

## 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 Dispense Cartridge, which combines primary package and dispense system in one single unit. The Dispense 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

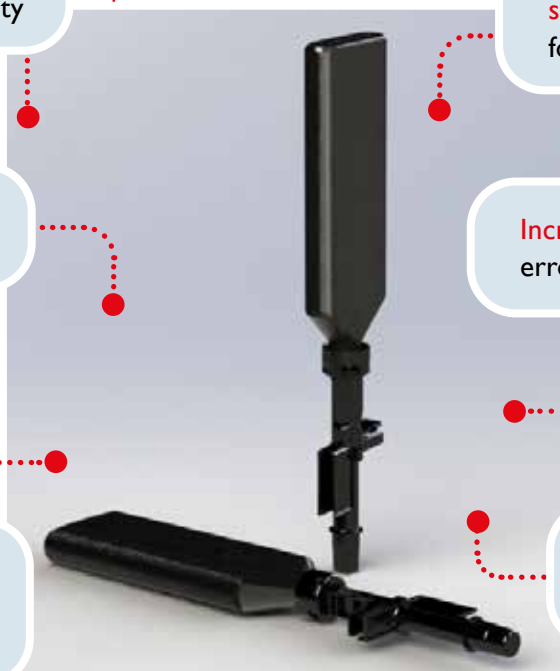
Relief of pipettor

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



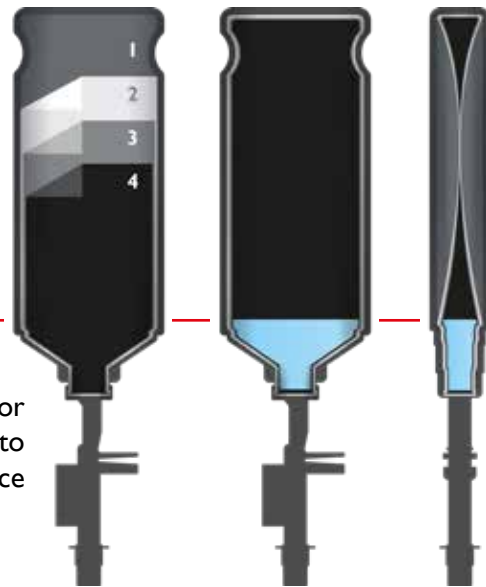
**Increase shelf life by Bag in a Bottle (BIB) principle:**

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 CO<sub>2</sub>

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

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

<sup>1</sup>During dispense, 70 mA in stand-by mode

# SPECIFICATIONS

## GENERAL DESCRIPTION: DISPENSE CARTRIDGE BOTTLE

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

## GENERAL DESCRIPTION: CARTRIDGE DISPENSER

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

## PACKAGING QUANTITY

<b>Shipping Unit</b>	Bulk   150 Bottles   300 Dispensers
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## ENVIRONMENTAL CONDITIONS

<b>Shipping conditions</b>	0 °C to +50 °C for a maximum of 3 days Humidity: 10 to 90 %
<b>Storage conditions</b>	+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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