

***Outperforms The  
Competition For Less!***

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BULLETIN 3010

**R.P. ADAMS  
IWF POTABLE WATER  
FILTRATION SYSTEMS**



# PROVEN PERFORMANCE. THE SOLUTION YOU CAN TRUST.



*4 MGD potable water filtration system consisting of (16) IWF-238 filters in service for over 35 years.*

*A typical system includes filters, pumps, valves, interconnecting piping, instrumentation, and mixing equipment.*



## **R.P. ADAMS IWF Potable Water Filtration System.**

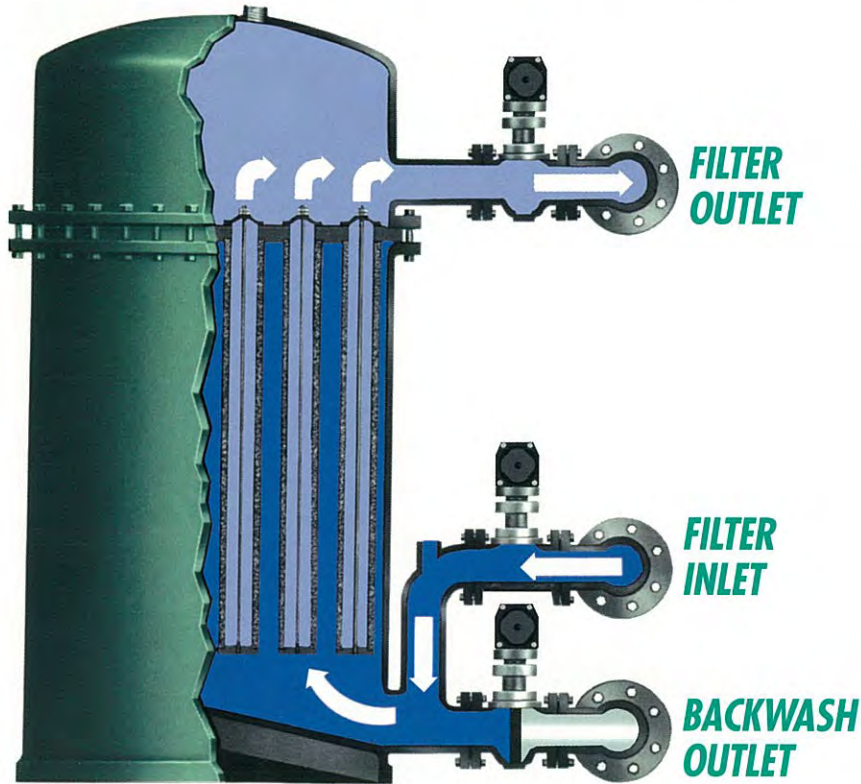
As an effective filter aid, diatomaceous earth (DE) eliminates the need for chemical additives that can be expensive to purchase and difficult to maintain. This proven technology, which is at the heart of the R.P. ADAMS IWF Potable Water Filtration System, is widely recognized by the federal government as the most efficient means to filter potable water – especially groundwater under the influence of surface water (GUDI). DE filtration is an ideal step beyond granular filtration to confidently remove dangerous pathogens and achieve high drinking water purity.

With more than a half century of experience in liquid filtration – and more than 40 years of potable water filtration experience alone – R.P. ADAMS has the process know-how and on-the-job experience to help you meet stringent regulatory standards – and do so for a lot less than alternative solutions.

## **BENEFITS AT A GLANCE:**

- **PROVEN TECHNOLOGY.** Rugged permanent ceramic Poro-Stone filter tubes used with DE filter aid remove particles down to 0.5 micron.
- **SUPERIOR FILTRATION.** For years, R.P. ADAMS DE filter systems have provided superior filtration of pathogenic organisms such as giardia and cryptosporidium. An American Water Works Association (AWWA) study shows an exceptionally high 6 logs reduction in the concentration of cryptosporidium in surface water with DE filtration.
- **COST EFFECTIVE.** Equipment, installation, operating, and maintenance costs are significantly lower than competitive technologies.
- **SIMPLE DESIGN, SIMPLE OPERATION.** Provides effective, reliable, and low-maintenance filtration.
- **COMPACT, SPACE EFFICIENT.** In many cases, our filtration system can be installed in existing buildings to reduce initial investments and facilitate installation.
- **EFFICIENT OPERATION.** Lowest waste water generation and associated handling cost in the industry.
- **NO CHEMICAL ADDITIVES REQUIRED.** Simplifies operations, while reducing operating expenses and safety concerns.
- **BUILT TO LAST.** Internal components are made of stainless steel, epoxy-coated forged steel or polypropylene to resist corrosion and wear. In addition, the lifetime of the filter media generally exceeds twenty-five years.

# THE MORE YOU LOOK INTO MEMBRANE SYSTEMS OR MEDIA FILTERS, THE MORE YOU'LL LIKE THE R.P. ADAMS ADVANTAGE.



R.P. ADAMS Potable Water Filters use permanent, reliable Poro-Stone filter elements which prevent bypassing and provide years of trouble-free service. Most of our installations continue to perform with their original filter tubes after more than 25 years in service.

Poro-Stone elements feature durable porous aluminum-oxide ceramic construction. These rugged elements will not flex during pressure/flow fluctuations, providing an excellent rigid support for the filter aid precoat. By comparison, other types of filter elements can flex due to changes in pressure/flow, causing the precoat to crack; allowing contaminants to pass downstream.

The IWF is a multiple element tubular filter designed to remove fine particulate from raw water streams. In fact, with a filter aid precoat, IWF potable water filters will provide particulate removal down to 0.5 micron – with flux rates in excess of 2 gallons per minute (GPM) per sq. ft. of filter area.

To assure consistent product quality and reduce operating costs, our IWF system can be fully automated. A programmable controller (PLC) operates all system cycles and sequences multiple filter operations.

The IWF, being a pressure filter, eliminates the need to “break head” and re-pump. And, thanks to a highly efficient backwash, water usage is minimized – to less than 0.05% of throughput!

Simplicity is the key to the IWF filter from R.P. ADAMS. It has no internal moving parts, meaning no maintenance, unlike other precoat filter designs. In addition, backwash cycles are operated by system pressure, or optionally by compressed air. This saves huge amounts of clean water, which competitive media filters consume for backwashing.



Poro-Stone Filter.

**R.P. ADAMS Poro-Stone elements outperform membrane, fabric, wire mesh, and granular filter media for less!**

- LESS CAPITAL.
- LESS MAINTENANCE.
- LESS OPERATING COSTS.

# SEE FOR YOURSELF WHY R.P. ADAMS IWF SYSTEMS ARE THE CLEAR CHOICE.

## COMPARE IWF FILTERS TO OTHER TECHNOLOGIES

TECHNOLOGY	Permanent Filtration Media	Removal of Pathogenic Organisms	Lowest Capital Cost	Low Operating Cost	Automatic Operation	Smallest Footprint	Lowest Backwash Volume	Lowest Waste Generation & Handling Costs	Chemical Pretreatment & Cleaning Not Required	Compatible with Chlorine	Control of Taste & Odor
<b>R.P. ADAMS IWF Water Filters</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Membrane Systems</b>		✓			✓						
<b>Media Filters</b>				✓	✓					✓	

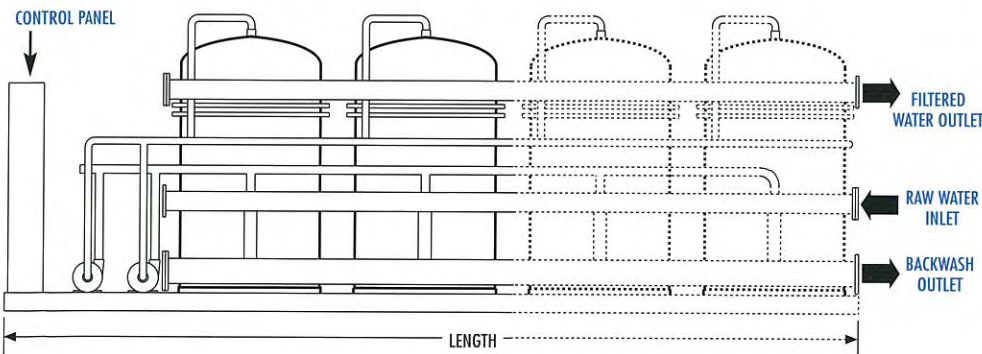
## FLOW CAPACITY & OVERALL DIMENSIONS FOR STANDARD IWF FILTRATION SYSTEMS

IWF SYSTEM	IWF-53	IWF-94	IWF-129	IWF-169	IWF-197	IWF-238	IWF-269	IWF-282	IWF-317	IWF-370	IWF-416	IWF-458	IWF-516
<b>2 Filter System</b> GPM L x W x H (ft.)*	106 14x7x8	188 17x8x8	258 16x8x8	338 17x9x8	394 18x9x8	476 18x9x8	538 15x9x8	564 15x9x10	634 15x9x10	740 15x8x10	832 25x9x8	916 25x10x10	1,032 30x10x10
<b>3 Filter System</b> GPM L x W x H (ft.)*	212 10x6x8	376 10x6x9	516 21x8x8	676 22x9x8	788 23x9x8	952 23x9x8	1,076 15x8x9	1,128 20x8x9	1,268 20x8x9	1,480 30x8x10	1,664 30x10x10	1,832 30x10x10	2,064 30x10x10
<b>4 Filter System</b> GPM L x W x H (ft.)*	318 10x6x8	564 15x6x9	774 15x6x8	1,014 15x6x9	1,182 20x8x9	1,482 25x8x9	1,614 25x8x9	1,692 25x10x10	1,902 20x8x10	2,220 35x8x10	2,496 35x8x10	2,748 35x10x10	3,096 40x10x10

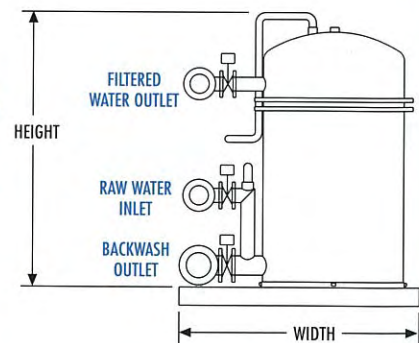
\* Dimensions are approximate. For more specific figures contact R.P. ADAMS.

Based on a flux rate of 2 GPM per square foot of filter area. R.P. ADAMS will provide custom filtration systems to handle up to 7 MGD to meet your filtration needs. 1 Million Gallons per Day (MGD) = 700 GPM. The decision between a 2, 3, or 4 filter system is influenced by the available space and the need to maintain continuous forward flow during cleaning and maintenance.

**FRONT ELEVATION**  
*Filter System Skid*



**SIDE ELEVATION**



# R.P. ADAMS PILOT TEST FACILITY.



## TEST YOUR WATER FASTER AND EASIER WITH OUR PROVEN TECHNOLOGY.

Using a state-of-the-art, mobile pilot test facility, let us show you how the R.P. ADAMS Potable Water Filter System does an excellent job of providing you with safe, potable drinking water.

Enclosed in a mobile trailer, this fully assembled and ready-to-operate testing facility is brought to your site. No field set-up is required other than connecting your water source to the test unit and providing two 115V/1PH/60Hz power supplies.



The R.P. ADAMS pilot test facility is a complete filter system featuring:

- **CERAMIC PORO-STONE FILTER TUBE** used with diatomaceous earth filter aid.
- **LASER PARTICLE COUNTERS** for raw and filtered water analysis.
- **TURBIDIMETERS** to measure the turbidity (ntu) of the raw and filtered water.
- **INSTANT ANALYSIS** of the raw and filtered water quality with computer-based graphics and reporting.

## WITH R.P. ADAMS HELP, YOU CAN BE CONFIDENT ABOUT COMPLIANCE.

The test facility is capable of testing between 3 to 5 GPM of water and uses proven filtration technology that is recognized and accepted by the federal government. The pilot test is a regulatory requirement of the Safe Drinking Water Act to ensure that the filter technology being considered is appropriate for the water source. Superior filtration technology provided by R.P. ADAMS shows a 6 logs reduction in pathogenic organisms.

# ALSO FROM R.P. ADAMS:



## **PORO-EDGE™ AUTOMATIC SELF-CLEANING STRAINERS CONTINUOUSLY SUPPLY CLEAN LIQUID TO PROTECT PROCESS EQUIPMENT IN INDUSTRIAL & MUNICIPAL APPLICATIONS.**

The Poro-Edge Automatic Self-Cleaning Strainer meets a wide variety of applications by removing dirt and debris from water supplies, creating water acceptable for process services.

## **GP FILTER PROVIDES GUARANTEED PROTECTION FOR AIR, GAS AND STEAM SYSTEMS.**

The GP filter has a two-step separation process that ensures maximum filtration. The filter uses a permanent filter element that will not break or collapse, even when plugged, to fully protect your process equipment. In addition, the element can be cleaned and re-used.

The rugged design of the GP filter allows it to withstand operation pressures up to 500 PSIG and operating temperatures to 650°F. It features 1/2" to 6" inline process connections for easy installation, and meets the requirements for ASME Code and the 3A standards for culinary steam systems.

## **SUPERIOR WATER-COOLED REMOVABLE AND FIXED BUNDLE AFTERCOOLERS PROVIDE CONSISTENT PROCESS CONTROL FOR YOUR APPLICATION.**

R.P. ADAMS offers a wide selection of removable bundle and fixed bundle aftercoolers with and without cyclone separators to meet your compressed air and gas needs. More efficient cooling means less moisture downstream, thereby protecting sensitive process equipment. The removable tube bundle provides easy cleaning and maintenance while the fixed bundle offers significant cost savings.

Many of these aftercoolers and cyclone separators are available from stock and meet the requirements of the Tubular Equipment Manufacturer's Association (TEMA) and Section VIII of the ASME Code.

## **REHEAT PACKAGED SYSTEMS ELIMINATE PLANT ENERGY COSTS AND MAINTENANCE PROBLEMS.**

An R.P. ADAMS Reheat System works much like a refrigerated dryer, where it cools the air by lowering the dew point, removes the moisture from the stream and then reheats the air for use in your process. However, the Reheat System does not require electricity to operate, thereby saving on plant energy costs. In addition, there are no moving parts or sensitive controls, which makes this system virtually maintenance free. A Reheat System is so efficient that it can actually take the place of a refrigerated dryer.

## **SHELL AND TUBE HEAT EXCHANGERS.**

R.P. ADAMS offers a number of shell and tube heat exchangers; including U tube, removable bundle, and fixed bundle designs, to meet your heat transfer requirements. R.P. ADAMS is a company with more than 60 years experience, and an R.P. ADAMS engineer can work closely with you to provide the best heat transfer solution for your application.

**Proudly Represented By:**

**CALL TOLL-FREE, 1-800-896-8869 AND ASK R.P. ADAMS TO ANALYZE YOUR WATER FILTRATION REQUIREMENTS AND RECOMMEND THE OPTIMAL SYSTEM. R.P. ADAMS CAN ASSURE YOU OF COMPLIANCE WITH FEDERAL AND STATE REGULATIONS. VISIT OUR WEB SITE AT: [www.rpadams.com](http://www.rpadams.com) TO LEARN MORE.**

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