

### 3. Slim Linear Motion Guide S Series

#### 1) Structure of S Series

Linear Motion Guide S Series has a four-row circular arc-groove structure and is a 4-direction equal load type. It also has an auto-adjusting face-to-face D/F structure. It uses balls as a rolling element and is a slim-type guide with a low sectional height as well as high rigidity and less noise.

#### 2) Features of S Series

- a. High quality and very effective in realizing high precision and elimination of labor
- b. High rigidity and high precision which can realize the stable travel for a long time
- c. Great wear resistance and friction resistance which ensures a long life
- d. Great auto-adjusting and error-absorbing abilities with the face-to-face duplex structure same to D/F combination of ball bearing
- e. Various specifications for easy design
- f. Easy to use due to great compatibility between a rail and a block
- g. 4-direction equal load and high-rigidity structure
- h. Slim shape suitable for horizontal motion to ensure stable running

### 4. Slim Spacer Chain Linear Motion Guide S-S Series

#### 1) Structure of S Series

Linear Motion Guide S-S Series has a 4-direction equal load type which is identical to S Series and has an auto-adjusting face-to-face D/F structure.

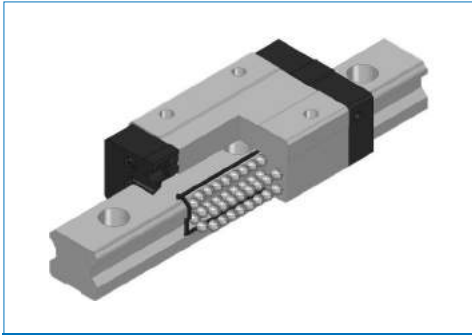
It uses balls as a rolling element and combines a spacer between balls to prevent them from colliding each other during the rolling motion.

Therefore it makes less noise and more stable circulating motion than a full-ball type to realize quiet running even in high velocity movement and the spacer act as the pocket of lubricant to obtain longer life than H Series.

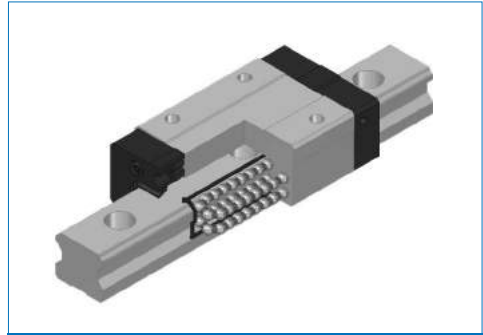
#### 2) Features of S-S Series

- a. As a spacer-incorporated type which improves frictional properties and prevents the collision of balls, it not only allows stable circulating motion and smooth running but also reduces noise. If special lubricating seal is attached to lengthen life, maintenance-free operations can be achieved.
- b. Collision between balls and the loss of oil film are prevented by applying a resin spacer to improve life and generate less particles and dust.
- c. High quality in realizing high precision and high velocity so it could create large effect on elimination of power loss.
- d. High rigidity and high precision which can realize the stable travel for a long time
- e. Great wear resistance and friction resistance which ensures a long life
- f. Great auto-adjusting and error-absorbing abilities with the face-to-face duplex structure same to D/F combination of ball bearing
- g. Various specifications for easy design
- h. Easy to use due to great compatibility between a rail and a block

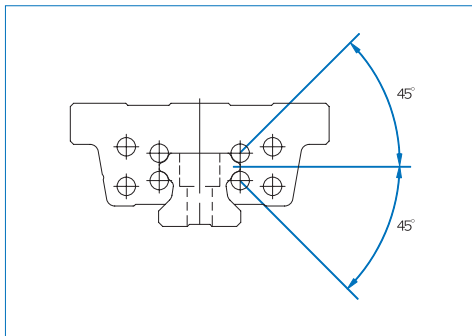
### Slim Linear Motion Guide S, S-S Series



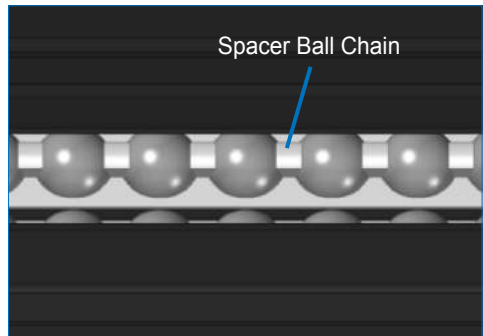
S Series (Full-ball Type)



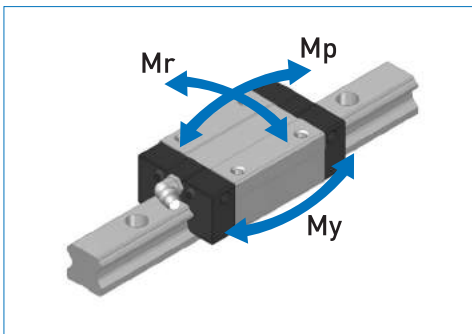
S-S Series (Spacer Chain Type)



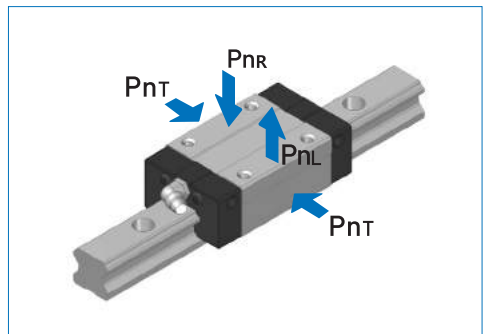
Cross Section



Detail of Raceway of S-S Series


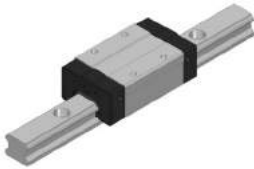




Moment Rigidity



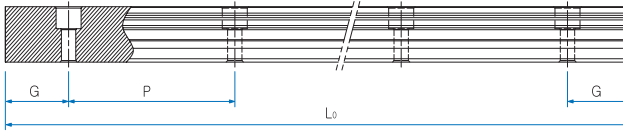
Radial Rigidity

## Types and Features

Category	Type	Shape & Features	
Compact type	S-C S-SC		<ul style="list-style-type: none"> <li>- With the tapped flange of a block, a slim compact that the width and length of Linear Motion guide block is minimized</li> <li>- A 4-direction equal load type with 45° contact angle</li> </ul> <p>S Series is a low-noise low-dust raise type with improved life due to zero friction between balls since a spacer chain is applied.</p>
	S-R S-SR		<ul style="list-style-type: none"> <li>- Having the cross section identical to that of S-C Series, a slim compact type that the width and length of Linear Motion guide block is minimized</li> <li>- A 4-direction equal load type with 45° contact angle</li> </ul> <p>S Series is a low-noise low-dust raise type with improved life due to zero friction between balls since a spacer chain is applied.</p>
Flange type	S-CF S-SCF		<ul style="list-style-type: none"> <li>- With the tapped flange of a block, a slim compact type that the width and length of Linear Motion guide block is minimized</li> <li>- A 4-direction equal load type with 45° contact angle</li> </ul> <p>S Series is a low-noise low-dust raise type with improved life due to zero friction between balls since a spacer chain is applied.</p>
	S-F S-SF		<ul style="list-style-type: none"> <li>- Having the cross section identical to that of S-CF Series, a slim compact type that the width and length of Linear Motion guide block is minimized</li> <li>- A 4-direction equal load type with 45° contact angle</li> </ul> <p>S Series is a low-noise low-dust raise type with improved life due to zero friction between balls since a spacer chain is applied.</p>

Cartesian coordinated robot,  
linear actuator,  
automation system,  
semiconductor/display manufacturing system,  
LED inspection equipment,  
dispenser equipment,  
medical Equipment,  
high-speed transport system,  
woodworking machine,  
take-out robots,  
small machine tool,  
laser processor,  
precision measurement equipment

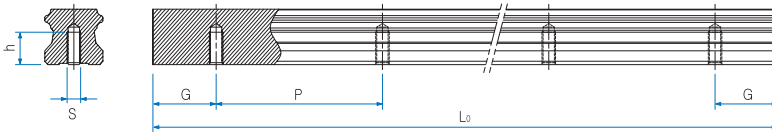
Standard tap hole type of a rail



Unit : mm

Model No.	S15	S20	S25
Standard length	160	160	220
	220	220	280
	280	280	340
	⋮	340	400
	1360	⋮	460
	1480	1960	⋮
	1600	2080	2200
		2200	2320
			2440
Standard pitch P	60	60	60
G	20	20	20
Max. length	4000		

Standard tap hole type of a rail



Unit : mm

Model No.	S	h(mm)
H15	M5	8
H20	M6	10
H25	M6	12