



SERVO PRESSES

The scalable drive solution from Baumüller
Engineering | Hardware | Software

Our system solution includes the complete main drive system with high-torque motors and servo converters, including control cabinet construction and control technology with hardware and software.

SERVO PRESSES

Innovative drive solutions for your servo press

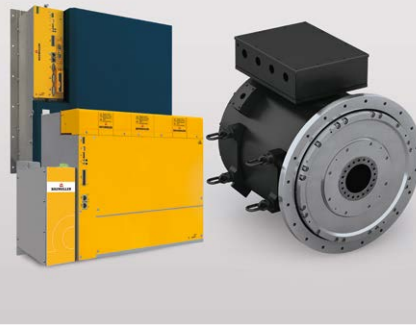


ENGINEERING



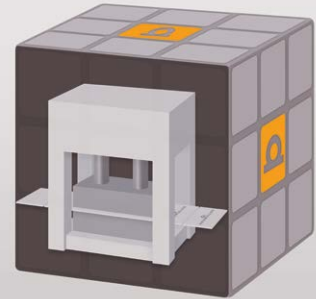
- ✓ Dimensioning
- ✓ Simulation
- ✓ Commissioning

HARDWARE



- ✓ High-torque motors
- ✓ System inverters
- ✓ Power modules
- ✓ PLC control
- ✓ Control cabinets

SOFTWARE



- ✓ Movement profiles
- ✓ Load distribution/synchronization
- ✓ Control interface
- ✓ Setup functions
- ✓ HMI

Compared with conventional hydraulic or mechanical presses, servo eccentric presses provide considerable advantages, such as increased productivity and higher product quality. Furthermore, they offer the user enormous additional flexibility. Equipped with efficient direct drives and the appropriate controls, the processes of servo presses can be optimized with regard to the cycle time, tool wear, energy consumption and environmental compatibility.

With its components and services, Baumüller offers the largest scope of solutions for servo press drive systems. As a drive and automation manufacturer, we have many years of experience in equipping servo presses and, as a full-range supplier, we are at your side from the planning through to commissioning and service.

Baumüller provides the perfect drive solution for your servo eccentric press

We support you with the engineering and will implement the drive, machine control and software for you, completely and entirely according to your wishes. Baumüller also offers optional long-term life cycle management for your presse that is individually tailored to your needs and those of your customers. On request, we will also support you with the installation and commissioning of your system anywhere in the world.



Precisely tailored to our customers: From the motor to the complete drive system

Baumüller offers the exact service you require - from individual motors and components to comprehensive drive systems with control technology. We always support your precise needs. Baumüller is a partner for machine manufacturers and a supplier of complete systems.



NEW MACHINES / RETROFIT
from the motor to the
overall system



PRESS SIZES
< 100 t - 3000 t



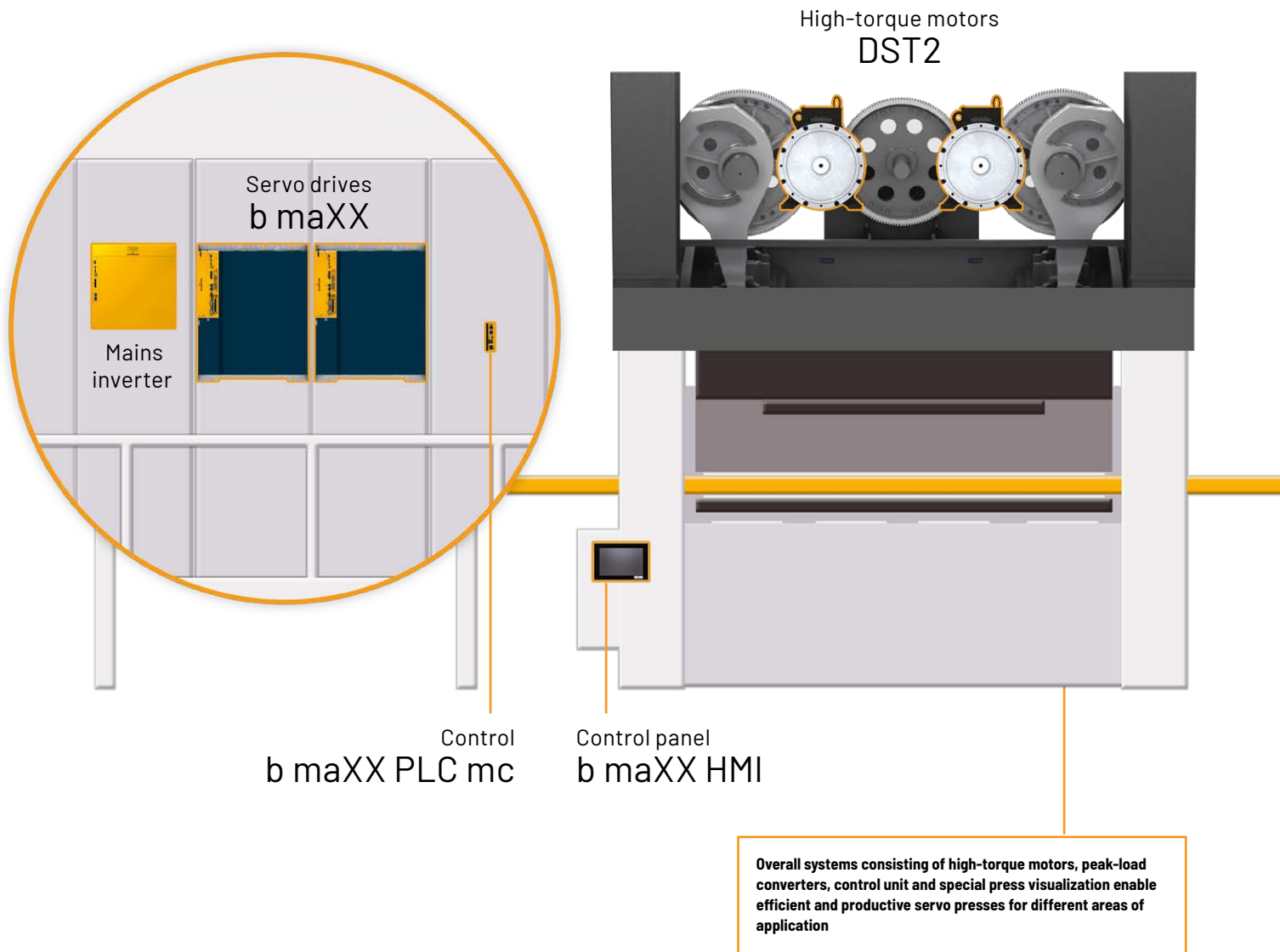
PRESS TYPE
Eccentric presses



LIFE CYCLE MANAGEMENT
for system optimization

Complete drive system solution – Scalable technology from Baumüller

Our system solution includes the complete main drive system with high-torque motors, servo converters and system inverters, including control cabinet construction as well as the control technology with hardware and an extensive complete software package specially for servo presses. The drive unit is configured individually depending on the required power.



The drive system is linked to a higher-level control system via a predefined interface and is vendor-neutral. Our DST2 series high-torque motors achieve very high maximum torques, in order to provide the necessary power for the forming process. The motors can be perfectly adapted to the press's requirements thanks to different shaft and flange options. We also enable the press power to be divided between multiple motors connected via a master-slave coupling.

b maXX servo drives – Unmatched dynamic and compact

With the b maXX converter family, Baumüller offers suitable servo drives for high power classes. The servo drives impress with their compact installation dimensions and offer a broad and scalable selection of optional safety functions. The devices also have the option of energy recovery. The connected system load can be reduced by intelligent energy management and the use of capacitors as energy stores, which in turn saves energy and costs.

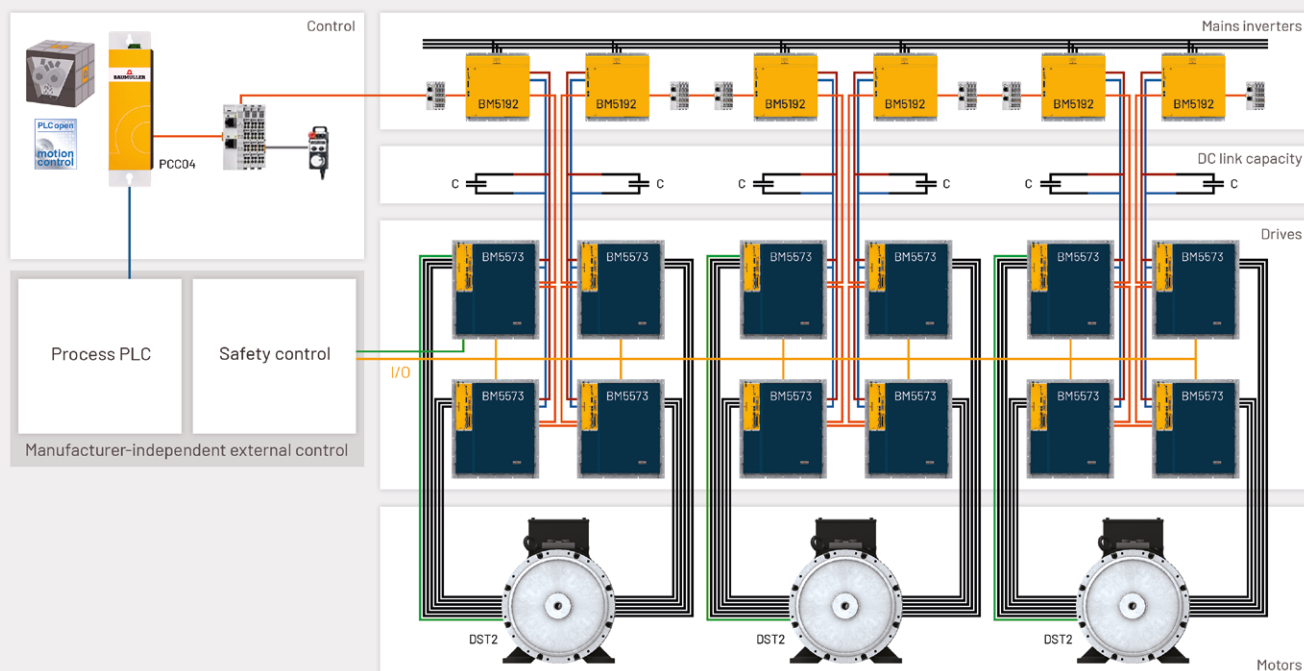


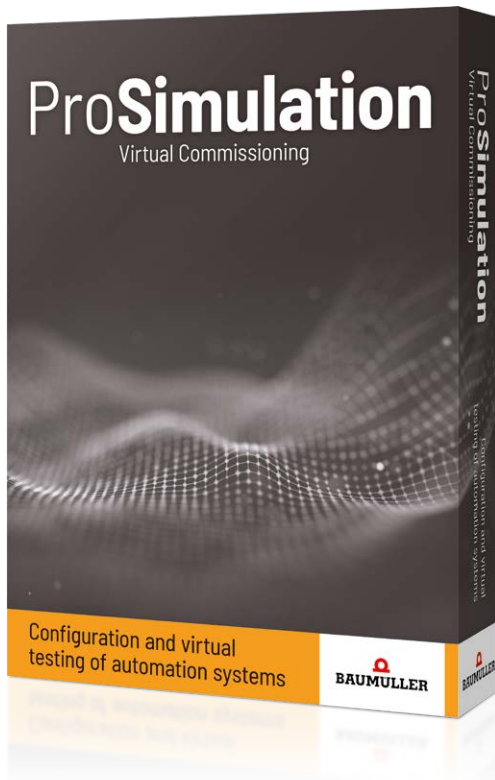
Standard and special control cabinets

For many years, we have been implementing custom solutions for renowned machine and plant manufacturers - from the standard control cabinet through to the completely wired special control cabinet. You receive everything from us, a single source that can therefore deal optimally with your needs and wishes.

**Planning – design – sheet metal production –
serial production – assembly – installation**

Example of a servo press drive system (3,000 t)





Drive design with ProSimulation

The digital twin offers many advantages, especially during the engineering phase: The development time is shortened, and the machine can therefore be placed on the market as quickly as possible and functionally reliable.

ProSimulation offers numerous advantages, particularly for complex applications such as servo eccentric presses: It enables the selection of an efficient and resource-saving drive package. For example, the whole drive topology can be mapped in the software. This consists of the nonlinear transfer ratio of the eccentric mechanics, gearing, high-torque motors, servo drive technology and energy store in conjunction with dynamic movement and force profiles. The simulation creates transparency in the power and energy profiles and describes charging and discharging processes in detail.

Complete software package for controlling servo presses

You save time and money with our complete software package, since all the basic functions of a servo press are available to you. They include, for example, the creation of movement profiles, energy management and a predefined interface with a higher-level process control. A standardized interface can be used to quickly and easily expand to include a customer-specific special function.

With the intelligent curve generator, the user can either freely enter their press profile or use various predefined curves. In case of manual input, the customer can choose whether to enter the data points linearly (ram) or as an angle (crank shaft).

To achieve a highly flexible movement sequence, profiles with up to 20 interpolation points (data points) can be designed. Further, not only standard curves, but also the user's own curves (recipes) can be loaded and further processed. In addition to the conventional curve input (full stroke), the customer can also operate the press in the pendulum stroke for higher numbers of cycles.



Our solution – your benefits

Efficient operation

- ✓ Simulation of the entire system for an efficient dimensioning of the drive
- ✓ Intelligent energy management
- ✓ Comprehensive diagnostic options
- ✓ Cost-optimized operation and maintenance concepts

Easy commissioning

- ✓ Free generation of the traversing profile directly on the PCC
- ✓ Ready-made templates for machine functions
- ✓ Installation and commissioning worldwide
- ✓ Immediately usable PLC template and visualization

Easy to use

- ✓ Intuitive user handling – time-saving programming
- ✓ Web-based entry for maintenance and diagnostics
- ✓ Access via mobile devices
- ✓ Easy curve generation with predefined curves and free movement profiles

Individually matched

- ✓ Scalable and intelligent drives acc. to requirements
- ✓ Modular structure of the single components or a complete solution including commissioning
- ✓ Lifecycle support: Maintenance concept, remote access
- ✓ Easy integration into existing systems

Your path to a qualified quote

You would like a no-obligation consultation or quote? Then contact our experts.

We discuss the relevant technical details with you and together we define the requirements. Only then do we undertake the qualified design of the complete drive system. After checking the specifications, you receive a qualified quote from us.

Close coordination with customers



Interested in our system?

Scan the QR code and contact us now.
<https://www.baumueller.com/en/contact>

HOUSE OF AUTOMATION



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