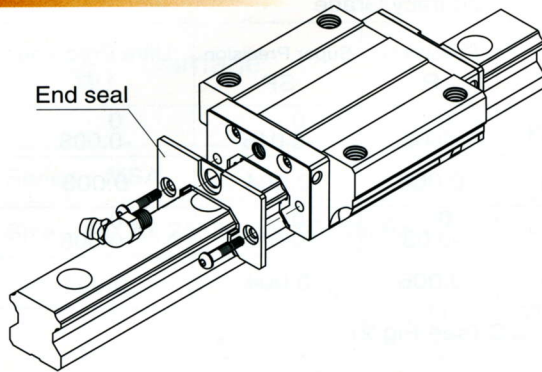
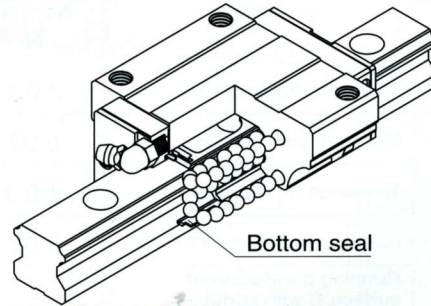


2.5 Contamination Protection

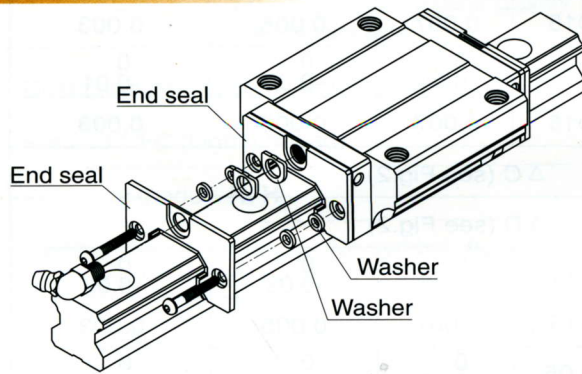
End Seal



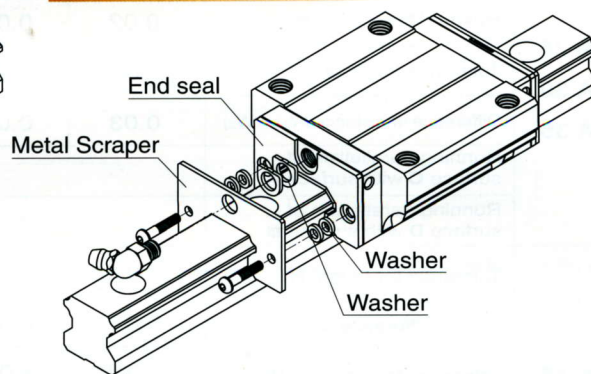
Bottom Seal



Double End Seal



Metallic Scraper



Code of Contamination Protection

Code	Contamination Protection
No symbol	Scraper (both ends)
UU	Bidirectional end seal (both ends)
SS	Bidirectional end seal + Bottom seal
ZZ	SS + Scraper
DD	Double bidirectional end seal + Bottom seal
KK	DD + Scraper
LL	Low frictional end seal
RR	LL + Bottom seal

Code of Carriage

Series	Size	Carriage type	Dust protection option	Preload	Accuracy grade
MSA	25	A	SS	FC	N
Series : MSA Size : 15, 20, 25, 30, 35, 45, 55, 65 Carriage type : (1) Heavy load A : Flange type, mounting from top E : Flange type, mounting either from top or bottom S : Square type (2) Ultra heavy load LA : Flange type, mounting from top LE : Flange type, mounting either from top or bottom LS : Square type Dust protection option of carriage : No symbol, UU, SS, ZZ, DD, KK, LL, RR (refer to chapter 15.1 Dust Proof) Preload : FC (Light preload), F0 (Medium preload) Accuracy grade : N, H, P					

Types of seal to the increment to the carriage overall length

Unit : mm

Model No.	No symbol	UU	SS	LL	RR	ZZ	DD	KK
MSA 15	1	-	-	-	-	6	5	11
MSA 20	1.4	-	-	-	-	7	5.6	12.6
MSA 25	1.4	-	-	-	-	7	5.6	12.6
MSA 30	1.4	-	-	-	-	7	5.6	12.6
MSA 35	0.6	-	-	-	-	7.8	7.2	15
MSA 45	0.6	-	-	-	-	7.8	7.2	15
MSA 55	0.6	-	-	-	-	7.8	7.2	15
MSA 65	0.6	-	-	-	-	7.8	7.2	15