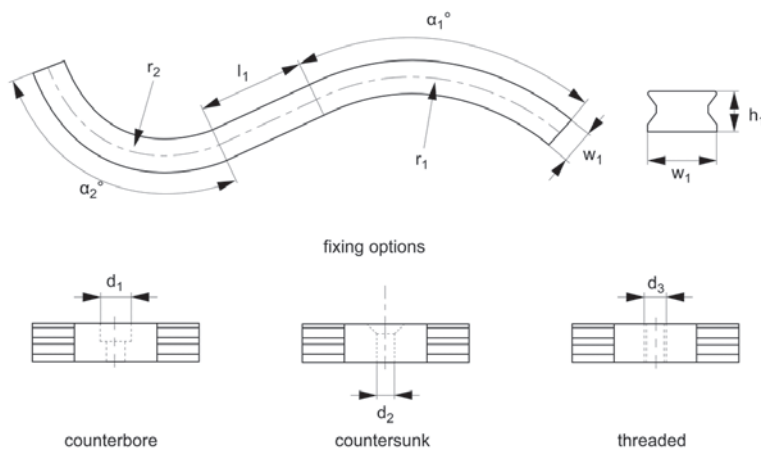


# Variable Radius Rails

size 23

## Long Linear Rails



**L1978.VRX23**

LONG LINEAR RAILS

### Material

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

### Technical Notes

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

Rail weight 2,2 Kg/m.

### Tips

Combine with curviline carriages L1978.  
CX23-100.  
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.	$w_1$	$h_1$	$r_1$ & $r_2$	$\alpha_1$ & $\alpha_2$	$d_1$ for	$d_2$ for	$d_3$ for	$l_1$
<b>L1978.VRX23-xxx-xx</b>	23	13.5	tba	tba	M6	M6	M8	tba

### Ordering Example

L1978	•	VRX23	-	0200	-	060	-	100	-	0400	-	090
Product Number		Rail width		Radius: $r_1$ (mm) >120		1 <sup>st</sup> Angle: ( $\alpha_1^\circ$ )		$l$ (>70 mm)		Radius: $r_2$ (mm) >120		2 <sup>nd</sup> Angle: ( $\alpha_2^\circ$ )



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

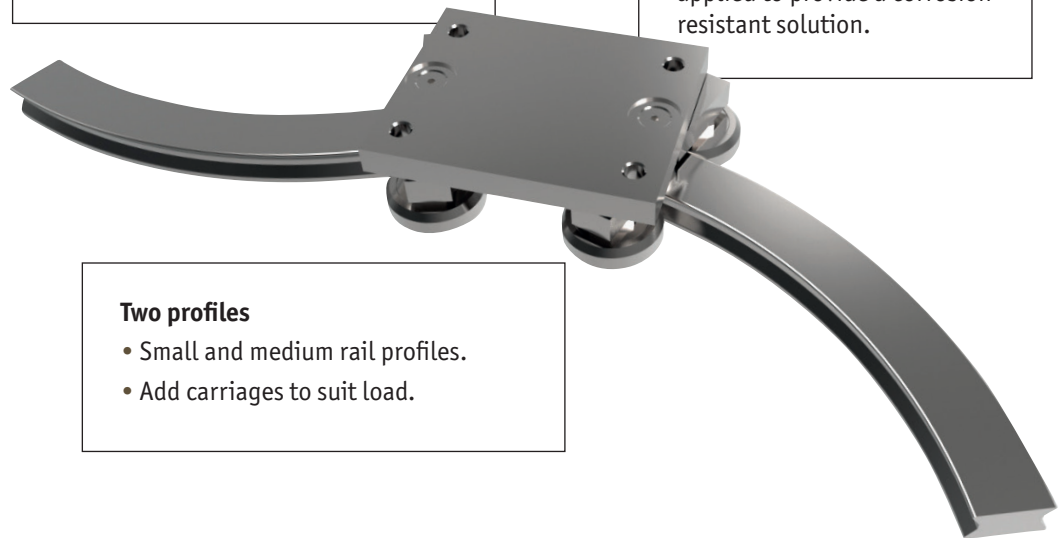
- From 120mm radius upwards.
- Standard and special radii.
- Angles up to 360°.

#### Anti-corrosion

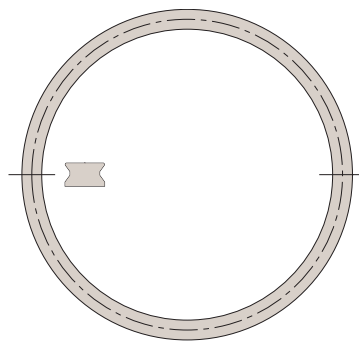
Alloy coating or nickel plating of the rails and sliders can be applied to provide a corrosion resistant solution.

#### Two profiles

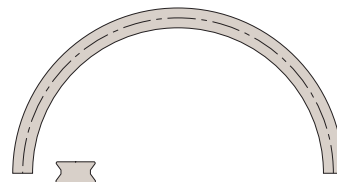
- Small and medium rail profiles.
- Add carriages to suit load.



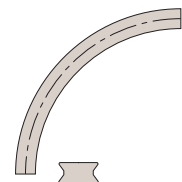
### Examples



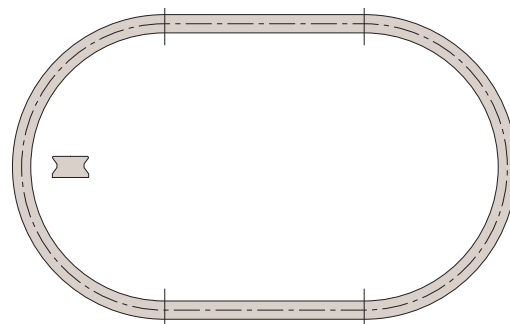
Circle



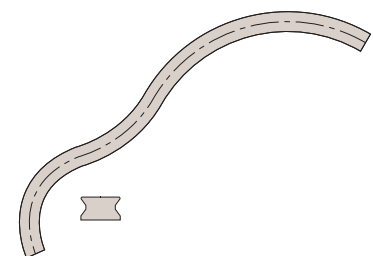
Semi-circle



Arcs



Ovals



Complex rails with varied radii and angles

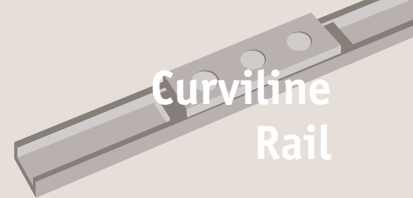
Curviline Rail from Automation Components

LONG LINEAR RAILS



# Curviline Rail

## Specifications and applications



Curviline  
Rail

### Specifications

- Maximum speed 1,5 m/s.
- Maximum acceleration 2 m/s<sup>2</sup>.
- 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

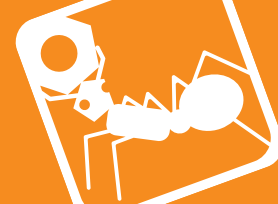


#### Transport (military)

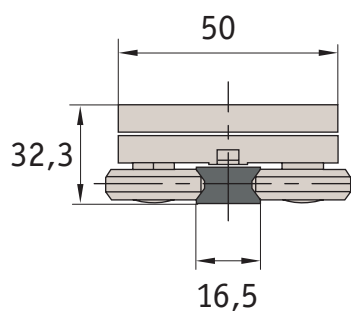
Sliding seats  
protective hatches  
stretcher extensions

Curviline Rail from Automotion Components

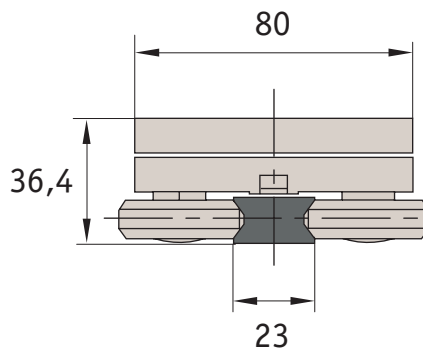
LONG LINEAR RAILS



### Rail sizes



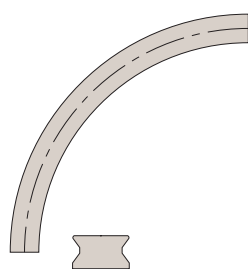
Size 16 (rail and slider)



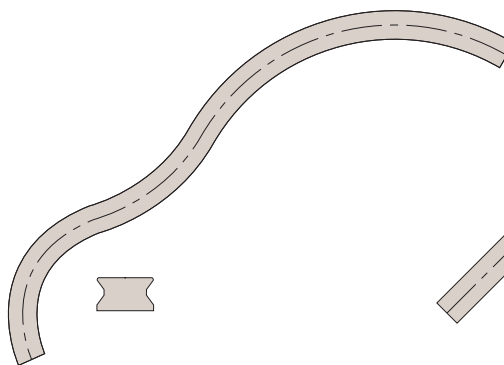
Size 23 (rail and slider)

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.

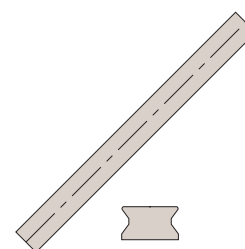
### Rail types



Constant radius

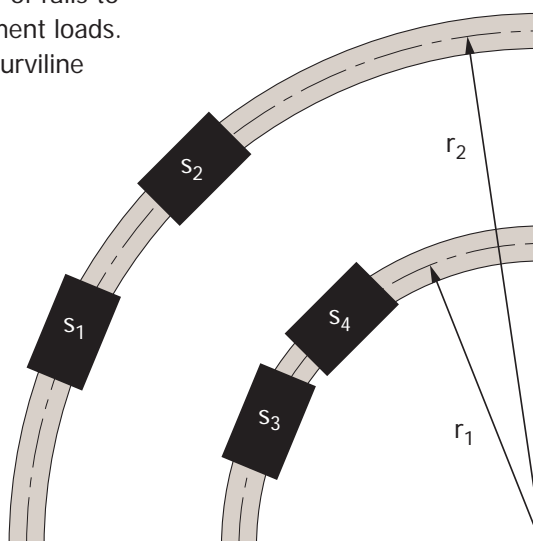


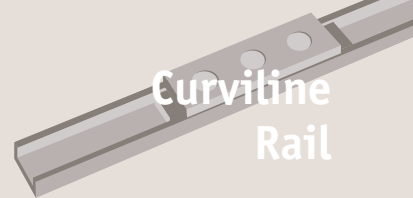
Variable radius rail



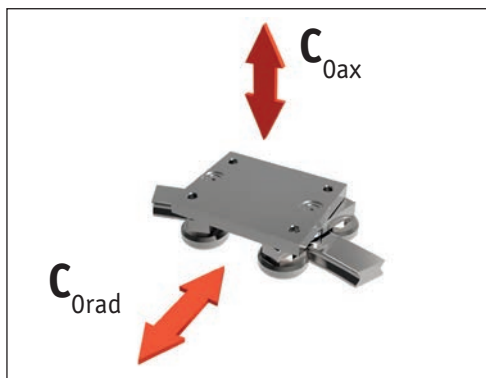
Straight sections

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





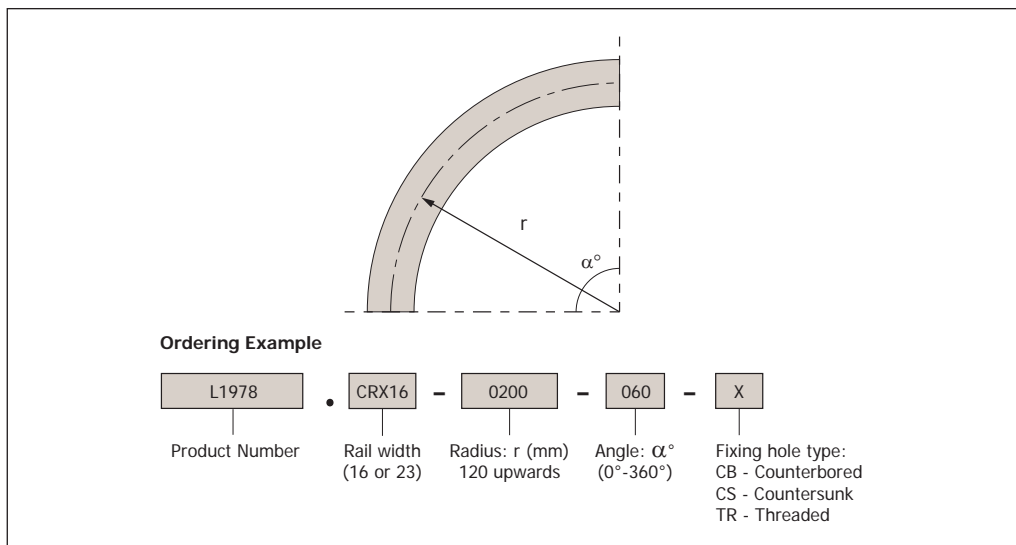
### Load capacities



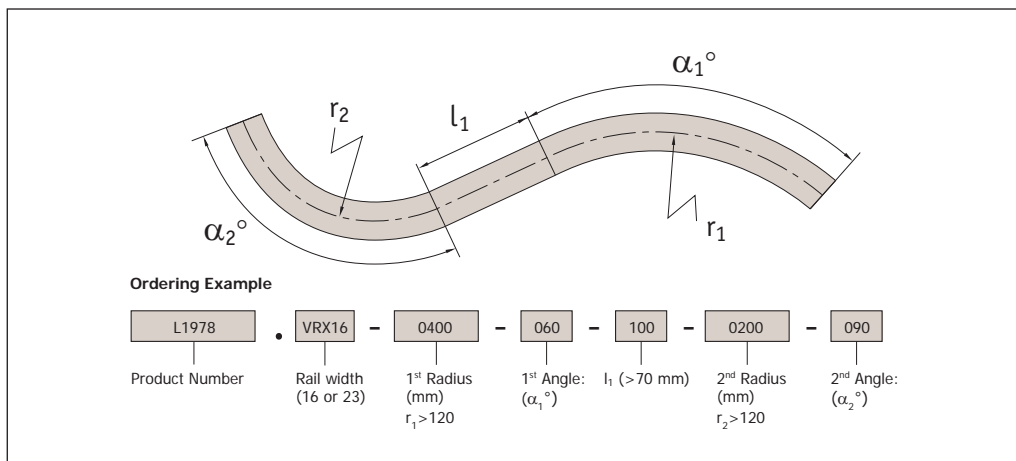
Slider type	$C_{0ax}$ N	$C_{0rad}$ N
L1978.CX16-070	390	560
L1978.CX23-100	1110	1600

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

### Constant radius



### Variable radius



# Curviline Rail from Automation Components