

## User Guide

# Steripak™-GP

## Pressure Driven Filter

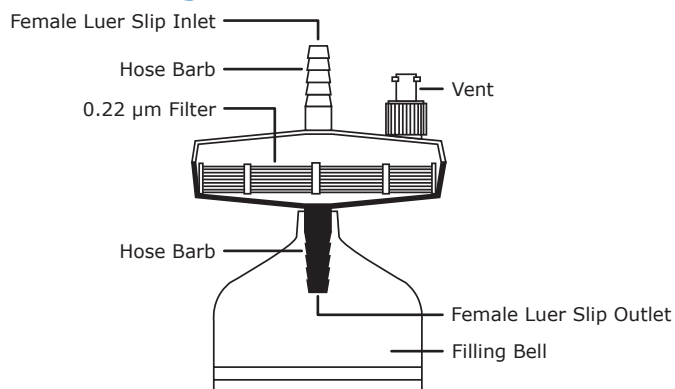
Single Use Only. Sterile. Non-pyrogenic. For laboratory use only.

**SPGPM10RJ**  
**SPGPM20RJ**

### Introduction

The Steripak™-GP pressure driven filter is a sterilizing filter for aqueous solutions. It removes microorganisms, particles, precipitates, and undissolved powders larger than 0.22 microns ( $\mu\text{m}$ ). The Steripak™-GP filter is non-pyrogenic and non-toxic. This single-use product consists of a 0.22  $\mu\text{m}$  Express PLUS® PES (Polyethersulfone) membrane filter sealed in a SAN housing. The Steripak™-GP filter is available in two sizes. The 100  $\text{cm}^2$  version can filter up to 10 L while the 200  $\text{cm}^2$  version can filter up to 20 L. Typical applications include the sterile filtration of tissue culture media, additives, buffers, and water.

### Diagram of the Steripak™-GP Filter with Filling Bell



### Chemical Compatibility

The Steripak™-GP filter is compatible with most aqueous solutions. It may be used to filter the agents listed in the following chart. This guide has been developed from technical publications, materials suppliers, laboratory tests, and field evaluations, etc., and is believed to be reliable. However, because of variability in temperature, concentrations, duration of exposure, and other factors outside of our control which

may affect the use of the unit, no warranty is given or is to be implied with respect to such information. Agents not listed below should be tested with the Steripak™-GP filter before use.

### Chemicals

- Aqueous buffers
- Cell culture media
- Clorox® bleach (5% solution)
- Sodium hydroxide
- Water

### How to Use the Steripak™-GP Pressure Driven Filter

This section lists warnings and cautions you need to know when using the Steripak™-GP filter. It also provides steps to use it with a pressure vessel or a peristaltic pump.

#### WARNINGS:

- To ensure sterility, do not use this product if the package is damaged.
- For laboratory use only.

#### CAUTIONS:

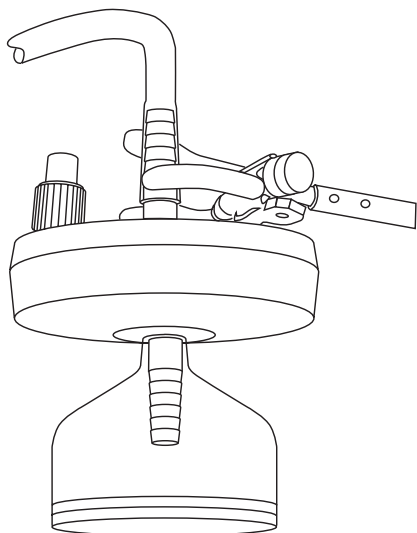
- Do not re-sterilize or reuse the Steripak™-GP filter. The Steripak™-GP filter is not autoclavable.
- Do not use the Steripak™-GP filter at temperatures above 45 °C (113 °F).
- Use hose clamps to avoid blowing the tube off the Steripak™-GP filter.
- Do not exceed the operating pressure of 75 psig when using the Steripak™-GP filter with a peristaltic pump.

## Directions to Use the Steripak™-GP Filter with a Pressure Vessel or Peristaltic Pump

1. Fill a pressure vessel or container (if using a pump) with the solution you want to sterilize.
2. Prepare the pressure vessel or peristaltic pump. If using the pump, load the pump head with 7.93 mm (3/16 in.) I.D. silicone tubing.

Device	For Best Results
Pressure vessel	Pressurize the vessel at 15 to 20 psig (103 to 138 kPa).
Peristaltic Pump	Use a pump drive and pump head that delivers a constant speed of 60 rpm. This generates an average flow rate of 100 mL/minute. (The fixed speed peristaltic pump delivers a maximum flow of 100 mL/minute)

3. Fit a 4 to 9-1/2 mm (.15-.37 in.) I.D. silicone rubber or latex tube over the connector. The fit should be snug.
4. Peel open the Steripak™-GP filter package container using aseptic technique.
5. Remove the unit from the blister pack and attach the tubing to the inlet using aseptic technique.
6. Connect the unit to a ring stand and place a sterile collection flask under it.
7. Turn on the pressure vessel or peristaltic pump. When done, turn off pressure, remove and discard Steripak™-GP filter and dispose of according to all applicable international, federal, state, and local regulations.



## Specifications

	SPGPM10RJ	SPGPM20RJ
<b>Dimensions</b>		
Inlet to edge of filling bell:	99 mm (3.88 in.)	99 mm (3.88 in.)
Diameter:	76 mm (3 in.)	76 mm (3 in.)
Filtration area:	100 cm <sup>2</sup>	200 cm <sup>2</sup>
Pore size:	0.22 μm	0.22 μm
<b>Filtration Volume</b>	10 L	20 L
<b>Flow Rate at 25 °C</b> (Typical initial average flow rate for water at 15 psig)	2 L/minute	4 L/minute
<b>Materials</b>	Hydrophilic polyethersulfone (PES) Express PLUS®, type GP, 0.2 μm; SAN housing; polycarbonate filling bell	
<b>Temperature Limit</b>	45 °C (113 °F) maximum	
<b>Pressure Limit at 25 °C</b>	5 bar (75 psi) max., forward direction 0.3 bar (5 psi) max., reverse direction	
<b>Hold-up Volume</b>	≤2.7 mL after air purge	
<b>Connections</b>	Stepped hose barb 1/2 in. (12.7 mm) to 1/4 in. (6 mm)	
<b>Sterilization</b>	Gamma irradiation	

## Product Ordering

Purchase products online at [SigmaAldrich.com/products](https://SigmaAldrich.com/products).

Description	Filtration Area	Qty	Cat. No.
Steripak™-GP	100 cm <sup>2</sup>	3/pk	SPGPM10RJ
Steripak™-GP	200 cm <sup>2</sup>	3/pk	SPGPM20RJ

## Related Products

Description	Qty	Cat. No.
Dispensing Pressure Vessel, 1 gal	1	XX6700P01
Dispensing Pressure Vessel, 5 L	1	XX6700P05
Dispensing Pressure Vessel, 10 L	1	XX6700P10
Vent/Relief Valve, 7 bar (recommended)	1	XX6700L24
Fixed Speed Peristaltic Pump, 115 V/60 Hz	1	XX8020E0
Fixed Speed Peristaltic Pump, 230 V/50 Hz		XX8023E0

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