T-Rail



Fixed rails used as the main load bearing in radial and axial forces.

The rails are available in 4 different sizes: 18, 28, 43, 63 mm.

Longer single rails up to max. 4080 mm on request. For longer rail systems, see section ”Joined rails” in Technical Information.

Dimensions in mm.

D1 Fixing holes for Torx® screws with low head (custom design) included in scope of supply.
D2 Fixing holes for countersunk head screws according to DIN 7991.

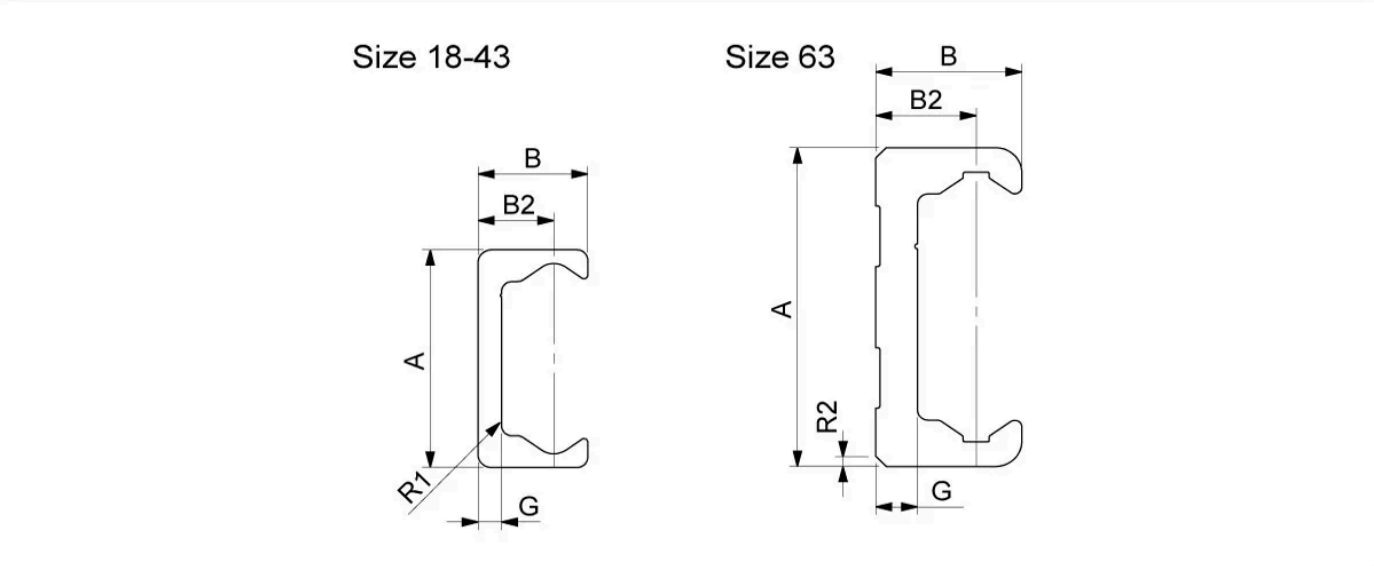
Material: Size 18, cold-drawn roller bearing carbon steel C43 F. Sizes 28-63 Cf53. Zinc-plated according to ISO 2081. Rail raceways are induction hardened and ground
Max. Acceleration (m/s²): 20 (depending on application)
Max. Operating Speed (m/s): 9 (depending on application)
Max. Radial Load Capacity (N): 15,000 (per slider)
Temperature range (°C): -20 to +120

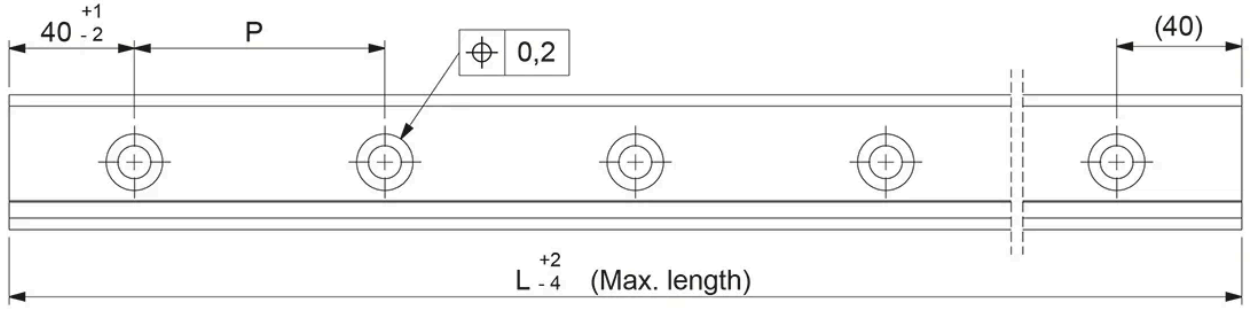
Every care has been taken to ensure the accuracy of the information in this document, but we take no liability for any errors or omissions. We reserve the right to make changes without prior notice.

General Data

Designation	Size
TLC18	18
TLV18	18
TLC28	28
TLV28	28
TLC43	43
TLV43	43
TLC63	63
TLV63	63

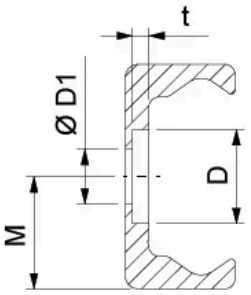
Dimensions





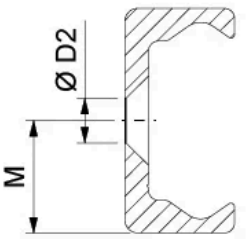
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Rail with counterbored holes



TLC

Rail with countersunk holes



TLV

Designation	M	A	B	B2	R1	R2	L	D	D1
TLC18	9	18	8.25	5.75	1.5	-	2000	9.5	M4
TLV18	9	18	8.25	5.75	1.5	-	2000	9.5	M4
TLC28	14	28	12.25	8.5	1	-	3200	11	M5
TLV28	14	28	12.25	8.5	1	-	3200	11	M5
TLC43	21.5	43	21	14.5	2.5	-	4080	18	M8
TLV43	21.5	43	21	14.5	2.5	-	4080	18	M8
TLC63	31.5	63	28	19.25	-	2x45°	4080	15	M8
TLV63	31.5	63	28	19.25	-	2x45°	4080	15	M8

Designation	D2	t	G	P	Min. length
TLC18	M4	2	2.8	80	160
TLV18	M4	2	2.8	80	160
TLC28	M5	2	3	80	240
TLV28	M5	2	3	80	240
TLC43	M8	3.1	4.5	80	400
TLV43	M8	3.1	4.5	80	400
TLC63	M10	5.2	8	80	560
TLV63	M10	5.2	8	80	560

Load & Weight

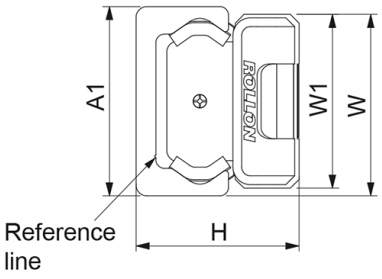
Designation	Weight Rail (kg/m)
TLC18	0.55
TLV18	0.55
TLC28	1.0
TLV28	1.0
TLC43	2.6
TLV43	2.6
TLC63	6.0

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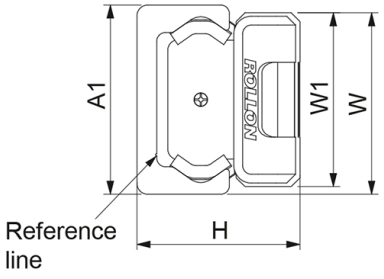
Designation	Weight Rail (kg/m)
TLV63	6.0

Rail/Slider Combination

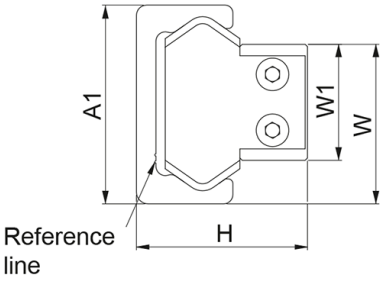
T-rail with NSW slider



T-rail with NSW slider



T-rail with CSW slider



Designation	A1	H (Rail+NSW/NSA)	H (Rail+NSD/NSDA)	H (Rail+CSW/CSWK)	W1 (Rail+NSW/NSA)
TLC18	18 (+0.25/-0.10)	16.5 (±0.15)	n/a	15 (±0.15)	16 (0/-0.2)
TLV18	18 (+0.25/-0.10)	16.5 (±0.15)	n/a	15 (±0.15)	16 (0/-0.2)
TLC28	28 (+0.25/-0.10)	23.9 (±0.15)	23.9 (±0.15)	23.9 (±0.15)	24.9 (0/-0.2)
TLV28	28 (+0.25/-0.10)	23.9 (±0.15)	23.9 (±0.15)	23.9 (±0.15)	24.9 (0/-0.2)
TLC43	43 (+0.35/-0.10)	37 (±0.15)	37 (±0.15)	37 (±0.15)	39.5 (0/-0.2)
TLV43	43 (+0.35/-0.10)	37 (±0.15)	37 (±0.15)	37 (±0.15)	39.5 (0/-0.2)
TLC63	63 (+0.35/-0.10)	50.5 (±0.15)	n/a	49.8 (±0.15)	60 (0/-0.2)
TLV63	63 (+0.35/-0.10)	50.5 (±0.15)	n/a	49.8 (±0.15)	60 (0/-0.2)

Designation	W1 (Rail+NSD/NSDA)	W1 (Rail+CSW/CSWK)	W (Rail+NSW/NSA)	W (Rail+NSD/NSDA)	W (Rail+CSW/CSWK)
TLC18	n/a	9.5 (0/-0.05)	17 (+0.1/-0.3)	n/a	14 (+0.05/-0.25)
TLV18	n/a	9.5 (0/-0.05)	17 (+0.1/-0.3)	n/a	14 (+0.05/-0.25)
TLC28	24.9 (0/-0.2)	14.9 (0/-0.10)	26.45 (+0.1/-0.3)	32 (+0.1/-0.3)	21.7 (+0.05/-0.35)
TLV28	24.9 (0/-0.2)	14.9 (0/-0.10)	26.45 (+0.1/-0.3)	32 (+0.1/-0.3)	21.7 (+0.05/-0.35)
TLC43	39.5 (0/-0.2)	24.9 (0/-0.15)	41.25 (+0.2/-0.4)	47 (+0.2/-0.4)	34.3 (+0.10/-0.30)
TLV43	39.5 (0/-0.2)	24.9 (0/-0.15)	41.25 (+0.2/-0.4)	47 (+0.2/-0.4)	34.3 (+0.10/-0.30)
TLC63	n/a	39.5 (+0.15/0)	61.5 (+0.2/-0.4)	n/a	51.6 (+0.15/-0.30)
TLV63	n/a	39.5 (+0.15/0)	61.5 (+0.2/-0.4)	n/a	51.6 (+0.15/-0.30)

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