

MTH* series

HYDRAULIC - Swing Clamp Cylinders



Features:

- Compact design available with large range of bore sizes.
- Available with both clockwise and anti clockwise movement.
- Available with single or double arms.
- Available with inbuilt flow control.

Note :

- Please don't exceed 1.5 times of the original length, if it is necessary to increase the length of the clamping arm.
- Suggested to install a flow control valve protect cylinder barrel and internal components against fretting wear.

Double acting

MTHS / MTHD

Single side clamping arm / Double sides clamping arm



Double acting (manifold type)

MTHS..FC / MTHD..FC

Single side clamping arm / Double sides clamping arm
(With flow control) (With flow control)



MTHS..F / MTHD..F

Single side clamping arm / Double sides clamping arm



MTHS..MF / MTHD..MF

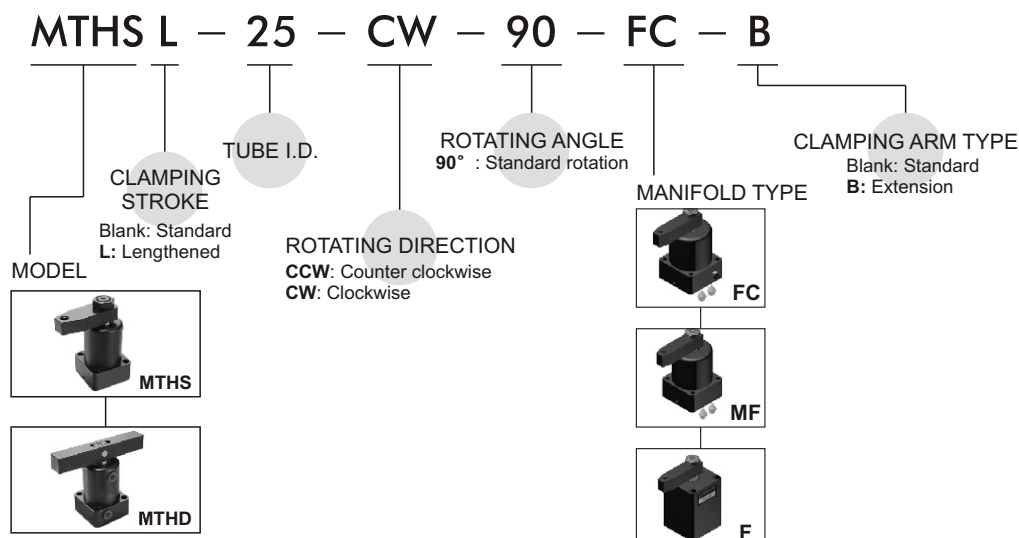
Single side clamping arm / Double sides clamping arm



Specification :

Model		MTHS, MTHD				
Tube I.D. (mm)		25, 32, 40, 50, 63				
Acting type		Double acting				
Power fluid		Filtered oil				
Max. Pressure		10 MPa (100 kgf/cm ²)				
The range of pressure		0.5~7 MPa (5~70 kgf/cm ²)				
Material of cylinder barrel		Carbon steel				
Standard angle of rotation		90° ±2° (Angles of 0° , 45° and 60° are optional)				
Rotating direction		Clockwise or counter clockwise				
Tube I.D. Model		25	32	40	50	63
MTHS	MTHD	○	○	○	○	○
MTHSL	MTHDL	×	○	○	○	○
MTHS-FC	MTHD-FC	○	○	○	○	○
MTHS-MF	MTHD-MF	○	○	○	○	○
MTHS-F	MTHD-F	○	○	○	○	×

Order example:

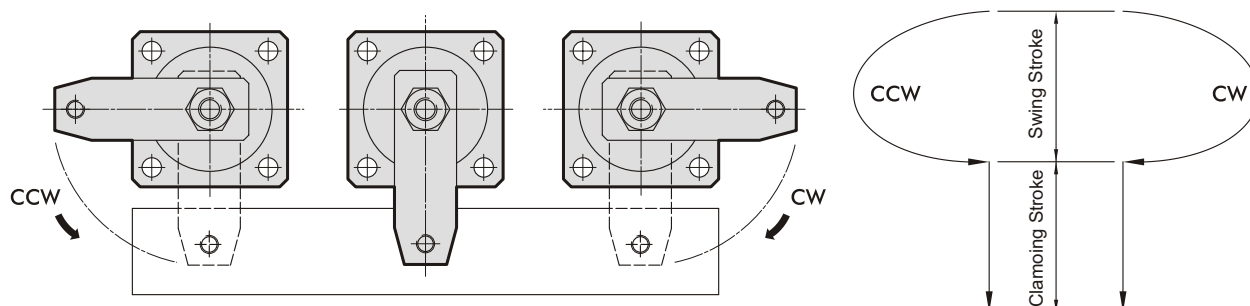


MTH* Precautions Be sure to read before handling.

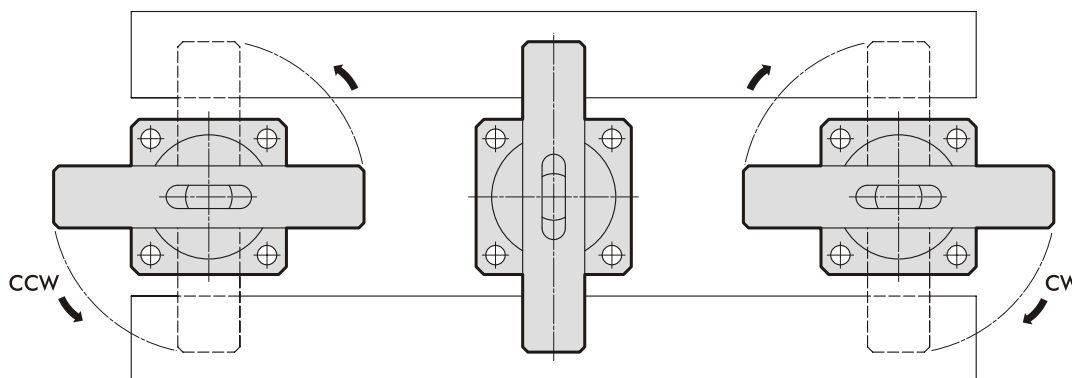
HYDRAULIC - Swing Clamp Cylinders



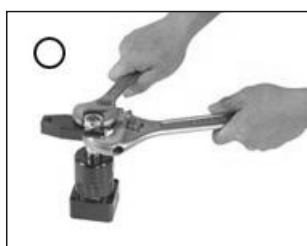
Single side swing clamp



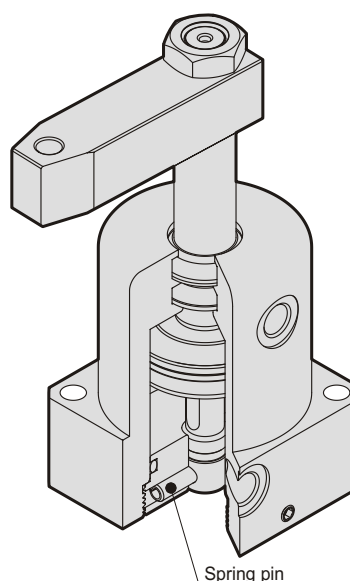
Double side swing clamp



Clamping arm mounting methods



Clamping arm removing methods



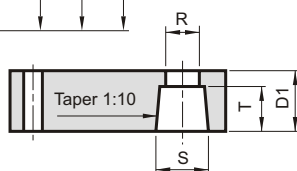
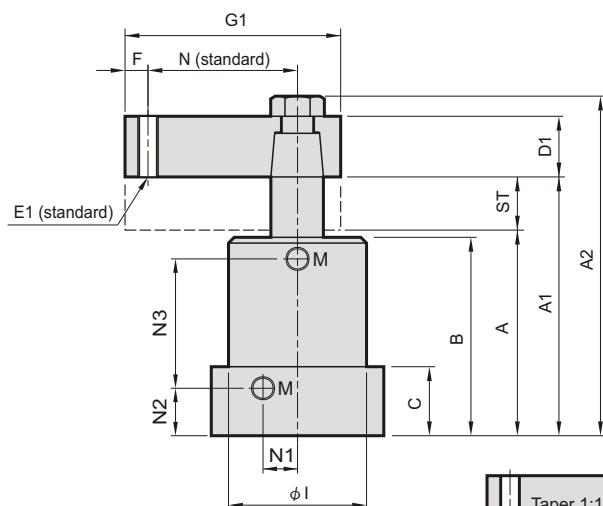
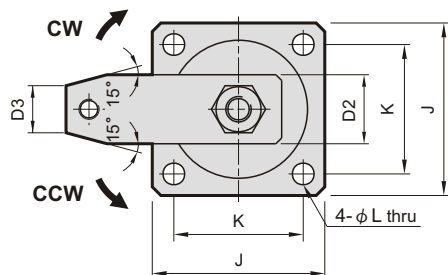
Note: If the clamping arm is wrong mounting and removing, the spring pin is broken easily. Then the rotation angle is deviation or the action is not smooth when the cylinder works.

MTH* Dimensions $\phi 25 \sim \phi 63$

HYDRAULIC - Swing Clamp Cylinders

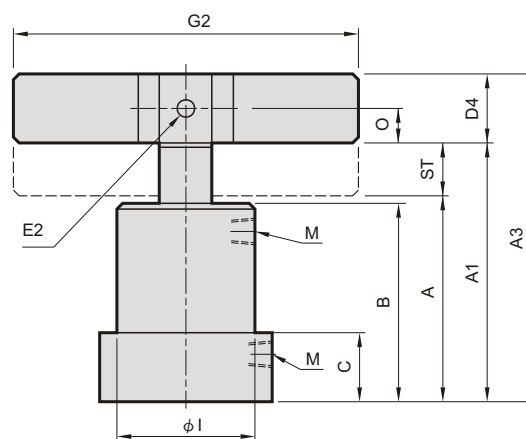
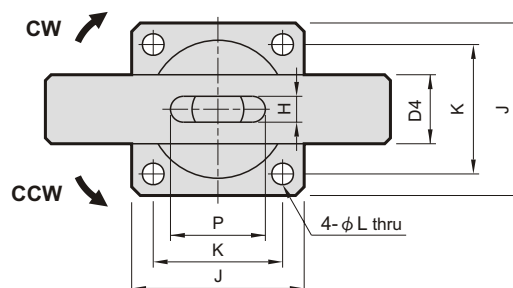


MTHS/MTHSL



Single side clamping arm

MTHD/MTHDL



※ Clamping stroke lengthened type.

Model		Tube I.D. (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)		Pressure area push/ pull (mm ²)	Clamping force (N) 3.5MPa	Clamping arm type			
					Standard	※			G1		G2	
									Standard	Extension	Standard	Extension
MTHS-25	MTHD-25	φ 25	φ 18	9	13	—	491 / 237	830	74	100	140	200
MTHS-32	MTHD-32	φ 32	φ 20	11	15	30	804 / 490	1720	81	110	160	230
MTHS-40	MTHD-40	φ 40	φ 22.4	11	15	30	1257 / 863	3020	86	120	160	230
MTHS-50	MTHD-50	φ 50	φ 28	13	17	34	1963 / 1347	4710	96	130	180	260
MTHS-63	MTHD-63	φ 63	φ 35	13	17	34	3117 / 2155	7540	114	150	200	—

Code Model		Standard type						Clamping stroke lengthened type ※						C	D1	D2	D3	D4	E1	E2
		A	A1	A2	A3	B	ST	A	A1	A2	A3	B	ST							
MTHS-25	MTHD-25	79	101	124	120	76	22	-	-	-	-	-	-	27	15	27	15	□19	M10×1.5	φ 8
MTHS-32	MTHD-32	89	115	140	137.2	85	26	104	145	170	167.2	100	41	30	17	31	17	□22.2	M10×1.5	φ 8
MTHS-40	MTHD-40	94	120	148	142.2	90	26	109	150	178	172.2	105	41	30	18	31	17	□22.2	M10×1.5	φ 10
MTHS-50	MTHD-50	104	134	166	159.4	100	30	121	168	200	193.4	117	47	34	20	37	19	□25.4	M12×1.75	φ 12
MTHS-63	MTHD-63	109	139	175	170.8	105	30	126	173	209	204.8	122	47	34	23	48	24	□31.8	M16×2.0	φ 15

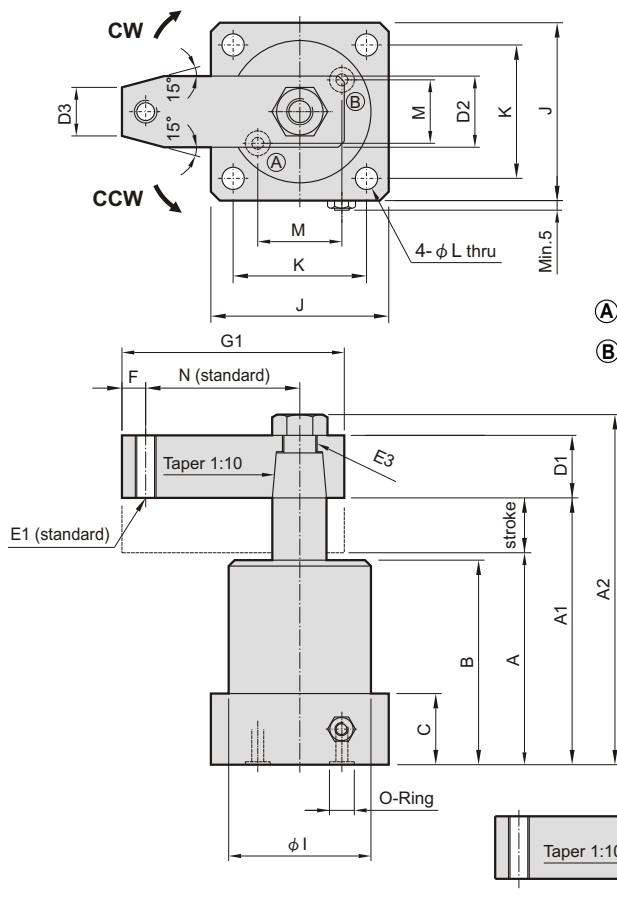
Code Model		F	H	I	J	K	L	M	N	N1	N2	N3		O	P	R	S	T
												Standard	※					
MTHS-25	MTHD-25	10	9	φ 46	52	40	φ 6.8	PT 1/8	50	8	17	46	-	9.5	25	φ 15	φ 18	13
MTHS-32	MTHD-32	10	10	φ 50	56	44	φ 6.8	PT 1/8	55	10	19	52	67	11.1	29	φ 17	φ 20	14
MTHS-40	MTHD-40	10	10	φ 54	63	48	φ 9	PT 1/8	60	12	19	57	72	11.1	31	φ 19	φ 22.4	15
MTHS-50	MTHD-50	12	12	φ 66	72	57	φ 9	PT 1/4	65	15	21.5	63.5	80.5	12.7	38	φ 21	φ 28	16
MTHS-63	MTHD-63	15	15	φ 80	88	70	φ 11	PT 1/4	75	17	22	68	85	15.9	48	φ 27	φ 35	18

MTH*-FC Manifold type (With flow control) $\phi 25 \sim \phi 63$

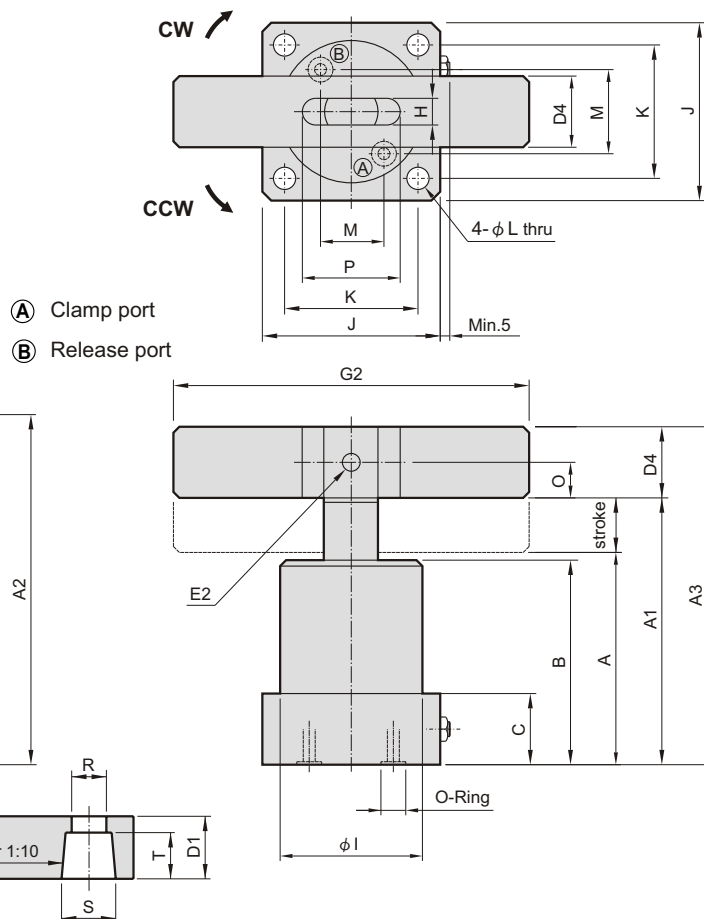
HYDRAULIC - Swing Clamp Cylinders



MTHS-FC



MTHD-FC



Single side clamping arm

Model		Tube I.D. (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)	Pressure area push/ pull (mm ²)	Clamping force (N) 3.5MPa	Clamping arm type			
								G1		G2	
								Standard	Extension	Standard	Extension
MTHS-25FC	MTHD-25FC	φ 25	φ 18	9	13	491 / 237	830	74	100	140	200
MTHS-32FC	MTHD-32FC	φ 32	φ 20	11	15	804 / 490	1720	81	110	160	230
MTHS-40FC	MTHD-40FC	φ 40	φ 22.4	11	15	1257 / 863	3020	86	120	160	230
MTHS-50FC	MTHD-50FC	φ 50	φ 28	13	17	1963 / 1347	4710	96	130	180	260
MTHS-63FC	MTHD-63FC	φ 63	φ 35	13	17	3117 / 2155	7540	114	150	200	—

Code Model		ST	A	A1	A2	A3	B	C	D1	D2	D3	D4	E1	E2	E3
MTHS-25FC	MTHD-25FC	22	79	101	124	120	76	22	15	27	15	□19	M10×1.5	φ 8	M14×1.5
MTHS-32FC	MTHD-32FC	26	89	115	140	137.2	85	25	17	31	17	□22.2	M10×1.5	φ 8	M16×1.5
MTHS-40FC	MTHD-40FC	26	94	120	148	142.2	90	25	18	31	17	□22.2	M10×1.5	φ 10	M18×1.5
MTHS-50FC	MTHD-50FC	30	104	134	166	159.2	100	30	20	37	19	□25.4	M12×1.75	φ 12	M20×1.5
MTHS-63FC	MTHD-63FC	30	109	139	175	170.8	105	30	23	48	24	□31.8	M16×2.0	φ 15	M26×1.5

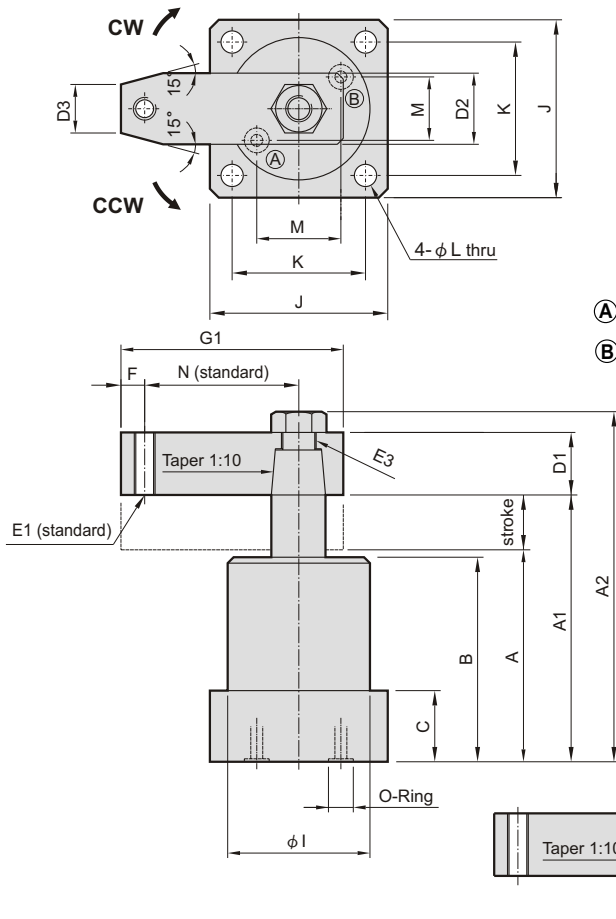
Code Model		F	G1	G2	H	I	J	K	L	M	N	O	O-Ring	P	R	S	T
MTHS-25FC	MTHD-25FC	10	74	140	9	φ 46	55	42	φ 6.8	19	50	9.5	P7	25	φ 15	φ 18	13
MTHS-32FC	MTHD-32FC	10	81	160	10	φ 50	57	44	φ 6.8	21	55	11.1	P7	29	φ 17	φ 20	14
MTHS-40FC	MTHD-40FC	10	86	160	10	φ 54	63	48	φ 9	23	60	11.1	P9	31	φ 19	φ 22.4	15
MTHS-50FC	MTHD-50FC	12	96	180	12	φ 66	72	57	φ 9	28	65	12.7	P9	38	φ 21	φ 28	16
MTHS-63FC	MTHD-63FC	15	114	200	15	φ 80	88	70	φ 11	32	75	15.9	P9	48	φ 27	φ 35	18

MTH* -MF Manifold type $\phi 25 \sim \phi 63$

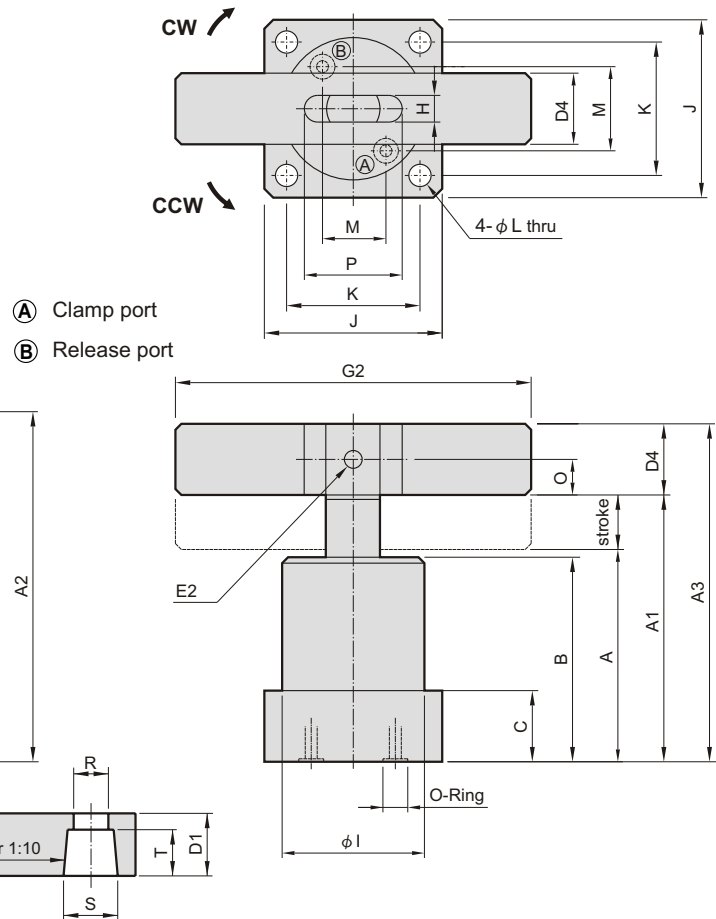
HYDRAULIC - Swing Clamp Cylinders



MTHS-MF



MTHD-MF



Single side clamping arm

Model		Tube I.D. (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)	Pressure area push/ pull (mm ²)	Clamping force (N) 3.5MPa	Clamping arm type			
								G1		G2	
								Standard	Extension	Standard	Extension
MTHS-25MF	MTHD-25MF	φ 25	φ 18	9	13	491 / 237	830	74	100	140	200
MTHS-32MF	MTHD-32MF	φ 32	φ 20	11	15	804 / 490	1720	81	110	160	230
MTHS-40MF	MTHD-40MF	φ 40	φ 22.4	11	15	1257 / 863	3020	86	120	160	230
MTHS-50MF	MTHD-50MF	φ 50	φ 28	13	17	1963 / 1347	4710	96	130	180	260
MTHS-63MF	MTHD-63MF	φ 63	φ 35	13	17	3117 / 2155	7540	114	150	200	—

Code Model		ST	A	A1	A2	A3	B	C	D1	D2	D3	D4	E1	E2	E3
MTHS-25MF	MTHD-25MF	22	79	101	124	120	76	22	15	27	15	□19	M10×1.5	φ 8	M14×1.5
MTHS-32MF	MTHD-32MF	26	89	115	140	137.2	85	25	17	31	17	□22.2	M10×1.5	φ 8	M16×1.5
MTHS-40MF	MTHD-40MF	26	94	120	148	142.2	90	25	18	31	17	□22.2	M10×1.5	φ 10	M18×1.5
MTHS-50MF	MTHD-50MF	30	104	134	166	159.2	100	30	20	37	19	□25.4	M12×1.75	φ 12	M20×1.5
MTHS-63MF	MTHD-63MF	30	109	139	175	170.8	105	30	23	48	24	□31.8	M16×2.0	φ 15	M26×1.5

Code Model		F	G1	G2	H	I	J	K	L	M	N	O	O-Ring	P	R	S	T
MTHS-25MF	MTHD-25MF	10	74	140	9	φ 46	55	42	φ 6.8	19	50	9.5	P7	25	φ 15	φ 18	13
MTHS-32MF	MTHD-32MF	10	81	160	10	φ 50	57	44	φ 6.8	21	55	11.1	P7	29	φ 17	φ 20	14
MTHS-40MF	MTHD-40MF	10	86	160	10	φ 54	63	48	φ 9	23	60	11.1	P9	31	φ 19	φ 22.4	15
MTHS-50MF	MTHD-50MF	12	96	180	12	φ 66	72	57	φ 9	28	65	12.7	P9	38	φ 21	φ 28	16
MTHS-63MF	MTHD-63MF	15	114	200	15	φ 80	88	70	φ 11	32	75	15.9	P9	48	φ 27	φ 35	18

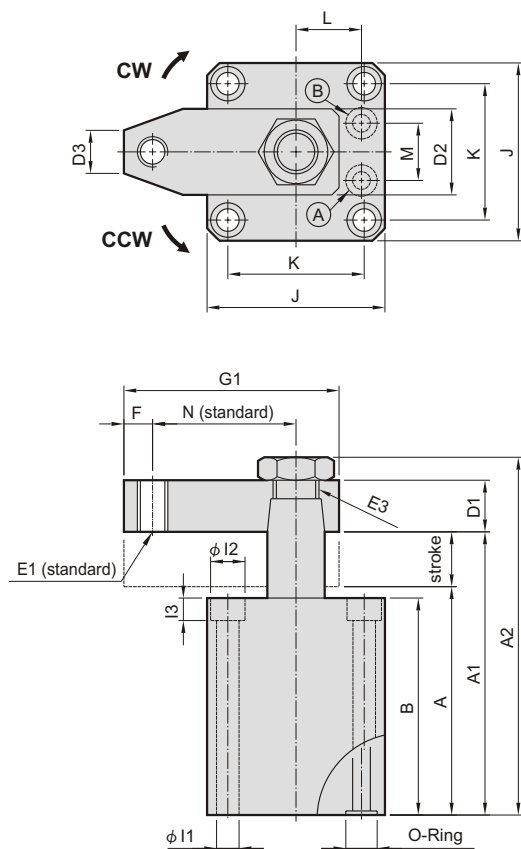
MTH*-F Manifold type $\phi 25 \sim \phi 50$

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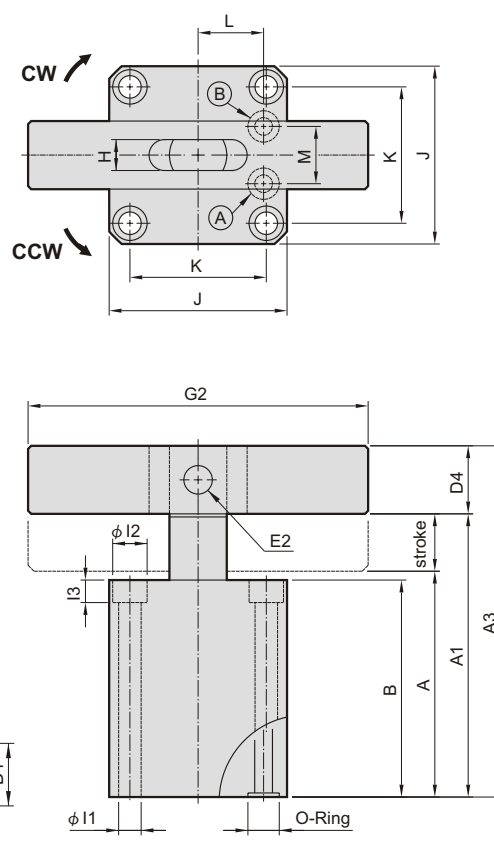


MTHS-F

MTHD-F



- Ⓐ Clamp port
- Ⓑ Release port



Single side clamping arm

Model		Tube I.D. (mm)	Piston rod (mm)	Swing stroke (mm)	Clamping stroke (mm)	Pressure area push/ pull (mm ²)	Clamping force (N) 3.5MPa	Clamping arm type			
								G1		G2	
								Standard	Extension	Standard	Extension
MTHS-25F	MTHD-25F	φ 25	φ 18	9	13	491 / 237	830	74	100	140	200
MTHS-32F	MTHD-32F	φ 32	φ 20	11	15	804 / 490	1720	81	110	160	230
MTHS-40F	MTHD-40F	φ 40	φ 22.4	11	15	1257 / 863	3020	86	120	160	230
MTHS-50F	MTHD-50F	φ 50	φ 28	13	17	1963 / 1347	4710	96	130	180	260

Code Model		ST	A	A1	A2	A3	B	C	D1	D2	D3	D4	E1	E2	E3
MTHS-25F	MTHD-25F	22	79	101	124	120	76	22	15	27	15	□19	M10×1.5	φ 8	M14×1.5
MTHS-32F	MTHD-32F	26	89	115	140	137.2	85	25	17	31	17	□22.2	M10×1.5	φ 8	M16×1.5
MTHS-40F	MTHD-40F	26	94	120	148	142.2	90	25	18	31	17	□22.2	M10×1.5	φ 10	M18×1.5
MTHS-50F	MTHD-50F	30	104	134	166	159.2	100	30	20	37	19	□25.4	M12×1.75	φ 12	M20×1.5

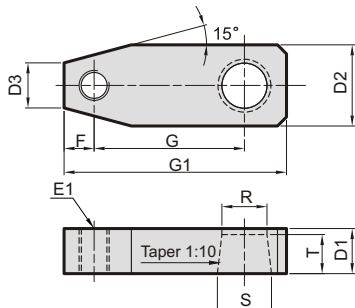
Code Model		F	G1	G2	H	I1	I2	I3	J	K	L	M	N	O-Ring	R	S	T
MTHS-25F	MTHD-25F	10	74	140	9	φ 6.8	φ 10.5	7	55	42	20	18	50	P7	φ 15	φ 18	13
MTHS-32F	MTHD-32F	10	81	160	10	φ 6.8	φ 10.5	7	57	44	22	22	55	P7	φ 17	φ 20	14
MTHS-40F	MTHD-40F	10	86	160	10	φ 9	φ 14	9	69	52	26	26	60	P8	φ 19	φ 22.4	15
MTHS-50F	MTHD-50F	12	96	180	12	φ 9	φ 14	9	75	58	30	32	65	P8	φ 21	φ 28	16

MTH* Clamping arm type $\phi 25 \sim \phi 63$

HYDRAULIC - Swing Clamp Cylinders

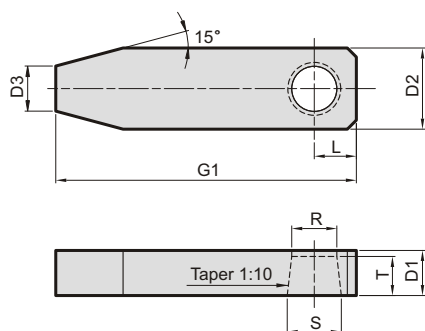


Single side clamping arm (Standard type with thread)



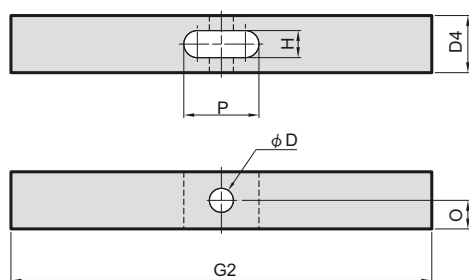
Code Model	D1	D2	D3	F	G	G1	E1	R	S	T
MTHS-25	15	27	15	10	50	74	M10×1.5	15	18	13
MTHS-32	17	31	17	10	55	81	M10×1.5	17	20	14
MTHS-40	18	31	17	10	60	86	M10×1.5	19	22.4	15
MTHS-50	20	37	19	12	65	96	M12×1.75	21	28	16
MTHS-63	23	48	24	15	75	114	M16×2.0	27	35	18

Single side clamping arm B type (Extension type without thread)



Code Model	D1	D2	D3	L	G1	R	S	T
MTHS-25 B	15	27	15	14	100	15	18	13
MTHS-32 B	17	31	17	16	110	17	20	14
MTHS-40 B	18	31	17	16	120	19	22.4	15
MTHS-50 B	20	37	19	19	130	21	28	16
MTHS-63 B	23	48	24	24	150	27	35	18

Double side clamping arm (Standard & Extension type)



Double side clamping arm (Standard type)

Code Model	D	D4	O	P	H	G2
MTHD-25	$\phi 8$	$\square 19$	9.5	25	9	140
MTHD-32	$\phi 8$	$\square 22.2$	11.1	29	10	160
MTHD-40	$\phi 10$	$\square 22.2$	11.1	31	10	160
MTHD-50	$\phi 12$	$\square 25.4$	12.7	38	12	180
MTHD-63	$\phi 15$	$\square 31.8$	15.9	48	15	200

Double sideclamping arm B type (Extension type)

Code Model	D	D4	O	P	H	G2
MTHD-25 B	$\phi 8$	$\square 19$	9.5	25	9	200
MTHD-32 B	$\phi 8$	$\square 22.2$	11.1	29	10	230
MTHD-40 B	$\phi 10$	$\square 22.2$	11.1	31	10	230
MTHD-50 B	$\phi 12$	$\square 25.4$	12.7	38	12	260

Cylinder weight:

Model	Weight
MTHS-25	1.3
MTHD-25	1.5
MTHS-32	1.7
MTHD-32	2.0
MTHS-40	2.0
MTHD-40	2.3
MTHS-50	3.2
MTHD-50	3.5
MTHS-63	5.1
MTHD-63	5.7

Unit: kg

Model	Weight
MTHS-25F	1.8
MTHD-25F	2.0
MTHS-32F	2.2
MTHD-32F	2.5
MTHS-40F	3.3
MTHD-40F	3.5
MTHS-50F	4.3
MTHD-50F	4.65

Model	Weight
MTHSL-32	2.4
MTHDL-32	2.7
MTHSL-40	2.8
MTHDL-40	3.1
MTHSL-50	4.5
MTHDL-50	4.8
MTHSL-63	7.1
MTHDL-63	7.7