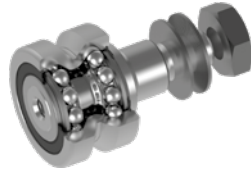


V-LINE / FS SYSTEM

GUIDE ROLLERS FR ... EU

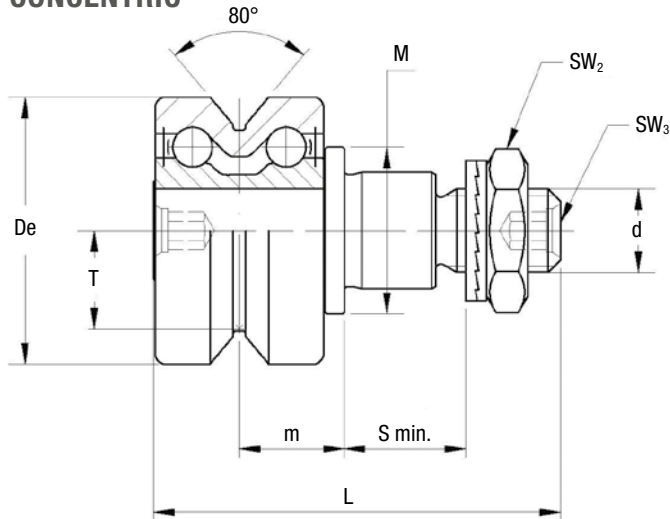
Guide roller with ball bearings.
The sides of the race are slightly convex.



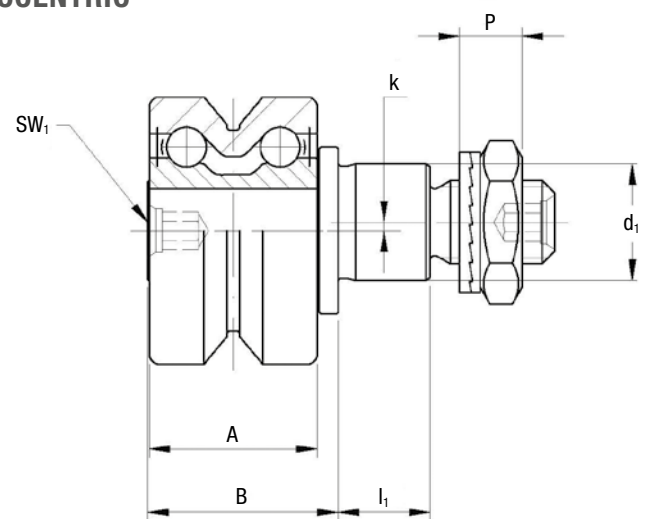
Available in stainless steel version.



CONCENTRIC



ECCENTRIC



Type		Dimensions (mm)															
concentric	eccentric	De	d ₁ ²⁾	d	T	m	S _{min.}	P	L	A	B	I ₁	M	SW ₁	SW ₂	SW ₃	k
FR 22 EU ^{1) 3)}	FRR 22 EU ^{1) 3)}	22	9	M6 x 1	7.7	9.4	9	6.5	36.8	15	18	8	14	4	10	2,5	0.5
FR 32 EU ¹⁾	FRR 32 EU ¹⁾	32	14	M10 x 1.25	11.8	12.6	12	8.5	48.9	20.2	22.9	11	20	4	17	4	1
FR 40 EU ¹⁾	FRR 40 EU ¹⁾	40	16	M12 x 1.5	14.6	15.5	12	10.4	58.5	25	29.5	11	22	5	19	5	1
FR 52 EU	FRR 52 EU	52	21	M16 x 1.5	19.1	19.8	15	11.4	69.5	32	36.5	14	28	6	24	6	1.5
FR 62 EU	FRR 62 EU	62	27	M20 x 1.5	22.1	20.8	18.5	12.4	80	33.6	39	17.5	35	8	30	8	2

1) FR/R 22, 32, 40 are available in stainless steel (NX)

2) Housing bore tolerance: H7

3) FR/R 22 EUNX: VAC for high vacuum applications on request

Type		Dynamic load (N)	Limit loads (N)		Life coefficients		Torque wrench settings ⁵⁾ (Nm)	Weight (g)
		C _w ⁴⁾	Radial F _r	Axial F _a	X	Y		
FR 22 EU	FRR 22 EU	2900	1400	420	1	2	5	45
FR 32 EU	FRR 32 EU	5800	2000	800	1	1.9	20	125
FR 40 EU	FRR 40 EU	8500	3650	1400	1	1.9	26	230
FR 52 EU	FRR 52 EU	11700	8500	3000	1	1.9	64	510
FR 62 EU	FRR 62 EU	13900	11000	3500	1	1.9	120	765

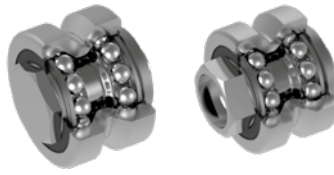
4) C_w basic load for 100 km

5) The torque wrench settings are given for non-lubricated threads; for lubricated threads, multiply figure by 0.8

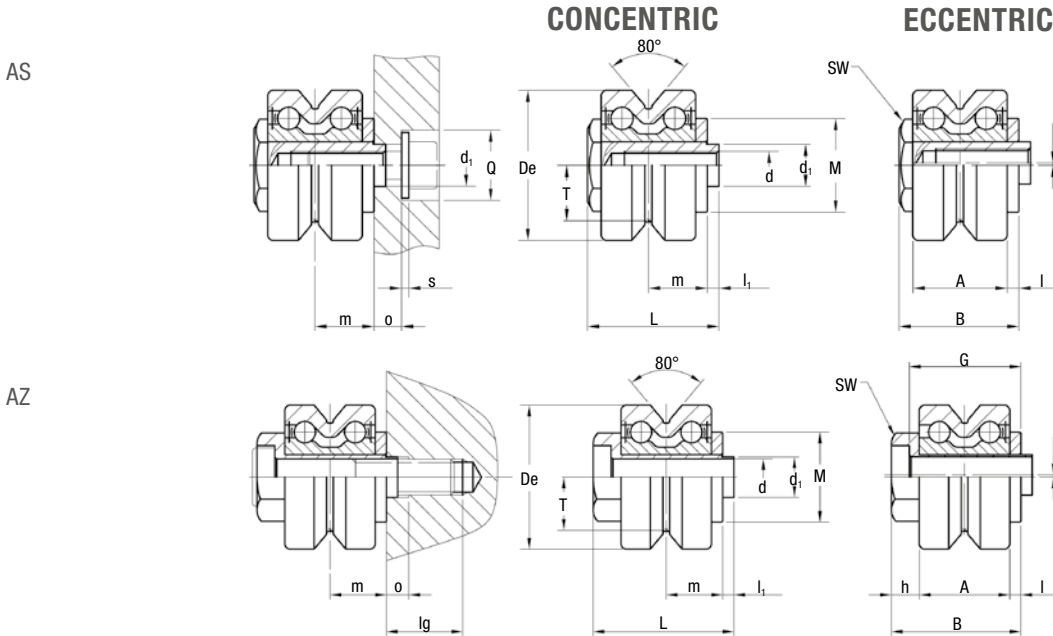
- The guide rollers are complete with self-locking washers and hexagonal nut (DIN 439B) for fitting
- Standard: NBR seals RS type
- Pressure angle α for load calculation: 40°

GUIDE ROLLERS FR ... EU AS, FR ... EU AZ

Guide rollers with ball bearings.



Available in stainless steel version.



Type		Dimensions (mm)																		
concentric	eccentric	De	d ₁ ²⁾	d ³⁾	T	m	L	A	B	I ₁	I	h	M	SW	G	o	Q	lg ⁴⁾	s	k
FR 22 EU AS ^{1) 7)}	FRR 22 EU AS ^{1) 7)}	22	6	M 5	7.7	9.4	21.8	15	19.8	2	1.9	-	14	10	-	4.5	10	-	0	0.5
FR 32 EU AS ¹⁾	FRR 32 EU AS ¹⁾	32	9	M 6	11.8	12.6	28.1	20.2	25.6	2.5	2.5	-	20	17	-	6	15	-	1.5 ⁵⁾	0.5
FR 40 EU AS ¹⁾	FRR 40 EU AS ¹⁾	40	11	M 8	14.6	15.5	33.5	25	31	2.5	3	-	22	22	-	6.5	20	-	2 ⁵⁾	1
FR 52 EU AS	FRR 52 EU AS	52	16	M10	19.1	19.8	43.2	32	40	3.2	3.8	-	28	27	-	8	24	-	2.5 ⁵⁾	1.5
FR 62 EU AS	FRR 62 EU AS	62	19	M12	22.1	20.8	46	33.6	41.8	4.2	4	-	35	30	-	9	26	-	2.5 ⁶⁾	1.5
FR 22 EU AZ ¹⁾	FRR 22 EU AZ ^{1) 7)}	22	6	5.1	7.7	9.4	23.9	15	21.9	2	1.9	5	14	11	18.9	4	-	13	-	0.5
FR 32 EU AZ ¹⁾	FRR 32 EU AZ ^{1) 7)}	32	9	8.1	11.8	12.6	31.4	20.2	28.9	2.5	2.5	6.2	20	17	24.9	5	-	17	-	0.5
FR 40 EU AZ ¹⁾	FRR 40 EU AZ ^{1) 7)}	40	11	10.1	14.6	15.5	38	25	35.5	2.5	3	7.5	22	22	30.5	5	-	26	-	0.8
FR 52 EU AZ	FRR 52 EU AZ	52	16	14.1	19.1	19.8	49.5	32	46.3	3.2	3.8	10.5	28	27	39.3	5.5	-	27	-	1.5
FR 62 EU AZ	FRR 62 EU AZ	62	19	16.1	22.1	20.8	54.5	33.6	50.3	4.2	4	12.7	35	32	42.3	6.5	-	30	-	1.5

1) FR / R 22, 32, 40 AS and AZ are available in stainless steel (NX)

2) Housing bore tolerance: H7

3) Safety threads SPIRALOCK

4) AZ: minimum length of the thread engaged

steel = 1 x d; cast iron = 1.25 x d; aluminium = 2 x d

AS: screws length: min. = d + o + s; max. = m + 4 + o + s

5) Guide roller with washers DIN 134 without screw DIN 7984 or DIN 912

6) Guide roller with washers DIN 125 without screw DIN 7984 or DIN 912

7) FR/R 22 EUNX: VAC for high vacuum applications on request

Guide roller size	Dynamic load (N)	Limit loads (N)		Life coefficients		Weight AS (g)	Weight AZ (g)	On request for AZ screw DIN 7984
	C _w ⁸⁾	Radial F _r	Axial F _a	X	Y			
22	2900	470	210	1	2	33	31	M5 x 30
32	5800	1590	710	1	1.9	95	93	M8 x 40
40	8500	2120	940	1	1.9	173	173	M10 x 50
52	11700	5830	2560	1	1.9	374	365	M14 x 60
62	13900	9200	3500	1	1.9	582	587	M16 x 65

8) C_w basic load for 100 km

- NBR seals RS type
- Pressure angle α for load calculation: 40°