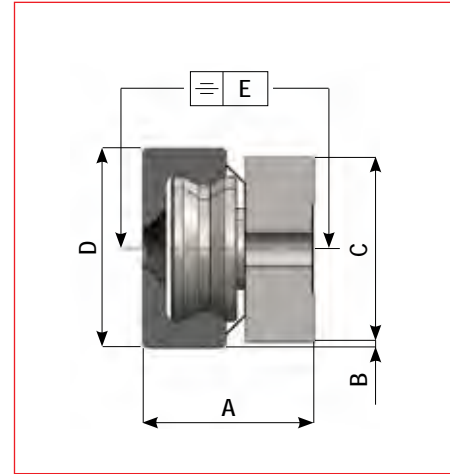
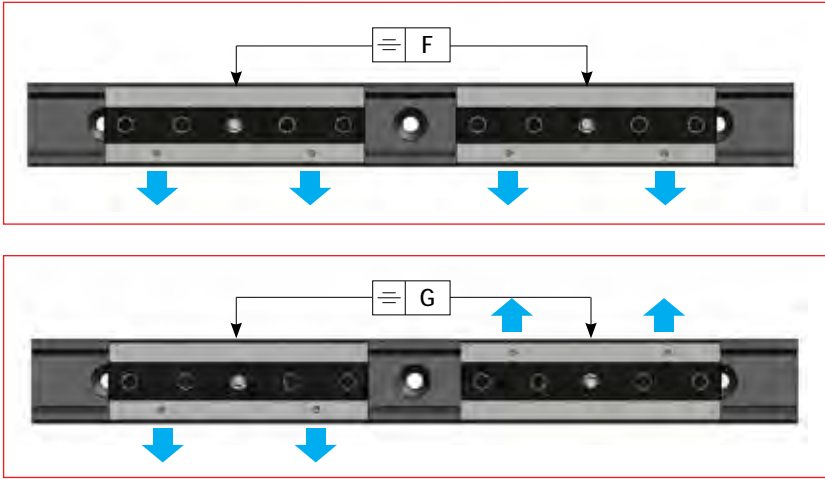


The construction tolerances for the assembled dimensions of rails with their relative sliders are shown in below table. This too in relation to the rail mounting hole tolerances and mounting holes of the sliders. In particular, it is necessary to take into account the possibility that the axis of slider symmetry, may be slightly misaligned with the axis of

symmetry of the rails. This mismatch may be larger in case of use of two sliders in same rail, of which one is positioned with load direction in opposite load directions. This misalignments can be compensated while making the fixing holes slightly larger on both fixed and mobile parts.



Rail type	Slider type	Tolerance						
		A	B	C	D	E	F	G
MRG18	R.G18	+0,15/-0,1	+0,2/-0,25	0/-0,1	+0,2/-0,2	+0,3/-0,35	0,2	0,8
MR28	R.28	+0,15/-0,1	+0,2/-0,25	0/-0,1	+0,2/-0,2	+0,3/-0,35	0,2	0,8
	R.S28	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2	+0,35/-0,35	0,3	1,0
	R.T28	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2		0,2	0,8
MR43	R.43	+0,15/-0,1	+0,2/-0,25	0/-0,1	+0,2/-0,2	+0,3/-0,35	0,2	0,8
	R.S43	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2	+0,3/-0,35	0,3	1,0
	R.T43	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2		0,2	0,8
ML28	RL28	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2	+0,35/-0,35	0,2	1,0
	RLS28	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2	+0,35/-0,35	0,2	1,0
ML43	RL43	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2	+0,35/-0,35	0,2	1,0
	RLS43	+0,1/-0,15	+0,25/-0,25	0/-0,1	+0,2/-0,2	+0,35/-0,35	0,2	1,0
LAZ26, LAX26	PAZ26, PAX26	+0,25/-0,25	+0,4/-0,4	0/-0,1	+0,3/-0,3	+0,5/-0,5	0,3	1,0
LAZ40, LAX40	PAZ40, PAX40	+0,25/-0,25	+0,4/-0,4	0/-0,1	+0,3/-0,3	+0,5/-0,5	0,3	1,0

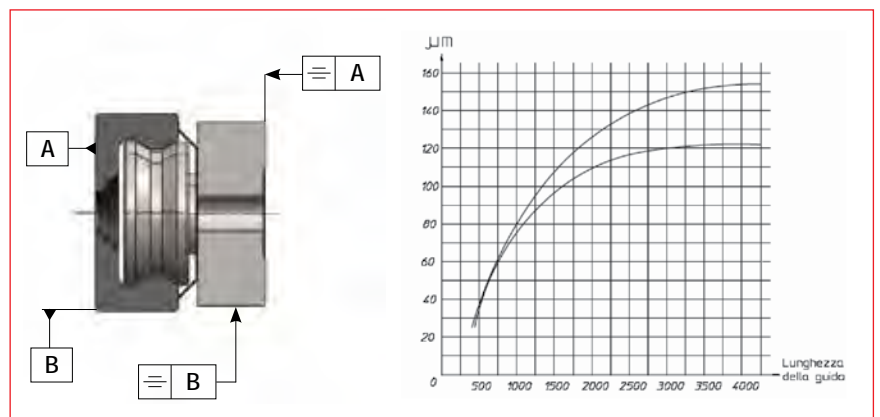
Linear Precision

The linear precision as the deviation of the sliders actual trajectory in relation to a theoretical straight line, is determined by the straightness of the surface in which the rail is fixed and the intrinsic precision of the rail. In reference to the linear precision of the sole rail, it is determined by the parallelism of the slider movement with respect to the two longitudinal planes of the rail, plan A and B.

The values of A and B are shown in the below chart, as a function of the rail length = actual slider movement.

The linear accuracy indicated in relation to plane A, is only achievable if the rail is fixed onto a perfectly straight/flat surfaces, using all mounting holes. The linear accuracy indicated in relation to the side B is achievable only for rails with counterbored mounting holes, of series "L", after having aligned the rail against a perfectly straight reference side. In case rails with c'sunk mounting holes is used, the linear precision is related to the straightness of the structures mounting holes.

The guide does not set free may not be perfectly straight (slightly arched on plan A) with no problem once clamped to a rigid structure.



Assembly tolerances for two parallel rails

When two rails are used in parallel, it is necessary that the structure surfaces on which the rails are fixed, are parallel on different levels, with tolerance values within the figures given in below chart.

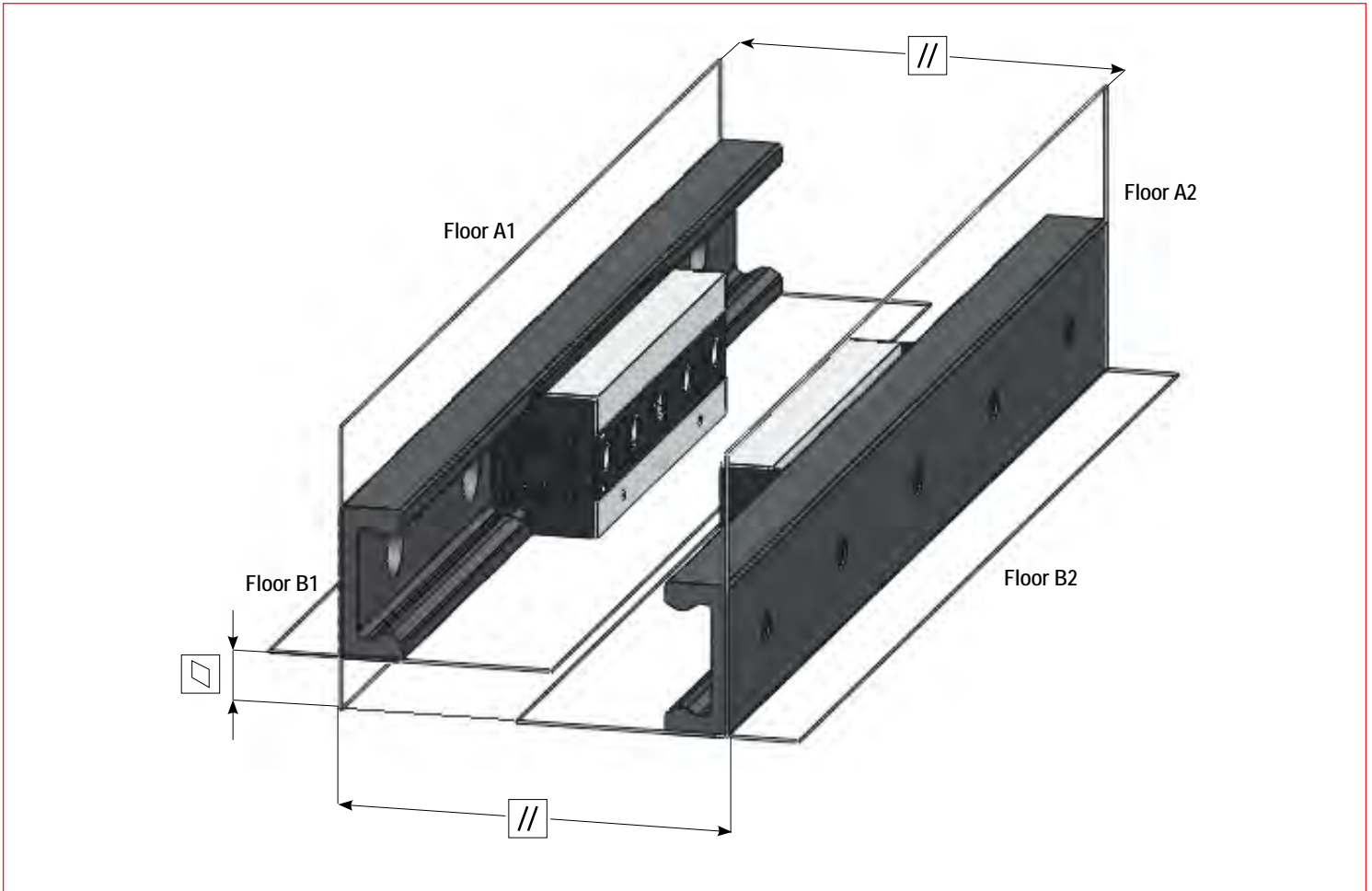
Errors of parallelism greater than the values listed may cause additional load on rollers and rails, which hereby reduce the nominal load capacity and expected life-time (see coefficient of use page 38).

In case of particularly high error values, it may also compromise the functionality movement.

The MR rails combined with sliders of type RA, RP or RF can compensate larger mounting errors, due to the rollers contact geometry (see page 9).

Hereby such Selfaligning system, can within certain limits, avoid additional load on rollers, which otherwise could compromise correct function of the linear system.

The rails of series ML and LA do not provide such geometry Selfaligning compensation, but they are structurally more flexible (bearings with single row of balls, rails with less rigid raceways as thinner) and hereby able to accept a reasonable error of parallelism, corresponding to an additional internal load, when the errors are within the values listed in below chart.



Pair of parallel rails	Slider combination		Acceptable parallelism error (mm)		
	Sliders in rail A	Sliders in rail B	Between level A	Between level A	Between level B*
MRG18	RVG18	RVG18	0,03	0,02	0,5
	RAG18	RPG18	1	0,4	8
MR28	RV28, RVS28	RV28, RVS28	0,04	0,02	0,6
	RA28, RAS28	RP28, RPS28	1,2	0,5	9
	RA28, RAS28	RF28, RFS28	3	0,5	8
MR43	RV43, RVS43	RV43, RVS43	0,05	0,04	0,7
	RA43, RAS43	RP43, RPS43	2	0,6	10
	RA43, RAS43	RF43, RFS43	4	0,6	10
ML28	RL28, RLS28	RL28, RLS28	0,07	0,04	0,8
ML43	RL43, RLS43	RL43, RLS43	0,09	0,06	0,8
LAZ, LAX, LAN	PAZ, PAX	PAZ, PAX	0,2	0,2	1

* Value related at a distance between the two rails of about 500 mm..