97	1.02	1.30	1.35	2.46	2.56	2.50	2.60	3.07	3.27	3.23	3.43	4.07	4.32	4.59	4.84	5.98	6.43	7.14	7.59	9.93	10.78
40	0.96	1.01	1.29	1.34	2.45	2.55	2.49	2.59	3.05	3.25	3.21	3.41	4.04	4.29	4.56	4.81	5.92	6.37	7.08	7.53	9.84	10.69
45	–	–	1.44	1.49	2.70	2.80	2.76	2.86	3.37	3.57	3.57	3.77	4.43	4.68	5.03	5.28	6.46	6.91	7.76	8.21	10.61	11.46
50	–	–	1.43	1.48	2.69	2.79	2.75	2.85	3.35	3.55	3.55	3.75	4.40	4.65	5.00	5.25	6.40	6.85	7.70	8.15	10.52	11.37
60	–	–	–	–	2.93	3.03	3.01	3.11	3.65	3.85	3.89	4.09	4.76	5.01	5.44	5.69	6.88	7.33	8.32	8.77	11.20	12.05
70	–	–	–	–	3.17	3.27	3.27	3.37	3.95	4.15	4.23	4.43	5.12	5.37	5.88	6.13	7.36	7.81	8.94	9.39	11.88	12.73
80	–	–	–	–	3.41	3.51	3.53	3.63	4.25	4.45	4.57	4.77	5.48	5.73	6.32	6.57	7.84	8.29	9.56	10.01	12.56	13.41
90	–	–	–	–	3.65	3.75	3.79	3.89	4.55	4.75	4.91	5.11	5.84	6.09	6.76	7.01	8.32	8.77	10.18	10.63	13.24	14.09
100	–	–	–	–	3.89	3.99	4.05	4.15	4.85	5.05	5.25	5.45	6.20	6.45	7.20	7.45	8.80	9.25	10.80	11.25	13.92	14.77

* N (Female thread); Z (Male thread)

Tube I.D.	ø32						ø40						ø50						ø63						ø80		
Model	MHCB_D			MHCQ_D			MHCB_D			MHCQ_D			MHCB_D			MHCQ_D			MHCB_D			MHCQ_D			MHCB_D		
Stroke	N	Z	L	N	Z	L,R	N	Z	L	N	Z	L,R	N	Z	L	N	Z	L,R	N	Z	L	N	Z	L,R	N	Z	L
5	1.89	2.06	1.97	1.90	2.07	1.99	2.37	2.71	2.54	2.45	2.79	2.62	3.22	3.65	3.44	3.63	4.05	3.84	4.85	5.61	5.23	5.59	6.35	5.98	10.18	11.63	10.90
10	1.89	2.06	1.97	1.90	2.07	1.99	2.37	2.71	2.54	2.45	2.79	2.62	3.22	3.65	3.43	3.62	4.05	3.84	4.83	5.59	5.21	5.58	6.34	5.96	10.15	11.60	10.88
15	2.11	2.28	2.20	2.14	2.31	2.23	2.66	3.00	2.83	2.77	3.11	2.94	3.58	4.00	3.79	4.05	4.47	4.26	5.32	6.08	5.70	6.18	6.95	6.57	10.87	12.31	11.59
20	2.11	2.28	2.20	2.14	2.31	2.23	2.66	3.00	2.83	2.77	3.11	2.94	3.57	4.00	3.79	4.04	4.47	4.26	5.30	6.07	5.68	6.17	6.93	6.55	10.84	12.28	11.58
25	2.34	2.51	2.42	2.38	2.55	2.47	2.94	3.28	3.11	3.09	3.43	3.26	3.93	4.36	4.14	4.47	4.90	4.68	5.79	6.56	6.17	6.78	7.54	7.16	11.55	12.99	12.27
30	2.34	2.51	2.42	2.39	2.56	2.47	2.95	3.29	3.12	3.10	3.44	3.27	3.93	4.35	4.14	4.47	4.89	4.68	5.77	6.54	6.15	6.76	7.52	7.14	11.52	12.97	12.25
35	2.56	2.73	2.65	2.63	2.80	2.71	3.23	3.57	3.40	3.42	3.76	3.59	4.28	4.71	4.50	4.89	5.32	5.10	6.26	7.03	6.64	7.37	8.13	7.75	12.23	13.68	12.96
40	2.56	2.73	2.65	2.63	2.80	2.71	3.23	3.57	3.40	3.42	3.76	3.59	4.28	4.71	4.49	4.89	5.31	5.10	6.24	7.01	6.63	7.35	8.11	7.73	12.21	13.65	12.93
45	2.79	2.96	2.87	2.87	3.04	2.95	3.52	3.86	3.69	3.74	4.08	3.91	4.64	5.06	4.85	5.31	5.74	5.52	6.73	7.50	7.12	7.96	8.72	8.34	12.92	14.35	13.64
50	2.79	2.96	2.87	2.87	3.04	2.96	3.52	3.86	3.69	3.74	4.08	3.91	4.63	5.06	4.85	5.31	5.73	5.52	6.72	7.48	7.10	7.94	8.71	8.32	12.89	14.34	13.61

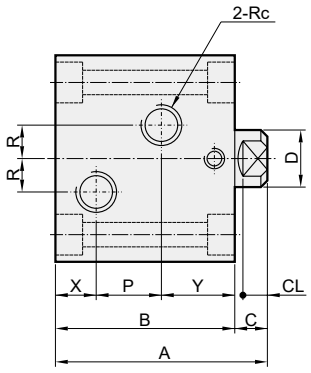
* N (Bilateral Female thread); Z (Bilateral Male thread); L, R (Unilateral Female thread)

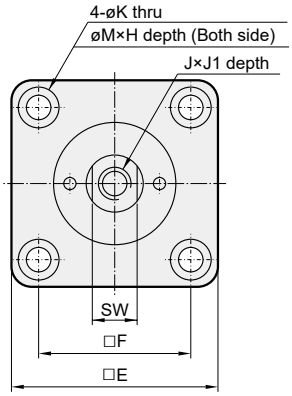
Mounting weight

Unit: kg

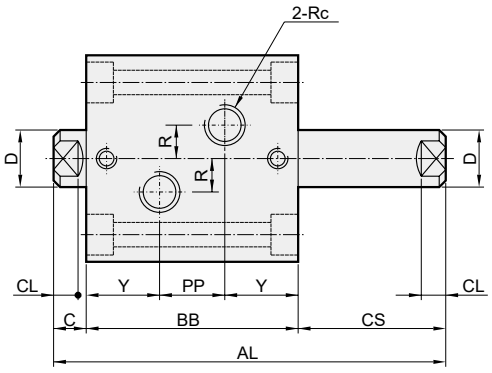
Tube I.D. (mm)	Adjustable Nut		Nut (Rod)
	A Adjustable Stroke 25mm	**B** Adjustable Stroke 50mm	⬡
ø32	0.6	0.9	0.02
ø40	1.0	1.45	0.04
ø50	1.15	1.7	0.08
ø63	2.15	3	0.08
ø80	3.4	4.2	0.18

MHCB



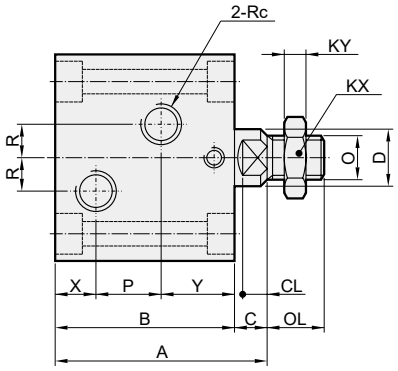


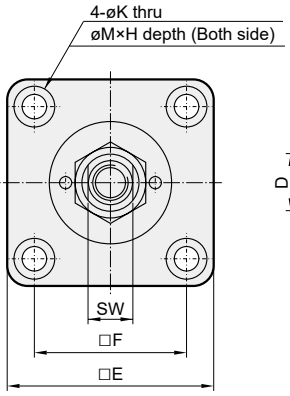
MHCB-D



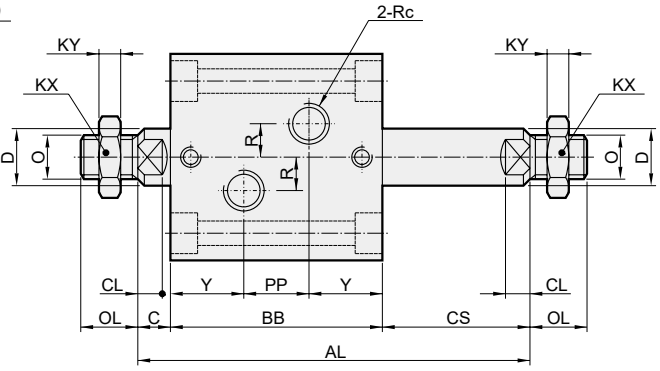
CS=C+stroke

MHCB-Z



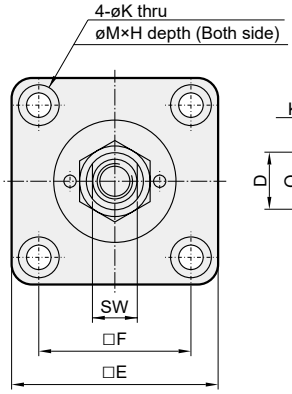


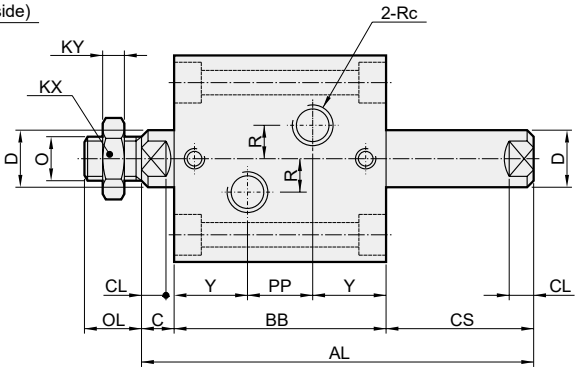
MHCB-ZD

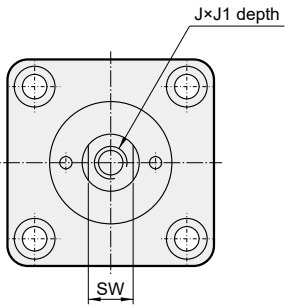


CS=C+stroke

MHCB-LD







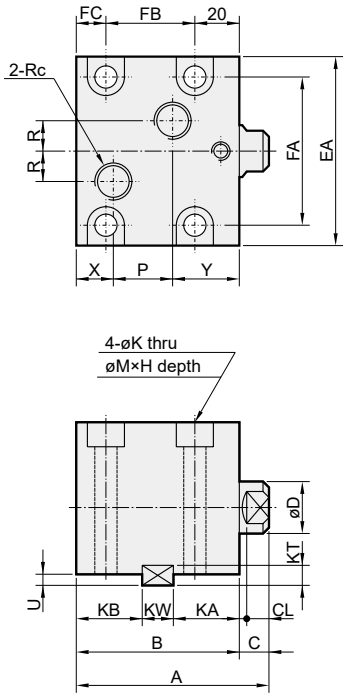
CS=C+stroke

Tube I.D.	Model	MHCB / MHCB-Z														
	Stroke	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
ø20	A	61	61	71	71	81	81	91	91	-	-	-	-	-	-	-
	B	53	53	63	63	73	73	83	83	-	-	-	-	-	-	-
	P	20	20	30	30	40	40	50	50	-	-	-	-	-	-	-
ø25	A	63	63	73	73	83	83	93	93	103	103	-	-	-	-	-
	B	55	55	65	65	75	75	85	85	95	95	-	-	-	-	-
	P	22	22	32	32	42	42	52	52	62	62	-	-	-	-	-
ø32	A	69	74	79	84	89	94	104	104	114	114	124	-	-	-	-
	B	59	64	69	74	79	84	94	94	104	104	114	-	-	-	-
	P	19	24	29	34	39	44	54	54	64	64	74	-	-	-	-
ø40	A	70	75	80	85	90	95	105	105	115	115	125	135	145	-	-
	B	60	65	70	75	80	85	95	95	105	105	115	125	135	-	-
	P	20	25	30	35	40	45	55	55	65	65	75	85	95	-	-
ø50	A	76	81	86	91	96	101	111	111	121	121	131	141	151	161	-
	B	65	70	75	80	85	90	100	100	110	110	120	130	140	150	-
	P	23	28	33	38	43	48	58	58	68	68	78	88	98	108	-
ø63	A	85	90	95	100	105	110	120	120	130	130	140	150	160	170	180
	B	72	77	82	87	92	97	107	107	117	117	127	137	147	157	167
	P	25	30	35	40	45	50	60	60	70	70	80	90	100	110	120
ø80	A	100	105	110	115	120	125	135	135	145	145	155	165	175	185	195
	B	83	88	93	98	103	108	118	118	128	128	138	148	158	168	178
	P	32	37	42	47	52	57	67	67	77	77	87	97	107	117	127

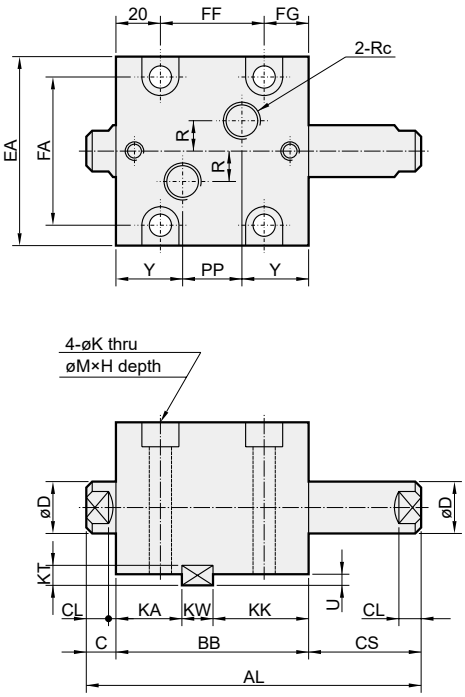
Tube I.D.	Model	MHCB-D / MHCB-ZD / MHCB-LD														
	Stroke	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
ø32	AL	104	109	124	129	144	149	164	169	184	189	-	-	-	-	-
	BB	79	79	89	89	99	99	109	109	119	119	-	-	-	-	-
	CS	15	20	25	30	35	40	45	50	55	60	-	-	-	-	-
	PP	23	23	33	33	43	43	53	53	63	63	-	-	-	-	-
ø40	AL	105	110	125	130	145	150	165	170	185	190	-	-	-	-	-
	BB	80	80	90	90	100	100	110	110	120	120	-	-	-	-	-
	CS	15	20	25	30	35	40	45	50	55	60	-	-	-	-	-
	PP	24	24	34	34	44	44	54	54	64	64	-	-	-	-	-
ø50	AL	112	117	132	137	152	157	172	177	192	197	-	-	-	-	-
	BB	85	85	95	95	105	105	115	115	125	125	-	-	-	-	-
	CS	16	21	26	31	36	41	46	51	56	61	-	-	-	-	-
	PP	26	26	36	36	46	46	56	56	66	66	-	-	-	-	-
ø63	AL	123	128	143	148	163	168	183	188	203	208	-	-	-	-	-
	BB	92	92	102	102	112	112	122	122	132	132	-	-	-	-	-
	CS	18	23	28	33	38	43	48	53	58	63	-	-	-	-	-
	PP	30	30	40	40	50	50	60	60	70	70	-	-	-	-	-
ø80	AL	142	147	162	167	182	187	202	207	222	227	-	-	-	-	-
	BB	103	103	113	113	123	123	133	133	143	143	-	-	-	-	-
	CS	22	27	32	37	42	47	52	57	62	67	-	-	-	-	-
	PP	37	37	47	47	57	57	67	67	77	77	-	-	-	-	-

Code / Tube I.D.	C	CL	D	E	F	H	J	J1	K	KX	KY	M	O	OL	Rc	R	SW	X	Y
ø20	8	6	12	42	30	5.5	M8×1.25	12	5.6	17	6	9	M10×1.25	20	Rc1/8	5	10	10	23
ø25	8	6	14	48	36	5.5	M10×1.5	15	5.6	19	7	9	M12×1.25	22	Rc1/8	5	12	10	23
ø32	10	7	20	62	47	6.5	M12×1.75	15	6.6	24	8	11	M16×1.5	25	Rc1/4	10	17	12	28
ø40	10	7	25	70	52	9	M16×2.0	20	9	32	11	14	M22×1.5	30	Rc1/4	10	22	12	28
ø50	11	8	30	80	58	11	M20×2.5	25	11	35	14	18	M26×1.5	35	Rc1/4	10	27	12.5	29.5
ø63	13	10	35	94	69	13	M27×3.0	35	13	41	13	20	M30×1.5	40	Rc3/8	10	32	16	31
ø80	17	14	45	114	86	15	M30×3.5	35	15	50	10	22	M39×1.5	45	Rc3/8	15	41	18	33

MHCQ

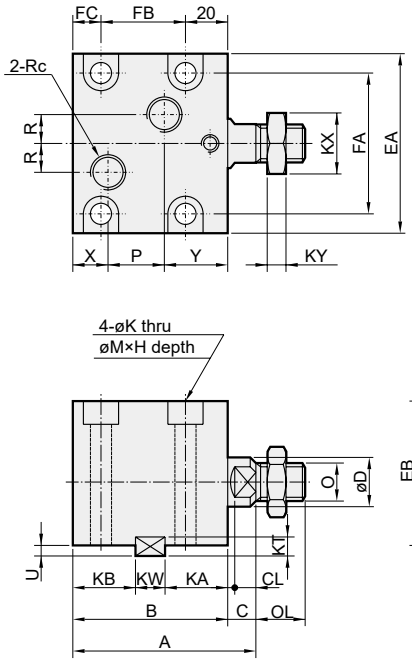


MHCQ-D

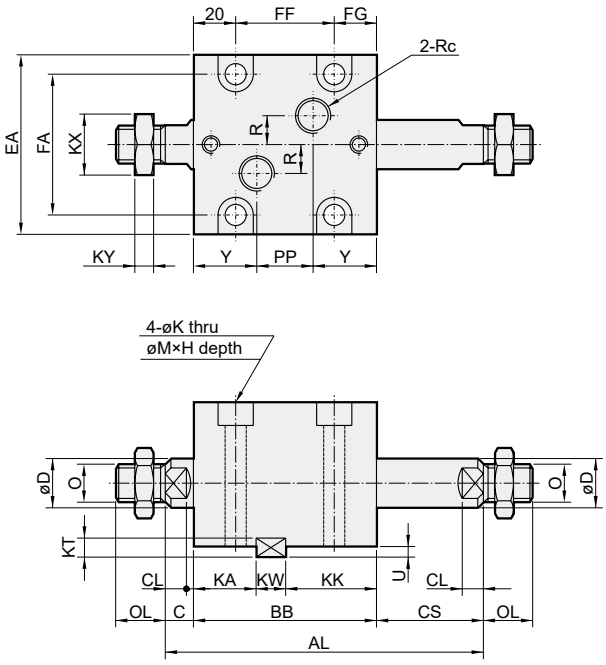


CS=C+stroke

MHCQ-Z



MHCQ-ZD



CS=C+stroke

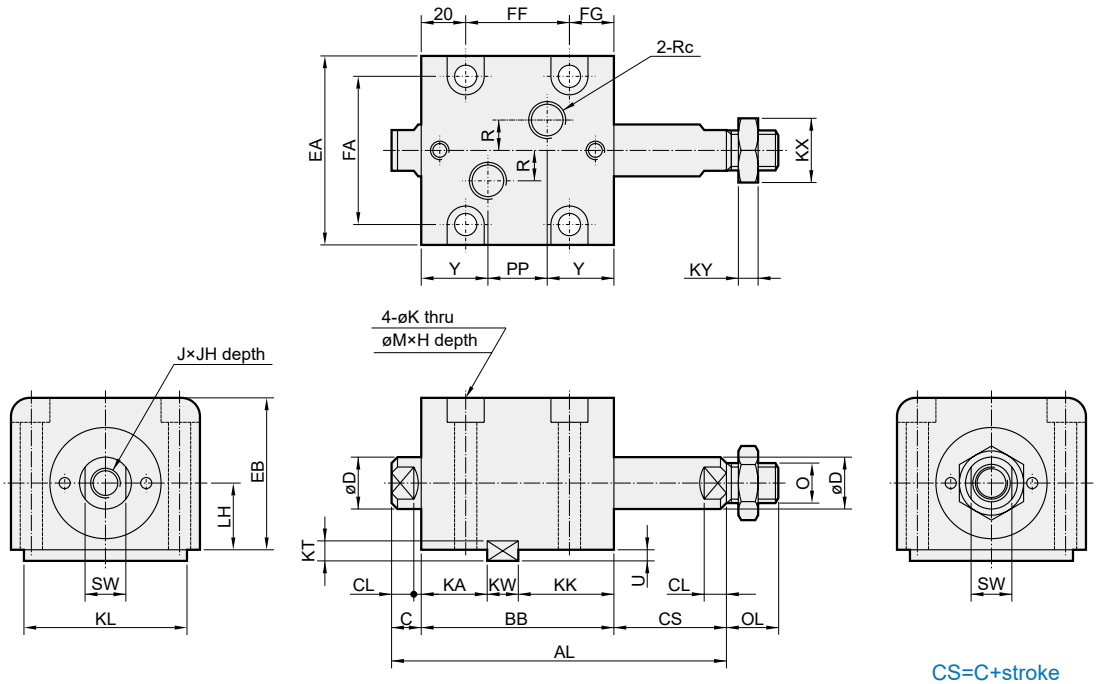
Tube I.D.	Model	MHCQ / MHCQ-Z									
	Stroke	5	10	15	20	25	30	35	40	45	50
ø32	A	74	74	84	84	94	94	104	104	114	114
	B	64	64	74	74	84	84	94	94	104	104
	FB	34	34	44	44	54	54	64	64	74	74
	KB	24	24	34	34	44	44	54	54	64	64
	P	24	24	34	34	44	44	54	54	64	64
ø40	A	75	75	85	85	95	95	105	105	115	115
	B	65	65	75	75	85	85	95	95	105	105
	FB	33	33	43	43	53	53	63	63	73	73
	KB	25	25	35	35	45	45	55	55	65	65
	P	25	25	35	35	45	45	55	55	65	65
ø50	A	81	81	91	91	101	101	111	111	121	121
	B	70	70	80	80	90	90	100	100	110	110
	FB	37	37	47	47	57	57	67	67	77	77
	KB	27	27	37	37	47	47	57	57	67	67
	P	28	28	38	38	48	48	58	58	68	68
ø63	A	90	90	100	100	110	110	120	120	130	130
	B	77	77	87	87	97	97	107	107	117	117
	FB	42	42	52	52	62	62	72	72	82	82
	KB	30	30	40	40	50	50	60	60	70	70
	P	30	30	40	40	50	50	60	60	70	70

Tube I.D.	Model	MHCQ-D / MHCQ-ZD									
	Stroke	5	10	15	20	25	30	35	40	45	50
ø32	AL	104	109	124	129	144	149	164	169	184	189
	BB	79	79	89	89	99	99	109	109	119	119
	CS	15	20	25	30	35	40	45	50	55	60
	FF	42	42	52	52	62	62	72	72	82	82
	KK	39	39	49	49	59	59	69	69	79	79
	PP	23	23	33	33	43	43	53	53	63	63
ø40	AL	105	110	125	130	145	150	165	170	185	190
	BB	80	80	90	90	100	100	110	110	120	120
	CS	15	20	25	30	35	40	45	50	55	60
	FF	42	42	52	52	62	62	72	72	82	82
	KK	40	40	50	50	60	60	70	70	80	80
	PP	24	24	34	34	44	44	54	54	64	64
ø50	AL	112	117	132	137	152	157	172	177	192	197
	BB	85	85	95	95	105	105	115	115	125	125
	CS	16	21	26	31	36	41	46	51	56	61
	FF	45	45	55	55	65	65	75	75	85	85
	KK	42	42	52	52	62	62	72	72	82	82
	PP	26	26	36	36	46	46	56	56	66	66
ø63	AL	123	128	143	148	163	168	183	188	203	208
	BB	92	92	102	102	112	112	122	122	132	132
	CS	18	23	28	33	38	43	48	53	58	63
	FF	52	52	62	62	72	72	82	82	92	92
	KK	45	45	55	55	65	65	75	75	85	85
	PP	30	30	40	40	50	50	60	60	70	70

Code / Tube I.D.	C	CL	D	EA	EB	FA	FC	FG	H	J	JH	K	KA	KL
ø32	10	7	20	70	56	56	10	17	9	M12×1.75	15	9	28	63
ø40	10	7	25	80	64	62	12	18	11	M16×2.0	20	11	28	70
ø50	11	8	30	94	74	74	13	20	13	M20×2.5	25	13	29	80
ø63	13	10	35	114	89	90	15	20	15	M27×3.0	35	15	31	100

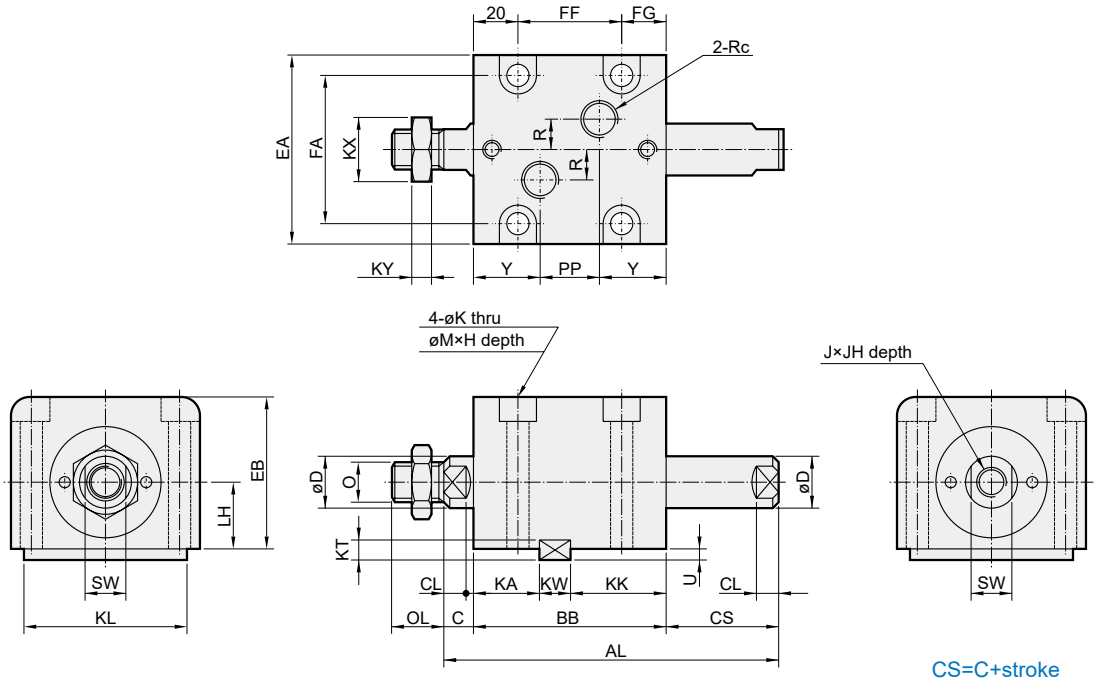
Code / Tube I.D.	KT	KW	KX	KY	LH	M	O	OL	Rc	R	SW	U	X	Y
ø32	8	12	24	8	25	14	M16×1.5	25	Rc1/4	10	17	4.5	12	28
ø40	8	12	32	11	29	18	M22×1.5	30	Rc1/4	10	22	4.5	12	28
ø50	9	14	35	14	34	20	M26×1.5	35	Rc1/4	10	27	5	12.5	29.5
ø63	10	16	41	13	42	22	M30×1.5	40	Rc3/8	10	32	5.5	16	31

MHCQ-RD



CS=C+stroke

MHCQ-LD



CS=C+stroke

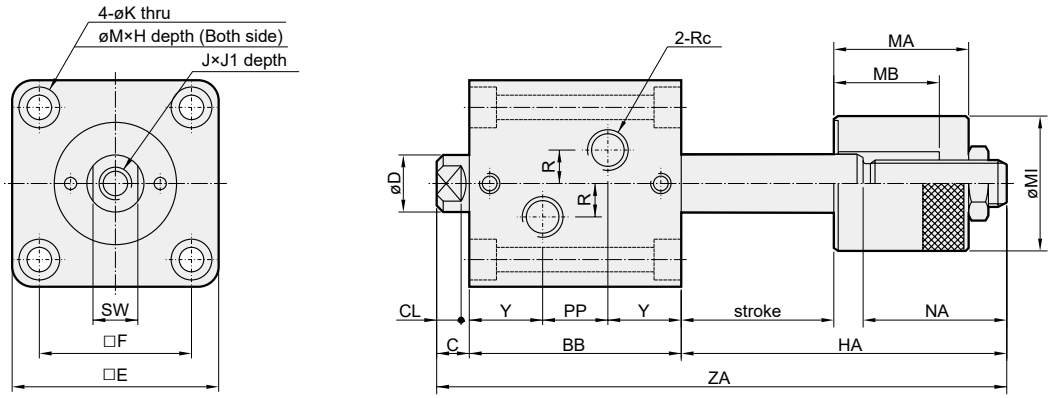
Tube I.D.	Model	MHCQ-RD / MHCQ-LD									
	Stroke	5	10	15	20	25	30	35	40	45	50
ø32	AL	104	109	124	129	144	149	164	169	184	189
	BB	79	79	89	89	99	99	109	109	119	119
	CS	15	20	25	30	35	40	45	50	55	60
	FF	42	42	52	52	62	62	72	72	82	82
	KK	39	39	49	49	59	59	69	69	79	79
	PP	23	23	33	33	43	43	53	53	63	63
ø40	AL	105	110	125	130	145	150	165	170	185	190
	BB	80	80	90	90	100	100	110	110	120	120
	CS	15	20	25	30	35	40	45	50	55	60
	FF	42	42	52	52	62	62	72	72	82	82
	KK	40	40	50	50	60	60	70	70	80	80
	PP	24	24	34	34	44	44	54	54	64	64
ø50	AL	112	117	132	137	152	157	172	177	192	197
	BB	85	85	95	95	105	105	115	115	125	125
	CS	16	21	26	31	36	41	46	51	56	61
	FF	45	45	55	55	65	65	75	75	85	85
	KK	42	42	52	52	62	62	72	72	82	82
	PP	26	26	36	36	46	46	56	56	66	66
ø63	AL	123	128	143	148	163	168	183	188	203	208
	BB	92	92	102	102	112	112	122	122	132	132
	CS	18	23	28	33	38	43	48	53	58	63
	FF	52	52	62	62	72	72	82	82	92	92
	KK	45	45	55	55	65	65	75	75	85	85
	PP	30	30	40	40	50	50	60	60	70	70

Code / Tube I.D.	C	CL	D	EA	EB	FA	FG	H	J	JH	K	KA	KL	KT
ø32	10	7	20	70	56	56	17	9	M12×1.75	15	9	28	63	8
ø40	10	7	25	80	64	62	18	11	M16×2.0	20	11	28	70	8
ø50	11	8	30	94	74	74	20	13	M20×2.5	25	13	29	80	9
ø63	13	10	35	114	89	90	20	15	M27×3.0	35	15	31	100	10

Code / Tube I.D.	KW	KX	KY	LH	M	O	OL	Rc	R	SW	U	Y
ø32	12	24	8	25	14	M16×1.5	25	Rc1/4	10	17	4.5	28
ø40	12	32	11	29	18	M22×1.5	30	Rc1/4	10	22	4.5	28
ø50	14	35	14	34	20	M26×1.5	35	Rc1/4	10	27	5	29.5
ø63	16	41	13	42	22	M30×1.5	40	Rc3/8	10	32	5.5	31

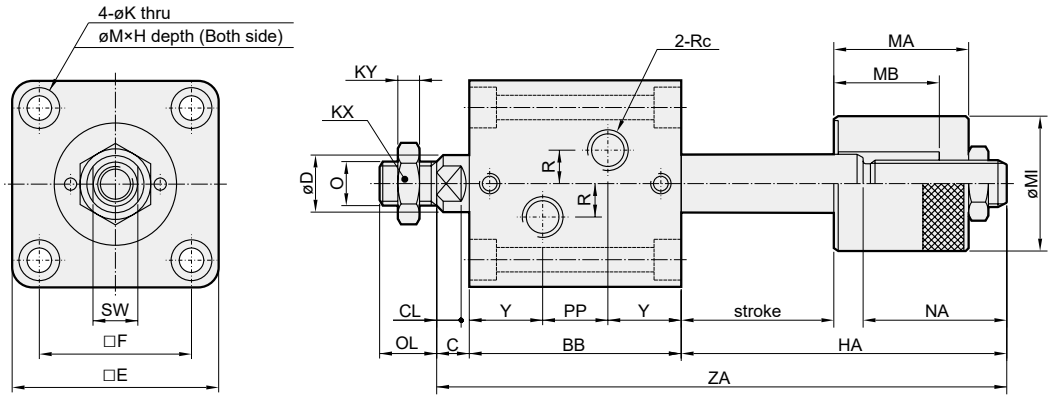
MHCB-DA

Adjustable stroke
25 mm



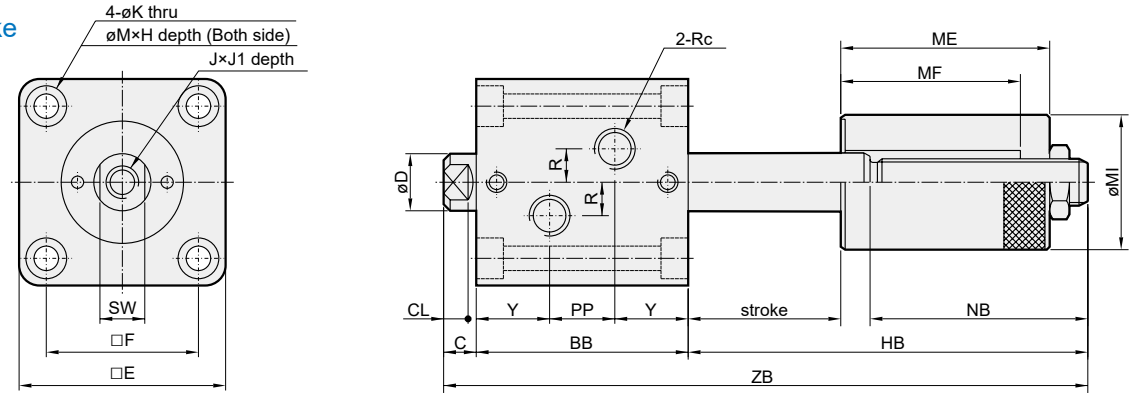
MHCB-ZDA

Adjustable stroke
25 mm



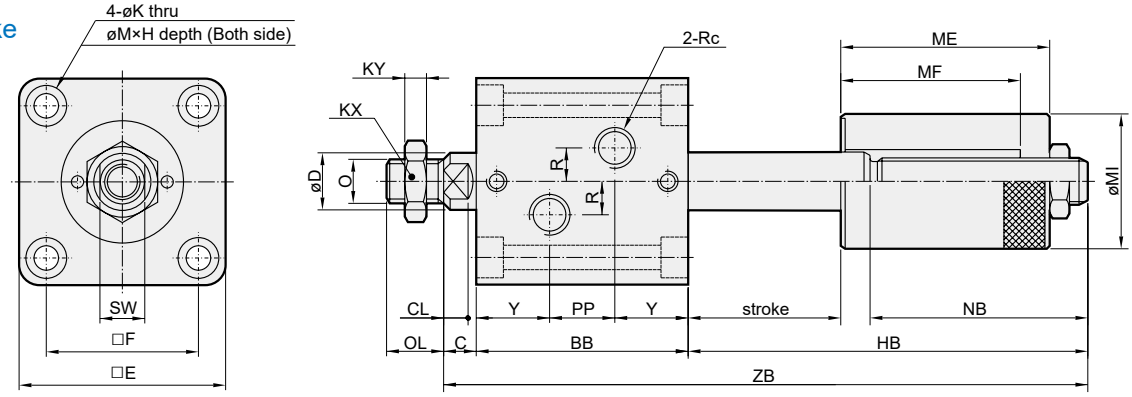
MHCB-DB

Adjustable stroke
50 mm



MHCB-ZDB

Adjustable stroke
50 mm



Tube I.D.	Model	MHCB-DA / MHCB-ZDA														
	Stroke	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
ø32	ZA	153	158	173	178	193	198	213	218	233	238	-	-	-	-	-
	BB	79	79	89	89	99	99	109	109	119	119	-	-	-	-	-
	PP	23	23	33	33	43	43	53	53	63	63	-	-	-	-	-
	HA	64	69	74	79	84	89	94	99	104	109	-	-	-	-	-
ø40	ZA	163	168	183	188	203	208	223	228	243	248	-	-	-	-	-
	BB	80	80	90	90	100	100	110	110	120	120	-	-	-	-	-
	PP	24	24	34	34	44	44	54	54	64	64	-	-	-	-	-
	HA	73	78	83	88	93	98	103	108	113	118	-	-	-	-	-
ø50	ZA	171	176	191	196	211	216	231	236	251	256	-	-	-	-	-
	BB	85	85	95	95	105	105	115	115	125	125	-	-	-	-	-
	PP	26	26	36	36	46	46	56	56	66	66	-	-	-	-	-
	HA	75	80	85	90	95	100	105	110	115	120	-	-	-	-	-
ø63	ZA	188	193	208	213	228	233	248	253	268	273	-	-	-	-	-
	BB	92	92	102	102	112	112	122	122	132	132	-	-	-	-	-
	PP	30	30	40	40	50	50	60	60	70	70	-	-	-	-	-
	HA	83	88	93	98	103	108	113	118	123	128	-	-	-	-	-
ø80	ZA	207	212	227	232	247	252	267	272	287	292	-	-	-	-	-
	BB	103	103	113	113	123	123	133	133	143	143	-	-	-	-	-
	PP	37	37	47	47	57	57	67	67	77	77	-	-	-	-	-
	HA	87	92	97	102	107	112	117	122	127	132	-	-	-	-	-

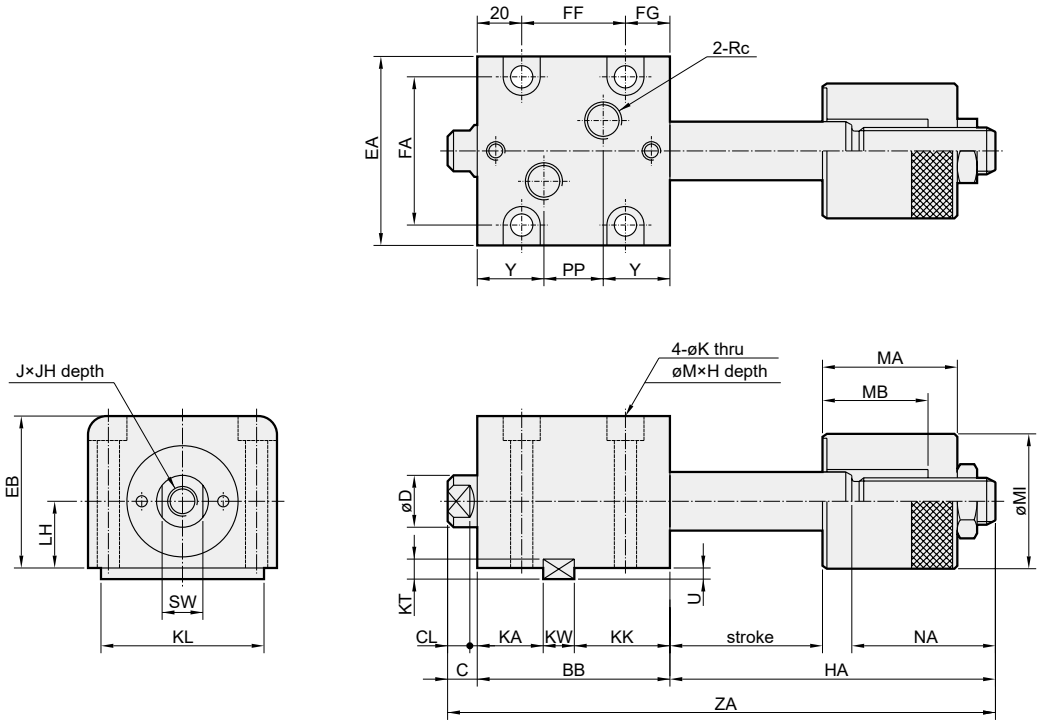
Tube I.D.	Model	MHCB-DB / MHCB-ZDB														
	Stroke	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100
ø32	ZB	178	183	198	203	218	223	238	243	258	263	-	-	-	-	-
	BB	79	79	89	89	99	99	109	109	119	119	-	-	-	-	-
	PP	23	23	33	33	43	43	53	53	63	63	-	-	-	-	-
	HB	89	94	99	104	109	114	119	124	129	134	-	-	-	-	-
ø40	ZB	188	193	208	213	228	233	248	253	268	273	-	-	-	-	-
	BB	80	80	90	90	100	100	110	110	120	120	-	-	-	-	-
	PP	24	24	34	34	44	44	54	54	64	64	-	-	-	-	-
	HB	98	103	108	113	118	123	128	133	138	143	-	-	-	-	-
ø50	ZB	196	201	216	221	236	241	256	261	276	281	-	-	-	-	-
	BB	85	85	95	95	105	105	115	115	125	125	-	-	-	-	-
	PP	26	26	36	36	46	46	56	56	66	66	-	-	-	-	-
	HB	100	105	110	115	120	125	130	135	140	145	-	-	-	-	-
ø63	ZB	213	218	233	238	253	258	273	278	293	298	-	-	-	-	-
	BB	92	92	102	102	112	112	122	122	132	132	-	-	-	-	-
	PP	30	30	40	40	50	50	60	60	70	70	-	-	-	-	-
	HB	108	113	118	123	128	133	138	143	148	153	-	-	-	-	-
ø80	ZB	232	237	252	257	272	277	292	297	312	317	-	-	-	-	-
	BB	103	103	113	113	123	123	133	133	143	143	-	-	-	-	-
	PP	37	37	47	47	57	57	67	67	77	77	-	-	-	-	-
	HB	112	117	122	127	132	137	142	147	152	157	-	-	-	-	-

Code / Tube I.D.	C	CL	D	E	F	H	J	J1	K	KX	KY	M	MI	MA
ø32	10	7	20	62	47	6.5	M12×1.75	15	6.6	24	8	11	45	46
ø40	10	7	25	70	52	9	M16×2.0	20	9	32	11	14	55	54
ø50	11	8	30	80	58	11	M20×2.5	25	11	35	14	18	60	53
ø63	13	10	35	94	69	13	M27×3.0	35	13	41	13	20	75	63
ø80	17	14	45	114	86	15	M30×3.5	35	15	50	10	22	90	70

Code / Tube I.D.	MB	ME	MF	NA	NB	O	OL	Rc	R	SW	Y
ø32	36	71	61	49	74	M16×1.5	25	Rc1/4	10	17	28
ø40	36	79	61	58	83	M22×1.5	30	Rc1/4	10	22	28
ø50	37	78	62	59	84	M26×1.5	35	Rc1/4	10	27	29.5
ø63	39	88	64	65	90	M30×1.5	40	Rc3/8	10	32	31
ø80	43	95	68	65	90	M39×1.5	45	Rc3/8	15	41	33

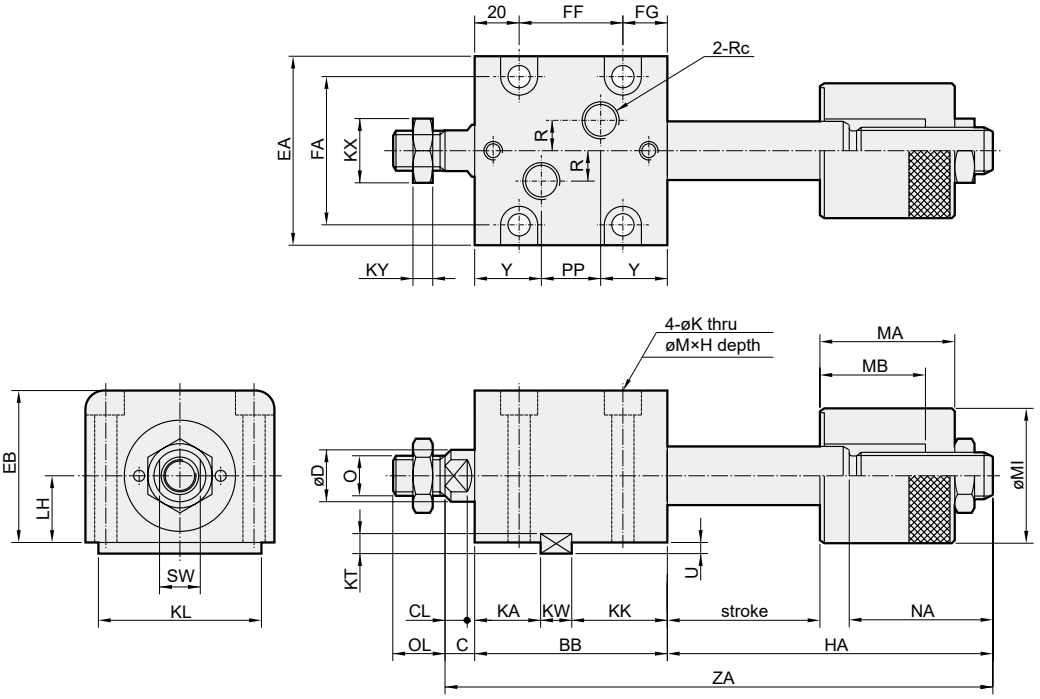
MHCQ-DA

Adjustable stroke 25 mm



MHCQ-ZDA

Adjustable stroke 25 mm



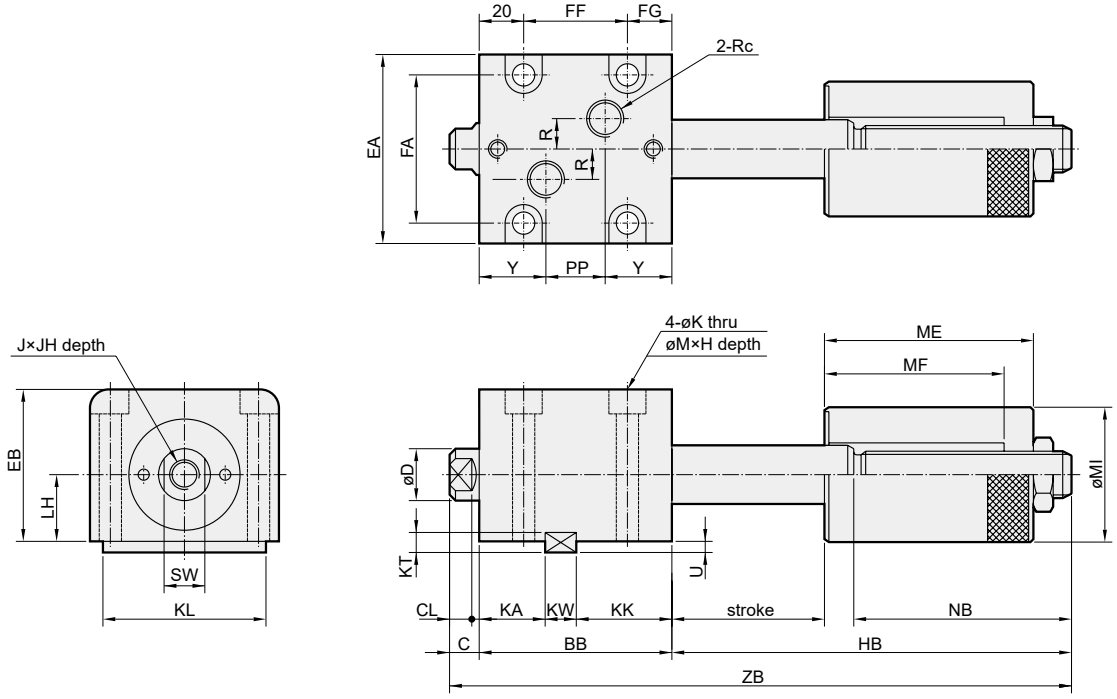
Tube I.D.	Model	MHCQ-DA / MHCQ-ZDA									
	Stroke	5	10	15	20	25	30	35	40	45	50
ø32	ZA	153	158	173	178	193	198	213	218	233	238
	BB	79	79	89	89	99	99	109	109	119	119
	FF	42	42	52	52	62	62	72	72	82	82
	KK	39	39	49	49	59	59	69	69	79	79
	PP	23	23	33	33	43	43	53	53	63	63
	HA	64	69	74	79	84	89	94	99	104	109
ø40	ZA	163	168	183	188	203	208	223	228	243	248
	BB	80	80	90	90	100	100	110	110	120	120
	FF	42	42	52	52	62	62	72	72	82	82
	KK	40	40	50	50	60	60	70	70	80	80
	PP	24	24	34	34	44	44	54	54	64	64
	HA	73	78	83	88	93	98	103	108	113	118
ø50	ZA	171	176	191	196	211	216	231	236	251	256
	BB	85	85	95	95	105	105	115	115	125	125
	FF	45	45	55	55	65	65	75	75	85	85
	KK	42	42	52	52	62	62	72	72	82	82
	PP	26	26	36	36	46	46	56	56	66	66
	HA	75	80	85	90	95	100	105	110	115	120
ø63	ZA	188	193	208	213	228	233	248	253	268	273
	BB	92	92	102	102	112	112	122	122	132	132
	FF	52	52	62	62	72	72	82	82	92	92
	KK	45	45	55	55	65	65	75	75	85	85
	PP	30	30	40	40	50	50	60	60	70	70
	HA	83	88	93	98	103	108	113	118	123	128

Code / Tube I.D.	C	CL	D	EA	EB	FA	FG	H	J	JH	K	KA	KL	KT	KW
ø32	10	7	20	70	56	56	17	9	M12×1.75	15	9	28	63	8	12
ø40	10	7	25	80	64	62	18	11	M16×2.0	20	11	28	70	8	12
ø50	11	8	30	94	74	74	20	13	M20×2.5	25	13	29	80	9	14
ø63	13	10	35	114	89	90	20	15	M27×3.0	35	15	31	100	10	16

Code / Tube I.D.	KX	KY	LH	M	MI	MA	MB	NA	O	OL	Rc	R	SW	U	Y
ø32	24	8	25	14	45	46	36	49	M16×1.5	25	Rc1/4	10	17	4.5	28
ø40	32	11	29	18	55	54	36	58	M22×1.5	30	Rc1/4	10	22	4.5	28
ø50	35	14	34	20	60	53	37	59	M26×1.5	35	Rc1/4	10	27	5	29.5
ø63	41	13	42	22	75	63	39	65	M30×1.5	40	Rc3/8	10	32	5.5	31

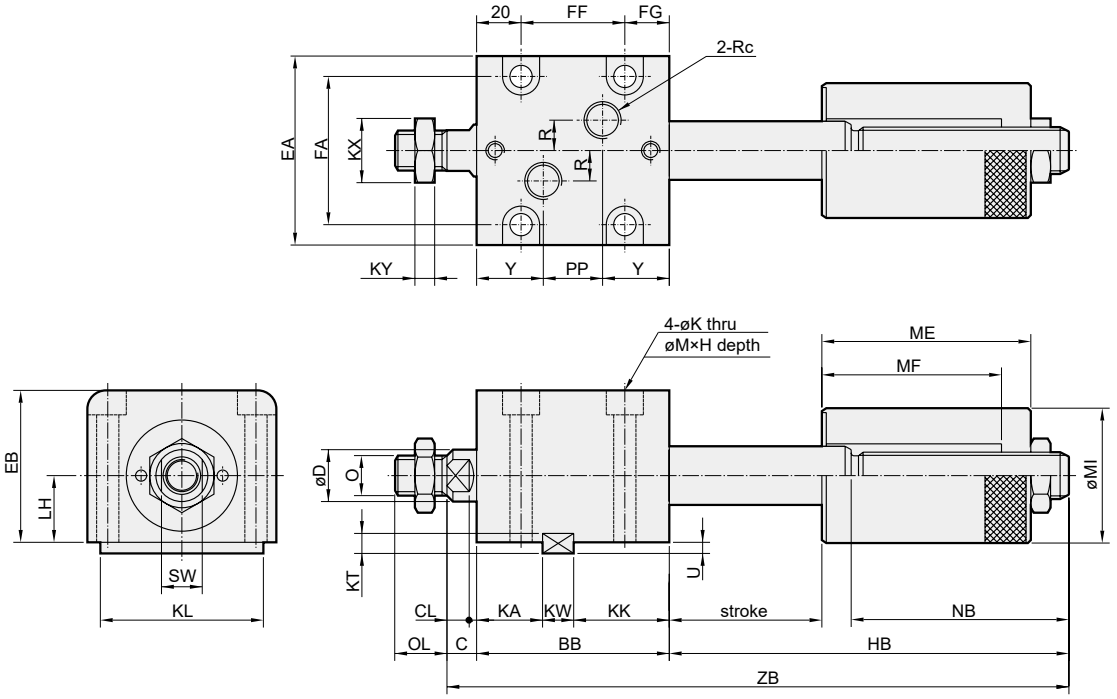
MHCQ-DB

Adjustable stroke 50 mm



MHCQ-ZDB

Adjustable stroke 50 mm



Tube I.D.	Model	MHCQ-DB / MHCQ-ZDB									
	Stroke	5	10	15	20	25	30	35	40	45	50
ø32	ZB	178	183	198	203	218	223	238	243	258	263
	BB	79	79	89	89	99	99	109	109	119	119
	FF	42	42	52	52	62	62	72	72	82	82
	KK	39	39	49	49	59	59	69	69	79	79
	PP	23	23	33	33	43	43	53	53	63	63
	HB	89	94	99	104	109	114	119	124	129	134
ø40	ZB	188	193	208	213	228	233	248	253	268	273
	BB	80	80	90	90	100	100	110	110	120	120
	FF	42	42	52	52	62	62	72	72	82	82
	KK	40	40	50	50	60	60	70	70	80	80
	PP	24	24	34	34	44	44	54	54	64	64
	HB	98	103	108	113	118	123	128	133	138	143
ø50	ZB	196	201	216	221	236	241	256	261	276	281
	BB	85	85	95	95	105	105	115	115	125	125
	FF	45	45	55	55	65	65	75	75	85	85
	KK	42	42	52	52	62	62	72	72	82	82
	PP	26	26	36	36	46	46	56	56	66	66
	HB	100	105	110	115	120	125	130	135	140	145
ø63	ZB	213	218	233	238	253	258	273	278	293	298
	BB	92	92	102	102	112	112	122	122	132	132
	FF	52	52	62	62	72	72	82	82	92	92
	KK	45	45	55	55	65	65	75	75	85	85
	PP	30	30	40	40	50	50	60	60	70	70
	HB	108	113	118	123	128	133	138	143	148	153

Code / Tube I.D.	C	CL	D	EA	EB	FA	FG	H	J	JH	K	KA	KL	KT	KW
ø32	10	7	20	70	56	56	17	9	M12×1.75	15	9	28	63	8	12
ø40	10	7	25	80	64	62	18	11	M16×2.0	20	11	28	70	8	12
ø50	11	8	30	94	74	74	20	13	M20×2.5	25	13	29	80	9	14
ø63	13	10	35	114	89	90	20	15	M27×3.0	35	15	31	100	10	16

Code / Tube I.D.	KX	KY	LH	M	MI	ME	MF	NB	O	OL	Rc	R	SW	U	Y
ø32	24	8	25	14	45	71	61	74	M16×1.5	25	Rc1/4	10	17	4.5	28
ø40	32	11	29	18	55	79	61	83	M22×1.5	30	Rc1/4	10	22	4.5	28
ø50	35	14	34	20	60	78	62	84	M26×1.5	35	Rc1/4	10	27	5	29.5
ø63	41	13	42	22	75	88	64	90	M30×1.5	40	Rc3/8	10	32	5.5	31