

Guiding, Feeding & Straightening Technology

by:

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Company's technical solutions stand for simple handling, high productivity and stable value. Services support the daily routine, the planning of processes and the development of products.

As a Berlin, Germany-based company, **WITELS-ALBERT GmbH** has focused for decades on applications in the wire, tube, strip, cable and rope industry. Customers worldwide use WITELS-ALBERT products for guiding, straightening and feeding process materials.

Long-goods such as wire, tube, strip, rope and cable require components for guiding, straightening and transport for production and processing. The respective design of the components is specific, since the type of long-goods and the objectives in production and processing are different. This results in a high variety of designs, which are also required in different sizes, as the long-goods cross-sections and the main dimensions of the cross-sections are numerous. Keeping an overview and finding the right solution from the product range is a challenge that we are happy to support our clients with.

Clients can expect our expertise based on their individual data and boundary conditions. We need the geometric parameters of the cross sections and information on the mechanical parameters of the process material. Information on the packaging, the spool or coil orientation, the direction of the long-good passage and the process speed.

Smart Roller Boxes

Roller boxes have been part of the WITELS-ALBERT product range for decades. They reliably stabilize the path of a wide variety of process materials. The new inventive product RC 10 spares the budget for acquisitions and operation. It minimizes the number of rollers needed for managing a reliable guiding process. A guiding window is formed by using of only two instead of four guiding rollers. The new design concept consider a new roller profile, the usage of roller bearings and a thru hardened and wear resistant tool steel.

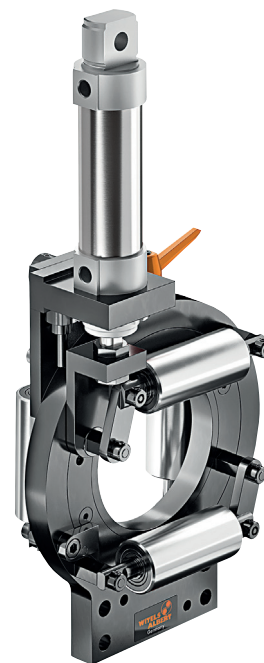
Users of RC 10 roller guides can expect an extended

roller life. The units can be used for the guidance of process materials with an overall geometry of less than 10 mm. The torsion-resistant RC 10 roller box design can be mounted with two or four screws. The uncompromising simplification of the design results in a selling price that is 60% lower than the selling price of comparable roller boxes. This saves the budget for the purchase and there are also advantages in terms of reducing the number of wear parts required during operation. If necessary, the roller axles and rollers can be replaced in no time at all.

Pneumatic Adjustable Rollers

Matching centric opening and closing on upstream or downstream located units, the RZ PM centric roller guides can be used to reliably ensure a desired centric process material path. All four rollers of a roller guide RZ PN series can be centric adjusted after unlocking via a double-acting pneumatic cylinder.

The roller guides are factory fitted with CROMAX rollers and are available in six sizes. The use of alternative roller materials such as thru hardened tool steel or plastics is possible. The maximum opening of the largest model RZ 500 PN is 500 mm.



Pneumatic adjustable RZ PN centric roller guide.



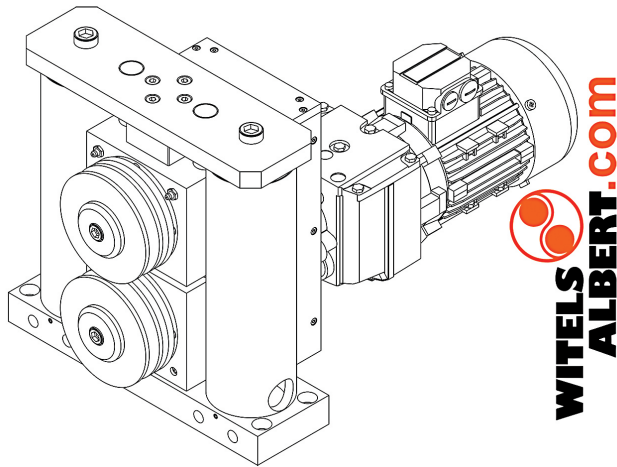
Roller box RC 10 with extended roller life.

Wire feeder NA 120 M

The processing of wires with a diameter of over 8 mm is associated with challenges in terms of handling, since the high moment of resistance requires correspondingly high forces and torques to be applied when processing the process material. In addition, there are mandatory regulations on safety and health protection requirements such as Directive 2006/42/EC. According to this directive, physical stresses on the operating personnel must be reduced to the minimum possible. Based on these facts the new actuator driven wire feeder NA 120 M offers the needed transport force to relieve the operating personnel in the daily routine of wire infeed operations.

The feeder design is optimized for reaching the aim of a perfect relationship in between price and performance. The key to the new concept is the usage of new pneumatic actuators for clamping the process material in between the two

EMPHASIS: Wire Handling



Schematic view of the NA 120 M feeder.

transport rollers. The related roller shafts are supported by a fixed mounted bottom chock and an adjustable upper chock. The in-house chock manufacturing doesn't need any grinding, which results in reduced production cost. Each transport roller is driven and has two radius grooves to suit a total wire diameter range of 5 to 15 mm. The included motor and the related spur gear accelerates the wire to an infeed transport speed of 0.2 mps (0.656 fps) at 50 Hz.

Considering a friction coefficient of 0.1 in between the process material wire and the transport rollers, the robust and

compact NA 120 M feeder spends a transport force of 1.6 kN, and it is designed for continuous feed applications and not for intermittent feed applications.

For more information, contact the author at WITELS-ALBERT GmbH in Germany, or **Bob Flower** at **Witels-Albert USA Ltd.**, Oxford MD, USA.

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Company Profile: **WITELS-ALBERT GmbH** is a specialist in the processes of wire straightening, transporting and guiding. The company 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 products and customer-specific solutions. Permanent investments in research and development result in innovative products that offer customers added value. www.witels-albert.com

Witels-Albert USA Ltd., is the exclusive stocking office for North America, South America and Central America and many other countries around the world, for **WITELS-ALBERT GmbH**. **WITELS-ALBERT** specializes in wire straighteners, tube straighteners, straighteners, wire and tube feeders and drive units, guides and preformers for wire, tube, strip and flat wire, cable, wire rope and profile shapes. Products are engineered and produced in the German tradition of innovation, precision and quality. www.witels-albert-usa.com