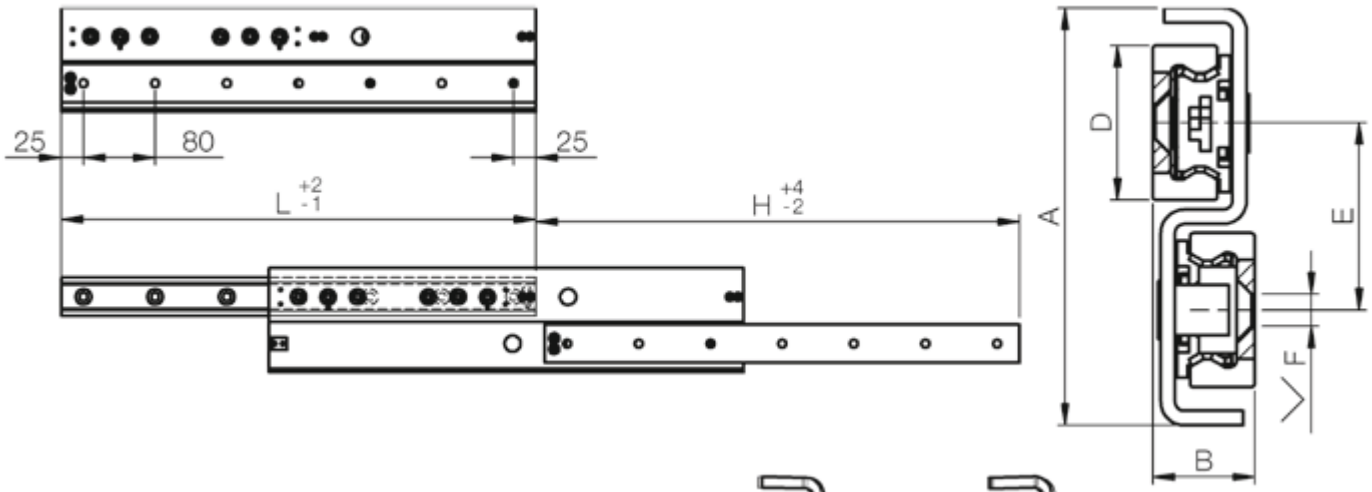
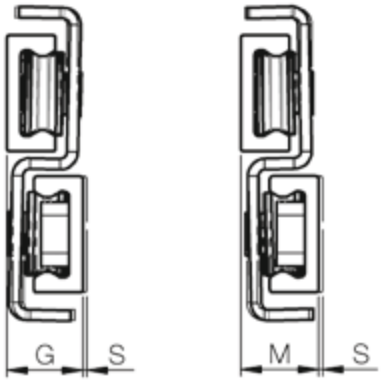


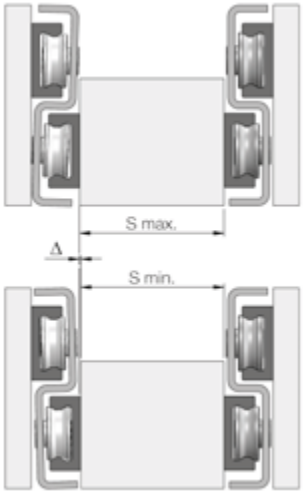
LEFT SIDE VERSION TLRS

RIGHT SIDE VERSION TLRD



SELF-ALIGNING VERSION
with floating rollers TLR..A

Code	A (mm)	B (mm)	D (mm)	E (mm)	F (mm)	G (mm)	M (mm)	S (mm)
TLR18	52	15,2	18	25	Ø 4,5 for screw M4 DIN7991	14,7	15,7	1
TLR28	80	18,6	28	35	Ø 5,5 for screw M5 DIN7991	17,2	19	1,8
TLR43	116	28,4	43	52	Ø 8,5 for screw M8 DIN7991	26,8	30	3,2



SELF-ALIGNING CAPABILITY

When TLR slides are used in pairs, they offer the possibility to absorb minor structural errors or non-precise installation, which otherwise would much increase the required force for moving the mobile part, in both extending and closing direction. Such "binding-problems" for installation on non precise structures, common for ball-cage slides and can be eliminated/much reduced with a pair of self-aligning TLR..A slides. A problem of heavy binding will consequently much reduce load capacity and expected life-time. The self-aligning capacity is obtained by having a combination of floating and guiding rollers in the TLR..A. i.e. allowing for a minor rotation of the rails whilst maintaining the preload in both upper and lower rails.

The suffix A in TLR..A, indicates "Aligning" The concept is well illustrated in the catalogue section MONORACE , for which the base components have their origin. To be noted that the rotation ex. of the TLR28A slide hereby changes the nominal value of 18,6mm to 17,2mmm (S min) – 19,0mm (S max) while compensating dimensional errors on mobile structures or distance errors between the two lateral sides of fixed structures, for which the upper rails are fixed to. The TLR..A is in general always used as a pair with a standard TLR, to assure good lateral stability. However good self-aligning can also be obtained for movement of vertical panels, with the use of TLR..A at the top to absorb some mis-alignment, and with some retainer guidance at lower part.

ORDER CODE	VERSION	CHARACTERISTICS
TLRD43-1010	**BASIC**	Cold drawn steel rails with patented **"T RACE-NOX 1.0"**; high depth nitride hardening and black oxidation treatment. The rails are cut to size after treatment, so the rail ends are protected by protective spray. The rollers are core hardened steel, while the intermediate steel S-element is protected with black epoxy electro coating - **"T RACE e-coating 1.0"** .
TLRD43-1010-KL	**KL**	As a basic TLR product but with additional black **"T RACE e-coating 1.0"** on the rails, for high corrosion resistance (min 700 hours resistance in salt fog) . The rail has no T RACE e-coating on the raceway contact area with the rollers, as masked before the treatment. The raceways are anyhow with standard oxidation while the wipers with incorporated pre-oiled felt assure lubrication and corrosion protection of raceways.
TLRD43-1010-KB	**KB**	As the version KL but with the rollers made in stainless **steel AISI440C**

Code	Lenght L (mm)	Stroke H (mm)	Dynamic coefficient C (N)	Capacity load Co rad (N)	Weight (kg)
TLR.18.-290	290	290	731	355	0,9
TLR.18.-370	370	370	969	470	1,2
TLR.18.-450	450	450	1.115	541	1,4
TLR.18.-530	530	530	1.214	589	1,6
TLR.18.-610	610	610	1.286	623	1,9
TLR.18.-690	690	690	1.324	642	2,1
TLR.18.-770	770	770	1.344	652	2,3

Code	Lenght L (mm)	Stroke H (mm)	Dynamic coefficient C (N)	Capacity load Co rad (N)	Weight (kg)
TLR.28.-370	370	380	1.578	798	2,1
TLR.28.-450	450	460	1.860	941	2,5
TLR.28.-530	530	540	2.045	1.034	2,9
TLR.28.-610	610	620	2.711	1.372	3,3
TLR.28.-690	690	700	2.933	1.484	3,7
TLR.28.-770	770	780	3.084	1.560	4,1
TLR.28.-850	850	860	3.180	1.609	4,5
TLR.28.-930	930	940	3.259	1.632	4,9
TLR.28.-1010	1010	1020	3.325	1.519	5,3
TLR.28.-1090	1090	1100	3.381	1.421	5,7
TLR.28.-1170	1170	1180	3.428	1.335	6,1
TLR.28.-1250	1250	1260	3.469	1.258	6,5
TLR.28.-1330	1330	1340	3.505	1.190	6,9
TLR.28.-1410	1410	1420	3.537	1.129	7,3
TLR.28.-1490	1490	1500	3.565	1.074	7,7

Code	Lenght L (mm)	Stroke H (mm)	Dynamic coefficient C (N)	Capacity load Co rad (N)	Weight (kg)
TLR.43.-530	530	540	4.075	2.078	6,4
TLR.43.-610	610	620	4.241	2.163	7,3
TLR.43.-690	690	700	6.155	3.139	8,2
TLR.43.-770	770	780	6.554	3.343	9,1
TLR.43.-850	850	860	6.870	3.504	10
TLR.43.-930	930	940	7.127	3.635	10,9
TLR.43.-1010	1010	1020	7.341	3.744	11,8
TLR.43.-1090	1090	1100	7.520	3.836	12,7
TLR.43.-1170	1170	1180	7.674	3.784	13,6
TLR.43.-1250	1250	1260	7.807	3.574	14,5
TLR.43.-1330	1330	1340	7.922	3.386	15,4
TLR.43.-1410	1410	1420	8.024	3.217	16,3
TLR.43.-1490	1490	1500	8.115	3.065	17,2
TLR.43.-1570	1570	1580	8.195	2.925	18,1
TLR.43.-1650	1650	1660	8.268	2.798	19
TLR.43.-1730	1730	1740	8.333	2.682	19,9
TLR.43.-1810	1810	1820	8.393	2.575	20,8
TLR.43.-1890	1890	1900	8.447	2.476	21,7
TLR.43.-1970	1970	1980	8.497	2.384	22,6

TECHNICAL CHARACTERISTICS

TLR telescopic roller slides are composed from the same basic components as the MR family. Strong double row ball-bearings and patented T RACE-NOX 1.0 treatment; high depth nitride hardened rails with black oxidation, assembled to a rigid intermediate S-shaped element, provide excellent smooth and play-free running performance, along with high load capacities and low flexion.
Strong wipers with incorporated pre-oiled felt assure good cleaning and proper lubrication of the raceways for long lifetime with reduced maintenance.

The intermediate element is dragged out/in by strong rubber damping stoppers thus much reducing any bumping impact from the intermediate element during opening/closing. TLR slides are also suitable in dusty ambient environments where ball-cage slides tend to fail when impurities contaminate and permeate into the ball-cage's small ball arrangement. The slides feature a Unique Self-Aligning feature when TLR rails are used in a pair, see description page 14.

INDUSTRIAL AUTOMATION: TLR slides are especially recommended for high frequency applications, where long service requirements and low maintenance are necessary. Roller telescopics are superior for motorized automation with or without variable stroke-cycles, to eliminate the typical problem of ball-cage creeping that subsequently can cause serious motor jamming-problems, when increased motor power is instantly required to re-position the ball-cage.

The materials and surface treatments assure a general high standard of corrosion resistance. With additional black electro coating, KL or KB -version, the TLR slider becomes suitable for outdoor applications or very humid ambient. Upon request, customized versions with longer extension or both customized length and stroke are available.

The listed load capacities Co rad, are per single slide, with the load centered, i.e. in the middle of the extended lower rail, P. In case the load is not centered, ex. The load is more towards tip, the load capacity is reduced, please refer to page 48. TLR slides must be installed with the code mark on upper rail at top-side, while mobile part is fixed to lower rail.