

CONTROLLER

Eon
PHOTONICS

www.eonphotonics.com





ABOUT US

Continuing its journey for development of technology with the perspective of 21st century at full throttle, EON Photonics transfers technology to the world from Turkey with its high R&D capability, its many years of experience in the industry and its investment power.

Focusing on efficiency in all areas by using resources effectively, EON continues its journey as the global brand of Ermaksan Group companies that realized the Laser Power Sources (Resonators), Laser Diodes, FBG Sensors and CNC controllers, which are produced by a limited number of countries throughout the world, for the first time in Turkey.

Products manufactured by EON using its own resources and delivered to more than 100 countries on 6 continents make a difference in the global arena with their advanced technology, environment-friendliness and efficiency features.

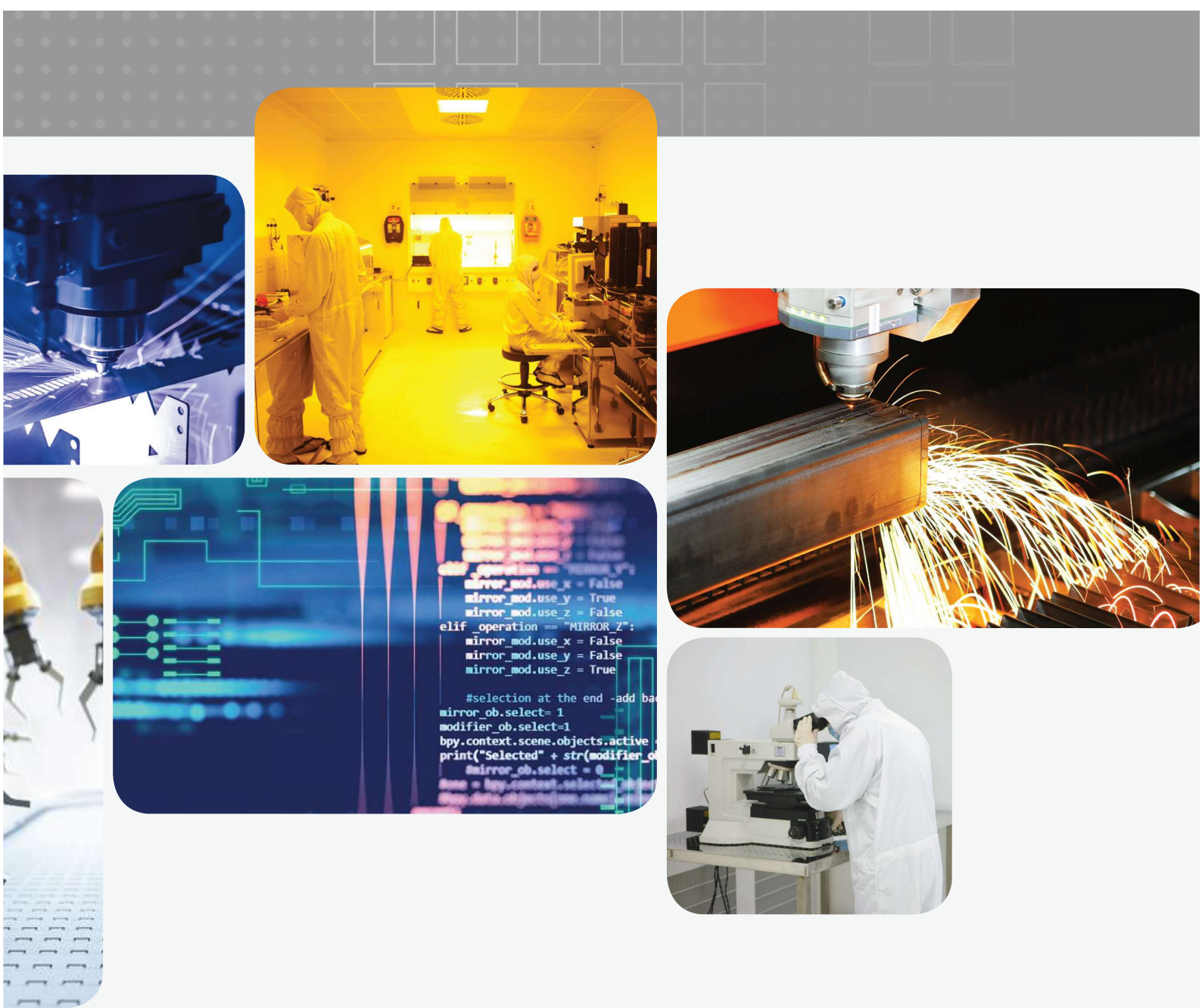
While currently employing competent and specialized manpower, including professors of their field, as well as a large number of staff with Ph.D. and Master of Science degrees, EON continues to invest in qualified human resources.

EON also has the capacity to implement all processes from idea to design, prototype to product successfully with its Data Center incorporating advanced technological systems and networks.

This center provides delicate clean rooms built to global standards, while innovative products, which are a significant reflection of the corporate culture, industry 4.0 applications and many national and international projects are being carried out here.

Decisively continuing to carry out joint projects with universities, institutes, institutions and organizations renowned throughout the world, EON also continues to move confidently towards its forward-looking targets.





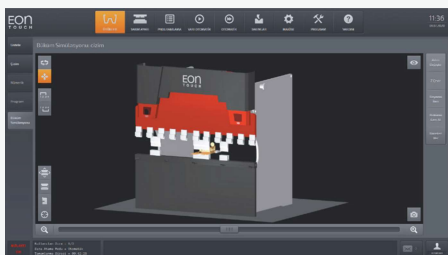
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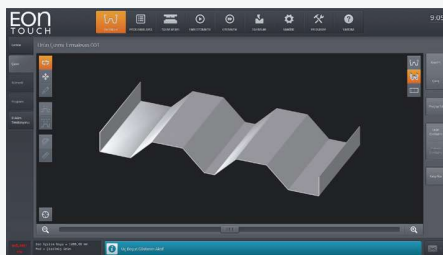
EON TOUCH EDITION

PRESS BRAKE CONTROLLER

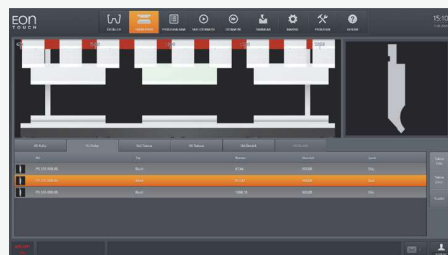
You can communicate the desired bending to the controller by means of the touch screen rapidly and calculate the required axis positions in the fastest and the most convenient way. Thanks to the advanced collision detection system, it enables obtaining fast and accurate bending while the 3D simulation allows the possibility of more detailed seeing. EON TOUCH, supports new technologies with Industry 4.0. EON TOUCH, always provides better service to you with its safety and reliability.



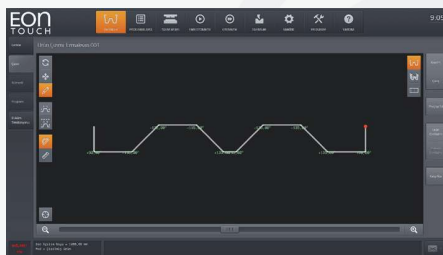
It can show the 3D image of the part on the machine at the same time, it can also calculate the bending sequence.



Can convert the drawn part to 3D view



Build up station easily



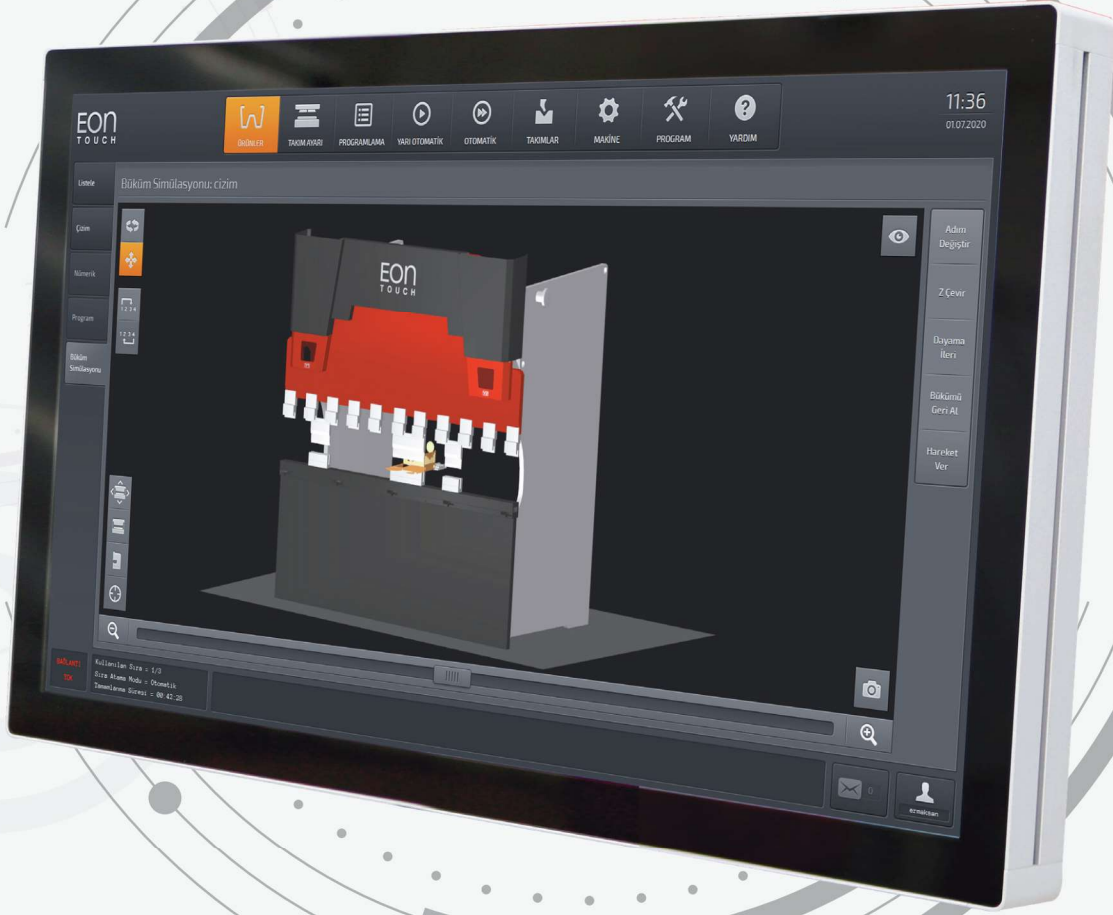
2D part drawing can be made on the control screen.

GENERAL SPECIFICATIONS

STANDARD SPECIFICATIONS

- 21,5" Multi touch screen (1920x1080 pixels)
- Driving up to 12 axes
- Multiple language support
- 3 different user levels and capability to add multiple users
- Authorizing added users
- Ability to import and export tools in DXF and DWG files
- Ability to create a numeric bending
- 2D touch product drawing
- 3D machine drawing and simulation
- 3D real-time bending tracking monitoring
- As 3D drawing capability of creating 3 different types of dies and 4 different types of punches
- Ability to add unlimited products, materials and tools
- Ability to create punches, dies, adapters and holders separately
- Bottoming bending, Air Bending and Circular Bending capability
- Finding the fastest bending sequence that prevent collision
- Ability to filter multiple properties at the same time
- Reverse mounting of tools
- Mechanic crowning support
- Collision Detection During product drawing
- Automatic update over the internet
- Quick E-help guide
- Multiple station support

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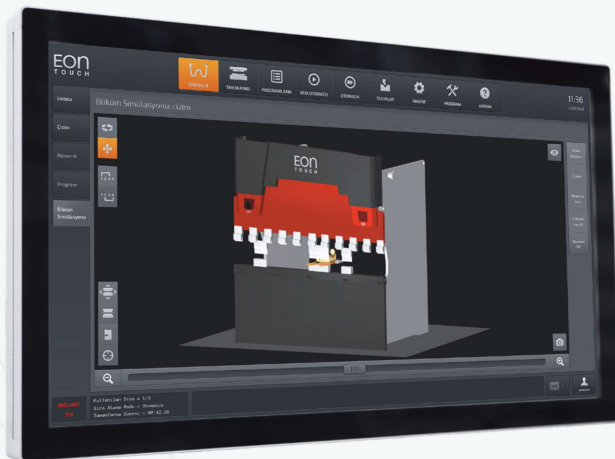


- Graphical support of pressure parameters
- Backup Restore System (USB-Hard Disk-Network)
- 16 digital, 9 analogue outputs and 16 digital, 5 analogue inputs per modules
- Ability to create a work list PDF report
- Offline software

OPTIONEL SPECIFICATIONS

- Supports Third Party software (Metalix, Autopol, Radan)
- CNC controlled automatic bending sheet support
- LaserSafe Security System support
- Robot integration support
- Supports tool position indication with LED bar
- Mitotoyo angle gauge support
- KEBA KeMes angle measurement system support
- Barcode reader support
- RFID support
- Data analysis support with EON 4.0

EON TOUCH & INDUSTRY 4.0



We began our mission to become the pioneer of the era of intelligent production with our strong R&D infrastructure and innovative approach. Today, we are leading the intelligent production processes of industry 4.0, which is a new manufacturing concept by integrating the intelligent production systems and optimizing the manufacturing processes with minimum cost and maximum efficiency.



Transform

Transform your machines into "connected" and "smart" systems for the Industry 4.0



Read the Machine Data

Read the telemetry data of your machines in a standard and efficient way.



Remote Support

Connect to your machines remotely. Provide fast and effective support services.



Collect and Report your Data

Collect centrally, categorize and report your machine data.



Visualize and Analyze

Visualize and analyze your data with easy and understandable graphics.



Integrate

Integrate your machines with the MES and ERP systems through secure API connections.



Link

Link the machine data with physical events such as maintenance, repair and replacement. Record what is done in which situation.



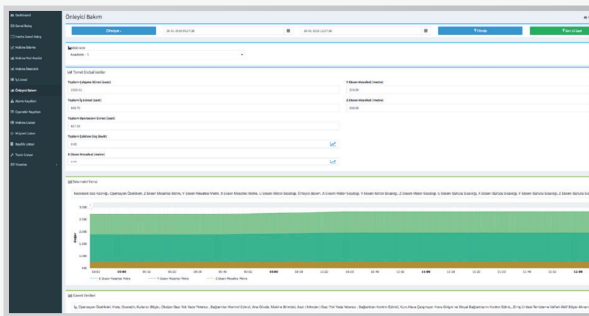
Inform the Support Teams

Warn your teams with alarms and messages. Share the error details for solution.



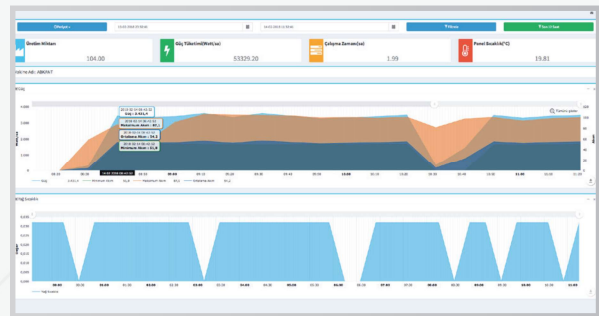
Estimate

Estimate the failures in advance using the data you have collected.



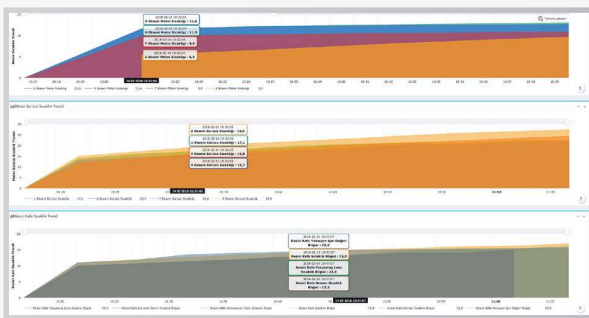
PREVENTIVE MAINTENANCE

It allows detecting the faults that may occur in your machines before they occur.



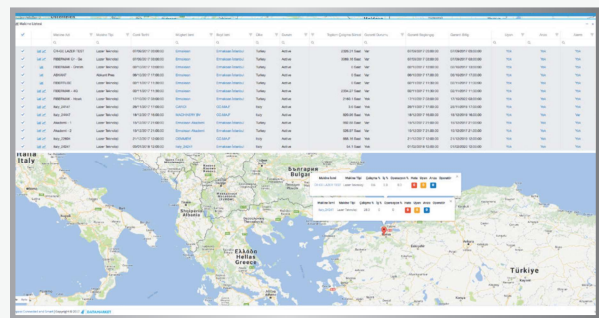
PRODUCTION AND ENERGY CONSUMPTION SCREEN

It allows you to see the instantaneous temperature change of the equipment such as the motor, driver, etc. in the machine.



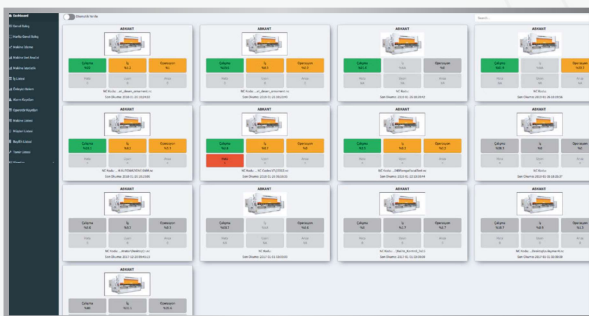
SENSOR VOLUME MONITORING SCREEN

It allows you to see the instantaneous temperature change of the equipment such as the motor, driver, etc. in the machine.



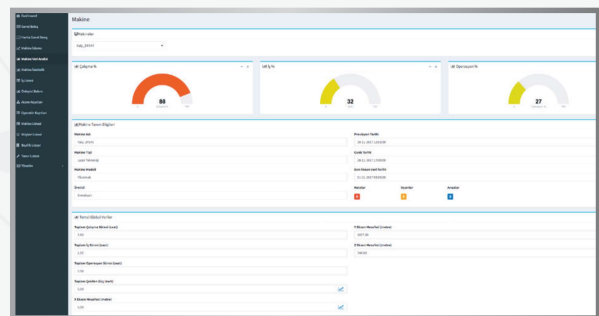
MONITORING ON MAP

It allows you to control the status of your machines in different locations on a single screen.



ACTIVE MACHINE CONTROL SCREEN

It allows to monitor all machines operating in the field on a single screen for the error, warning, efficiency data.



MACHINE EFFICIENCY CONTROL SCREEN

It provides a graphical view of the ratios of performance, quality, usability data on the machines.

ASM-X4

MOTION CONTROL MODULE

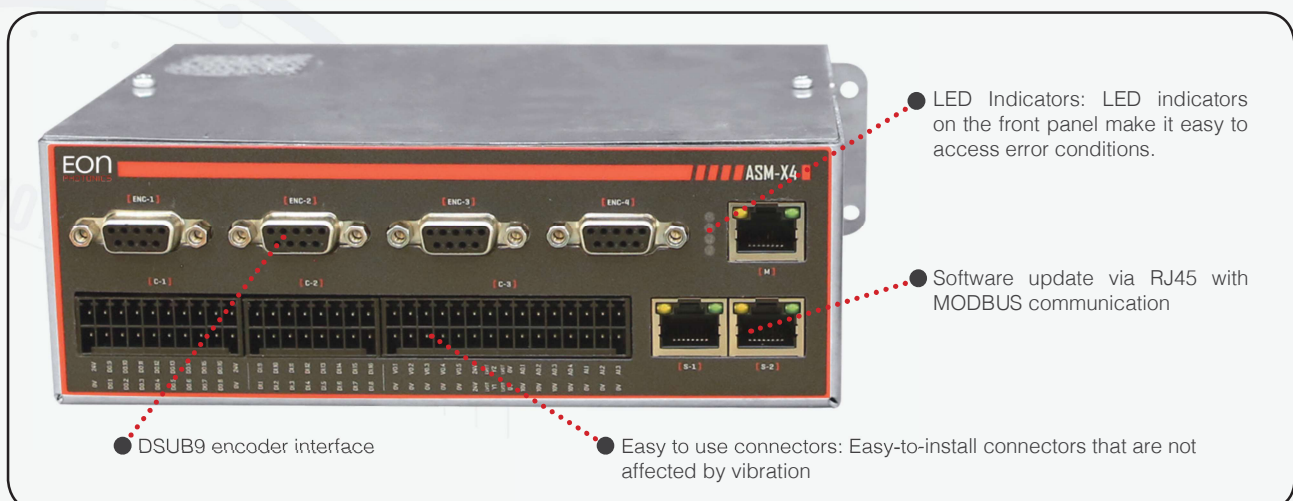
ASM-X series motion control modules are developed by EON as the motion control modules which are integrated with the EONTOUCH control interface. ASM-X series motion control modules which designed to interface and control different types of press brakes stand out among similar products with their small size, compact design and intelligent warning system.

The MODBUS communication interface allows you to connect up to 3 modules together.

With a single ASM-X4 module, up to 7 axes controls can be performed. For machines with more axes, it is possible to connect three ASM-X4 modules simultaneously and control up to 21 axes

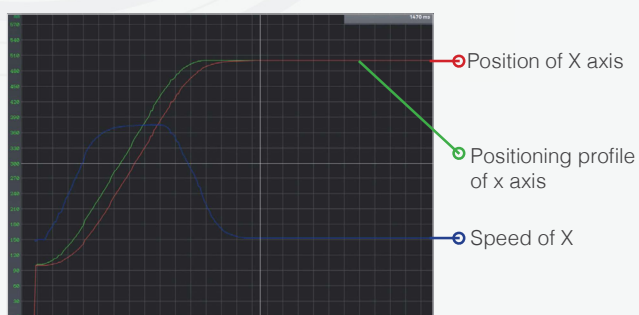
The ASM-X4 control module are equipped with advanced control algorithms that allow the axes be positioned with a precision of less than 0.001 mm with the EON Touch control software.

The ASM-X series control modules require no external hardware to control valves or LVDT. All high power control equipments are combined in a single motion control module.



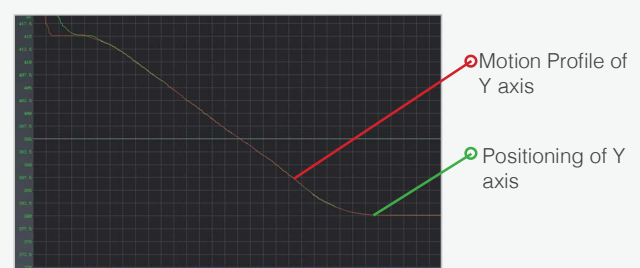
MOTION PROFILE OF X AXIS

The graph shows the positioning accuracy of the X axis. Red line shows position of X axis and green line shows motion profile of X axis. In the graph, it is seen that X axis reaches its final position with 0.01 mm positioning accuracy by tracking the motion profile with 0.001 mm precision.



MOTION PROFILE OF Y AXIS

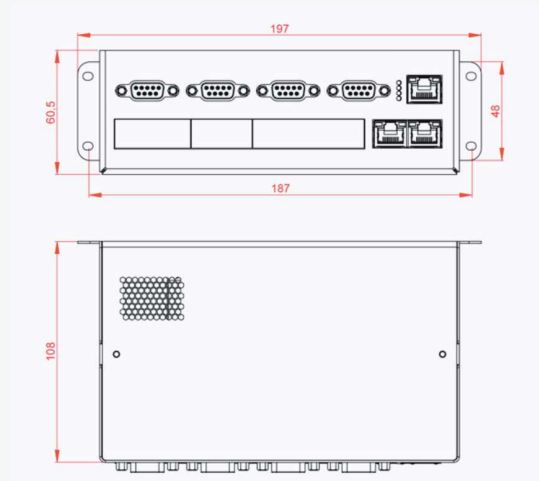
The graph shows the positioning accuracy of the Y axis. Red line shows position of Y axis and green line shows motion profile of X axis. In the graph, it is seen that Y axis reaches its final position with 0.01 mm positioning accuracy by tracking the motion profile with 0.001 mm precision.



* These graphs were obtained by using EON Touch oscilloscope page.

ASM-X4 ENHANCED CONTROL SPECIFICATIONS

- Integrated high power valve and LVDT control unit
- Integrated LED bar control unit
- Integrated error logging up to 1 year
- Exclusive control loop for different type of valves
- Up to 0.005 mm positioning tolerance for hydraulic axes
- Up to 0.001 mm positioning tolerance for motorized axes
- Controllable axis types:
 - o Hydraulic axes
 - o Motorized axes (Servo, asynchronous, etc.)
 - o Crowning
- Configurable digital IOs:
 - o Isolated digital inputs: 16 inputs 24VDC
 - o Isolated digital outputs: 16 outputs 24VDC
- Configurable analog IOs:
 - o LVDT analog inputs: 2
 - o 0-10V analog inputs: 3
 - o 0-24V analog outputs: 5
 - o -10/+10V analog outputs: 4
- Working memory: SRAM
- System memory: FLASH
- Communication: MODBUS



- Power: 24V DC/6A
- Encoder interface: 4 incremental encoder inputs (5VDC)
- Working temperature: -20 °C / +70 °C
- Standards: IEC 61132-2



EON CUT 5/7

SHEAR CONTROLLERS

A major difference that distinguishes EON shear controllers from its competitors is production with advanced technology by taking user request into consideration. EON shear controllers are available in two models; EON CUT5 and EON CUT7.

USER-FRIENDLY INTERFACE

Quick programming and simple operation thanks to wide colour graphic display interface developed according to user requests.



EON CUT 5 / 7

- Simple and intuitive interface
- Advanced wide colour graphic display
- Easy cutting page
- Bright coloured large buttons
- Recording up to 100 different programs
- Error warning system
- Advanced error detection algorithm
- Enriched analogue controller
- Sheet metal support system
- Automatic cutting angle and blade gap control
- Supports 8 different languages
 - Turkish
 - English
 - German
 - French
 - Portuguese
 - Italian
 - Russian
 - Romanian

* (It may differ according to machine types.)



TECHNICAL SPECIFICATIONS

Touch Screen	EON CUT 7: 7" touch screen 800x480 px EON CUT 5: 5.7" touch screen 680x480 px
Operation Memory	SRAM
System Memory	FLASH / Micro SD card (optional)
Communication	RS232, RS485, USB (optional)
Axis	2 analogue axis can be driven (optional)
Power Sources	24 VDC
Encoder Inputs	2 incremental encoder inputs
Insulated Digital Inputs	16 digital inputs
Analog Inputs	6 analogue inputs
Digital Outputs	16 digital outputs
Analog Outputs	2 analogue outputs
Operating Conditions	-20 °C +70 °C
Dimensions	EON CUT 7: 178.5 x 133.1 x 55.5 mm EON CUT 5: 163.5 x 133.1 x 55.4 mm
Standards	IEC 61132-2



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