

**Maximum Flexibility - WAFIOS EcoBend Tube Bending Machines - The Market-Oriented Gateway to High-End WAFIOS Bending Technology**

Although the EcoBend series has been designed for only one bending direction, it comes with the possibility to subsequently retrofit a second bending direction at a later date (TopBend). Therefore, the EcoBend series represents a safe investment for the future. This is of particular importance for the production of larger quantities of parts with only one geometry, e.g. hydraulic pipes or parts for the furniture industry, which can also be produced on machines that feature only one bending direction. An initial investment in a fully equipped machine can quickly result in a loss of orders due to margin pressure. As of late, WAFIOS therefore offers an EcoBend series which provides an entry into high-end bending technology free of risks. The WAFIOS EcoBend series is a perfect production system with the familiar advantages of all WAFIOS machines and the control functions of premium-series machines. The second bending direction can be retrofitted at any time for future production projects with more complex geometries.

**WAFIOS EcoBend High-End Machine at an Entry-Level Price**

The EcoBend series represents a new WAFIOS concept for bending machines that can be upgraded to full-fledged right/left tube bending machines at a later date. Due to their proven machine rigidity and fully electric machine design, the EcoBend series features the precision and reliability that WAFIOS is famous for. A performance-optimized design and a systematic lightweight construction of the highly dynamic assemblies in combination with the unique bending kinematics, enable very high operating speeds for series production. Multiple axes are controlled in parallel to achieve an optimum cycle and bending time. The reliable programming system WPS 3.2 EasyWay unites simple geometry programming with intelligent software solutions. It accompanies a sample workpiece from its evaluation up to its final production.

**Flexible application possibilities due to extension of the processing length**

With the new, second tube stop at the end of the tube gripper, the processing length during manual loading can be extended by 1,300 mm. This guarantees an exact positioning of tubes even when loading long tubes manually. The EcoBend uses this larger work area by applying the so-called regrabbing function: the workpiece is held by the tool, the collet is opened, moves back and regrabs the tube further at the back. The second tube stop also makes the production process more reliable, especially when processing long tubes, as an oscillation of the tube is prevented.

**New, swiveling mandrel unit for bending tubes of infinite length**

The mandrel unit can be swiveled out to the side and thus allows the processing of tubes of infinite length without a mandrel. If it is retrofitted with a middle section, longer tubes can also be processed with a mandrel. This is of particular advantage when a quick change of workpiece geometries is required because set-up times are considerably shorter as the mandrel unit does not have to be dismantled. Access and set-up of the machine are also enhanced as the bending mandrel can be set up from the front as well as from the back side of the machine.

**Flexible customization options provide long-term investment security and cost benefits**

Due to the modular machine and tool concept, the machine can be easily adjusted to customer requirements. The EcoBend series comprises three sizes, from EcoBend 25 over 35 up to 42. For the first time, there is an intermediate size available between the machine sizes 25 and 42 of the familiar RBV series in order to

cover the required operating range as best as possible. In the design of the standard machine, WAFIOS engineers have focused on the main bending options.

The fully integrated loading concept with a multitude of loading options, like a high-angle conveyor, a tube loader and a loading unit, enable the efficient feeding in of raw material and reduce unit costs. With the camera system that has been installed on the magazine, markings, laser cut-outs and the alignment of attachment parts can be checked almost within cycle time.

The WAFIOS EcoBend series provides the manufacturing industry with high-end tube bending machines that are particularly suited as entry-level machines for the bending of tubes. Innovative developments, like the extension of the work range or the swiveling mandrel unit as well as the modular, retrofittable machine body enable a project-specific investment while maintaining full flexibility for many other applications. If required, the machine can be retrofitted with many options for other applications. Even a second bending direction can be added which turns the machine into a TopBend machine.

**Save the date: WAFIOS Innovation Days in Reutlingen on May 3 - 7, 2021!**



Fig. 1 WAFIOS TopBend 35



Fig. 2 WAFIOS TopBend 35 Bending head



Fig. 3 WAFIOS TopBend Mandrel unit

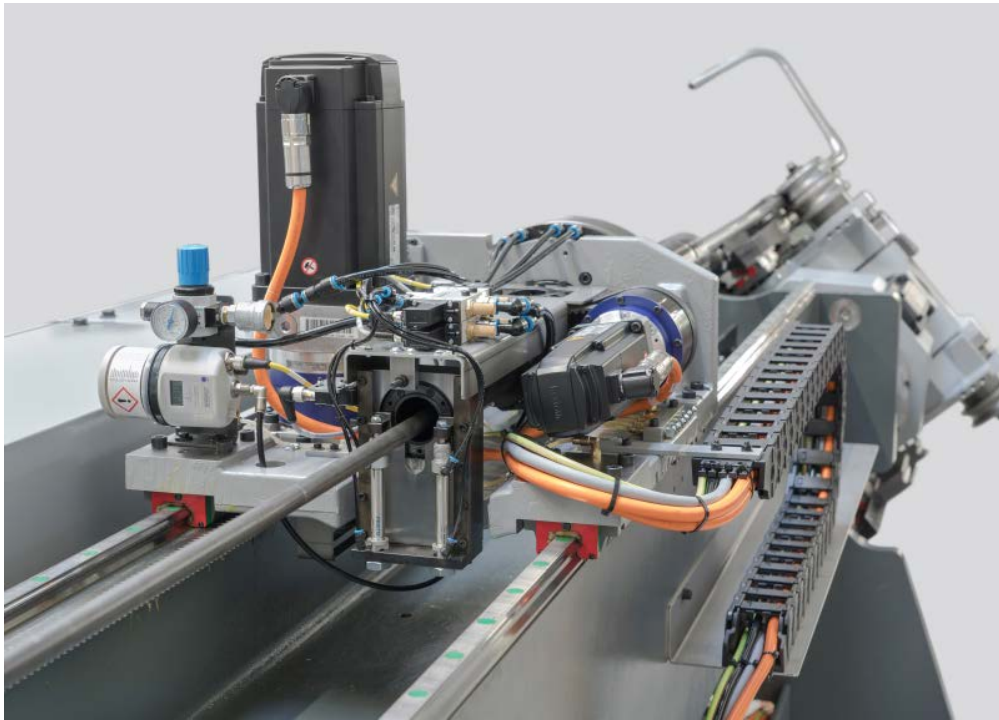


Fig. 4 WAFIOS TopBend Retractable tube stop