ASPEN 3300M DESIGN CRITERIA



The ASPEN 3300M is a fully enclosed expeditionary, non-saline water purification system. It supplies 2500-3300 gallons (9464-12,492 liters) per day, approximately 125-150 gallons (473-568 liters) per hour, of highly purified water from virtually any non-saline water source. Water can be drawn from lakes, rivers, ponds, ditches, or standing water that may contain chemical and/or biological contamination.

Dimensions: Cases are 32"x23"x19.5" (81.28cm x 58.42cm x 49.53cm). Each case weights 110 lbs (50 kg) when dry and is designed for a two-person carry.

The Purification Process and General Information

Multi-Stage Filtration. Stage one removes larger debris before it enters into the external mesh prefilter. Next, mesh pre-filters remove sand, dirt and very fine particles, including harmful microorganisms, such as paramecium, amoeba, Giardia, cryptosporidium and other small matter down to 1 micron in size. After treatment by the media canister and UV disinfection (discussed below), the final step is post-filtration to remove tannins that may cause the water to have a brownish tint. Note: Water to be stored should be treated with chlorine bleach. An optional chlorine dosing unit is available.

Contaminant Removal. The replaceable media canister effectively treats 20,000 gallons of surface water containing high levels of man-made pollutants such as solvents, insecticides and petrochemicals and other contaminants such as lead, barium, and selenium. When used to eliminate possible microbial contamination in clear water, the canister may be used for up to 25,000 gallons. The 3300M is most effective when the flow rate does not exceed 2.35 gallons per minute.

Disinfecting. An ultraviolet (UV) lamp system is included. Rated at 4.8 gallons per minute (18.2 liters per minute), it provides as much as twice the safety factor required by US regulatory agencies and exceeds World Health Organization (WHO) standards for total disinfection. UV is much faster-acting than chlorine bleach and has been found to destroy over 99.99% of pathogens, including E. coli, cholera, typhoid, anthrax and polio.

Power Source. Operates on single phase 90 to 260 volts AC at 50 or 60 hertz as well as 10 to 30 volts DC, virtually any power source. The maximum power consumption is less than 200 watts. Run time on a fully charged battery alone is 2 to 3 hours. Comes standard with a NATO 24-volt DC power cable.

Pressure. The variable speed, self-priming, low voltage pump can draw water up to 12 feet and provides water on demand at pressures between 5 -35 pounds per square inch (psi).

Triple Mode Display. A digital display shows the volume of water passing through the system, total run time of the filter canister, and the total run time of the UV exposure unit.

Safety Features. The operating and monitoring components are designed with a two-stage protective shutdown circuit. First, the overall system automatically shuts down in the event of a failure during the disinfecting process. Automatic Action: The pump will stop and a valve will close, stopping water from passing through the system.

Support Case. The basic Support Case includes accessories, expendables and spare parts.

Additional options also available in cases:

- •220 Watt Foldable Solar Array
- Potable Water Storage Bladders from 150-2500 gallons (568-9464 liters)
- •Water-driven Chlorinator with Holding Tank

ASPEN 3300M SUPPORT CASE



ASPEN 3300M SUPPORT CASE CONTENTS

Support Case-PN:AWI-33-A01		
Qty	Item	Part Number
1	Sump Wrench, Large	AWI-55-EX-017
1	UV Bulb, HO, Special Mix in Tube	AWI-SC-33-A03
1	Tubing, Repair length	AWI-55-EX-007
1	Pump Assembly, 3300	AWI-PMP-33-A01
3	Pre-filter, 5 Micron, 4.5x10, White Cap	AWI-FL-33-001
3	Pre-filter, 1 Micron, 4.5x10, Black Cap	AWI-FL-33-002
1	Pre-filter Cleaning Wand 10" Filters	AWI-SC-33-A02
1	Post Filter Hose	AWI-HO-33-A01
1	Post Filter Assembly, Sub-Micron, BB, 10"	AWI-MA-33-A01
1	O-Ring & Tool Kit Assembly	AWI-33-EX-A50
3	Sub-Micron Post Filter, 4.5x10	AWI-FL-33-004-PAC
1	Mesh Strainer Assembly, Clear	AWI-55-EX-A02
1	Manual Valve Assembly	AWI-SC-33-A04
1	Inlet Float Strainer	AWI-SC-1DM-A08
1	Float Assembly Cord, Power 12 Volt	AWI-55-EX-A10 AWI-55-PC-12V
1	Cord, NATO, Small Conn	
1	Collapsible Bucket, 6 Gallon	AWI-55-PC-24VS AWI-SC-1001
2	Bungee Cord, 12" Ball End	AWI-BUNGEE-548695
1	Battery Assembly	AWI-BA-33-A01
1	Anchor Line Assembly	AWI-SC-1DM-A30
1	Anchor Assembly Anchor Assembly	AWI-55-EX-A01
1	3300 Quartz Sleeve	AWI-33-UV-SLV-A01
3	3300 Media Canister Assembly	AWI-3M-MEDCAN
Adapter/Tool Kit-PN:AWI-33-A40		
1	Camlock, Female to 3/4 Hose Barb	AWI-55-FA-203B
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	Camlock, Female x 3/4 MPT, Part B	AWI-55-FA-206B
1	Camlock, Female, 3/4 FPT	AWI-40-1085
1	Dust Cap, 3/4"	AWI-40-1078B
1	Garden Hose Adapter Set	AWI-55EX-012S
1	Thumb Screw, .250-20 (1/4-20)	AWI-40-1043
1	Worm Clamp, 16-27 mm, SS305	AWI-HW-1DM-064
O-Ring & Tool Kit Assembly-P/N: AWI-33-EX-A50		
1	Adapter/Tool kit	AWI-33-EX-A40
1	Assembly, Water Sprayer	AWI-55-EX-A09
1	Ball Valve Assembly	AWI-BV-ASSY
1	Foot Valve Strainer Assembly	AWI-55-EX-A11
1	Hand Sanitizer	AWI-Sanitizer
1	O-Ring/Gasket Set <i>contents listed below</i>	AWI-33-EX-A30
1	Screwdriver, Multipurpose	AWI-SC-1DM-121
1	Stake, Plastic	AWI-SC-1DM-070
1	Travel Adapter	AWI-HDE-J19
1	O-Ring/Gasket Set-PN: AWI-33-E	
6	Chlorine Dioxide Tablets	AWI-SC-1002
1	Gasket, UV	AWI-40-P033B
1	Hex Key, STD 5/32", 2-5/8" Length	AWI-40-P053B AWI-40-EX-1016
1	O-Ring Lubricant (Food Grade)	AWI-SC-1DM-039
1	Media Canister Top Gasket	AWI-55-FA-520.B
2	O-Ring, Media Housing (double o-ring housing)	AWI-55-EX-026
2	O-Ring, 2.5" Filter Housing	AWI-55-EX-027
1	O-Ring, Square for UV Housing	AWI-ORING-4061T258
3	O-Ring, Quartz Sleeve	AWI-ORING-9262K767
	O-Ring, Quad Port	AWI-WF-33-003
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2	Screw, 10-32 x 1.5"	AWI-SCREW-10-32x1.5

Other Small Deployable Aspen Systems



Aspen Water Purification System on Natural Stream



Aspen 5500M with Flotation Device with Foot Valve/Strainer



Aspen 1800BC Water Purification System on Drainage Ditch