Portable Hand Pump Water Purifier

1. The S03 Portable Hand Pump Water Purifier is designed for hiking, camping, field work, and emergency water collection. Hand pumping supplies the pressure needed for filtration, with no batteries or external power required. A flow rate of 700–1,000 mL/min allows users to collect treated water in a container, making it a practical option for personal use where power is unavailable.

2. The filter combines an ultra-low-pressure hollow fiber ultrafiltration membrane with activated carbon fiber, coconut shell granular activated carbon, high-purity KDF55, and fine PP nonwoven filter media. The polysulfone (PS) membrane has a filtration rating of 0.01–0.1 microns and retains particles, while the activated carbon helps improve taste and reduce odor. Water passes through the filter under hand-pump pressure. Specific treatment performance is subject to the test results for this model.

3. The ABS body weighs approximately 185 g and measures 144 × 78 × 46 mm, making it easy to carry in a backpack, tool bag, or emergency kit. Water can be pumped directly into a container without drinking through the filter. The olive green finish suits outdoor use, and custom colors are available for project orders. Individual units can be issued to personnel as part of their field equipment.

4. The dry membrane module is suitable for storage and emergency stockpiling before first use. Follow the product instructions for initial setup, cleaning, and filter maintenance. Total treatment capacity is 3,000 L; actual capacity depends on source water and use. Pumping rate, water quality, and filter condition also affect flow. If output drops noticeably, check the filter and tubing. Keep the untreated-water and clean-water sides separate during use and storage.

5. Use with freshwater that meets the feedwater requirements, including Class I–III surface water and groundwater. This product is not intended for seawater desalination. Do not use water from unknown sources or water suspected of chemical contamination. Microbial removal performance and treated water quality are subject to the conditions and results stated in the test report for this model.

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Technical Specifications

Model:	S03
Flow Rate:	700–1,000 mL/min (varies with water quality)
Total Treatment Capacity:	3,000 L
▲ Filter Media:	Ultra-low-pressure hollow fiber ultrafiltration membrane (0.01–0.1 microns) Activated carbon fiber Coconut shell granular activated carbon High-purity KDF55 Fine PP nonwoven filter media
★ Water Quality Standard:	GB5749-2022, Standards for Drinking Water Quality
Source Water:	Class I–III surface water; groundwater
Operation:	Hand pumping
Contaminants Removed:	Sediment, rust, parasites, suspended solids, precipitates, bacteria (including E. coli), and odor
Feedwater pH:	6–9
Operating Temperature:	0–40°C
Body Material:	ABS; water-contact parts meet drinking water safety requirements
Color:	Olive green (custom colors available)
Dimensions:	144 × 78 × 46 mm (L × W × H)
Weight:	185 g

Note: For the parameter marked ★, a water quality test report from a third-party laboratory with MA and CNAS credentials is available.

Standards and Certifications

Treated Water Quality	GB5749-2022, Standards for Drinking Water Quality
Filter Components	FDA (U.S. Food and Drug Administration) certification; CE 1907/2006 REACH (screening for 236 substances of very high concern); Chinese sanitary approval for domestically manufactured products related to drinking water hygiene and safety

Product Images

Product photographs | Front view · Side view

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S03 | Setup & Operation

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Connect • Pump • Collect

01 Connect
Place the intake tube in the source water and connect it to the inlet.

02 Pump
Move the handle up and down to draw water through the filter.

03 Collect
Collect filtered water from the outlet tube in a clean container.

Follow the product instructions. Containers shown are for illustration.