

# How can the THK Technical Support Site help you?



## Technical Support Site

It has always been crucial to manage how you efficiently use your time as you work. THK's Technical Support Site enables you to select linear motion guides, ball screws and actuators easily and quickly. Also, you can access important information through using our CAD data, catalogs and life calculator.

### 01 Optimal Product Selection Tool

Input usage conditions to easily narrow down the selection of products and help you make the right choice.

### 02 CAD/Drawing Data Acquisition

From each product page, important information such as catalog data, CAD data and reference diagrams can be easily accessed.

### 03 Life Calculator

Easily calculate a product's expected service life by selecting a tool and entering its conditions, as shown in the steps.

### 01 Optimal Product Selection Tool

Input usage conditions to easily narrow down the selection of products and help you make the right choice.

No more struggling with catalogs! This Optimal Product Selection Tool enables you to create model numbers with 3 easy steps: Just input usage conditions, choose the model and select model numbers.

Select 5 conditions:  
Stroke, Speed, Mass, Block and Rail Span

View list of model candidates, then click "Model Selection" to create model number

Usage conditions

The items with \* are mandatory.

Orientation	Horizontal
layout	2 Rails 2 Blocks
Stroke (ST) mm	500
Speed (V) mm/s	500
Mass (m) kg	100
Block span (BS) mm	70
Rail span (RS) mm	300

Horizontal  
2 Rails 2 Blocks

Selection result list

Output	Model number	Block Type	Block shape	Block Bolt size	Rail Bolt size	Static safety factor	Nominal life km	To detailed selection
<input type="checkbox"/>	HSR12	B		IM4	M3	21.2	1.69 × 10 <sup>5</sup>	Model Selection Product Catalog
<input type="checkbox"/>	SSR15	XV		IM4	M4	24.4	1.24	Model Selection Product Catalog Life Calculation
<input type="checkbox"/>	SR15	SB		IM4	M3	29	1.23 × 10 <sup>6</sup>	Model Selection Product Catalog Life Calculation

Selection item

Model number (outline)	SSR
Size	15
Block type	XV: Short block without flange
Number of LM blocks/1 shaft	2
Seal option	SS: End + Side
Lubricator	None
Radial clearance	C1: Light preload
Block material/Surface treatment	Iron
Rail length (mm)	400
G dimension (mm)	20
G dimension (mm)	20
Accuracy	H: High accuracy grade
Rail material/Surface treatment	Iron
Symbol for Number of Axes	II: Two axes
Grease	AFB-LF: Universal (lithium-based)
Anti-rust oil	Included
Nipple type	PB1021B: Driven nipple
Ordered quantity	2 Shaft × 1 Pieces = 2

Model number (detail) selection result

Classification name: Caged Ball LM Guide Radial Type

Model number (detail): SSR15XV2SSC1+400LYH-II

[Specification notes]  
G dimension (mm): 20  
G dimension (mm): 20  
Grease: AFB-LF  
Anti-rust oil: Included  
Nipple type: PB1021B

CAD: [Link to CAD](#)  
CAD data URL copy: [CAD data URL copy](#)

Catalog: [Link to the catalog](#)

Reference diagram: -

Shipment THK factory: [Operation day](#)

For the delivery date, contact THK.

For those who want technical consideration: [Link to technical consideration \(detail\)](#)

Block bolt size	M4
Rail bolt size	M4
Weight of one shaft (Kg)	0.64
Total weight (Kg)	1.28

The following items shall be purchased separately as needed

Cap C	C4 14 Pieces
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Output PDF

If you want to negotiate details of the specifications or others, contact the following contact.  
Contact Form

Created Model number

Link for CAD data and Catalog

Link for life calculator

Model number can be easily created by selecting items from drop-down list.

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## 02 CAD/Drawing Data Acquisition

From each product page, important information such as catalog data, CAD data and reference diagrams can be easily accessed.

CAD data which reflects the result of Optimal Product Selection is automatically generated from the link of result screen and you can download with your preferable format.

Company	THK CO.,LTD.		
Description	Short Type SSR-XV		
Bill of material	SSR15XV2SSC1 + 64DLHY-II (G2Q20, PB1021B)		
MN Model No.	SSR15XV		
NOB Number of LM block	2,000		
QZ QZ option	No		
SO Seal option	SS- With end, side seals		
RADC Radial Clearance	C1 : Light preload		
L Total length of LM rail	640.0	mm	
ACCG Accuracy Grades	H : High-accuracy grade		
G Type of G dimension	Symmetrical (G1=G2)		
INFO Info Text			
IKK Length G (Note 1)	20,000	mm	
IKX2 Length g	20.00	mm	
POH Pitch of rails	100	1000	mm
	100	59	mm
GP3 Flange Part and Pipe joint	PB1021B		
TAPH Tapped hole LM Rail	No		
INFO1 Info Text			
P1 Position of LM Block (1st)	0	100	559.4
	100	0	mm
P2 Position of LM Block (2nd)	140.3	590.7	mm
	140.3	140.3	mm



Modify specifications by editing figures in the drop-down menu. Updates can be seen in real-time through an image preview.

## 03 Life Calculator

Easily calculate a product's expected service life by selecting a tool and entering its conditions, as shown in the steps.

Expected service life of the selected model number can be calculated right away on THK Technical Support Site. This enables to calculate at closer conditions of your machines.

Entries of the placement positions of the rail, block, and drive part

Please enter the placement positions of the rail, block, and drive part.

Selected model number: SSR15XV

Please enter the placement positions of the back part.

Rail span (BS) mm: 350

Block span (BS2) mm: 70

Please enter the driving position of the drive part.

Thrust position-Height (B1) mm: 20

Thrust position-Lateral (B2) mm: 150

Fill in 5 conditions and you will obtain the expected service life:

1. Basic calculation conditions
2. Model number
3. General conditions
4. Mass conditions
5. Speed conditions

Entry of the mass conditions

Please enter the mass conditions.

Selected model number: SSR15XV

Mass (M) kg: 100

Mass position-Height (G1) mm: 300

Mass position-Longitudinal (G2) mm: 35

Mass position-Lateral (G3) mm: 150

Addition of the Mass

Entry of the speed conditions

Please enter the speed conditions.

Selected model number: SSR15XV

Stroke (ST) mm: 500

Speed (V) mm/s: Free entry

Free entry: 1000

Acceleration and deceleration time (tn) sec: 0.0

Acceleration (A) m/s<sup>2</sup>: Free entry

Free entry: 3.20333033

Load coefficient (Zn): Free Entry Figure

Free Entry Figure: 1.5

Frequency of use (number of round trips) (n): Free entry

Free entry: 30

Calculation result

This is the result details. You can make a recalculation changing the left value.

Basic calculation conditions		Calculation result	
Calculation method	Calculation of the service life	Calculation result	
Intended purpose	Computer/Electronic component manufacturing	Model No.	SSR15XV
Attitude	Horizontal use	Static safety factor	14.2
Number of rails	2	Nominal life (L) km	6.03E+05
Number of LM blocks/1 shaft	2	Service life time (Lh) hour	2.01E+07
		<p>Recalculate</p> <p>Save the result/Output to PDF</p>	
<p>Select model No.</p> <p>Conditions</p> <p>Mass conditions</p> <p>Speed conditions</p>			

Each condition can be modified from drop-down list easily. And re-calculation is available on the same screen.