MINIMAT-ED: Now available in a stationary version.

The Digital Electric Screwdriver for Stationary Use

There is currently no comparable system on the market with these features

Continuous and innovative expansion and optimization of existing product lines are the fundamental principles of DEPRAG SHULZ GMBH & CO. This year, DEPRAG is proud to announce an innovation to the MINIMAT-ED by developing a stationary version. This tool can be used to implement more complex procedures without any difficulty. If a customer has several screw joints with varying tightening parameters, these can be realized with the multi-stage, adjustable screwdriving program.

The New MINIMAT-ED is available in four versions for torques between 0.24 to 4.8 Nm at speeds of 1,500 rpm. The rate can be individually adjusted up to the maximum speed for each screwdriver type. The screwdriver spindles also benefit from slim design and a comfortable lightweight. Just like its predecessor, the MINIMAT-ED is reliable, without an external controller, this EC screwdriver allows for simple integration with minimal space requirements.

The hardware components required for adjustment, control and supply power to the screwdriver and is intended for integration into a control cabinet. The screwdriver is connected to the interface 330E using a motor cable. The additional connection to the DPU uses a network cable. A power supply is also required, possibly the safe stop module and an Ethernet switch in multi spindle systems. The necessary circuit diagrams for the electrical engineers are of course available from DEPRAG to enable integration of the components. The motor cable is connected directly to the plug on the interface 330E. There must be provision for cable feedthrough on the control cabinet. Alternatively, we can deliver a complete system including an already integrated and wired-up control cabinet.

The DEPRAG Controllers DPU50/100 & 200 can now be used to control the MINIMAT-ED screwdriver alongside the interface 330E for signal and data exchange between the system controller (PLC) and the screwdriver control
electronics. In combination with the software modules to be installed on the DPU, single and multi-channel EC screwdriving solutions can be integrated at low cost into the central concept of complete systems. As well as using the existing control solution to adjust and control the screwdriver, there is also another advantage of the option of integrating screwdriving results into the system visualization, e.g., for the display of result values relating to the screw position.

Control and adjustment of the screwdriver are carried out via an Ethernet connection between the DPU and interface 330E: the integrated web server is used for calibration and configuration. The screwdriver is controlled via TCP/IP when using the specific DPU driver software. There are five screwdriving programs available on the screwdriver, each with a three-step program structure. The procedure consists of run, torque and angle screw assembly. Five loosening procedures can be programmed as well.

The interface 300E allows simple adjustment of screwdriving programs, recording of result values via the integrated WEB server as well as control of the MINIMAT-ED spindle screwdriver. It has an Ethernet connection and two USB ports. All settings can be carried out comfortably on the web interface, and multiple language options are also available. Each screwdriver requires an interface 330E and is reached via its IP address.

Because the digital electric screwdriver is utilized without an external controller, it’s an excellent value for the money. It also enables easier checking of tightening parameters. At shift change, the new operator can see the set values on the interface and does not have to start off by checking the tool on the test station. This thereby guarantees the highest process reliability.

The MINIMAT-ED can be used either for right or left-hand threads. The main rotational direction can be selected as required; the screwdriver shut off left or right to torque or angle. The maximum loosening torque is available in the opposite direction if necessary.

DEPRAG SHULZ GMBH & CO. based in Amberg, Germany has 600 employees over 50 countries. The experts in screwdriving technology set the trend in the market with their innovative products. The latest developments from the full-service provider will be on show from the 23th to the 25th of October at the Assembly Show in Rosemont, Illinois: Booth No. 631. If you cannot visit us at the show or in person, please use the following link to read more about this product. MINIMAT-ED: Stationary Spindle - Catalog Link