

MESBE series

STOPPER ELECTRIC ACTUATOR (WITH MOTOR)



Mindman



Selector table



Controller



TAIWAN
EXCELLENCE 2022

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	32	50	63	80
Stroke (mm)	20	30	30	40
Positioning repeatability (mm)	±0.1			
Ball screw lead (mm)	1.5		2	
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	☐ 35	☐ 42	☐ 56	☐ 60
Rated voltage	DC 24V±10%			
Cushion	Adjustable shock absorber			
Sensor switch	RDC(V), RQC(V) 			
Proximity sensor	RJY 			
Weight (kg)	1.45	2	5.42	8.85

Order example

MESBE — 50 — 30 — L — S — CK10 03 N 015													
Model	Size	Stroke	Lever Lock		Roller Material		Controller	Motor + Encoder cable	I/O type		I/O cable length		
32	20	20 mm	—	Without	—	POM	CK10	01	1 m *2	N	NPN	015	1.5 m (standard)
50	30	30 mm	L	Lock mechanism	S	Steel	CM20 *1	015	1.5 m *3			03	3 m
63													
80	40	40 mm						03	3 m (standard)				

*1. Sensors are required.

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Unavailable for size 80.

*2. Only for CM20.

*3. Only for CK10.

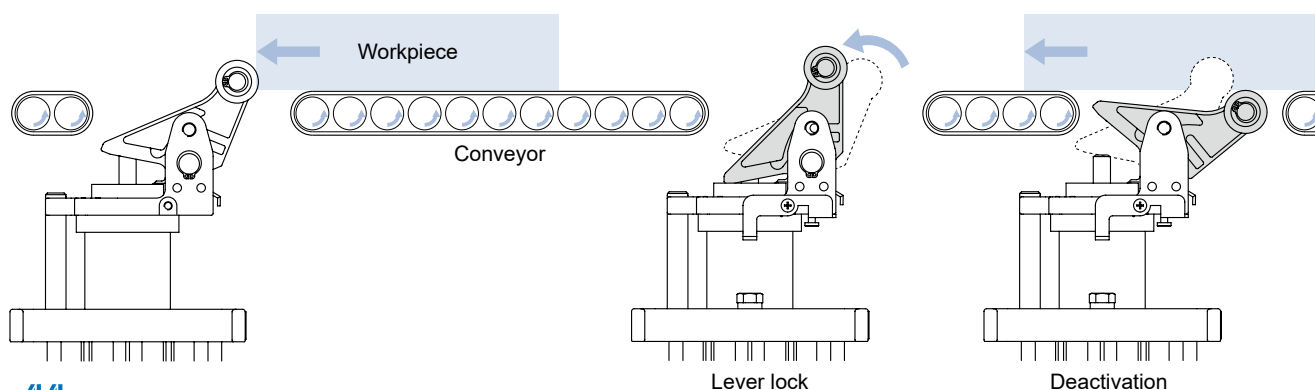
Intended use

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.



Thread (×2)

For inductive proximity sensor.

Guide rod

For protection against rotation.

Knurled cap

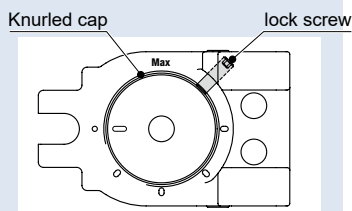
Step 1

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)

Roller toggle lever

Stop roller (×2)

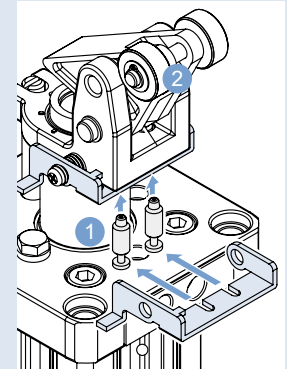
(Optional)

Lock mechanism

For activating / deactivating lever position locking mechanism.

For $\varnothing 50 \sim \varnothing 80$, 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.

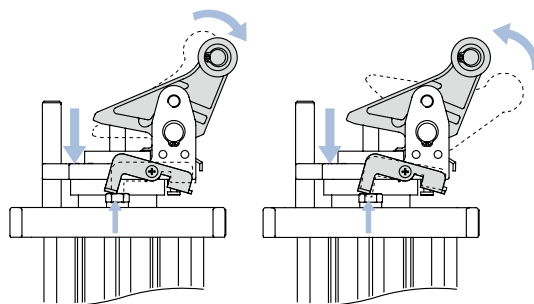


1 Lever-lock function

2 Free-pass function

1 Unlock bolt (Accessories) →

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



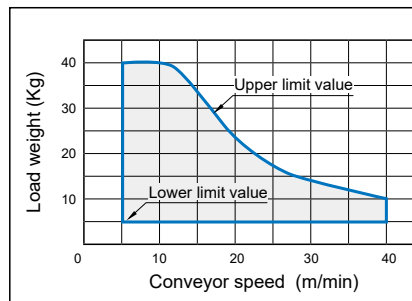
Unlocking locked lever

Unlocking free-pass

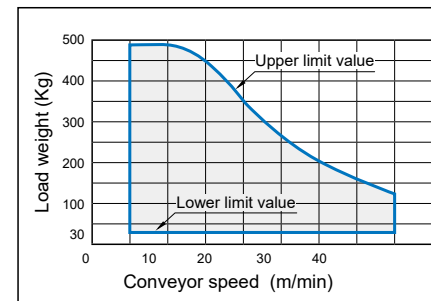
Load-speed chart for conveyor transmission

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

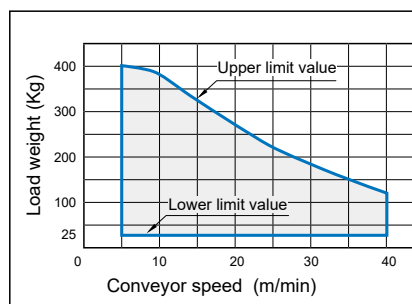
32-20 (Size - stroke)



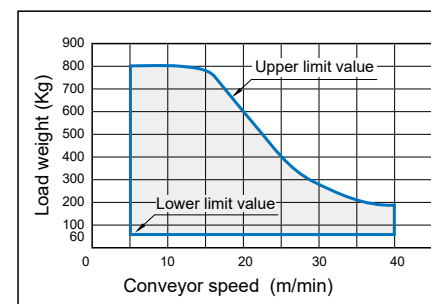
63-30



50-30



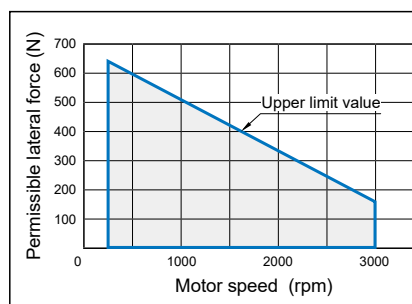
80-40



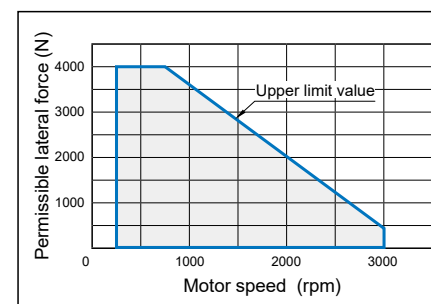
Lateral force - motor speed chart

The lateral force is caused by a blocking object on the conveyor, and its limit is proportional to the motor speed.

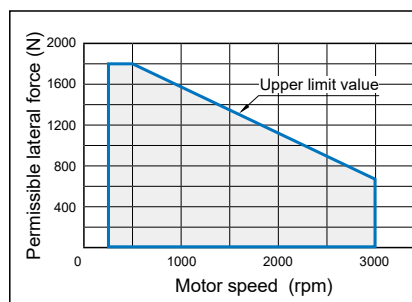
32-20



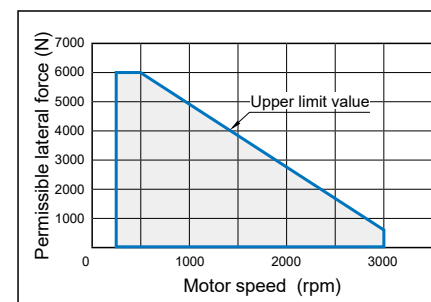
63-30



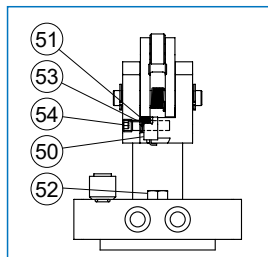
50-30



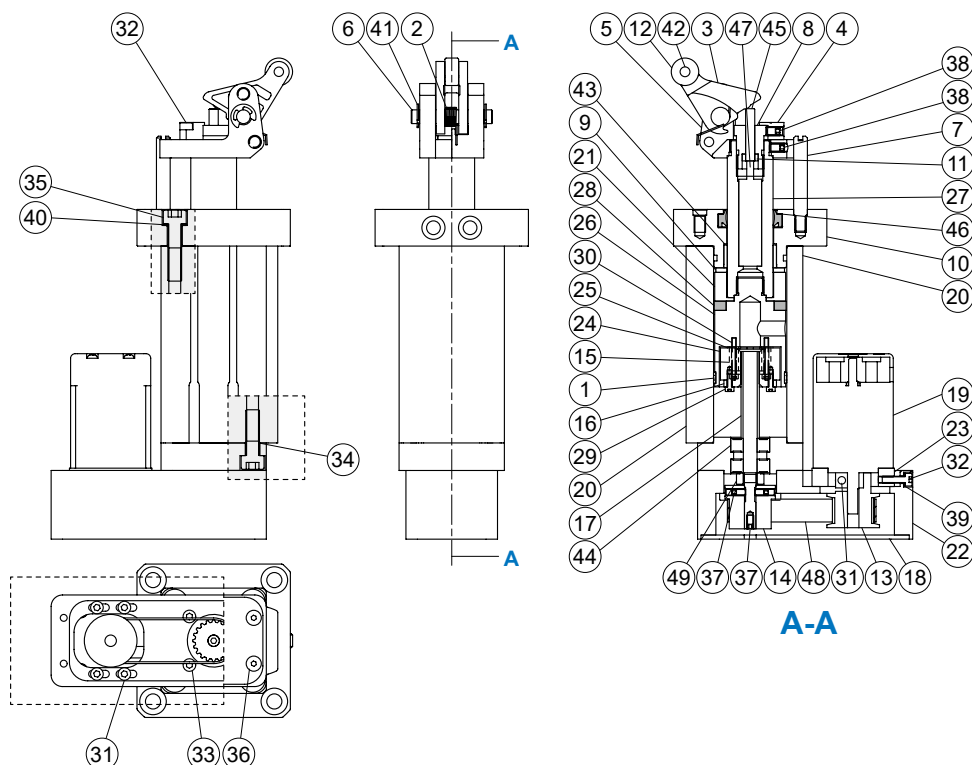
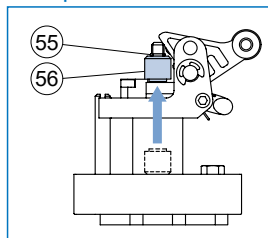
80-40



L: Lock mechanism



Free pass mechanism

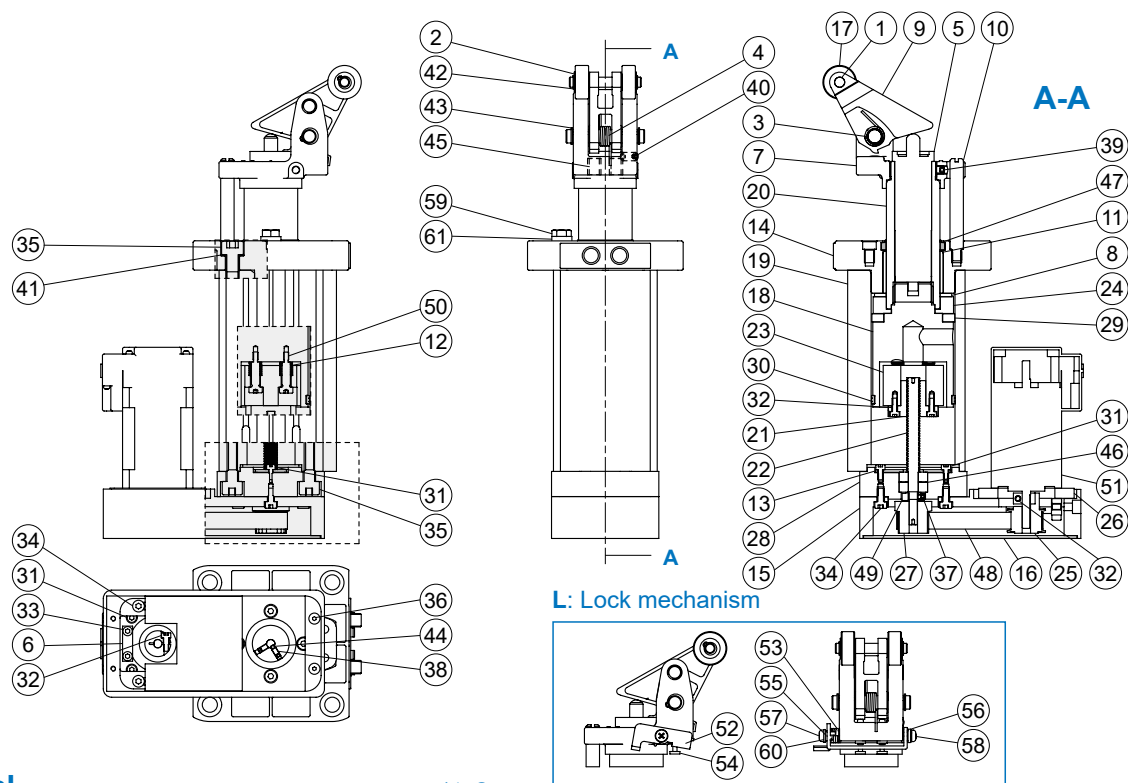


Material

*1. S type.

No.	Part name	Material	Q'y
1	Wear ring	Resin	1
2	Lever spring	Steel	1
3	Lever	Steel	1
4	Damper lock	Stainless steel	1
5	Lever holder	Steel	1
6	Lever Pin	Steel	1
7	Guide rod	Steel	1
8	Adjusting cap	Stainless steel	1
9	Cushion pad	NBR	1
10	Cover	Aluminum alloy	1
11	Locating ring	Aluminum alloy	1
12	Roller	Alloy steel *1	1
		Resin	1
13	Driving wheel	Aluminum alloy	1
14	Driven wheel	Aluminum alloy	1
15	Collar	Steel	4
16	Nut	Copper alloy	1
17	Lead screw	Steel	1
18	Cover	Aluminum alloy	1
19	Step motor	—	1
20	Housing	Aluminum alloy	1
21	Magnet holder	Aluminum alloy	1
22	Belt box	Aluminum alloy	1
23	Motor holder	Aluminum alloy	1
24	Piston connector	Aluminum alloy	1
25	Spring	Steel	4
26	Piston	Aluminum alloy	1
27	Piston rod	Steel	1
28	Magnet ring	Magnet	1

No.	Part name	Material	Q'y
29	Hexagon bolt	Stainless steel	4
30		Stainless steel	4
31		Stainless steel	9
32		Stainless steel	3
33		Steel	4
34	Screw	Steel	4
35		Steel	4
36	Screw	Stainless steel	4
37	Screw	Stainless steel	3
38		Steel	2
39	Spring washer	Steel	1
40	Spring washer	Steel	4
41	Stop ring	Steel	2
42	Roller pin	Steel	1
43	Bush	Resin	1
44	Ball bearing	Steel	2
45	Pin	Steel	1
46	Seal	NBR	1
47	Shock absorber	—	1
48	Timing belt	Resin	1
49	Nut	Steel	1
50	Lever lock	Steel	1
51	Spring	Steel	1
52	Screw	Steel	1
53	Pin	Steel	1
54	Screw	Stainless steel	1
55	O-ring	NBR	1
56	Locating pin	Aluminum alloy	1



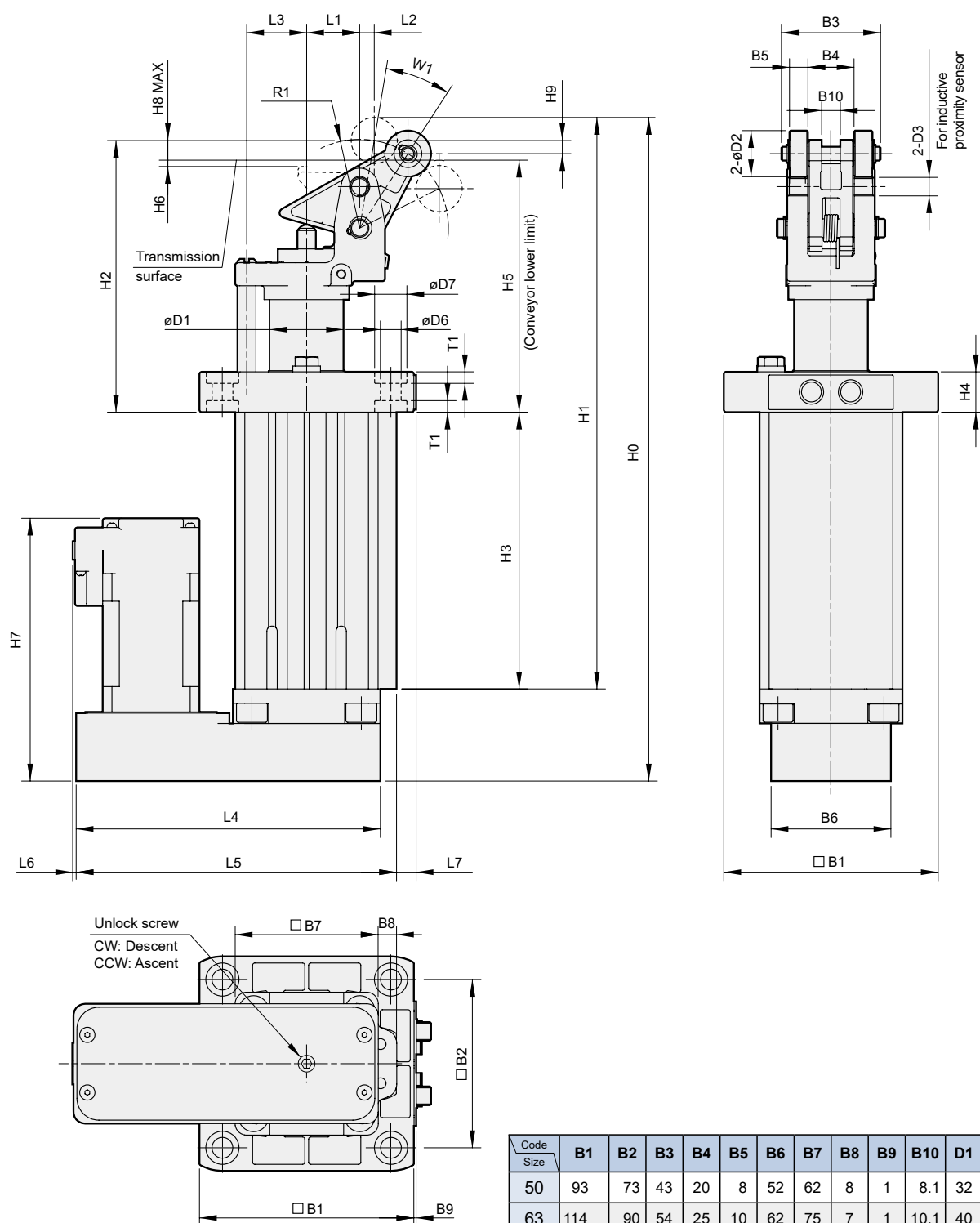
Material

*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	Nut	Copper alloy	1
22	Lead screw	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





Code Size	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	D1	D2
50	93	73	43	20	8	52	62	8	1	8.1	32	20
63	114	90	54	25	10	62	75	7	1	10.1	40	20
80	137.5	110	63	30	12	62	94	8	0.5	12.1	50	25

Code Size	D3	D6	D7	H0	H1	H2	H3	H4	H5	H6	H7	H8	H9	L1	L2	L3	L4	L5	L6	L7	R1	T1	W1
50	M8×1	9	14	287.8	247.8	117.8	120	17.5	109.3	2.76	113.5	8.5	5.7	23	6.3	26	132	140	0.5	8.5	38.5	5	23.5°
63	M8×1	11	18	315.5	271.0	134.0	127	25	126.3	6.26	131	7.75	4.8	29	6	34	148	155	5.3	12.75	44.4	6	20.3°
80	M8×1	12.9	20	383.0	336.5	159	165	19	146.9	4.31	138	12.1	7	36	8	42	167	175	4	14.25	55.6	6	21.9°