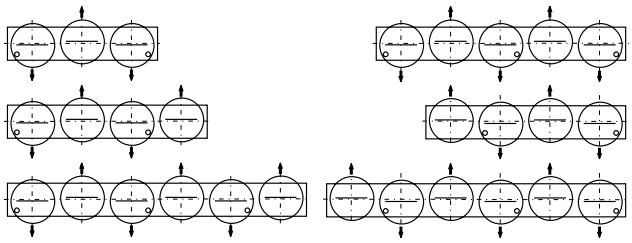
GENERAL INSTRUCTIONS FOR THE USE OF SLIDERS

POSITION OF THE ROLLERS

The sliders NT, NU and NK are equipped with rollers which are alternately in contact with the two raceways.
A **triangular symbol*** engraved on the plastic caps covering the pivots, identifies their contact side on the rail.

The sliders CSW and CDW are equipped with three, four, five or six rollers, arranged as follows (as shown in the figure, the fixed rollers are identified by a **"o"** symbol stamped on the bar in connection with the fixed rollers):

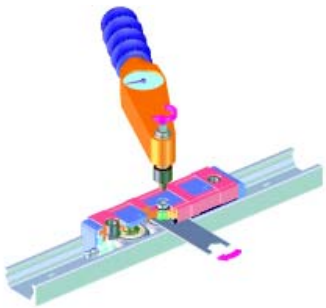


IMPORTANT !
Check that the direction of the rollers corresponds to that of the external loads.

PRELOADING THE SLIDERS

Correct preload setting is very important to the quality of movement and to the lifetime of the system. Normally the sliders are supplied mounted and preloaded in the rails. When supplied separately, the preload must be set by the user. This simple operation must also be carried out if the slider is removed from one rail and mounted in another.

PRELOAD SETTING PROCEDURE:
(1) Assure that the raceways are clean.
(2) Insert the slider into the rail. CSW and CDW sliders must be inserted without wipers. Slightly loosen only fixing screws of the rollers to be set.
(3) Position the slider at one end of the rail.
(4) For the U-rails a thin, strong support (i.e preload key) must be inserted under the ends of slider body to maintain the slider horizontal in the flat raceways.
(5) Insert the special flat preload key between the rail and slider on the side with the triangular symbol (NT, NU, NK), triangular symbol associated to a red screw's head (NT..L, NU..L, NK..L) or circular symbol (CSW, CDW).
(6) Carefully turn the preload key clockwise until the eccentric roller is in contact with the upper raceway and until any clearance is eliminated. Only a small preload is needed. High preload setting increases friction which reduces the lifetime.
(7) While holding the position of the rollers firm with the preload key, carefully tighten the fixing screw. The correct tightening torque of the screws will be applied later. See **(10)** and drawing below.
(8) Move the slider along the rail to verify the preload setting. The movement should be smooth and at no point of the rail should the slider have any clearance.
(9) For sliders with more than 3 rollers, repeat this procedure for each eccentric roller. Start preload setting with the first roller **after** the one indicated with red paint. Make sure that all rollers have the correct contact with the raceways.

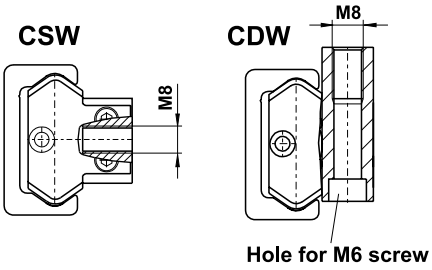


Slider type	Tightening torque [Nm]
18 series	3
28 series	7
43 series	12
63 series	35

(10) Using the correct tightening values, tighten all fixing screws. Make sure to block the roller with the preload key while doing this. A special locking thread inside the pivot guarantees that the roller will remain in the set position.
(11) Mount then the CSW and CDW's wipers and check that raceways are correctly lubricated.

POSSIBILITIES IN SLIDER MOUNTING

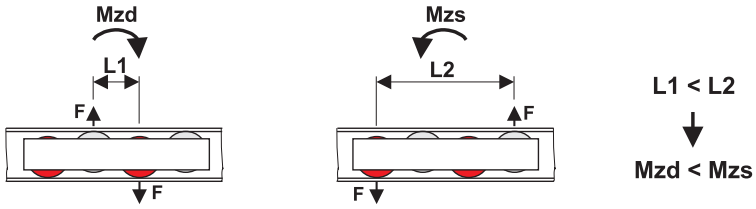
COMPACT RAIL sliders offer a complete range of fixing possibilities. In fact, NT, NU, NK and CSW sliders give the possibility to fix the moving element to the lateral side. In addition, N. 63 can be fixed from behind. CDW sliders have wider body to allow for top or bottom side mounting.



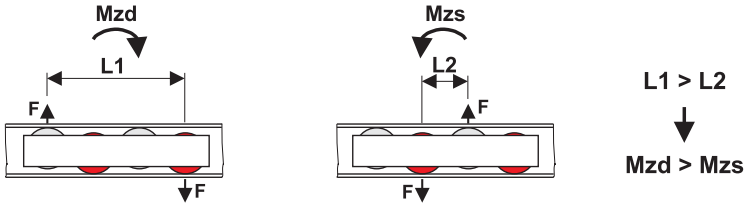
SLIDERS UNDER YAWING MOMENT

For applications where an overhanging load acts on a single slider in one rail, and thereby creates a yawing moment (Mz) in one direction, the **COMPACT RAIL** system offers sliders with 4 or 6 rollers in different configurations, each one determined by the roller position available in two configurations, **"A"** or **"B"**, determined by the roller positions. The Mz moment capacity of these sliders changes significantly according to the direction of the moment: clockwise or counterclockwise. Therefore it is very important to choose the correct combination of slider configuration in a pair of rails when a higher Mz moment is required. Since 3 and 5 rollers sliders are symmetrical, the Mz moment is the same in both directions.

CSW with 4 rollers **configuration A** and **N...L-4-A**

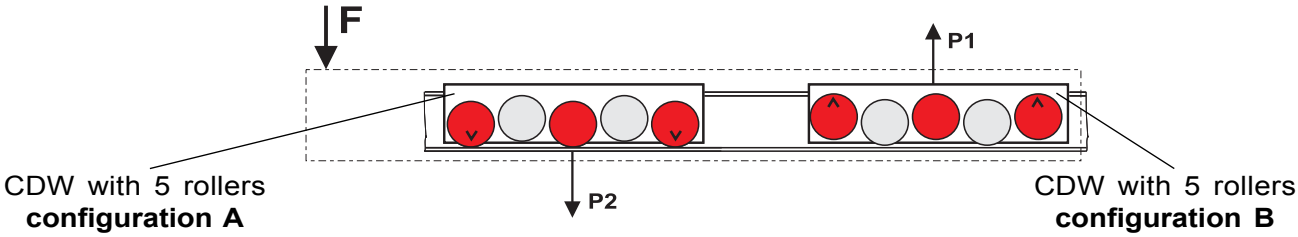


CSW with 4 rollers **configuration B** and **N...L-4-B**



SLIDERS UNDER OVERHANGING LOAD

For applications where an overhanging load is supported by two sliders in the same rail creating an overhanging load in one direction and consequently an opposite load reaction on each of the sliders, it is important to ensure that the correct configurations of the slider are properly positioned. This means that when using: NT, NU and CSW sliders with 3 and 5 rollers, one of the sliders has to be mounted inverted so that the slider is loaded on the side with most rollers (this is not possible with NK sliders, due to different raceway shape). CSW sliders with 4 or 6 rollers and the same radial load capacity are mounted with the same load direction. The top mounting CDW sliders cannot be inverted due to the positioning of the rollers in respect to the top of the rail and are therefore offered in **"A"** and **"B"** configurations. See figure below.



WORKING TEMPERATURE

The continuous working temperature range is -30°C/+120°C (-22°F/+248°F), with peaks of 150°C (302°F). Higher peak temperatures (160°C/+170°C) (+320°F/+338°F) can be reached by C..series sliders (sizes 18, 28, 43 only), by dismounting the wipers.