Press release

Dürr presents “EcoDose 3K”

Robust and precise mixing system for up to three components

Bietigheim-Bissingen, 30 November 2020 – With the EcoDose 3K, Dürr is growing its product family of paint mixing systems with a solution for three-component fluids based on the tried-and-tested two-component injection technology. The mixing system boasts a number of features including high precision, long service life, and smart functions.

Like the proven **Eco**Dose 2K, which is used by hundreds of customers worldwide, the new **Eco**Dose 3K from Dürr boasts a long service life and ease of maintenance. The new mixing system is used wherever three components of a fluid need to be merged shortly before application. Three-component coating systems are popular in aviation, woodworking, and yacht and boat building.

Precise mixing thanks to injection technology

The **Eco**Dose 3K is based on the same inline injection technology as Dürr’s established two-component mixing system. In an upgrade to the **Eco**Dose 2K, a color changer, a measuring cell, and a mixer have additionally been integrated into the system. The controller has also been appropriately enhanced to enable it to meter, merge, and mix all three components fully automatically shortly before they are used. This is done by monitoring the continuous flow of the first component using a measuring cell. The other components to be injected are metered as appropriate to the desired mixing ratio by opening and closing valves. The metering quantity is also monitored using measuring cells to ensure the correct mixing ratio is maintained.

Particular precision is needed for the third component, which typically determines the viscosity. This is because only a very small amount of this agent is added, and it often has a very low viscosity. Dürr uses Coriolis measuring cells in the **Eco**Dose 3K as the most efficient way of dealing with low viscosities. These are maintenance-free, offer high measurement accuracy, and provide additional measurement functions, for example for density and temperature. The **Eco**Dose 3K meets the high precision requirements with proven Dürr valve technology that enables injections in particularly short cycles.

**Robust valve technology for long service life**

Despite the high clock frequency of 5 Hz, the lifetime of the Dürr valve technology is second to none: the valves from the first series, which Dürr launched three years ago, have now completed over 10 million switching cycles without any maintenance at all and are still in operation today.

In addition, the clever valve design ensures that fluids cannot get into the valve’s pilot air piston in normal operation, even in the event of minor leaks. This prevents undesired reactions with the moisture in the air. If maintenance is ever required, the valve can be quickly replaced by undoing four screws – which means that the system is ready to use again within just a few minutes.

**Smart functions complement the EcoDose 3K**

Dürr’s **Eco**Dose 3K is complemented by a 7-inch color touchscreen display. Users quickly find their bearings, since operation is similar to Dürr’s other controller-based products. The standard delivery contents also include an Ethernet communication interface that can be integrated into the particular controller landscape. The mixing system also has smart functions to minimize both detergent consumption and fluid loss, and to significantly reduce the time required for rinsing and loading a new medium.

**Pictures**



**Picture 1:** The **Eco**Dose 3K from Dürr mixes three-component fluids.

The Dürr Group is one of the world's leading mechanical and plant engineering firms with extensive expertise in automation and digitalization/Industry 4.0. Its products, systems and services enable highly efficient manufacturing processes in different industries. The Dürr Group supplies sectors like the automotive industry, mechanical engineering, chemical, pharmaceutical and woodworking industries. It generated sales of € 3.92 billion in 2019. The company has around 16,200 employees and 112 business locations in 33 countries. The Group operates in the market with the brands Dürr, Schenck and HOMAG and with five divisions:

* **Paint and Final Assembly Systems:** paint shops as well as final assembly, testing and filling technology for the automotive industry
* **Application Technology:** robot technologies for the automated application of paint, sealants and adhesives
* **Clean Technology Systems:** air pollution control, noise abatement systems and coating systems for battery electrodes
* **Measuring and Process Systems:** balancing equipment and diagnostic technology
* **Woodworking Machinery and Systems:** machinery and equipment for the woodworking industry

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