

Motor type Step motor

Transmission Trapezoidal screw + belt

Feature

- Patented lever-lock mechanism.
- Proximity sensors are available.
- Magnetic as standard.
- Adjustable shock absorbers provide good capacity for different applications.

Specification

Model	MESBE
Size	50
Stroke (mm)	30
Repeatability (mm)	±0.1
Ball screw lead (mm)	1.5
Ascend / descend time (s)	1
Max. operating frequency (c.p.m)	5.5
Ambient temperature	0~+55°C (No freezing)
Ambient humidity (RH)	35~85% (No condensation)
Motor size	□42
Encoder	Incremental encoder (4000PPR)
Rated voltage	DC 24V±10%
Cushion	Adjustable shock absorber
Sensor switch	RDVE(V) (Please refer to page 8-19)
Weight (g)	2000

Order example

MESBE	—	50	—	30	—	L	—	S	—	CQ1	03	N	01
Model	Size	Stroke	Lever Lock	Roller Material	Controller	I/O type	I/O cable length	Actuator cable length					
	50	30 30 mm	— Without L Lock mechanism	— POM S Steel	CQ1 MECQ1	N NPN	01 1.5 m 03 3 m	01 1.5 m 03 3 m 05 5 m	* Standard: 1.5 m				

* Please refer to page 4-106.

* Standard: 3 m

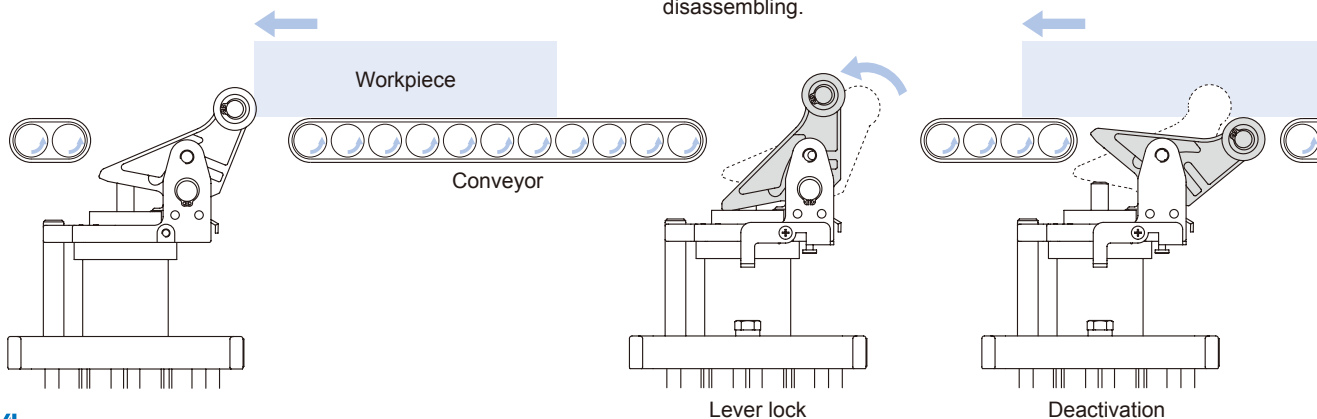
Intended use

Stopping transferred workpiece.

Lock & Deactivation mechanism

Lock mechanism prevents the light-weight workpiece from moving back by the force of shock absorber after damping.

Deactivation mechanism can deactivate the cylinder without any disassembling.



Stop roller (×2)

Roller toggle lever

Thread (×2)

For inductive proximity sensor.

Guide rod

For protection against rotation.

Knurled cap

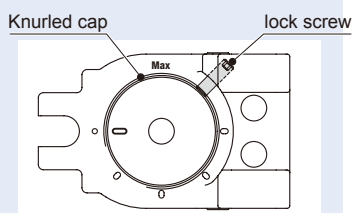
Step 1

Turn knurled cap until the desired cushioning is reached.

- Max mark:
Cushion becomes harder.
- 0 mark:
Cushion becomes softer.

Step 2

Tighten lock screw.
Tightening torque: 2 N.m



Through hole (×4)

For mounting.

Sensor switch groove (×4)

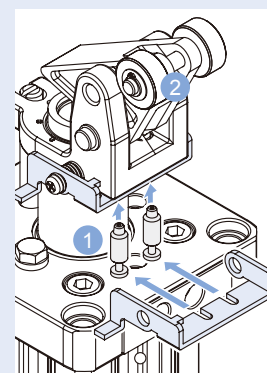
(Optional)

Lock mechanism

For activating / deactivating lever position locking mechanism.

For ø50, two pins for lever lock and deactivation mechanism are delivered for every L type MESBE.

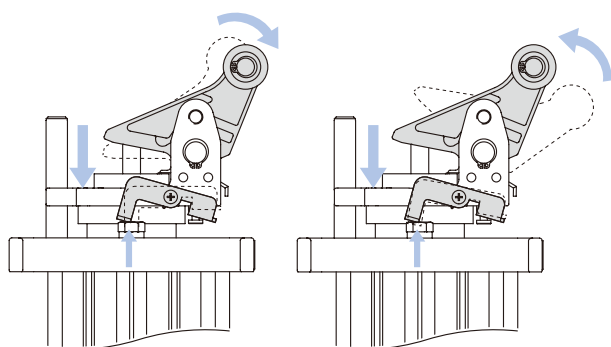
The pin for lever lock function is installed before delivery. The other pin is attached in the package. Please see the assembling guide below for installing.



- 1 Lever-lock function
- 2 Free-pass function

1 Unlock bolt (Accessories)

The locking / deactivation mechanism of MESBE*-L* can be unlocked/reactivated by return the piston rod.



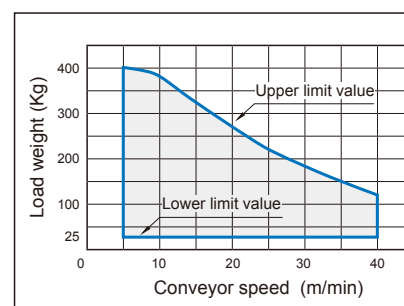
Unlocking locked lever

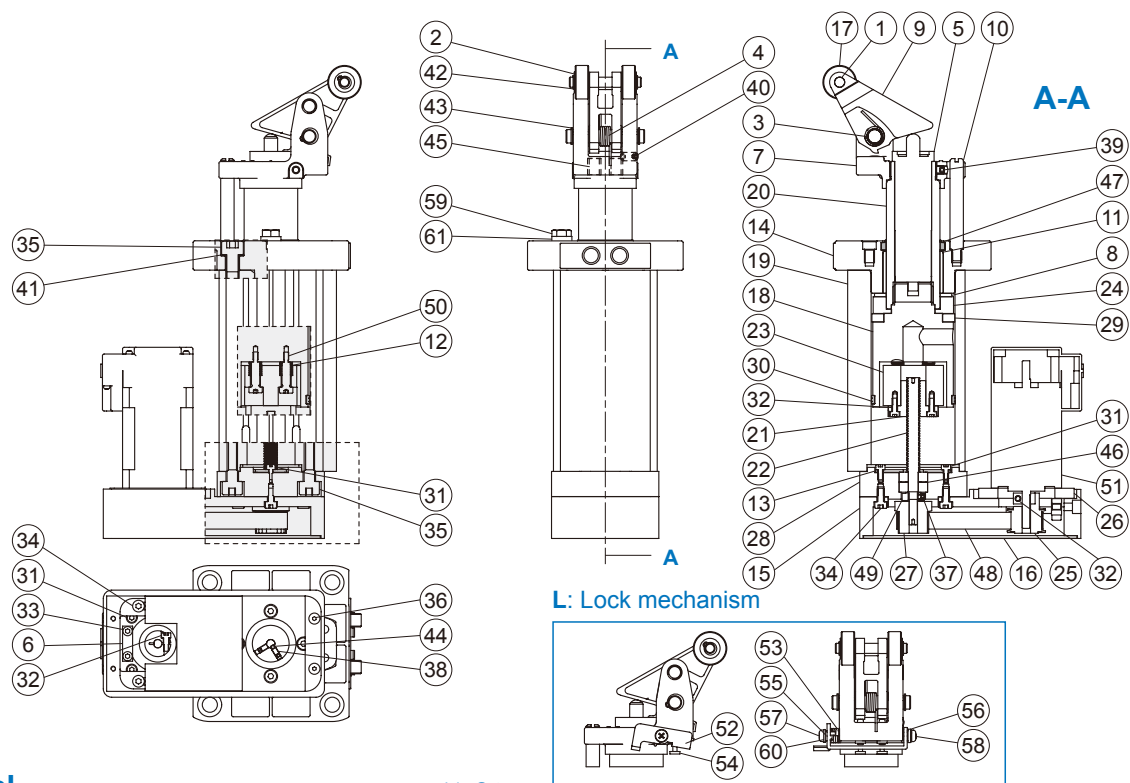
Unlocking free-pass

Load-speed chart for conveyor transmission

The chart is applied with the situation of friction coefficient $\mu = 0.1$

ø50-30





Material

*1. S type.

No.	Part name	Material	Q'y
1	Roller pin	Steel	1
2	Roller Washer	Steel	2
3	Lever Pin	Steel	1
4	Lever spring	Steel	1
5	Adjustable absorber	—	1
6	Adjustment Block	Aluminum alloy	1
7	Lever holder	Steel	1
8	Cushion pad	NBR	1
9	Lever	Steel	1
10	Guide rod	Steel	1
11	Bush	Resin	1
12	Spring	Steel	4
13	Bearing cap	Steel	1
14	Cover	Aluminum alloy	1
15	Motor connector	Aluminum alloy	1
16	Cover	Aluminum alloy	1
17	Roller	Alloy steel *1	2
		Resin	2
18	Piston	Aluminum alloy	1
19	Housing	Aluminum alloy	1
20	Piston rod	Steel	1
21	ACME Screw (with nut)	Copper alloy	1
22		Steel	1
23	Piston connector	Aluminum alloy	1
24	Magnet holder	Aluminum alloy	1
25	Driving wheel	Aluminum alloy	1
26	Motor holder	Aluminum alloy	1
27	Driven wheel	Aluminum alloy	1
28	Housing holder	Aluminum alloy	1
29	Magnet ring	Magnet	1
30	Wear ring	Resin	1

31		Stainless steel	8
32		Steel	5
33	Hexagon bolt	Stainless steel	2
34		Stainless steel	8
35		Stainless steel	8
36	Screw	Stainless steel	4
37	Screw	Stainless steel	2
38		Stainless steel	2
39	Screw	Steel	1
40		Steel	1
41	Spring washer	Steel	4
42	Stop ring	Steel	2
43		Steel	2
44	Feather key	Steel	1
45	Rod bush	Resin	2
46	Ball bearing	Steel	2
47	Dust-proof seal	NBR	1
48	Timing belt	Resin	1
49	Screw	Steel	1
50	Screw	Steel	4
51	Step motor	—	1
52	Lever lock	Steel	1
53	Spring	Steel	1
54	Locating pin	Steel	2
55	Collar	Steel	1
56	Collar #2	Steel	1
57	Screw	Steel	1
58	Screw (with washer)	Steel	1
59	Screw	Steel	1
60	Spring washer	Steel	1
61	Flat washer	Steel	1

