Ultimate Power Package for Stabilizer Bar Production – WAFIOS RBV 60 HD

The development of the RBV 60 HD CNC tube bending machine at WAFIOS in Reutlingen was the logical consequence of various customer requests to bend stabilizer bars, e.g. for small trucks, which could no longer be bent on the RBV-series machines available up until now.

The result is a machine which is unparalleled in its operating range on the global market. What's more, this version is currently the only left/right bending machine for stabilizer bars available worldwide. At first glance, it is clear from the appearance of the base unit and housing that this is a descendent of the RBV series from WAFIOS. When they cast eyes over the powerful bending head, even those not in the know can tell that this is a power package at work. What's more, it has been provided with all the characteristics that have made the RBV series a top seller in the past few years. Unprecedented relevant nominal and operating forces make the RBV 60 HD unique and unrivaled in the stabilizer bar sector for solid and tube material and at high tensile strengths.

As a bending machine designed for stabilizer bars made of solid material or high-strength, thick-walled tubes up to Ø 43 mm, the RBV 60 HD sets the technical benchmark in its operating range. The exceptional rigidity of the machine body and the bending head ensures the highest levels of precision and repeat accuracy. The operating speed of the bending machine in this “weight category” sets new standards at which even smaller machines fall down. The 2.4-ton bending head's left/right changing sequence is impressive – it appears almost playfully, smoothly, and seamlessly.

This was possible by transmitting power via sets of gear wheels instead of belts. To meet the increased power requirement, the counter holding and clamping forces of the clamping piece have been doubled by a reinforced housing, stronger drive spindles as well as a double-mounted follow bar and the bending forces have even been tripled in comparison with those of its little brother, the RBV 60 ST. Rigidity, precision, repeat accuracy, and the output rate ensure a high level of added value and that your investment remains safe.

The new Easyway 3.2 WAFIOS Programming System has been installed with unique functions established especially for the manufacture and production of bent parts. As well as the newly designed user interface, the 24” multi-touch screen includes program-specific push functions, such as the start and stop buttons. The control center is rounded off by the new ergonomic and user-friendly hand-held operating device with integrated color touchscreen for selecting all functions in set-up operation. You have the option of equipping the RBV 60 HD with ***iQ*** functions for process optimization.

iQtube®: Contrary to many tube bending machines on the market, the RBV 60 HD has a simulation program integrated in the control system. The bending sequence is always displayed by means of the current part geometries in connection with the tool structure used. Any possible collision areas and the theoretical production time are calculated and a visualization of the bending process is rendered. Thus alternatives

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can be selected in the simulation in case of collisions. The search for a bending sequence free from collisions is facilitated and shortened. Moreover, the machine can observe and simulate the overbending process, regardless of the material characteristics. The advantages are clear: fewer rejects when setting up the machine, simplified and automated set-up – even for inexperienced users, feasibility simulation before the bending process, early detection of collisions before the bending process, calculation of the theoretically possible cycle time before the bending process, and a reduction in the number of prototype tools.

***iQ**cockpit*: The production data of your machinery can be displayed on your PC or smartphone no matter where you are. The status of the machine, the currently produced workpiece as well as the quantity is displayed via W-LAN or UMTS and is compared with the target value. The display shows an overview about the current machine data and enables you to respond quickly to capacity constraints or productivity losses.

***iQ**torque* for tube bending machines detects work piece as well as potential tool breakages and stops the machine automatically, either immediately or at the end of a cycle, depending on the settings used. Possible damages to machine and tools are prevented. Changes in the bending process – like variations in the material quality of the work pieces – that affect the quality of the bend, can be identified by an envelope curve and trend monitoring system of the motor torque of individual machine axes.

The proven WAFIOS safety system with space-saving housing has also been integrated in conjunction with surface laser scanners. This means that protective fences, which make it difficult to access the machines for maintenance and conversion work, no longer need to be installed, saving both money and space. However, at the same time, the RBV 60 HD can, of course, also be integrated into a fully automated cell with protective fences. The lack of housing creates a greater degree of freedom for improved and efficient loading and unloading.
In a cell, loading can occur behind the bending head in order to save the time required for positioning the infeed and so that the space in front of the bending head is not obstructed. The loading height has been intentionally chosen to be as low as possible as heavy rods / tubes are also loaded manually!

The RBV 60 HD is designed for use in the manufacture of stabilizer bars in the uppermost range, e.g., for SUVs or vans. The power package is also ideal for bending thick-walled, high-strength tubes which are used for interior safety features (roll bars, A-pillars, etc.).

In a nutshell, the WAFIOS RBV 60 HD stabilizer bar bending machine boasts a high level of added value thanks to its sophisticated, precise technology; diverse application possibilities with a high degree of automation; and high output rates with exceptional process reliability.

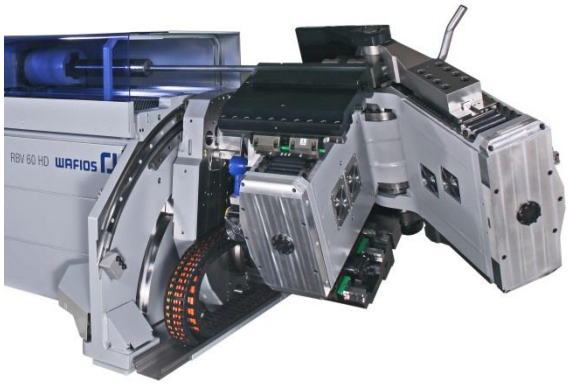

Fig. 1: RBV 60 HD bending head

Fig. 2: RBV 60 HD Easyway

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