

## Press Release

*At the AUTOMATICA DEPRAG Presented Their New Cordless EC Angled Screwdrivers*

## If Cables Get in the Way – Go Cordless

*Accurate and Reliable Screwdriving Even in Confined Spaces*



Every two years, technical experts from around the world meet at the AUTOMATICA in Munich, Germany. This year, over an exhibition area covering 55,000 square meters, the leading European trade fair showcased automation solutions for every sector of the industry. Experts from Germany and abroad visited the exhibition so that they could keep up-to-date with trends. Their aim is to manufacture better quality products faster and more cost-effectively. Many innovative ideas for production process optimization attracted the interest of large numbers of visitors. Internationally renowned exhibitors used the opportunity to present their new and innovative automation and mechatronic products. Sales Manager of DEPRAG SCHULZ GMBH u. CO., Jürgen Hierold, took advantage of the AUTOMATICA to get a feel for the latest trends in automation, and was interviewed by Technical Journalist and Editor, Trixy Schmidt.

**Question:** AUTOMATICA 2012 has now closed its doors. What are you taking away with you from Europe's biggest ideas platform for automation processes? What trends have you discovered?

**Answer:** Besides the many other trends and orientations, the thing that struck me the most was the distinct trend towards the use of cordless battery-powered screwdriver tools. High quality cordless EC screwdrivers for industrial applications are gaining a bigger share of the market.

**Question:** What has caused this enthusiasm for the latest cordless screwdriving tools?

**Answer:** Electric cables and air hoses get in the way of many assembly tasks. Just picture a caravan assembly facility. The interior fittings have to be screwed down inside the caravan. Cordless screwdrivers were made for assembly tasks such as this. The worker can move around freely, without worrying about cumbersome hoses and cables.

**Question:** Wouldn't a cordless EC screwdriver be useful on moving assembly lines too?

**Answer:** Yes, a battery-operated screwdriver also comes into its own on moving assembly lines. If there is no cable, operators can move along with the assembly line and carry out the fastening operations, for example, on assembly lines for refrigerators or switch cabinets. This type of screwdriving technology has a great future in areas where space is tight, or on moving assembly lines.

**Question:** In the past, opinions on battery-operated tools for use in the industry were largely skeptical. The battery's power density and life cycle were considered to be low, and the memory of this put users off to the idea. What is the situation with today's rechargeable screwdrivers?

**Answer:** Modern lithium-ion batteries have convinced even the most skeptical. Previously, users were often unhappy with cordless tools because the work cycles were too short. But there is no comparison when it comes to today's batteries. They are many times more efficient, have a much lower self-discharge rate, and the feared memory effect is a thing of the past.

**Question:** What kind of motor is used in cordless screwdrivers?

**Answer:** The development of modern brushless EC motors has resulted in the drives producing a much higher power density. This is an elementary requirement for using hand-guided tools.

**Question:** DEPRAG SCHULZ GMBH u. CO. can look back over decades of design and development work in screwdriving technology. It markets a wide range of globally appreciated high-quality electrical and compressed air screwdrivers for use in the industry. Up to this point the range has not included a cordless screwdriver. DEPRAG launched a new battery-operated EC angled screwdriver at the AUTOMATICA. Does that mean that DEPRAG has now filled a gap in its range?

**Answer:** DEPRAG is known for precision screwdriving technology. For many years cordless systems did not meet our demands and requirements. But with today's lithium-ion rechargeable batteries, we are now able to offer the well-known DEPRAG quality in a cordless version too. The results of the development of our work can be seen for itself. Visitors to our exhibition stand were enthusiastic.

**Question:** What are the outstanding features of the new battery-operated DEPRAG EC angled screwdriver?

**Answer:** The 36V li-ion battery drive on our new angled screwdriver offers maximum energy and power density. Braking energy from the electrical drive motor is recovered to ensure that extremely efficient and economical use is made of the energy stored inside the battery. This energy efficiency and sensor-controlled multi-step standby mode can perform a large number of screwdriving operations for each battery charge. The use of high-quality EC motors with outstanding efficiency coefficients and extremely high power density ensures that the tool is light, and has a long service life. Batteries are recharged and ready for operation in approximately 30 to 40 minutes.

**Question:** The high levels of precision and the flexibility of the well-known DEPRAG MINIMAT EC screwdriver range are high-priority issues for you. Does the new rechargeable screwdriver meet these standards?

**Answer:** The MINIMAT EC screwdriver has a very high level of shut-off accuracy. It achieves a Cmk value  $\geq 1.67$  and thus meets the requirements for use in automotive manufacturing. The new range handles complex screwdriving processes, as it uses all standard fastening strategies under torque-rotation angle control. Parameters for eight multi-step screwdriving procedures can be programmed into the tool. The operator can select and execute these very easily from the easy-to-use display/keyboard unit. An extra key allows the operator to switch rapidly to the undo program, which exists for every screwdriving process.



**Question:** The focus is, once again, on the reliability process of screwdriver tools. What can be said in this respect about the new rechargeable angled screwdriver?

**Answer:** In its new angled EC cordless screwdriver, DEPRAG has launched onto the market an outstanding precision tool for accurate screw fastening in difficult to reach fastener positions. Besides its high torque accuracy, the new series has a wide variety of controlling functions and for connection to a process computer. The screwdriver is in radio contact with an easy to use base station which wirelessly transmits the screwdriving results necessary for process

monitoring. This base station is available as an optional extra, and it is able to control several screwdrivers at once. On the clear user interface, it illustrates the screwdriving operations quickly and without complications. It is also possible to connect to a higher-order process computer via an integral web server. It means that not only can it easily transmit the screwdriving specifications, it can also collect and archive data from the screwdriver.

**Question:** So it creates the best possible pre-requisites for quality management and record-keeping. In what sizes is the new battery-operated EC angled screwdriver available on the market?

**Answer:** We are initially launching the DEPRAG screwdriver for torques between 2 Nm and 50 Nm in three torque ranges. These screwdrivers are very low-maintenance and considered an economical solution when compared with other suppliers. They are outstandingly suitable for difficult fastener positions, having all the advantages of the tried and trusted MINIMAT screwdriver family.



Trixy Schmidt was talking to Jürgen Hierold, Sales Manager at DEPRAG SCHULZ GMBH u. CO., based in Amberg, Germany. The specialist in screwdriving technology and automation is represented by over 600 employees in more than 50 countries throughout the world.

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