The universal rotary atomizer EcoBell3 (here: the EcoBell3 E model) with external charging is suitable for interior and exterior painting.

**Innovations in application technology**

Painting robots: greater efficiency and user-friendliness through smart functions

Bietigheim-Bissingen, October 2014 – With its EcoBell3 Dürr has developed a universal rotary atomizer that is suitable for painting interior and exterior surfaces as well as add-on parts. Its performance has set new standards. The atomizer operates with or without high voltage and always achieves a very high degree of efficiency. Despite these competitive advantages, developments in application technology are ongoing. Smart products and functions are the new trend in painting robot innovation.

The highly complex rinsing process has been simplified and can now be operated with little prior knowledge. Due to the different properties of paints in terms of viscosity and ease of rinsing, the rinsing programs must be adapted for each paint. Tried-and-tested rinsing programs are now preset and can easily be assigned, making complicated settings via the time program editor a thing of the past. If a rinsing program has to be adjusted manually, it can be set simply by using the slide control, which increases or decreases the intensity of the rinsing program.

A new software function called "Automatic cycle time synchronization" automatically synchronizes the main needle and the pump, thus compensating for any disturbance. The synchronization of the main needle ensures that the pressure build-up in the dosing pump is optimal adapted to the opening of the main needle. Previously, this synchronization was preset and could not be changed. Now, it is continuously monitored and optimized, thus dispensing with the need for manual settings and minimizing disruptions in operation as a result of excess or insufficient pressure or burst hoses.

Just as important as the synchronization of the main needle and the dosing pump is the dosing of paint. The new "P control" software function allows the adjustment of differential pressure and provides highly accurate dosing. It ensures that during pump operation the pressure equilibrium is virtually constant between the inlet and outlet of the
pump, regardless of dosing quantity and viscosity. This doubles the service life of the dosing pump, thus reducing spare part costs and increasing operational reliability.

Another smart feature is the automatic monitoring of pump accuracy, which dispenses with the need for gauging. Sensors monitor dosing accuracy and valve function, and detect any leakages. A traffic light system shows at a glance whether the dosing system is working accurately, whether a maintenance appointment has to be scheduled or whether the pump has to be replaced immediately.

The new "P control" software function in the dosing pump allows the automatic adjustment of differential pressure.

Thanks to the new slide control, the complicated setting of rinsing programs via the time program editor is now a thing of the past.

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