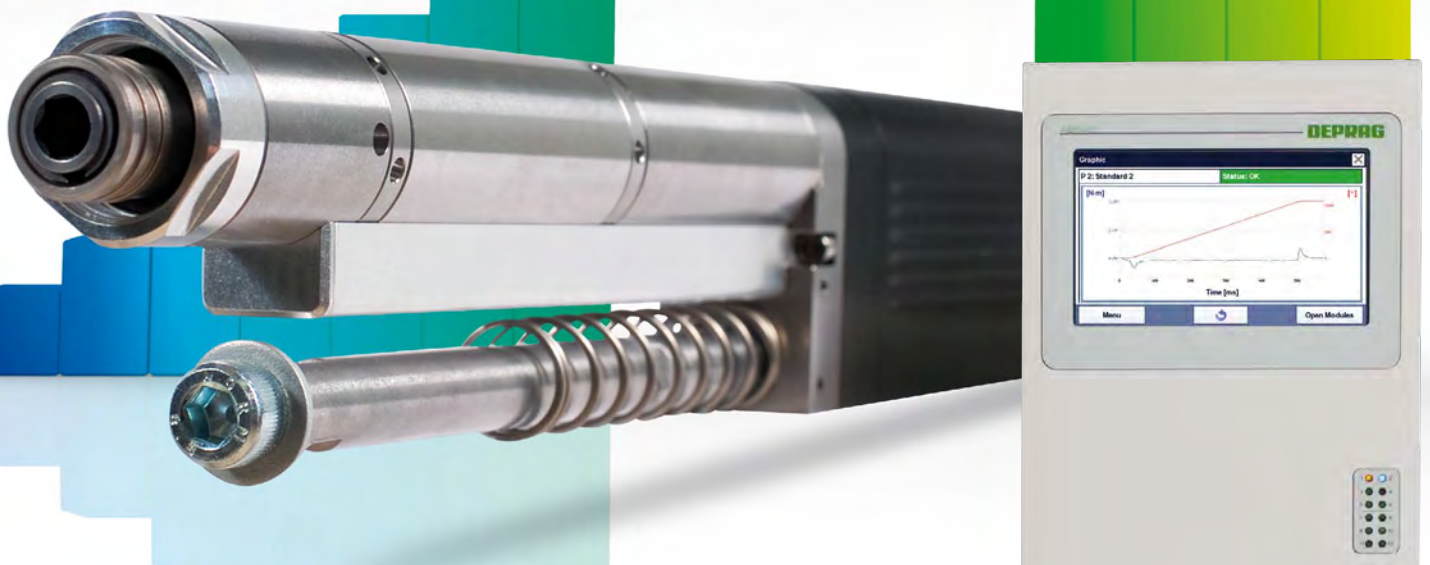


**DEPRAG**

# THE NEXT GENERATION

Performance



## THE POWER-EC-SERVO SCREWDRIVER

High Power Density



Flexibility

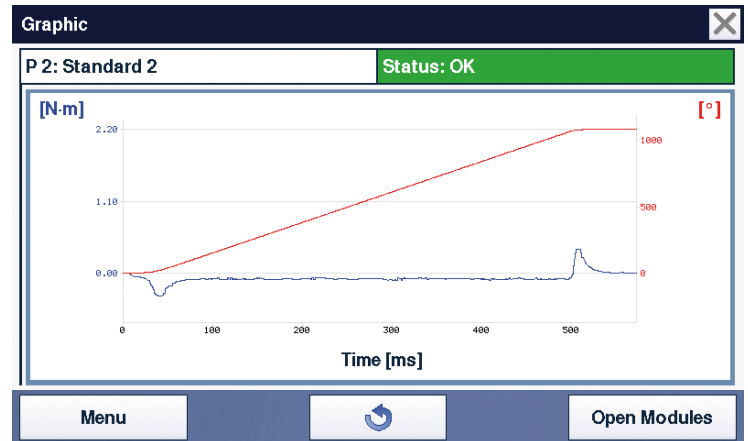


High Accuracy

**The transducer controlled screwdriving system with the MINIMAT-EC-Servo screwdriver and the AST40 sequence controller assures the highest process reliability and traceability of your screwdriving results.**

The integrated torque transducer and angle encoder assure the exact control and regulation of the screw tightening process as well as the documentation of important process parameters. With critical screw joints the highest accuracy of the screw fastening process is guaranteed.

The AST40 sequence controller enables free programming of the screwdriving sequences. In addition pre-installed basic programme templates allow especially fast and simple screwdriving sequence preparation.



## Efficiency

### High drive capacity and precision

- highly dynamic EC motors with up to 90% efficiency rating
- lower screwdriver operating temperature
- power density is increased by factor 2
- extremely compact footprint: 50 Nm with screwdriver diameter 36 mm

## Reliability

### Torque measurement transducer

- completely digital signal transmission ⇒ no processing disruptions
- distance between screwdriver and controller can be up to 25 m
- redundancy - by a second measurement transducer (optional)

### Gearbox

- maintenance interval parameters can be set for the specific screw assembly application according to the mechanical power of the screwdriver

### Screwdriver cable

- multi-function cable for power supply and signals
- vibration proof screwdriver plug connector
- torsion and flexibility tested

### Sequence controller

- passive temperature dissipation from the controller via heat sink
- comprehensive self diagnostics and safety functions: internal voltages, internal communication, function of the hardware components, overload and short circuit protection of the inputs and outputs, protocol function for automatic creation of a system image
- universal power supply
- automatic screwdriver type recognition and parameter transfer via electronic identification card inside the screwdriver
- various fieldbus interface options for signal and data transfer: PROFIBUS, PROFINET, EtherCAT, Ethernet/IP

## Flexibility

- versatile programming and documentation interfaces: fieldbus, web server, graphic display, Ethernet
- individual screen configuration for up to 10 users
- availability of common screwdriving strategies: torque controlled screw assembly with angle monitoring, angle controlled screw assembly with torque monitoring, loosening to angle, tightening/loosening with remote stop signal, hold position, friction controlled tightening method, torque assembly with speed adjustment by trigger torque
- 120 multi-step screwdriving programs selected via I/O (fieldbus > 120)

## Ease of use

- graphic display 7" (colour, touch screen)
- plain text messages indicate processing status
- OS independent parameterization of the controller (via web server)
- storage of data results (7 days, unlimited number of cycles)
- detailed LED indication on the controller front panel







# DEPRAG

Your worldwide partner for  
Screwdriving Technology and Automation

Please find more information about our  
**MINIMAT-EC-Servo Screwdriver** at:  
[www.deprag.com/en/screwdriving-technology.html](http://www.deprag.com/en/screwdriving-technology.html)

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