Product Overview

U-Rail is robust system where precision is secondary. The profiles can be welded on existing constructions and the rollers can be delivered with or without assembly plates. The U-Rail system is designed to compensate for deviations in parallelism.

U-rail is available in three different sizes in steel or stainless steel AISI 304, which makes it suitable for applications in very demanding environments. The profile material is easy to weld and offers high wear resistance and fine graned structure.

For smaller loads or high speed, it is possible to get polyamide rollers for a quieter and smoother operation.

Technical Data

Tolerances

The bearings specified in this catalog are manufactured according to DIN 620, class PN (PO), values load capacity are according to ISO 76 and 281/1.

Materials

Outer rings:	Case-hardened steel 20CrMnTi, surface hardened at 62-2 HRC.
Inner rings:	Bearing steel UNI 100Cr6, hardened at 62-2 HRC.
Welding bolts:	S355 J2G3, easy weldable, bolt diam. range of tolerance 0/-0,05 mm.
Profiles:	Material 18 MnNb6

Sealing

ZRS-seal Bearing with labyrinth / elastomer-seal, lubricated for lifetime.

Screws

TORX / Screw locking DIN 267-28 Polyamid coating.

Service Temperature

Generally from - 40 °C to +120 °C, for short time usable to +150 °C, high temperature bearings to +250 °C.

Important Information

The standard rollers have a convex contact surface. Bearings with diameter < 100 mm have to be dismounted before welding. To avoid damage of the bearings we strongly recommend always to order the rollers with mounting plates.

Lubrication

For steel rollers the guideway profiles have to be greased carefully on the contact surface before use. Standard bearings are lubricated with lithium-grease, grade 3.

Technical Dimensioning





- Q = Load with dead weight [N]
- L = Load distance [mm]
- RA = Roller distance [mm]
- A, B = Load capacity roller/profile [N]

Selection of Type



Polyamide Roller

Mounting Plate





Steel Roller





For Rollers in Vulkollan® material please contact Rollco.

Application Examples



Box lifter. Electrical/pneumatical. Up to 350 kg lifting capacity.



Telescope unit, vertical.



Lift systems. Belt transmission. Up to 5000 kg lifting capacity.



Lift system, hydraulic.

Telescope unit, horizontal.



Lift system, hydraulic.