

DISPENSE CARTRIDGE

YOUR COMPACT SOLUTION
FOR REAGENT STORAGE AND
DISPENSING TASKS



DISPENSE CARTRIDGE

FOR YOUR LIQUID HANDLING

Liquid handling is a core process in literally every automated analyzer. Frequently, liquid handling systems use pumps or sophisticated pipetting systems to deliver reagents or other fluids to test sites.

This in turn, limits flexibility and throughput of the complete system. In addition, using pipetting systems adds costs to systems where it might not be necessary.

STRATEC offers a unique solution, the Reagent Cartridge, which combines primary package and dispense system in one single unit. The Reagent Cartridge enables simple, reliable, robust and elegant non-contact liquid dispensing.

YOUR REQUIREMENTS

- Flexibility of liquid system
- Traceability
- Reliable bulk reagent loading and dispensation
- Cost reduction
- Usability

Intelligent reagent management with high liquid system flexibility

Relief of pipettor

Reliable bulk reagent handling with reduced dead volumes

Optimized on-board stability with no possibility for reagent manipulation

Increased usability with error prevention

Decreased instrument contamination risk



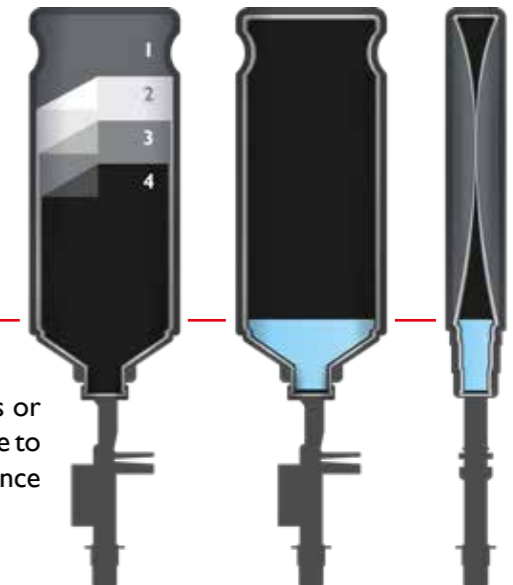
Increase shelf life by Bag in a Bottle (BIB) principle:

In order to achieve the utmost level of integrity during multiple dispenses without the addition of preservative agents, highly engineered packaging is mandatory. STRATEC designed a hybrid packaging, the Dispense Cartridge, suitable to fulfill these needs. The multilayer bottle consists of an outer rigid bottle layer (1) and flexible contracting bag layers (2-4). The outer rigid layer avoids squeezing and splashing of liquids during handling and allows easy positioning and orientation of the Dispense Cartridge. The flexible inner layers collapse during dispense and therefore form an airtight system with no evaporation risks.

Optimized for liquid handling, without additional preservative agents

Realization of an airless system: protects from exchange with Oxygen and CO₂

Opaque Dispense Cartridge especially designed for highly light sensitive reagents



Integrated dispense unit

Reduces the need for other liquid handling components or rendering them obsolete. Moving components susceptible to wear into a consumable minimises preventive maintenance and service costs.

Intelligent reagent management

Reagent management is an important consideration in choosing the perfect liquid supply and handling system for your automated instrumentation. The read/write RFID technology behind the Dispense Cartridge System automates inventory tracking.

COMPLEMENTARY TECHNOLOGY: DISPENSE CARTRIDGE ACTUATOR



The Dispense Cartridge Actuator is a specifically designed processing module to drive the plunger inside the Dispense Cartridge. A fork fixture hooks into the dispense unit and moves the plunger, thus making usual pump drives for dispensing redundant. Convenient insertion of the Dispense Cartridge automatically triggers the initialization and the system is ready for the first dispensing process in no time. The intelligent system automatically recognizes wrong positioning of Dispense Cartridge due to sophisticated read/write RFID technology. The Actuator ensures secure positioning via an integrated key lock feature.

SPECIFICATIONS

Drive	Stepper motor
Dimensions [H W D]	113 25 125 mm
Weight	Approx. 150 g
Power requirements	24 VDC ± 5 % 800 mA ¹
Communication	RS232 USB TCP/IP

¹During dispense, 70 mA in stand-by mode

SPECIFICATIONS

GENERAL DESCRIPTION: DISPENSE CARTRIDGE BOTTLE

Intended use	Primary liquid package Single use
Material	Bormed HE 754I PH (inner product touching layer)
Color	Black (outer bottle layer)
Sterility	Non-sterile
Nominal volume	270 mL *
Weight	39 g ± 1.5 g *
Application	Purity level is targeted towards applications such as ELISA, CLIA and biochemical screening

GENERAL DESCRIPTION: CARTRIDGE DISPENSER

Intended use	Liquid dispense in fully automated analytical systems Single use
Material	Total Polypropylen PPM H250 Bormed HE 754I PH EPDM Wacker Elastosil LR 3003/40
Color	Black
Sterility	Non-sterile
Weight	Approx. 10 g *
Application	Purity level is targeted towards applications such as ELISA, CLIA and biochemical screening
Volume range	Approx. 260 µL * On request: Adaption to dispense volumes ranging from 50 µL to 450 µL possible
Accuracy	260 µL: -15 % / +10 % *

PACKAGING QUANTITY

Shipping Unit	Bulk 150 Bottles 300 Dispensers
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ENVIRONMENTAL CONDITIONS

Shipping conditions	0 °C to +50 °C for a maximum of 3 days Humidity: 10 to 90 %
Storage conditions	+2 °C to +32 °C for a maximum of 3 years Humidity: 20 to 80 % non-condensing Keep away from sunlight

COMPATIBILITY

Designed for STRATEC Reagent Rack and KleeYa
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