

# THK

**NEW**

# Linear Bushing Flange Type LMJK / LMJK-L

Up to 25% weight reduction  
Low cost



For details, visit THK at [www.thk.com](http://www.thk.com)

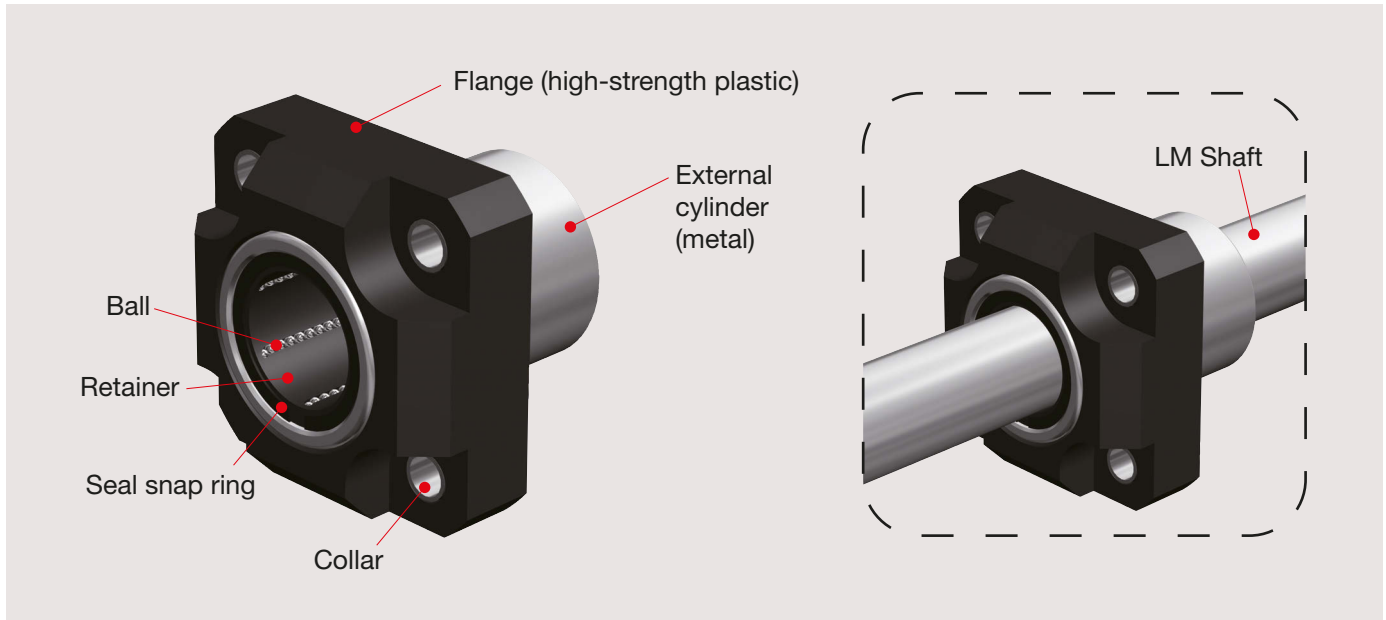
\*Product information is updated regularly on the THK website.

**THK CO., LTD.**  
TOKYO, JAPAN

CATALOG No.387E

# Linear bushing light-weight flange type LMJK/LMJK-L

## Reduce the total weight of movable parts



Linear Bushing model LMJK is a linear motion system used in combination with a cylindrical LM shaft to perform infinite straight motion.

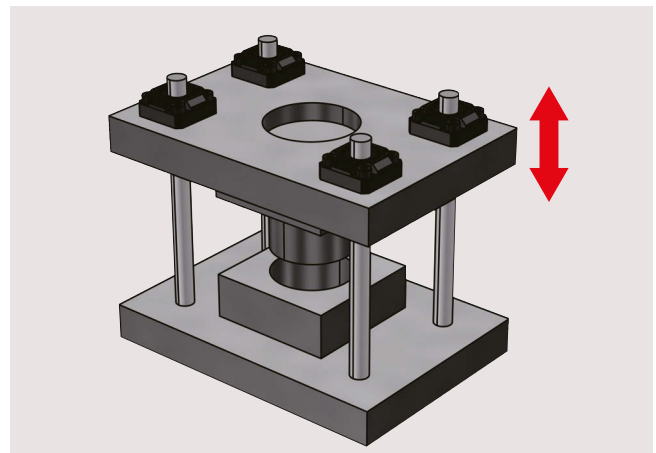
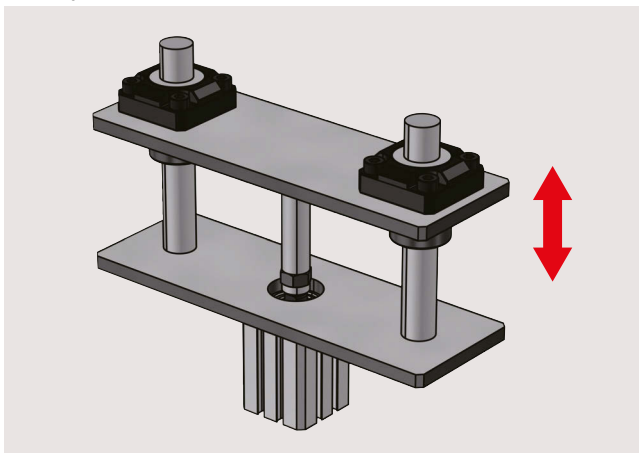
\*THK manufactures a LM shaft dedicated to linear bushing.

### ■ Features

#### ■ Weight reduction: Up to 25%

Weight reduction of the housing is achieved by adopting a high-strength plastic instead of the conventional metal for the flange. Best utilized in a moving portion of an application.

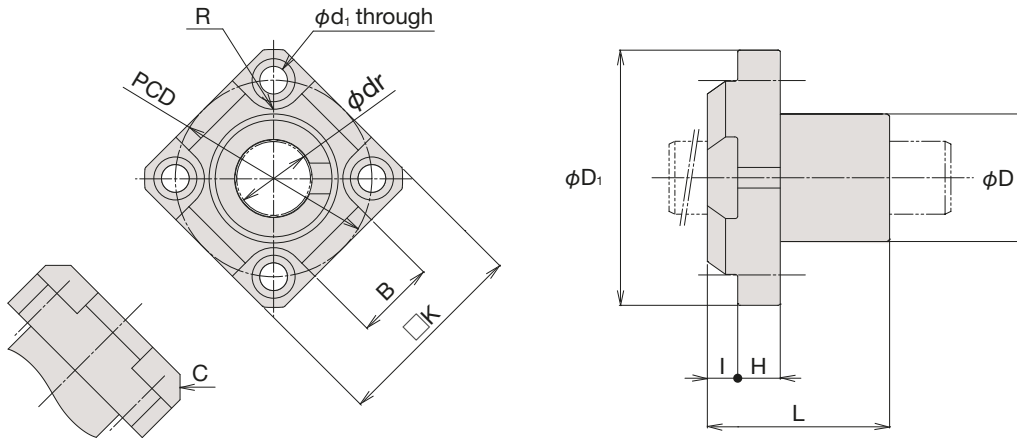
Example of Installation



#### ■ Low cost

Material cost is reduced by changing the material of the flange from metal to high-strength plastic.

# Specification Table



Unit: mm

Model No.	Rows of balls	Inscribed bore diameter		Outer diameter		Overall length		Flange diameter		K	B	R	H	I	C	PCD	d <sub>i</sub>	Flange perpendicularity μm	Eccentricity (max) μm	Radial clearance tolerance μm	Basic Load Rating		Mass g
		dr	Tolerance	D	Tolerance	L	Tolerance	D <sub>1</sub>	Tolerance												C	C	
LMJK 8	4	8	-0.009	15	0 -0.011	24	0 -0.2	32	0 -0.2	25	10	R4	6	4	C3	24	3.4	12	12	-5	265	402	20
LMJK 10		10		19	29	39		30		12	R5	7	5	29		4.5	373				549	35	
LMJK 12		12		21	30	42		32		13				32			412				598	38	
LMJK 16	5	16	28	37	48	37	18	10	6	6	38	5.5	15	15	-7		775	1180	88				
LMJK 20		20	32	42	54	42	21				43					863	1370	104					
LMJK 25	6	25	40	59	0 -0.3	62	50	26	R6	51	15					15	-9	980	1570	234			
LMJK 8L	4	8	0 -0.010	15	0 -0.013	45	0 -0.3	32	0 -0.2	25	10	R4	6	4	C3	24	3.4	15	15	-5	431	784	32
LMJK 10L		10		19	55	39		30		12	R5	7	5	29		4.5	588				1100	58	
LMJK 12L		12		21	57	42		32		13				32			657				1200	63	
LMJK 16L	5	16	28	70	48	37	18	10	6	6	38	5.5	20	20	-7		1230	2350	158				
LMJK 20L		20	32	80	54	42	21				43					1400	2750	182					
LMJK 25L	6	25	40	112	0 -0.4	62	50	26	R6	51	20					20	-9	1560	3140	421			

# Model Number Coding

LMJK 8   L   UU

Model No.

External cylinder length  
No symbol: Standard Type  
L: Long Type

Seal symbol  
No symbol: Snap ring  
UU: Seal attached on both ends  
U: Single seal

# Installation Procedure

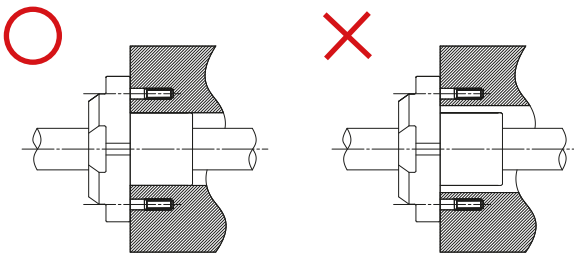


Figure 1 Installation of External Cylinder with Spigot Joint

Figure 2 Installation Only with Flange

## Inner Diameter of the Housing

For the housing inner-diameter tolerance, class H7 is recommended.

## Notes on Installation of External Cylinder

As shown in Figure 1, install the external cylinder with its spigot joint.  
Do not install it with the flange alone.

# THK Linear Bushing Flange Type LMJK/LMJK-L

## Precautions on use

### ● Handling

- Disassembling each part may cause dust to enter the system or degrade mounting accuracy of parts. Do not disassemble the product.
- Take care not to drop or strike the Linear Bushing. Doing so may cause injury or damage. Giving an impact to it could also cause damage to its function even if the product looks intact.
- When handling the product, wear protective gloves, safety shoes, etc., as necessary to ensure safety.

### ● Precautions on Use

- Prevent foreign material, such as cutting chips or coolant, from entering the product. Failure to do so may cause damage.
- If the product is used in an environment where cutting chips, coolant, corrosive solvents, water, etc., may enter the product, use bellows, covers, etc., to prevent them from entering the product.
- Do not use the product at temperature of 80°C or higher. Exposure to higher temperatures may cause the resin/rubber parts to deform/be damaged.
- If foreign material such as cutting chips adheres to the product, replenish the lubricant after cleaning the product.
- Micro-strokes tend to obstruct oil film to form on the raceway in contact with the rolling element, and may lead to fretting corrosion. Take consideration using grease offering excellent fretting prevention. It is also recommended that a stroke movement corresponding to the length of the outer cylinder be made on a regular basis to make sure oil film is formed between the raceway and rolling element.
- Do not use undue force when fitting parts (pin, key, etc.) to the product. This may generate permanent deformation on the raceway, leading to loss of functionality.
- Insert the shaft straight through the opening. Inserting the shaft at an angle can introduce foreign matter, damage internal components, or cause balls to fall out.
- Using this product with any balls removed may result in premature damage.
- Please contact THK if any balls fall out; do not use the product if any balls are missing.
- If an attached component is insufficiently rigid or mounted incorrectly, the bearing load will be concentrated at one location and performance will decline significantly. Make sure the housing and base are sufficiently rigid, the anchoring bolts are strong enough, and the component is mounted correctly.

### ● Lubrication

- Thoroughly wipe off anti-rust oil and feed lubricant before using the product.
- Do not mix different lubricants. Mixing greases using the same type of thickening agent may still cause adverse interaction between the two greases if they use different additives, etc.
- When using the product in locations exposed to constant vibrations or in special environments such as clean rooms, vacuum and low/high temperature, use the grease appropriate for the specification/environment.
- To lubricate the product, apply lubricant directly to the raceway surface and execute a few preliminary strokes to ensure that the interior is fully lubricated.
- The consistency of grease changes according to the temperature. Take note that the slide resistance of the Linear Bushing also changes as the consistency of grease changes.
- After lubrication, the slide resistance of the Linear Bushing may increase due to the agitation resistance of grease. Be sure to perform a break-in to let the grease spread fully, before operating the machine.
- Excess grease may scatter immediately after lubrication, so wipe off scattered grease as necessary.
- The properties of grease deteriorate and its lubrication performance drops over time, so grease must be checked and added properly according to the use frequency of the machine.
- The greasing interval varies depending on the use condition and service environment. Set the final lubrication interval/amount based on the actual machine.
- When using linear bushing, it is necessary to keep high lubricating performance. If it is used without lubrication, the wear of the rolling part will increase, which may shorten the life.

### ● Storage

- When storing the Linear Bushing, enclose it in a package designated by THK and store it in a room while avoiding high temperature, low temperature and high humidity.

### ● Disposal

- Dispose of the product properly as industrial waste.

● The photo may differ slightly in appearance from the actual product.

● The appearance and specifications of the product are subject to change without notice. Contact THK before placing an order.

● Although great care has been taken in the production of this catalog, THK will not take any responsibility for damage resulting from typographical errors or omissions.

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# THK CO., LTD.

Head Office 3-11-6 Nishigotanda, Shinagawa-ku, Tokyo 141-8503 JAPAN  
International Sales Department Phone:+81-3-5434-0351 Fax:+81-3-5434-0353  
Global site : <http://www.thk.com/>

## NORTH AMERICA

THK America, Inc.

### ● HEADQUARTERS

Phone:+1-847-310-1111 Fax:+1-847-310-1271

### ● CHICAGO OFFICE

Phone:+1-847-310-1111 Fax:+1-847-310-1182

### ● NORTH EAST OFFICE

Phone:+1-631-244-1565 Fax:+1-631-244-1565

### ● ATLANTA OFFICE

Phone:+1-770-840-7990 Fax:+1-770-840-7897

### ● LOS ANGELES OFFICE

Phone:+1-949-955-3145 Fax:+1-949-955-3149

### ● SAN FRANCISCO OFFICE

Phone:+1-925-455-8948 Fax:+1-925-455-8965

### ● DETROIT OFFICE

Phone:+1-248-858-9330 Fax:+1-248-858-9455

### ● TORONTO OFFICE

Phone:+1-905-820-7800 Fax:+1-905-820-7811

## SOUTH AMERICA

THK BRAZIL INDUSTRIA E COMERCIO LTDA.

Phone:+55-11-3767-0100 Fax:+55-11-3767-0101

## EUROPE

THK GmbH

### ● EUROPEAN HEADQUARTERS

Phone:+49-2102-7425-555 Fax:+49-2102-7425-556

### ● DÜSSELDORF OFFICE

Phone:+49-2102-7425-0 Fax:+49-2102-7425-299

### ● STUTTGART OFFICE

Phone:+49-7141-4988-500 Fax:+49-7141-4988-888

### ● U.K. OFFICE

Phone:+44-1384-47-1550 Fax:+44-1384-47-1551

### ● ITALY OFFICE

Phone:+39-02-9901-1801 Fax:+39-02-9901-1881

### ● SWEDEN OFFICE

Phone:+46-8-445-7630 Fax:+46-8-445-7639

### ● AUSTRIA OFFICE

Phone:+43-7229-51400 Fax:+43-7229-51400-79

### ● SPAIN OFFICE

Phone:+34-93-652-5740 Fax:+34-93-652-5746

### ● TURKEY OFFICE

Phone:+90-216-362-4050 Fax:+90-216-569-7150

### ● PRAGUE OFFICE

Phone:+420-2-41025-100 Fax:+420-2-41025-199

### ● MOSCOW OFFICE

Phone:+7-495-649-80-47 Fax:+7-495-649-80-44

### THK Europe B.V.

### ● EINDHOVEN OFFICE

Phone:+31-040-290-9500 Fax:+31-040-290-9599

### THK France S.A.S.

Phone:+33-4-3749-1400 Fax:+33-4-3749-1401

## CHINA

### THK (CHINA) CO., LTD.

### ● HEADQUARTERS

Phone:+86-411-8733-7111 Fax:+86-411-8733-7000

### ● SHANGHAI OFFICE

Phone:+86-21-6219-3000 Fax:+86-21-6219-9890

### ● BEIJING OFFICE

Phone:+86-10-8441-7277 Fax:+86-10-6590-3557

### ● CHENGDU OFFICE

Phone:+86-28-8526-8025 Fax:+86-28-8525-6357

### ● GUANGZHOU OFFICE

Phone:+86-20-8523-8418 Fax:+86-20-3801-0456

### ● SHENZHEN OFFICE

Phone:+86-755-2642-9587 Fax:+86-755-2642-9604

### ● XIAN OFFICE

Phone:+86-29-8834-1712 Fax:+86-29-8834-1710

### THK (SHANGHAI) CO., LTD.

Phone:+86-21-6275-5280 Fax:+86-21-6219-9890

## TAIWAN

### THK TAIWAN CO., LTD.

### ● TAIPEI HEAD OFFICE

Phone:+886-2-2888-3818 Fax:+886-2-2888-3819

### ● TAICHUNG OFFICE

Phone:+886-4-2359-1505 Fax:+886-4-2359-1506

### ● TAINAN OFFICE

Phone:+886-6-289-7668 Fax:+886-6-289-7669

## KOREA

### SEOUL REPRESENTATIVE OFFICE

Phone:+82-2-3468-4351 Fax:+82-2-3468-4353

## SINGAPORE

### THK LM System Pte. Ltd.

Phone:+65-6884-5500 Fax:+65-6884-5550

## THAILAND

### THK RHYTHM (THAILAND) CO., LTD. LM System Division

### ● Bangkok Branch

Phone:+66-2751-3001 Fax:+66-2751-3003

## INDIA

### THK India Pvt. Ltd.

### ● HEADQUARTERS & Bangalore Branch

Phone:+91-80-2340-9934 Fax:+91-80-2340-9937

### ● Pune Branch

Phone:+91-20-4120-8742