

Whatman Mini-UniPrep G2 Syringeless Filter

SYRINGELESS FILTERS

The Whatman™ Mini-UniPrep™ G2 Syringeless Filter simplifies UHPLC/HPLC sample preparation over the traditional syringe filter method. The Mini-UniPrep G2 is an all-in-one integrated filter that replaces the syringe, syringe filter, glass vial, cap, and septum (Fig. 1). After the filtration step Mini-UniPrep G2 can be placed directly into the autosampler in readiness for injecting sample into the UHPLC/HPLC instrument.



Fig. 1. Mini-UniPrep G2 replaces multiple consumables.

Features of the Mini-UniPrep G2:

- Consists of an integral borosilicate glass autosampler vial, plunger with attached filter membrane, and septum/cap
- Filters samples faster compared to the traditional syringe filter method
- Glass construction minimizes the risk of leachables contaminating the sample
- Designed to be loaded directly into the autosampler
- Includes visual indication that the sample has been filtered
- Minimizes instrument downtime due to unfiltered samples
- Wide range of membranes with 0.2 and 0.45 μm pore sizes to meet specific sample filtration requirements

The Mini-UniPrep G2 includes an integral borosilicate glass vial housed within the plunger (Fig. 2) and a borosilicate glass chamber for holding the unfiltered liquid. During the filtration step, the plunger is compressed into the glass chamber containing the unfiltered liquid. As the plunger travels downward, liquid flows through the filtration membrane to the top of the plunger and drops into the glass collection vial housed within the plunger (Fig. 3). Therefore, the sample only contacts plastic for a very short period of time, that is only while the plunger is being compressed through the unfiltered liquid. Once compressed, the Mini-UniPrep G2 is ready to be loaded directly on to the autosampler.

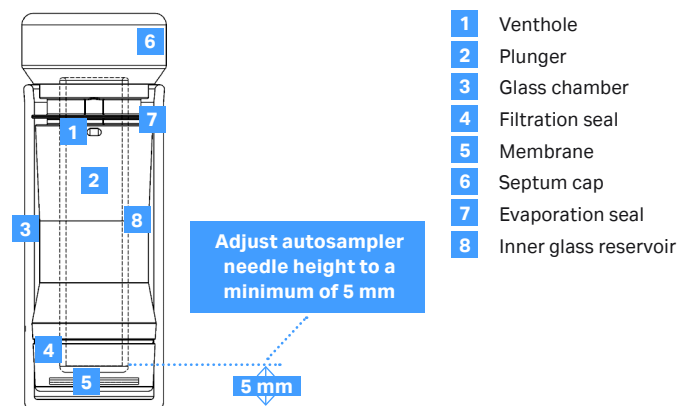
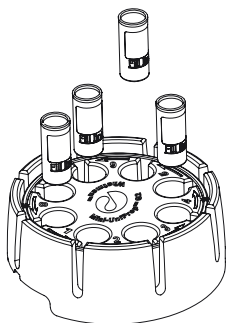


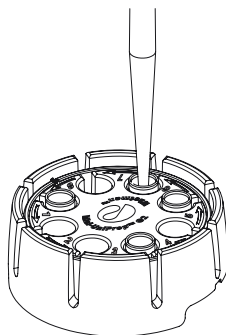
Fig. 2. Mini-UniPrep G2 Syringeless Filter.

Mini-UniPrep G2 comes in a number of configurations including slit septa for those autosamplers and robotic systems that require a slit septa. It is also available in amber for light sensitive samples. Amber Mini-UniPrep G2 meets the requirements of the US Pharmacopeia (USP) and European Pharmacopeia (EP) for light transmission.



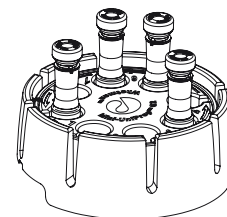
Step 1

Insert up to 8 glass chambers into the Multi Compressor tray.



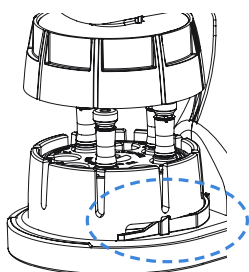
Step 2

Dispense the sample into the glass chamber taking care not to overfill. The Mini-UniPrep G2 glass chamber has a maximum capacity of 500 µl indicated by a printed "Fill Line" on the glass chamber. Minimum sample volume that may be added to the glass chamber is 220 µl in order to collect 50 µl in glass insert.



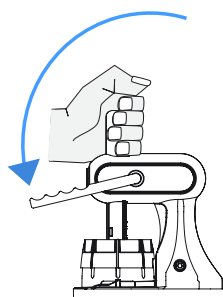
Step 3

Place plunger(s) into the neck of the glass chamber(s). Do not attempt to depress further than the neck of the glass chamber.



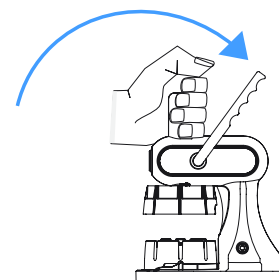
Step 4

Place the tray into position on the Multi Compressor using the guide ribs for placement. Ensure tray is securely in place.



Step 5

Steadying the Multi Compressor with the left hand as shown, pull the handle towards the user to fully depress the plunger(s) into the chamber(s).



Step 6

Steadying the Multi Compressor with the left hand as shown, rotate the handle back to original position enabling the tray to be removed. Remove Mini-UniPrep G2 device or devices.

Fig. 3. How to use the Mini-UniPrep G2 Multi Compressor.

Technical specifications

Dimensions	Once compressed, equivalent in size to 12 mm x 32 mm vial
Materials of construction	Chamber: Borosilicate glass Plunger outer housing: Polypropylene Plunger inner storage vial: Borosilicate glass Filter medium: as specified Septa: Silicone with PTFE liner Cap: polypropylene
Maximum operating temp.	50°C (122°F)
Filtering capacity	Chamber (unfiltered sample): 500 µl Inner storage vial (filtered sample) : 330 µl Recommended minimum filtering volume: 220 µl placed in the chamber to obtain 50 µl in inner storage vial
Nominal force needed to compress	Approx. 11.3 kg (25 lbs)
Autosampler compatibility	Any autosampler that accommodates standard 12 mm x 32 mm profile vials
Autosampler needle height adjustment	5 mm from bottom of Mini-UniPrep G2 (see Fig 2)

Liquid storage capacity

Volume (µl)	Height of liquid in inner glass reservoir (mm)
50	4.3
100	7.0
150	10.3
200	12.4
250	15.4
300	18.4
350	21.4
410 (max.)	25.0

Ordering Information

Membrane	Pore size	Housing	Cap	Code number 100/pack	Code number 1000/pack	Code number Starter pack (100/pack + Hand Compressor)
PTFE*	0.2 µm	Translucent	Normal	GN203NPEORG	GN503NPEORG	GN203NPEORGSP
PTFE	0.2 µm	Translucent	Slit septum	GS203NPEORG	GS503NPEORG	GS203NPEORGSP
PTFE	0.2 µm	Amber	Normal	GN203APEORG	–	GN203APEORGSP
PTFE	0.45 µm	Translucent	Normal	GN203NPUORG	GN503NPUORG	GN203NPUORGSP
PTFE	0.45 µm	Translucent	Slit septum	GS203NPUORG	GS503NPUORG	GS203NPUORGSP
PVDF*	0.2 µm	Translucent	Normal	GN203NPEAQU	GN503NPEAQU	GN203NPEAQU SP
PVDF	0.2 µm	Translucent	Slit septum	GS203NPEAQU	GS503NPEAQU	GS203NPEAQU SP
PVDF	0.2 µm	Amber	Normal	GN203APEAQU	–	GN203APEAQU SP
PVDF	0.45 µm	Translucent	Normal	GN203NPUAQU	GN503NPUAQU	GN203NPUAQU SP
PVDF	0.45 µm	Translucent	Slit septum	GS203NPUAQU	GS503NPUAQU	GS203NPUAQU SP
RC*	0.2 µm	Translucent	Normal	GN203NPERC	GN503NPERC	GN203NPERC SP
RC	0.45 µm	Translucent	Normal	GN203NPURC	GN503NPURC	GN203NPURC SP
Nylon	0.2 µm	Translucent	Normal	GN203NPENYL	GN503NPENYL	GN203NPENYL SP
Nylon	0.2 µm	Translucent	Slit septum	GS203NPENYL	GS503NPENYL	GS203NPENYL SP
Polypropylene	0.2 µm	Translucent	Normal	GN203NPEPP	GN503NPEPP	GN203NPEPP SP
Polypropylene	0.2 µm	Translucent	Slit septum	GS203NPEPP	–	GS203NPEPP SP
Glass fiber	0.45 µm	Translucent	Normal	GN203NPUGMF	GN503NPUGMF	GN203NPUGMF SP
Glass fiber	0.45 µm	Translucent	Slit septum	GS203NPUGMF	–	GS203NPUGMF SP

Hand Compressor

Description	Code number
Mini-UniPrep G2 Hand Compressor 1/pack	MUPG2HCPWC1

Multi-Compressor

Description	Code number
Mini-UniPrep G2 Multi-Compressor 1/pack , comes with one tray	MUPG2MCPWC8
Mini-UniPrep G2 Multi-Compressor Tray 1/pack	MUPG2MCWT8

* PTFE = polytetrafluoroethylene; PVDF = polyvinylidene difluoride; RC = regenerated cellulose

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