

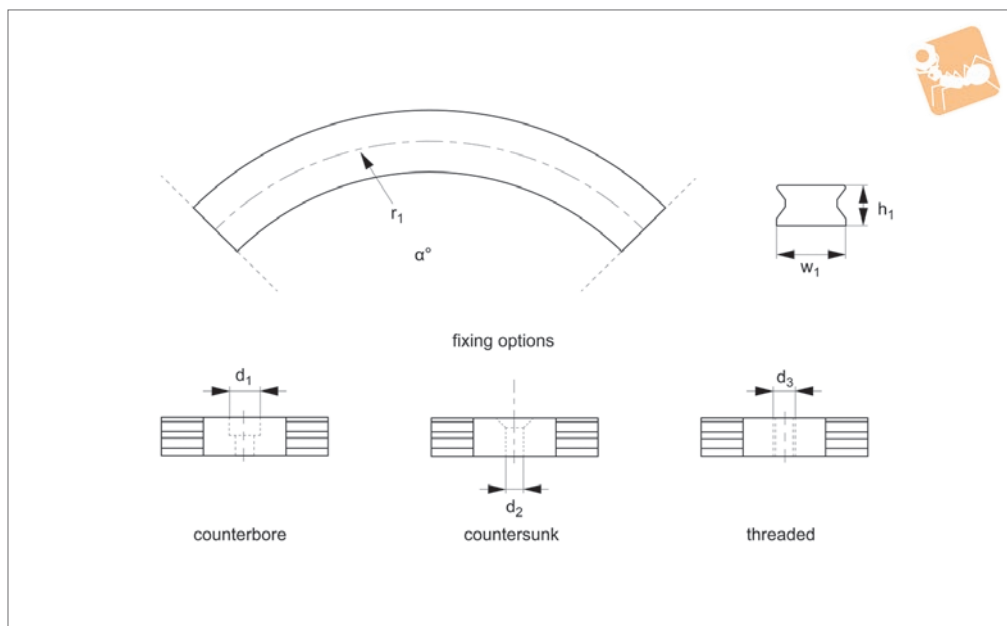


# Constant Radius Rails

size 23



Long Linear  
Rails



**L1978.CRX23**

LONG LINEAR RAILS

## Material

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

## Technical Notes

Standard radii are shown below but any radius (from  $r_1 > 120$  mm) can be produced.  
Advise angle 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 sliders 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.	$w_1$	$h_1$	$r_1$	$\alpha$	$d_1$ for	$d_2$ for	$d_3$ for
L1978.CRX23-0150-xx	23	13.5	150	tba	M6	M6	M8
L1978.CRX23-0200-xx	23	13.5	200	tba	M6	M6	M8
L1978.CRX23-0250-xx	23	13.5	250	tba	M6	M6	M8
L1978.CRX23-0300-xx	23	13.5	300	tba	M6	M6	M8
L1978.CRX23-0400-xx	23	13.5	400	tba	M6	M6	M8
L1978.CRX23-0500-xx	23	13.5	500	tba	M6	M6	M8
L1978.CRX23-0600-xx	23	13.5	600	tba	M6	M6	M8
L1978.CRX23-0700-xx	23	13.5	700	tba	M6	M6	M6
L1978.CRX23-0800-xx	23	13.5	800	tba	M6	M6	M8
L1978.CRX23-0900-xx	23	13.5	900	tba	M6	M6	M8
L1978.CRX23-1000-xx	23	13.5	1000	tba	M6	M6	M8



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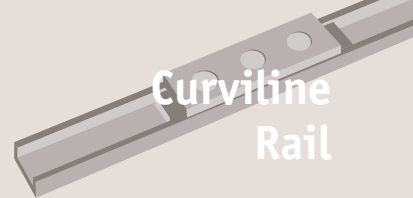
0333 207 4498

sales@automationcomponents.co.uk



### Ordering Example

L1978	•	CRX23	-	0200	-	060	-	X
Product Number		Rail width		Radius: r (mm) > 120		Angle: $\alpha^\circ$ 0 to 360°		Fixing hole type: CB - Counterbored CS - Countersunk TR - Threaded



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

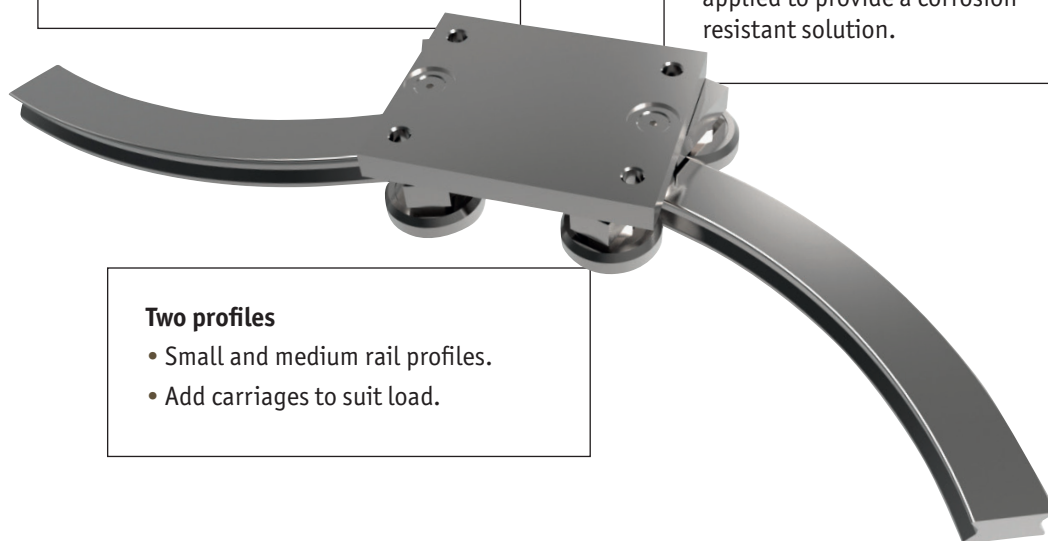
- From 120mm radius upwards.
- Standard and special radii.
- Angles up to 360°.

#### Anti-corrosion

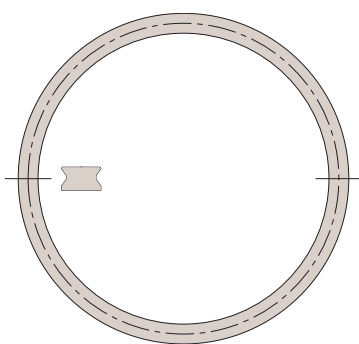
Alloy coating or nickel plating of the rails and sliders can be applied to provide a corrosion resistant solution.

#### Two profiles

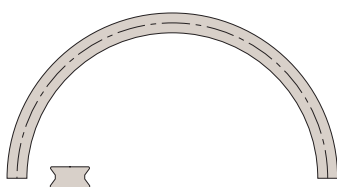
- Small and medium rail profiles.
- Add carriages to suit load.



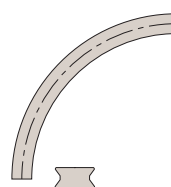
### Examples



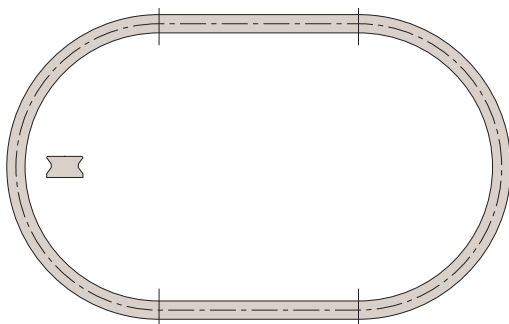
Circle



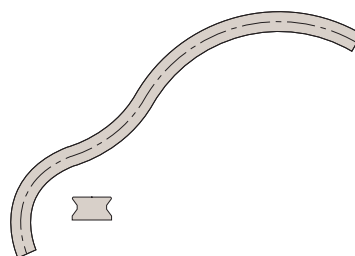
Semi-circle



Arcs



Ovals



Complex rails with varied radii and angles

Curviline Rail from Automotion Components



### 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



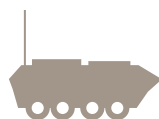
#### Transport (automotive)

Ambulance sliding systems  
fire fighting vehicles  
sliding panels



#### Transport (rail)

Seat adjustment  
sliding doors  
battery removal units

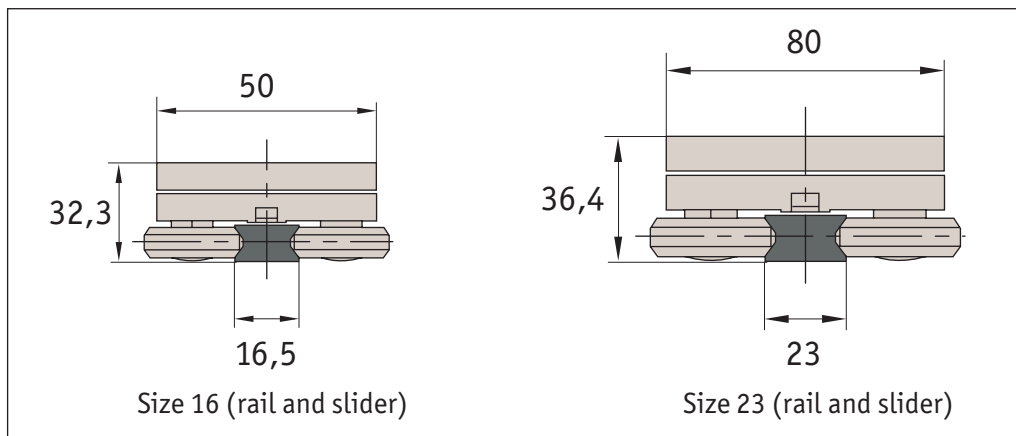


#### Transport (military)

Sliding seats  
protective hatches  
stretcher extensions

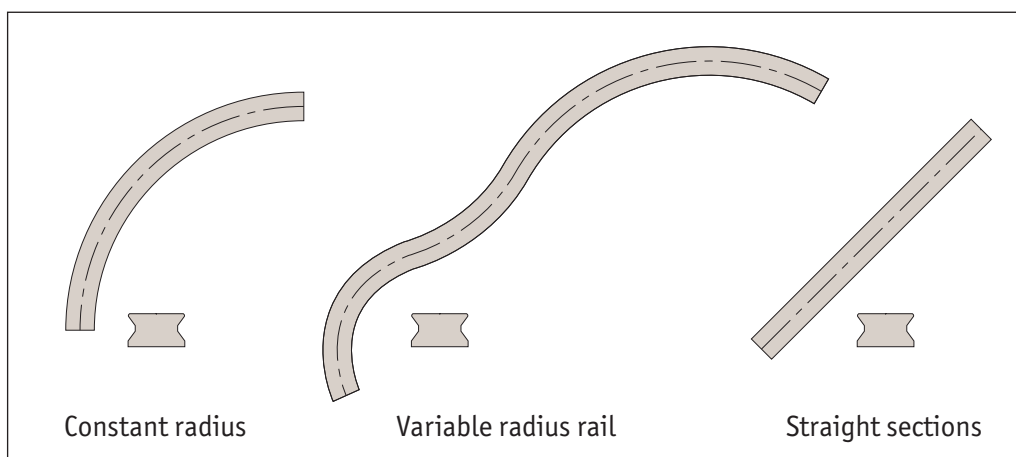
Curviline Rail from Automation Components

#### Rail sizes

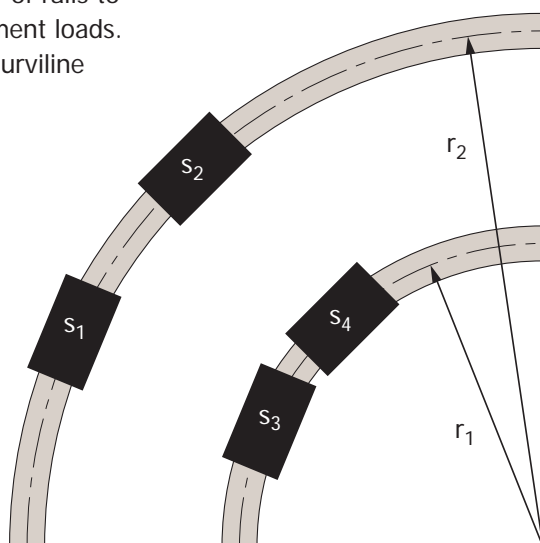


The sliders have eccentric rollers that are adjustable with the thin spanner that is supplied with them. This allows the preload of the system to be set as required – tight or free running.

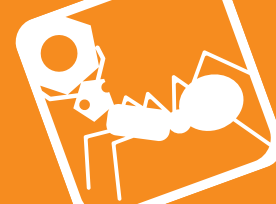
#### Rail types



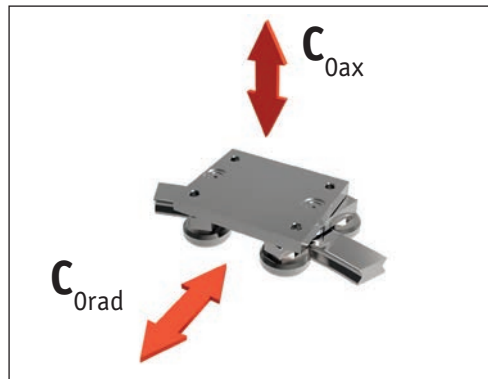
Using a pair of rails to reduce moment loads.  
 $s_1$  -  $s_4$  are Curviline Sliders.



# Curviline Rail from Automation Components



### 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

**Ordering Example**

L1978	•	CRX16	-	0200	-	060	-	X
Product Number		Rail width (16 or 23)		Radius: r (mm) 120 upwards		Angle: $\alpha^\circ$ (0°-360°)		Fixing hole type: CB - Counterbored CS - Countersunk TR - Threaded

### Variable radius

**Ordering Example**

L1978	•	VRX16	-	0400	-	060	-	100	-	0200	-	090
Product Number		Rail width (16 or 23)		1 <sup>st</sup> Radius (mm) $r_1 > 120$		1 <sup>st</sup> Angle: ( $\alpha_1^\circ$ )		$l_1$ (>70 mm)		2 <sup>nd</sup> Radius (mm) $r_2 > 120$		2 <sup>nd</sup> Angle: ( $\alpha_2^\circ$ )