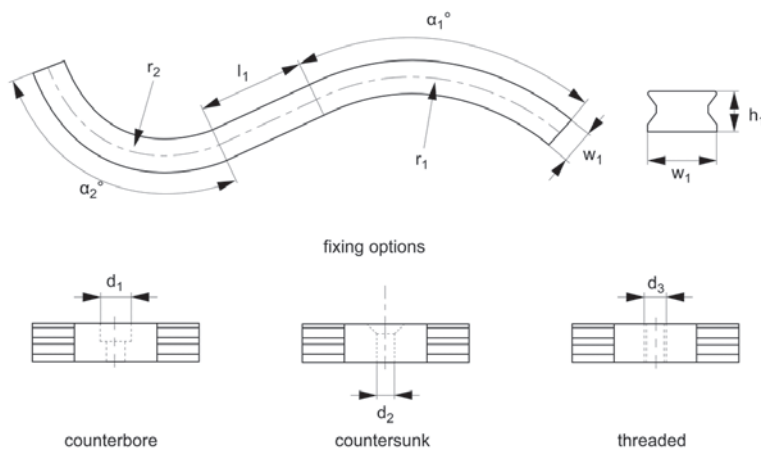


Variable Radius Rails

size 16

Long Linear Rails



L1978.VRX16

LONG LINEAR RAILS

Material

Steel rail (C43), electrolytic zinc plated.
All stainless steel on request.

Technical Notes

Advise angle required and fixing option type.
Temperature range -30°C to $+80^\circ\text{C}$.

Rail weight 1,2 Kg/m.

Tips

Combine with curviline sliders L1978.CX16-070.
Recommended hole pitch on rail is 80mm.
Rail tolerance $\pm 0,5\text{mm}$, angle tolerance $\pm 1^\circ$.

Recommended rail hole is counterbored (easy to install).

Important Notes

Not to be used in high-cycle applications.

Order No.	w_1	h_1	r_1 & r_2	α_1 & α_2	d_1 for	d_2 for	d_3 for	l_1
L1978.VRX16-xxx-xx	16.5	10	tba	tba	M5	M5	M6	tba

Ordering Example

L1978	VRX16	0200	060	100	0400	090
Product Number	Rail width	Radius: r_1 (mm) >120	1 st Angle: (α_1°)	l (>70 mm)	Radius: r_2 (mm) >120	2 nd Angle: (α_2°)



The Curviline rail system offers a cost-effective solution to curvi-linear applications.

Flexibility when you need it

Constant radius, variable radius are available in standard radii, non-standard radii to your drawings are also possible. Straight and curved sections in a single length can be supplied.

Any radius

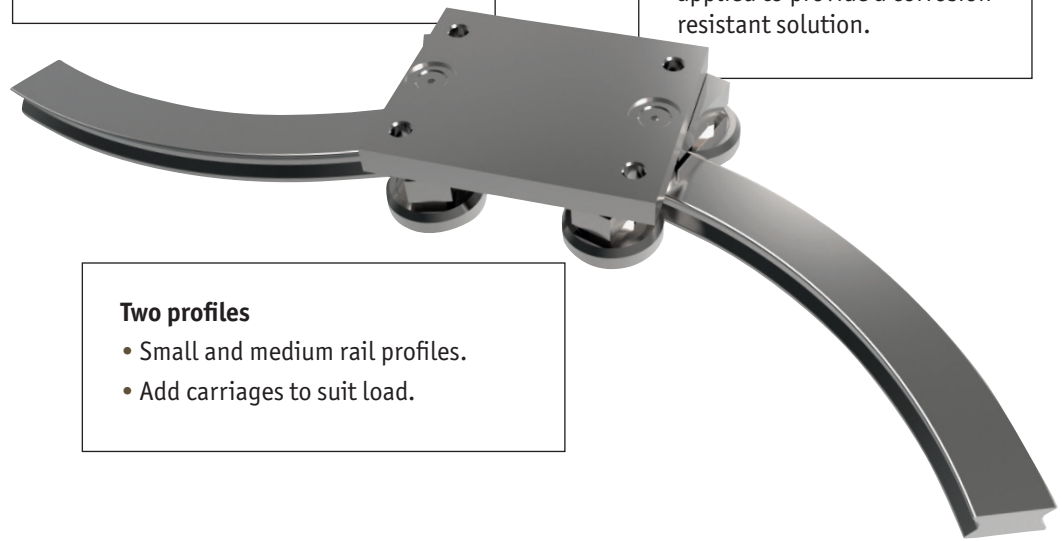
- From 120mm radius upwards.
- Standard and special radii.
- Angles up to 360°.

Anti-corrosion

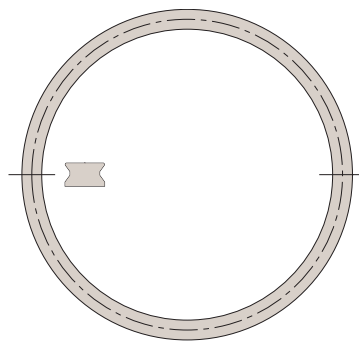
Alloy coating or nickel plating of the rails and sliders can be applied to provide a corrosion resistant solution.

Two profiles

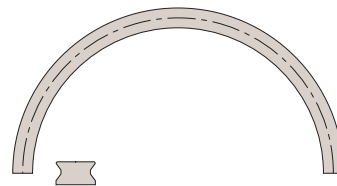
- Small and medium rail profiles.
- Add carriages to suit load.



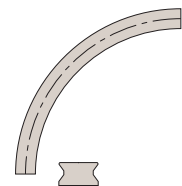
Examples



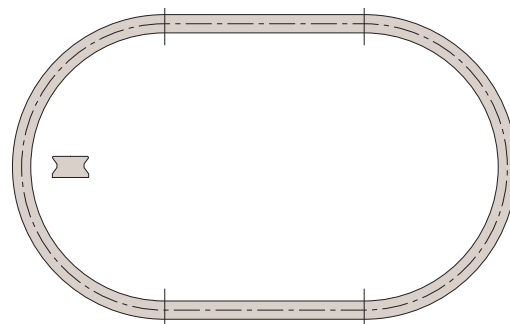
Circle



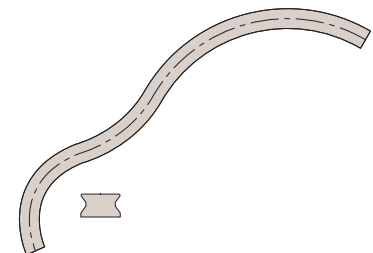
Semi-circle



Arcs



Ovals



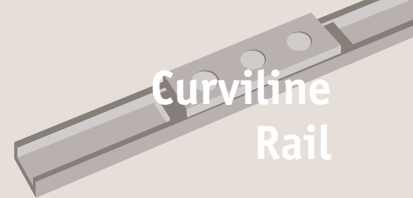
Complex rails with varied radii and angles

Curviline Rail from Automation Components



Curviline Rail

Specifications and applications



Curviline
Rail

Specifications

- Maximum speed 1,5 m/s.
- Maximum acceleration 2 m/s².
- Maximum rail length 3600 mm.
- Two rail sizes 16,5 and 23,5 mm width.
- Minimum radius 120 mm.
- Recommended hole pitch 80 mm.
- Radius tolerance $\pm 0,5$ mm ($\pm 1^\circ$).
- Maximum radial load per slider 1615N.
- Temperature range -30°C to +80°C.
- Roller bearing seals 2Z (dust proof), lubricated for life.
- Rollers from 100Cr6, (stainless versions with rubber seals 2RS available on request).
- Sliders are preload adjustable.
- Not suitable for moment loads.
- Special coatings and finishes available on request.

Applications



Sliding doors & windows

Internal sliding doors
gates • roof lights
display cases



Special purpose & packaging machines

Precision positioning systems
handling units • robotic systems
cutting machines



Safety guarding

Extending protective systems
sliding gates
automatic pick & place



Transport (naval)

Sliding hatches
pull-out storage



Transport (automotive)

Ambulance sliding systems
fire fighting vehicles
sliding panels



Transport (rail)

Seat adjustment
sliding doors
battery removal units

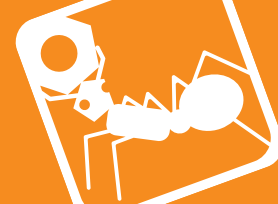


Transport (military)

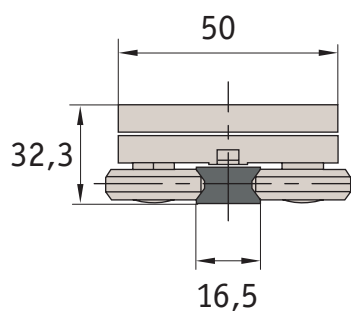
Sliding seats
protective hatches
stretcher extensions

Curviline Rail from Automotion Components

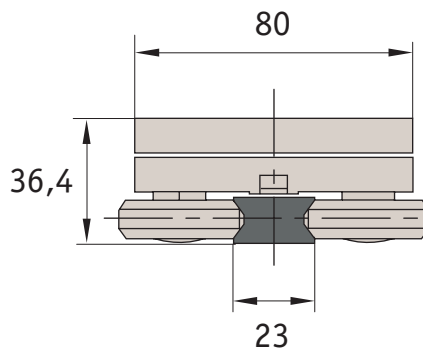
LONG LINEAR RAILS



Rail sizes



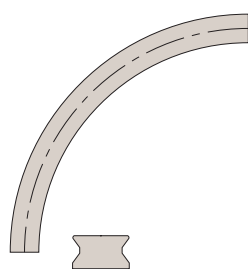
Size 16 (rail and slider)



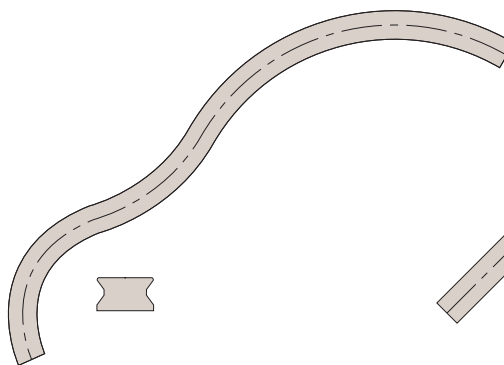
Size 23 (rail and slider)

The sliders have eccentric rollers that are adjustable with the thin spanner that is supplied with them. This allows the preload of the system to be set as required – tight or free running.

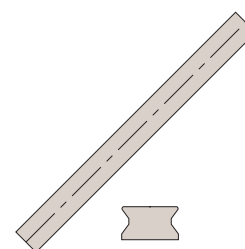
Rail types



Constant radius

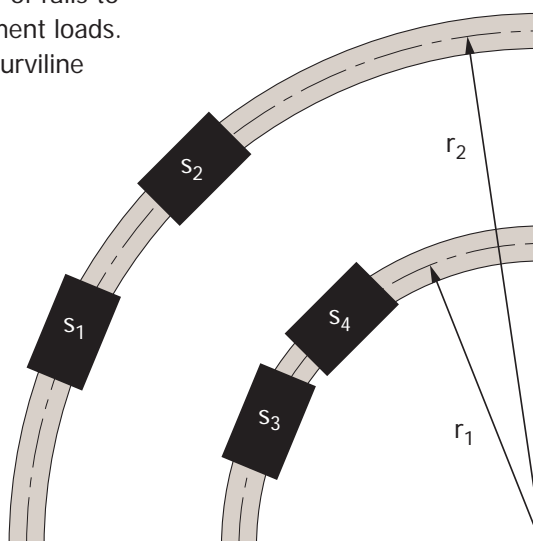


Variable radius rail

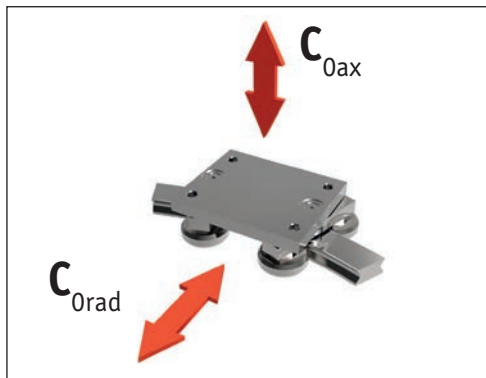


Straight sections

Using a pair of rails to reduce moment loads.
 $s_1 - s_4$ are Curviline Sliders.



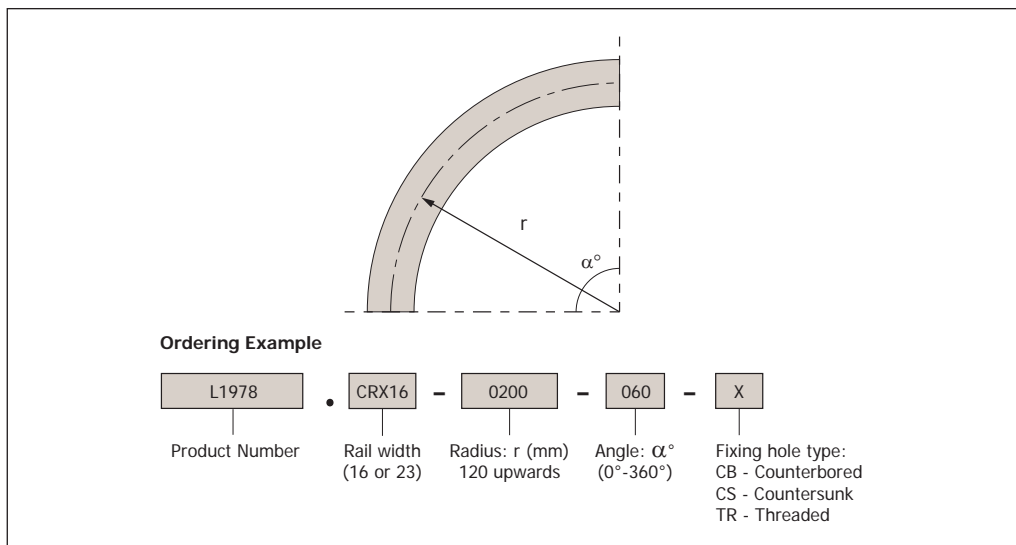
Load capacities



Slider type	C_{0ax} N	C_{0rad} N
L1978.CX16-070	390	560
L1978.CX23-100	1110	1600

Note: Reduce any moment loads by utilising two or more sliders and/or rails.

Constant radius



Variable radius

