

Roll change system  
WR FT

## New products for straightening

The main thought behind the research and development work of Witels-Albert over the last two years has been to supply quality products which shall set the trends in the wire, strip, cable and tube industry and effectively and reliably help to configure work procedures in the various user groups. This has resulted in some new improved products, which the company will present at wire Düsseldorf.

The products are designed to ensure maximum processing speeds and forces. The main focus of the products is to minimize the amount of time, material and work required for their use and adjustment.

### Heavy-duty straighteners

Roll straighteners offering very high straightening forces have been developed preferably for high strength process materials with a diameter or cross-sectional height of between 5.0mm and 40.0mm. The suffix HL PO following the familiar product designation ERS stands for the features of defined and reproducible roll adjustment using mechanical position indicators and a specific hydraulic system.

An adjustment force of a few Newtons applied manually by the operating personnel is converted into a adjusting force of up to 300kN by the hydraulic system, with the straightening roll being positioned with an accuracy of

approx. 0.01mm. Therefore, according to Witels-Albert, this product provides for the very first time to the industry straightening equipment that enables the defined and efficient adjustment of straightening rolls for process materials with a diameter or cross-sectional height of up to 40.0mm. Straighteners in the ERS HL PO series are robust and require no downstream elements such as controllers, software, control terminals, etc.

### Straightening units NT series

Minimized deformation under load, high precision and a reliable quick-response locking mechanism (suitable in particular for high-strength wires) are features of the newly developed NT straightening units. The roll diameter and the distance between straightening rolls have been optimized in order to be able to straighten process materials that have a wide range of diameter sizes.

The mechanical heart of an NT straightening unit is its precision base.

It accommodates the elements needed for roll positioning, the components of the quick-action locking device with a transparent protective cover. The locking handle of the quick-action locking device is designed with a telescoping handle, allowing maximum locking force to be applied when desired. Positive-fit levers on the locking handle keep the straightener reliably closed during the straightening process.

Straighteners in the NT series are available in three sizes at the present time. Depending on the specific range of wire dimensions for the straightening process, the use of either the NT 7-2.0 (straightening range from 0.8mm to 2.0mm), the NT 7-4.0 (straightening range from 2.0mm to 4.0mm), or the NT 7-6.0 (straightening range from 4.0mm to 6.0mm) is recommended.

### Change of straightening rolls without tools

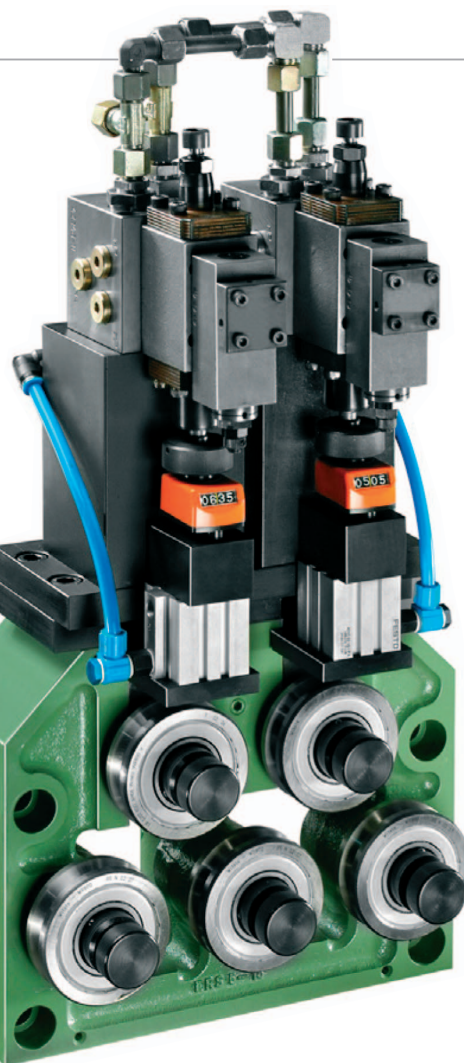
Straightening rolls often have to be changed in many straightening processes. Frequent changes may be required, for example, if the straightening rolls wear quickly or process materials in small batch sizes have to be processed, for which straightening rolls with special groove geometry are essential.

In the past it was only possible to change straightening rolls using a tool

like a wrench and the whole process demanded a great deal of time and effort. The WR FT roll changing system was developed to reduce the time and effort required to replace straightening rolls and thus to optimize the operational procedures related to this process. By simply pressing on a tactile element integrated into the roll axis it is possible to remove a straightening roll and fit a different one very quickly and without using any tools. The WR FT roll changing system can be retrofitted and is suitable for straightening rolls that have an external diameter of between 23.0mm and 80.0mm.

### Double straighteners

The fundamental objective of the DRS CT straightener development project was to replace the traditional procedure of changing out complete straightener sets when the process material dimensions or the straightening range is modified. The double straightener is notable for its two different straightening ranges, each of which is integrated in a precision main body with all its mechanical elements. The roll diameter and spacing have been optimized for each of the two straightening

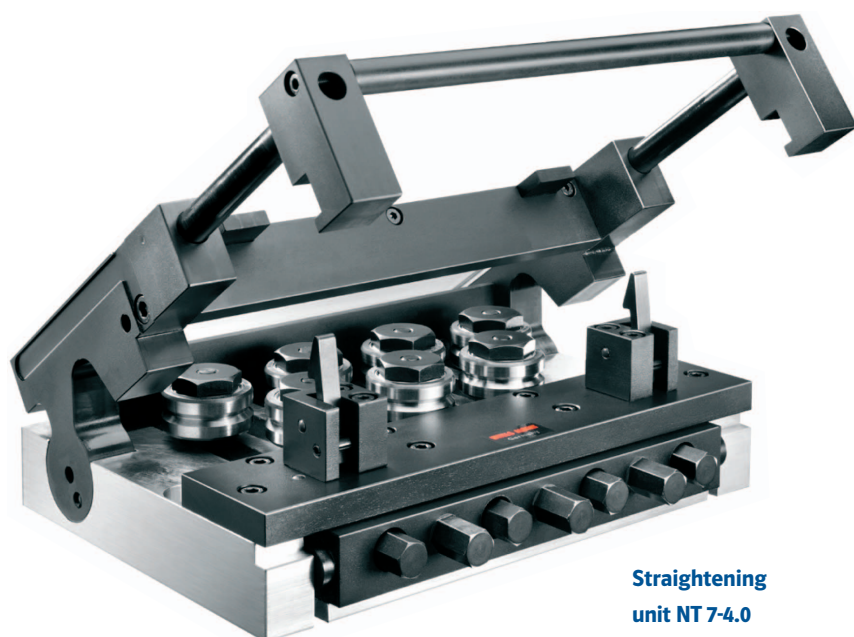


**The straightening unit ERS 5-15.0 HL PO was especially developed for high-strength materials.**

ranges, making it possible for example, to process wire diameters from 2.0mm to 5.0mm on one side of the straightener, and from 5.0mm to 8.0mm on the other side. To switch from one straightening range to the other the straightener is unlocked, rotated 180° and locked again. All rolls can be positioned through the use of the 2<sup>nd</sup> generation Computerized Tool CT 3. Each straightening roll on the DRS CT is assigned a data storage medium that supplies all the data required to position the roll and is also able to store changed data permanently. ■

### Witels Apparate-Maschinen Albert GmbH

Malteserstrasse 151-159  
12277 Berlin/Germany  
Tel.: +49 30 723988-0  
Fax: +49 30 723988-88  
info@witels-albert.de  
www.witels-albert.de



**Straightening unit NT 7-4.0**