

Preload setting of sliders series R.

When the sliders are ordered mounted in rail, the preload setting is done in factory, with our regulation instruments to assure a standard light preload P1, to assure no play and with optimal smooth running. As there might be minor differences of internal raceway distance, between same type of rails, already preload set sliders should not be used for other rails. I.e. each slider must be preload set to each rail. When sliders are purchased separately from the rail, the preload setting is done according to below procedure, depending on whether the slider is type R₋ or RL or LA. Preload setting is permitted for all sliders by the eccentric roller; one for 3 roller-sliders or two eccentric rollers in case of 5 roller-sliders. The adjustable eccentric rollers should be in contact with the opposite raceway of the fixed-rollers, which are all concentric rollers:

Procedure for preload setting of sliders serie R.

To make the preload setting, one must act on the top screw, tightening the eccentric wheel (only accessible screw left on the top cover band) and the pivot of the eccentric roller, - on the other side. 2 Allen keys are needed.

1 - Verify that the raceways are clean, take the wipers off, to obtain a more sensitive feeling for correct preload setting and smooth running.

2 - Tighten the top-screw, but not too much, to allow a firm turning of the eccentric bottom-pivot, maintaining the roller tight to slider body.

3 - Turn the eccentric pivot so that the roller is roughly aligned with the concentric rollers or slightly in the opposite direction of the concentric rollers.

4 - Block the rail on a stable support, so hands are free. Insert the slider into the rail. Insert the Allen key into the pivot, through the rail fixing hole. Turn the Allen key slightly, so that the eccentric roller is coming in light contact with the raceways, opposite the fixed rollers. During the rotation, accompany the top-screw while rotating in the same direction with second Allen key, in order to avoid any loosening or change in preload setting.

5 - Move the slider along the whole rail length to find the part/point, where the slider moves with less friction/most oscillations. By pressing/pulling the slider ends, any oscillation is detected. If any oscillation/play is noted, the eccentric roller must be re-adjusted. Perfect preload setting is achieved, when the slider moves very smoothly and with no play at this point, with "widest" raceway distance. The checking for oscillation is not possible for type: RA rotation slider or floating sliders RP, RF.

6 - Holding firm against the Allen key, engaged in eccentric pivot with one hand, while with other Allen key rotate and tighten the top-screw fastening the roller. **WARNING!** Do not lock or unlock the eccentric roller by turning the pivot, always only act on the top-screw for blocking/loosening the roller.

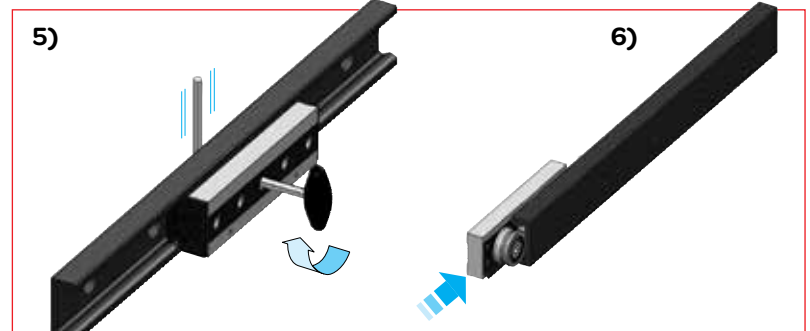
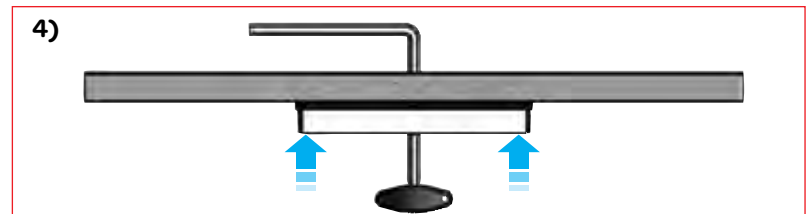
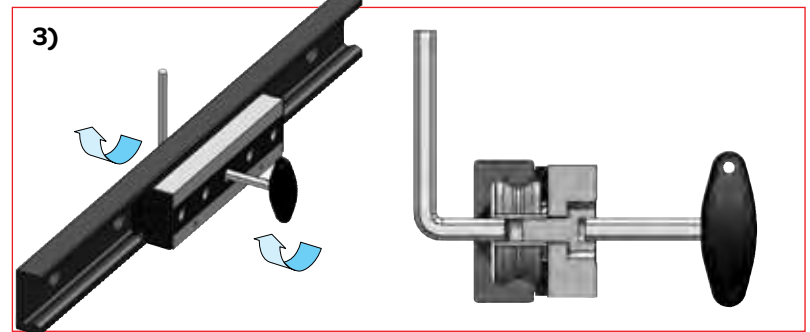
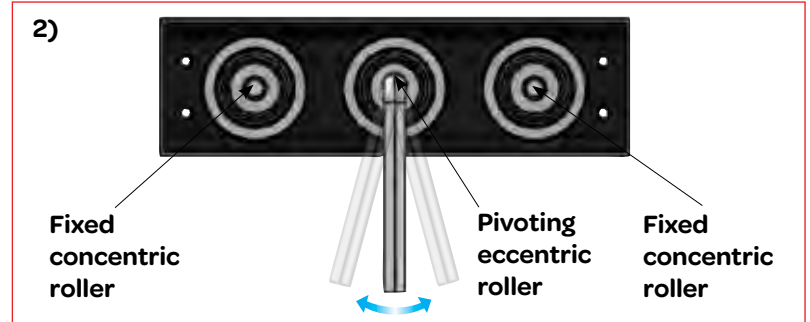
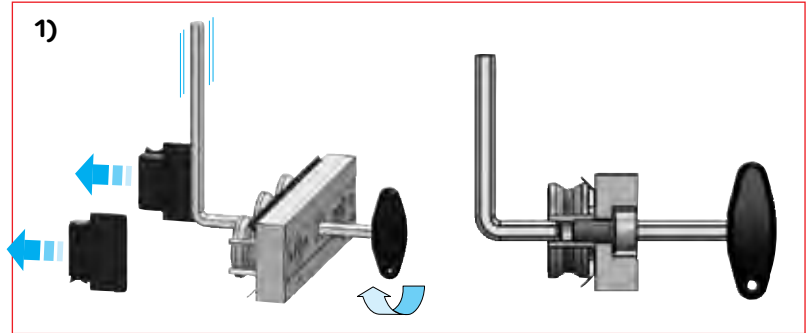
7 - It's possible to verify the amount of preload by slowly inserting the slider at the end. The inserting force F_i is proportional to the preload. In general a good setting correspond to the following min/max. forces shown in Table 6b.

8 - Then make final roller/screw blocking using a torque wrench, to assure right closing torque (M_t) according to the values in Table 7b, while maintaining the Allen key in pivot, to prevent any change of preload setting.

For 5-roller sliders, the above steps are repeated for each of the two eccentric rollers. When adjusting the second eccentric roller, it is necessary to visually assure, that the roller has got in contact with the raceway, to hereby rotate in opposite direction, compared to the fixed rollers, when moving the slider. This can be seen through the rails fixing holes. The homogeneity of preload setting, between the two eccentric rollers, can be verified by simply inserting the slider with the other end, i.e. after turning the slider 180 degrees.

WARNING! After preload setting, assure that slider is inserted with fixed rollers positioned in direction of applied load.

In case the rail is already installed, so no longer accessible from behind, the preload is set outside the rail, by tentatively positioning of the eccentric roller in more steps, to finally obtain a smooth movement with no slider oscillation in the installed rail.



Slider type	Fi - Inserting force	
	min	max
R.18	0,5 N	2 N
R.28	1 N	5 N
R.43	2 N	10 N

Slider type	Mt - Tightning torque
R.18	3 Nm
R.28	9 Nm
R.43	22 Nm

Procedure for preload setting of sliders serie PAZ, PAX .

The PAZ/PAX sliders, like the R-sliders, have the preload setting done by adjustments of the central roller with eccentric pivot. The preload setting is done with 2 Allen keys and is similar to R-sliders, described on page 32. The closing torque Mt and inserting force for these sliders are shown in below tables.

Slider type	Mt - Tightning torque
PAZ/PAX 26	7 Nm
PAZ/PAX 40	23 Nm

Slider type	Fi - Inserting force	
	min	max
PAZ/PAX 26	1 N	5 N
PAZ/PAX 40	1 N	5 N

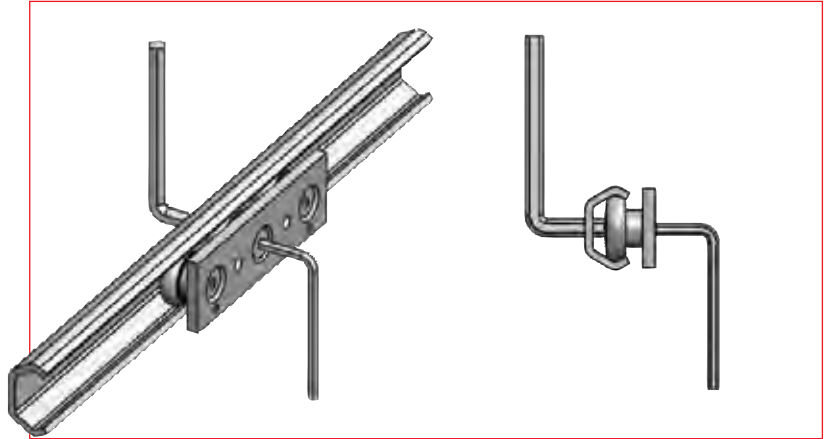
Procedure for preload setting of sliders series RL.

The RL sliders have unlike the R series, a special central square pivot accessible with a flat key inserted between slider body and eccentric roller.

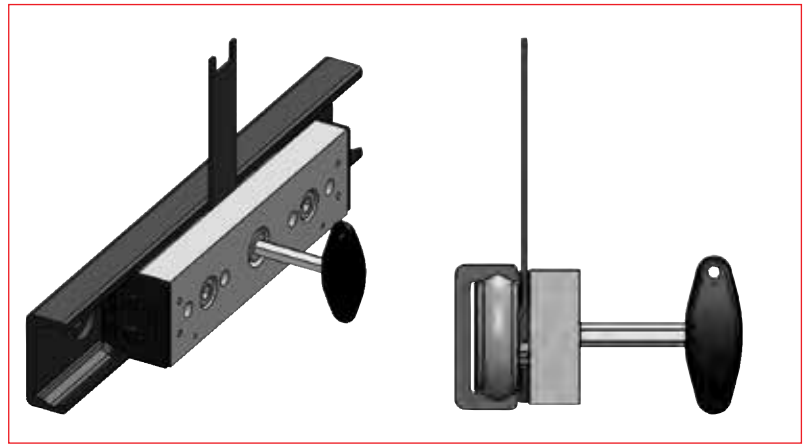
With this flat key, provided by TRACE, the correct preload setting is done following the concepts of adjustments described in page 32. While having the slider already inserted in rail.

With this pivot concept, slider preload setting is too possible, while having both rail and slider already been installed.

Preload setting of slider series PA.



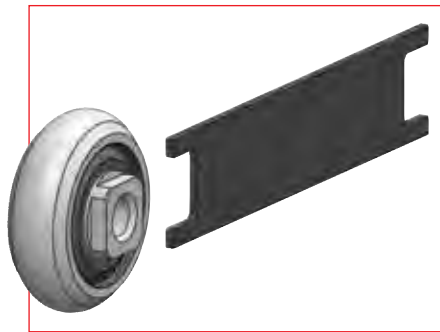
Preload setting of slider series RL.



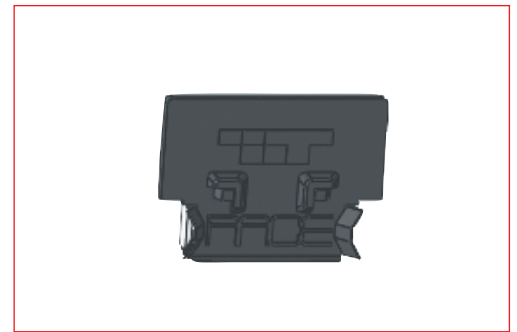
Slider type	Mt - Tightning torque
RL28	7 Nm
RL43	23 Nm

Slider type	Fi - Inserting force	
	min	max
RL28	1 N	5 N
RL43	2 N	10 N

Regulation key KML



Wipers for replacement series KT.



The flat key for preload setting of RL-sliders is supplied free of charge, on request. NB two type of keys, ref. below table.

Slider type	Code for flat key
RL28	KML28
RL43	KML43



Wiper codes	Slider type
KT- 18	R.18
KT-28	R.28, R. T28
KT-43	R.43, R. T43
KTL-28	RL28
KTL-43	RL43
KTS-28	R. S28
KTS-43	R. S43
KTLS-28	RLS28
KTLS-43	RLS43

Lubrication of raceways

All sliders, except PAZ and PAX series, are supplied with strong wipers with incorporated pre-oiled sponge, to provide a good greasing for a long period of operation. See table a right side for wiper codes for all sliders. The duration of this self-lubrication depends on the employment conditions and the level of environmental pollution. Usually under normal conditions, the self-lubricant wipers can last about 700 km, however they can easily be replaced with a kit of new wipers with sponge.

The rollers are all, lubricated for life with grease of lithium type soap. The R_sliders have 2RS seals, while RL-sliders have metal 2Z seals.

Lubrication is very important to assure a long operation life. For applications with high frequency and continuous movement, it is advisable to regularly clean the raceways and relubricate the sliders for every 100,000 cycles, depending on the operation environment. Grease of class NLGI2 (ISO 2137) is then recommended.