



The NCA 6K slide unit



Otto Bihler Maschinenfabrik's most recent slide unit, the NCA 6K, excels through its compact design coupled with the high bending forces it achieves. The unit also possesses a number of other innovative highlights such as circulating oil lubrication, optimized sealing systems and new data storage and network functions.

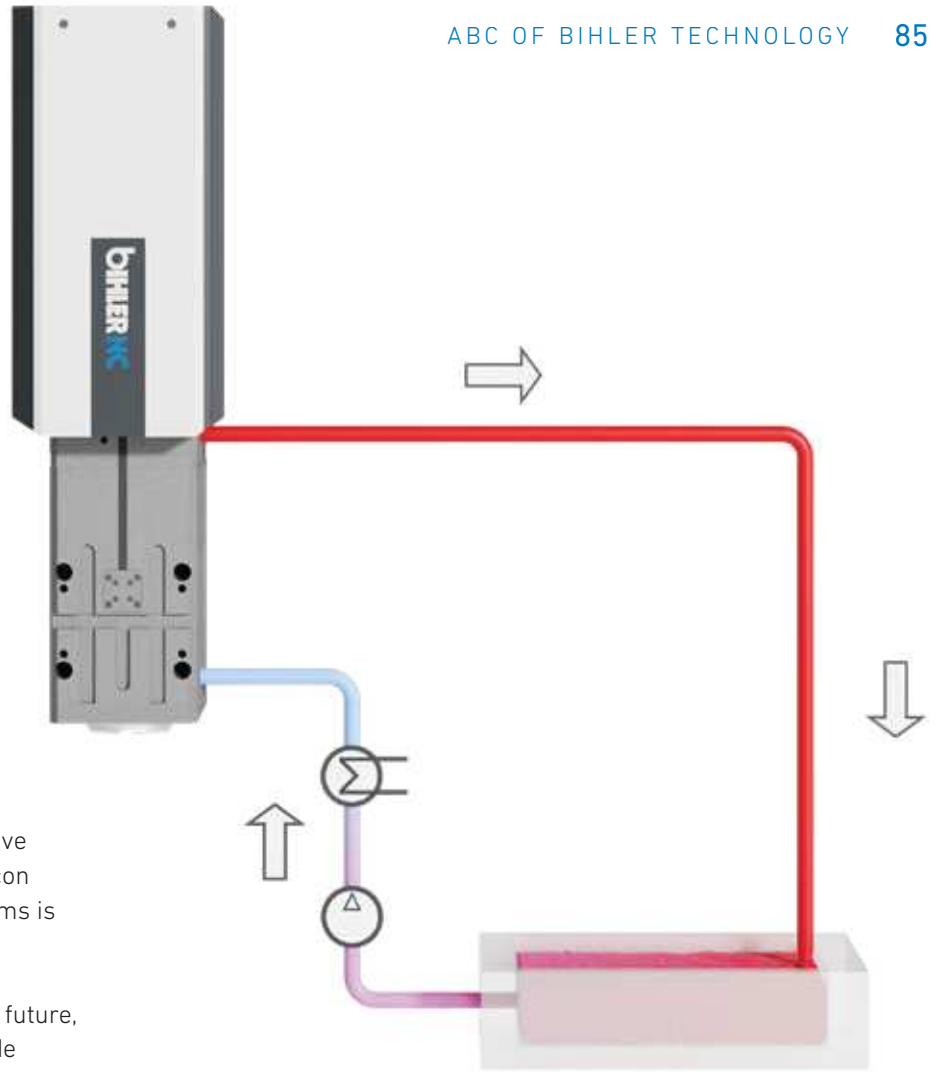
The NCA 6K, which is available with immediate effect, is the latest servo slide unit from Otto Bihler Maschinenfabrik. At only 876.5 mm in length, the component is particularly compact. As a result, it can be mounted on machines such as the Bihler BIMERIC without difficulty.

The unit's small size was made possible by an adaptation to the drive system. Thus, the rear motor only turns the spindle nut, causing the spindle to start up without rotation. Another new development consisted in moving the radial axle bearing to the motor, where specially reinforced motor bearings absorb all the bearing forces. The NCA 6K achieves its high dynamic performance thanks to the low moment of inertia, which has been reduced to a minimum by means of simulations. Despite its compact design, the NCA 6K makes no concessions when it comes to bending strength, with the two different variants of the unit achieving peak forces of 67 and 89 kN, respectively. With this performance, it is situated between the NCA 5 with 47 kN and the NCA 7 with 200 kN peak force – and therefore possesses the ideal power level for bending, punching and stamping.

Sustainable and robust At the same time, great care was taken during development to keep the NCA 6K's environmental footprint to an absolute minimum. That is why the unit implements a circulating oil lubrication system. This ensures that the oil is pumped in a circuit and that there is no wastage or loss of oil. The NCA 6K's encoder system has also been redesigned to make it particularly robust. This effectively resists the high vibrations and oscillations that occur during stamping, in particular.

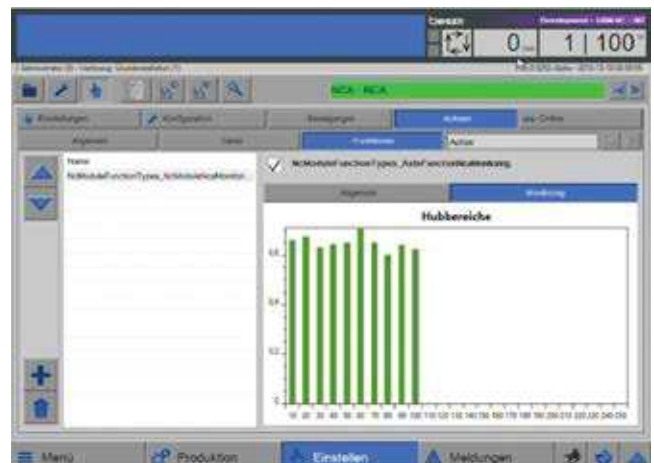
Newly developed seals Another innovative highlight can be found in the NCA 6K's sealing system. This makes use of scraper seals developed inhouse by Otto Bihler Maschinenfabrik. These ensure that the sleeve, i.e. the unit's piston, is reliably and permanently sealed as it travels in and out.

Closed system:
New circulating oil lubrication solution with no loss or oil waste.



The NCA 6K's linear position measurement system has also been further optimized. Here, an O-ring has been integrated as a seal in the measuring head. This easy-to-fit component provides the system with effective protection against outside dirt and dust. A silicon seal of the sort generally used in earlier systems is therefore no longer necessary.

With data and network function In the future, the NCA 6K unit will also be extended to include further features such as runtime data storage. This is an integrated memory function which stores a comprehensive set of data, such as distance traveled, number of strokes, machine revolutions and work performed. This data is permanently stored in the axis and therefore continues to be available even after the unit has been removed from the machine. In the future, the NCA 6K will also be equipped with a hardware identification function. As a result, the VC 1 controller will be able to automatically identify whether an NCA 6K has been mounted on the machine and set the corresponding control parameters accordingly. In this way, it will be possible to take the NCA 6K into service extremely simply via plug and play for the first time. ●



All the data, such as distance traveled, number of strokes, machine revolutions and work performed, is recorded in the integrated runtime data store.



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