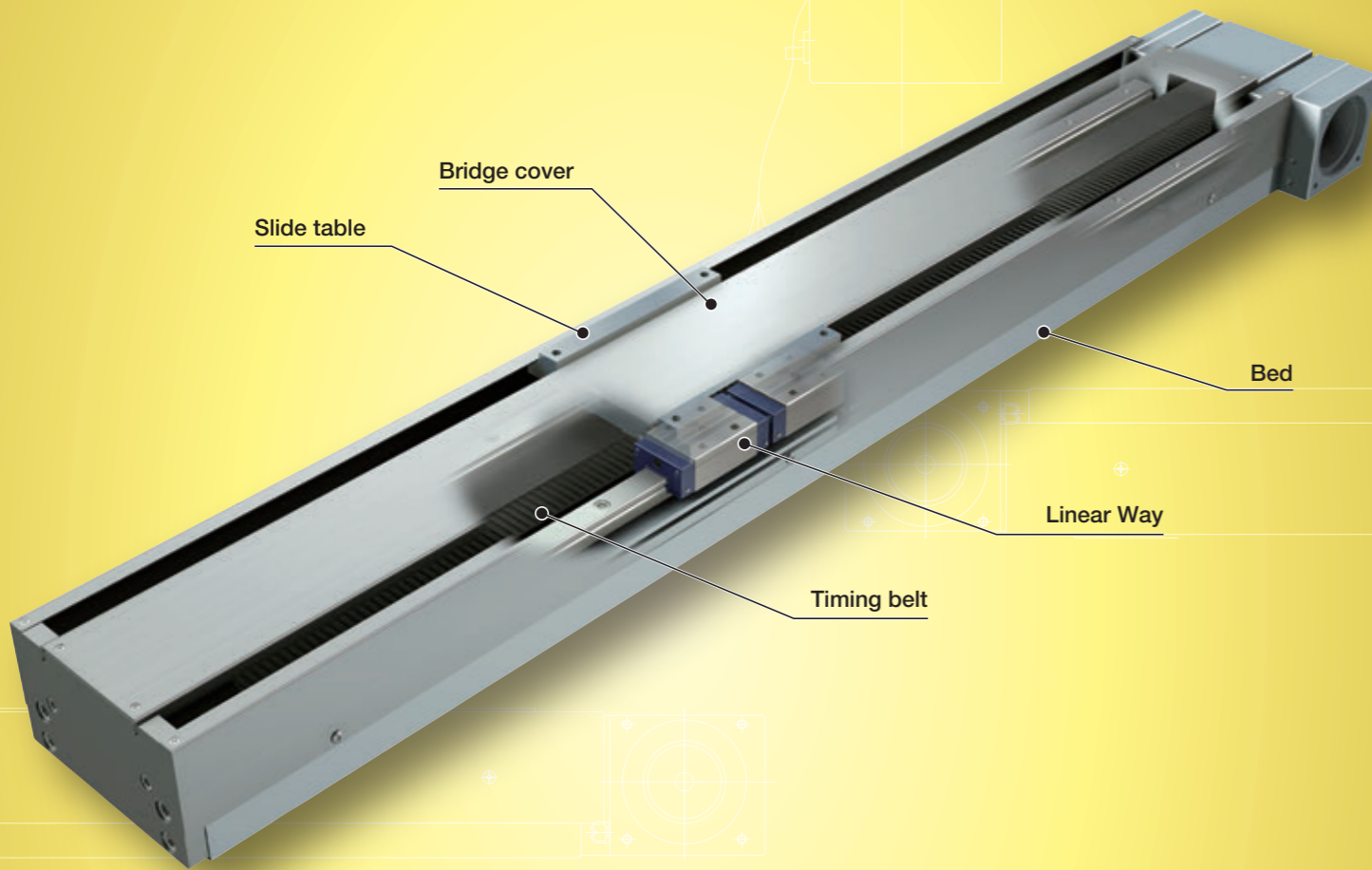
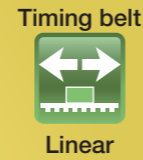


TSLB

TSLB

TSLB



Points

● High speed and long stroke positioning table

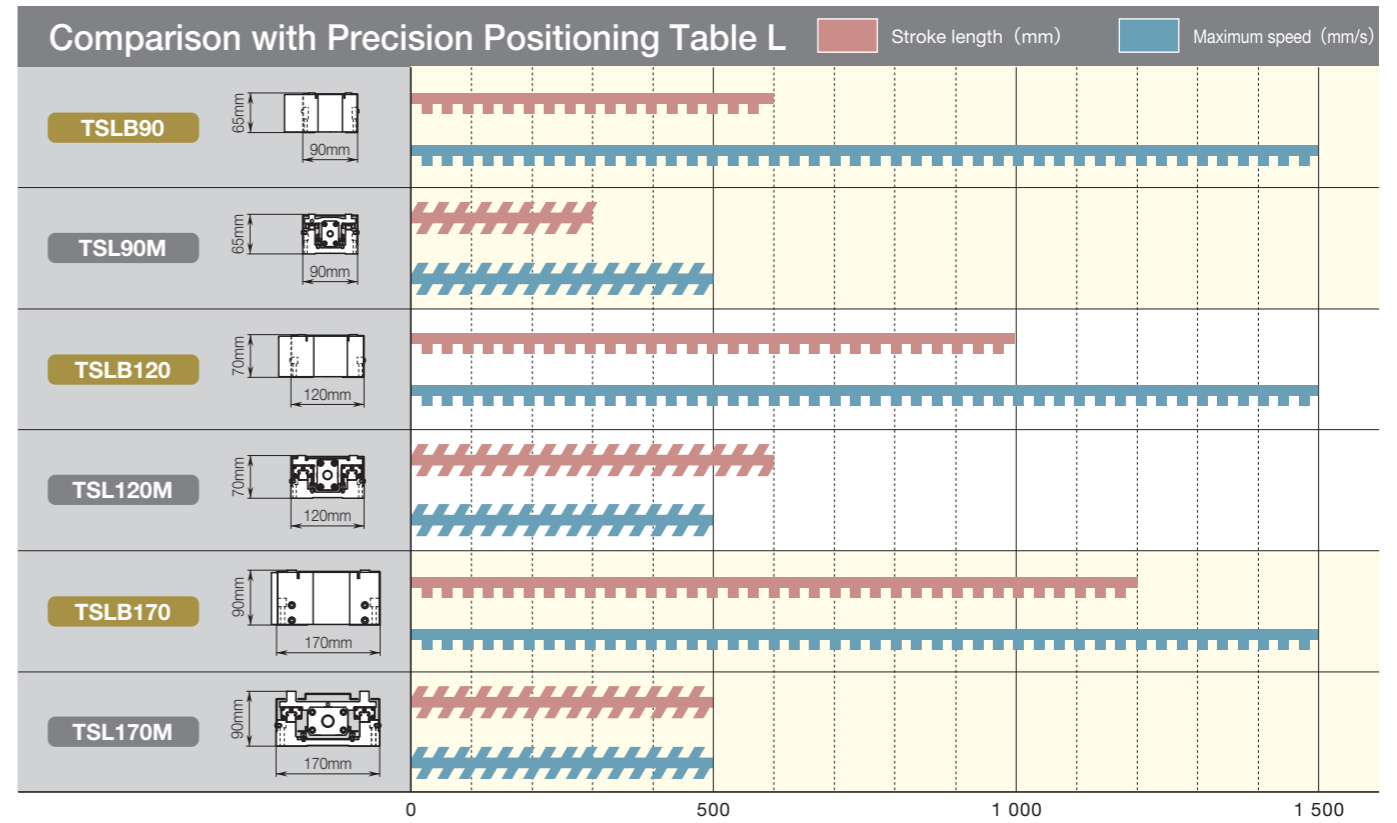
1 High speed movement-enabled and long stroke positioning table with highly durable and high-tensile steel cord-contained timing belt incorporated into the feeding mechanism of the slide table.

● Light weight and long stroke

2 Lightweight solution is achieved by adopting the slide table and bed made from high-strength aluminum alloy. Series of stroke length up to 1,200mm is available.

● Stable high running accuracy

3 Incorporation of two sets of Linear Way in parallel realized stable and high running performance.



Major product specifications

Driving method	High-tensile timing belt
Linear motion rolling guide	Linear Way (ball type)
Built-in lubrication part	No built-in
Material of table and bed	High-strength aluminum alloy
Sensor	Provided as standard

Accuracy

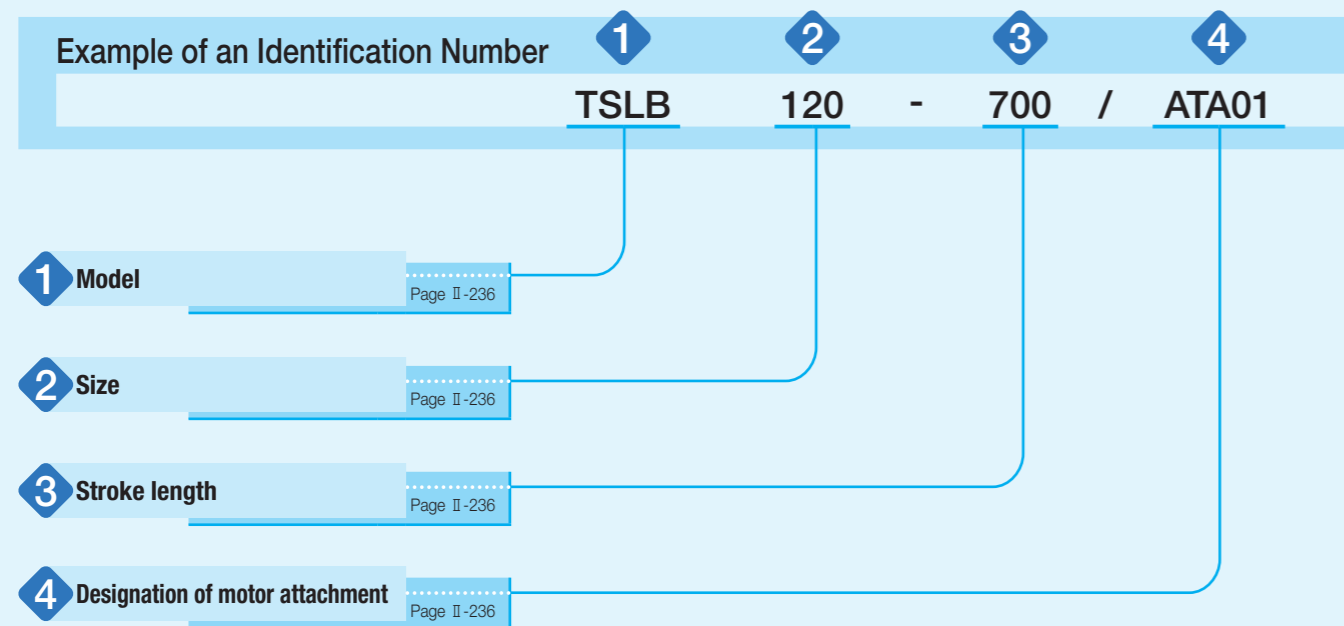
Positioning repeatability	±0.070~0.100
Positioning accuracy	-
Lost motion	-
Parallelism in table motion A	-
Parallelism in table motion B	0.050~0.070
Attitude accuracy	-
Straightness	-
Backlash	-

unit: mm

Variation

Shape	Model and size	Table width (mm)	Stroke length (mm)								
			300	400	500	600	700	800	900	1000	1200
	TSLB 90	90	☆	☆	☆	☆	-	-	-	-	-
	TSLB120	120	-	-	-	☆	☆	☆	☆	☆	-
	TSLB170	170	-	-	-	-	-	☆	-	☆	☆

Identification Number



Identification Number and Specification

- 1
Model

TSLB: Precision Positioning Table LB
- 2
Size

Size indicates table width.
Select a size from the list of Table 1.
- 3
Stroke length

Select a stroke length from the list of Table 1.

Table 1 Sizes, table width dimensions, and stroke lengths unit: mm

Model and size	Table width	Stroke length
TSLB 90	90	300, 400, 500, 600
TSLB120	120	600, 700, 800, 900, 1 000
TSLB170	170	800, 1 000, 1 200

- 4
Designation of motor attachment

Motor attachment shown in Table 2 is attached.

 - Motor should be prepared by customer.
 - A coupling shown in Table 3 is mounted on the main body before shipment. However, the final position adjustment should be made by customer since it is only temporarily fixed.

Table 2 Application of motor attachment

Type	Motor to be used			Flange size mm	Motor attachment	
	Manufacturer	Series	Model		TSLB 90 TSLB120	TSLB170
Stepper motor	ORIENTAL MOTOR Co., Ltd.	RKS CRK	CRK56 ⁽¹⁾	□60	ATA01	—
			RKS59	□85	—	ATA02
			RKS56 ⁽²⁾	□60	ATA03	—

Note ⁽¹⁾ Applicable to the outer diameter $\phi 8$ of motor output shaft.

⁽²⁾ Applicable to the outer diameter $\phi 10$ of motor output shaft.

Remark: For detailed motor specifications, please see respective motor manufacturer's catalog.

Table 3 Coupling models

Model and size	Coupling models	Manufacturer	Coupling inertia J_c $\times 10^{-5} \text{kg} \cdot \text{m}^2$
ATA01	MOL-32C- 8×12	Nabeya Bi-tech Kaisha	1.4
ATA02	MOL-40C-12×14		4.1
ATA03	MOL-32C-10×12		1.4

Remark: For detailed coupling specifications, please see respective manufacturer's catalog.

Specifications

Table 4 Accuracy

unit: mm

Model and size	Stroke length	Positioning repeatability	Parallelism in table motion B
TSLB 90	300	±0.070	0.050
	400		
	500		
	600		0.070
TSLB120		±0.100	0.070
TSLB170		±0.100	0.070

Table 5 Maximum speed and resolution

Model and size	Maximum speed ⁽¹⁾ mm/s	Resolution ⁽²⁾ mm
TSLB 90 TSLB120 TSLB170	1 500	0.1

Notes ⁽¹⁾ To measure the practical maximum speed, it is required to consider operation patterns based on the motor to be used and load conditions.

⁽²⁾ This is a value given when the number of fraction sizes of the motor is 1,000 pulses/rev.

Table 6 Maximum carrying mass

Model and size	Carrying mass center of gravity mm		Horizontal direction Maximum carrying mass kg			
	Height H	Length L	0	100	200	300
			TSLB 90	0	5	2.0
TSLB120	100	1.3	1.0	0.7	0.6	
	200	0.7	0.6	0.5	0.4	
	300	0.5	0.4	0.4	0.3	
	0	62	18	9	6	
TSLB170	100	16	11	7	5	
	200	9	7	6	5	
	300	6	5	4.9	4.2	
	0	46	17	9	6	
TSLB170	100	15	10	7	5	
	200	9	7	5	4.9	
	300	6	5	4.7	4.1	

Remark 1. The maximum carrying mass is adjusted by the mass when the rating life of the linear motion rolling guide is 18,000 hours during continuous operation at a number of revolutions of the motor of 900min⁻¹ and an acceleration/deceleration time of 0.2s. The mass calculated is based upon the basic static load rating of the linear motion rolling guide.

2. Please also check the maximum load mass on page III-20.

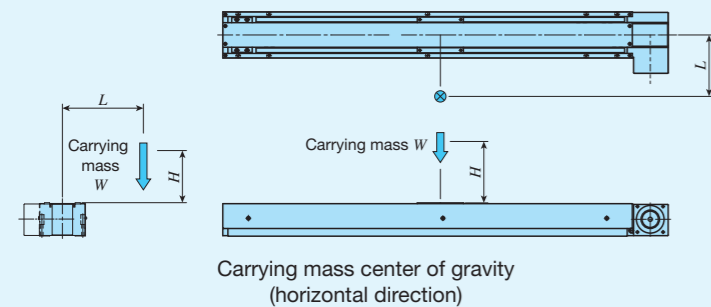


Table 7 Table inertia and starting torque

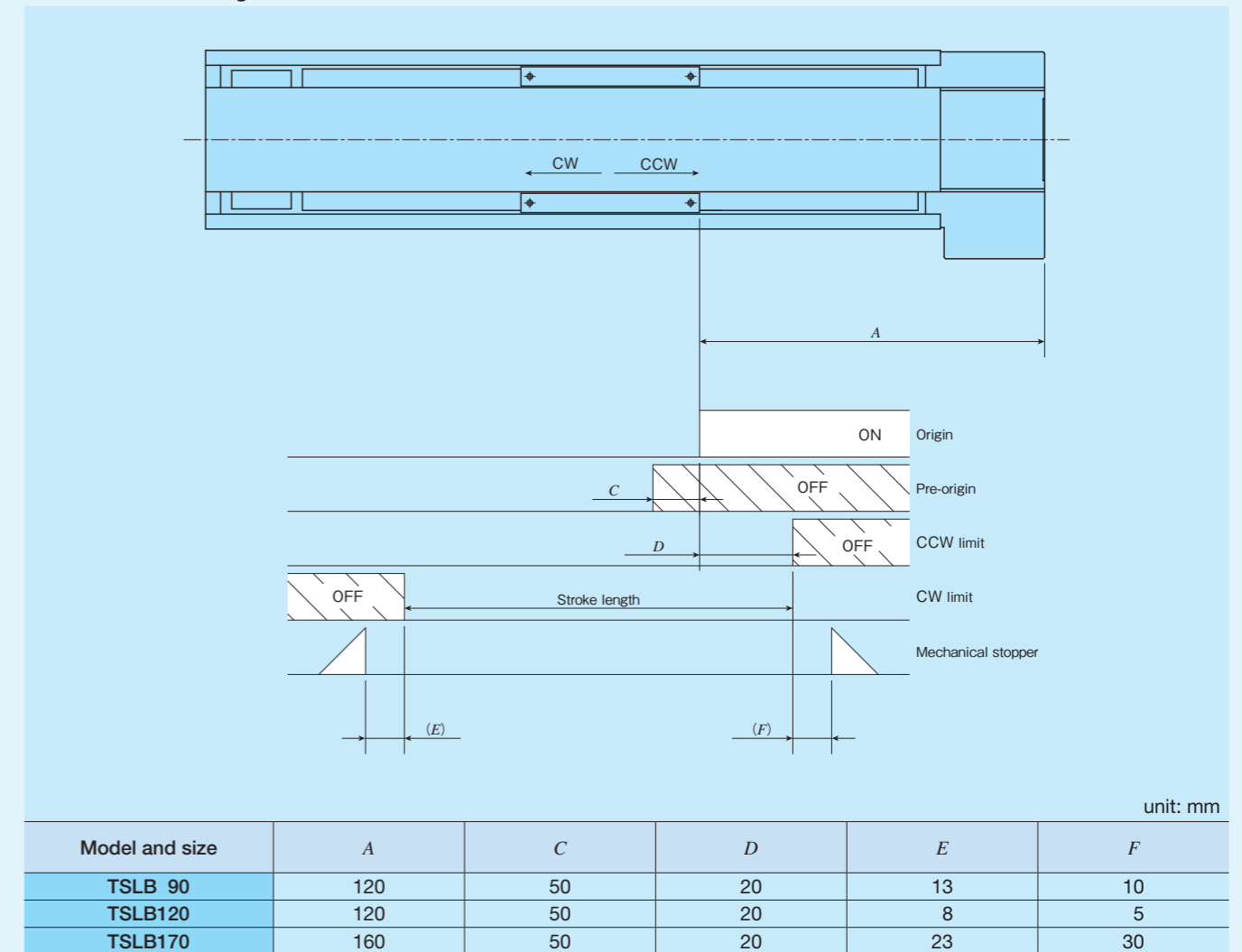
Model and size	Table inertia J_T $\times 10^{-5} \text{kg} \cdot \text{m}^2$	Starting torque T_s N·m
TSLB 90	19	0.3
TSLB120	42	0.5
TSLB170	64	0.6

Mounting

For the processing accuracy of the Precision Positioning Table mounting surface and the tightening torque of the fixing screws, see page III-30.

Sensor Specification

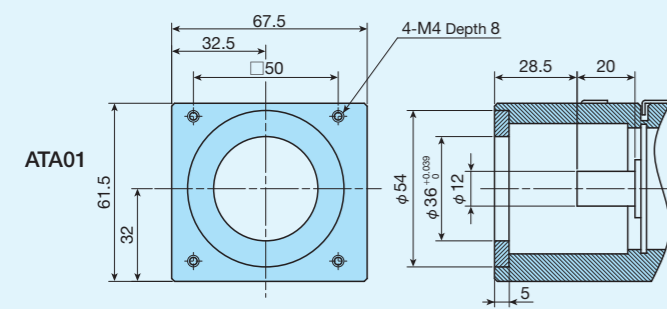
Table 8 Sensor timing chart



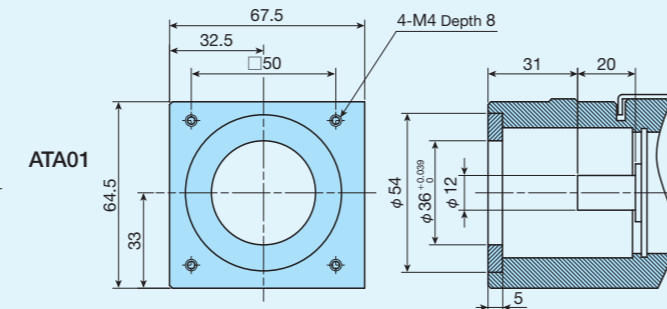
Remark: For detailed specifications of respective sensors, please see the section of sensor specification in General Explanation.

Dimensions of Motor Attachment

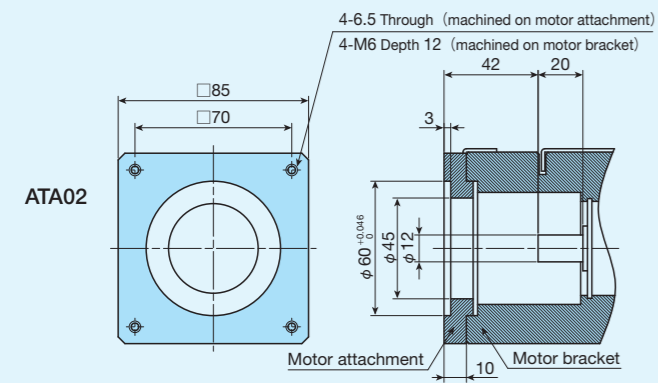
TSLB90



TSLB120

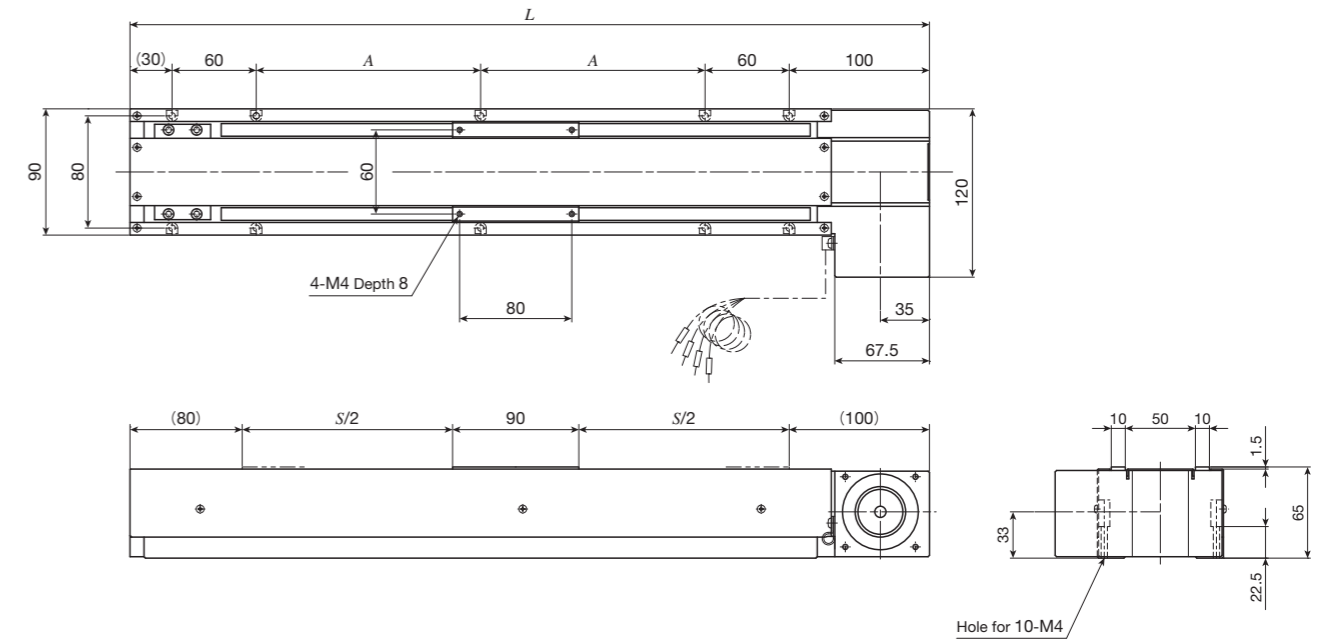


TSLB170



IKO Precision Positioning Table LB

TSLB90

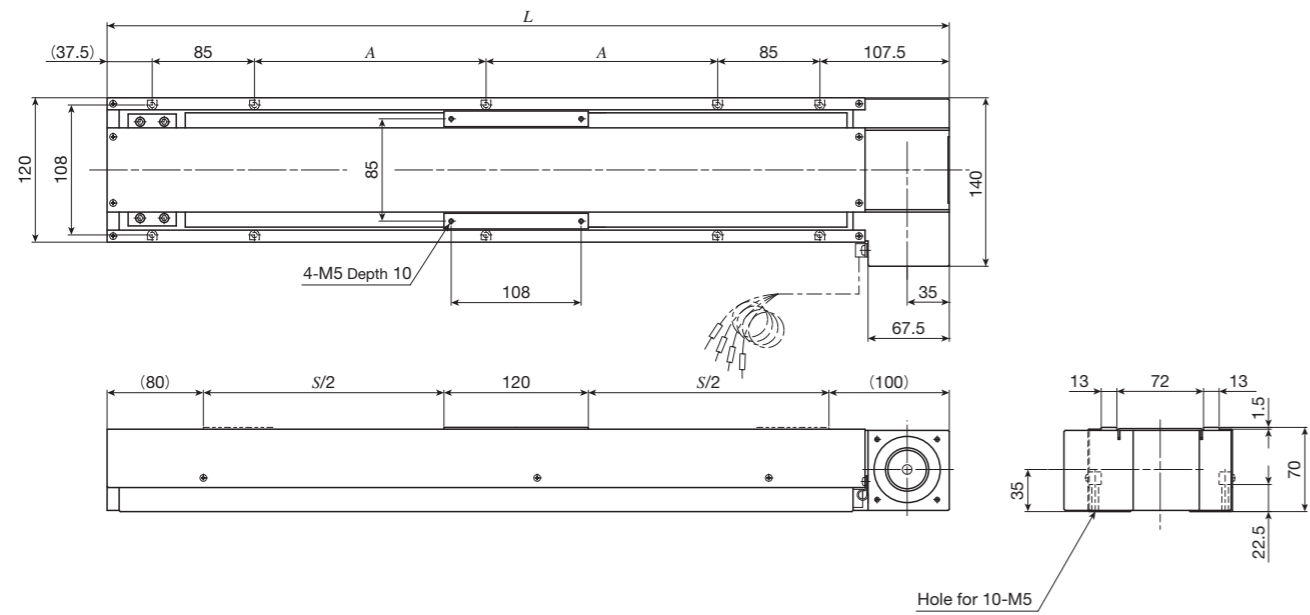


unit: mm

Identification number	Stroke length S	Overall length L	Mounting holes of bed A	Mass (Ref.) kg
TSLB90-300	300	570	160	6.5
TSLB90-400	400	670	210	7.5
TSLB90-500	500	770	260	8.5
TSLB90-600	600	870	310	9.5

IKO Precision Positioning Table LB

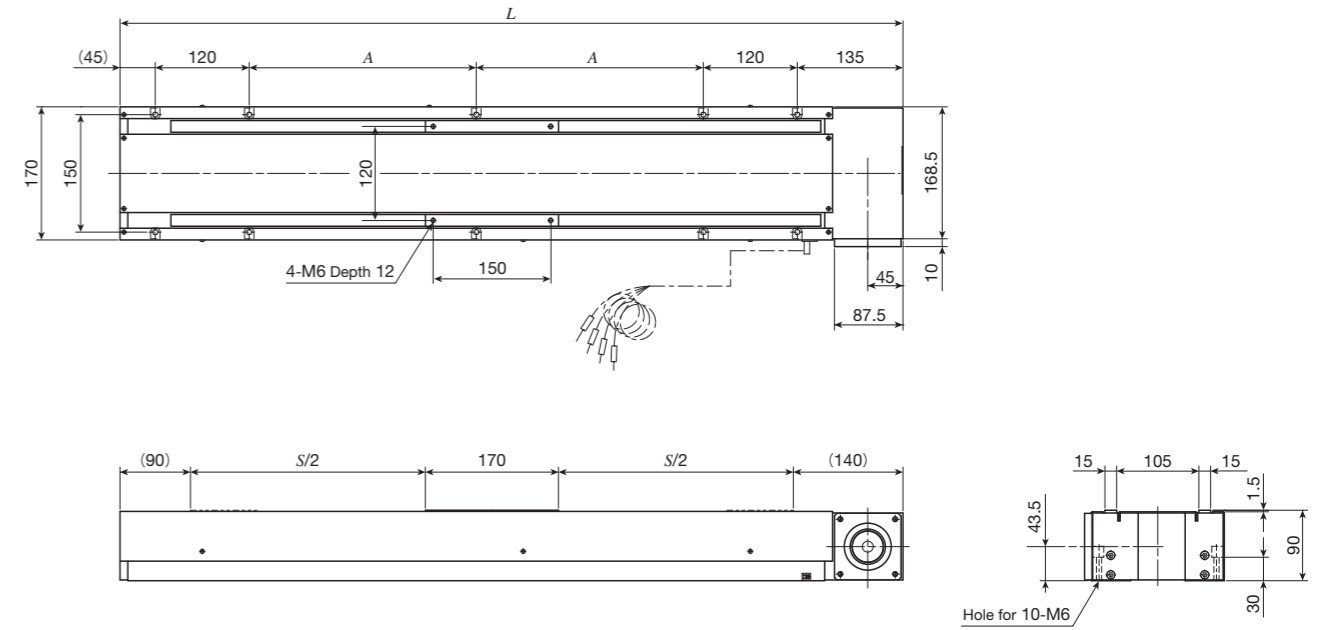
TSLB120



unit: mm

Identification number	Stroke length <i>S</i>	Overall length <i>L</i>	Mounting holes of bed <i>A</i>	Mass (Ref.) kg
TSLB120- 600	600	900	292.5	13
TSLB120- 700	700	1 000	342.5	14
TSLB120- 800	800	1 100	392.5	15
TSLB120- 900	900	1 200	442.5	16
TSLB120-1000	1 000	1 300	492.5	17

TSLB170



unit: mm

Identification number	Stroke length <i>S</i>	Overall length <i>L</i>	Mounting holes of bed <i>A</i>	Mass (Ref.) kg
TSLB170- 800	800	1 200	390	23
TSLB170-1000	1 000	1 400	490	26
TSLB170-1200	1 200	1 600	590	29