

User Guide

MultiScreen[®]-HV and MultiScreen[®]_{HTS}-HV 96-well Plates

For In Vitro Diagnostic Use

English

Introduction

MultiScreen[®] 96-well plates are designed to filter samples and perform multiple procedures within the same plate. Each non-sterile plate consists of a 96-well plate with integral filters, a plastic underdrain to prevent cross-contamination between wells, and a plastic top cover.

Classic MultiScreen[®]-HV plates should be used with a MultiScreen[®] Vacuum Manifold (cat. no. MAVM0960R) or they can be centrifuged (Centrifuge Alignment Frame, cat. no. MACF09604 required).

MultiScreen[®]_{HTS}-HV plates are automation-compatible for use with a variety of robotics systems and can be barcoded on all four sides. These plates should be used with a MultiScreen[®]_{HTS} Vacuum Manifold (cat. no. MSVMHTS00) or they can be centrifuged.

Usage Guidelines

- Do not remove the plastic underdrain from the plate before filtering samples. Once the underdrain has been removed, filtrate collection is not possible, even if the underdrain is subsequently re-attached.
- Do not place sealing tape over all the wells or leave the cover on the plate while applying vacuum, as this will prevent the flow of liquid through the filters.

How to Use MultiScreen[®] Plates

Some protocols require prewetting of the filter plate prior to use. If prewetting is not required for your application, continue on to the "Filtering Samples" section.

NOTE: After prewetting the plate, keep it damp before filtering, or it must be rewetted.

Aqueous Prewet for Filtration Assays

1. Place the plate on the appropriate vacuum manifold and remove the plate cover.
2. Add 100 µL buffer to each well. Vacuum after 1 minute. The plate is now ready for sample addition.

Alcohol Prewet for Filtration Assays

1. Place the plate on the appropriate manifold and remove the plate cover.
2. Add 50–100 μL of 70% ethanol to each well. After 30 seconds, filter by applying low vacuum.
3. To flush the residual ethanol from the wells, wash twice with 200 μL of starting buffer, using vacuum. The plate is now ready for sample addition.

Filtering Samples

The maximum recommended vacuum is 270–405 millibar (8–12 in. Hg). A higher vacuum level may be used for difficult to filter samples, but this may lead to higher filtrate CV levels and sample foaming.

CAUTION: Do not use the manifold on the same bench or table as a vacuum pump, shaker, or mixer. The vibration may disrupt the filtrate transfer process for quantitative collection of filtrate.

1. Remove the plate cover and add solution(s) to the wells.
2. Replace the cover to minimize evaporation. Incubate per assay requirements.
3. Place the plate on the appropriate manifold.

CAUTION: Do not remove the plastic underdrain from the plate before filtering samples. Once the underdrain has been removed, filtrate collection is not possible, even if the underdrain is subsequently replaced.

4. Remove the cover and apply vacuum.

CAUTION: Empty wells will prevent flow. Add fluid to unused wells or cover unused wells with plate sealing tape.

5. Blot the plate on a lint-free absorbent surface to displace any microdroplets formed on the underside of the plate. Then add any other solutions that require further incubation.
6. Remove the plastic underdrain only if punching the samples out of the filtration plate with the Multiple Punch Assembly (cat. no. MAMP09608).

CAUTION: To avoid contaminating the samples, do not touch the bottom of the plate.

For more information on punching samples, see the user guide for the MultiScreen® Separations System, P17479. This user guide is available on-line at www.millipore.com (enter P17479 in the search box).

Specifications

Specifications		MultiScreen® Classic Plate	MultiScreen® HTS Plate
		MAHVN4510, MAHVN4550	MSHVN4510, MSHVN4550
Filter plate well capacity		300 μL	300 μL
Working sample volume (capacity may be limited by receiver plate)		250 μL	250 μL
Centrifugal speed (maximum)		1000 $\times g$	3000 $\times g$
Filter plate dimensions:	Length	127.9 mm (5.0 in.)	123.4 mm (4.9 in.)
	Width	85.5 mm (3.4 in.)	82.7 mm (3.3 in.)
	Height	14.4 mm (0.6 in.)	14.6 mm (0.6 in.)
Materials of Construction:	Membrane	0.45 μm hydrophilic Durapore® polyvinylidene fluoride	
	Cover	Styrene	
	Plate	Styrene	
	Filter	Polyethylene	
Use with MultiScreen® Vacuum Manifold Cat. No.		MAVM0960R	MSVMHTS00

Storage and Shelf Life










Store at room temperature. Shelf life is 3 years from date of manufacture. Refer to expiration date on package label.

Chemical Compatibility

Chemical compatibility for MultiScreen® Filter Plates and accessories can be found in Literature Number PR4772EN00 or PR4772ENEU, available at www.millipore.com (enter the publication number in the search box).

In Vitro Diagnostic Product Labeling

The following table defines the symbols found on MultiScreen® 96-well plate labels.

Symbol	Definition	Symbol	Definition
	In vitro diagnostic medical device		Date of manufacture
	Catalogue number		Manufacturer
	Do not reuse		Non-sterile product
	Use by		CE conformity marking
	Batch code		

Product Ordering Information

This section lists the catalogue numbers for MultiScreen® 96-well Plates, vacuum manifolds, and accessories. See the Technical Assistance section for contact information. You can purchase these products on-line at www.millipore.com/products.

MultiScreen® Plates for In Vitro Diagnostic Use

Plate Description	Pore Size (µm)	Prewet	Membrane support	Sterile	Cat. No.	Qty/Pk
MultiScreen®-HV clear styrene	0.45	Aqueous solution	N/A	No	MAHVN4510	10
MultiScreen®-HV clear styrene	0.45	Aqueous solution	N/A	No	MAHVN4550	50
MultiScreen® _{HTS} -HV clear styrene	0.45	Aqueous solution	N/A	No	MSHVN4510	10
MultiScreen® _{HTS} -HV clear styrene	0.45	Aqueous solution	N/A	No	MSHVN4550	50

Vacuum Manifolds and Accessories for use with MultiScreen® Plates

Description	Cat. No.	Qty/Pk
MultiScreen® Resist Vacuum Manifold Includes manifold base, standard collar, gaskets, support grid, tubing, valves, and pressure gauge	MAVM0960R (for use with classic plates)	1
MultiScreen® _{HTS} Vacuum Manifold Includes manifold base, standard collar, gaskets, gasket inserts, tubing, valves, and pressure gauge	MSVMHTS00 (for use with HTS plates)	1

Product Ordering Information, continued

Vacuum Manifolds and Accessories for use with MultiScreen® Plates

Description	Cat. No.	Qty/Pk
Vacuum Manifold Kits Includes MultiScreen [®] _{HTS} Vacuum Manifold, chemical duty pump (choose appropriate voltage), vacuum flask, stoppers, and Millex [®] filter units		
Vacuum manifold kit (220 volts, 50 Hz)	MSVMKIT00	1
Vacuum manifold kit (115 volts, 60 Hz)	MSVMKIT01	1
Vacuum manifold kit (100 volts, 50/60 Hz)	MSVMKIT02	1
Vacuum flask, 1 L	XX1004705	1
#8 Silicone stoppers, 9.5 mm hole	XX2004718	5
Millex [®] -FA filter unit	SLFA05010	10
MultiScreen [®] Multiple Punch Includes punch, punch carrier plate (for use with classic plates only), and punch distributor	MAMP09608	1
MultiScreen [®] _{HTS} Plate Carrier Slide (for use with HTS plates only)	MSCP09600	1
MultiScreen [®] Centrifuge Alignment Frame (for use with classic plates only)	MACF09604	4

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Standard Warranty

The applicable warranty for the products listed in this publication may be found at www.millipore.com/terms (within the "Terms and Conditions of Sale" applicable to your purchase transaction).



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