

Passion for wire

It is this process material that has fascinated and motivated Witels-Albert GmbH from Berlin for more than seven decades to design components for its economical and sustainable production and processing. The spectrum of materials, cross-sections and dimensions, the variety of delivery conditions and the variety of finished products have formed a modular system with means of production for guiding, straightening and feeding which is popular with customers at home and abroad. The advantage of being able to use standardized products that ensure high flexibility with significantly reduced acquisition, installation and maintenance costs is appreciated.

In 1946, Witels-Albert began manufacturing small batches of straightening units at the Berlin plant, which was quickly followed by the production of large series. Over the years, further components such as roller guides, drive units and also complete straightening machines, which use the components from its own production, supplement the product range. The employees are constantly thinking about the processes of the wire industry and also the processes of the cable, rope, strip and tube industry are analyzed which expands the flow of new products to the worldwide market.

It is recognized early on that the defined and reproducible positioning of the tools of the components is of great importance. In addition to the defined manual adjustment of tools by means of mechanical position indicators, the defined electric motor-driven positioning of tools also plays an important role. Both methods reduce the time required for setting up the components by up to 75% and the yield factor is significantly increased.

Product development is accompanied by countless straightening experiments in the laboratory of the company and by trials in the wire industry. The measurement and automation technology is indispensable and the simulation age begins. More than two decades ago, a simulation program for the straightening process was presented, which calculates the setting data of straightening rollers in advance. The experts are thrilled that the methods for the defined roller setting can now be preceded by the virtual determination of the setting data under consideration of the straightening parameters. Up to now, the setting data has been set by trial and error under constant visual contact with the outgoing wire. The simulation of the straightening process is offered with the program "SimDATA", which is replaced by the Internet based service How2Straight.com. Setting data for roller straighteners are now simple, fast and usable worldwide.

Process simulation is a central component of the company's future. With the implementation of the patented method of inline wire diagnosis, the determination of changes in the geometric and mechanical properties of the process material wire over its length is defined as the target. From the knowledge of qualitative changes of wire parameters strategies for the active control of the straightening process and associated processes can be derived. In addition, the wire quality can be objectively assessed

by sellers and buyers of wire. From this a transparent value system for the process material wire is established for the first time. In addition to the quality of the process material wire, the focus is on quantity. In order to adapt to the increased wire drawing and wire spooling speeds, straightening rollers are developed

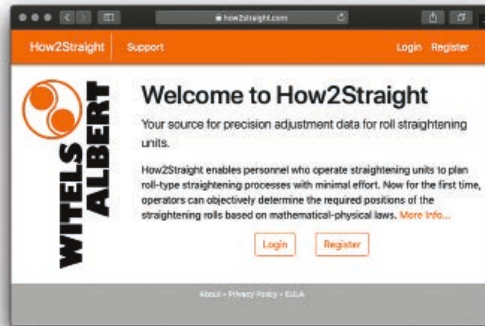
which withstand the highest wire speeds better due to specific bearing technology and the use of new materials.

Precision straighteners, double straighteners, heavy-duty straighteners and new feeding units supplement the modular system with production equipment that opens up new applications for customers in the field of precision straightening and straightening as well as the feeding of solid round wires and tubes up to 40mm in diameter.

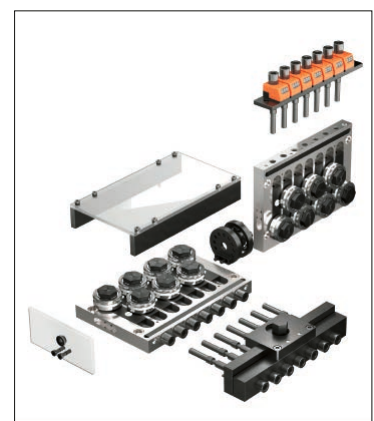
With the RT and RTS series straighteners, equipped with 5 or 7 individually adjustable straightening rollers, there are tools for straightening wire, tube, cable and rope that stand for agility over the life phases and combine previously incompatible technical features in the designs.

The idea of scalability of straighteners and straightening systems is new. The implementation of the concept stands for the effective use of resources, sustainability and flexibility.

With the revolutionary concept of designing and using straightening modules, the effects on saving resources, sustainability and flexibility are increased even more. Actively configurable designs for roller straighteners will be a fundamental component of the future for the manufacturer Witels-Albert and for customers. This new technical category will be presented in spring 2020 at "wire", the leading trade fair for the wire industry.



User interface of the service How2Straight.com.
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Straighteners RT and RTS series with accessories. © Witels-Albert

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