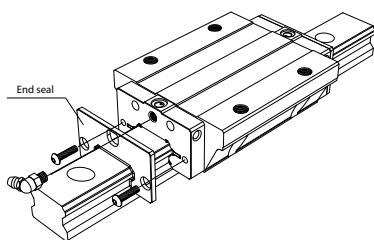


Seals and metalscrapers

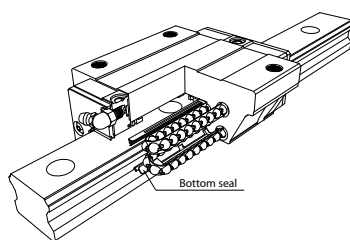
We offer a range of different seals and metalscrapers for our MSA and MSB-series of carriages. SS-seal version is always standard on our carriages but you can choose different if needed. Extra seals (DD) are used in very dirty environments and metal scraper (ZZ) is used in welding environments or when you would like to protect the rubber seal from sharp edges.

End seal



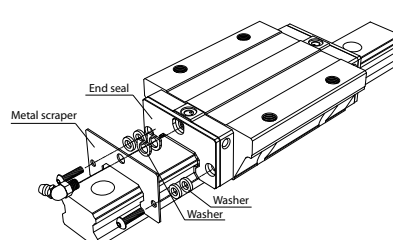
Bidirectional seal when high dust protection is required.

Bottom seal



Preventing the inclusion of foreign matters from bottom of carriage.

Metalscraper



Removing spatters, iron chips, and large foreign matters as well as protecting the end seals.

Code of contamination protection for carriage

Code	Contamination Protection
No symbol	Metalscraper (both ends)
UU	Bidirectional end seal (both ends)
SS	Bidirectional end seal + Bottom seal (Standard)
ZZ	SS + Metalscraper
DD	Double bidirectional end seal + Bottom seal
KK	DD + Metalscraper
LL	Low friction end seal (only MSC)

Below you can see how much the different seal combinations add in length over standard length on the carriage.

Types of seal to the increment to the carriage overall length.

MSA series

Model No.	Unit: mm					
	No symbol	UU	SS	ZZ	DD	KK
15	1	-	-	6	5	11
20	1.4	-	-	7	5.6	12.6
25	1.4	-	-	7	5.6	12.6
30	1.4	-	-	7	5.6	12.6
35	0.6	-	-	7.8	7.2	15
45	0.6	-	-	7.8	7.2	15

MSB series

Model No.	Unit: mm					
	No symbol	UU	SS	ZZ	DD	KK
15	-	-	-	5	5	10
20	1	-	-	7	6	13
25	1	-	-	7	6	13
30	1	-	-	7	6	13
35	0.6	-	-	7.8	7.2	15