Press Release

NEW PRODUCT: 2 Component (2C) Material Mixing and Dispensing System

Marco Systems Analysis and Development LLC, a subsidiary of Marco Systemanalyse und Entwicklung GmbH, is launching a complete system for dispensing 2 component materials. It is comprised of Degassing Tanks, Mixing Head, and a MultiJet precision dispensing valves.

Degassing Tank

The system begins with degassing materials and preparing the material for dispensing. The degassing tanks have a suction pipe to siphon material from the original container into the tank for continuous operation. If preferred, material can also be poured into the degassing vessel. The tanks are available in 3 liter, 10 liter and 25 liter capacity and size is selected based on mix ratio, application dosing size and material consumption.

Material is kept under vacuum and is then pumped to the mixing head using an integrated pump. Smart controls monitor and control the fluid level, vacuum level and flow rate of each material to the mixing head. The tanks can also be configured to use nitrogen and supply 'air-free' material to the **2 component Mixing Head**.

The tank designs meet the needs for minimal 'dead zone' and material waste. Periodic tank cleaning can be performed in less than 15 minutes. The amount of material wasted in the cleaning process has been reduced to <0.5% of the tank capacity.

2 Component Mixing Head(s)

The 'air-free' material is received from the **Degassing Tanks** for meter mixing in the mixing head. The Mix Ratio is programmable and both Static Mixing and Dynamic Mixing are offered. Dispensing from the Mixing Head can take place after mixing is completed. Alternatively, the mixed material can be supplied to continuously on demand to the Marco precision **MultiJet System**. The ability of the **2C Mixing Head** to offer both static and dynamic mixing with direct dispense or fluid supply to a precision Jet dispenser(s) is a unique capability in the industry. Controlling the time between mix and use reduces variation in the dispensing process. The wetted parts in the fluid path are modular and simple to dismantle for cleaning and replacement.

MultiJet System

The final step in the Marco **2 Component Material Mixing and Dispensing System** is the option to deliver material from the **2 component mixing head** via a single line of mixed material to the **MultiJet System.** This final component features four Marco precision piezo SuperiorJet valves. Each valve can be individually programmed for unique dispense configurations. This configuration option addresses the unique challenge of small dosing requirements with high material consumption for Encapsulation, Potting and Sealing of precision devices.

About Marco Systemanalyse und Entwicklung GmbH

Martin Reuter, President, co-founded the company in 1982 with fellow shareholders dedicated to building a company through technical leadership and interdisciplinary collaboration. With management dedicated to innovation and technical analysis, the company has grown to over 400 employees with multiple locations for manufacturing and distribution throughout the world.

The multidisciplinary team of physicists, mechanical, electrical, software, and control engineers has allowed Marco to achieve a vertical integration business model. This asset allows Marco to take responsibility for the entire manufacturing process from the formulation of the piezo materials to the software that drives it, ensuring excellent process control and supply chain coordination. All core competencies are developed internally, ensuring uniqueness in Marco's creativity. This vertical business model allows Marco to pursue large projects without delay whilst still serving smaller customized applications with a competitive edge.

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