

**Hydraulic Cement Compression and Flexural test machine
with Touch Screen Controller (double piston, dual capacity)**



Capacity of Machine:	100-500 kN compression/ 10-100 kN flexural (contact us for different capacities)
Frame Type:	Rigid frame in 2-Column construction.
Controller:	Sematron Touch (Touch Screen)
Speed of Load Control:	0,05 kN/s – 15kN/s
Max. Compression Test Space:	Up to 210 mm (contact us for other dimensions)
No. of Channels:	4



General Specifications:

Hydraulic cement compression with Touch Screen controller test machine with **Instant-Servo Technology** (introduced by Besmak) has a closed - loop system, it means this machine works automatically.

2-Column Frame; every column has screws to adjust the frame for perfect calibration.

Upper platen is ball seat unit and lower platen is constant.

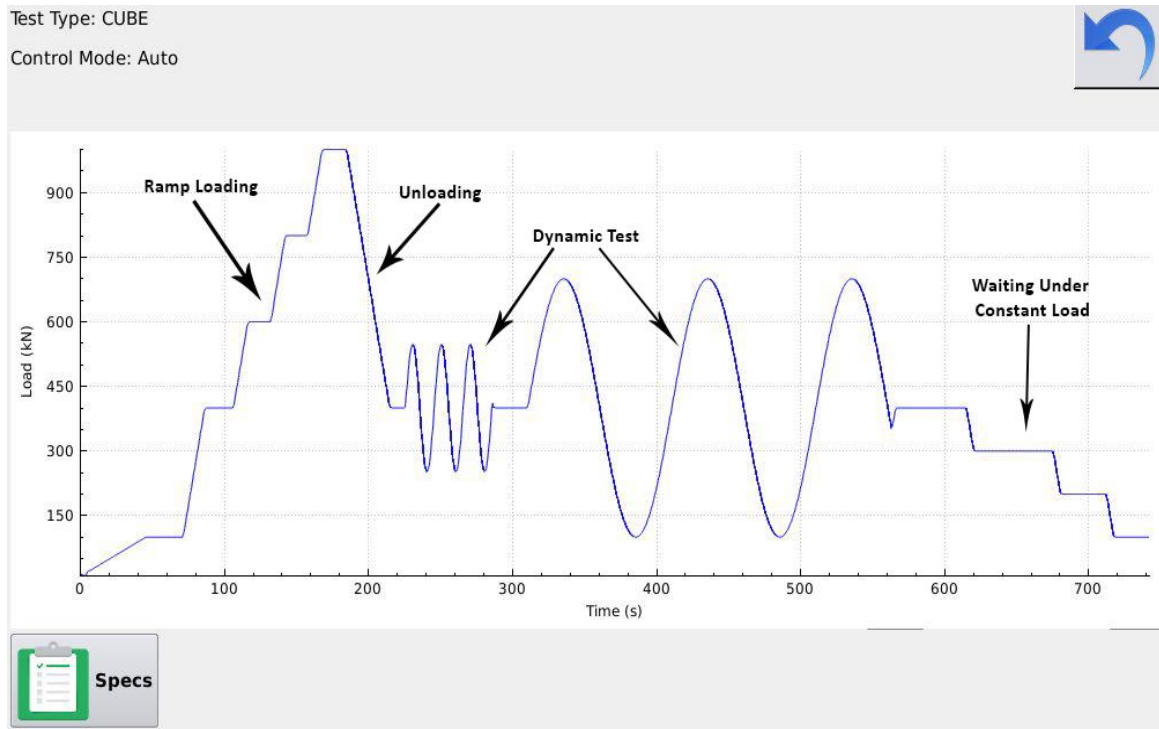
It has a limit-switch attached to the front door of the machine for safety (when the door is opened machine stops working)

The controller unit supports the loading force from 0.05kN/sec. to 15kN/sec.

At the end of the test process to start a new test the piston returns to default position.

Controller unit has a simple and compact configuration.

Software provides test data, results, and the load-time/stress-time graphs can be seen at computer and also can be saved or not according to requirement.

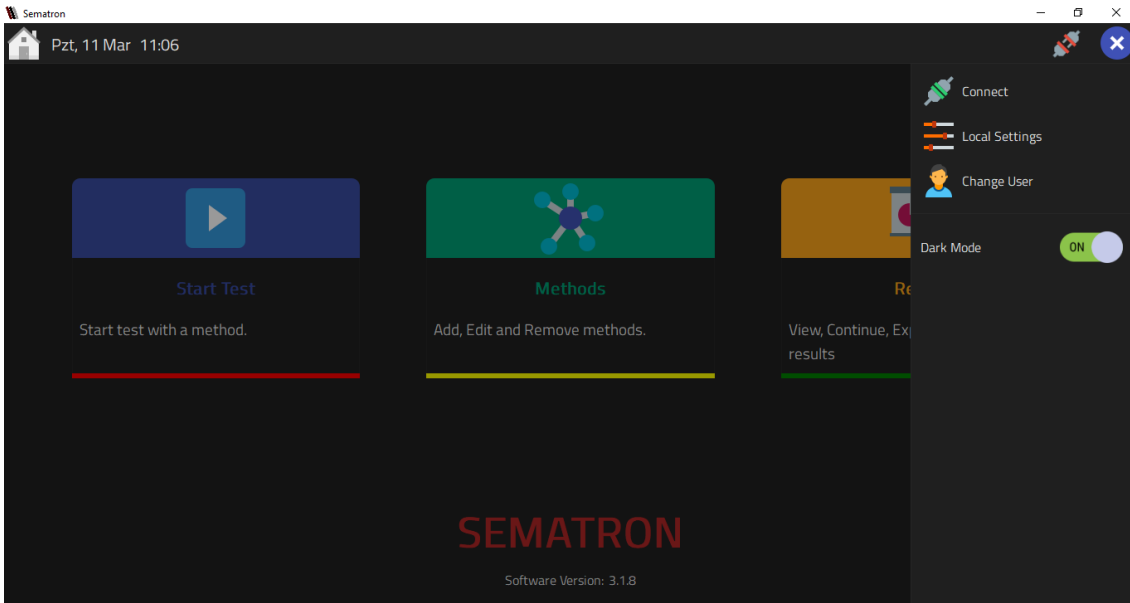


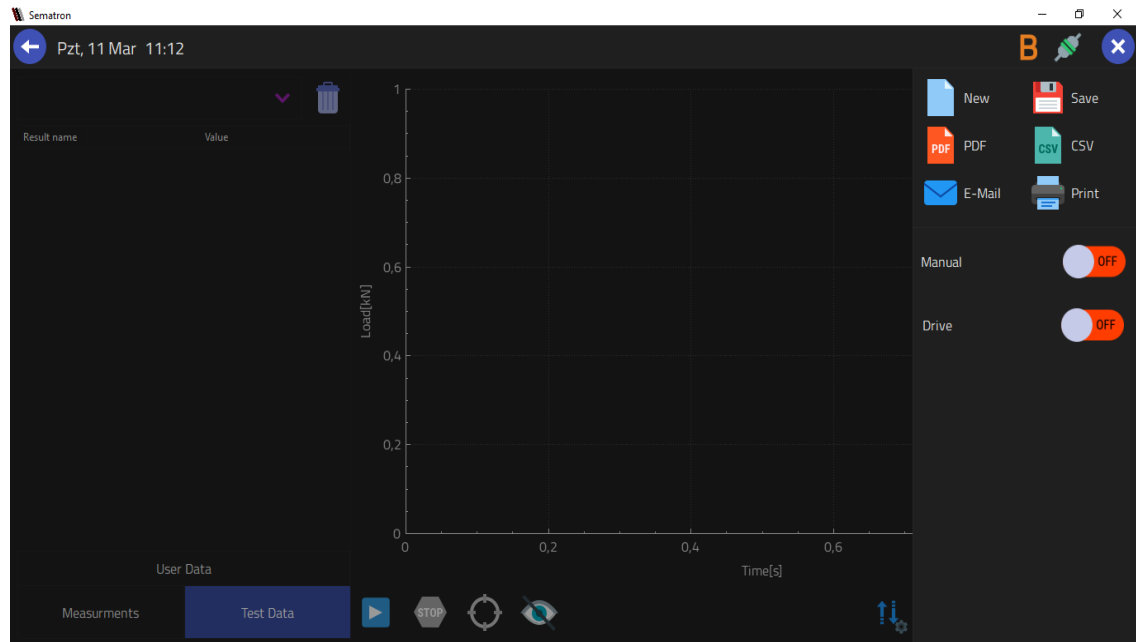
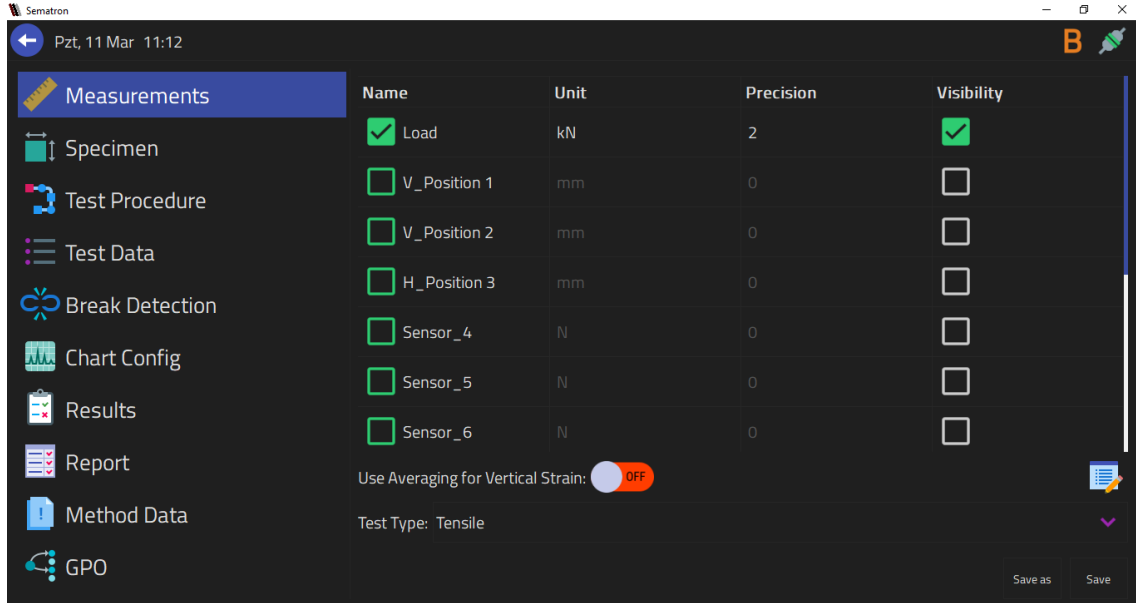
Controller Features:

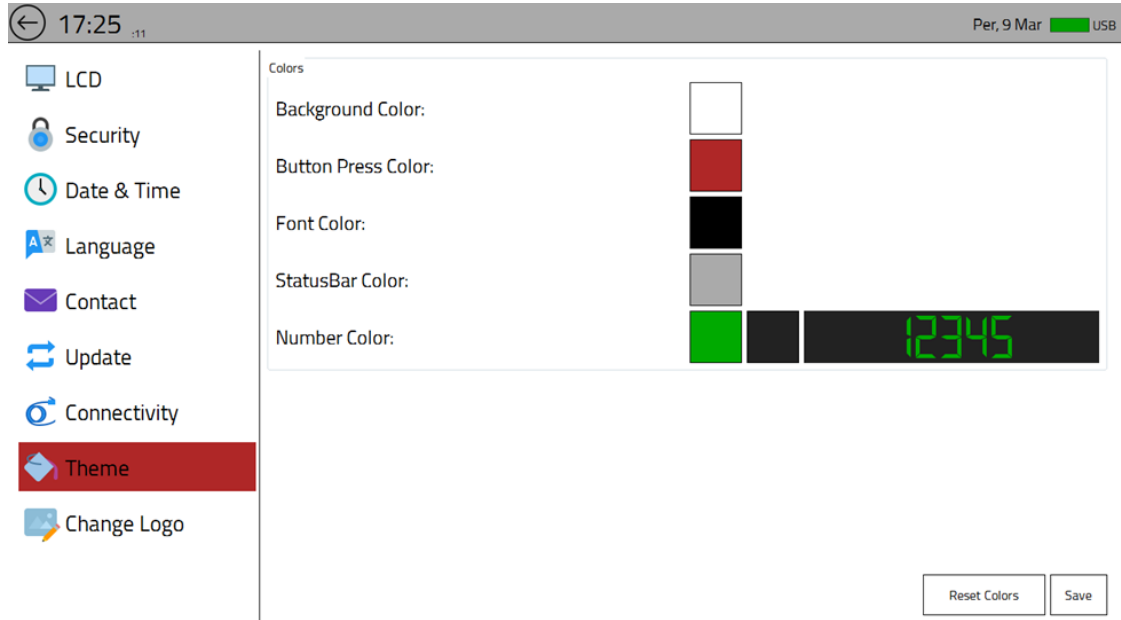
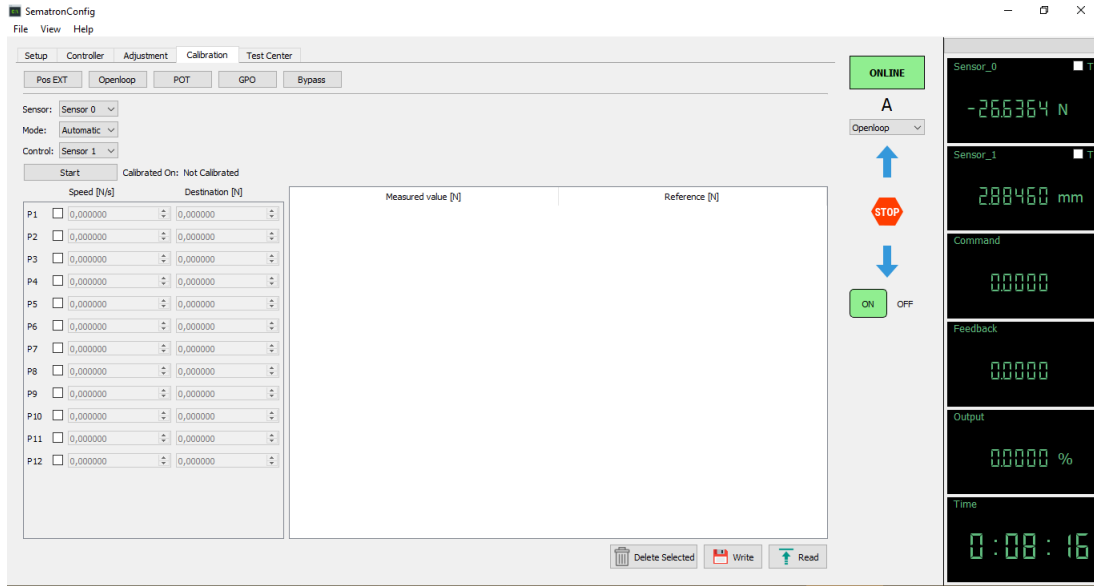
BESMAK Hydraulic cement compression / flexural machines are controlled by Sematron Touch Screen controller unit.

General Features of Data Acquisition and Control System:

- Capacitive touch screen.
- USB port to get results directly from LCD without use of pc.
- Accurate loading.
- Email results directly from LCD.
- Software update feature.
- Remote help through internet from turkey.
- 4 channels.
- Automatic calibration
- Closed loop and open loop control
- Show results in pdf and can be converted in Excel
- Direct print feature from LCD
- Can connect to internet directly to the LCD through USB or LAN.
- User friendly, easy to customized.
- Communication with PC through LAN cable. Etc.







The screenshot shows the SematronConfig software interface. The 'General settings' for Machine A are displayed. The 'Data Rate' is set to 0.001000 s. The 'Maximum Load' is 40000.000000 N. The 'Crosshead Direction' is 'Up'. The 'Machine Type' is 'Hydraulic'. The 'Crosshead Encoder Ratio' is 10.000000 Rev/mm. The 'Minimum load enable' checkbox is unchecked. The 'Initial Output' is 6.1104% and the 'Final Output' is 0.0000%.

Parameter	Value	Unit
Data Rate	0.001000	s
Maximum Load	40000.000000	N
Crosshead Direction	Up	
Description	Max 31 characters	
Machine Type	Hydraulic	
Crosshead Encoder Ratio	10.000000	Rev/mm
Minimum load enable	<input type="checkbox"/>	
Minimum load Control	0.000000	N
Initial Output	6.1104	%
Final Output	0.0000	%

On the right side, there is a control panel with an 'ONLINE' indicator, an 'A' button, an 'Openloop' dropdown, a 'STOP' button, and 'ON/OFF' buttons. Below this are five digital displays: Sensor_0 (-273808 N), Sensor_1 (288417 mm), Command (00000), Feedback (00000), Output (00000 %), and Time (0:00:25).

The screenshot shows the SematronConfig software interface with the 'Sensor properties' for Sensor 0. The 'Sensor Type' is 'Force', the 'Plug' is 'J5A (Analog)', and the 'Sensor Subclass' is 'Strain Gauge'. The 'Nominal value' is 10000.000000 N, the 'Min Limit [-]' is 100.000000%, and the 'Max Limit [+]' is 100.000000%. The 'Is Reversed' checkbox is unchecked. The 'Correction' is 1.0000000000, the 'Offset' is 0.0000000000 N, and the 'Sensitivity' is 3.000000 mV/V. The 'Controller' section is also visible with various parameters like Position P, I, D, Speed P, I, D, Speed FF, Delay, and Accelerates.

Parameter	Value	Unit
Sensor Type	Force	
Plug	J5A (Analog)	
Sensor Subclass	Strain Gauge	
Nominal value	10000.000000	N
Min Limit [-]	100.000000	%
Max Limit [+]	100.000000	%
Is Reversed	<input type="checkbox"/>	
Correction	1.0000000000	
Offset	0.0000000000	N
Sensitivity	3.000000	mV/V

On the right side, the control panel is the same as in the first screenshot. The digital displays show: Sensor_0 (-258444 N), Sensor_1 (288420 mm), Command (00000), Feedback (00000), Output (00000 %), and Time (0:01:40).