



# SHREDDERS

The scalable drive solution from Baumüller  
Engineering | Hardware | Software

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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.

# SHREDDERS

Innovative drive solutions for shredders



## ENGINEERING



- ✓ Dimensioning
- ✓ Commissioning

## HARDWARE



- ✓ High-torque motors
- ✓ Servo drives
- ✓ PLC control unit
- ✓ Control cabinets

## SOFTWARE



- ✓ Load distribution/synchronization
- ✓ Block monitoring
- ✓ Commissioning mode
- ✓ Control interface
- ✓ Improved diagnostic possibilities (HMI)

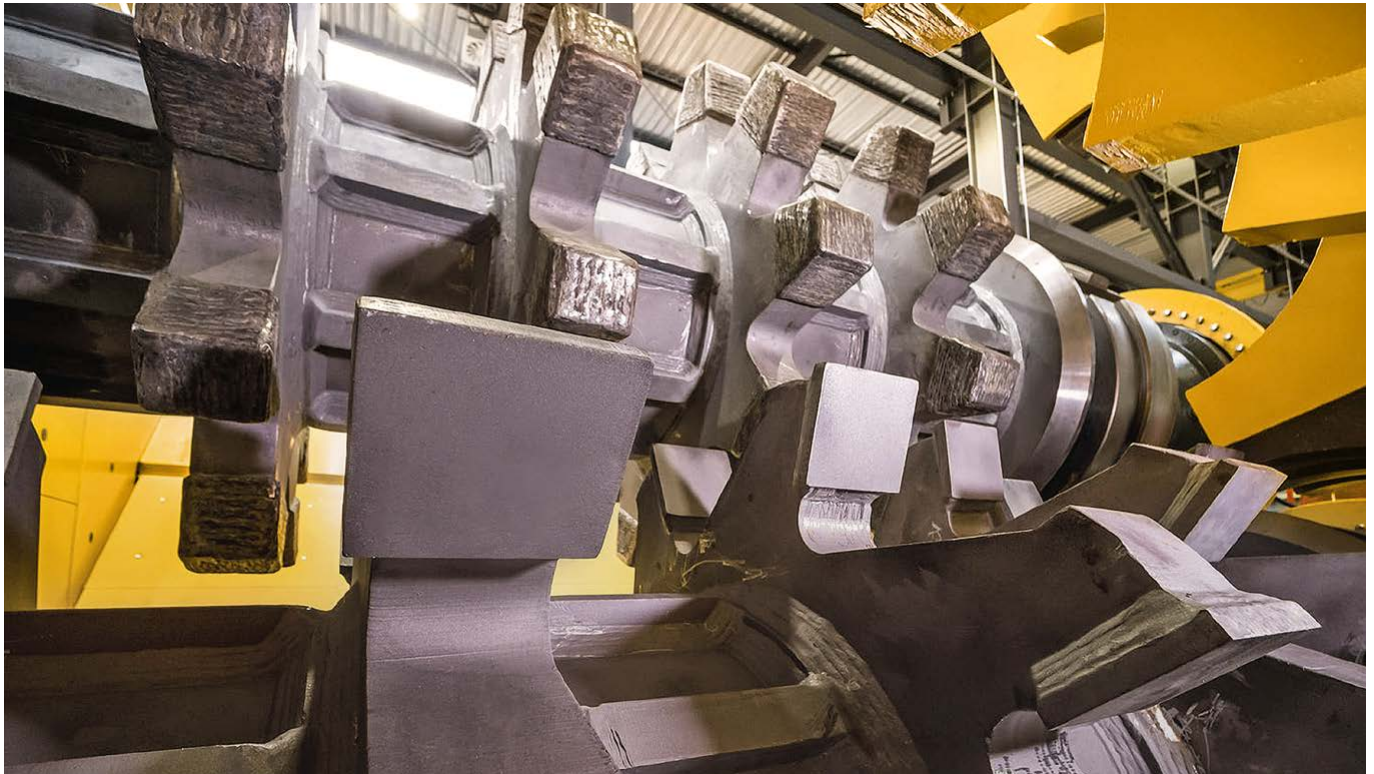
The most important criteria for recycling machines are high machine availability and high throughput with the lowest possible energy consumption. Baumüller has already implemented various drive solutions of single shaft and twin shaft shredders with or without feeding. As a specialist for electric drives with high performance, Baumüller offers high-torque electric drives that enable a reduction in the energy consumption of the shredders by up to 30 percent.

With its components and services, Baumüller offers the largest scope of systems for shredder drives.

As a drive and automation manufacturer, we have many years of experience in equipping shredders and, as a full-range supplier, we are at your side from the planning through to commissioning and service.

## Baumüller offers you the perfect drive solution for your shredder

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 the shredder's drive 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 high-torque motor to the complete drive system

As a partner, Baumüller supports the implementation of your individual solutions with its know-how in drive concepts and automation. 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**  
from the motor to the  
overall system



**POWER RANGES**  
individual  
upon request



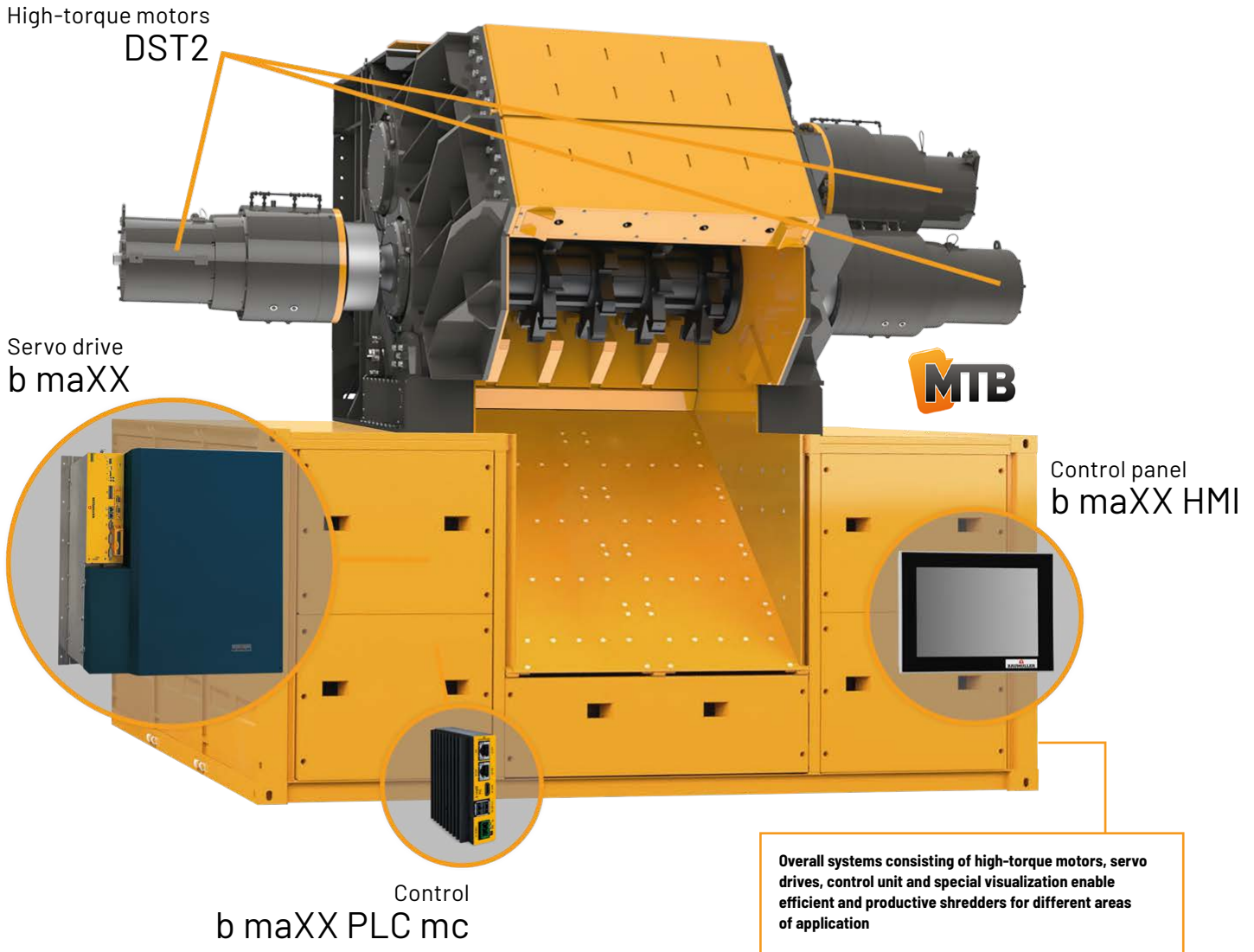
**TYPES**  
Single and multi-shaft  
shredders



**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, including control cabinet construction, as well as the control technology with hardware and an extensive complete software package specially for shredding plants. The drive unit is configured individually depending on the required power.



Depending on the gear ratio, motors with very high maximum torques are required to provide the high power needed for shredding processes. This is why Baumüller DST2 series high-torque motors are predestined for this application. The motors can be perfectly adapted to the shredder's requirements thanks to different shaft and flange options. Depending on the power requirements, the shredder shafts are each driven by one or two motors.

## 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.



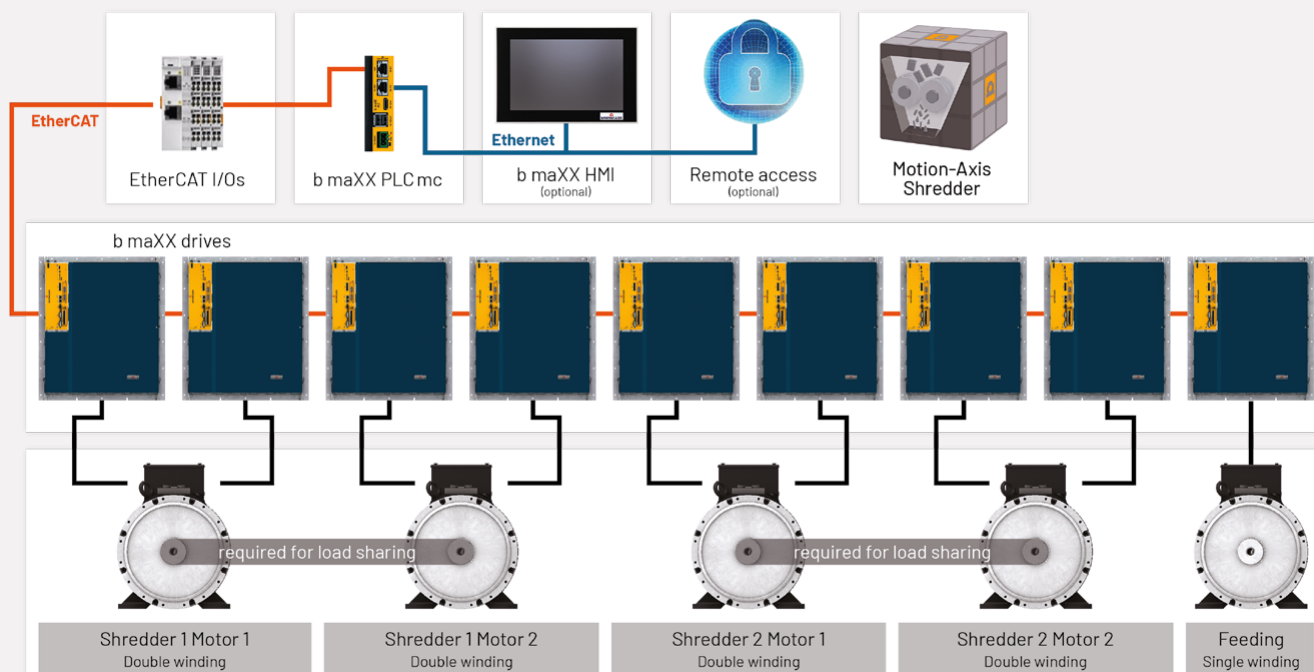
## Standard control cabinets through to completely wired special control cabinet

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 shredder drive system with two shredding units, each with two double-winding motors and one motor for the feed



# Everything from a single source – A complete package, tailored to your needs

## Baumüller offers you the perfect drive solution for your shredder

Baumüller can also supply the right drive system for large shredding systems, such as car shredders. Thanks to the modular b maXX 5500 drive electronics, with the help of multiple-winding systems, even the large motors of the DST2 series can be used and combined to form multi-motor solutions.

Due to the modular use of components, this drive system kit enables us to realize a very wide range of shredders with minimum variance in the drive system. This very much simplifies the order process as well as warehousing/ replacement part stocks for the customer.

On the control level, Baumüller offers the b maXX PLC mc, a combination of industrial PC and classic PLC control unit.

## Software solutions for shredders

Save time and money with our complete software package. The software contains a large number of the required machine functions as well as motion modules for actuating the servo motors, templates for the machine visualization, and functions such as EtherCAT diagnosis, commissioning mode, load balancing, and water-cooling control.



## Template for Baumüller control unit and drives

### OEM interface for 3rd-party controls

- ✓ State control and setpoint speed for each crusher shaft
- ✓ Anybus gateway
- ✓ OPC-UA server

### Scalable configuration of the converter

- ✓ **Load distribution for mechanically coupled motors**
- ✓ Multi-winding or single winding motors can be used
- ✓ Master-slave combination through cross-communication

### Additional functions

- ✓ **Block monitoring for each crusher shaft**
- ✓ Commissioning mode
- ✓ Ethercat diagnosis for monitoring the fieldbus
- ✓ Single or multi-step mode

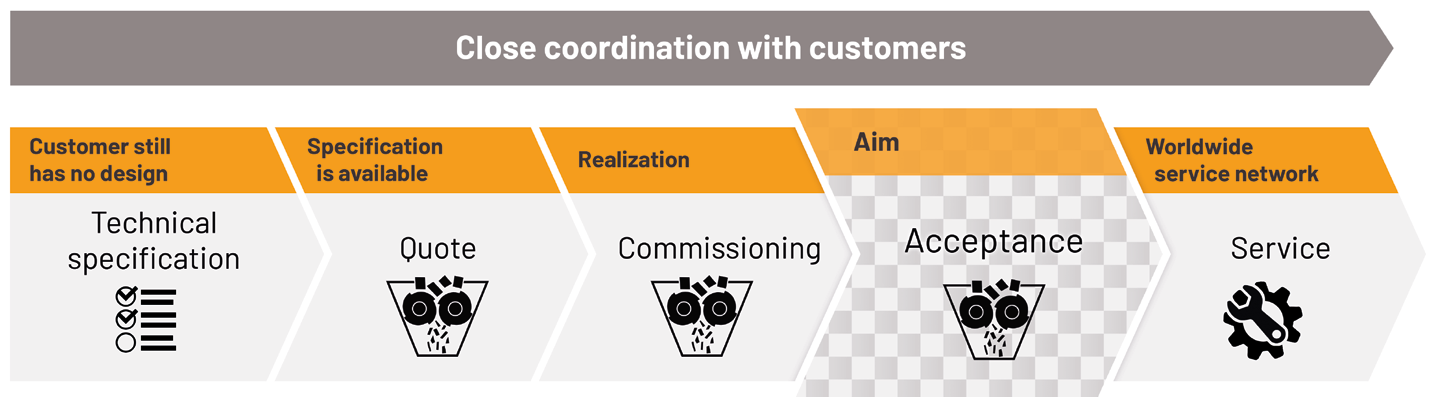
## Benefits for your machine concept

- ✓ Template is fully executable
- ✓ Installation package for easy commissioning of the control unit and converter
- ✓ Different shredder variants with one template
- ✓ Simple integration as a subsystem through prepared interface
- ✓ Activation of multiple-winding motors
- ✓ Operation of two coupled motors per crushing shaft is possible
- ✓ Fast block monitoring to protect the crushing shaft
- ✓ Enhanced diagnostic functionality included
- ✓ Less wiring work for multiple-winding motors

## Your path to a qualified quote

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

We discuss the relevant technical data 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.



Baumüller is your partner for the design and optimization of your drive system. As a non-group-affiliated, mid-sized company, we are able to respond to the wishes of our customers quickly and efficiently with innovative drive solutions. This makes us the perfect partner for challenging projects and future technologies.



### Interested in our system?

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

# HOUSE OF AUTOMATION

**ENABLING INDUSTRIE 4.0**

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Automation and Drive Systems

**NÜRMONT**  
Installation and Relocation

**BAUMULLER SERVICES**  
Intelligent Services

## Baumüller Nürnberg GmbH

Ostendstraße 80 - 90 · 90482 Nürnberg · Germany  
 Phone: +49 (0) 911 5432 - 0 · Fax: +49 (0) 911 5432 - 130  
[www.baumueller.com](http://www.baumueller.com)



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