User Guide

ReadyStream® Dilutor Connector Accessories

Description

With the ReadyStream® Connector Accessories, a connection between the ReadyStream® System and a Dilutor can be established. For that, a ReadyStream® Bag is connected to a standard GL45 lab bottle to prefill it with media dispensed from the ReadyStream® System. From that bottle, serving as media reservoir, a dilutor connected to this bottle can pull the media and dispense it to the sample.

Material

Cat. No.	Description	Quantity
RDYFCON01	Autoclavable female quick connector for connection between ReadyStream® Bag outlet and GL45 lab bottle through tube of Ø ID 6.4 mm (RDYTUBE08), including cap to seal connector.	1 Pair
RDYFCON05		5 Pairs
RDYTBCON01	Autoclavable female and male tube quick connectors for easy and quick connect/disconnect of Dilutor and GL45 lab bottle, including cap for each connector.	1 Pair
RDYTBCON05		5 Pairs
5553640001[a]	Autoclavable GL45 cap with 2 ports	1 Piece
Z742276	Autoclavable GL45 cap with 3 ports	1 Piece
DWK292612907[b]	Autoclavable GL45 cap with 4 ports	1 Piece
RDYTUBE08	Set of 8 semi rigid autoclavable tubes for connection to GL45 cap, Ø ID 6.4 mm; length 7 cm	8 Tubes
5314010001	Silicone tubing Ø ID 6.4 mm for use with dilutor (DiluCult™)	Set of 5 tubes
RDYSTPC01[b]	Autoclavable 3-way stopcock for ReadyStream®-dilutor workflow	1 Piece
SLFG05010[c]	Millex® hydrophobic PTFE vent filter	10 Filters

[a] Tube, tube weight and nozzle included in this reference.

[b] Tube clamps (e.g. Cat. No. Z147281-10EA) should be used when using the GL45 cap with 4 ports or the 3-way stopcock.

[c] The product's COQ certifies compatibility with 10 autoclaving cycles. However, for the ReadyStream® workflow, proper functionality after 90 autoclaving cycles has been tested and verified. Note that this is not part of the quality claims.
It is the user's responsibility to visually check the filter regularly and replace it if needed.

General Instructions

Installation of the consumables, priming as well as calibration of the ReadyStream® System must be done as described in the ReadyStream® user guide, before the system is connected to the GL45 lab bottle and the dilutor, respectively.

The ReadyStream® Dispensing unit is used only, to initiate bottle filling at the defined parameters (volume, temperature, speed, concentration).

Ensure that the silicone flat gasket is attached to the GL45 cap before screwing it on the bottle. Tubes should be fixed to the media inlet and outlet of the GL45 cap. For reliable withdrawal of media from the bottle the tube length inside the GL45 lab bottle, should be adapted to the bottle size, so that the tube ending is positioned just above the bottle's bottom. Optionally a tube weight can be used to keep the tube in place (not provided).

Additional details on connection of the accessories and tubes can be found on the reference's product detailed pages on **www.sigmaaldrich.com**.

Before a dilutor withdraws media from the GL45 lab bottle, a homogeneous media mixture inside the bottle should be ensured, e.g. by using a magnetic stirrer or by shaking the bottle.

Note that by leading the media via an unwarmed GL45 lab bottle to the dilutor(s), the media may cool more than when using the ReadyStream® Dispensing Unit. Depending on the initial temperature of the bottle and the time the media remains within it, a higher pre-warming temperature may have to be set.

Setups

The ReadyStream® Connector Accessories can be used to realize multiple setups of connecting the ReadyStream® System with one or two dilutors to fulfill different user and lab workflow requirements. These are described in the following.

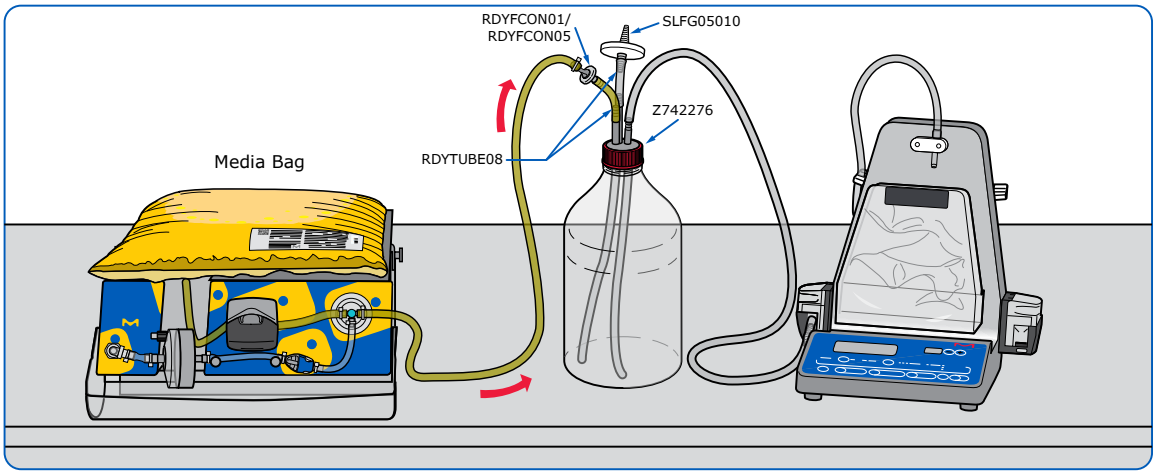
In-Line Connection

In these setups, the ReadyStream® System and the dilutor(s) are both connected to the bottle at the same time. This allows filling of the bottle and subsequent dispensing without connecting and disconnecting.

! The dilutor must not be used, while the bottle is being filled by the ReadyStream® System, and not before the media in the bottle has become homogeneous, as the withdrawn media may not have the right concentration.

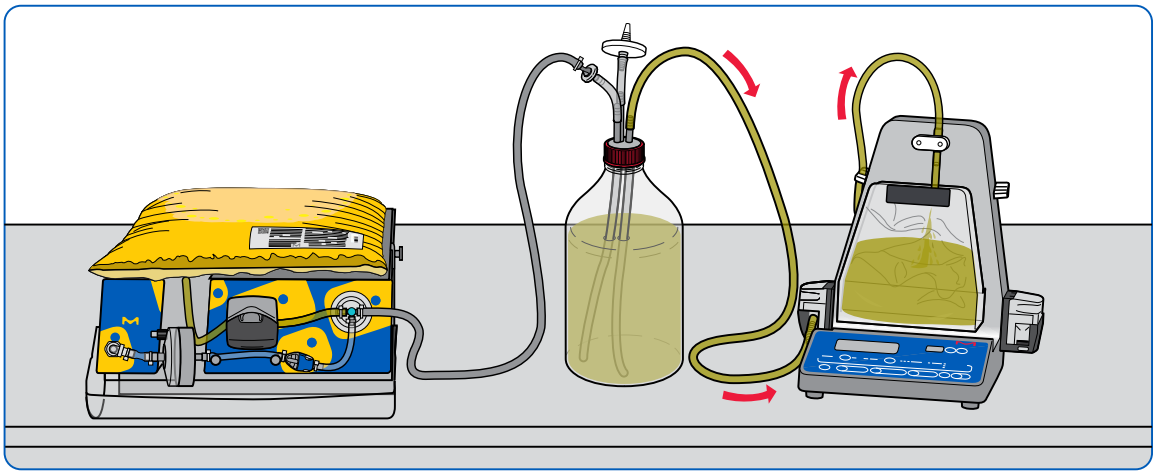
ReadyStream® System and 1 Dilutor Connected to Bottle

1. Bottle Filling



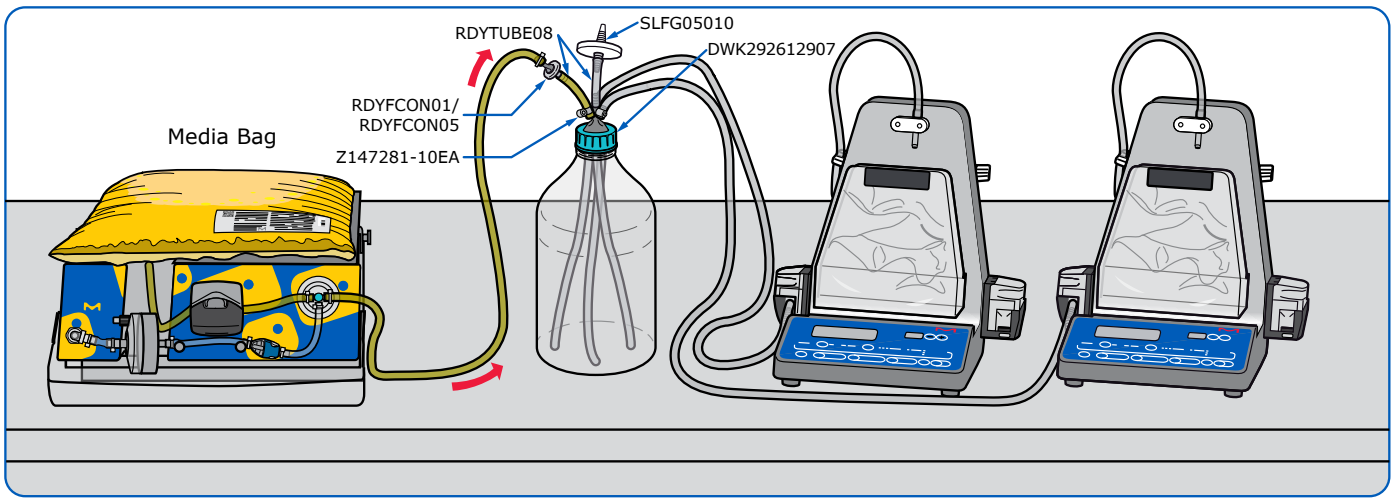
ReadyStream® System | GL45 Lab Bottle (not provided) | Dilutor 1

2. Dispensing



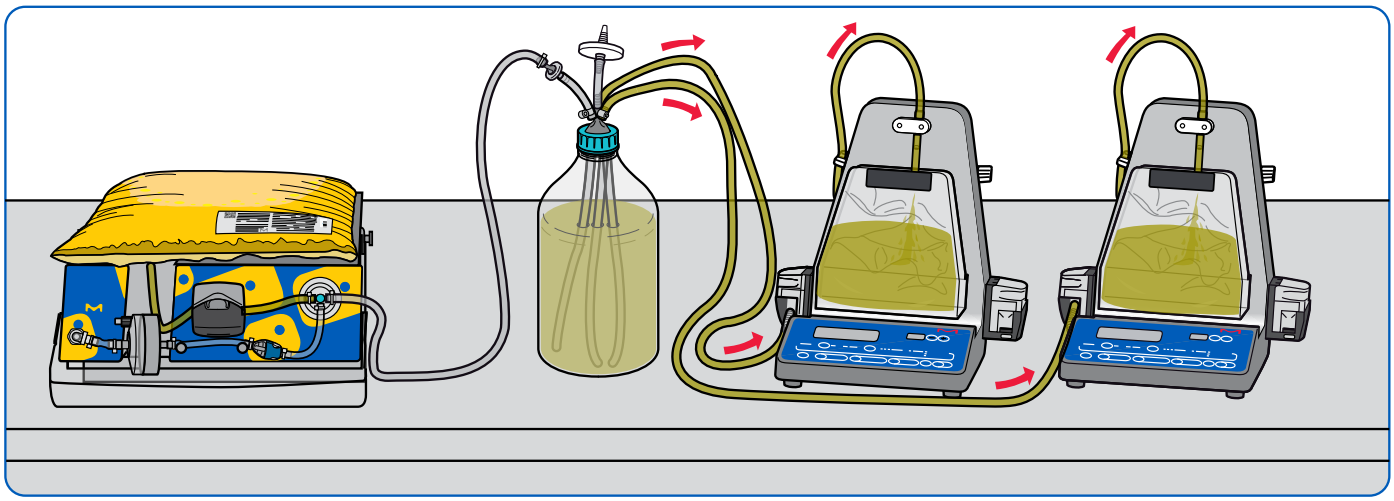
ReadyStream® System and 2 Dilutors Connected to Bottle

1. Bottle Filling



ReadyStream® System | GL45 Lab Bottle (not provided) | Dilutor 1 | Dilutor 2

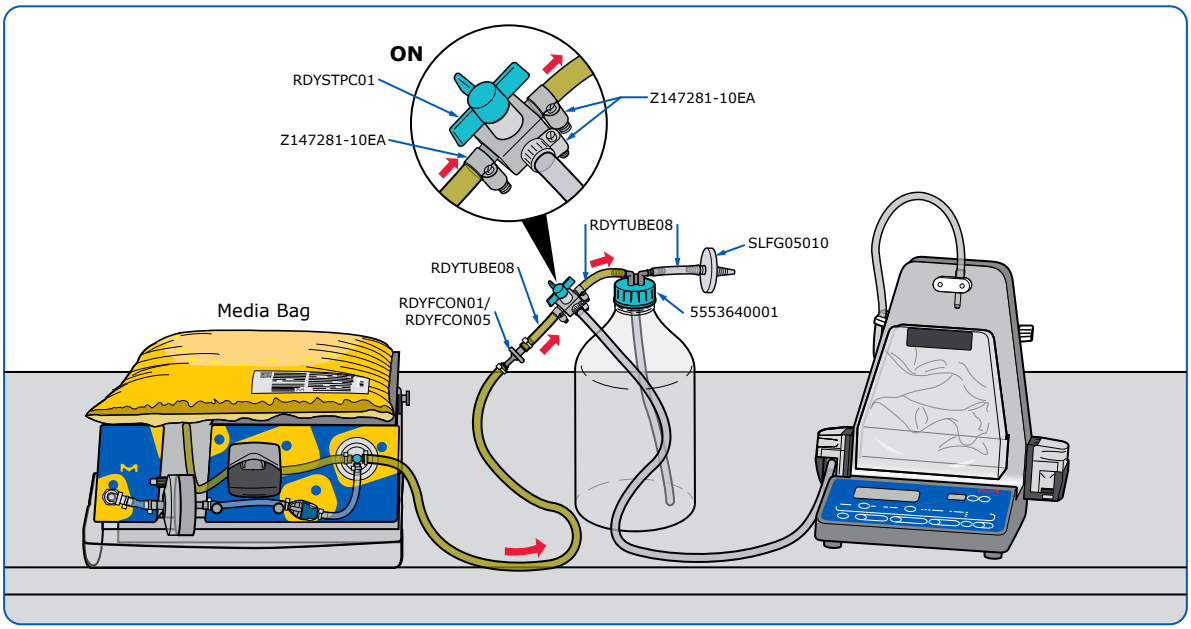
2. Dispensing



In-Line Connection with Stopcock

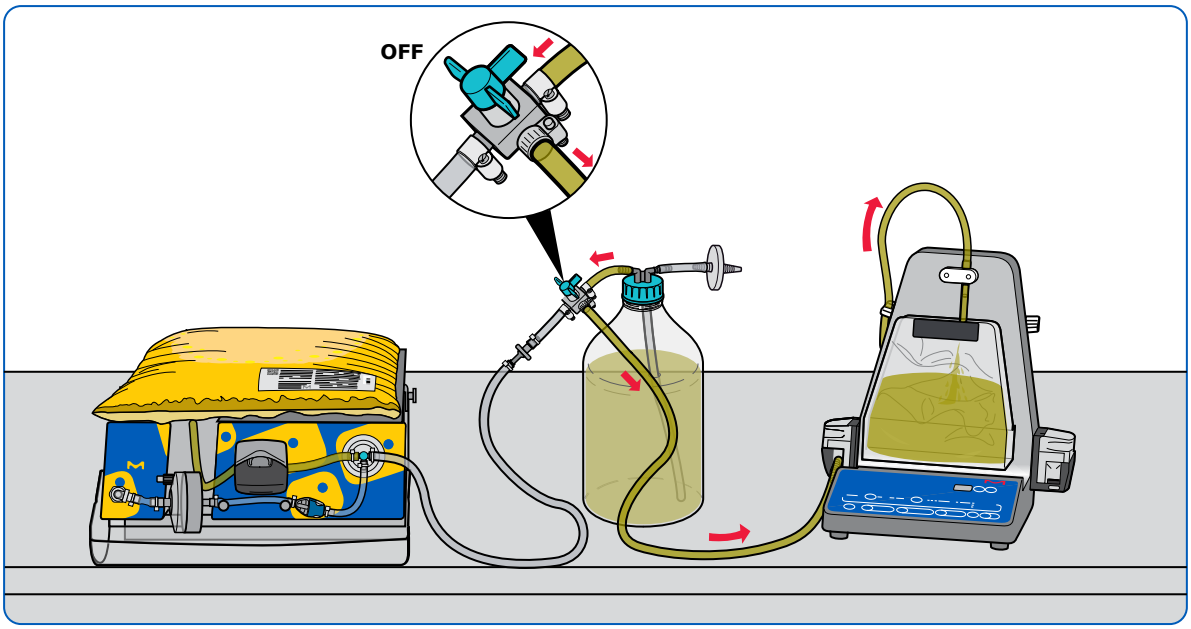
Optionally a stopcock can be connected between ReadyStream® System, GL45 lab bottle and dilutor. This reduces the risk of accidently operating the dilutor at the same time the GL45 lab bottle is filled.

1. Bottle Filling



ReadyStream® System | GL45 Lab Bottle (not provided) | Dilutor

2. Dispensing

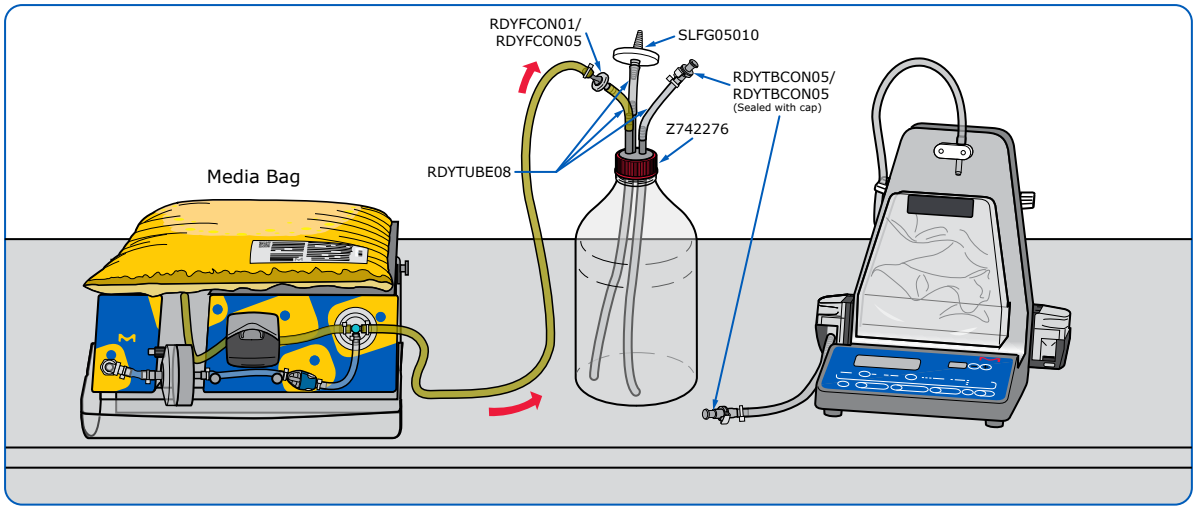


Sequential Bottle Filling and Dispensing—Connection via Quick Connectors

In these setups, both the ReadyStream® System and the dilutor(s) are connected and disconnected to the GL45 lab bottle via quick connectors. This allows the bottle to be filled at a different location to where the dilutor is positioned, giving greater flexibility. After disconnecting the ReadyStream® System and transporting the filled bottle within the lab to the dispensing place, the bottle can be quick connected to the dilutor. Moreover, this setup allows filling a second GL45 lab bottle while the first bottle is connected to a dilutor. This can streamline activities and improve workflow efficiency.

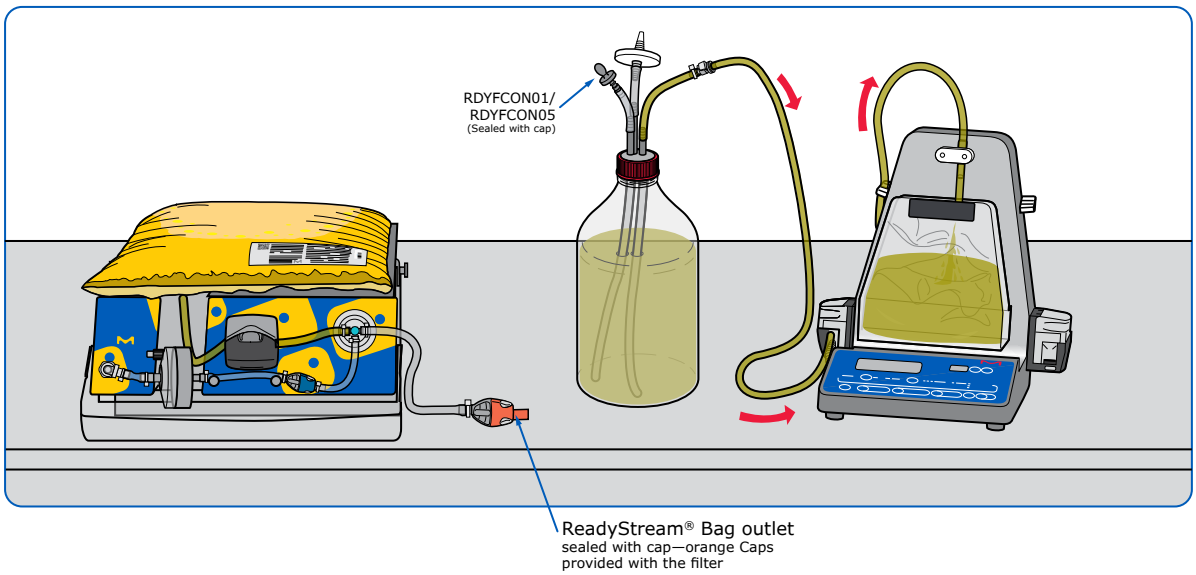
After disconnecting, the open connectors should be sealed with the provided caps, which are to be stored in a sterile container.

1. Bottle Filling



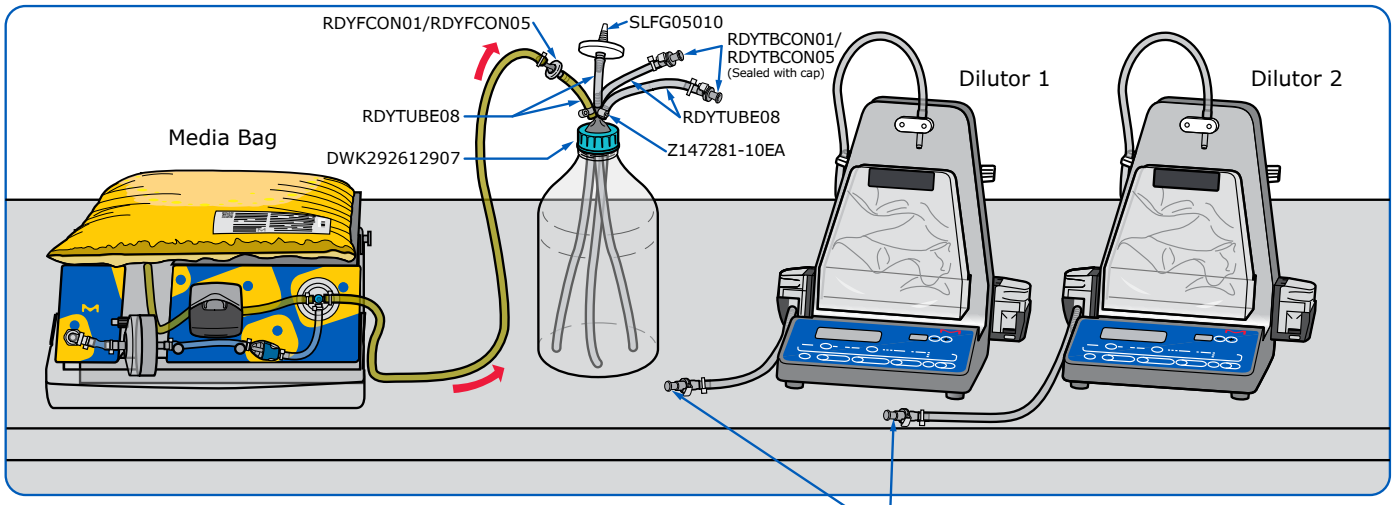
ReadyStream® System | GL45 Lab Bottle (not provided) | Dilutor

2. Dispensing

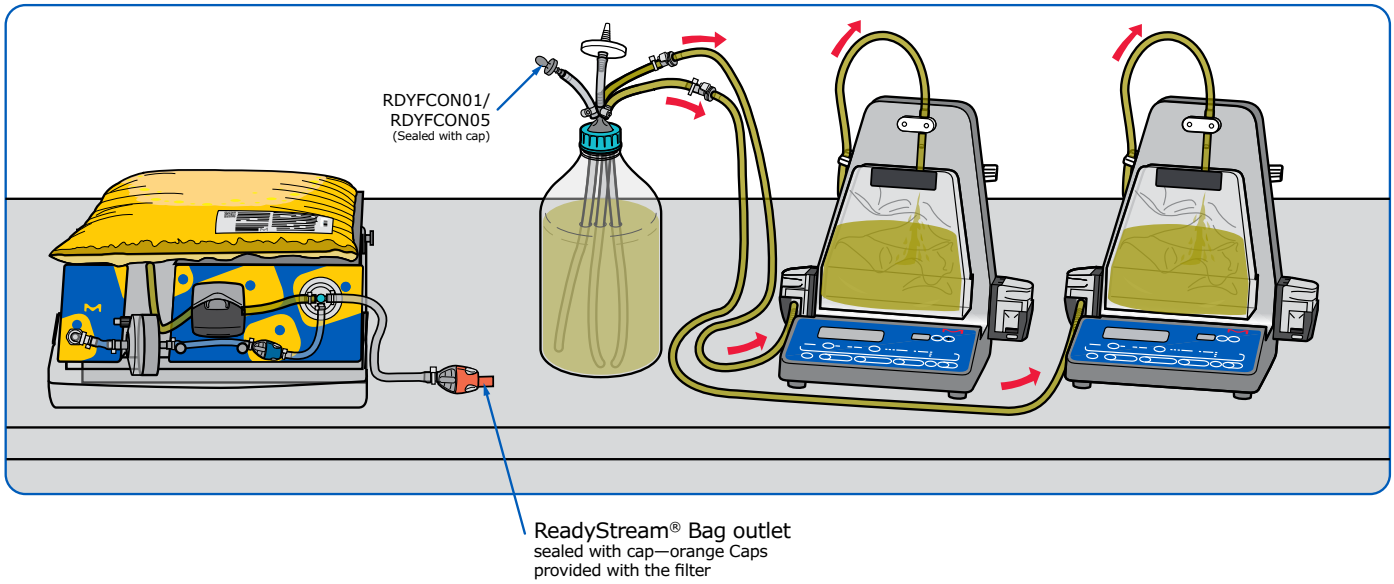


ReadyStream® System and 2 Dilutors Connected via Quick Connectors for Sequential Bottle Filling and Dispensing

1. Bottle Filling



2. Dispensing



Rinsing, Autoclaving and Maintenance Instructions

It is recommended to clean and autoclave the ReadyStream® Connector Accessories and other materials described in the setups (e.g., the GL45 lab bottle), after daily use under validated autoclaving conditions. Autoclaving compatibility of the ReadyStream® Connector Accessories was tested and verified at 134 °C for 10 minutes (see specific note on Millex® Vent Filter in foot note of Materials table).

Before autoclaving, rinse the tubing, connectors and GL45 bottle with water. To do so, proceed as follows:

1. Dispense water from the ReadyStream® System into the GL45 lab bottle which is connected to the ReadyStream® System in one of the described setups, by pressing [WATER] on the ReadyStream® Dispensing Unit.
2. Unscrew the GL45 cap and rinse with water: the GL45 lab bottle, the GL45 cap and all tubes (still connected to the GL45 cap) that have been inside the bottle and in contact with media.
3. Screw the GL45 cap on the bottle again
4. Repeat step 1: Dispense water from the ReadyStream® System into the GL45 lab bottle, by pressing [WATER] on the ReadyStream® Dispensing Unit.
5. Then, start dispensing the water through the connected dilutor(s).
6. Repeat step 4 and 5 as often as necessary.

Remove caps and counter connector parts from the connectors before autoclaving.

Check regularly the connectors and silicone tubing for airtightness, change of physical appearance etc. In that case, e.g. if the connectors cannot be closed properly anymore or if the tubing becomes hard or sticky, it should be changed.

Technical Assistance

For more information, please visit **SigmaAldrich.com**
for up-to-date worldwide contact information

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