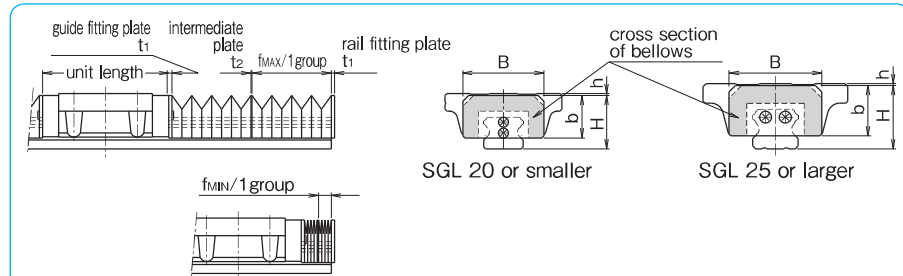


BELLOWS

By protecting the entire length of the guide rail, dust prevention is greatly enhanced. Please refer to Figure A-36 for dimensions. External dimensions and the stroke length of slide guide will change with use of bellows.

Figure A-36 Dimensions of Slide Guide with Bellows



part number	unit length					B	H	h	b	t1	t2	f _{MAX} / 1group	f _{MIN} / 1group
	symbol: blank symbol: B side-seals +under-seals	symbol: BW double-seals +under-seals	symbol: BS side-seals +under-seals +scraper	symbol: BR side-seals +under-seals +reverse-seals	symbol: BWS double-seals +under-seals +scraper								
SGL15	F TF E TE	L1-2	L3-2	L4-2.2	L5-3.4	L6-2.2	33	23	19			32	6.5
	HTF HYF												
	HTE HYE HTEX												
SGL20	F TF E TE	L1-2	L3-2	L4-2.2	L5-3.4	L6-2.2	41	27	21.5			40	6.5
	HTF HYF												
	HTE HYE HTEX												
SGL25	F TF E TE	L1-2.2	L3-2.2	L4-2.8	L5-4	L6-2.8	47	32	25.5	1.5	1	44	6.5
	HTF HYF												
	HTE HYE HTEX												
SGL30	F TF E TE	L1-3	L3-3	L4-1.6	L5-4	L6-1.6	58	40	31			56	6.5
	HTF HYF												
	HTE HYE HTEX												
SGL35	F TF E TE	L1-3	L3-3	L4-4	L5-4	L6-4	68	46	37			68	6.5
	HTF HYF												
	HTE HYE HTEX												
SGL45	HTF HYF	L1-3	L3-3	L4-5.5	L5-5.5	L6-5.5	84	59	50	2		72	6.5
	HTE HYE HTEX												

Note: 1 group indicates the minimum unit of bellows. Please specify the required stroke length. When bellows are fitted to the guide block, the grease fitting cannot be installed. The allowable temperature is up to 60°C if the system has a bellows option. Please contact NB for details on the installation of bellows, as well as for special application usage.

Calculation Method of Length of Bellows and Slide Guide Rail

Example: In this case, one(1) piece of SGL15TE guide block is mounted on a rail with bellows; the required stroke is 440mm.

Number of groups required for a stroke of 440mm is calculated as follows.

$$\frac{\text{Stroke}}{f_{\text{MAX}} - f_{\text{MIN}}} = \frac{440}{32 - 6.5} = 17.2 \approx 18 \text{ groups (round up)}$$

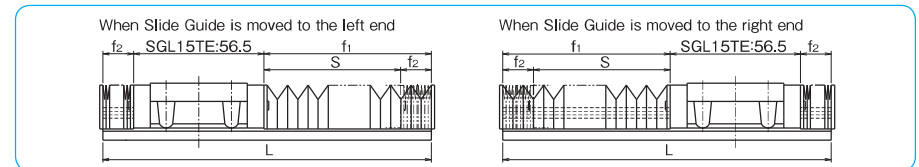
When 18 groups of bellows are fitted, the minimum length f is calculated:

$$f = \text{guide fitting plate} + 1\text{group } f_{\text{MIN}} \times \text{number of groups} + \text{intermediate plate} \times (\text{number of groups} - 1) = 1.5 + 6.5 \times 18 + 1.0 \times (18 - 1) = 135.5$$

With these calculation results, length of the guide rail needed (L) is obtained as follows:

$$L = 2 \times f + \text{the required stroke} + \text{unit length} = 2 \times 135.5 + 440 + (56.5 - 2) = 765.5 \approx 766 \text{ (round up)}$$

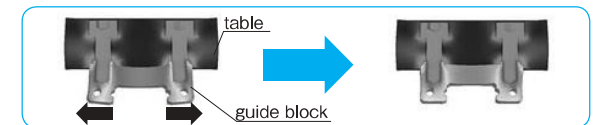
Figure A-37 External Diagram of Slide Guide with Bellows Attached



SEB TYPE AD PROFILE (Anti-Deforming)

The AD profile guide block can dissipate possible deformation by improved installation plane profile.

Figure A-38 SEB type AD profile



Note:

When NB's unique AD Profile type miniature guide block is selected, the following precautions should be taken into consideration to perform to its utmost advantage.

- To obtain maximum AD (Anti-Deforming) effect, flatness of the mounting surface should be finished the same as motion accuracy of the slide guide.
- When the table is designed with one guide block on one guide rail, the utmost AD effect is anticipated.
- All screws on the slide guide block should be tightened to the equal torque value.
- The AD profile type guide block is available only with standard preload.
- AD profile type guide blocks are available only with following part numbers of slide guide block.

Applicable Part Number

Table A-7 AD profile Applicable Part Number

part number			
SEBS 7B	SEBS 7BM	—	SEBS 7A
SEBS 7BY	SEBS 7BYM	—	SEBS 7AY
SEBS 9B	SEBS 9BM	—	SEBS 9A
SEBS 9BY	SEBS 9BYM	—	SEBS 9AY
SEBS12B	SEBS12BM	SEB12A	SEBS12A
SEBS12BY	SEBS12BYM	SEB12AY	SEBS12AY
SEBS15B	SEBS15BM	SEB15A	SEBS15A
SEBS15BY	SEBS15BYM	SEB15AY	SEBS15AY
SEBS20B	SEBS20BM	SEB20A	SEBS20A
SEBS20BY	SEBS20BYM	SEB20AY	SEBS20AY

part number structure

SEBS 15B UU 2-589 N P AD

AD profile

※Please contact NB for details.