



Slide Pack

THK General Catalog

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Features of the Slide Pack

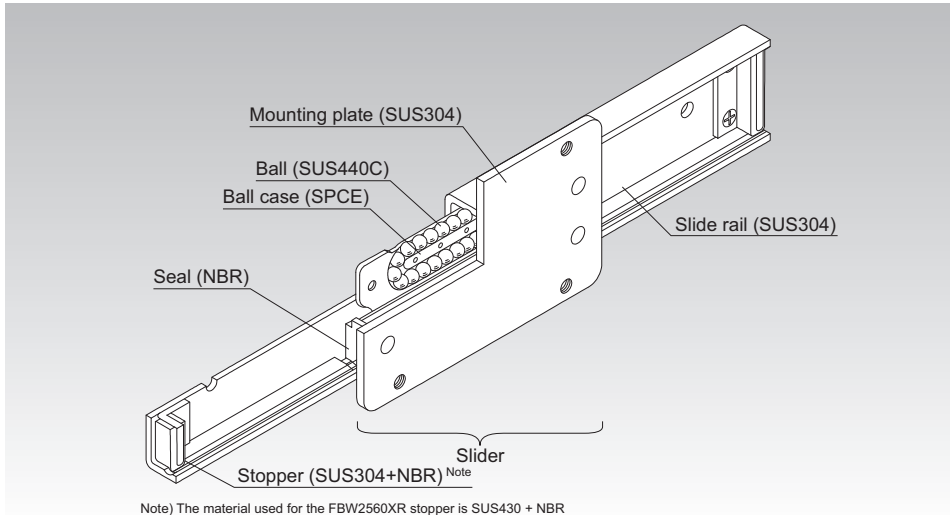


Fig.1 Structure of Slide Pack Model FBW-XRUU

Structure and Features

Slide Pack model FBW-XR is an LM system in which a precision press molded slider that contains balls performs infinite straight motion. Used in combination with a slide rail, the Slide Pack achieves lightweight and compact design and smooth straight motion.

This product is optimal for light-load slide units in products such as photocopiers, tool cabinets, electronic equipment cabinets, automatic vending machines, machine tool slide covers, cash registers and curtain walls.

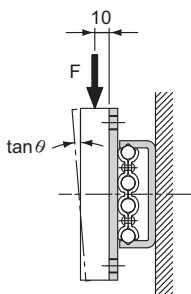
[High Corrosion Resistance]

Austenite stainless steel is used in components such as rails, mounting plates and stoppers to ensure excellent corrosion resistance.

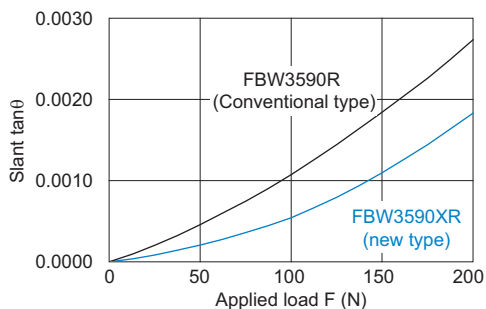
[High Rigidity]

The rail wall thickness in the FBW3590XR and 50110XR has been increased to provide higher rigidity than the previous models.

[Rigidity Test Data]



Vertical direction load



[Low Noise]

The slider unit in the FBW2560XR, FBW3590XR, 50110XR has been redesigned to provide noise levels 5 dBA lower than the previous models.

(At a speed of 60 m/min. in the FBW3590XR)

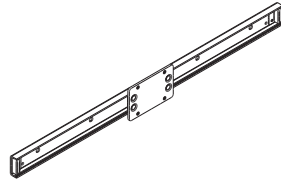
Types of the Slide Pack

Type

Model FBW 2560XR

Specification Table⇒ **A12-6**

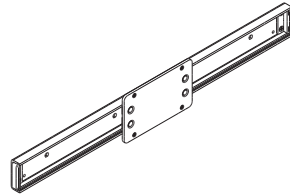
This model is a compact type.



Model FBW 3590XR

Specification Table⇒ **A12-7**

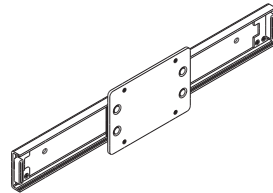
This model is a standard type.



Model FBW 50110XR

Specification Table⇒ **A12-8**

This model is a heavy load type.



Clearance

Model FBW-XR is manufactured to the following specifications.

Vertical clearance: 0.03 mm or less

Horizontal clearance: 0.1 mm or less

These specifications are values when the slide rail is attached to a rigid base.

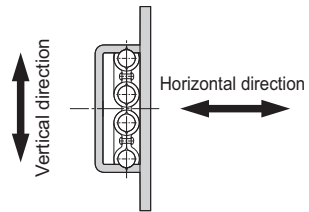
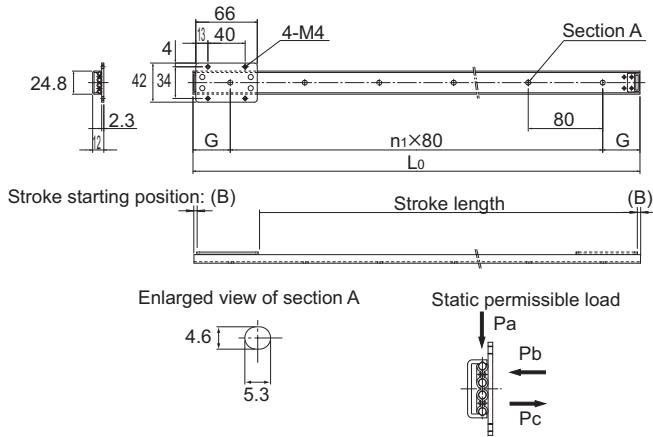


Fig.2

Model FBW2560XR



Unit: mm

Slide rail length L_0	Main dimensions		Without seal		With seal		Static Permissible Load N			Slide rail mass ^{Note 1} g
	n_1	G	B	Stroke length	B	Stroke length	P_a	P_b	P_c	
160	1	40	3	88	5.5	83	590	150	70	70
240	2	40	3	168	5.5	163	590	150	70	110
320	3	40	3	248	5.5	243	590	150	70	140
400	4	40	3	328	5.5	323	590	150	70	180
480	5	40	3	408	5.5	403	590	150	70	210
560	6	40	3	488	5.5	483	590	150	70	250
640	7	40	3	568	5.5	563	590	150	70	290
720	8	40	3	648	5.5	643	590	150	70	320
800	9	40	3	728	5.5	723	590	150	70	360
880	10	40	3	808	5.5	803	590	150	70	390
960	11	40	3	888	5.5	883	590	150	70	430
1040	12	40	3	968	5.5	963	590	150	70	460
1200	14	40	3	1128	5.5	1123	590	150	70	540

Note1) The FBW2560XR slider mass is 70g.

Note2) This model is also available with a dust cover. Contact THK for details.

Note3) High-quality lithium soap-based grease is applied to the slider and ball circulation components.

Model number coding

2 FBW2560XR UU +800L - T

Model No.

No. of sliders connected on the same rail (no symbol for a single slider)

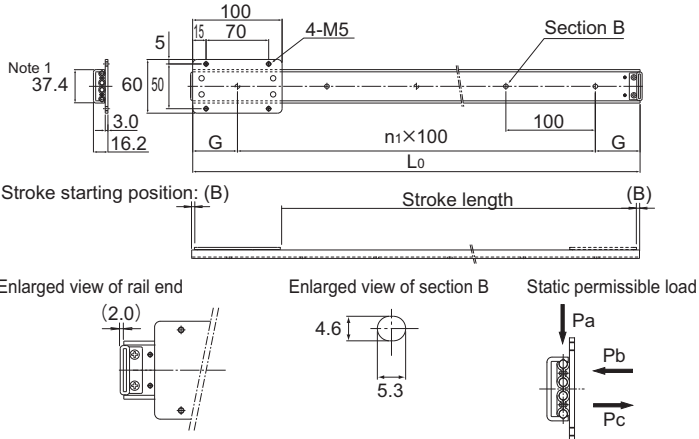
Overall slide rail length (in mm)

Jointed slide rails symbol*

With seal (no symbol for without seal)

* For jointed slide rails, see **A12-12**.

Model FBW3590XR



*For model FBW3590XR, the stopper extends beyond the rail end

Unit: mm

Slide rail length L_0	Main dimensions		Without seal		With seal		Static Permissible Load N			Slide rail mass ^{Note 2} g
	n_1	G	B	Stroke length	B	Stroke length	P_a	P_b	P_c	
300	2	50	0	200	2.5	195	880	200	100	280
350	3	25	0	250	2.5	245	880	200	100	330
400	3	50	0	300	2.5	295	880	200	100	380
450	4	25	0	350	2.5	345	880	200	100	420
500	4	50	0	400	2.5	395	880	200	100	470
550	5	25	0	450	2.5	445	880	200	100	520
600	5	50	0	500	2.5	495	880	200	100	560
650	6	25	0	550	2.5	545	880	200	100	610
700	6	50	0	600	2.5	595	880	200	100	650
750	7	25	0	650	2.5	645	880	200	100	710
800	7	50	0	700	2.5	695	880	200	100	750
900	8	50	0	800	2.5	795	880	200	100	850
1000	9	50	0	900	2.5	895	880	200	100	930
1200	11	50	0	1100	2.5	1095	880	200	100	1090
1500	14	50	0	1400	2.5	1395	880	200	100	1410
1800	17	50	0	1700	2.5	1695	880	200	100	1740

Note1) The rail is 0.4 mm wider than the previous model (FBW3590R).

Note2) The FBW3590XR slider mass is 250g.

Note3) This model is also available with a dust cover. Contact THK for details.

Note4) High-quality lithium soap-based grease is applied to the slider and ball circulation components.

Model number coding

2 FBW3590XR UU +800L - T

Model No.

No. of sliders connected on the same rail
(no symbol for a single slider)

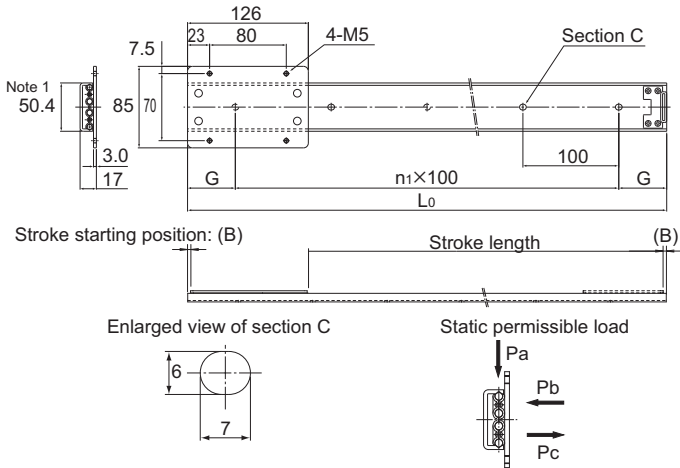
Overall slide rail length (in mm)

Jointed slide rails symbol*

With seal
(no symbol for without seal)

* For jointed slide rails, see **A12-12**.

Model FBW50110XR



Unit: mm

Slide rail length L_0	Main dimensions		Without seal		With seal		Static Permissible Load N			Slide rail mass ^{Note 2} g
	n_1	G	B	Stroke length	B	Stroke length	P_a	P_b	P_c	
300	2	50	2	170	5	164	1960	500	390	390
350	3	25	2	220	5	214	1960	500	390	460
400	3	50	2	270	5	264	1960	500	390	520
450	4	25	2	320	5	314	1960	500	390	590
500	4	50	2	370	5	364	1960	500	390	650
600	5	50	2	470	5	464	1960	500	390	780
700	6	50	2	570	5	564	1960	500	390	910
800	7	50	2	670	5	664	1960	500	390	1040
900	8	50	2	770	5	764	1960	500	390	1190
1000	9	50	2	870	5	864	1960	500	390	1300
1200	11	50	2	1070	5	1064	1960	500	390	1520
1500	14	50	2	1370	5	1364	1960	500	390	1950
1800	17	50	2	1670	5	1664	1960	500	390	2380

Note1) The rail is 0.4 mm wider than the previous model (FBW50110R).

Note2) The FBW50110XR slider mass is 420g.

Note3) This model is also available with a dust cover. Contact THK for details.

Note4) High-quality lithium soap-based grease is applied to the slider and ball circulation components.

Model number coding

2 FBW50110XR UU +800L - T

Model number

No. of sliders connected on the same rail
(no symbol for a single slider)

Overall slide rail length
(in mm)

Jointed slide rails symbol*

With seal
(no symbol for without seal)

* For jointed slide rails, see **A12-12**.

Installation

[Mounting Screws of the Slide Rail]

Since the space for securing the mounting screws of the slide rail is small as shown in Fig.1, we recommend using button-head bolt or binding-head bolt (JIS B 1111 annex).

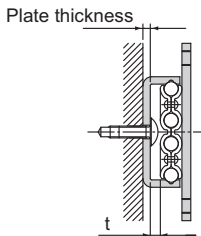


Fig.1

Unit: mm

Model No.	Mounting screw size	Rail plate thickness	t
FBW 2560XR	M4	1.5	3.2
FBW 3590XR	M4	2.5	3.4
FBW 50110XR	M5	2.5	3.4

[Attaching the Stopper]

If the slider may overshoot and come off of the slide rail, attach the dedicated stopper to the slide rail end as shown in Fig.2.



Fig.2

[Installing the Slider]

With model FBW-XR, balls will not fall off even if the slider is removed from the slide rail. However, they could fall if the slider is twisted when reattaching it to the slide rail. Whenever possible, do not remove the slider from the slide rail when installing the Slide Pack.

[Groove Dimensions]

The groove dimensions when model FBW-XR is installed in a groove are shown in Fig.3.

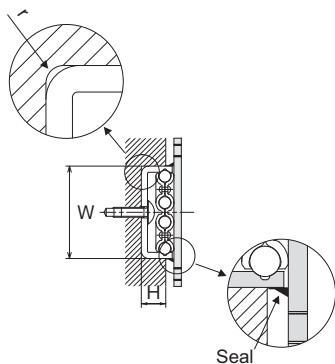


Fig.3

Unit: mm

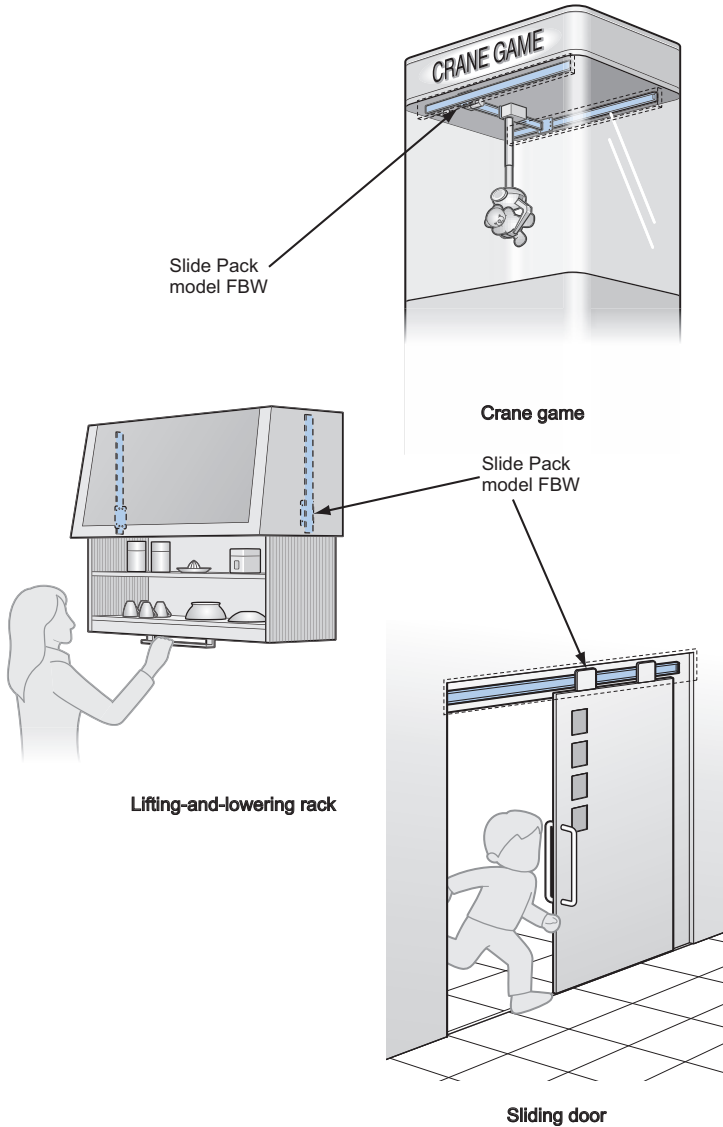
Model No.	W	H	r(max)
FBW 2560XR	24.8 +0.15 +0.1	7.4	1
FBW 3590XR	37.4 +0.15 +0.1	10	2
FBW 50110XR	50.4 +0.15 +0.1	10	2.5

Note) The groove width for the FBW3590XR and 50110XR is 0.4 mm more than for the previous models (3590R and 50110R).

Lubrication

Apply high-quality lithium soap group grease to the raceway of the slide rail before using the product.

Examples of Use



Contamination Protection

For Slide Pack model FBW-XR, a special synthetic rubber seal with high contamination protection characteristics, capable of preventing foreign material from entering the slider and the lubricant from leaking, is available. The seal increases the contamination protection effect by contacting both the slide rail raceway where balls roll and the slide rail itself.

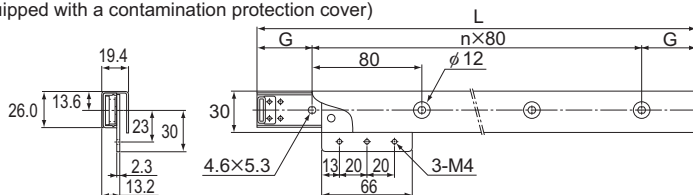


Metal Dust-Cover

For Slide Pack model FBW-XR, stainless steel (SUS304) covers that cover the whole slide rail to prevent foreign material from entering the slide are available.

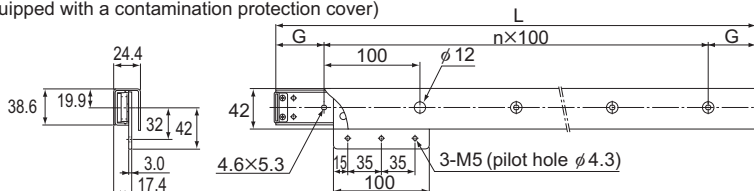
Model FBW2560XRG

(Equipped with a contamination protection cover)



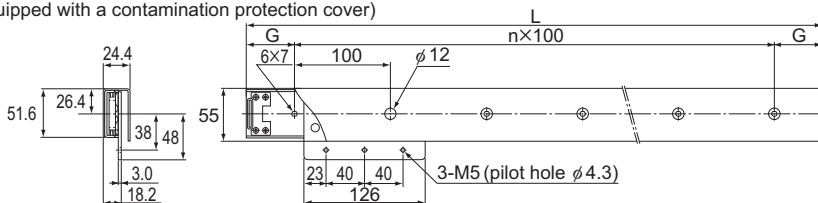
Model FBW3590XRG

(Equipped with a contamination protection cover)



Model FBW50110XRG

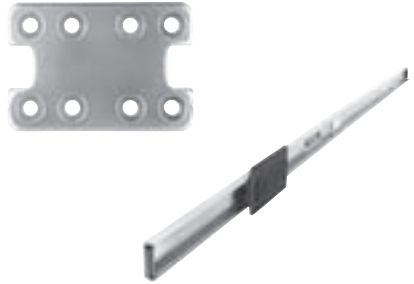
(Equipped with a contamination protection cover)



Note) For models equipped with a contamination protection cover, the rubber seal is not available.

Jointed Slide Rails

If the required specifications exceed the standard stroke, two or more slide rails can be connected. When placing an order, indicate the overall length.

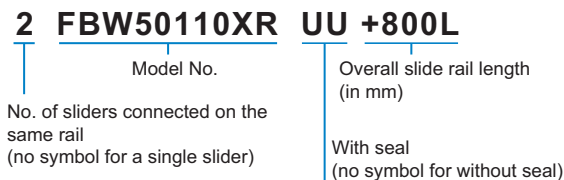


Model Number Coding

Model number configurations differ depending on the model features. Refer to the corresponding sample model number configuration.

[Slide Pack]

- Models FBW2560XR, FBW3590XR and FBW50110XR



- Join specifications

- with Metal Dustproof Cover



*If units are to be joined, provide a diagram or sketch clearly showing the joined length.

*Slide Pack model FBW is available with a metal dust cover that covers the entire slide rail in order to prevent foreign material from entering. (see **A12-11**.)

*A seal is not available for models equipped with a metal dust cover.

[Handling]

- (1) Do not disassemble the parts. This will result in loss of functionality.
- (2) Tilting the slider or Slide Rail may cause them to fall by their own weight.
- (3) Take care not to drop or strike the slide pack. 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.
- (4) When handling the product, wear protective gloves, safety shoes, etc., as necessary to ensure safety.

[Precautions on Use]

- (1) The static permissible load of the Slide Pack varies according to the direction.
- (2) Prevent foreign material, such as cutting chips or coolant, from entering the product. Failure to do so may cause damage.
- (3) 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.
- (4) If foreign material such as cutting chips adheres to the product, replenish the lubricant after cleaning the product.
- (5) Do not subject this product to harsh conditions, such as an abnormally hot or cold, damp, or dusty environment, or intense repeated motion that would cause it to heat up due to friction. Use of this product under such conditions can result in damage or loss of function.
- (6) If the slide pack will be used hanging upside down, take preventive measures such as adding a safety mechanism to prevent falls. If the slider is damaged due to an accident, etc., balls may fall out of the guide or the slider become detached from the Slide Rail and fall down.
- (7) When you remove the slider from the Slide Rail and then reassemble them, inserting the Slide Rail into the slider while twisting them may cause balls to fall or damage the slider. Be sure to gently insert the rail straight into the slider while checking the position of the slider balls and that of the rail raceway.
- (8) Do not use the supplied stopper as a mechanical stopper. This may damage the stopper due to impact.
- (9) 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.
- (10) Using the product with some of the rolling elements missing may cause damage at an early stage.
- (11) If any of the rolling elements falls, contact THK instead of using the product.
- (12) Insufficient rigidity or accuracy of mounting members causes the bearing load to concentrate on one point and the bearing performance will drop significantly. Accordingly, give sufficient consideration to the rigidity/accuracy of the housing and base and strength of the fixing bolts.

[Lubrication]

- (1) The slider and circulating-ball mechanism have been lubricated with high-quality lithium grease. Do not combine different lubricants. Mixing lubricants can cause adverse interaction between disparate additives or other ingredients.
- (2) The consistency of grease changes according to the temperature. Take note that the slide resistance of the slide pack also changes as the consistency of grease changes.

- (3) After lubrication, the slide resistance of the slide pack may increase due to the agitation resistance of grease. Be sure to let the grease spread fully before use.
- (4) Excess grease may scatter immediately after lubrication, so wipe off scattered grease as necessary.
- (5) 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.
- (6) The greasing interval varies depending on the use condition and service environment. Set the final lubrication interval/amount based on the actual machine.

[Storage]

When storing the Slide Pack, enclose it in a package designated by THK and store it in a room in a horizontal orientation while avoiding high temperature, low temperature and high humidity. After the product has been in storage for an extended period of time, lubricant inside may have deteriorated, so add new lubricant before use.

[Disposal]

Dispose of the product properly as industrial waste.



Slide Pack

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B Support Book

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Features of the Slide Pack

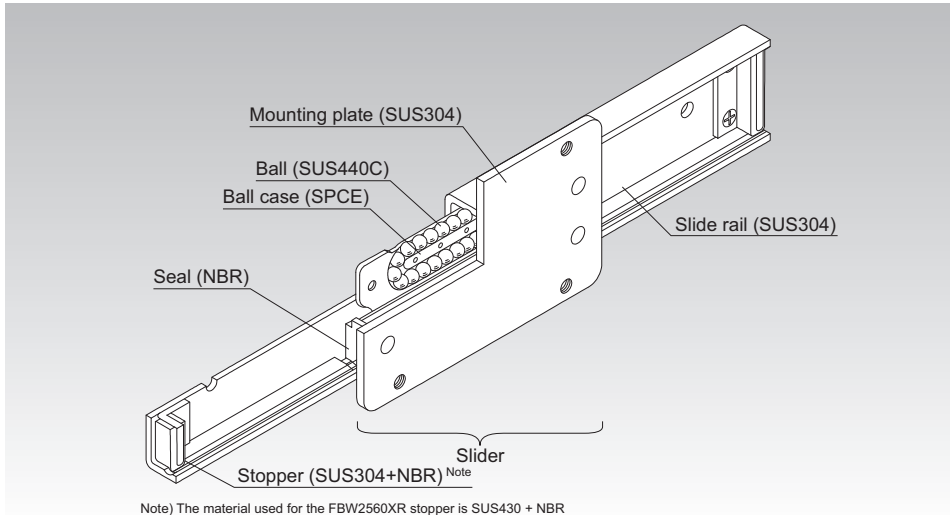


Fig.1 Structure of Slide Pack Model FBW-XRUU

Structure and Features

Slide Pack model FBW-XR is an LM system in which a precision press molded slider that contains balls performs infinite straight motion. Used in combination with a slide rail, the Slide Pack achieves lightweight and compact design and smooth straight motion.

This product is optimal for light-load slide units in products such as photocopiers, tool cabinets, electronic equipment cabinets, automatic vending machines, machine tool slide covers, cash registers and curtain walls.

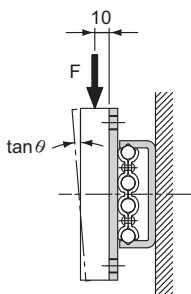
[High Corrosion Resistance]

Austenite stainless steel is used in components such as rails, mounting plates and stoppers to ensure excellent corrosion resistance.

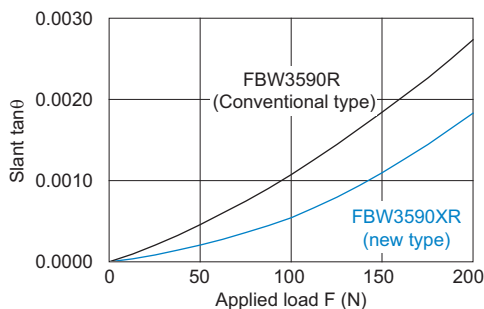
[High Rigidity]

The rail wall thickness in the FBW3590XR and 50110XR has been increased to provide higher rigidity than the previous models.

[Rigidity Test Data]



Vertical direction load



[Low Noise]

The slider unit in the FBW2560XR, FBW3590XR, 50110XR has been redesigned to provide noise levels 5 dBA lower than the previous models.

(At a speed of 60 m/min. in the FBW3590XR)

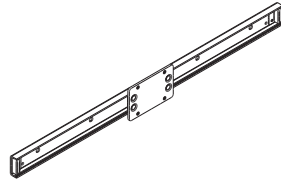
Types of the Slide Pack

Type

Model FBW 2560XR

Specification Table⇒ **A12-6**

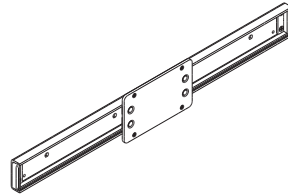
This model is a compact type.



Model FBW 3590XR

Specification Table⇒ **A12-7**

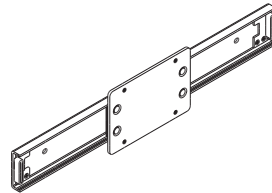
This model is a standard type.



Model FBW 50110XR

Specification Table⇒ **A12-8**

This model is a heavy load type.



Installation

[Mounting Screws of the Slide Rail]

Since the space for securing the mounting screws of the slide rail is small as shown in Fig.1, we recommend using button-head bolt or binding-head bolt (JIS B 1111 annex).

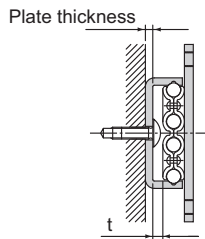


Fig.1

Unit: mm

Model No.	Mounting screw size	Rail plate thickness	t
FBW 2560XR	M4	1.5	3.2
FBW 3590XR	M4	2.5	3.4
FBW 50110XR	M5	2.5	3.4

[Attaching the Stopper]

If the slider may overshoot and come off of the slide rail, attach the dedicated stopper to the slide rail end as shown in Fig.2.

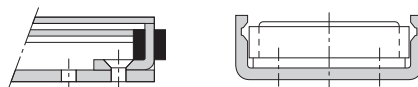


Fig.2

[Installing the Slider]

With model FBW-XR, balls will not fall off even if the slider is removed from the slide rail. However, they could fall if the slider is twisted when reattaching it to the slide rail. Whenever possible, do not remove the slider from the slide rail when installing the Slide Pack.

[Groove Dimensions]

The groove dimensions when model FBW-XR is installed in a groove are shown in Fig.3.

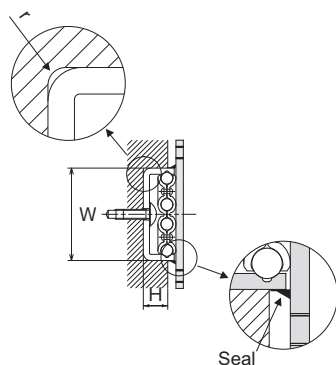


Fig.3

Unit: mm

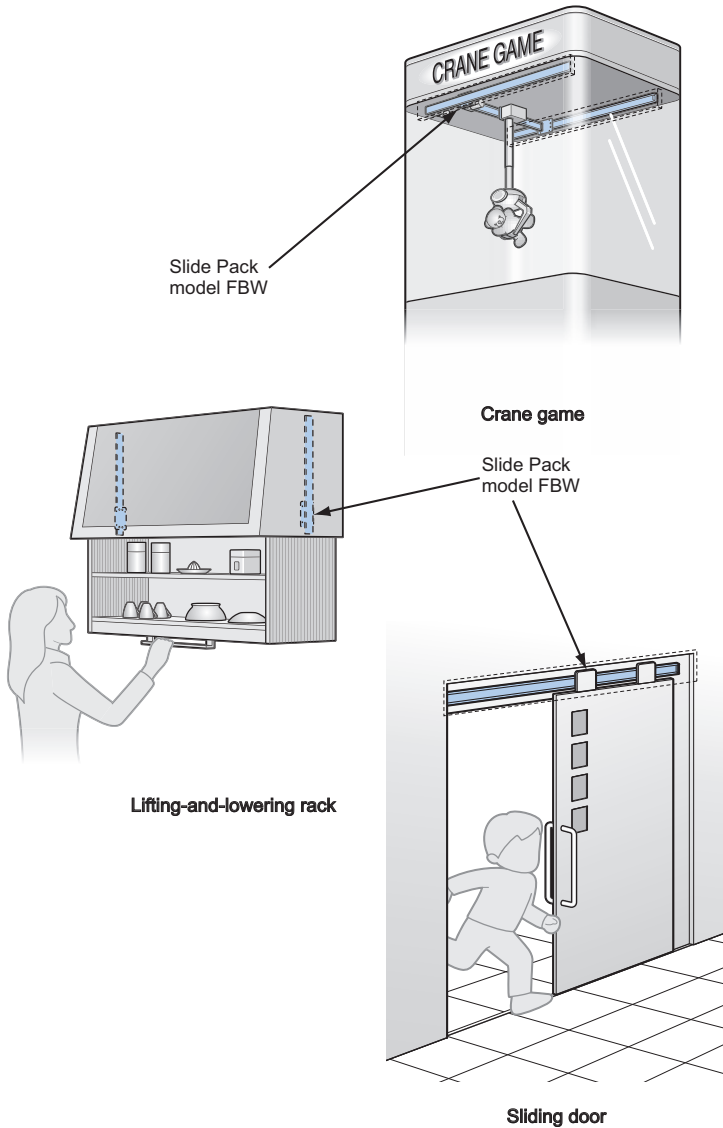
Model No.	W	H	r(max)
FBW 2560XR	24.8 $\begin{smallmatrix} +0.15 \\ +0.1 \end{smallmatrix}$	7.4	1
FBW 3590XR	37.4 $\begin{smallmatrix} +0.15 \\ +0.1 \end{smallmatrix}$	10	2
FBW 50110XR	50.4 $\begin{smallmatrix} +0.15 \\ +0.1 \end{smallmatrix}$	10	2.5

Note) The groove width for the FBW3590XR and 50110XR is 0.4 mm more than for the previous models (3590R and 50110R).

Lubrication

Apply high-quality lithium soap group grease to the raceway of the slide rail before using the product.

Examples of Use

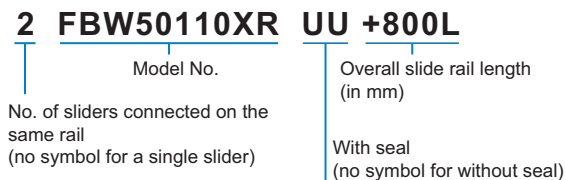


Model Number Coding

Model number configurations differ depending on the model features. Refer to the corresponding sample model number configuration.

[Slide Pack]

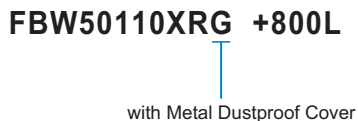
- Models FBW2560XR, FBW3590XR and FBW50110XR



- Join specifications



- with Metal Dustproof Cover



*If units are to be joined, provide a diagram or sketch clearly showing the joined length.

*Slide Pack model FBW is available with a metal dust cover that covers the entire slide rail in order to prevent foreign material from entering. (see **12-11**.)

*A seal is not available for models equipped with a metal dust cover.

[Handling]

- (1) Do not disassemble the parts. This will result in loss of functionality.
- (2) Tilting the slider or Slide Rail may cause them to fall by their own weight.
- (3) Take care not to drop or strike the slide pack. 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.
- (4) When handling the product, wear protective gloves, safety shoes, etc., as necessary to ensure safety.

[Precautions on Use]

- (1) The static permissible load of the Slide Pack varies according to the direction.
- (2) Prevent foreign material, such as cutting chips or coolant, from entering the product. Failure to do so may cause damage.
- (3) 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.
- (4) If foreign material such as cutting chips adheres to the product, replenish the lubricant after cleaning the product.
- (5) Do not subject this product to harsh conditions, such as an abnormally hot or cold, damp, or dusty environment, or intense repeated motion that would cause it to heat up due to friction. Use of this product under such conditions can result in damage or loss of function.
- (6) If the slide pack will be used hanging upside down, take preventive measures such as adding a safety mechanism to prevent falls. If the slider is damaged due to an accident, etc., balls may fall out of the guide or the slider become detached from the Slide Rail and fall down.
- (7) When you remove the slider from the Slide Rail and then reassemble them, inserting the Slide Rail into the slider while twisting them may cause balls to fall or damage the slider. Be sure to gently insert the rail straight into the slider while checking the position of the slider balls and that of the rail raceway.
- (8) Do not use the supplied stopper as a mechanical stopper. This may damage the stopper due to impact.
- (9) 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.
- (10) Using the product with some of the rolling elements missing may cause damage at an early stage.
- (11) If any of the rolling elements falls, contact THK instead of using the product.
- (12) Insufficient rigidity or accuracy of mounting members causes the bearing load to concentrate on one point and the bearing performance will drop significantly. Accordingly, give sufficient consideration to the rigidity/accuracy of the housing and base and strength of the fixing bolts.

[Lubrication]

- (1) The slider and circulating-ball mechanism have been lubricated with high-quality lithium grease. Do not combine different lubricants. Mixing lubricants can cause adverse interaction between disparate additives or other ingredients.
- (2) The consistency of grease changes according to the temperature. Take note that the slide resistance of the slide pack also changes as the consistency of grease changes.

- (3) After lubrication, the slide resistance of the slide pack may increase due to the agitation resistance of grease. Be sure to let the grease spread fully before use.
- (4) Excess grease may scatter immediately after lubrication, so wipe off scattered grease as necessary.
- (5) 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.
- (6) The greasing interval varies depending on the use condition and service environment. Set the final lubrication interval/amount based on the actual machine.

[Storage]

When storing the Slide Pack, enclose it in a package designated by THK and store it in a room in a horizontal orientation while avoiding high temperature, low temperature and high humidity. After the product has been in storage for an extended period of time, lubricant inside may have deteriorated, so add new lubricant before use.

[Disposal]

Dispose of the product properly as industrial waste.

