

# smartdilutor //

Accurate, Traceable, Productive Gravimetric diluter





#### Introduction



Initial sample dilution is a key step in the workflow of any microbiology lab. **Precise gravimetric diluting** is eased by the Smart Dilutor W which automates this process providing a fast and reliable approach to it. Its accurate weight cell and powerful peristaltic pumping combine to streamline this process. Furthermore, it can be used to dispense set volumes.

A sample is initially inserted in a homogenizer bag, next, sample weight is measured with the device's load cell. Last, the device dilutes the sample according to a preset dilution factor. The device also allows to perform accurate liquid dispensing.

# **smartdilutor** 's key traits

Smart Dilutor W has been designed to cover all the needs of today's microbiology labs through several key traits:

- Provides sample processing traceability:
  - Operator ID
  - Sample ID
  - Dilution ID
- Simple control from a touch panel.
- Tubing and parts that contact the diluent can be quickly disassembled to sterilize them in an autoclave.
- The device can be connected to:
  - A printer (RS-232 DB9 port): that can print records of the dilutions performed.
  - A barcode reader: that enables identification of the diluted samples.
  - An external computer (Ethernet): allowing for connection to a LIMS.
- Diluent can be pumped from:
  - Media containing bottles
  - Ready to use media bags
- Can perform accurate liquid dispensing when using the dispensing mode.
- Upscalable:
  - Main 1 or 2 pump unit
  - Optional 4 pump accessory

Microbiology Lab Automation



### **DILUTION**



# smartdilutor // Workflow









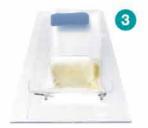


- 1. A sterile homogenizer bag is placed in the homogenizer bag holder (which serves as a weighing platform).
- 2. The weight tare is performed.
- 3. The sample is placed inside the bag.
- **4.** The instrument will then **automatically deliver diluent into the bag** until a previously preset dilution factor is reached. Dilution factors can be set through any given rational number fraction: numerator (two digits)/ denominator fraction (three digits).
- 5. A precisely diluted sample is ready for further processing

# **Accessories and Disposables**









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- 1. Weighing platform and multilevel dilution arm for beakers/flasks CAT.90002838 CAT.90002806
- 2. Barcode reader and barcode support CAT.90005701 CAT.90002836
- 3. Weighing bag holder for 80 ml. bags CAT.90002885
- 4. Portabag: Stainless steel holder for six 400 ml bags CAT.90002300
- 5. Portabag: Stainless steel holder for six 80 ml.
  - CAT.90002380
- 6. 400 ml.Y-irradiated homogenizer bags
  - a. 500 bags (packed in 10 bag packs) CAT.900014010
  - b. 5000 bags (packed in 10 bag packs) CAT.90001428
  - c. 500 bags (packed in 50 bag packs) CAT.900014050
  - d. 5000 bags (packed in 50 bag packs) CAT.90005421

- 7. 400 ml.Y-irradiated homogenizer bags with filter
  - a. 500 filter bags (packed in 25 bag packs) CAT.900014501
  - b. 2000 filter bags (packed in 25 bag packs) CAT.90002451
  - c. 5000 filter bags (packed in 25 bag packs) CAT.90002452
- 8. 80 ml. Y-irradiated homogenizer bags a.1500 bags (packed in 50 bag packs) CAT.90002456
  - b. 4500 bags (packed in 50 bag packs) CAT.90002457
- 9. Four pumps device CAT. 90002798

## **Technical Data**

Weight range: 2400 g. (tare included).

Maximum sample weight: compatible with factor, tare and weight range. Weight resolution SAMPLE: 0.01 g.

Weight resolution DILUTION: 0.1 g.

Delivery speed: 950 ml/min (tube diameter: 5mm).

Sample weight accuracy (for sample weights > 5g): > 99%

Dilution accuracy: > 99% Dispensing accuracy: > 99%

Selectable surface vibration compensation levels: 0 - 4. Mains: 85~264 ACV 50/60 Hz.

Power: 40 w.

Dimensions: (WxHxD): 300x365x325 mm.

Weight: 6.5 Kg.

Printer connection: Serial RS232 DB 9.

Printed records include: Date, Time, Operator ID, Sample ID, Sample Weight, Dilution Factor, Diluent

ID, Total Weight, Final Accuracy, Last Calibration Date.

Connection to computer for LIMS integration: Ethernet

IUL Barcode reader connection.
Calibration interval (two points): 0 and 100 to 2000 g.

For more information please visit us at:

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