



Axel Semrau®

CHRONECT® Quantos



Product Information

Introduction

At the analytica 2018 Axel Semrau® has paved the way for a new era of laboratory automation. In close collaboration with METTLER-TOLEDO GmbH, Jüke Systemtechnik GmbH and Trajan Scientific and Medical a unique innovation for the automation in laboratories has been developed: CHRONECT® Quantos – The fully automated powder dosing complements the automated sample preparation by a further working step which so far was performed manually.

Operating principle

The accurate dosing and weighing technique by METTLER-TOLEDO is integrated to

automated sample preparation via CHONRECT® Bionic, a multi-dimensionally working robot. The exact amount of powder is automatically dosed and introduced into the CHRONECT® Robotic XYZ robotic system. CHRONECT Bionic positions one of up to 32 powder dosing heads into a Quantos Powder Dosing system. This system consists of the Quantos Dosing Module and a scale by METTLER-TOLEDO. CHRONECT Bionic takes the target vial from the XYZ robotic system and places it below the dosing head with-in the scale. The correct amount of powder is then weighed in automatically. Then, the vial is placed back into the CHRONECT Robotic system (Figure 1). Here, a safe and efficient Liquid Handling can be performed. The entire control is realized by our well-established software CHRONOS.

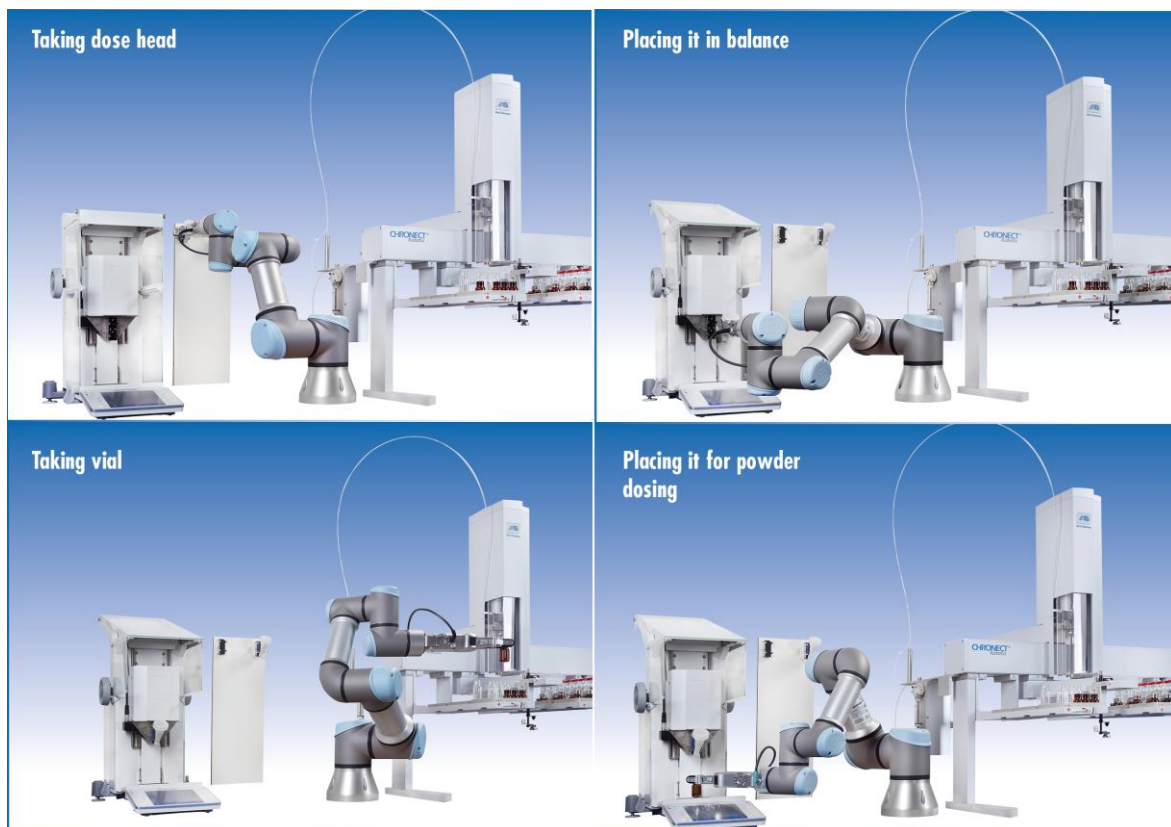


Figure 1: Brief outline of the course of automated powder dosing.

Versions

CHRONECT Bionic, depending on the needs, is available as a cooperative robot which can interact with the user (Figure 2). Other requirements call for the industrial robot for an extra-fast application (Figure 3). The picker arm can be adapted to the various fields of application. Additionally, depending on the area of application, CHRONECT Bionic is available in different sizes.

Configuration CHRONECT Quantos

- CHRONECT Bionic
 - Cooperative robot for direct interaction with the operator or
 - Industrial robot for extra-fast application
- Quantos Powder Dosing System by METTLER-TOLEDO consisting of
 - Quantos Dosing Module
 - Scale
- CHRONECT Robotic consisting of
 - PAL Autosampler by CTC Analytics
 - Control software CHRONOS

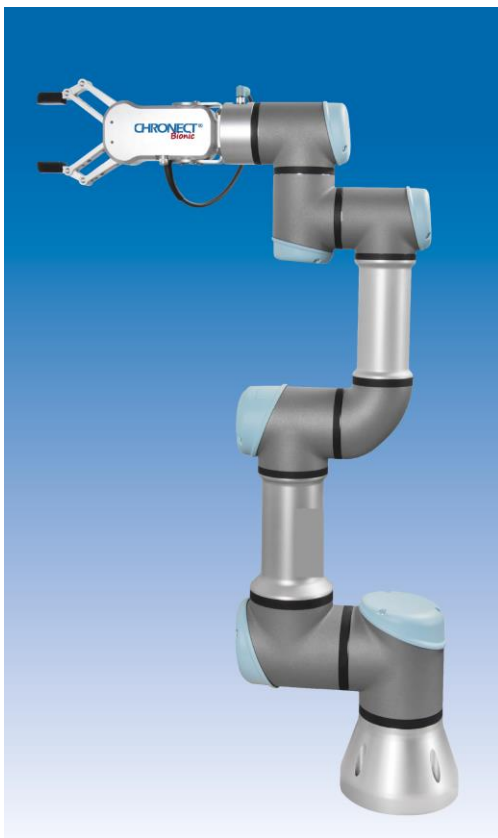


Figure 2: Cooperative CHRONECT Bionic.



Figure 3: CHRONECT Bionic as industrial robot for extra-fast application.

Benefits

- Integration of accurate dosing and weighing technology into automated sample preparation
- Perfect addition to XYZ robotic systems
- Prevention of error sources through manual sample preparation
- Automatization of time-consuming sample preparation steps
- Extension of the automated working space
- Security of investment
- Future-oriented automation for the digital laboratory
- Factory Acceptance Test and Site Acceptance Test

Subject to technical changes

Automated Powder Dosing is a development by Axel Semrau®, METTLER-TOLEDO GmbH and Jüke Systemtechnik GmbH and Trajan Scientific and Medical.

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