

Press Release

DEPRAG spindle screwdriver program expansion

The new MINIMAT-E with mechanical shut-off clutch

The electrically driven alternative to a stationary pneumatic screwdriver

The trend in avoiding compressed air as a drive medium in various production and assembly processes can result in a great deal of expense when it comes to stationary automated screw assembly. The DEPRAG MINIMAT air screwdrivers guarantee reliability whilst retaining top functionality and torque accuracy. They have gained a reputation for this worldwide over many years.

Those who want to follow the trend of reducing their use of compressed air were, up until now, compelled to switch to the relatively expensive alternative of electric screwdriving tools. These tools are best suited when high requirements are demanded relating to accuracy torque capability and flexibility. When this is not the case it can quickly lead to expensive "over engineering". The logical consequence was the unmistakable demand for electricity as a drive medium in combination with the mechanical shut-off clutch which has proved itself a thousand times over.

DEPRAG SCHULZ GMBH u. CO. has reacted to the market and now launches its newest screwdriving solution: the electric MINIMAT-E spindle screwdriver with mechanical shut-off clutch!

It is the alternative to stationary screwdrivers and the optimal solution for work stations where compressed air is not desired or there is no compressed air available. This expansion of the spindle screwdriver range has set a new standard: There is now a DEPRAG screwdriving solution available for every application case.

The particular strength of the MINIMAT-E spindle screwdriver lies in screw assembly in the torque range 0.3 Nm to 4.8 Nm. (2.6 – 42 in.lbs.) High speeds of 650 up to 2000 rpm guarantee short cycle times.



Minimat-E with mechanical shut-off clutch

Furthermore the MINIMAT-E screwdriver operates using the well-established principle of the mechanical shut-off clutch. Using the shut-off clutch guarantees torque accuracy of 3% standard deviation, independent from the screw joint. In many cases however even better accuracy can be achieved so that under certain conditions a machine capability index 1.67 can be attained even with a tolerance requirement of $\pm 10\%$. This means that the error rate is less than 0.6 errors per one million screw assemblies. For further enhancement of the processing reliability the screw-in depth and screwdriver shut-off can additionally be monitored.

Depending on application case significantly shorter cycle times can be achieved as this screwdriver runs at maximum speed right up to the shut-off point of the clutch. Whereas in order to reach the stated accuracy other controlled screwdrivers are subject to a speed reduction before shut-off.



Control Module 342E

The screwdriver is designed for tough industrial use with high quality, robust system components guaranteeing reliability and a long lifespan. The maintenance free brushless EC drive provides outstanding dynamics and high top torques ideal for screw tightening. It is available with push-to-start or for remote start by PLC. The remote start version can be used both for fastener assembly to torque, disassembly to a defined depth or a specialized fastener removal sequence.

The mounting options for inserting tools and additional components such as guide sleeves or vacuum connections are designed in the same way as the DEPRAG pneumatic screwdriver size-2 so that identical accessories may be used.

DEPRAG SCHULZ GMBH u. CO. have secured their position as market leader in screwdriving technology with the development and introduction of the MINIMAT-E. As well being a specialist in the field of screwdriving technology, the full service provider with 600 employees in over 50 countries, is dedicated to the conceptual and physical design of modern manual work stations, semi and fully automatic assembly systems and also the production of high quality air motors and tools.

If you cannot visit us at a show or in person, please use the following link to read more about this product:

Minimat-E Screwdriver Spindle with mechanical clutch - Catalog [Link](#)

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