



Fig. 1 - CNC press brakes

Electrohydraulics for bending presses compact solutions for accurate synchronization

Atos standard blocks for **Torque bar** and **CNC press brake** have been developed in cooperation with leading OEMs to obtain high performances in a compact solution for modern bending presses (Fig. 1).

They range from NG06 up to NG16, coupled with NG 25 up to NG63 prefilling blocks, and are available in both CE or not CE certified design for the automation of a wide range of presses: from 400 kN up to 15.000 kN capacity.

Optional crowning function ensures a constant bending angle over the entire bending length by compensating the pressure bar deformation.

- **Central blocks** (Fig. 2) for small presses have really compact design and integrate the size 06 proportionals for the synchronization and pressure controls of the beam
- **Modular design** blocks for middle and big sizes presses (3.000 ÷ 15.000 kN), permit their mounting on top of the prefilling blocks (Fig. 3A) or everywhere on the press' oil tank (Fig. 3B).

Both size 06 or 10 blocks can be equipped with:

- Open loop proportional valves** performing fine spool control for optimal movements and accurate positioning. They can be driven by modern CNCs to guarantee the required price effectiveness. Specific spools cut are tailored to the application with linear regulation near the zero flow, for fine beam control in the bending phase, and then progressive regulation to obtain higher speed (bigger flow) in up & down stroking phases
- Digital **servoproportional valves** with on board spool position transducer and electronics allow to obtain superior performances, outstanding positioning and repeatability. The intrinsic fail safe spool position comply with the CE safety norms.

Atos standard solutions for **torque bar press brakes** consist of size 10 and 16 directional control block coupled with a pressure control block suitable for presses from 400 kN up to 10.000 kN, integrating both the direction and pressure controls.

All Atos standard blocks, as well as the relevant safety valves, are TÜV certified according to the European Machine Directives and relevant Harmonized Standards.

More than 15 years experience and thousands successful worldwide applications lead Atos solutions at the top of the market for speed performances, beam positioning and bending accuracy.

For further information look at www.atos.com

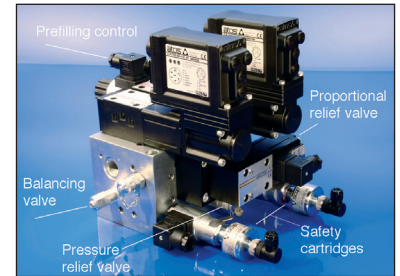


Fig. 2 - Central synchro block

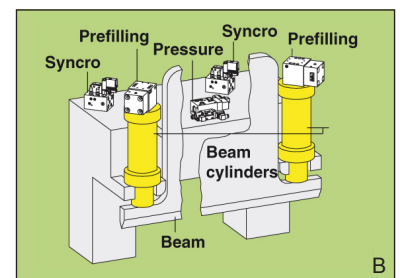
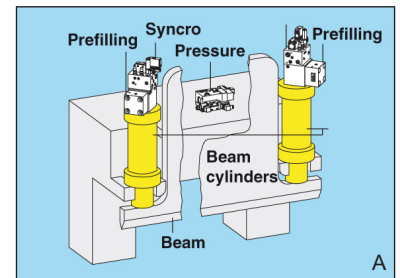
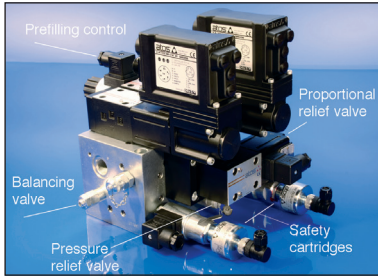


Fig. 3 - Modular synchro blocks



Central synchro block

Electrohydraulics for bending presses

Modern torque bar and CNC press brakes perform accurate beam synchronization fully actuated and controlled by Atos standard electrohydraulic solutions, developed in cooperation with leading OEMs.

CNC press brakes solutions are designed in 2 basic models:

- Central blocks for small presses (up to 3.000 kN) with size 6 proportional valves for synchro and force control
- Modular blocks for 3.000÷15.000 kN presses with size 10 proportional valves
- NG 25 up to NG63 pre-filling blocks
- optional crowning function to compensate the bar deformation during the bending

Proportional controls may be open or closed loop type, for superior performances digital servoproportionals are available.

Atos standard solutions for torque bar presses up to 10.000 kN, consist of size 10 and 16 blocks with integral pressure control

Standard blocks may be supplied with or without CE safety design and relevant TÜV certification.

For further information look at www.atos.com