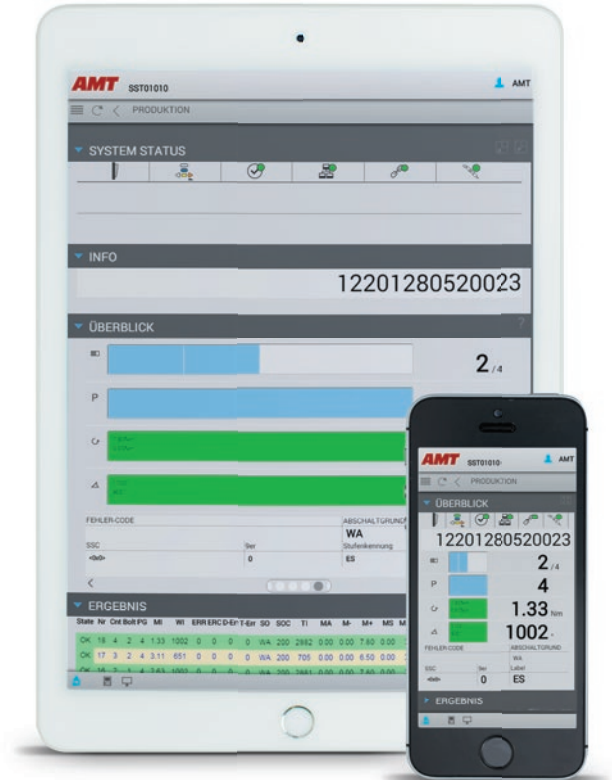# CONTROLS

A modular system architecture allows for individual solutions even for the most complex of demands. Five controllers are available for the realization of different customer requirements. The controls are designed for hand-held as well as for fixture spindles and multi-purpose nutrunners.

## SMX100, SMX200, SMX300, SMX400

While developing our newest generation of controls for HSX handheld tools and ESX fixture spindles, the AMT developers follows a new approach. Instead of simply further developing existing controls, completely new control software was developed based on a completely new hardware platform. The following development goals were in focus:

- Use of a new, powerful hardware platform
- Direct communication of the control with mobile devices such as smartphones and tablets
- Simple operation of the control software
- Energy efficiency, this means clear savings in energy compared to the previous systems

SMX100

SMX200

SMX300

## SMX100, SMX200, SMX300, SMX400

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## Scalable hardware

Due to the plug-in modules which can be plugged in from outside, controls can easily be arranged around interfaces, e.g. for various field bus systems. If this is used consistently, there is a reduction in the control variants and thus the number of spare parts.

## Exchangeable storage medium

When replacing a controller, it is sufficient to transfer the Micro SD card to the new controller. The new control system thus automatically has the correct software status and the correct parameters. A software update or a parameter restore is not necessary.

## Simple operation – new programming tools

A multitude of development and design work was placed in the new operating interfaces - for the easiest possible handling. It is characteristic for the three newly designed programming tools:

The Library contains variety of premade algorithm programs from which the user can select the suitable program and use without further settings. New programs are created with the help of an Assistant. In just a few steps, the assistant guides the user through the program creation.
The fastening program is then automatically created and set. The graphic programming interface is ideal for very demanding tasks. Symbols are used here that the user drags to the desktop and puts together into a fastening process. Even complex programs can be created in a very clear and comprehensible manner through this.

SMX400



SMXC

# CONTROL SMX100

The SMX100 is the base control of the SX-Series. It is a full-fledged single-channel controller with a variety of interfaces. The status visualization is carried out via a 7-segment display and four LEDs. The SMX100 has a high number of fastening and supervisory procedures as well as the possibility to control complex fastening sequences.
The SMX100 is used wherever no visualization is required on the control. In multichannel systems, the SMX100 works as a secondary controller under a master control (SMX300/SMX400).

| Ident-no. | Type description |
|-----------|------------------|
| 70085290  | SMX100-40-0001-A |
| 70085310  | SMX100-60-0001-A |

**Single channel control**
7 segment display and LEDs

**Interfaces**
1 x   Ethernet
9 x   digital output
10 x  digital input
1 x   RS232/422/485 for Ident systems
2 x   USB Host for external equipment
Field bus interface (optional)
Integrated Safety

**Software**
Operating system, firmware and parameters on exchangeable MicroSD card

**Electrical Requirements**
SMX100/200/300/400 with 40 A
Peak Power, Single Phase

Rated Voltage:             230V AC +/-10 %
Rated Current (AMPS):  3A
Power Rating:              700 W

SMX100/200/300/400 with 60 A
Peak Power 3-Phase

Rated Voltage:             380 V AC bis 480 V AC +/-10 %
Rated Current (AMPS):  1.8 A
Power Rating:              1200 W

The rated power is in reference to the highest rated model above.

# CONTROL SMX200

The SMX200 has the same performance features such as the SMX100, but also has a 7 inch touch LCD display. The control can be parameterized completely on site via this display. The content of the production image can be configured specifically for each application. A variety of production widgets are available for this purpose.



| Ident-no. | Type description |
|---|---|
| 70085330 | SMX200-40-0101-A |
| 70085350 | SMX200-60-0101-A |

**Single channel control**
7'' Touch-LCD Display

**Interfaces**
1 x   Ethernet
9 x   digital output
10 x  digital input
1 x   RS232/422/485 for Ident systems
2 x   USB Host for external equipment
Field bus interface (optional)
Integrated Safety

**Software**
Operating system, firmware and parameters on exchangeable MicroSD card

**Electrical Requirements**
SMX100 / 200 / 300 / 400 with 40 A
Peak Power, Single Phase

Rated Voltage:            230V AC +/-10 %
Rated Current (AMPS):  3A
Power Rating:             700 W

SMX100 / 200 / 300 / 400 with 60 A
Peak Power 3-Phase

Rated Voltage:            380 V AC bis 480 V AC +/-10 %
Rated Current (AMPS):  1.8 A
Power Rating:             1200 W

The rated power is in reference to the highest rated model above.

# CONTROL SMX300

The SMX300 is a master control. The SMX300 takes over the control in multi-channel spindle systems of the first spindle channel as well as the synchronization of the Secondary Controller. Up to 98 SMX100 controllers can be connected to the SMX300. The SMX300 offers additional interfaces as the master control compared with the basic controlling. The status and value can be seen on the 6.5 inch touch LCD display, which also allows parameter adjustments.



| Ident-no. | Type description |
|---|---|
| 70085370 | SMX300-40-0401-A |
| 70085390 | SMX300-60-0401-A |

**Single channel control - master control**
6.5'' Touch-LCD Display
Integrated PC

**Interfaces**
2 x  Ethernet
9 x  digital output
10 x  digital input
4 x  RS232/422/485 for Ident systems
6 x  USB Host for external equipment
Field bus interface (optional)
Integrated Safety

**Software**
Operating system, firmware and parameters on exchangeable MicroSD card / CF-card

**Electrical Requirements**
SMX100 / 200 / 300 / 400 with 40 A Peak Power, Single Phase

Rated Voltage:             230V AC +/-10 %
Rated Current (AMPS):  3A
Power Rating:              700 W

SMX100 / 200 / 300 / 400 with 60 A Peak Power 3-Phase

Rated Voltage:             380 V AC bis 480 V AC +/-10 %
Rated Current (AMPS):  1.8 A
Power Rating:              1200 W

The rated power is in reference to the highest rated model above.

# CONTROL SMX400

The SMX400 has the same features as the SMX300, but has a 10.4 inch touch LCD display. Using this, the display can be parameterized completely on site via this display. The 10.4 inch touch LCD display allows for large-area display Production-related information.

### Electrical Requirements
SMX100 / 200 / 300 / 400 with 40 A Peak Power, Single Phase
Rated Voltage:              230V AC +/-10 %
Rated Current (AMPS):   3A
Power Rating:               700 W

SMX100 / 200 / 300 / 400 with 60 A Peak Power 3-Phase
Rated Voltage:              380 V AC bis 480 V AC +/-10 %
Rated Current (AMPS):   1.8 A
Power Rating:               1200 W

The rated power is in reference to the highest rated model above.

| Ident-no. | Type description |
|---|---|
| 70085410 | SMX400-40-0401-A |
| 70085430 | SMX400-60-0401-A |

### Interfaces
2 x   Ethernet
9 x   digital output
10 x  digital input
4 x   RS232/422/485 for Ident systems
6 x   USB Host for external equipment
Field bus interface (optional)
Integrated Safety

### Software
Operating system, firmware and parameters on exchangeable MicroSD card / CF-card

# About **ABS**

Advanced Bolting Solutions Pvt. Ltd. (ABS), established in 1998, is a leading multinational organisation in consultative sales of torqueing systems, tensioning systems, and on-site machining systems, through technological leadership of international brands and unique customer support initiatives. We are also a leading on-site mechanical services contractor providing controlled bolting, machining and joint integrity services for Oil & Gas sector.

We are the One Stop Solution to the productivity needs for precision bolting and on-site machining, for major industries such as Oil & Gas, Wind, Power, Automobile Manufacturing & Assembly, Railways, Construction, Heavy Engineering, Steel, Mining, Shipping, Defence, to name a few.

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