

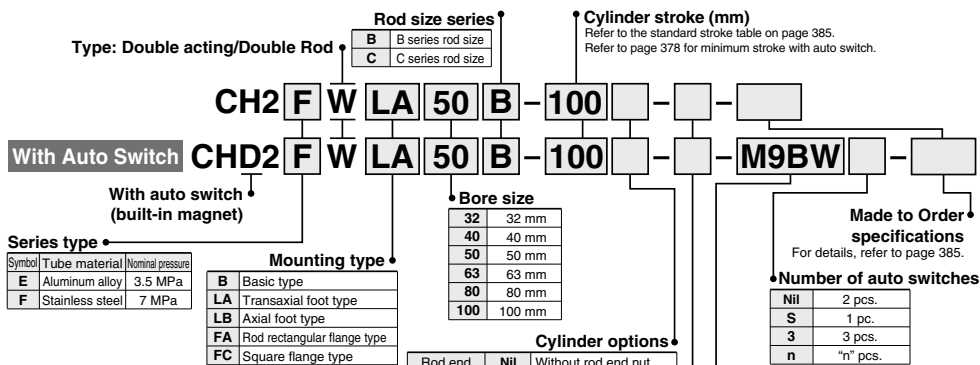
# JIS Standard Hydraulic Cylinder Double Acting/Double Rod

## CH2EW/CH2FW Series

ø32, ø40, ø50, ø63, ø80, ø100

3.5 MPa  
7 MPa

### How to Order



### Built-in Magnet Cylinder Model

If a built-in magnet cylinder without auto switch is required, there is no need to enter the symbol for the auto switch.  
 (Example) CHD2FWLA50-100

### Applicable Auto Switches

Refer to pages 431 to 490 for further details on each auto switch.

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage		Auto switch model				Lead wire length (m)					Pre-wired connector	Applicable load	
					DC	AC	Tie-rod mount ø32	Band mount ø32	0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None					
Solid state auto switch	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	—	M9N	—	—	●	●	○	○	○	IC circuit	Relay PLC
				3-wire (PNP)				F59	G59	●	●	○	○	○				
		2-wire		—				M9P	—	—	●	●	○	○	○			
		3-wire (NPN)		F5P				G5P	●	●	○	○	○	○				
		2-wire		—				M9B	—	—	●	●	○	○	○			
		2-wire		J59				K59	●	●	○	○	○	○				
	Water resistant (2-color indicator)	Terminal conduit	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	—	M9NW	—	—	●	●	○	○	○	IC circuit	
				3-wire (PNP)				F59W	G59W	●	●	○	○	○				
		2-wire		—				M9PW	—	—	●	●	○	○	○			
		3-wire (NPN)		F5PW				G5PW	●	●	○	○	○	○				
		3-wire (PNP)		—				M9BW	—	—	●	●	○	○	○			
		2-wire		J59W				K59W	●	●	○	○	○	○				
Diagnostic output (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	—	M9NA*1	—	—	○	○	○	○	IC circuit			
			3-wire (PNP)				—	M9PA*1	—	—	○	○	○	○				
	2-wire		—				M9BA*1	—	—	○	○	○	○	○				
	3-wire (NPN)		F5BA*1				G5BA*1	●	●	○	○	○	○					
	3-wire (PNP)		—				F59F	G59F	●	●	○	○	○	○				
	4-wire (NPN)		—				—	—	—	●	●	○	○	○				
Reed auto switch	Diagnostic indication (2-color indicator)	Grommet	Yes	2-wire (NPN equiv.)	24 V	12 V	—	—	A96**	—	—	●	●	○	○	IC circuit		
				—				A93**	—	—	●	●	○	○				
		100 V or less		—				A90**	—	—	●	●	○	○	○			
		100 V, 200 V		—				A54	B54	●	●	○	○	○				
		200 V or less		—				A64	B64	●	●	○	○	○				
		—		—				—	A33	—	—	—	—	—	—			
	Terminal conduit	Yes	No	2-wire	24 V	12 V	—	—	—	—	—	—	—	—	—	—		
								—	—	—	A34	—	—	—	—			
								—	—	—	A44	—	—	—	—			
								100 V, 200 V	—	—	—	—	—	—	—			
								—	—	—	—	—	—	—	—			
								—	—	—	—	—	—	—	—			
DIN terminal	Yes	No	2-wire	24 V	12 V	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			
Diagnostic indication (2-color indicator)	Grommet	Yes	2-wire	24 V	12 V	—	—	A59W	B59W	●	●	○	○	IC circuit				
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			
							—	—	—	—	—	—	—		—			

\*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

Consult with SMC regarding water resistant types with the above model numbers.

\* Lead wire length symbols: 0.5 m ..... Nil (Example) M9NW

1 m ..... M (Example) M9NWM

3 m ..... L (Example) M9NLW

5 m ..... Z (Example) M9NZW

\* Solid state auto switches marked "○" are produced upon receipt of order.

\*\* Auto switch models D-A9C, D-A9D cannot be mounted on CHD2E,

CHD2H in all bore sizes, and CHD2F32.

\* Since there are applicable auto switches other than listed, refer to page 380 for details.

\* For details about auto switches with pre-wired connector, refer to pages 474 and 475.

\* D-A9C, M9C, M9CW, and M9CA auto switches are shipped together. (not assembled). (Only the auto switch mounting bracket is pre-assembled).

# JIS Standard Hydraulic Cylinder *CH2EW/CH2FW Series*



Made to Order

Made to order specifications  
(For details, refer to page 382)

Symbol	Specifications
-XA <input type="checkbox"/>	Change of rod end shape



## Models

Model	CH2EW	CH2FW
<b>Tube material</b>	Aluminum alloy	Stainless steel
<b>Nominal pressure (MPa)</b>	3.5	7
<b>Bore size (mm)</b>	32, 40, 50, 63, 80, 100	

## Specifications

Model	CH2EW	CH2FW
<b>Action</b>	Double acting/Single rod	
<b>Fluid</b>	Hydraulic fluid	
<b>Nominal pressure (MPa)</b>	3.5	7
<b>Maximum allowable pressure (MPa)</b>	3.5	B rod 13.5 C rod 11
<b>Proof pressure (MPa)</b>	5.0	10.5
<b>Minimum operating pressure (MPa)</b>	0.3	
<b>Ambient and fluid temperature</b>	Without auto switch: -10° to 80°C	
	With auto switch: -10° to 60°C	
<b>Piston speed</b>	8 to 300 mm/s	
<b>Cushion</b>	Cushion seal type	
<b>Stroke length tolerance</b>	to 100 st $^{+0.8}_0$ , 101 to 250 st $^{+1.0}_0$ , 251 to 630 st $^{+1.25}_0$ , 631 to 1000 st $^{+1.4}_0$	

Note) Refer to page 214 for definitions of terms related to pressure.

## Standard Strokes

Cylinder bore size (mm)	Standard strokes (mm)
<b>32, 40, 50, 63</b>	25 to 800
<b>80, 100</b>	25 to 1000

Note) Refer to pages 230 and 231 determine stroke limitation depending on the type of mounting brackets that will be used. Then make your selection.

The auto switch mounting specifications are the same for double acting and single rod. Refer to pages 376 to 381.

- The minimum stroke for mounting auto switch
- Auto switch proper mounting positions (detection at stroke end) and its mounting heights
- Operating range
- Auto switch mounting bracket/Part no.

## Port and Cushion Valve Positions

Symbol Position Mounting type	Nil	A	C	D	E	F	G	H
	Port: Top Cushion valve: Right	Port: Right Cushion valve: Bottom	Port: Left Cushion valve: Top	Port: Top Cushion valve: Left	Port: Top Cushion valve: Bottom	Port: Right Cushion valve: Top	Port: Right Cushion valve: Left	Port: Left Cushion valve: Right
<b>B</b> (Basic type)								
<b>FA, FC</b> (Flange type) <b>TC</b> (Center trunnion type)								
<b>LA, LB</b> (Foot type)								

: Piping port : Cushion valve

\* The cylinder's exterior dimensions represented here are as seen from the rod end of the cylinder.

CHK

CHK

CHN

CHM

CHS

CH2

CHA

Related Products

D-

# CH2EW/CH2FW Series

## Rod Sizes

(mm)

Bore size (mm) \ Rod size series *	32	40	50	63	80	100
B-series	18	22.4	28	35.5	45	56
C-series	—	18	22.4	28	35.5	45

\* Based on JIS B8367.

## Accessories (Option)

Single knuckle, Double Knuckle Lock nut, Knuckle pin

\* Refer to page 375 for part numbers and dimensions.

## Hydraulic Fluid Compatibility

Hydraulic fluid	Compatibility
Standard mineral hydraulic fluid	Compatible
W/O hydraulic fluid	Compatible
O/W hydraulic fluid	Compatible
Water/Glycol hydraulic fluid	*
Phosphate hydraulic fluid	Not compatible

\* Consult with SMC.

## Cushion Stroke

(mm)

Bore size (mm)	32	40	50	63	80	100
Effective cushion stroke	16	16	17	16	20	23

## Weight

Unit: kg

Bore size (mm)	Mounting type Series	B	LA	FC	TC	LB	FA	Additional weight (per 10 mm stroke)	
		Basic	Transaxial foot	Square flange	Center trunnion	Axial foot	Rectangular flange (7 MPa)		
32	CH2E	2.94	3.93	3.79	3.43	3.44	3.38	0.04	
	CH2F	2.93	3.92	3.78	3.42	3.43	3.37	0.04	
	40	CH2E	3.82	5.12	4.91	4.41	4.40	4.41	0.08
		CH2F	3.79	5.09	4.88	4.38	4.37	4.38	0.08
	50	CH2E	6.37	8.97	8.33	7.21	7.17	7.45	0.09
		CH2F	6.27	8.87	8.23	7.11	7.07	7.35	0.10
63	CH2E	9.75	13.63	12.65	11.29	11.37	11.36	0.17	
	CH2F	9.16	13.04	12.06	10.70	10.78	10.77	0.17	
80	CH2E	15.00	20.35	19.59	17.02	17.36	17.69	0.24	
	CH2F	14.36	19.71	18.95	16.38	16.72	17.05	0.26	
100	CH2E	21.82	32.63	29.29	25.47	25.24	26.42	0.41	
	CH2F	21.26	32.06	28.73	24.91	24.68	25.86	0.46	

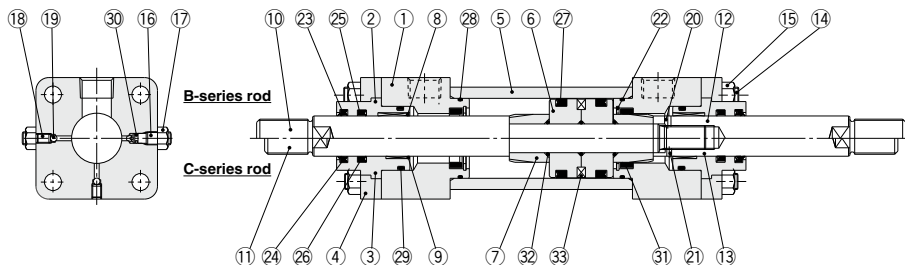
Bore size (mm)	Mounting type Series	B	LA	FC	TC	LB	FA	Additional weight (per 10 mm stroke)
		Basic	Transaxial foot	Square flange	Center trunnion	Axial foot	Rectangular flange (7 MPa)	
40	CH2E	3.74	5.04	4.83	4.33	4.32	4.33	0.07
	CH2F	3.71	5.01	4.80	4.30	4.29	4.30	0.07
50	CH2E	6.21	8.81	8.17	7.05	7.01	7.29	0.07
	CH2F	6.11	8.71	8.07	6.95	6.91	7.19	0.08
63	CH2E	9.44	13.32	12.34	10.98	11.06	11.05	0.14
	CH2F	8.86	12.74	11.76	10.40	10.48	10.47	0.14
80	CH2E	14.56	19.91	19.15	16.58	16.92	17.25	0.18
	CH2F	13.92	19.27	18.51	15.94	16.28	16.61	0.21
100	CH2E	20.76	31.57	28.23	24.41	24.18	25.36	0.29
	CH2F	20.20	31.01	27.67	23.85	23.62	24.80	0.30

## Theoretical Output

Unit: N

Bore size (mm)	Rod size (mm)	Piston area (mm <sup>2</sup> )	Nominal pressure (MPa)				
			1	3.5	5	7	
B-series rod	32	18	550	550	1923	2748	3847
	40	22.4	862	862	3017	4311	6035
	50	28	1347	1347	4715	6735	9429
	63	35.5	2126	2126	7442	10632	14885
	80	45	3434	3434	12020	17172	24041
	100	56	5388	5388	18859	26941	37718
C-series rod	40	18	1002	1002	3506	5008	7012
	50	22.4	1569	1569	5490	7843	10980
	63	28	2500	2500	8751	12501	17502
	80	35.5	4035	4035	14121	20174	28243
	100	45	6260	6260	21911	31302	43823

## Construction



### Parts List

No.	Description	Material	Note
1	Rod cover	Carbon steel	
2	Seal holder (B-series rod)	Carbon steel	
3	Seal holder (C-series rod)	Carbon steel	
4	Retainer	Carbon steel	
5	Cylinder tube	CH2E Aluminum alloy CH2F Stainless steel	Hard anodized
6	Piston	Aluminum alloy	
7	Cushion ring	Rolled steel	
8	Bushing (B-series rod)	Copper alloy	
9	Bushing (C-series rod)	Copper alloy	
10	Piston rod A (B-series rod)	Carbon steel	Hard chromium electroplated
11	Piston rod A (C-series rod)	Carbon steel	Hard chromium electroplated
12	Piston rod B (B-series rod)	Carbon steel	Hard chromium electroplated
13	Piston rod B (C-series rod)	Carbon steel	Hard chromium electroplated
14	Tie-rod	Carbon steel	
15	Tie-rod nut	Carbon steel	
16	Cushion valve	Alloy steel	
17	Lock nut	Carbon steel	
18	Air release valve	Alloy steel	
19	Check ball	Bearing steel	
20	Spring pin (B-series rod)	Carbon tool steel	
21	Spring pin (C-series rod)	Carbon tool steel	
22	Retaining ring	Carbon tool steel	
23	Scraper (B-series rod)	NBR	
24	Scraper (C-series rod)	NBR	
25	Rod seal (B-series rod)	NBR	
26	Rod seal (C-series rod)	NBR	
27	Piston seal	NBR	
28	Cylinder tube gasket	NBR	
29	Holder gasket	NBR	
30	Cushion valve seal	NBR	
31	Cushion seal	—	
32	Gasket	NBR	
33	Magnet	—	

### Replacement Parts: Seal Kit

Bore size (mm)	Seal kit no.		Content
	B-series rod	C-series rod	
40	CH2EW40B-PS CH2FW40B-PS	CH2EW40C-PS CH2FW40C-PS	Nos. 23 through 31 from the chart at left
50	CH2EW50B-PS CH2FW50B-PS	CH2EW50C-PS CH2FW50C-PS	
63	CH2EW63B-PS CH2FW63B-PS	CH2EW63C-PS CH2FW63C-PS	
80	CH2EW80B-PS CH2FW80B-PS	CH2EW80C-PS CH2FW80C-PS	
100	CH2EW100B-PS	CH2EW100C-PS	
	CH2FW100B-PS	CH2FW100C-PS	

\* For the B-series rod, 1 seal kit includes 23, 25, and 27 to 31. For the C-series rod, 1 seal kit includes 24, 26, and 27 to 31. They can be ordered using the part number for each bore size.

CHQ

CHK

CHN

CHM

CHS

CH2

CHA

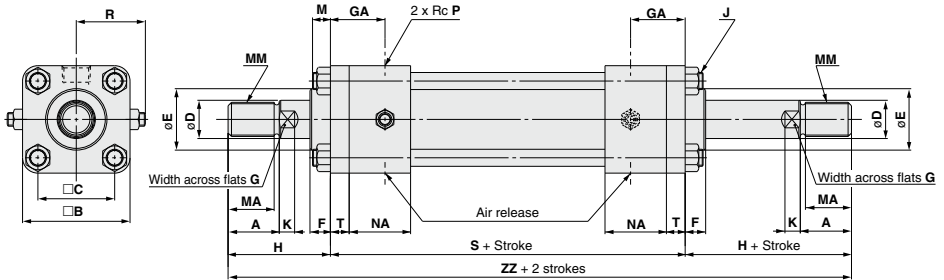
Related  
Products

D-

# CH2EW/CH2FW Series

## Dimensions

Basic type: CH2EWB, CH2FWB



(mm)

Bore size (mm)	Stroke range (mm)	$\square B$	$\square C$	F	GA	J	M	NA	P	R	S	T
32	25 to 800	58	38	16	32	M10 x 1.25	11	37	3/8	39	158	11
40	25 to 800	65	45	12	32	M10 x 1.25	11	36	3/8	42	158	11
50	25 to 800	76	52	15	40	M10 x 1.25	11	43	1/2	46	176	13
63	25 to 800	90	63	15	42	M12 x 1.5	14	43	1/2	52	186	15
80	25 to 1000	110	80	17	40	M16 x 1.5	16	44	3/4	65	202	18
100	25 to 1000	135	102	19	42	M18 x 1.5	18	44	3/4	75	212	20

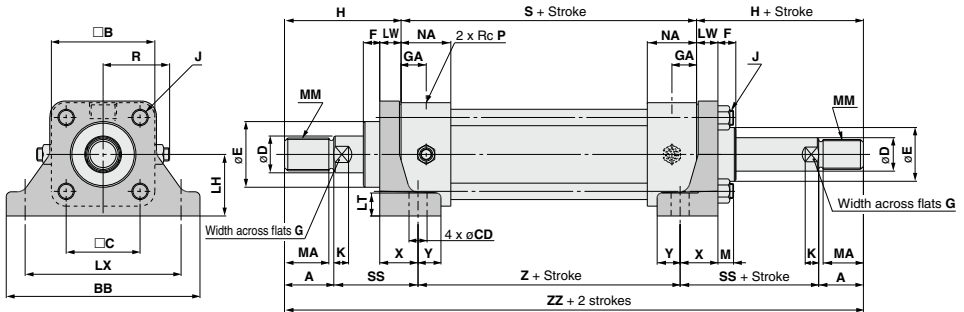
## Rod series

(mm)

Bore size (mm)	B-series rod										C-series rod									
	MM	A	MA	D	E	K	G	H	ZZ	MM	A	MA	D	E	K	G	H	ZZ		
32	M16 x 1.5	25	22	18	34	7	14	55	268	—	—	—	—	—	—	—	—	—		
40	M20 x 1.5	30	27	22.4	40	-0.025 -0.064	9	19	60	278	M16 x 1.5	25	22	18	36	-0.025	7	14	55	268
50	M24 x 1.5	35	32	28	46	-0.030 -0.076	11	24	65	306	M20 x 1.5	30	27	22.4	40	-0.064	9	19	60	296
63	M30 x 1.5	45	42	35.5	55	-0.030 -0.076	13	30	80	346	M24 x 1.5	35	32	28	46	-0.064	11	24	70	326
80	M39 x 1.5	60	57	45	65	-0.030 -0.076	15	41	95	392	M30 x 1.5	45	42	35.5	55	-0.030	13	30	80	362
100	M48 x 1.5	75	72	56	80	-0.030 -0.076	16	50	115	442	M39 x 1.5	60	57	45	65	-0.076	15	41	100	412

# JIS Standard Hydraulic Cylinder *CH2EW/CH2FW Series*

Transaxial foot type: CH2EWLA, CH2FWLA



- CHQ**
- CHK
- CHN
- CHM
- CHS
- CH2**
- CHA
- Related Products
- D-

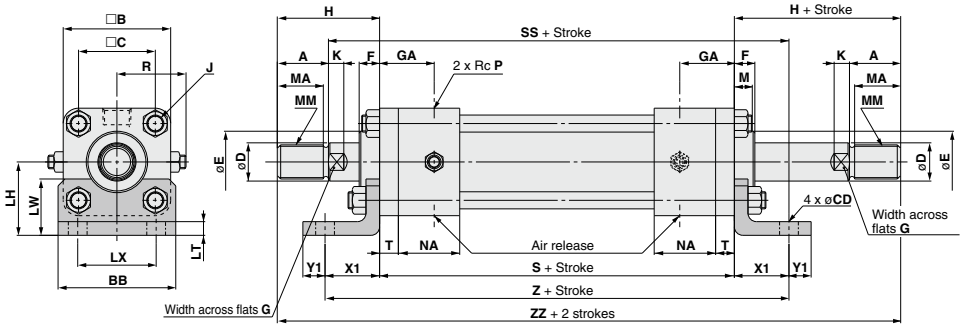
Bore size (mm)	Stroke range (mm)	BB	□B	□C	CD	F	GA	J	LH	LT	LW	LX	M	NA	P	R	S	SS	X	Y	Z		
32	25 to 800	109	58	38	11	14	21	M10 x 1.25	35	±0.15	14	13	88	11	37	3/8	39	136	57	29	14	104	
40	25 to 800	118	65	45	11	10	21	M10 x 1.25	37.5		14	13	95	±0.18	11	36	3/8	42	136	57	29	14	104
50	25 to 800	145	76	52	14	10	27	M10 x 1.25	45		17	18	115		11	43	1/2	46	150	60	35	18	116
63	25 to 800	165	90	63	18	10	27	M12 x 1.5	50	±0.20	19	20	132	14	43	1/2	52	156	71	41	19	114	
80	25 to 1000	190	110	80	18	11	22	M16 x 1.5	60		24	24	155	±0.20	16	44	3/4	65	166	74	45	20	124
100	25 to 1000	230	135	102	22	11	22	M18 x 1.5	71	27	28	190	±0.23	18	44	3/4	75	172	85	53	22	122	

Bore size (mm)	B-series rod										C-series rod									
	MM	A	MA	D	E	K	G	H	ZZ	MM	A	MA	D	E	K	G	H	ZZ		
32	M16 x 1.5	25	22	18	34	7	14	66	268	—	—	—	—	—	—	—	—	—	—	
40	M20 x 1.5	30	27	22.4	40	-0.025 -0.064	9	19	71	278	M16 x 1.5	25	22	18	36	7	14	66	268	
50	M24 x 1.5	35	32	28	46		11	24	78	306	M20 x 1.5	30	27	22.4	40	-0.025 -0.064	9	19	73	296
63	M30 x 1.5	45	42	35.5	55		13	30	95	346	M24 x 1.5	35	32	28	46	11	24	85	326	
80	M39 x 1.5	60	57	45	65	-0.030 -0.076	15	41	113	392	M30 x 1.5	45	42	35.5	55	-0.030 -0.076	13	30	98	362
100	M48 x 1.5	75	72	56	80		16	50	135	442	M39 x 1.5	60	57	45	65	15	41	120	412	

# CH2EW/CH2FW Series

## Dimensions

Axial foot type: CH2EWLB, CH2FWLB

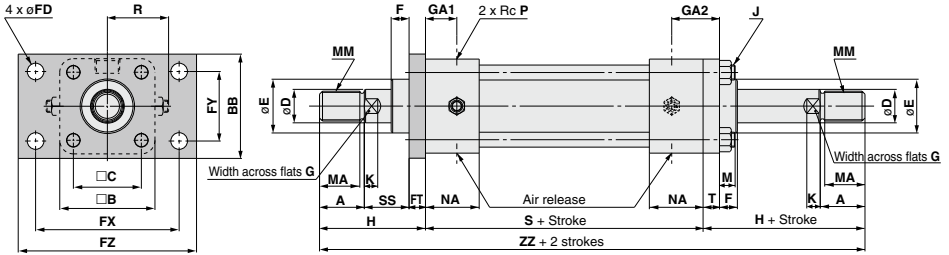


Bore size (mm)	Stroke range (mm)	BB	B	C	CD	F	GA	J	LH	LT	LW	LX	M	NA	P	R	S	SS	T	X1	Y1	Z	
32	25 to 800	62	58	38	11	16	32	M10 x 1.25	40	±0.15	8	30	40	11	37	3/8	39	158	220	11	32	13	222
40	25 to 800	69	65	45	11	12	32	M10 x 1.25	43		8	33	46	±0.13	11	36	3/8	42	158	220	11	32	13
50	25 to 800	85	76	52	14	15	40	M10 x 1.25	50	±0.15	8	37	58	11	43	1/2	46	176	241	13	35	15	246
63	25 to 800	98	90	63	18	15	42	M12 x 1.5	60		10	45	65	±0.15	14	43	1/2	52	186	263	15	42	18
80	25 to 1000	118	110	80	18	17	40	M16 x 1.5	72	±0.25	12	50	87	16	44	3/4	65	202	287	18	50	20	302
100	25 to 1000	150	135	102	22	19	42	M18 x 1.5	85		12	55	109	±0.18	18	44	3/4	75	212	307	20	55	23

### Rod series

Bore size (mm)	B-series rod										C-series rod									
	MM	A	MA	D	E	K	G	H	ZZ	MM	A	MA	D	E	K	G	H	ZZ		
32	M16 x 1.5	25	22	18	34	7	14	55	268	—	—	—	—	—	—	—	—	—	—	
40	M20 x 1.5	30	27	22.4	40	-0.025 -0.064	9	19	60	278	M16 x 1.5	25	22	18	36	-0.025 -0.064	7	14	55	268
50	M24 x 1.5	35	32	28	46	-0.030 -0.076	11	24	65	306	M20 x 1.5	30	27	22.4	40	-0.030 -0.076	9	19	60	296
63	M30 x 1.5	45	42	35.5	55	-0.030 -0.076	13	30	80	346	M24 x 1.5	35	32	28	46	-0.030 -0.076	11	24	70	326
80	M39 x 1.5	60	57	45	65	-0.030 -0.076	15	41	95	392	M30 x 1.5	45	42	35.5	55	-0.030 -0.076	13	30	80	362
100	M48 x 1.5	75	72	56	80	-0.030 -0.076	16	50	115	442	M39 x 1.5	60	57	45	65	-0.030 -0.076	15	41	100	412

Rod rectangular flange type: CH2EWFA, CH2FWFA



- CHQ**
- CHK
- CHN
- CHM
- CHS
- CH2**
- CHA
- Related Products
- D-

(mm)

Bore size (mm)	Stroke range (mm)	BB	□B	□C	F	FD	FT	FX	FY	FZ	GA1	GA2	J	M	NA	P	R	S	SS	T
32	25 to 800	62	58	38	16	11	11	88	40	109	21	32	M10 x 1.25	11	37	3/8	39	136	30	11
40	25 to 800	69	65	45	12	11	11	95 ±0.18	46 ±0.13	118	21	32	M10 x 1.25	11	36	3/8	42	136	30	11
50	25 to 800	85	76	52	15	14	13	115	58 ±0.15	145	27	40	M10 x 1.25	11	43	1/2	46	150	30	13
63	25 to 800	98	90	63	15	18	15	132	65 ±0.15	165	27	42	M12 x 1.5	14	43	1/2	52	156	35	15
80	25 to 1000	118	110	80	17	18	18	155 ±0.2	87 ±0.18	190	22	40	M16 x 1.5	16	44	3/4	65	166	35	18
100	25 to 1000	150	135	102	19	22	20	190 ±0.23	109 ±0.18	230	22	42	M18 x 1.5	18	44	3/4	75	172	40	20

**Rod series** (mm)

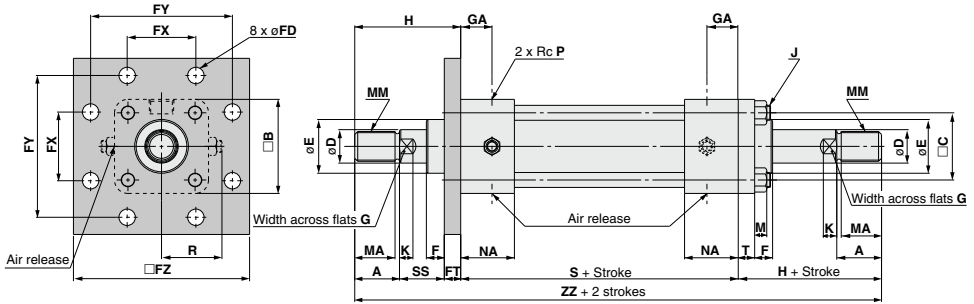
Bore size (mm)	B-series rod										C-series rod									
	MM	A	MA	D	E	K	G	H	ZZ	MM	A	MA	D	E	K	G	H	ZZ		
32	M16 x 1.5	25	22	18	34	7	14	66	268	—	—	—	—	—	—	—	—	—	—	
40	M20 x 1.5	30	27	22.4	40	-0.025 -0.064	9	19	71	278	M16 x 1.5	25	22	18	36	-0.025 -0.064	7	14	66	268
50	M24 x 1.5	35	32	28	46	—	11	24	78	306	M20 x 1.5	30	27	22.4	40	—	9	19	73	296
63	M30 x 1.5	45	42	35.5	55	—	13	30	95	346	M24 x 1.5	35	32	28	46	—	11	24	85	326
80	M39 x 1.5	60	57	45	65	-0.030 -0.076	15	41	113	392	M30 x 1.5	45	42	35.5	55	-0.030 -0.076	13	30	98	362
100	M48 x 1.5	75	72	56	80	—	16	50	135	442	M39 x 1.5	60	57	45	65	—	15	41	120	412



# CH2EW/CH2FW Series

## Dimensions

Square flange type: CH2EWFC, CH2FWFC



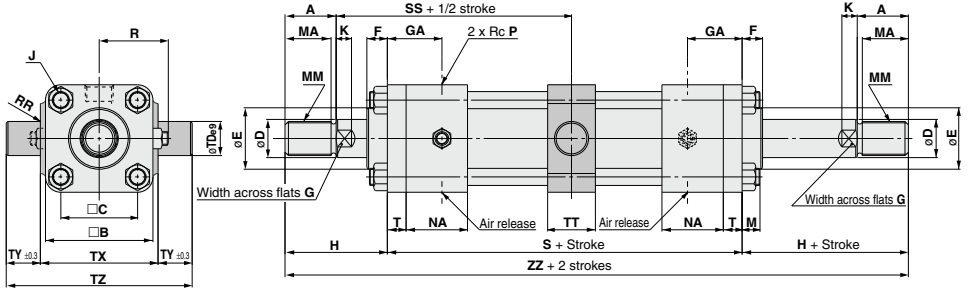
Bore size (mm)	Stroke range (mm)	□B	□C	F	FD	FT	FX	FY	FZ	GA	J	M	NA	P	R	S	SS	T	(mm)
32	25 to 800	58	38	16	11	11	40	88	109	21	M10 x 1.25	11	37	3/8	39	136	30	11	
40	25 to 800	65	45	12	11	11	46	95	118	21	M10 x 1.25	11	36	3/8	42	136	30	11	
50	25 to 800	76	52	15	14	13	58	115	145	27	M10 x 1.25	11	43	1/2	46	150	30	13	
63	25 to 800	90	63	15	18	15	65	132	165	27	M12 x 1.5	14	43	1/2	52	156	35	15	
80	25 to 1000	110	80	17	18	18	87	155	190	22	M16 x 1.5	16	44	3/4	65	166	35	18	
100	25 to 1000	135	102	19	22	20	109	190	230	22	M18 x 1.5	18	44	3/4	75	172	40	20	

## Rod series

Bore size (mm)	B-series rod										C-series rod										(mm)
	MM	A	MA	D	E	K	G	H	ZZ		MM	A	MA	D	E	K	G	H	ZZ		
32	M16 x 1.5	25	22	18	34	7	14	66	268		—	—	—	—	—	—	—	—	—	—	
40	M20 x 1.5	30	27	22.4	40	9	19	71	278	M16 x 1.5	25	22	18	36	—	7	14	66	268		
50	M24 x 1.5	35	32	28	46	11	24	78	306	M20 x 1.5	30	27	22.4	40	—	9	19	73	296		
63	M30 x 1.5	45	42	35.5	55	13	30	95	346	M24 x 1.5	35	32	28	46	—	11	24	85	326		
80	M39 x 1.5	60	57	45	65	15	41	113	392	M30 x 1.5	45	42	35.5	55	—	13	30	98	362		
100	M48 x 1.5	75	72	56	80	16	50	135	442	M39 x 1.5	60	57	45	65	—	15	41	120	412		

# JIS Standard Hydraulic Cylinder *CH2EW/CH2FW Series*

Center trunnion type: CH2EWTC, CH2FWTC



- CHQ
- CHK
- CHN
- CHM
- CHS
- CH2
- CHA
- Related Products
- D-

Bore size (mm)	Stroke range (mm)	B	C	F	GA	J	M	NA	P	R	RR	S	SS	T	TD <sub>9</sub>	TT	TX	TY	TZ		
32	25 to 800	58	38	16	32	M10 x 1.25	11	37	3/8	39	2	158	113	11	20	-0.040	28	58	0	20	98
40	25 to 800	65	45	12	32	M10 x 1.25	11	36	3/8	42	2	158	113	11	20	-0.092	28	69	-0.3	20	109
50	25 to 800	76	52	15	40	M10 x 1.25	11	43	1/2	46	2.5	176	121	13	25		33	85		25	135
63	25 to 800	90	63	15	42	M12 x 1.5	14	43	1/2	52	2.5	186	132	15	31.5		43	98	0	31.5	161
80	25 to 1000	110	80	17	40	M16 x 1.5	16	44	3/4	65	2.5	202	146	18	31.5	-0.050	43	118	-0.35	31.5	181
100	25 to 1000	135	102	19	42	M18 x 1.5	18	44	3/4	75	3	212	156	20	40	-0.112	53	145	0	40	225

## Rod series

Bore size (mm)	B-series rod										C-series rod									
	MM	A	MA	D	E	K	G	H	ZZ	MM	A	MA	D	E	K	G	H	ZZ		
32	M16 x 1.5	25	22	18	34	7	14	55	268	—	—	—	—	—	—	—	—	—		
40	M20 x 1.5	30	27	22.4	40	-0.025 -0.064	9	19	60	278	M16 x 1.5	25	22	18	36	-0.025	7	14	55	268
50	M24 x 1.5	35	32	28	46	-0.030 -0.076	11	24	65	306	M20 x 1.5	30	27	22.4	40	-0.064	9	19	60	296
63	M30 x 1.5	45	42	35.5	55		13	30	80	346	M24 x 1.5	35	32	28	46		11	24	70	326
80	M39 x 1.5	60	57	45	65		15	41	95	392	M30 x 1.5	45	42	35.5	55	-0.030	13	30	80	362
100	M48 x 1.5	75	72	56	80		16	50	115	442	M39 x 1.5	60	57	45	65	-0.076	15	41	100	412