

MCQA-AH series

AIR / OIL CONVERTER



Mindman



Technical data



Caution for safety
(Read before installing)



Order example

MCQA — 00 — 50 — 100 — AH

MODEL

STYLE

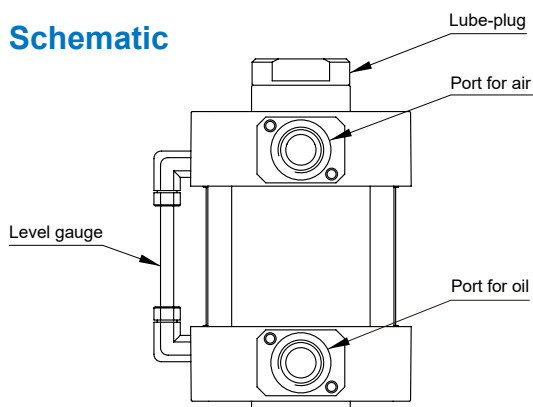
TUBE I.D.

LENGTH

TYPE

Code	Symbol	Description
0 0		No acting

Schematic



Volume calculation

$$V = \frac{\pi D^2}{4} \times L \times 10^{-6}$$

V:	Air/oil converter volume	(L)
D:	Tube I.D.	(mm)
L:	Length of converter	(mm)

Features

- Cylinder thrust should be 70% (50% of Maximum Speed) of theoretical force.
- Displacement should be approximately 50% of total volume.
- Maximum acceleration is approximately 200mm/sec.
- ISO VG32 or an equivalent oil is recommended.
- Oil feed should not exceed 80% of total volume.
- Unit should be installed vertically above the cylinder / actuator.

Specification

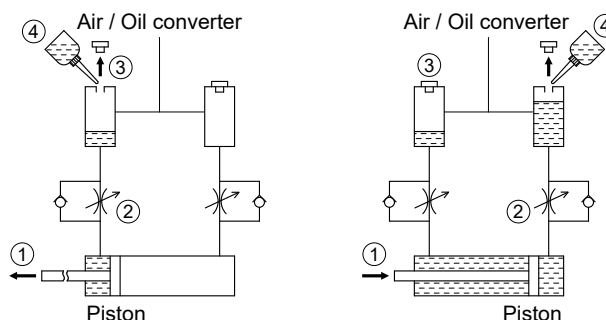
Model	MCQA-AH
Tube I.D. (mm)	40,50,63,80,100,125,150
Medium	ISO VG32 Equivalent
Operating pressure range	0.05~1 MPa
Proof pressure	1.5 MPa
Ambient temperature	-5~+60°C (No freezing)

Order example of mounting accessories

Code	LB (Purchase 2 pcs)	FAC	FBC
Mounting Tube I.D.			
ø40	LB-Q1-40	FAC-Q1-40	
ø50	LB-Q1-50	FAC-Q1-50	
ø63	LB-Q1-63	FAC-Q1-63	
ø80	LB-Q1-80	FAC-Q1-80	
ø100	LB-Q1-100	FAC-Q1-100	
ø125	LB-Q1-125	FAC-Q1-125	
ø150	LB-Q1-150	FAC-Q1-150	

△ ø125, ø150: Factory-installed (Field assembly is not recommended)

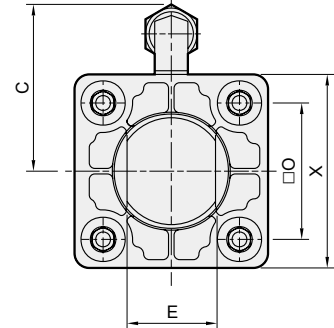
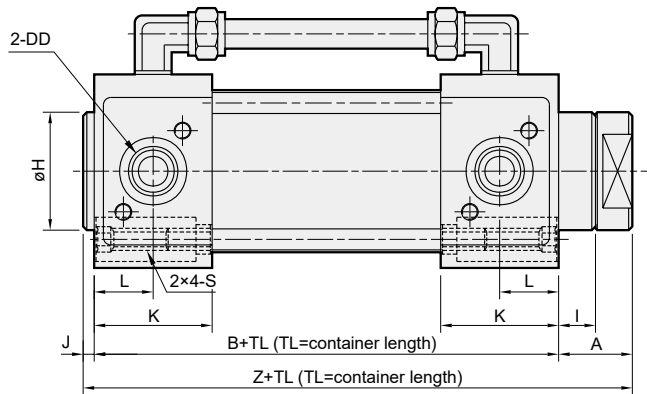
Lubricating procedure



- ① Pull the piston to the oil supply side.
- ② Adjust the throttle valve to full-opened.
- ③ Unscrew the lube plug on the top center of the converter.
- ④ Fill the oil to the proper level and screw up the lube plug to seal the oil hole.
- ⑤ Push the piston to another end with a pressure of approximately 0.2 MPa.
- ⑥ Repeat step ② ~ ④.
- ⑦ After completion of filling oil, have the piston reciprocate 2~3 times with a pressure of approximately 0.2 MPa.

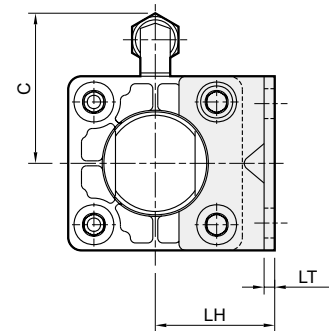
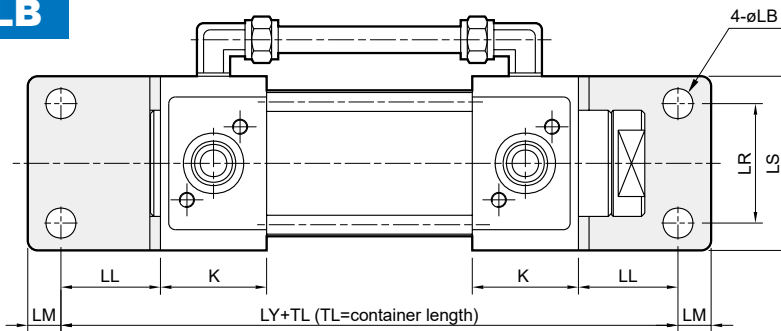
MCQA-AH Dimensions $\varnothing 40 \sim \varnothing 100$

AIR / OIL CONVERTER — INSTALLED UPRIGHTLY

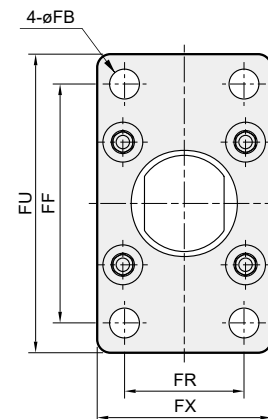
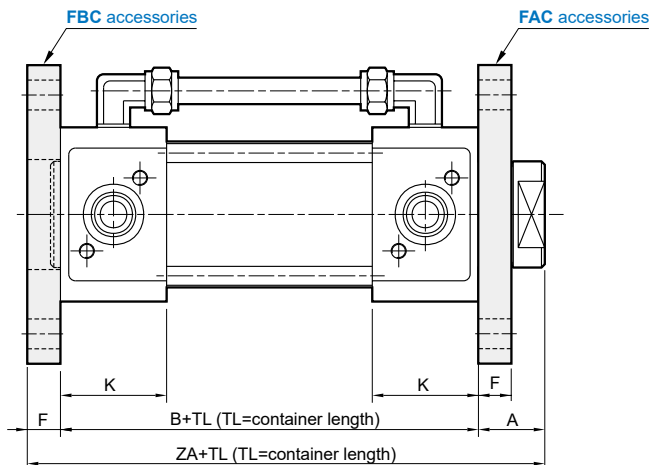


■ Mounting accessories

LB



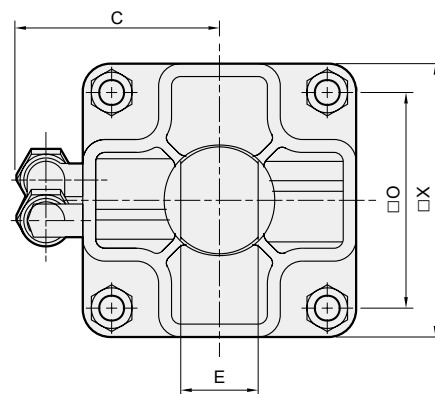
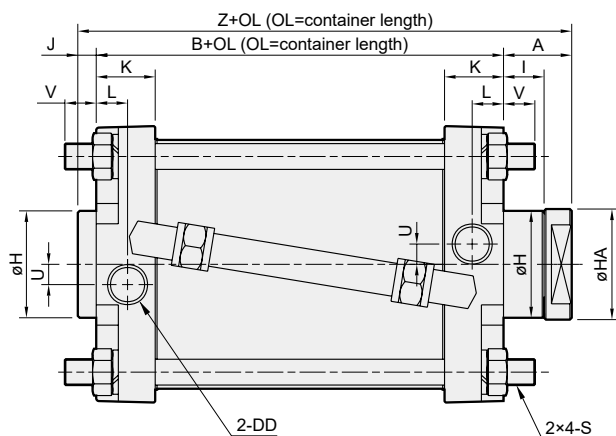
FAC FBC



Code Tube I.D.	A	B	C	DD	E	F	FB	FF	FR	FU	FX	H	I	J	K	L	LB	LH	LL	LM	LR	LS	LT	LY	O	S	X	Z	ZA
40	21	62	49	Rc1/4	24	12	9	80	42	100	65	32	11	3	26	13	9	40	27	13	42	58	3.2	116	40.5	M8×1.25	58	86	95
50	21	66	53	Rc3/8	28	12	9	90	50	110	73	40	11	3	28	14	9	45	27	13	50	66	3.2	120	48	M8×1.25	66	90	99
63	21	72	66	Rc3/8	28	15	11.5	105	59	130	84	40	11	3	30	15	11.5	50	34	16	59	80	4.5	140	59	M8×1.25	80	96	108
80	27	82	70	Rc1/2	36	18	14	130	76	160	108	45	15	4	34	17	14	65	44	16	76	100	6.0	170	74	M12×1.75	100	113	127
100	27	90	79	Rc1/2	40	18	14	150	92	180	124	52	15	5	37	18.5	14	75	43	17	92	118	6.0	176	90	M12×1.75	118	122	135

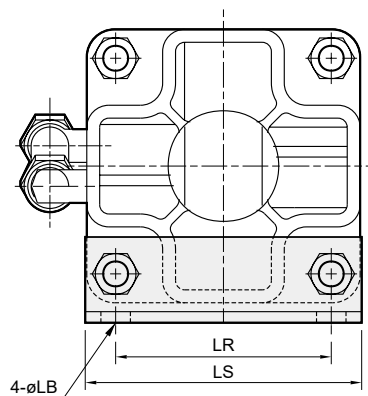
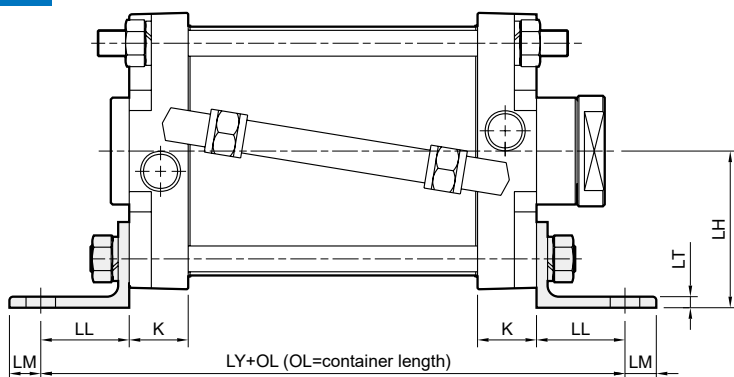
MCQA-AH Dimensions $\varnothing 125$, $\varnothing 150$

AIR / OIL CONVERTER — INSTALLED UPRIGHTLY



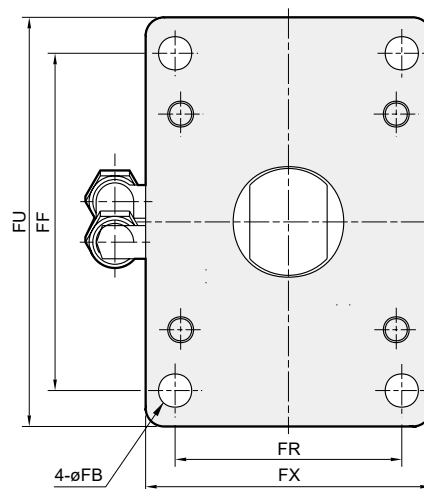
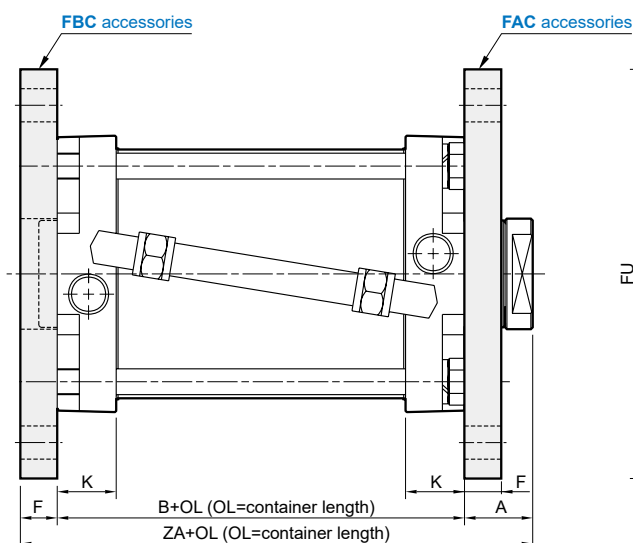
■ Mounting accessories

LB



FAC

FBC



Code Tube I.D.	A	B	C	DD	E	F	FB	FF	FR	FU	FX	H	HA	I	J	K	L	LB	LH	LL	LM	LR	LS	LT	LY	O	S	U	V	X	Z	ZA
125	47	90	95	Rc1/2	42	20	18	183	123	222	155	58	60	32	10	32	17	16	85	48	17	115	151	6	186	117	M14×1.5	11	20	150	147	157
150	47	107	108	Rc1/2	42	20	18	230	134	275	185	60	60	32	8	40.5	24.5	18	96.5	55	20	134	175	9	217	134	M16×1.5	12	26	175	162	174