SEAGULL®IV X-1, X-2 Designer Series and X-6 Drinking Water Purification Systems

General Ecology presents data from testing specifically selected to demonstrate product effectiveness in removing those contaminants most frequently encountered in water supplies. Please note that all General Ecology, Incorporated's test results represent performance *using actual contaminants, not substitute surrogates* which some companies submit.

This Performance Data Sheet shows some of the removal capabilities of the SEAGULL®IV products. It is recommended that before purchasing a water treatment unit you have your water supply tested to determine your actual water treatment needs.

Product Brand Names

SEAGULL®IV X-1 Drinking Water Purification System, Configuration B, F, D, P, FP
SEAGULL®IV X-2 Designer Series Drinking Water Purification System, Configuration B, KB, KF
SEAGULL®IV X-6 Drinking Water Purification System

Manufacturer

All SEAGULL®IV Drinking Water Purification Systems are manufactured in the USA by:

General Ecology, Inc.
151 Sheree Boulevard
Exton, PA 19341-1292

Operating Conditions

	X-1	X-2	X-6
Housing	Stainless Steel	Stainless Steel	Stainless Steel
Cartridge	RS-1SG	RS-2SG	RS-6SG
Particle Retention	0.1 micron nominal (0.4 micron absolute)	0.1 micron nominal (0.4 micron absolute)	0.1 micron nominal (0.4 micron absolute)
Pressure (psig) min/max	30/125	30/125	30/100
Flow Rate (gpm @ 30 psi)	1	2	6
Average Capacity (gals)	1,000	2,000	6,000
Temp (F) min/max	35/145	35/145	35/145
pH min/max	5/9	5/9	5/9

- No electricity is required.
- Do not freeze unit.
- Flow rate and capacity will depend on operating conditions and source water characteristics.
- The cartridge should be replaced annually, when the flow rate drops to an inconvenient level or if tastes and odors should become evident.

Aesthetic Water Quality Improvement

SEAGULL®IV Drinking Water Purification Systems also remove the following, which some individuals may find offensive in drinking water:

• Chlorine • Foul Tastes • Color • Foul Odors • Turbidity

Test Conditions

All tests were conducted under standard operating conditions as previously stated for the rated capacity of the cartridge.

Performance Notice

These data are based on documented results from specific testing and generally are regarded as indicative of effectiveness to be expected, but are not specific claims of performance. Performance may vary due to water characteristics and system operating conditions.

Test Data

Testing was conducted for the full rated capacity using the actual contaminant listed. No Surrogates were used.

Contaminant Filtered	Influent	Effluent	Detection Level	MCL[+]
Organic Chemicals				
1,1,2-Trichloroethane	20 ppb	ND	2 ppb	5 ppb*
1,2-Dibromomethane (EDB)	1.9 ppb	ND	.2 ppb	5 ppb
1,4-Dichlorobenzene	73 ppb	ND	NSF Standard 53	5 ppb[++]
2,4,5-TP (Silvex)	30.6 ppb	ND	.05 ppb	10 ppb
2,4-D	338 ppb	ND	1 ppb	70 ppb
Aldicarb (Temik)	228 ppb	ND	1 ppb	7 ppb[++]
Carbon Tetrachloride	20 ppb	0.6 ppb		5 ppb
Chlordane	50 ppb	ND	1 ppb	20 ppb
Chlorine Residual	500 ppb	ND	50 ppb	2.5 ppm (not an MCL)
Methoxychlor	240 ppb	ND	.05 ppb	40 ppb **
MTBE***	15.2 ppb	ND	.002 ppm	--
P-chlorobenzene	10 ppb	ND	.1 ppb	5 ppb proposed *
PCB	0.05 ppb	ND	.01ppb	--
Tetrachlorethylene (PCE)	73 ppb	ND	NSF Standard 53	5 ppb
Trichloroethylene (TCE)	328 ppb	ND	NSF Standard 53	5 ppb
Trihalomethane Total	92 ppb	ND	1ppb	100 ppb**

ND - None Detected

Test Data

Testing was conducted for the actual contaminant listed. No Surrogates were used.

Contaminant Filtered	Influent	Effluent	Detection Level	MCL[+]
Microbiological	***(colonies/ 100 ml)***	***(colonies/ 100 ml)***	***(colonies/ 100 ml)***	***(colonies/ 100 ml)***
Campylobacter jejuni	$1.6\text{-}3.0 \times 10^{7}$	ND	10	--
Cryptosporidium	$1^{-3} \times 10^{5}$	ND	1	--
Escherichia coli	10^{7}	ND	1	0/100 ml
Escherichia coli 0157:H7	10^{7}	ND	10	0/100 ml
Fecal Coliform	10^{3}	ND	1	0/100 ml
Giardia lamblia	$1.13 \times 10^{5+++}$	ND	1	--
Listeria monocytogenes	$2.2\text{-}2.8 \times 10^{7}$	ND	10	--
Poliovirus and Rotavirus	$6.3 \times 10^{5}\text{-}2.8 \times 10^{6}$	ND-320 pfu	.11 pfu	--
Pseudomonas aeruginosa[§]	10^{3}	ND	1	--
Salmonella typhi[§]	10^{5}	ND	1	0/100 ml
Yersinia enterocolitica	$2.0\text{-}2.8 \times 10^{5}$	ND	10	--

ND - None Detected

Test Data

Testing was conducted for the actual contaminant listed. No Surrogates were used.

Contaminant Filtered	Influent	Effluent	Detection Level	MCL[+]
Metals				
Iron[±]	.8 mg/l	.06 mg/l	--	--
Lead[¥]	90 ppb	ND	5 ppb	15 ppb
Aesthetics	***Original Well Water***	***Tested Filtered Water***		
Color	20	0	--	--
Hardness	72 mg/L	66 mg/l	--	--
Odor	abnormal	normal	--	--
Taste	abnormal	normal	--	--
Turbidity	2	0	--	--

ND - None Detected

Test Data

Leaching tests comply with NSF Standard 53

Contaminant Leached	Testing Protocol	Result	Detection Level
1,1,1-Trichloroethane	NSF Standard 53	ND	1 ppb
1,1 Dichloroethylene	NSF Standard 53	ND	1 ppb
1,2-Dichloroethylene	NSF Standard 53	ND	1 ppb
Benzene	NSF Standard 53	ND	1 ppb
Bromodichloromethane	NSF Standard 53	ND	2 ppb
Bromoform	NSF Standard 53	ND	4 ppb
Cadmium	NSF Standard 53	ND	2 ppb
Carbontetrachloride	NSF Standard 53	ND	1 ppb
Chloroform	NSF Standard 53	ND	2 ppb
Chromium	NSF Standard 53	ND	4 ppb
Dibromochloromethane	NSF Standard 53	ND	4 ppb
Lead	NSF Standard 53	ND	1 ppb
Mercury	NSF Standard 53	ND	.2 ppb
Methylene Chloride	NSF Standard 53	ND	1 ppb
Phenols	NSF Standard 53	ND	10 ppb
Tetrachloroethylene	NSF Standard 53	ND	1 ppb
TOC	NSF Standard 53	ND	500 ppb
Trichloroethylene	NSF Standard 53	ND	1 ppb
Trihalomethane Total	NSF Standard 53	ND	2 ppb
Vinyl Chloride	NSF Standard 53	ND	1 ppb

ND - None Detected

[+] Maximum Contaminant Level of Federal Standards shown unless a more rigorous standard is indicated.
[++] New York Maximum Contaminant Level is more rigorous than Federal level.
[+++] Total per 500 gallons.
[§] Sampled at less than rated capacity.
[±] Iron will tend to shorten cartridge life.
[¥] Cartridge used in the test was 1 year 2 months old.
[*] Journal AWWA, February 1992.
[**] Water Technology, August 1991.
[***] Challenged at middle and end of rated cartridge life.

Note: SEAGULL® IV systems do not remove beneficial dissolved salts and essential minerals. Various Federal, State and Local regulations may become known or change and affect distribution and presentation of performance claims. All health claims not in compliance with local or state laws are hereby withdrawn.

Installation Instructions

The SEAGULL® IV Drinking Water Purification System is designed to connect to the cold water supply and also can connect directly to the main faucet or an auxiliary faucet depending upon configuration selection. Please see the Installation And Product Use Instructions for diagrams and detailed step-by-step directions.

Warranty Statement

Every SEAGULL® IV Purification System stainless steel pressure vessel is warranted for ten years, from the date of purchase, to be free from defects in materials and workmanship when installed and operated according to General Ecology Incorporated's detailed instructions. For service under this warranty, please contact your SEAGULL®IV dealer or General Ecology, Inc.

This warranty does not apply to damage to these products resulting from accident, misuse, tampering, corrosion, modification or incorrect installation. Cartridge capacity and performance will vary depending upon water characteristics and for this reason, specifically are not covered by this warranty.

Customer Satisfaction/Money Back Guarantee

We stand behind the quality and effectiveness of our SEAGULL®IV Drinking Water Purification Systems. If you are not fully satisfied with your system, simply return it to the point of purchase within 30 days, undamaged, for a FULL REFUND of purchase price.

Standards Conformance

SEAGULL®IV Purification Systems have been tested and conform to the following industry standards:

- Pressure Vessel Integrity: American Society of Mechanical Engineers, Section 8
- Materials of Construction: American Society of Testing Materials A 167, ASTM B16, ASTM D2000
- Non-leaching Standards: NSF 53
- Materials in Water Contact Applications: USFDA
- NSF53 - Pertinent Sections
- State Requirements: - California Testing Protocol - New York Testing Protocol
  - Wisconsin Plumbing Codes - Massachusetts Plumbing Codes
- Overall Product Safety and Effectiveness Verification:

Analytical Consulting Service, Inc.	Kensington, MD **USA**
Betz, Converse, Murdoch, Inc.	Plymouth Meeting, PA **USA**
Colorado State University	Fort Collins, CO **USA**
Field Epidemiology Survey Team	Miami, FL **USA**
Food Quality Lab/Pacific Pure Water, Inc.	Honolulu, HI **USA**
Food Research Institute	Madison, WI **USA**
General Ecology Water Research Lab	Exton, PA **USA**
Marine Testing Institute	Mamaroneck, NY **USA**
Marist College Research Institute	Poughkeepsie, NY **USA**
National Testing Laboratories, Inc.	Cleveland, OH **USA**
Rockaway Township Health Department	Rockaway, NJ **USA**
Roy Weston Laboratories	West Chester, PA **USA**
Spectrum Labs	Fort Lauderdale, FL **USA**
State of Massachusetts	Massachusetts **USA**
State of Wisconsin	Madison, WI **USA**
Suffolk County NY Health Department	Hauppauge, NY **USA**
Tighe & Bond	Easthampton, MA **USA**
United States Army Biomedical R&D Lab	Fort Detrick, Frederick, MD **USA**
United States Testing Company, Inc.	Tulsa Division, OK **USA**
Villanova University	Villanova, PA **USA**
Australian Water Board	Sydney, **Australia**
Department of Public Health	London, **United Kingdom**
Food & Hygiene Association	Tokyo, **Japan**
Hungarian Health Ministry	Budapest, **Hungary**
Institut Pasteur	Paris, **France**
Italian Ministry of Health	Rome, **Italy**
National Defense Headquarters	Ottawa, **Canada**
Tokyo Food Sanitation Association	Tokyo, **Japan**
TÜV German Technical Institute	**Germany**

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