

Linear guide rail systems allow the reliable and economical linear movement of hardware modules. Their outstanding attributes are low-maintenance operation, long service life and quiet running. These are attributes which make roller guide systems indispensable components for efficient and safe movement of devices, and meet the needs of facilities with low energy requirements.

The product range includes all components necessary for constructing linear guide rail systems that are compact and easy to assemble and install. All linear guide rail systems consist of one outer rail with rollers or roller carriages moving inside the rail.

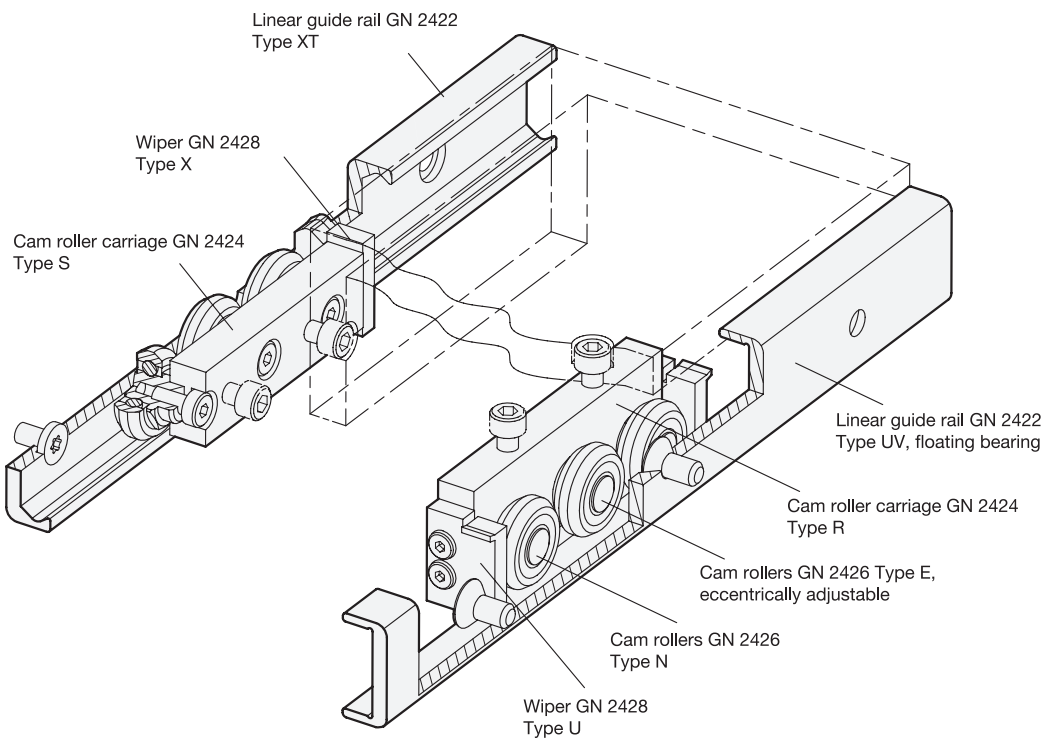
Rails are the foundations for linear guide rail systems. They can be constructed as fixed or floating bearing versions, with the fixed bearing type guiding the rollers running inside the rail on two levels, while the floating bearing type does so only on one level. By combining both versions, any misalignments or parallelism errors in the connected construction can be corrected. Complex preliminary work caused by the precision machining of surrounding parts can thus be kept to a minimum. Both rail versions can be mounted in one of two ways: cylindrical countersunk holes, or 90° conical holes for self-centering.

Cam roller carriages are available in 3 different types of designs, differing by their radial or axial assembly arrangement, their material, and their degree of sealing. All cam roller carriages consist of 3 rollers, with the middle one always supplied with an eccentrically adjustable bearing pivot for determining the initial tension or the clearance/play inside the rail. Depending on the rail version, a wiper is mounted on either end of the roller carriage.

Cam rollers are similar in structure to deep-groove ball bearings, with a non-detachable bearing pivot used as mounting point.

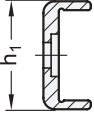
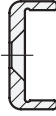
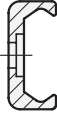
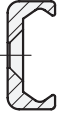
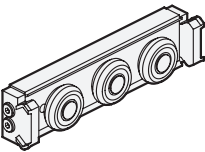
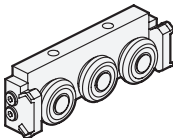
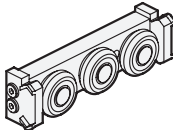

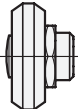
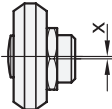
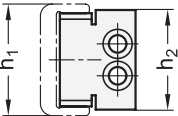
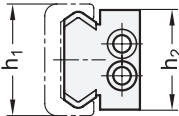
For special applications, cam rollers and wipers can also be supplied separately from the cam roller carriages under separate standards.

All design variants are available in the nominal rail dimensions  $h_1 = 18, 28, 35$  and  $43$  mm. Beyond the standard range, they can also be supplied in lengths of up to 3600 mm in one piece, or as combined rails for individual and customized requirements.



To insure maximum flexibility, linear guide rail systems are made from the components listed below. Depending on the requirement, the appropriate components can be supplied in the desired quantity. Because the linear guide rails and the cam roller carriages must be assembled separately in many applications, these items will be supplied unassembled and packed separately.

Upon request, fully pre-assembled linear guide rail systems including rails GN 2422 and cam roller carriages GN 2424 are available.

<p><b>Cam Roller Linear Guide Rails</b> GN 2422 → Page QVX</p>	<div style="display: flex; justify-content: space-around; text-align: center;"> <div> <p>Type <b>UT</b></p>  <p>Floating bearing rails</p> </div> <div> <p>Type <b>UV</b></p>  </div> <div> <p>Type <b>XT</b></p>  <p>Fixed bearing rails</p> </div> <div> <p>Type <b>XV</b></p>  </div> </div>
<p><b>Cam Roller Carriages for Rails</b> GN 2424 → Page QVX/1304</p>	<div style="display: flex; justify-content: space-around; text-align: center;"> <div> <p>Type <b>N</b></p>  <p>Normal cam roller carriages</p> </div> <div> <p>Type <b>R</b></p>  <p>Radial cam roller carriages</p> </div> <div> <p>Type <b>S</b></p>  <p>Narrow cam roller carriages</p> </div> </div>
<p><b>Cam Rollers for Rails</b> GN 2426 → Page QVX</p>	<div style="display: flex; justify-content: space-around; text-align: center;"> <div> <p>Type <b>B</b></p>  <p>Roller with bore</p> </div> <div> <p>Type <b>N</b></p>  <p>Normal roller with centered bearing mounting point</p> </div> <div> <p>Type <b>E</b></p>  <p>Eccentric roller with eccentric bearing mounting point</p> </div> </div>
<p><b>Wipers for Rails</b> GN 2428 → Page QVX</p>	<div style="display: flex; justify-content: space-around; text-align: center;"> <div> <p>Type <b>U</b></p>  <p>For floating bearing rails</p> </div> <div> <p>Type <b>X</b></p>  <p>For fixed bearing rails</p> </div> </div>

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