

STÖBER Motion Control for precise multiaxis operation



The complete
controller-based
drive technology
for automation



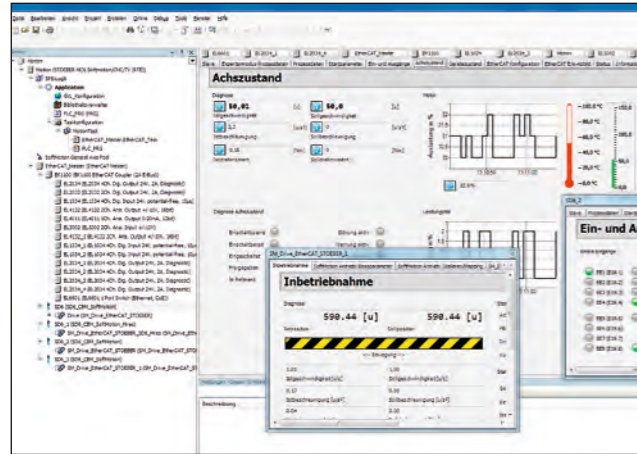
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Automation Control Suite AS6 The multi-axis engineering tool

MC6 motion controller cabinet PC version

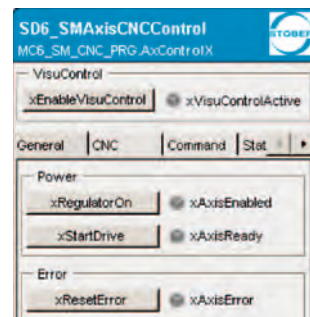
MC6 motion controller as panel PC with visualization

SD6 drive controller



Universal automation technology for the highest level of efficiency

- AS6 is the modern engineering tool with which the variety of STÖBER drive solutions can be seamlessly integrated in a global automation concept.
- AS6 is based on the latest version of CODESYS and is enhanced for typical STÖBER tools and the continually upgraded Drive & Motion library.
- AS6 increases the machine performance by approx. 25 % when compared with PLC solutions using powerful technology modules such as dynamic cam disks, dynamic CNC code interpreters and a variety of transformed axis geometries.
- AS6 significantly reduces engineering costs as a result of multi-function axis modules with an integrated quick start-up screen and direct axis optimization.
- AS6 combines the drive components into one drive system, makes use of the synergy and achieves the maximum performance from the hardware.



CNC and PLCopen® axis control with only one module

The control system for highly dynamic precision axes

The extremely compact and powerful Motion Controller MC6 is optimized for use with the sequence program that was created with the Automation Control Suite AS6 engineering tool based on CODESYS.

The technical features are impressive: With the efficient convection cooling, a fan is not required. A solid state drive (SSD) is used as the storage medium. With this hardware rotating parts are completely eliminated.

No data loss in the event of a 24 V power failure.

HMI panels from other manufacturers can be connected.

Simple DIN rail mounting.



Communication interfaces:

EtherCAT®, CANopen®, serial RS 232, TCP/IP, USB
Open for all other bus systems

Computing power:

Up to 10 axes with complex robotic functions (path control)

Up to 100 axes with cyclic cams and automatic functions to a certain extent

The complete solution for installation in a single item

In the touch screen panel PC version the controller is ideal for use as a master control but also as motion controller.

For applications with a parameterization requirement, the panel version is particularly suitable as a visual sensitive interface (touch screen) and represents a contemporary form of user-friendly interaction.



The large selection of ready-made visualization elements offers many advantages.

Complete graphical user screens can be reused as an individual visualization element.

Complex visualization elements can be instantiated through an interface for parameter transfer.

The integrated editor for text lists ensures the multilingualism of the visualization.

Access is possible via http to display with web visualization.

Specially for motion control solutions

With its 32-bit dual core processor, the SD6 drive controller is equipped for any motion precision requirements.

Position, speed and torque control of the servo axes are calculated at a cycle time of 62.5 µs (16 kHz).

This allows extremely high dynamics and precision of the drives due to very short settling times for fast reference value changes and step changes in load.

The speed feedback via EnDat® 2.2 encoder allows about 33 million motor positions per revolution to be determined.

The SD6 drive controller operating modes

Interpolated position mode (CANopen®) – the drive follows in position control

Cyclic synchronous position mode (EtherCAT®) – the drive follows in position control

Cyclic synchronous velocity mode (EtherCAT®) – the drive follows in speed control

Cyclic synchronous torque mode (EtherCAT®) – the drive follows in torque control

Jogging/STÖBER specific mode – control-independent travel of the drive – e.g. for set up functions and emergency mode

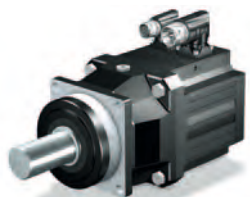
Homing mode – control-independent referencing by the drive – automatic calculation of the travel profiles

Synchronous servo geared motors for every need

Controller-based applications



SMS PE planetary geared motor



SMS P/PA planetary geared motor



SMS PH(A) planetary geared motor



SMS PY planetary geared motor with hollow shaft



SMS KL helical bevel geared motor

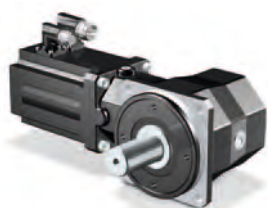
The fusion of drive control and drive engineering systems generates high optimization potential

With their wide selection of right angle and coaxial geared motors SMS synchronous servo geared motors offer the best choice for application-optimized servo axes.

With the directly flange mounted ED, EK and EZ series of synchronous servo motors, the SMS synchronous servo geared motors form a torsionally rigid and compact drive unit.

With the SMS PY planetary geared motor with hollow shaft (PipeDrive), an innovative drive system was created.

The last link in the chain of controller-based multiaxis operation is the professional design of each individual servo axis which is vitally important for functionality and efficiency.



SMS KS right angle servo geared motor

Motion control makes most things easier and many things possible

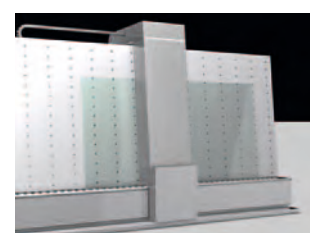
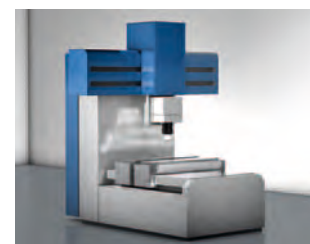
The centralization of all the control engineering drive functions in one program operation makes programming of several axes easier.

For complex interlocking functions with high positioning or setting accuracy requirements the use of one or more motion controllers is essential.

Plus the motion control architecture facilitates commissioning and any service required for malfunctions.

Examples of solutions for controller-based drive systems:

- Travel
- Conveyor
- Synchronized
- Hoist
- Coordinated
- Positioning
- Machine tool
- Winder



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+ 49 180 5 786323

(+ 49 180 5 STOEBER)

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www.stoeber.at

+43 7613 7600-0

sales@stoeber.at

STOBER CHINA

www.stoeber.cn

+86 10 6590 7391

sales@stoeber.cn

STOBER FRANCE

www.stober.fr

+33 4 78.98.91.80

sales@stober.fr

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www.stoeber.de

+49 7231 582-0

sales@stoeber.de

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sales@stober.it

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+81 3 5395 6788

sales@stober.co.jp

STOBER SOUTH EAST ASIA

www.stober.sg

+65 65112912

sales@stober.sg

STOBER SWITZERLAND

www.stoeber.ch

+41 56 496 96 50

sales@stoeber.ch

STOBER UNITED KINGDOM

www.stober.co.uk

+44 1543 458 858

sales@stober.co.uk

STOBER USA

www.stober.com

+1 606 759 5090

sales@stober.com



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