



1C Counterweight guiding roller

Application / Challenges

The 1C guiding rollers are used in elevators to guide the counterweight on the guide rails in the elevator shaft. The rollers are fitted on rigid guide shoes, usually in a T-shaped configuration.

Guide systems like these are used for elevator speeds of up to 4m/s. In most cases, the counterweight is well balanced, meaning that only low normal loads are generated. However, imperfections in the guide rails or movement of the building due to wind or – in extreme cases – earthquakes can result in significant shock loads.

Alongside reliable operation, the key requirements also include low running noise emissions and vibrations, as well as excellent wear resistance.



Solution / Material

faigle's 1C guiding rollers for counterweights feature a tire made from PAS-PU – a thermoplastic elastomer – and a press-fitted ball bearing.

High pre-tensioning means the tire is securely attached to the bearing, while the running surface is machined to ensure optimum concentricity.

PAS-PU stands out for its high tear resistance, outstanding mechanical properties and excellent hydrolysis stability.

faigle only uses ball bearings from selected manufacturers that have been audited by the company.

Customer Benefits

- ✔ Long service life due to wear-resistant material and quality-controlled ball bearings that meet the highest standards
- ✔ Attractive pricing thanks to cost-effective injection molding
- ✔ High pre-tensioning ensures that the ball bearing sits securely
- ✔ Thick tire and excellent concentricity deliver an exceptional ride comfort and low noise emissions

Specifications

Outer diameter (D)	Ø50 – Ø80mm
Inner diameter (d)	Ø20mm as standard Other diameters available on request
Width (B)	15 – 25mm
Running surface contour	Flat or crowned R100/R200
Tire hardness	65 – 95 Shore A
Speed	Max. 4m/s
Load-bearing capacity	Up to 1,000N depending on configuration and speed

