Guide Rollers for Wire, Multi-Wire, Cable and Tube

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Compact, ready-to-install guiding and straightening systems provide many benefits.

Process materials are manufactured and delivered in various forms. Guiding is one of the final steps in production and one of the first in further processing. Additionally, guiding plays a crucial role in manufacturing and processing lines when it comes to ensuring a defined position of the process material, which is necessary, for example, when using measurement technology or handling and automation. The required precision, the direction of material flow and speed can be influential parameters in selecting suitable components for guiding. These components must fundamentally be capable of withstanding the static and dynamic forces and moments over an extended period. Wear in the tribological system is of high technical and economic significance and significantly determines the suitability of a component. Wear on the process material must be excluded. Macroscopic markings and microscopic surface changes that could adversely affect critical quality characteristics of the final product must be avoided. In this regard, components with rotating tools offer advantages over those using stationary tools for guiding process materials.

For good reason, **WITELS-ALBERT GmbH** offers almost exclusively components with rotating tools for the guiding process. The goal is to supply process material to upstream and downstream processes and components without collisions. Boundary conditions such as the cross-sectional geometry of the process material, the variety of geometries and the design of upstream and downstream components determine whether guiding is required with respect to the neutral axis/zero line or with a fixed lower and/or rear edge. Due to the variety of boundary conditions, there are numerous models of guide rollers equipped with fixed, partially adjustable or individually adjustable rollers.

Among the best-selling products of WITELS-ALBERT GmbH are the centric guide rollers of the ZR series, which are manufactured in six sizes and five different versions each. Depending on the application conditions, the guide rollers can be equipped with CROMAX rollers, through-hardened rollers, or PET rollers. Sometimes, specific roller groove geometries are desired, which can be incorporated into the cylindrical rollers.

In response to the increasing demand for guide rollers with individual roller adjustment, WITELS-ALBERT offers new standardized models of the IR series. The designation IR stands for the feature of individual roller adjustment. The standard models of the IR series come equipped with corresponding spindles, adjustment elements and CROMAX rollers. As with the ZR series, alternative roller designs can



Figure 1: Guide roller IR 50 D with individually adjustable, cylindrical guide rollers.



Figure 2: Model IRB 50 D for strip processing with individually adjustable and through-hardened guide rollers.

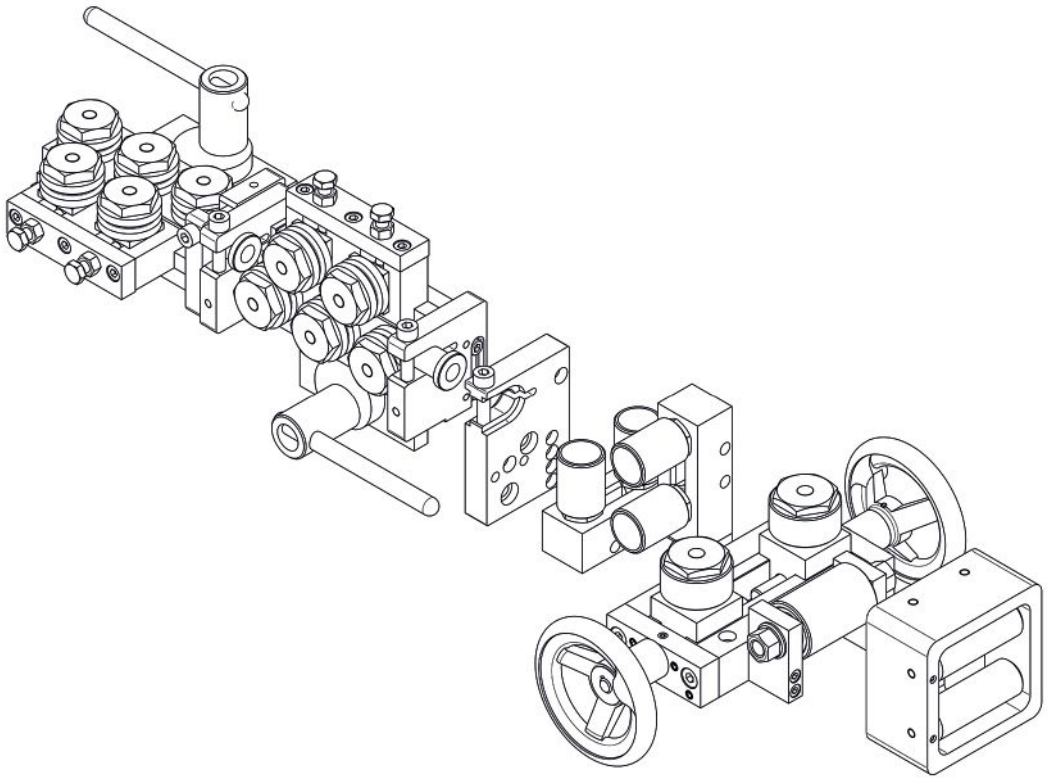


Figure 3: Integration of guiding and straightening, exemplified by straightening devices of the ER series.

be supplied upon request. The IR series models cover process materials with a maximum outer geometry of 250 mm.

For guiding strips, the models of the new IRB series are recommended. Similar to the IR series models, the rollers are individually adjustable. Characteristic of the IRB series are the vertically reduced rollers, which are through-hardened to meet the high demands of strip processing. The IRB series models support the guiding of strip widths up to 250 mm.

Basically, the thickness and width range of the process material determine the required IR/IRB model. If the maximum opening of a selected IR/IRB model is too small, the model's structural width can be customized with minimal effort. This applies, subject to technical review by WITELS-ALBERT GmbH, to all models in the new IR and IRB series.

The integration of guiding and straightening, i.e., the combination of components for guiding and straightening process materials into a system, is supported by both new series of guide rollers. All versions of the IR/IRB 12 and IR/IRB 50 models serve straightening devices of the ER, RB, RT and RTS series, supporting straightening ranges from 0.5 to 1.5 mm, 1.5 to 3.0 mm and 3.0 to 7.0 mm. Customers benefit from being able to use compact, ready-to-install guiding and straightening systems.

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Company Profile:

WITELS-ALBERT GmbH *is a specialist in the processes of wire straightening, transporting and guiding. WITELS-ALBERT manufactures apparatus and machines for the production and processing of wire and multi-wire process materials. The company's history goes back to 1898. Supported by a branch in the USA and more than 20 agencies worldwide, the company's export share is around 65%. An optimal production organization (KANBAN) ensures the rapid availability of all standard pro-ducts and customer-specific solutions. Permanent investments in research and development result in innovative products that offer customers added value.*
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