**item white paper with basic information**

**Designing safe stairways and platforms –   
what needs to be taken into account?**

**Falling, tripping and slipping – accidents on stairways in industrial environments can occur for a variety of reasons. Design is key to ensuring maximum safety when using stairways and platforms. Find out which aspects need to be taken into account at the design stage in the new item white paper** [**“Safe stairways and platforms in industrial environments”**](https://www.item24.de/en/productworld/stairway-platform-system.html)**, in which the market leader in building kit systems for industrial applications outlines basic formulae, definitions and requirements related to the construction of safe stairways.**

Designing stairways and platforms in industrial environments is a complex task with numerous standards and guidelines to adhere to. DIN EN ISO 14122, for example, contains comprehensive requirements for working platforms, walkways, stairways, stepladders and guard-rails in industry. This standard defines permanent means of access to machinery not directly accessible from the ground level or a floor. As a general principle, the step-length rule should be used to determine the ideal pitch of a stairway. This means using a step length of 630 mm as the basic dimension for calculating rise and going.

**Stringent requirements for safe design**

Stairways with steps that feature a rise of 170 mm, a going of 290 mm and a pitch of around 30° are deemed particularly safe. In this white paper, item outlines the basic aspects that should be taken into account at the design stage. In addition to a consistent rise, elements such as adequate step width, anti-slip surfaces and optimum staircase lighting are key to achieving safe stairway designs. Other crucial steps include configuring ideal guard-rails and factoring in maximum weight loads. There are special safety requirements to consider when it comes to stepladders with pitches over 45°. Modular stairway systems such as the item Stairway/Platform System combine the most demanding safety requirements with maximum versatility. Stairways with pitches from 30° to 60° and profiles in variable lengths can be easily adapted to particular specifications. Guard-rails and platforms can also be added to the stairway as appropriate. This means that, depending on the available space and the intended use of the stairway, customers can select the ideal solution for easily and quickly designing bridges, maintenance landings for elevated machine areas, and all-round working platforms.

The white paper is available to download free of charge at <https://welcome.item24.de/whitepaper-treppen-und-podeste>.

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**Caption 1:** Modular stairway systems such as the item Stairway/Platform System combine the most demanding safety requirements with maximum versatility.

**Caption 2:** Since climbing stairs is tiring, an intermediate platform should be installed after a maximum of 18 consecutive steps or a climb of 3000 mm.

**Caption 3:** Stairways with a pitch of 30°, a rise of 170 mm and a going of 290 mm are comfortable to walk up or down without much effort.

**About item**

item Industrietechnik GmbH is a global market leader in building kit systems for industrial applications and employs around 500 members of staff. It has been designing and marketing construction solutions for machinery, fixtures and plants since 1976. The product portfolio comprises more than 3,500 high-quality components designed for use in machine bases, work benches, automation solutions and lean production applications. Thanks to the inclusion of transport solutions and dynamic elements, the company’s products can cover virtually all working processes, from manual production to automated manufacturing. The highly skilled employees work day in, day out to develop innovative solutions for state-of-the-art mechanical engineering and also offer exceptional consulting services. item is headquartered in Solingen, Germany. Eleven branches and support centres ensure the company is always close to customers in Germany. The group has wholly owned subsidiaries in the USA, China, Mexico, Italy, Poland and Switzerland.

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