Slide Rail

THK General Catalog

A Technical Descriptions of the Products

B Product Specifications (Separate)

* Please see the separate "B Product Specifications".

Features of the Slide Rail

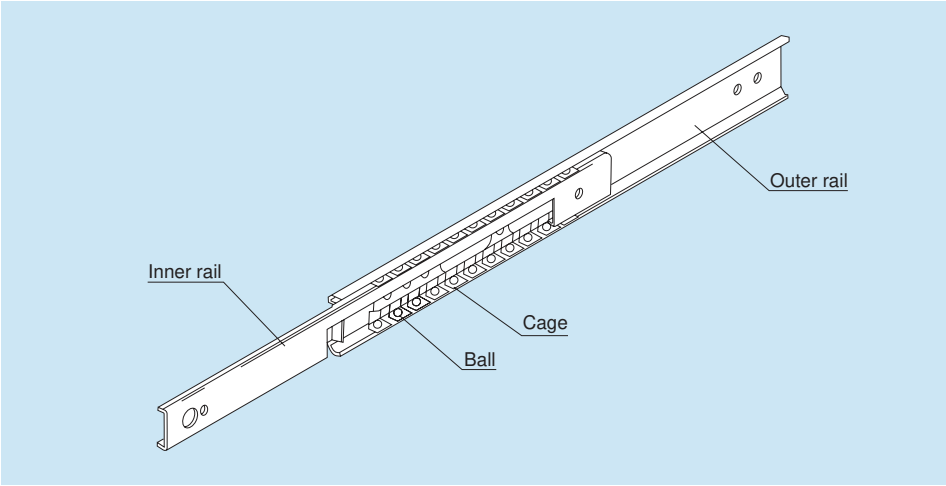


Fig.1 Structure of Slide Rail Model FBL

Structure and Features

Slide Rail model FBL is a thin, compact, lightweight and ultra-low price slide unit for finite motion. It has two rows of balls placed between an inner rail (made of a steel sheet roll-formed with precision) and an outer rail. The balls are evenly spaced by a cage press-molded with precision, thus eliminating friction between balls and achieving a smooth slide mechanism.
Since model FBL achieves smooth straight motion with easy installation, it can be used in a wide range of applications such as photocopiers, measuring instruments, telecommunication equipment, medical equipment, automatic vending machines and various types of office equipment.

[Unit Type That Allows Easy Installation]
Since the clearance and the motion of the slide unit are optimally adjusted, simply mounting the unit onto the base or the table using screws will achieve a slide mechanism with virtually no running noise.

[Thin and Compact]
Since the sectional shape is thin designed, this slide pack only requires a small side space for installation. In addition, a desired number of slide pack units can be installed in parallel according to the load conditions.

[Maintenance-free Operation]
Since the slide rail is treated with zinc plating, it is highly corrosion resistant. In addition, the slide unit contains lithium soap-based grease, which is highly stable against oxidation.

Types of the Slide Rail

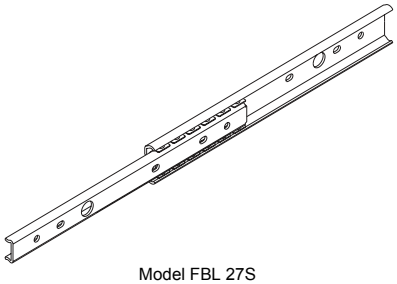
Types and Features

[Single Slides for Light Load]

Model FBL 27S

Specification Table⇒B-542

The most compact slide rail from THK.

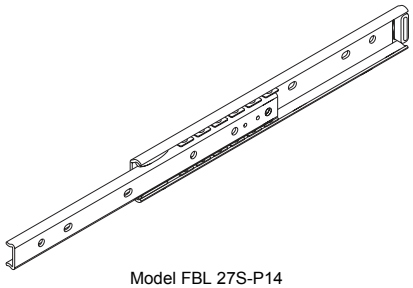


Model FBL 27S

Model FBL 27S-P14

Specification Table⇒B-543

An inner rail pulling type of model FBL 27S. Releasing the automatic free disconnection spring attached on the inner rail allows the slide rail to be pulled out. When stored, the spring is automatically released unidirectionally under a certain pressure.

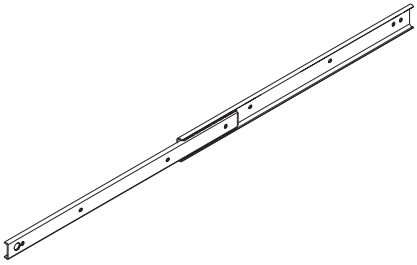


Model FBL 27S-P14

Model FBL 35S

Specification Table⇒B-544

A single slide type of Slide Rail with the most fundamental shape.

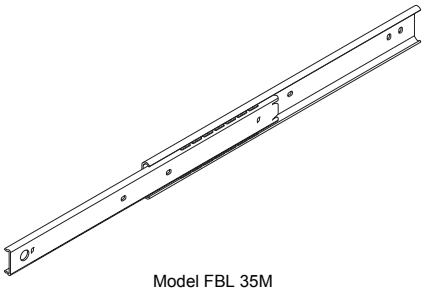


Model FBL 35S

Model FBL 35M

Specification Table⇒B-545

An inner rail pulling type of model FBL 35S. It stops by frictional resistance when the slide rail is fully opened, and is pulled out when being pulled further with force.
(brake-stop type)

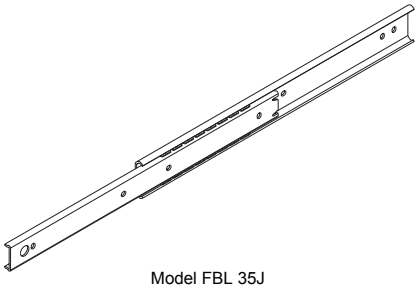


Model FBL 35M

Model FBL 35J

Specification Table⇒B-546

Based on model FBL 35M, this model has a lead ball that serves as a guide when the inner rail is inserted.

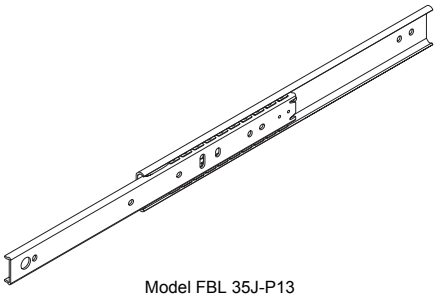


Model FBL 35J

Model FBL 35J-P13

Specification Table⇒B-547

An inner rail pulling type of model FBL 35S. Releasing the disconnection spring attached on the inner rail allows the slide rail to be pulled out. When folded, the locked state with the disconnect spring is manually released.

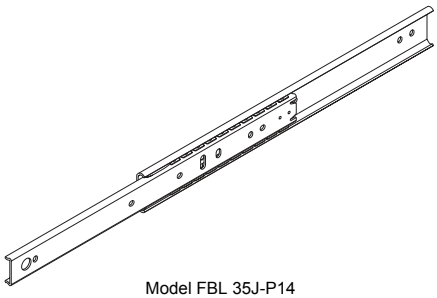


Model FBL 35J-P13

Model FBL 35J-P14

Specification Table⇒B-548

An inner rail pulling type of model FBL 35S. Releasing the automatic free disconnection spring attached on the inner rail allows the slide rail to be pulled out. When stored, the spring is automatically released unidirectionally under a certain pressure.

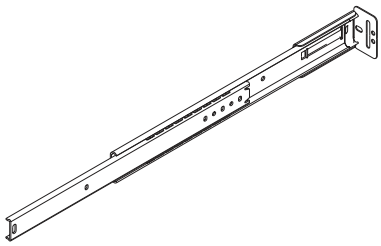


Model FBL 35J-P14

Model FBL 35B

Specification Table⇒B-549

A brake-stop type of model FBL 35M. It can be mounted on the bottom face of a moving object when used.



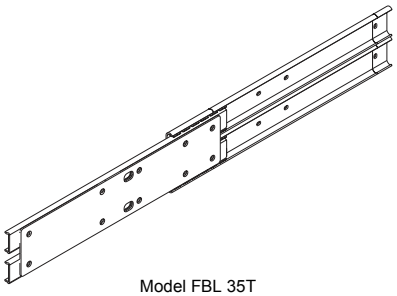
Model FBL 35B

[Single Slides for Medium Load]

Model FBL 35T

Specification Table⇒B-550

A single slide combining two units of model FBL 35S. When folded, the locked state with the disconnect spring is manually released.



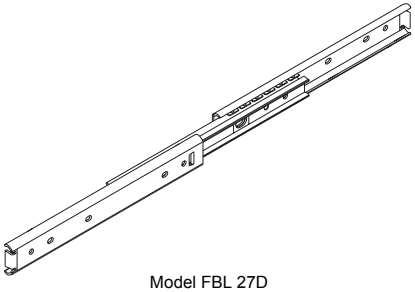
Model FBL 35T

[Double Slides for Light Load]

Model FBL 27D

Specification Table⇒B-551

A double-slide type that combines two units of model FBL 27S back-to-back. It is widely used in various types of OA equipment.

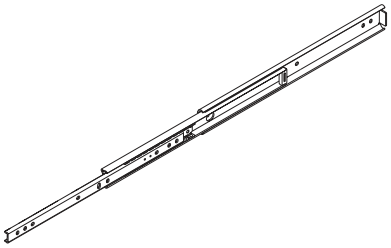


Model FBL 27D

Model FBL 35E-P14

Specification Table⇒B-552

A three-rail, double-slide type that allows a long stroke in a small space. Releasing the automatic free disconnection spring attached on the inner rail allows the inner rail to be pulled out. When folded, the locked state is automatically released under a certain pressure in the folding direction.



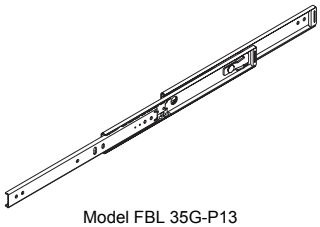
Model FBL 35E-P14

[Double Slides for Medium Load]

Model FBL 35G-P13

Specification Table⇒B-553

A double-slide type that combines two units of model FBL 35S front-to-front. Releasing the automatic free disconnection spring attached on the inner rail allows the inner rail to be pulled out. When folded, the locked state with the disconnect spring is manually released. It is also equipped with a pull-lock mechanism that functions when the slide rail is fully opened.

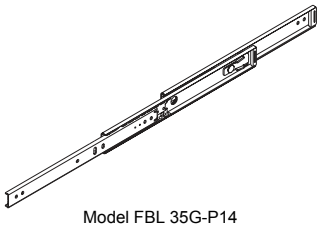


Model FBL 35G-P13

Model FBL 35G-P14

Specification Table⇒B-554

A double-slide type that combines two units of model FBL 35S front-to-front. Releasing the automatic free disconnection spring attached on the inner rail allows the inner rail to be pulled out. When folded, the lock state with the disconnect spring can automatically be released under a certain pressure in the folding direction. It is also equipped with a pull-lock mechanism that functions when the slide rail is fully opened.

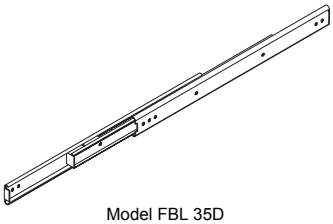


Model FBL 35G-P14

Model FBL 35D

Specification Table⇒B-555

A double-slide type that combines two units of model FBL 35S back-to-back. It is extensively used regardless of the industry.

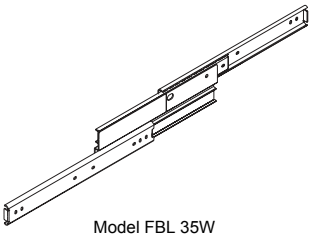


Model FBL 35D

Model FBL 35W

Specification Table⇒B-556

A double-slide type based on model FBL 35S that achieves a thickness of one single-slide unit.

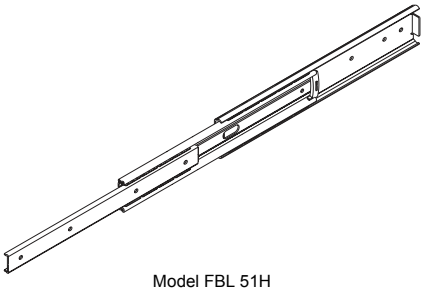


Model FBL 35W

Model FBL 51H

Specification Table⇒B-557

A three-rail, double-slide type that allows for a long stroke. With the smallest thickness, this model can be used in a space-saving location even under a large load.

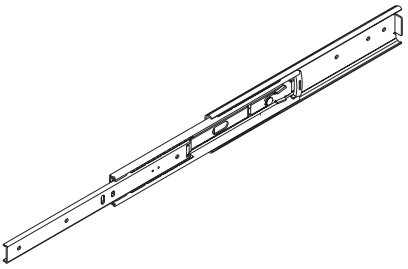


Model FBL 51H

Model FBL 51H-P13

Specification Table⇒B-558

A three-rail, double-slide type that allows a long stroke. With the smallest thickness, this model can be used in a space-saving location even under a large load. Releasing the automatic free disconnection spring attached on the inner rail allows the inner rail to be pulled out. When folded, the locked state with the disconnect spring is manually released. It is also equipped with a lock mechanism that functions when the slide rail is fully opened.

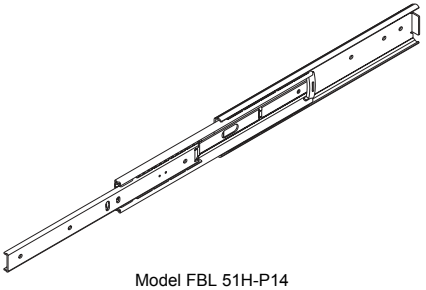


Model FBL 51H-P13

Model FBL 51H-P14

Specification Table⇒B-559

A three-rail, double-slide type that allows a long stroke. With the smallest thickness, this model can be used in a space-saving location even under a large load. Releasing the automatic free disconnection spring attached on the inner rail allows the inner rail to be pulled out. When folded, the locked state is automatically released under a certain pressure in the folding direction.



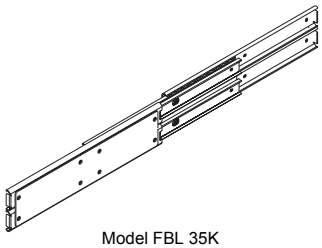
Model FBL 51H-P14

[Double Slides for Heavy Load]

Model FBL 35K

Specification Table⇒B-560

A double-slide type combining 4 units of model FBL 35S. It achieves the largest permissible load among all types and is optimal for opening/closing heavy objects.

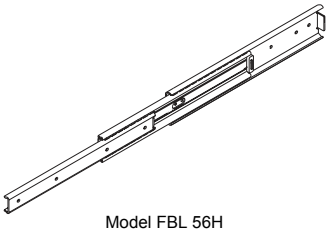


Model FBL 35K

Model FBL 56H

Specification Table⇒B-561

A double-slide type with the largest permissible load among the three rails. It is used extensively in various types of OA furniture.

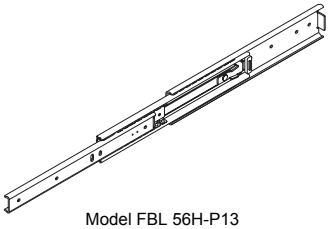


Model FBL 56H

Model FBL 56H-P13

Specification Table⇒B-562

A double-slide type with the largest permissible load among the three rails. Releasing the automatic free disconnection spring attached on the inner rail allows the inner rail to be pulled out. When folded, the locked state with the disconnect spring is manually released. It is also equipped with a lock mechanism that functions when the slide rail is fully opened.

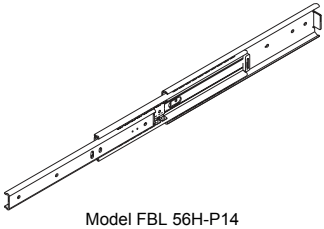


Model FBL 56H-P13

Model FBL 561H-P14

Specification Table⇒B-563

A double-slide type with the largest permissible load among the three rails. Releasing the automatic free disconnection spring attached on the inner rail allows the inner rail to be pulled out. When folded, the locked state is automatically released under a certain pressure in the folding direction.

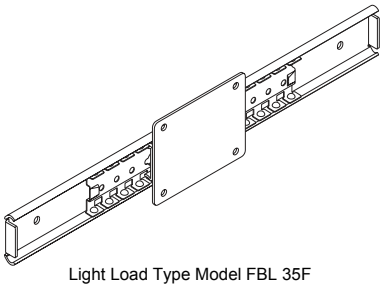


Model FBL 56H-P14

Light Load Type Model FBL 35F

Specification Table⇒B-564

Using a flange type that can easily be mounted, this slide-type model is capable of performing straight, finite motion.

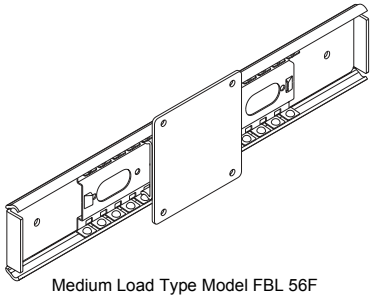


Light Load Type Model FBL 35F

Medium Load Type Model FBL 56F

Specification Table⇒B-565

Using a flange type that can easily be mounted, this slide-type model is capable of performing straight, finite motion. It is optimal for locations under a large working load.

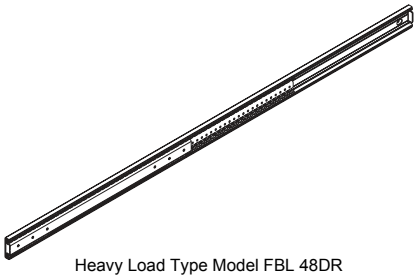


Medium Load Type Model FBL 56F

Heavy Load Type Model FBL 48DR

Specification Table⇒B-566

A heavy-load, low-friction slide rail developed for sliding heavy doors.



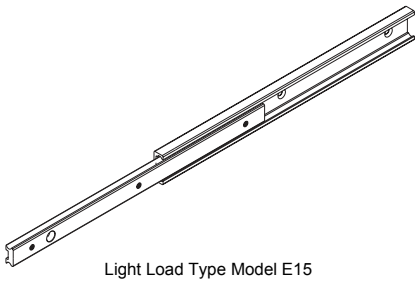
Heavy Load Type Model FBL 48DR

[Aluminum Alloy Slide Rail]

Light Load Type Model E15

Specification Table⇒B-567

The lightest and most compact single slide in the aluminum alloy series. It is especially suitable for locations with magnetism, locations requiring antirust measures and locations where much importance is given to appearance.

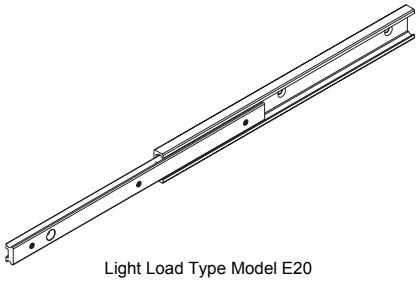


Light Load Type Model E15

Light Load Type Model E20

Specification Table⇒B-568

A single-slide with the most fundamental shape in the aluminum alloy series. It is especially suitable for locations with magnetism, locations requiring antirust measures and locations where much importance is given to appearance.

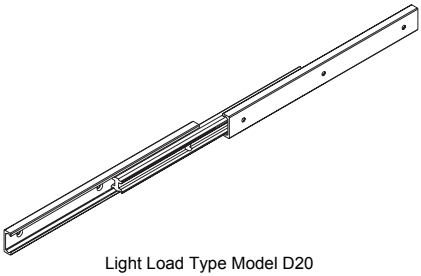


Light Load Type Model E20

Light Load Type Model D20

Specification Table⇒B-569

The lightest and most compact double slides in the aluminum alloy series. It is especially suitable for locations with magnetism, locations requiring antirust measures and locations where much importance is given to appearance.



Light Load Type Model D20

Classification Table for Slide Rails

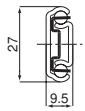
Slide Rail

Single Slide

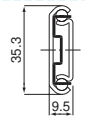
For Light Load

Model FBL27S

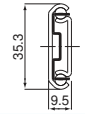
Model FBL27S-P14



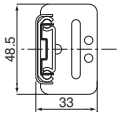
Model FBL35S



Model FBL35M



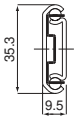
Model FBL35B



Model FBL35J

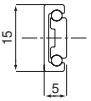
Model FBL35J-P13

Model FBL35J-P14



Model E15

(Made of Aluminum)

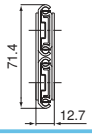


Model E20

(Made of Aluminum)

For Medium Load

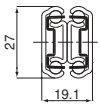
Model FBL35T



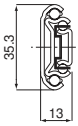
Double Slide

For Light Load

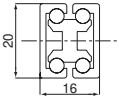
Model FBL27D



Model FBL35E-P14



Model D20 (Made of Aluminum)

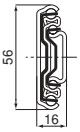


For Heavy Load

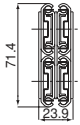
Model FBL56H

Model FBL56H-P13

Model FBL56H-P14



Model FBL35K

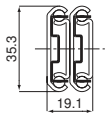


Linear Type Slide

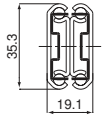
For Medium Load

Model FBL35G-P13

Model FBL35G-P14



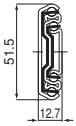
Model FBL35D



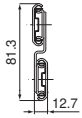
Model FBL51H

Model FBL51H-P13

Model FBL51H-P14

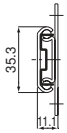


Model FBL35W



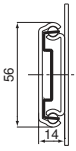
For Light Load

Model FBL35F



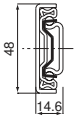
For Medium Load

Model FBL56F



For Heavy Load

Model FBL48DR



Mounting the Slide Rail

[Mounting Screws of the Slide Rail]

The slide rail is designed to be mounted using M4 screws. Since the mounting space is small as shown in Fig.1, we recommend using button-head bolt or binding-head bolt (JIS B 1111 annex).

Note) For models FBL27S/27S-P14/27D, use M4 binding-head bolt, or M3 button-head bolt or binding-head bolt.
Note) For model FBL48DR, use M5×8 mounting screw.
Note) For model E15, use M2.6 countersunk screw.
Note) For models E20 and D20, use M3 countersunk screw.
Note) For model FBL 35E, use M3 button-head bolts or binding-head bolts.

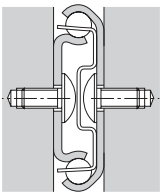


Fig.1

[Attaching the Slide Rail]

While keeping the maximum stroke, mount the outer rail at the section where the inner rail and the outer rail overlap, slide the inner rail backward, and then secure the rail using a screw through the access hole.

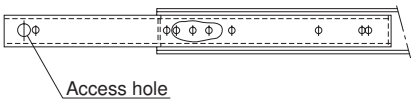


Fig.2

[Permissible Load and Mounting Orientation]

For use other than with the mounting orientation shown in Fig.3, contact THK.

The permissible load of the Slide Rail indicates the load in the direction Pa that two rails can receive in the middle of the inner rail length at the maximum stroke.

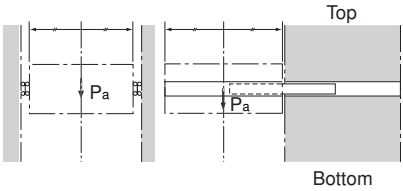


Fig.3

[Surface Treatment]

The surface of the Slide Rail is treated with electro-galvanizing (gloss chromate treatment) as standard. Colored chromate treatment and chrome plating are also available. Contact THK for details.

[Handling]

(1) Tilting a slide rail may cause it to fall by its own weight.
(2) Dropping or hitting the Slide Rail may damage it. Giving an impact force to the slide rail could also cause damage even if the product looks intact.

[Precautions on Use]

(1) When mounting the Slide Rail, use care to always keep both rails in parallel.
(2) Entrance of foreign material may cause damage to the Slide Rail or functional loss.
(3) Avoid using the product at other than normal temperature, or using it in harsh conditions such as intensive reciprocations that generate frictional heat and environments with water or dust.
(4) The durability of the Slide Rail varies depending on factors such as the drawing dimension, travel distance, mounting conditions and environment in addition to operating frequency. Take these factors into account when making a selection.

[Storage]

When storing the Slide Rail, avoid high temperature, low temperature and high humidity.