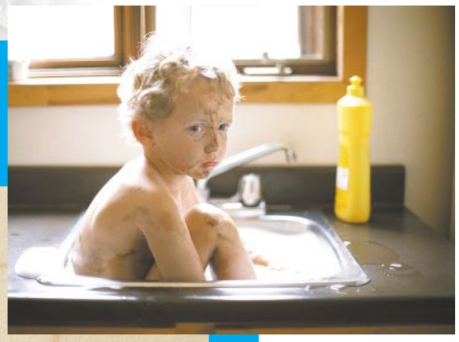
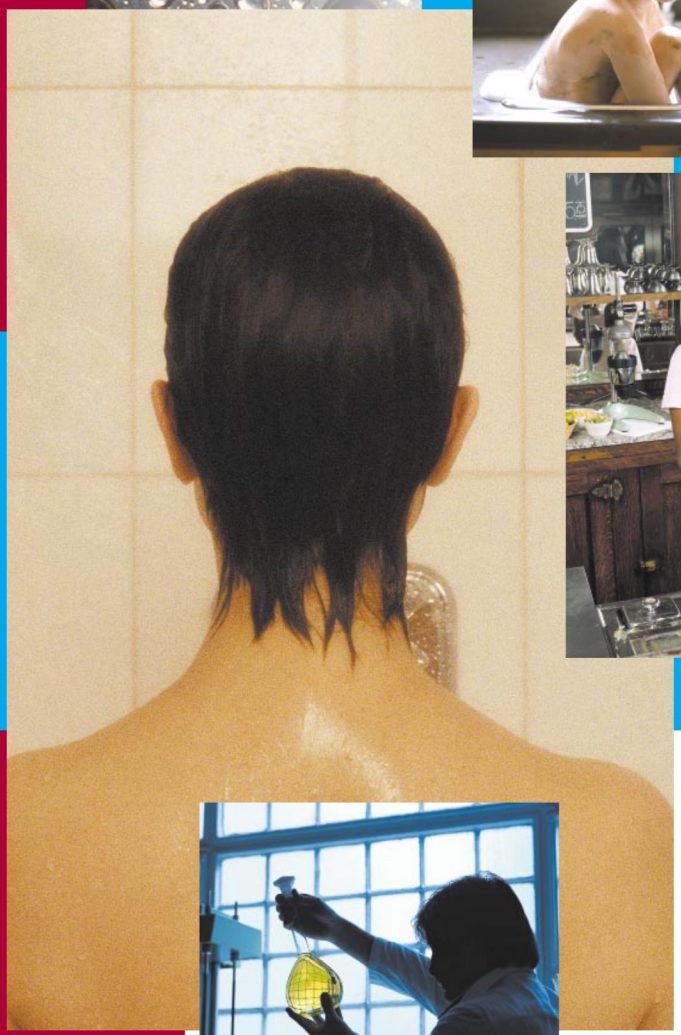
Your customers are expecting less from you





Less bacteria, chlorine, heavy metal content, other contaminants, and odors at the point-of-use

KDF®

FLUID TREATMENT, INC.

KDF® 55 Process Medium helps you offer your customers less

When you use ***KDF® 55 Process Medium*** ahead of the granular activated carbon (GAC) stage in point-of-use (POU) water filters, you do three things:

One, you offer your customers a lot less than they're used to:

- Less bacteria
- Less free chlorine
- Less heavy metal content
- Less scale buildup
- Less filter maintenance

Two, you enhance the performance of the carbon.

Three, you also extend the useful life of the carbon.

Proprietary Process Media

The full line of ***KDF Process Media*** is so unique that it is protected by 14 US patents and numerous foreign patents. That doesn't include the patents currently pending. We have no direct competition because there is nothing else quite like ***KDF Process Media***.

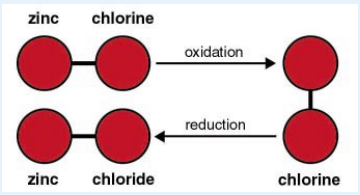
No one else—and we stress *no one else*—can offer you and your customers the purity or all of the benefits of using ***KDF Process Media***. Period. In addition to ***KDF 55 Process Medium*** for POU water filters, **KDF Fluid Treatment, Inc.** manufactures ***KDF Process Media*** in other forms for other specific water filtration applications.

How KDF 55 Process Medium Works

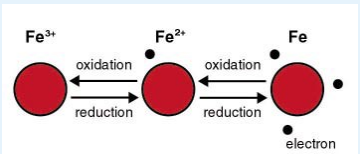
KDF 55 Process Medium is a high-purity copper-zinc alloy. When used in a water treatment unit, it undergoes a chemical process known as redox. Redox is short for oxidation-reduction, which is a chemical reaction where electrons are transferred between molecules. In some cases, such as free chlorine, this transfer results in the formation of benign substances, such as chloride in this case, which then passes through the filter. In a similar way, copper, lead, mercury, and other heavy metals react to plate out onto the medium's surface effectively being removed from the water supply. ***KDF 55 Process Medium*** is so effective that it removes up to 98% of inorganic water-soluble heavy metals that are a concern to many public health officials and many consumers.

In addition, ***KDF 55 Process Medium*** controls microorganisms and reduces lime scale in problem areas like showers and tubs. ***KDF 55 Process Medium*** even changes waterborne calcium molecules that inhibit scale buildup and improves the taste of some of your favorite beverages.

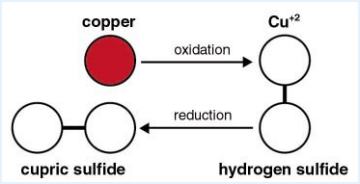
Typical Redox Reactions



Harmful chlorine is removed by changing free chlorine into water-soluble chloride ions.



KDF process media *act as catalysts to change soluble ferrous cations into insoluble ferric hydroxide, which is easily removed by regular backwashing.*



KDF process media *reduce hydrogen sulfide to insoluble cupric sulfide, which can be removed by backwashing.*

Ahead Of The Carbon, Ahead Of The Game

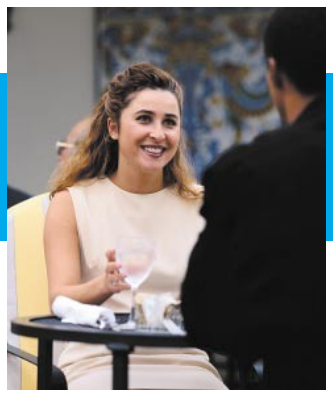
KDF 55 Process Medium is the ideal complement to GAC. Because GAC removes chlorine by surface chemistry, it actually fosters bacterial growth. But, unlike carbon, ***KDF 55 Process Medium*** is truly bacteriostatic. The electrolytic field created by the redox process is an environment deadly to some microorganisms; it also creates hydroxyl radicals and hydrogen peroxides that interfere with the ability of some other microorganisms to function.

9¾″ - Cartridge								
KDF® 55 Medium (Pounds)	Bed Depth (Inches)	ΔP Pressure Drop (Pounds Per Square Inch)					Max. Flow Rate-GPM (95% Reduction)	Effective Life (Gallons)
		½ -gpm	1-gpm	1½ -gpm	2-gpm	2½ -gpm		
½	1.06	0	1	2	3	5	0.10	7,000
1	2.12	0	1	2	4	7	0.50	15,000
2	2.25	1	3	3	7	11	1.00	30,000
4	5.50	1	3	6	11	21	2.50	60,000

4½ x 10″ - Cartridge								
KDF 55 Medium (Pounds)	Bed Depth (Inches)	ΔP Pressure Drop (PSI)					Max. Flow Rate-GPM (95% Reduction)	Effective Life (Gallons)
		3-gpm	4-gpm	5-gpm	6-gpm	8-gpm		
3	1.90	1	3	5	10	15	1	45,000
4	2.54	1	3	6	10	14	2	60,000
5	3.15	1	4	7	12	16	3	75,000

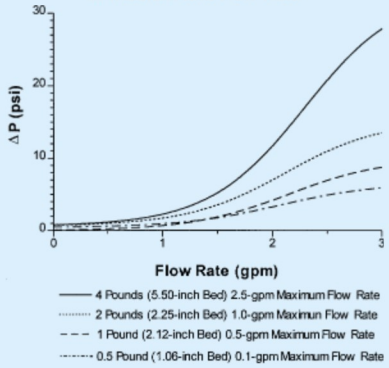
2 x 10″ - Inline Cartridge								
KDF 55 Medium (Pounds)	Bed Depth (Inches)	ΔP Pressure Drop (PSI)					Max. Flow Rate-GPM (95% Reduction)	Effective Life (Gallons)
		0.3-gpm	0.6-gpm	0.7-gpm	0.9-gpm	1.0-gpm		
½	1.59	1	1	2	3	3	0.25	7,000
¾	2.42	1	2	3	4	5	0.35	11,000
1	3.19	1	2	3	5	6	0.50	15,000
2½	8.00	1	5	8	9	10	1.00	22,000

2 x 6″ - Inline Cartridge								
KDF 55 Medium (Pounds)	Bed Depth (Inches)	ΔP Pressure Drop (PSI)					Max.Flow Rate-GPM (95% Reduction)	Effective Life (Gallons)
		0.3-gpm	0.6-gpm	0.7-gpm	0.9-gpm	1.0-gpm		
¼	0.82	0.5	1	1	1	2	0.12	3,500
½	1.59	1	1	2	3	4	0.25	7,000
1¼	4.00	2	3	4	5	5	0.50	15,000

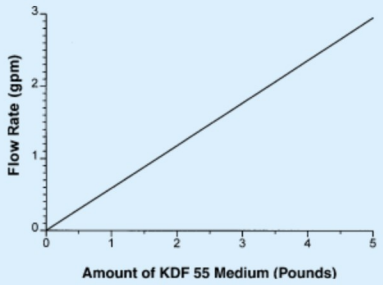


9¾" Cartridge Dechlorination *(3/8" Tubing and Fittings)*

Pressure Drop as a Function of Amount of Medium and Flow Rate

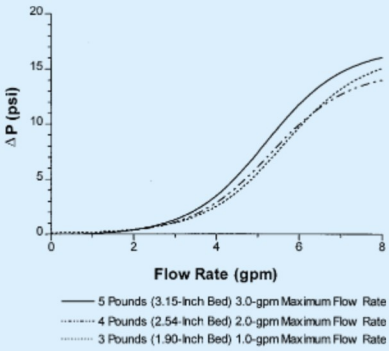


Maximum Flow Rate for 95% Reduction as a Function of the Amount of Medium

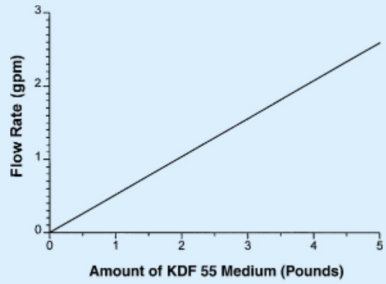


4½" x 10" Filter Dechlorination *(3/4" Tubing and Fittings)*

Pressure Drop as a Function of Amount of Medium and Flow Rate

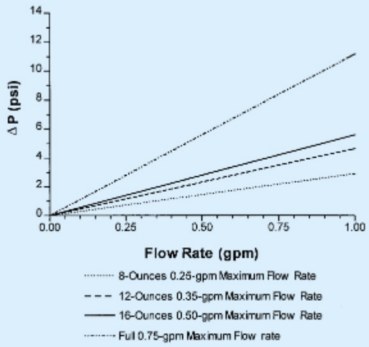


Maximum Flow Rate for 95% Reduction as a Function of the Amount of Medium

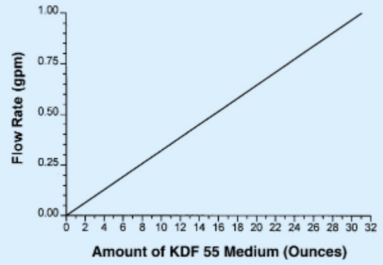


2" x 10" Inline Cartridge Dechlorination *(1/4" Tubing and Fittings)*

Pressure Drop as a Function of Amount of Medium and Flow Rate

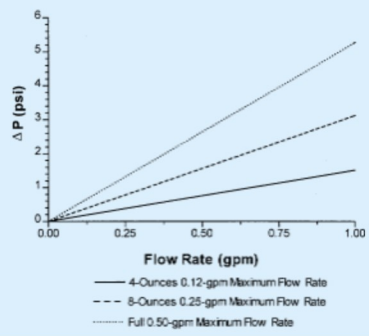


Maximum Flow Rate for 95% Reduction as a Function of the Amount of Medium

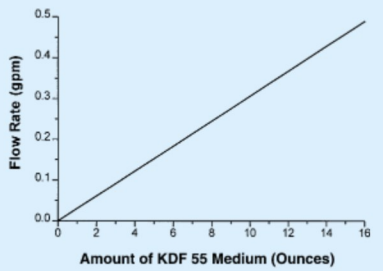


2" x 6" Inline Cartridge Dechlorination *(1/4" Tubing and Fittings)*

Pressure Drop as a Function of Amount of Medium and Flow Rate



Maximum Flow Rate for 95% Reduction as a Function of the Amount of Medium



Hi-Ho, No Silver

Some filter manufacturers use silver-impregnated carbon to control bacterial growth. Perhaps on the surface this appears to be a reasonable compromise, but let's consider the attendant problems that the use of silver brings with it: One problem is that the US Environmental Protection Agency (USEPA) considers silver a pesticide that must be registered. Furthermore, maintaining bacteriostatic levels of concentrated silver occasionally violates USEPA guidelines for dissolved silver content. Although silver might inhibit the growth of bacteria within the confines of the filter itself while the unit is inactive, it is not necessarily effective as a bacteriostatic when the water is actively flowing through the filter. **KDF 55 Process Medium** is bacteriostatic while the filter is both inactive and active.

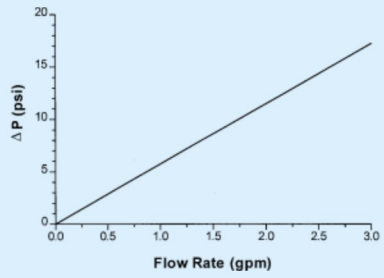
Pound for pound, **KDF 55 Process Medium** is about half the cost of silver. This could means dramatic savings to your customers and you.

KDF 55 Process Medium is non-toxic, completely safe. It meets USEPA and US Food and Drug Administration (USFDA) standards for levels of zinc and copper in potable water. The USEPA has ruled that **KDF 55 Process Medium** is a "pesticidal device" that does not require registration. It's time to rethink the use of silver-impregnated media.

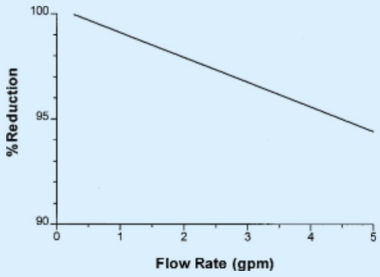
Shower Filter								
KDF 55 Medium (Pounds)	Bed Depth (Inches)	ΔP Pressure Drop (PSI)					Maximum Flow Rate - GPM (95% Reduction)	Effective Life (Gallons)
		1-gpm	1.5-gpm	2-gpm	2.5-gpm	3-gpm		
1	3.50	1	3	5	10	15	3	15,000

Shower Filters Dechlorination
1/2-inch Tubing and Fittings, Standard 1-pound of medium

Pressure Drop as a Function of Flow Rate

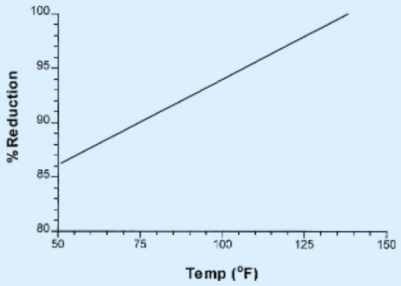


Percent Free Chlorine Reduction as a Function of Flow Rate



Temperature Effect on Free Chlorine Reduction

For every 25°F raise in temperature there is a 4% raise in the rate of free chlorine reduction



Helping Carbon Do What Carbon Does Best

By reducing inorganic contaminants before they get to the carbon bed, ***KDF 55 Process Medium*** protects GAC from bacterial fouling and bacterial buildup, thus reserving the adsorption capacity of GAC for removing organic contaminants. This means less frequent carbon re-bedding and less frequent carbon media disposal. Remember, carbon is not re-cyclable but ***KDF 55 Process Medium*** is.

Less carbon lasts longer. ***KDF 55 Process Medium*** is more effective than carbon in removing chlorine. Not only does this mean the carbon works more efficiently, it also means the amount of carbon can be reduced. Less carbon means smaller filters. Smaller filters mean less maintenance. Less maintenance means reduced operating costs. Your customers will appreciate you more for less.

Now that carbon is available to do what it does best—control odor and improve taste—its effective life can be extended by up to fifteen times.

KDF 55 Process Medium Improves The Performance Of Shower Filters

At higher water temperatures, such as used for showering, the very capacity of GAC that makes it so effective and desirable in a water filtration system (trapping odor-causing contaminants, including chlorine) works against it in the shower. Higher temperatures can cause some contaminants trapped in the carbon bed to re-enter the water flow. Hot water, however, has no such effect on ***KDF 55 Process Medium***. In fact, the higher the water temperature, the more effective ***KDF 55 Process Medium*** becomes in reducing free chlorine.

As noted above, ***KDF 55 Process Medium*** improves the performance of carbon. Less contaminants get to the carbon so less can go through it. Your customer will see less of the effects of chlorine such as dry flaky skin and damaged hair while the ***KDF 55 Process Medium*** helps control the unwanted growth of bacteria, fungi, algae, mold and lime scale in the tub or shower.

Use KDF 55 Process Medium At Every Point-Of-Use

Although this is not an exhaustive list, it hints at the broad range of applications where your customers will benefit from the advantages of your adding ***KDF 55 Process Medium*** to your carbon-based filters.

- Basements
- Bathrooms
- Boats/Marinas
- Cafes
- Coffee houses
- Concession stands
- Nursing or assisted-living facilities
- Offices
- Pharmaceutical manufacturers
- Convenience stores
- Drinking fountains
- Factories
- Gas stations
- Groceries
- Hospitals
- Hotels/motels
- Icemakers
- Inns
- Kidney dialysis centers
- Kitchens
- Laundry facilities
- Medical laboratories
- Recreational vehicles
- Restaurants (including fast food)
- Schools
- Soft drink dispensers
- Spas
- Supermarket produce misters
- Taverns
- Water-vending machines

Wherever there's a water faucet supplying private, public or commercial needs for drinking, eating or washing, ***KDF 55 Process Medium*** will make a welcome difference.

KDF 55 Process Medium Improves The Performance Of Other Water Filtration Systems, Too

There are many water filtration systems available today. Reverse osmosis (RO) and deionization (DI) are two popular options. ***KDF 55 Process Medium*** enhances performance in these systems, too. Just as it does with GAC, ***KDF 55 Process Medium*** allows RO and DI systems to concentrate on their strengths while protecting membranes and ion exchange resins downstream.

So...
The Big Question Remains:
Why Use KDF 55 Process Medium In Your Filters?

Start with ***Purity***. It's protected by US and foreign patents and certified safe by the USEPA. There's nothing else like it. Nothing! Then consider ***Performance***. It gets the job done. It works in cold or hot water, in large or small systems. How about its ***Cost Effectiveness***? It pays for itself by reducing your system maintenance, extending the life of some system components and protecting other components, and eliminating the need for expensive and toxic silver-impregnated media. ***Flexibility***. ***KDF 55 Process Medium*** works by itself or with other components, in POU or POE systems. ***Recyclable***. Carbon might not be but ***KDF 55 Process Medium*** most certainly is. ***EPA-approved***. No red tape. Unparalleled ***Tech Support*** is available on our toll-free 800 line. It's ***Non-toxic***.

Finally, don't forget ***Competition***. Not ours, ***yours***! Filter manufacturers around the world have discovered the value and benefits of using ***KDF 55 Process Medium*** in their carbon-based filters.

KDF 55 Process Medium stands alone. And it gives your customer less. Which is exactly what they are expecting from you.

To learn more about ***KDF 55 Process Medium*** and how its use along with carbon in your water filters can benefit your customers, call **1-800-437-2745** or click onto **www.kdfft.com** today.

KDF Process Media are protected by the following patents: U.S. patents 4,642,192; 5,122,274; 5,135,654; 5,269,932; 5,198,118; 5,275,737; 5,314,623; 5,415,770; 5,433,856; 5,510,034; 5,599,454; 5,833,859; 5,837,134; and 5,951,869. Foreign counterparts granted. Other US and foreign patents pending. *KDF Process Media* meet USEPA and USFDA standards for levels of zinc and copper in potable water and ANSI/NSF Standard 42 for drinking water system components. They have also been approved and/or certified for the treatment of water by numerous international agencies.

FLUID TREATMENT, INC.
Solutions for economical clean water.™

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