Product Catalog

Watts Pure Water Residential Filtration and Treatment Products

Watts.com/PureWater

Water Quality Concerns

Scale Deposits

Scale deposits are a typical indicator of hard water. Hardness is a common quality of water where water contains dissolved compounds of calcium and magnesium and, sometimes, other divalent and trivalent metallic elements.

Cloudiness & Discoloration

Discoloration of water is another sign of impurities and turbidity. Turbidity refers to the amount of small particles of solid matter suspended in water as measured by the amount of scattering and absorption of light rays caused by the particles. Turbidity blocks light rays and makes the water opaque. Turbidity cannot be directly equated to suspended solids because white particles reflect more light than dark-colored particles and many small particles will reflect more light than an equivalent large particle.

Bacteria, Viruses & Cysts

Microbial contaminants can't always be detected through sight, smell or taste. You might go years before realizing a problem exists. Although some waterborne microbes can cause illness, many microbes are harmless or even beneficial. Very small levels of microbes are naturally present in many water supplies, but some are more dangerous than others. Some of the more dangerous microbial contaminants, such as *E. coli*, Giardia, and Cryptosporidium, can cause gastrointestinal problems and flu-like symptoms.

Taste & Odor

While taste issues are only noticed at the faucet where water is used for drinking, bad smelling water can be noticeable any place in or around a home or office where water is used.

Lead

Lead can exist in water in a broad array of forms, therefore, more than one type of technology may be needed for adequate removal. Soluble (or dissolved) lead may be removed by ion exchange, reverse osmosis, adsorption, or distillation. Insoluble (or particulate) lead may be removed by fine filtration and adsorption, reverse osmosis, or distillation.

Source: Water Quality Association

Chlorination

Chlorination is the treatment process in which chlorine gas or a chlorine solution is added to water for disinfection and control of microorganisms. Chlorination is also used in the oxidation of dissolved iron, manganese, and hydrogen sulfide impurities. This method of disinfection involves adding chlorine to water to make it safer to drink. It's common, cost-effective, and quick, killing many pathogenic microorganisms. It can even oxidize or break down iron, manganese, and hydrogen sulfide, which can result in water that is clearer and tastes better. Some people find that chlorine gives water its own objectionable chemical taste and odor. It also can produce disinfection by-products (which may cause health issues) by reacting with other substances in water when stored. These by-products can often be filtered out with activated carbon.

WATTS®

Table of Contents

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The information in this literature is not intended to replace the installation instructions provided with each product. Please consult the Installation Manual and follow all requirements for each product.

End Cap Merchandising

We've Made Product Selection the Easiest in the Wholesale Channel!

Green Packaging
Indicates under counter applications

Red Packaging
Indicates whole house applications

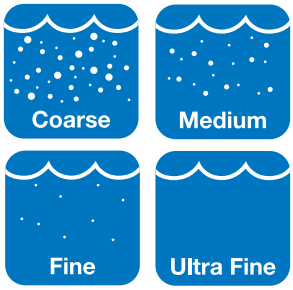
End Cap packaging now includes English, Spanish and French languages

Shelving NOT INCLUDED

NEW Icons Identify:

Contaminant Reduction

Filtration Effectiveness



End Cap Item

Ordering Codes & Recommended End Cap Product Selection

Model	Description	Ordering Code	Case Quantity	Recommended Quantity for End Cap (includes replenishment)
*PW-EndCapHeaderPkg	End Cap Header Package**	7300617	1	1
PWDWLCV2	2-Stage LCV Filtration System	7100101	1	2
PWRO4	4-Stage RO System	7100103	1	2
PWDWUFKC3	3-Stage Ultra Filtration (UF) System	7100106	1	4
PWROKC4	4-Stage Kwik-Change RO System	7100107	1	2
PWFPKSEDCB	Semi-annual replacement filter pack for 4-Stage RO system	7100110	1	3
PWFPKLCV	Semi-annual replacement filter pack for LCV Water Filtration System	7100111	1	2
PWFPK2KC4	Semi-annual replacement filter pack for 3-Stage UF and 4-Stage Kwik-Change RO Systems	7100116	1	6
PWFPKKCUF	Annual replacement filter pack for 3-Stage UF System	7100118	1	3
PWHIB34WVIH	Valve-In-Head Housing kit	7100550	4	4
PWHIB10FF	10 Full Flow Housing kit	7100268	4	4
PWHIB20FF	20" Full Flow Housing kit	7100269	4	4
PWMB10M5	10" 5 micron Melt Blown Sediment Filter	7100331	12	24
PWMB10M50	10" 50 micron Melt Blown Sediment Filter	7100335	12	12
PWPL10FFM20	10" Full Flow 20 micron Pleated Sediment Filter	7100411	4	8
PWCB10P	10" 5 micron Carbon Block Filter	7100446	12	24
PWCB10FFP	10" Full Flow Carbon Block Filter	7100448	4	8
PWCB20FFP	20" Full Flow Carbon Block Filter	7100449	4	8
PWFILGAC10	10" Inline GAC Filter	7100454	6	24

* No charge when purchasing $2500.00 USD worth of products for end cap display
** The PW End Cap Header Package includes 2' x 3' Header, Laminated XREF Chart and Chain and Plan-O-Gram

The wetted surfaces of these products contacted by consumable water contain less than 0.25% of lead by weight.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**

Watts® Pure Water Visual Test Kits

provide a quick, portable, and convenient way to measure some of the most common water quality test parameters anywhere at any time. Accurate chemistry, simple to read comparator cards with instruction, and expandable carrying case allows for testing on site without having to take water samples back to a chemistry laboratory.

Master Visual Test Kit

ORDER NUMBER	DESCRIPTION
7100710	PWVTCOMPLETEKIT

Master Visual Test Kit contains (x1) each of the individual tests kits, including carrying case and comparator**. Master Visual Test Kit does not include TDS Meter, it must be ordered separately.**

7300782
TDS

7100708
Comparator

7100709
Carrying Case

Individual Visual Test Kits*

ORDERING CODE	MODEL NUMBER	PARAMETER	TEST TYPE	RANGE (PPM)	#TEST
7100700	PWVITOTALIRON	Total Iron (Fe+3) Kit	Visual Comparator, Colorimetric	0-9	≥ 100
7100701	PWTFERROUSIRON	Ferrous Iron (Fe+2) Kit	Visual Comparator, Colorimetric	0-9	≥ 100
7100702	PWVTMANAGANESE	Manganese Kit	Visual Comparator, Colorimetric	0-10	≥ 100
7100703	PWVTTOTALALK	Total Alkalinity Kit	Visual Comparator, Colorimetric	0-500	≥ 100
7100704	PWVTpH	pH Kit	Visual Comparator, Colorimetric	6-8	≥ 100
7100705	PWVTCHLORINE	Chlorine (Free & Total) Kit	Visual Comparator, Colorimetric	0-6	≥ 100
7100706	PWVTHARDNESS	Total Hardness Kit	Visual Comparator, Colorimetric	0-500/0-30gpg	≥ 100
7100707	PWVTFILOXRP	Filox ORP Simple Test Kit	Visual	NA	≥ 100
77300782	Meter TDS	TDS Meter 0-9990 ppm	Digital	0-9990	NA

Individual Kits contain all necessary reagents, comparator card, cuvettes, and instructions to perform measurements
*Comparator and carrying case sold separately.

Accessories

ORDER CODE	DESCRIPTION
7100708	Comparator
7100709	Carrying Case

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

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- Filtration
- Reverse Osmosis
- Replacement Filter Kits
- Replacement RO Membranes

Filtration Systems

Residential • Marine • RV

PWDWHCUC1

PWDWLCV2

PWDWUFKC3

Reverse Osmosis

What is reverse osmosis?

Reverse osmosis, often referred to as RO, is an advanced water purification method that was initially developed by the U.S. Navy to produce drinking water from seawater for submarine crews. It is a membrane filtration technology that works by forcing water under pressure through the very tiny pores of a semi-permeable membrane. Modern reverse osmosis units for the home combine membrane technology with carbon and mechanical filtration to produce highly purified, great-tasting water.

PWROKC4

PWRO4ZRO

How does it work?

In modern home units, water delivered by normal city water pressure, first flows through a sediment pre-filter which removes any dirt and small particles that are in the water, next a carbon pre-filter, which removes organic contaminants including chlorine and its by-products. Then, it enters the reverse osmosis membrane, a very tight, sheet-like filter, which allows water to pass but rejects dissolved solids like sodium and impurities like lead and arsenic. Some of the water entering the unit is used to cleanse the membrane surface and flows to the kitchen drainpipes. The purified water is stored in a small storage tank until it is needed. When the faucet mounted on the sink is opened, the purified water is forced by air pressure through another carbon filter, which gives it a final polish and from there to the faucet. (This is a simplified description of a 4-Stage RO unit. The simplified description omits a few very essential parts like flow control devices, check valves, and an automatic shutoff device that stops the inflow of water when the storage tank is full.)

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**

Model PWDWHCUC1

Single Stage High Capacity Carbon Filtration System

This Watts Pure Water PWDWHCUC1 superior carbon filtration system connects to the cold side of your existing kitchen tap. It provides superior filtration for all the cold water to your faucet. The one-year or 10,000 gallon filtration capacity is five times the capacity of other competitive filter systems.

FEATURES

- Single Stage - High Flow 0.5 micron Carbon Block
- 1 year (10,000 gallon) filtration capacity – 5x the capacity of other filter systems†
- Hi-Flow ⅜" Quick Connect Inlet/Outlet connections
- Proprietary cartridge connects to (and disconnects from) the unit by a simple ¼ turn
- System comes complete with fittings and tubing required for a quick and easy standard installation

†Against similar featured competitive filters at 2,000 gallon capacity

BENEFITS

- Reduces Parasitic Cyst, Sediment, Chlorine Taste and Odors
- Provides superior filtration for all the cold water to your faucet
- System goes well beyond basic water filtration and typical "pitcher" or "end-of-tap" filters

REDUCES	
✓ Sediment	✓ Chemicals
✓ Chlorine	

PWDWHCUC1
Ordering Code: 7100642

For additional information, access online literature ES-WQ-PWDWHCUC1.

Replacement Filter

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
PWCBHCUC1	7100643	12 Months	Activated Carbon Filter

Note: Water conditions may require more frequent cartridge replacement

Model PWDWHCL1

Single Stage High-Capacity Lead Reduction Filtration System

This Watts Pure Water PWDWHCL1 Single-Stage Lead filtration system provides protection from Lead and other contaminants and connects directly to the cold side of most standard kitchen and bathroom faucets. It provides superior filtration for all the cold water to your faucet.

The one-year or 7,900 gallon filtration capacity is up to four times the capacity of other competitive filter systems. It features a high flow 0.5 micron carbon fiber filter, simple quarter turn filter change out and simple under sink installation. This Lead Filtration system is designed and certified to reduce 99.2% of lead in drinking water at any point of use in your household. It also is certified to reduce Parasitic Cyst, Chlorine taste odors and sediment for great-tasting, safer potable water.

FEATURES

- High-flow system (2 gallons per minute)
- High capacity 0.5 micron carbon fiber filter (7900 gallons) for less frequent filter changes
- System comes complete with fittings and tubing required for a quick and easy standard installation
- Connects directly to most standard kitchen and bathroom cold water faucets
- High-capacity filter disconnects and connects from the unit by a simple quarter-turn

BENEFITS

- Certified to reduce Lead, Cysts, Chlorine Taste Odors and Sediment
- Provides superior filtration for all the cold water to your kitchen and bathroom faucets
- No additional hole to drill for faucet in sink or counter-top
- System goes well beyond basic water filtration and typical "pitcher" or "end-of-tap" filter

REDUCES	
✓ Lead	✓ Chlorine
✓ Cysts	✓ Sediment

IAPMO R&T WATER QUALITY PLATINUM SEAL IAPMO RESEARCH AND TESTING

UPC

PWDWHCL1 tested and certified by IAPMO R&T Lab and IAPMO R&T to meet NSF/ANSI 42 standards for the reduction of Chlorine, Taste and Odor, and Class I Particulates; NSF/ANSI 53 for the reduction of Lead and Cyst; and NSF/ANSI 372 for low lead compliance as verified and substantiated by test data.

PWDWHCL1
Ordering Code: 7100575

For additional information, access online literature ES-PWDWHCL1.

Replacement Filter

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
PWCFHCCL1	7100576	12 Months	Activated Carbon Block 0.5 Micron

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**

Model PWDWLCV2 EC END CAP

Under Counter Water Filtration System

Watts Pure Water 2-Stage LCV Drinking Water System produces high-quality, fresh water on demand by reducing unwanted tastes and odors from your incoming water supply. This system was designed for the Home, RV and Marine Industry where space is at a premium and quality water is essential.

FEATURES

- 2-Stage-Includes sediment and 1-micron LCV Carbon Block filters
- Adapt-A-Valve™ for easy installation
- Includes dedicated elegant Chrome long reach faucet
- System comes complete with fittings and tubing required for a quick and easy standard installation

BENEFITS

- Reduces sediment, chlorine taste odors
- Works in low-pressure applications
- Space saving design installs under sink or in limited spaces

REDUCES	
✓ Sediment	✓ Chemicals
✓ Chlorine	

PWDWLCV2
Ordering Code: 7100101

For additional information, access online literature ES-PWDWLCV2.

Replacement Filters Packs

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
PWFPKLCV	7100111	6 Months	includes sediment and carbon filter

Note: Water conditions may require more frequent cartridge replacement

Model PWDWUFKC3 EC END CAP

Kwik-Change™ Ultra Filtration Membrane Water Filtration System

FEATURES

- 3-Stage-Includes sediment, carbon block and UF Membrane cartridges
- Hinge bracket and pivot head for ease of accessibility and cartridge replacement
- Automatic shutoff valves in the manifold eliminate the need to shut off the incoming water supply when changing out the filters
- Adapt-A-Valve™ for easy installation
- Includes Designer Faucet in Brushed Nickel finish
- Cartridges disconnect and connect from the unit by simple ¼ turn
- Double seal O-ring cartridges ensure system integrity

BENEFITS

- Reduces sediment, chlorine taste odors and most colloids and impurities as small as - 0.1 micron nominal
- Requires only normal line pressure to operate
- Dispenses a continuous supply of water, no storage tank needed
- Requires minimal maintenance and will provide clean, safe, great tasting water.

REDUCES	
✓ Sediment	✓ Chlorine

C US
NSF/ANSI STD 372

PWDWUFKC3
Ordering Code: 7100106

For additional information, access online literature ES-WQ-PWDWUFKC3.

Replacement Filter Packs

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
PWFPK2KC4	7100116	6 Months	Includes sediment and carbon pre-filters only
PWFPKKCUF	7100118	Annual	Includes all filters and UF membrane

Note: Water conditions may require more frequent cartridge replacement

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**

Model PWRO4

4-Stage Reverse Osmosis (RO) System

A tried and true reverse osmosis system that produces crystal clear, high quality and great tasting water!

PWRO4
Ordering Code: 7100103

FEATURES

- 4-Stage-Includes sediment, carbon block, RO Membrane and final filter
- High producing RO Membrane up to 50 gallons per day
- Adapt-A-Valve™ for easy installation
- Includes dedicated elegant Chrome long reach faucet
- System comes complete with fittings, tubing and RO storage tank required for a quick and easy standard installation

BENEFITS

- Space saving design, installs under sink or in limited space
- Semi-permeable membrane will reduce contaminants down to 1/10,000 of a micron
- Provides great tasting water for drinking and cooking
- Reduces sediment, chlorine that causes bad taste, TDS, other metals and a wide range of contaminants such as arsenic, lead, perchlorate, copper and cysts

REDUCES

- ✓ Sediment
- ✓ Chlorine
- ✓ Nitrate
- ✓ Nitrite
- ✓ Chemicals
- ✓ Cyst
- ✓ TDS

C US NSF/ANSI STD 372/STD 58

Replacement Filter Packs

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
PWFPKSEDCB	7100110	6 Months	Includes sediment and carbon filter only
PWFPK4RO4	7100115		Includes all filters and membrane
PWMEM50	7100122	2 - 5 years	50 gpd membrane
PWILGAC10	7100454	Annual	10" final in-line filter

For additional information, access online literature ES-WQ-PWRO4.

NOTICE Water conditions may require more frequent cartridge replacement

Model PWRO4ZRO

ZRO-4 ZeroWaste® Reverse Osmosis System

The patented ZeroWaste Point-of-Use Reverse Osmosis (RO) System is the first ever that wastes no water. Comparable systems typically waste up to 4-12 gallons of water for every gallon of RO water produced. This highly efficient Watts RO system provides better-than-bottled water quality for residential applications.

PWRO4ZRO
Ordering Code: 7100104

FEATURES

- 4-Stage-Includes sediment, carbon block, RO Membrane and final filter
- Patented technology using advance design – 100% Efficient – NO WASTED WATER
- High producing RO Membrane up to 50 gallons per day
- Adapt-A-Valve™ for easy installation
- Includes elegant Watts Designer Top Mount Chrome faucet with ⅜" high-flow delivery
- System comes complete with fittings, tubing and RO storage tank required for a quick and easy standard installation

BENEFITS

- Saves as much as 7,000 gallons per year in a typical residential application
- No air gap faucet or drain connection required
- Ideal for low pressure or well applications
- Space saving design, installs under sink or in limited space
- Semi-permeable membrane will reduce contaminants down to 1/10,000 of a micron
- Provides great tasting water for drinking and cooking
- Reduces sediment, chlorine that causes bad taste, TDS, other metals and a wide range of contaminants such as arsenic, lead, perchlorate, copper and cysts

REDUCES

- ✓ Sediment
- ✓ Chlorine
- ✓ Nitrate
- ✓ Nitrite
- ✓ Chemicals
- ✓ Cyst
- ✓ TDS

C US NSF/ANSI STD 372/STD 58

Replacement Filter Packs

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
PWFPKSEDCB	7100110	6 Months	Includes sediment and carbon filter only
PWFPK4RO4	7100115		Includes all filters and membrane
PWMEM50	7100122	2 - 5 years	50 gallon per day membrane
PWILGAC10	7100454	Annual	10" final in-line filter

For additional information, access online literature ES-WQ-PWRO4ZRO.

NOTICE Water conditions may require more frequent cartridge replacement

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**

Model PWROKC4 EC END CAP

Kwik-Change™ Reverse Osmosis Systems

Flow rate produces up to 60 gallons per day (227 lpd) of high-quality water that exceeds the quality of most bottled waters.

PWROKC4
Ordering Code: 7100107

FEATURES

- 4-Stage-Includes sediment, carbon block, RO Membrane and final filter cartridges
- High producing RO Membrane up to 60 gallons per day
- Hinge bracket and pivot head for ease of accessibility and cartridge replacement
- Cartridges disconnect and connect from the unit by simple ¼ turn
- Automatic shutoff valves in the heads eliminate the need to shut off the incoming water supply when changing out the filters
- Adapt-A-Valve™ for easy installation
- Includes elegant Watts Designer Top Mount Chrome faucet with ⅜" high-flow delivery
- Double seal O-ring cartridges ensure system integrity
- System comes complete with fittings, tubing and RO storage tank required for a quick and easy standard installation

BENEFITS

- Space saving design, installs under sink or in limited space
- Semi-permeable membrane will reduce contaminants down to 1/10,000 of a micron
- Provides clean, safe, great tasting water for drinking and cooking
- Reduces sediment, chlorine that causes bad taste, TDS, other metals and a wide range of contaminants such as arsenic, lead, perchlorate, copper

REDUCES	
✓ Sediment	✓ Chemicals
✓ Chlorine	

C US NSF/ANSI STD 372

Replacement Filter Packs

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
PWFPK2KC4	7100116	6 Months	Includes sediment and pre-carbon filters only
PWFPK4KC4	7100117		Includes all filters and membrane
PWMEMKC60	7100125	2 - 5 years	60 gallon per day membrane
PWKCGAC13	7100462	Annual	GAC final filter

NOTICE Water conditions may require more frequent cartridge replacement

For additional information, access online literature ES-WQ-PWROKC4.

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**

- System for Reduction of PFOS/PFOS, Lead, Cyst, CTO
- Systems for Sediment Reduction with High Efficiency Micro Z™ Filter Media
- Systems for Iron, Manganese and Hydrogen Sulfide Reduction
- Systems for Acid Neutralizing
- Systems for Scale Reduction
- Water Softener — Series PWSR
- Cabinet Water Softener - Series PWSCAB
- Water Softener — Series PWSRTA
- Dual Media System - Series PWDM

Big Bubba

PWBWIRON

PWSR

PWSCAB

PWSRTA

OFRES-K

How does a Water Softener work?

The resin inside the mineral tank is specially designed to remove dissolved hardness particles of calcium and magnesium, by a simple ion exchange process. The resin beads inside the softener tank have a different or opposite electrical charge than the dissolved particles, or ions, of the incoming water. Because of this electrical charge difference, the dissolved particles suspended in your water will cling to the resin beads on contact, thereby ridding the water of these particles, causing the water exiting the unit to be “soft”. The resin has a limit to how much of these hardness particles it can hold, which is why there are many different sizes of softeners and also why regeneration or brining is required.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Whole House Water Quality Problems

- ☑ PFOA/PFOS
- ☑ Hardness
- ☑ Iron
- ☑ Manganese
- ☑ Bad tastes
- ☑ Foul odors
- ☑ Chlorine and harmful chlorine by-products
- ☑ Turbidity
- ☑ Acidic water
- ☑ Scale control

The continuous water cycle

Nature intended us to have high-quality water. This is why we have the continuous water cycle, whereby water from our oceans, rivers, lakes and streams fall to the ground as rain or snow and becomes filtered as it seeps through the earth's surface. As the water works its way through the ground it picks up minerals by dissolving limestone, causing water hardness. Water may also come into contact with Iron, Manganese, Arsenic and other contaminants, which cause additional water treatment problems.

The chart below lists typical whole house water quality problems and indicates which equipment effectively corrects any problems you may have in your home.

WATER QUALITY PROBLEMS	SYMPTOMS	RECOMMENDED EQUIPMENT	SERIES NAME
PFOA/PFOS	PFOA and PFOS, the two most common PFAS, are toxic chemicals that simply don't break down. Common in non-stick cookware and food packaging, these "forever toxins" accumulate over time and can lead to major health issues including cancer.	BB-S101	Big Bubba
Hardness	Mineral deposits on dishes and glassware; stiff, dingy laundry; high soap usage and need for fabric softeners; dry, itchy skin and scalp; unmanageable hair; extra work to remove soap curd on bathtubs and shower stalls; high energy costs due to scale build-up in pipes and on appliances.	Water Softener	Series PWSR Series PWSRTA Series PWSCAB PWDM
Chlorine, foul odors and tastes	Chlorine taste; foul odors; damage to hair; itchy skin.	Backwashing filter using activated carbon	Series PWFGAC PWDM
Iron & Manganese	Unpleasant metallic tastes; rust particles; staining on plumbing fixtures; red water; odors.	Iron filter	Series PWBWIRON
Turbidity	Cloudy water; sediment, sand, silt and rust particles.	Media filter	Series PWFMZ
Acidic water (low pH)	Green stains on bathroom sinks and other porcelain (surfaces; blue green water. (Acidic water may cause corrosion of pipes & plumbing fixtures.)	Acid neutralizer using Calcite	Series PWFMZ
All of the above	All of the above	Reverse Osmosis System	Series - PWRO440
Scale	Internal scale formation on plumbing surfaces, appliances and plumbing fixtures	OneFlow®	Series OFTWH Series OneFlow+ Series OFRES-K

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series BB-S101

Residential Smart Whole-Home Solution for PFOA/PFOS, Lead, Cyst, CTO Reduction

Connection Sizes: 1" (25mm)
Flow Rates: Up to 4 gpm (15 lpm)

Watts Whole Home system for PFOA/PFOS, Lead, Cyst, CTO Reduction

This Watts Big Bubba® BB-S101 is a smart whole-home solution designed for point of entry applications. It is certified to NSF/ANSI standards for the reduction of lead, PFOA/PFOS, chlorine taste and odors and cysts as well as NSF/ANSI Standard 372 for lead free compliance and independently tested to reduce chloramines. Its 0.5 micron carbon block filter cartridge also helps to reduce fine sediment for superior quality water. The system includes a smart volumetric flow monitor that alerts the user via SMS and/or email when filter cartridge replacement is due. It accepts a single filter cartridge for easy installation and servicing. The filter housing of this durable system is constructed of rugged, glass reinforced polypropylene with brass reinforced gauge port so it won't chip, rust or dent. This system includes an inlet pressure gauge, 1 inch FNPT inlet/outlet connections and mounting bolts for floor mounting.

BB-S101

BB-M101

FEATURES

- Includes a smart volumetric flow monitor that sends SMS/email alerts when filter cartridge replacement is due
- Reduces lead and PFOA/PFOS
- Reduces parasitic cysts
- Reduces chlorine and chloramine taste and odors

REDUCES

- ✓ PFOA/PFOS
- ✓ Lead
- ✓ Cysts
- ✓ Chlorine & Chloramines Taste and Odors

Certified by IAPMO R&T to NSF/ANSI 42 and 53, for the reduction of claims verified and substantiated by test data as specified on the performance data sheet. The system is also certified to CSA B483.1, and NSF/ANSI 372 for Lead Free compliance.

MODEL NO.	ORDERING CODE	DESCRIPTION
BB-S101	7100996	Smart Whole-Home Solution System
BB-M101	7100991	Smart Volumetric Flow Monitor
BB-C100	7100980	Replacement CartridgeCarbon Block 0.5 Micron
PWFMZ3	7100694	Time Clock

For additional information, access online literature ES-WQ-BB-S101.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Big Bubba Housing & Cartridges

With optional activated carbon cartridge to remove Chlorine, bad tastes, foul odors and sediment.

Rugged Construction

Filter housings are made of rugged, glass-reinforced polypropylene so they will not chip, rust or dent. And because all wetted surfaces are non-metallic, they are ideal when chemical compatibility is an issue and for sea water applications.

Low Cost

Filters are an economical replacement for stainless steel filtration equipment because of their non-metallic construction and today's high cost of stainless steel!

Applications

Big Bubba® Cartridge Filters are ideal for a wide range of applications, including:

- Commercial filtration
- Industrial filtration
- Pre-filtration for reverse osmosis equipment
- Community water systems
- Sea water applications due to their non-corrosive construction
- Replacement for bag filters more filter area
- Replacement for multiple cartridge filters for greater convenience
- Water for livestock and poultry

Proprietary Cartridges

The replacement cartridge for the Watts Big Bubba Housing is totally proprietary, so you may enjoy the replacement cartridge business over the life of the equipment

Conserves Water!

Watts filters with our proprietary pleated activated carbon cartridge conserves water because backwashing is not required, making them 100% efficient.

Easy Change Out!

Simply remove the swing bolts and lid, then rotate the cartridge 1/4 turn and lift it up.

Double O-Rings for Superior Sealing

PWWJCHSG

Certified to NSF/ANSI/CAN 61

MODEL NO.	ORDERING CODE	DESCRIPTION
PWWJCHSG	7100301	Big Bubba Housing

Parallel installation

Parallel installations are recommended to achieve high flow rates, by installing filters on a common manifold, feeding all filters installed in a row.

Series installation

Series installations are recommended for applications such as surface water filtration, where cartridges having different micron ratings are used.

Note: We build filtration systems, or they may be installed on site. For more information please inquire!

For additional information, access online literature ES-WQ-PWWJC.

WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Big Bubba Housing & Cartridges

Big Bubba® Cartridge Housing

SPECIFICATIONS	DATA
Body (all wetted surfaces)	Glass reinforced PP
Cartridge end caps	Glass reinforced PP
Swing bolts	304 stainless steel
O-rings (cartridges)	EPDM (Viton optional)
O-ring (lid)	EPDM (Viton optional)
Pipe fittings	2" slip
Overall height	40"
Width (vessel OD)	12"

(p/n: for no gauge port use part # BBH-150-NP)

Big Bubba® Cartridges

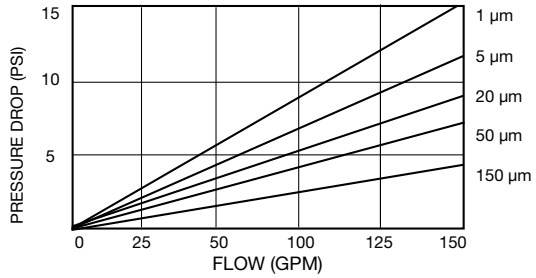
SPECIFICATIONS	DATA
Maximum flow rate	150 GPM* (36 M3/hr.)
Maximum flow (carbon)	15 GPM
Maximum flow (1 Micron)	50 GPM
Maximum temperature	125˚F (52˚C) @ 80 psi
Maximum working pressure	125 psi (8.75 bar)
Burst test	300 psi
Cycle test	100,000

* Highly dependent on micron rating, solids content and other factors. Please see pressure drop chart below.

Housing number BBH-150 has a wetted brass gauge port for the inlet pressure gauge.

Low Pressure Drop

Big Bubba® Cartridge Filters housings are designed to minimize pressure drop, by using 2" pipe fittings and large diameter center tubes. (See chart at right for pressure drop data using pleated cartridges.)



Big Bubba® Cartridge Filter Specifications

	PLEATED	DEPTH	ACTIVATED CARBON
Media	PP	PP	Activated carbon
End caps	PP + FG	PP + FG	PP
Center tubes	PP	PP	PP
Maximum flow rate (GPM)	150	100	15
Maximum temperature	125˚F (52˚C)	125˚F (52˚C)	125˚F (52˚C)
Maximum ΔP (psi)	30	40	30
Chemical resistance	Excellent	Excellent	Not a factor (for water)
Length (media)	26¼"	26¼"	26¼"
O-rings (dual)	EPDM	EPDM	EPDM
Shipping weight (lbs.)	5	5	7
Carton dimensions	7" x 7" x 31"	7" x 7" x 31"	7" x 7" x 31"
Micron ratings	1, 5, 20, 50, 150	1, 5, 20, 50	5

Flow rates are based on each specific application, micron rating, solids content and a number of other factors. End user should consider these factors when selecting the filter housing (or number of filter housings) needed for their particular requirement.

Pleated Cartridges

Ideal for more critical applications, offering greater efficiency, more surface area for greater throughput and reduced cost.

MODEL NO.	ORDERING CODE	MEDIA TYPE	MICRON RATING	PER CASE
PWWJCP1	7100303	PP	1	1
PWWJCP5	7100304	PP	5	1
PWWJCP20	7100305	PP	20	1
PWWJCP50	7100306	PP	50	1
PWWJCP150	7100307	MESH	150	1

5, 20, 50 and 150 micron cartridges are cleanable and reusable to reduce costs.

Depth Cartridges

Melt blown Polypropylene cartridges are recommended when depth filtration is necessary for gelatinous substances and when chemical resistance may be a requirement.

MODEL NO.	ORDERING CODE	MEDIA TYPE	MICRON RATING	PER CASE
PWWJD1	7100308	PP	1	1
PWWJD5	7100309	PP	5	1
PWWJD20	7100310	PP	20	1
PWWJDP50	7100311	PP	50	1

Activated Carbon

Ideal for whole house filtration to reduce chlorine, taste, odors and sediment.

MODEL NO.	ORDERING CODE	MAX. FLOW	CHLORINE REDUCTION
PWWJCAC5	7100312	15 gpm	1

For additional information, access online literature ES-WQ-PWWJC.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series OFRES-K

Smart Whole Home OneFlow® Residential Anti-Scale Systems

Connection Size: 1" (25mm)
Flow Rate: Up to 16 gpm (60 lpm)

Series OFRES-K Smart Whole Home OneFlow® Residential Anti-Scale System provides protection from internal hardness related scale formation on plumbing surfaces. Water-using appliances and plumbing fixtures also enjoy a longer lifespan because hardness scale build up on internal parts no longer occurs. This system is specifically designed for residential applications and includes a WiFi enabled monitor to send email and/or SMS alerts when media replacement is due. OneFlow Residential systems should be installed at the point-of-entry to a home to treat both the hot and the cold water. Connection Sizes: 1 in.(25mm) MNPT. Flow rates range from 8 gpm (30 lpm) up to 16 gpm (60 lpm).

OFRES-K

FEATURES

- Smart and connected elapsed time monitor – Sends automatic alerts via email and text when media replacement is due
- Displays days remaining, percent media life consumed and total water usage volume
- Chemical free scale prevention and protection – converts hardness minerals to harmless, inactive microscopic crystals making OneFlow an effective alternative technology to a water softener for the prevention of scale due to water hardness
- Virtually maintenance free – no control valve
- No control valve, and no wastewater
- Uses environmentally friendly technology by using no salt or other chemicals to constantly add, and generates no wastewater
- Improves efficiency of all water using appliances – both hot† and cold
- Simple sizing and installation
- Perfect system for towns or communities where water softeners are banned or restricted
- OneFlow Residential systems do not remove minerals or add sodium to the water supply
- OneFlow Residential systems can be installed as a pre-treatment to under counter reverse osmosis systems (OneFlow should be the last stage in treatment unless a point-of-use system is being used downstream.)
- Systems include a bypass valve for a simplified installation

NOTICE

*Always install OneFlow® Residential systems before the water heating device.

REDUCES

✓ Scale

Replacement Media

MODEL NO.	ORDERING CODE	FREQUENCY
OFRES-0835RM	7300096	Media should be replaced every 3 years
OFRES-0935RM	7300097	Media should be replaced every 3 years
OFRES-1035RM	7300098	Media should be replaced every 3 years

Smart Elapsed Time Monitor

MODEL NO.	ORDERING CODE	FREQUENCY
U-M311	7100992	Smart Elapsed Time Monitor

MODEL NO.	ORDERING CODE	CONNECTION SIZE	MINERAL TANK SIZE	MEDIA LITERS	MAXIMUM SERVICE FLOW (GPM)*	PRESSURE DROP (PSI)**	FLOOR SPACE (L X W X H)
OFRES-0835-K	7100993	1" MNPT	8" X 35"	2	8	<15	13" X 9" X 40"
OFRES-0935-K	7100994	1" MNPT	9" X 35"	3	12	<15	13.5" X 10" X 40"
OFRES-1035-K	7100995	1" MNPT	10" X 35"	4	16	<15	14" X 11" X 40"

For additional information, access online literature ES-OFRES.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Model OFPSYS

OneFlow®+ Salt-Free Scale Prevention and Water Filtration

Connection Sizes: 1"
Flow Rates: From 0.5 gpm to 10 gpm (1.9 lpm to 37.85 lpm)

A OneFlow+ scale prevention system shall be installed on the cold water service line to condition the tap water just prior to the service line feeding the residential home. The OneFlow+ system uses a 20 micron radial flow carbon block cartridge with a dirt holding capacity up to 2.2 lbs (1 kg). This carbon block reduces chlorine taste and odors for up to 50,000 gallons (189,000 liters) of use, with a flow rate of 3 gpm (11.34 lpm). The OneFlow+ system also uses a scale prevention cartridge which is good for up to 250,000 gallons (945,000 liters) or replacement every 3 years, whichever comes first. The OneFlow+ system uses Media Assisted Crystallization (MAC) to attract hardness minerals and convert them into harmless,inactive microscopic crystal particles. These crystals stay suspended in the water and are passed to drain. The system requires very little maintenance, no backwashing, no salt and no electricity. Typical hardness problems, especially build-up of scale in heating elements, pipes, water heaters, boilers and on fixtures, are reduced.

The OneFlow+ system is not a water softener. It does not add chemicals. It is a scale prevention device with proven third party laboratory test data and years of successful commercial, residential and foodservice applications. OneFlow+ is the intelligent scale solution and is a great salt-free alternative to water softening (ion exchange) or scale sequestering devices.

REDUCES

✓ Scale
✓ Sediment
✓ Chlorine Taste and Odor

FEATURES

- Reduces sediment, chlorine taste and odor
- Chemical-free scale prevention and protection - converts hardness minerals to harmless, inactive microscopic crystals making OneFlow+ an effective salt-free alternative to ion exchange water softeners
- Virtually maintenance free - no salt bags or other chemicals to constantly add or maintain
- No control valve, no electricity and no wastewater
- Improves efficiency of all water heating devices and downstream plumbing components
- Simple installation – standard 1" connections
- Excellent system for homes where equipment protection is desired for longer equipment life and reduced energy consumption
- OneFlow+ cartridge-based systems are easily maintained.
- Easily installed mounting bracket and multi-function tool included to allow cartridge change-outs when necessary

For additional information, access online literature ES-OFPSYS

Replacement Cartridges

MODEL NO.	ORDERING CODE	FREQUENCY	DESCRIPTION
OFPRFC	7100639	Annually	Radial Flow Carbon Block Cartridge
OFPSP	7100640	3 Years	OneFlow Cartridge
OFPCOM	7100641		Combo Pack includes carbon block and OneFlow cartridge

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Models OFTHW-C, OFTWH-R and OFTWH

OneFlow® Anti-Scale Systems for Residential Tankless Water Heaters

Connection Sizes: ¾" (20mm)
Flow Rates: From 0.5 gpm to 10 gpm (1.9 lpm to 38 lpm)

The OneFlow® Anti-Scale System provides protection from scale formation on internal plumbing surfaces. The OneFlow® system is a single cartridge-based system that must be installed on a cold water line prior to a water-heating device (water heater or tankless water heater) for single tankless heaters.

OneFlow® prevents scale by transforming dissolved hardness minerals into harmless, inactive microscopic crystal particles. These crystals stay suspended in the water and are passed to a drain. The system requires very little maintenance, no backwashing, no salt and no electricity. Typical hardness problems, especially build-up of scale in heating elements, pipes, water heaters, boilers and on fixtures, are reduced.

OneFlow® is not a water softener. It does not add chemicals. It is a scale prevention device with proven third party laboratory test data and years of successful commercial, residential and food service applications. OneFlow® is the intelligent scale solution and is a great salt-free alternative to water softening (ion exchange) or scale sequestering devices.

OFTWH-C

OFTWH-R

OFTWH

FEATURES

- Chemical-free scale prevention and protection - converts hardness minerals to harmless, inactive microscopic crystals making OneFlow® an effective salt-free alternative technology to a water softener for the prevention of scale due to water hardness
- Virtually maintenance free - No salt bags or other chemicals to constantly add or maintain
- No control valve, no electricity and no wastewater
- Environmentally-friendly technology
- Improves efficiency of all water heating devices and downstream plumbing components.
- Simple sizing and installation – standard ¾" connections
- Inlet ball valve for easy isolation shutoff and filter changes
- OneFlow® cartridge-based systems are easily maintained; change the cartridge once every two years
- Easily installed mounting bracket included w/filter wrench to allow cartridge change-outs when necessary

REDUCES
✓ Scale

For additional information, access online literature ES-OFTWH-RES and ES-OFTWH

Model

MODEL NO.	ORDERING CODE	PEAK FLOW RATE	CONNECTION SIZE
OFTWH-C	0002191	5 gpm (18.93 lpm)	¾" (20mm) FNPT
OFTWH-R	0002188	6 gpm (22.71 lpm)	¾" (20mm) FNPT
OFTWH	0002182	10 gpm (38 lpm)	¾" (20mm) FNPT

Replacement Cartridge

MODEL NO.	ORDERING CODE	FREQUENCY
OFTWH-RM-C	0002192	Cartridge should be replaced every 2 YEARS
OFTWH-RM-R	0002189	Cartridge should be replaced every 2 YEARS.
OFTWHRM	0002183	Cartridge should be replaced every 2 YEARS.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Watts® Water Softeners

"Hard" water is not considered unhealthy; however, hard-water problems end up costing you money through increased soap usage, reliance on water softening products and a shorter life for appliances due to scale build-up in pipes and other factors.

To correct water hardness, Watts offers a wide range of water conditioning systems, designed to improve water quality throughout your entire household.

Enjoy these many benefits Watts® water softeners provide

- Spot-free glassware and dishes
- No mineral deposits on bathtubs and shower stalls
- Brighter, softer laundry
- Less reliance on water-softening products
- Dramatic reduction in soap usage
- Manageable hair because shampoo works better
- Pipes remain free of calcium scale build-up
- Extended life of appliances and reduced energy costs because scale is virtually eliminated
- Spot-free car wash (if softened water is used)

Metered valve for greater efficiency

Our control valve is metered for greater efficiency and reduced salt usage, because regeneration of the softener resin is based on water consumption. Push-button settings provide ease-of-use.

Model selection is typically based on water hardness, water usage, water source and other factors.

See page 18 for Water Softener Sizing Information.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Calculate your hardness

Either in PPM (Parts Per Million) or in GPG (Grains Per Gallon)

- If you have PPM convert by dividing by 17.1
- If you have GPG convert by multiplying by 17.1

Until you have reached your grain hardness

Compensated hardness

When sizing water conditioning equipment, the hardness should be based on compensated hardness. Compensated hardness takes into consideration minerals and other factors that will reduce the softening capacity of a softener. These items cannot be picked up in a standard hardness test. To arrive at compensated hardness, multiply the figure on the right by the hardness in grains per gallon.

Your Test Hardness	Multiply By	Compensated Hardness
1 — 20	1.1	= _____
21 — 40	1.2	= _____
41 — 70	1.3	= _____
71 — 100	1.4	= _____
101 — Plus	1.5	= _____

Determine if a softener is needed, see defined chart below: Terms Defined

TERM	GPG*	PPM**
Soft	1.0 or less	17.0 or less
Slightly Hard	1.0 to 3.5	17.1 to 60
Moderately Hard	3.5 to 7.0	60 to 120
Hard	7.0 to 10.5	120 to 180
Very Hard	10.5 or over	180 or over

* GPG - Grains Per Gallon
**PPM- Parts Per Million

Always determine both
(1) Flow Rate and
(2) Capacity Total in Grains

FLOW RATES IN PIPES NORMAL TO PEAK		
¾"	=	10-15 GPM
1"	=	16-30 GPM
1¼"	=	30-35 GPM
1½"	=	40-70 GPM
2"	=	65-120 GPM
2½"	=	80-170 GPM
3"	=	120-270 GPM
4"	=	250-500 GPM
6"	=	500-1100 GPM
8"	=	1000-2000 GPM
10"	=	1500-3000 GPM

Softener Sizing Selection Chart

HARDNESS (GRAINS PER GALLON)	NUMBER OF PEOPLE USING SOFTENED WATER IN HOUSEHOLD							
	1 75 gal	2 150 gal	3 225 gal	4 300 gal	5 375 gal	6 450 gal	7 525 gal	8 600 gal
1-5	15k	15k	15k	15k	15k	30k	30k	30k
	12	12	6	6	4	6	4	3
	1700	1600	1500	1500	1400	3500	3400	3300
6-10	15k	15k	15k	30k	30k	30k	30k	45k
	12	4	3	4	4	3	3	4
	800	750	650	1500	1400	1300	1200	2100
11-15	15k	15k	30k	30k	30k	45k	45k	45k
	6	3	4	3	3	3	3	2
	500	400	950	900	800	1300	1200	1100
16-20	15k	15k	30k	45k	45k	45k	60k	60k
	4	3	3	4	3	3	3	2
	375	300	675	1100	1000	900	1200	1100
21-25	15k	30k	30k	45k	45k	60k	60k	90k
	4	4	3	3	2	3	2	3
	250	600	500	800	700	1000	900	1600
25-30	30k	30k	45k	45k	60k	90k	120k	120k
	6	3	3	2	2	3	3	3
	450	400	550	500	700	1000	1500	1400
31-35	30k	30k	45k	60k	90k	90k	120k	120k
	6	3	3	3	4	3	3	3
	400	350	550	700	1200	1100	1500	1400
36-40	30k	45k	45k	60k	90k	120k	120k	-
	4	4	2	2	3	3	3	-
	400	525	450	600	975	1350	1200	-
41-45	45k	45k	60k	90k	90k	120k	-	-
	6	3	3	3	3	3	-	-
	500	400	500	900	800	1000	-	-
45-50	45k	60k	90k	90k	120k	-	-	-
	6	4	4	3	3	-	-	-
	500	600	950	850	1100	-	-	-

KEY TO EACH HORIZONTAL SEGMENT IN CHART
Softener Size (thousands of grains) Model
Number of days between regeneration cycle
Meter setting (gallons used between regeneration cycle)

Meter settings based on softener capacities at minimum brining (6 lbs. / cu. ft.).
For Larger Applications Call Your Watts Representative

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWSR

Residential and Light Commercial Water Softeners

Connection Size: 1" (25mm)
Flow Rate: Up to 23 gpm (87 lpm)

The Series PWSR water softeners are designed for residential and light commercial use applications ranging from 30,000 to 90,000 grains of hardness removal capacity at flow rates up to 23 gallons per minute.

PWSR

REDUCES

✓ Scale

FEATURES

- Complete whole house water treatment system
- State-of-the-art computer programming to increase efficiency, save salt and water
- Uses downflow regeneration
- Demand regeneration for highest efficiency
- Engineered and tested to perform, one of the most reliable valve platforms in the industry
- Weather resistant enclosures
- Full flow bypass valve included

PWSR SERIES CONTROL VALVE

Manufactured from high-tech materials, the PWSR Series valve has been engineered and tested to perform in the most demanding environments. It has built a reputation of being one of the most reliable valve platforms in the industry. All surfaces contacted by water are made from 100 % polymer components so that corrosion from acidic water and brine are no longer a concern.

ELECTRONIC CONTROL

The PWSR Series valve features an advanced electronic control for easy programming. Adjustable brining, adjustable reserve, high efficiency regeneration and simplified programming are now standard.

SOFTENING MEDIA

The exchange media is a high-capacity cation polystyrene resin that combines high operating capacity with excellent chemical and physical stability for long, dependable life.

RESIN TANK

Features a non-corrosive fiberglass tank with thermoplastic inner lining

BRINE TANK

The brine tank is a combination brine maker and salt storage vessel and is made of tough, corrosion free high-density polyethylene. Brine refill is controlled by the advanced electronic controller, to provide the correct amount of brine for each regeneration

PWSR

MODEL NO.	PWSR130	PWSR145	PWSR160	PWSR190
Ordering code	7100681	7100495	7100496	7100682
Max/Min Ion Exchange Capacity	30,000/20,000	45,000/30,000	60,0000/40,000	90,0000/60,000
Lbs. of salt required for Max/Min capacity	15-6	22.5-9	30-12	45-18
Salt Storage Capacity	350	350	350	400
Flow Rate in GPM @ 15 PSI Drop	9-12	12-16	15-20	18-23
Backwash Flow Rate GPM	2.2	2.7	2.7	4.2
Drain Line Connection Size	¾" NPT	¾" NPT	¾" NPT	¾" NPT
Inlet/Outlet Pipe Size	1"	1"	1"	1"
Electrical Requirements	120V/60Hz	120v/60Hz	120v/60Hz	120v/60Hz
Mineral Tank Size	9" x 48"	10" x 54"	12" x 52"	14" x 65"
Brine Tank Size	18" x 36"	18" x 36"	18" x 36"	18" x 40"
Floor space required in inches W x D	31" x 19"	32" x 19"	34" x 19"	35" x 19"
Approximate Shipping Weight Lbs.	110	130	190	265

For additional information, access online literature ES-WQ-PWSR

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWSCAB

Residential Cabinet Water Softener

Connection Size: 1" (25 mm)
Flow Rate: Up to 16 gpm (61 lpm)

The Series PWSCAB cabinet water softener is designed for residential applications ranging from 30,000 to 45,000 grains of hardness removal capacity at flow rates up to 16 gallons per minute.

PWSCAB Series Softener
Ordering Code - #7101109

FEATURES

- Compact cabinet style design
- Salt loading port with sliding cover for convenient filling
- Unique flip-up access window to program the valve without removing the cover
- Complete whole house water treatment system
- State-of-the-art computer programming to increase efficiency, save salt and water
- Uses downflow regeneration
- Demand regeneration for highest efficiency
- Engineered and tested to perform, one of the most reliable valve platforms in the industry
- Full flow bypass valve included

PWSCAB SERIES CONTROL VALVE

Manufactured from high-tech materials, the PWSCAB Series valve has been engineered and tested to perform in the most demanding environments. It has built a reputation for being one of the most reliable valve platforms in the industry. All surfaces contacted by water are made from 100% polymer components so that corrosion from acidic water and brine is no longer a concern.

ELECTRONIC CONTROL

The PWSCAB Series valve features an advanced electronic control for easy programming. Adjustable brining, adjustable reserve, high-efficiency regeneration and simplified programming are now standard.

SOFTENING MEDIA

The exchange media is a high-capacity cation polystyrene resin that combines high operating capacity with excellent chemical and physical stability for a long, dependable life.

RESIN TANK

Features a non-corrosive fiberglass tank with a thermoplastic inner liner. Unique space-saving resin tank in cabinet design.

BRINE TANK / CABINET

The brine tank is a combination brine maker and salt storage vessel and is made of tough, corrosion-free high-density polyethylene (HDPE). Brine refill is controlled by the advanced electronic controller to provide the correct amount of brine for each regeneration.

PWSCAB

	PWSCAB45K
Max/Min Ion Exchange Capacity	45,000/30,000
Lbs of salt required for Max/Min capacity	22.5-9
Salt Storage Capacity	208 lb
Flow Rate in GPM @ 15 PSI Drop	12 - 16
Backwash Flow Rate GPM	2.7
Drain Line Connection Size	¾" NPT
Inlet/Outlet Pipe Size	1"
Electrical Requirements	120v60Hz
Mineral Tank Size D X H	12" x 35"
Cabinet Size D X W X H	24.6" x 13.8" x 44.6"
Floor space required in inches W x D	27" x 37"
Approximate Shipping Weight Lbs	130

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWDM

Residential Dual Media Softening and Filtration System

Connection Size: 1" (25 mm)
Flow Rate: Up to 20 gpm (75 lpm)

The Series PWDM Dual Media water softening and filtration system is designed for residential applications for 45,000 grains of hardness removal capacity and a peak flow rate up to 20 gpm. This system contains Granular Activated Carbon (GAC), which reduces the chlorine content of the water, preserving the life of the water softening resin.

FEATURES

- Complete whole house water softening and filtration system
- Space saving design, combines two technologies into one tank which also reduces cost
- GAC and Resin are in separate chambers reducing media replacement cost
- Mineral Tank Dome Hole for easy access to replace GAC media
- Engineered and tested to perform, one of the most reliable valve platforms in the industry
- Control valve can predict daily water usage and regenerates only when necessary, saving salt and water
- Full flow bypass valve included

PWSR SERIES CONTROL VALVE

Manufactured from high-tech materials, the PWSR control valve has been engineered and tested to perform in the most demanding environments. It has built a reputation of being one of the most reliable valve platforms in the industry. All surfaces contacted by water are made from 100% polymer components so that corrosion from acidic water and brine is no longer a concern.

ELECTRONIC CONTROL

The PWSR Series valve features an advanced electronic control for easy programming. Adjustable brining, adjustable reserve, high efficiency regeneration and simplified programming are now standard.

SOFTENING MEDIA

The softening media is a high-capacity cation polystyrene resin that combines high operating capacity with excellent chemical and physical stability for long, dependable life.

GAC MEDIA

We use Low Fine coconut shell activated carbon. This is a high-activity granular activated carbon manufactured by activation of select coconut shell raw material. Its high microporosity makes it particularly well suited for the adsorption of low molecular weight compounds at very low concentrations. It is also ideally suited for the removal of oxidizing agents such as chlorine from drinking water. Another important feature of this activated carbon is its superior mechanical hardness which helps ensure a clean, low dust product with an exceptionally long life span.

RESIN TANK

Features a non-corrosive fiberglass tank with a thermoplastic inner liner. Combines two technologies in one single tank. GAC media and softening resin are in two separate chambers for proper contact time and extends life of softening resin. Mineral tank has Dome Hole for easy access to replace GAC media.

PWDM Series Dual Media Softening and Filtration System

BRINE TANK

The brine tank is a combination brine maker and salt storage vessel and is made of tough, corrosion free high-density polyethylene. Brine refill is controlled by the advanced electronic controller, to provide the correct amount of brine for each regeneration.

PWDM

	PWDM545
Max/Min Ion Exchange Capacity	45,000/30,000
Cubic Foot of Carbon	0.5
Lbs of salt required for Max/Min capacity	22.5/9
Salt Storage Capacity	350
Flow Rate in GPM @ 15 PSI Drop	15 - 20
Backwash Flow Rate GPM	2.7
Drain Line Connection Size	3/4" NPT
Inlet/Outlet Pipe Size	1"
Electrical Requirements	120v60Hz
Mineral Tank Size D x H	12" x 52"
Brine Tank Size D x H	18" x 36"
Floor space required in inches W x D	32" x 19"
Approximate Shipping Weight Lbs	190

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWSRTA

Twin Alternating Water Softeners

Connection Size: 30K – 60K 1" (25mm)
Flow Rates: Up to 21 gpm (80 lpm)

The Series PWSRTA water softeners are designed for residential and light commercial use applications ranging from 30,000 to 60,000 grains of hardness remove capacity at flow rates up to 21 gallons per minute. These water softeners with control valves that offer twin-alternating meter initiated operation, resulting in 24/7 soft water capability.

PWSTA

REDUCES

✓ Scale

FEATURES

- Suitable for residential and light commercial applications
- State-of-the-art computer programming to increase efficiency, save salt and water
- Uses downflow regeneration
- Demand regeneration for highest efficiency
- Engineered and tested to perform, one of the most reliable valve platforms in the industry
- Brine tanks with grid plate for maximum brine storage
- Full flow bypass valve included

PWSRTA SERIES CONTROL VALVE

Manufactured from high-tech materials, the PWSRTA Series valve has been engineered and tested to perform in the most demanding environments. It has built a reputation of being one of the most reliable valve platforms in the industry. All surfaces contacted by water are made from 100 % polymer components so that corrosion from acidic water and brine are no longer a concern.

ELECTRONIC CONTROL

The PWSRTA Series valve features an advanced electronic control for easy programming. Adjustable brining, adjustable reserve, high efficiency regeneration and simplified programming are now standard.

SOFTENING MEDIA

The exchange media is a high-capacity cation polystyrene resin that combines high operating capacity with excellent chemical and physical stability for long, dependable life.

RESIN TANK

Features a non-corrosive fiberglass tank with thermoplastic inner liner.

BRINE TANK

The brine tank is a combination brine maker and salt storage vessel and is made of tough, corrosion free high-density polyethylene. Brine refill is controlled by the advanced electronic controller, to provide the correct amount of brine for each regeneration.

PWSRTA

	PWSRTA130	PWSRTA145	PWSRTA160
Ordering Code	7100683	7100684	7100685
Max/Min Ion Exchange Capacity	30,000/20,000	45,000/30,000	60,000/40,000
Lbs of salt required for Max/Min capacity	15-6	22.5-9	30-12
Salt Storage Capacity	400	400	400
Flow Rate in GPM @ 15 PSI Drop	13 - 19	14 - 21	15 - 21
Backwash Flow Rate GPM	2.2	2.7	3.2
Drain Line Connection Size	¾" NPT	¾" NPT	¾" NPT
Inlet/Outlet Pipe Size	1"	1"	1"
Electrical Requirements	120v/60Hz	120v/60Hz	120v/60Hz
Mineral Tank Size D X H	(2) 9" X 48"	(2) 10" x 54"	(2) 12" x 52"
Brine Tank Size D X H	18" x 40"	18" x 40"	18" x 40"
Approximate Shipping Weight Lbs	230	290	420

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWFGAC

Whole House Carbon Filter System

Connection Size: 1" (25mm)
Flow Rate: Up to 14 gpm (53 lpm)

Watts Whole House filters for chlorine taste, odor, and sediment removal.

Our PWFGAC Series activated carbon filters are designed for residential and light commercial applications up to 14 gallons per minute. Watts activated carbon filters are highly popular because they correct a wide range of water quality issues by removing chlorine, taste, odors, organic chemicals, and sediment.

Activated carbon has been used in the treatment of drinking water for over 2000 years. It was found that charred wood products aided in improving the quality of drinking water.

MEDIA

We use Aquasorb® coconut shell activated carbon. This is a high-activity granular activated carbon manufactured by steam activation of select coconut shell charcoal. Its high microporosity makes it particularly well suited for the adsorption of low molecular weight compounds at very low concentrations. It is also ideally suited for the removal of oxidizing agents such as chlorine from drinking water. Another important feature of this activated carbon is its superior mechanical hardness which helps ensure a clean, low dust product with an exceptionally long life span.

CONTROL VALVE

Manufactured from high-tech materials, the PWF Series valve has been engineered and tested to perform in the most demanding environments. It has built a reputation of being one of the most reliable valve platforms in the industry. All surfaces contacted by water are made from 100% polymer components so that corrosion from acidic water and brine are no longer a concern.

FILTER TANK

Features a highly corrosion-resistant fiberglass tanks with a thermoplastic inner liner.

REDUCES

- ✓ Sediment
- ✓ Chlorine
- ✓ Chemicals

PWFGAC

MODEL NO.	ORDERING CODE	VALVE	MINERAL TANK SIZE	MEDIA CUBIC FOOT	GRAVEL (LBS.)	SERVICE FLOW (GPM)*	PRESSURE DROP (PSI)	BACKWASH (GPM)	FLOOR SPACE L X W X H
PWFGAC1	7100686	Time Clock	9" X 48"	1	10	4	<15	4.5	16" X 10" X 55"
PWFGAC15	7100687	Time Clock	10" X 54"	1.5	10	6	<15	5.3.	16" X 11" X 62"
PWFGAC2	7100688	Time Clock	12" X 52"	2	30	8	<15	7.5	17" X 13" X 60"
PWFGAC3	7100689	Time Clock	14" X 65"	3	40	11	<15	10	18" X 14" X 74"
PWFGAC4	7100690	Time Clock	16" X 65"	4	60	14	<15	11	20" X 17" X 74"

*Note: Peak service flow rate is for intermittent use only and is not to be interpreted as continuous service flow rate capability. These systems are designed to treat the domestic water used in a single family dwelling. For irrigation water treatment or higher volume applications please contact your Watts representative. Peak service flow rates are based on a 15 psi drop.
Optimum service flow rate is specific to water chemistry and will vary.

For additional information, access online literature ES-WQ-PWFGAC.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWBWIRON

Whole House Iron, Hydrogen Sulfide, and Manganese Reduction Systems

Connection Size: 1" (25mm)
Flow Rate: Up to 12 gpm (45 lpm)

Watts Whole House Filters for iron, hydrogen sulfide (rotten egg smell), and manganese reduction

Our Whole House Iron Systems are a unique, chemical free, approach to reducing red staining iron, rotten egg smelling hydrogen sulfide, and black staining manganese in your water. These systems use the natural air we breathe to charge the water with oxygen. Together the oxygen and contaminants are introduced onto the surface of our catalytic filtration media. The media uses the oxygen to oxidize the contaminants and then traps the impurities.

PWBWIRON

BENEFITS

- No chemicals needed for regeneration.
- High flow rates with smaller system space requirements than competing models.
- No bad tastes, odors, or staining caused by iron, hydrogen sulfide, or manganese.
- Crystal clear water for drinking, bathing, and cooking.
- User-friendly equipment.
- Low maintenance due to automatic operation

MEDIA

Our Filox media is an advanced form of manganese dioxide (MD). Virtually all iron, hydrogen sulfide, and manganese removal medias have some percentage of MD. At 80% or greater, Filox boasts the highest percentage of MD and the highest flow rates per cubic foot of all of the iron removal medias on the market today. Filox is NSF/ANSI/CAN Standard 61 Certified.

AIO CONTROL VALVE

Manufactured from fiber reinforced polymer, the AIO control valve has been engineered for durability and time tested with proven results. It controls the operation of the system including the air draw and air volume control function. The proprietary design features a polymer piston that glides through a series of seals and spacers.

This seal/spacer and piston configuration is the most reliable design in control valve technology. The valve features an electronic controller for easy programming.

FILTER TANK

Features a highly corrosion-resistant fiberglass tanks with a thermoplastic inner liner.

Note: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

REDUCES	
✓ Sediment	✓ Hydrogen-Sulfide
✓ Iron	✓ Manganese

For larger residential iron, manganese and hydrogen sulfide systems, please contact Pure Water Technical Support for quote.

MODEL NO.	ORDERING CODE	VALVE	MINERAL TANK SIZE	MEDIA CUBIC FOOT	GRAVEL (LBS.)	SERVICE FLOW (GPM)*	PRESSURE DROP (PSI)	BACKWASH (GPM)	FLOOR SPACE L X W X H
PWBWIRON1	7100479	Time Clock	9" x 48"	1	14	6	<15	7	16" x 15" x 55"
PWBWIRON1.5	7100480	Time Clock	10" x 54"	1.5	14	9	<15	8	16" x 15" x 62"
PWBWIRON2	7100481	Time Clock	12" x 52"	2	37	12	<25	12	17" x 15" x 60"

*Note: Peak service flow rate is for intermittent use only and is not to be interpreted as continuous service flow rate capability. These systems are designed to treat the domestic water used in a single family dwelling. For irrigation water treatment or higher volume applications please contact your Watts representative.

For additional information, access online literature ES-WQ-PWBWIRON.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWFCAL

Whole House Acidic Water Neutralizing Systems

Connection Size: 1" (25mm)
Flow Rate: Up to 21 gpm (79 lpm)

Watts Whole House System for increasing the pH of acidic water.

Series PWFCAL acid neutralizing system are designed for residential applications with intermittent flow rates up to 21 gallons per minute. They stop the corrosion of metal components and fixtures within a plumbing system by neutralizing the acidic nature of supply water that has a pH of less than 7. Periodic backwashing of the media bed cleans it of captured impurities.

PWFCAL

FEATURES

- Increases the pH of acidic water
- Eliminates the corrosion of plumbing and fixtures caused by low pH water
- No more “green stain” copper deposits in tubs, toilets, and sinks
- Better tasting pH balanced water
- User-friendly equipment
- 10" diameter tanks and larger have a dome hole access port on the top for checking and adding media
- Low maintenance due to automatic operation

MEDIA

These systems use a high quality granular calcite (calcium carbonate) media to accomplish the neutralization process. As low pH water flows down through the media bed it reacts with the calcite media and dissolves it. This causes the pH of the water to move from an acidic state to a neutral state. This dissolving of the calcite media will require calcite to be added to the bed over time.

CONTROL VALVE

Manufactured from high-tech materials, the PWF Series valve has been engineered and tested to perform in the most demanding environments. It has built a reputation of being one of the most reliable valve platforms in the industry. All surfaces contacted by water are made from 100% polymer components so that corrosion from acidic water and brine are no longer a concern.

FILTER TANK

Features a highly corrosion-resistant fiberglass tanks with a thermoplastic inner liner.

ADDRESSES

✓ Low pH

MODEL NO.	EDP ORDERING CODE	VALVE	MINERAL TANK SIZE	MEDIA CUBIC FOOT	GRAVEL (LBS.)	PEAK SERVICE FLOW (GPM)*	PRESSURE DROP (PSI)	BACKWASH (GPM)	FLOOR SPACE L X W X H
PWFCAL15	7100695	Time Clock	10" X 54"	1.5	10	7-10	<15	7.5	16" X 11" X 62"
PWFCAL2	7100696	Time Clock	12" X 52"	2	30	9-15	<15	11	17" X 13" X 60"
PWFCAL3	7100697	Time Clock	14" X 65"	3	40	13-21	<15	15	18" X 14" X 74"

*Note: Peak service flow rate is for intermittent use only and is not to be interpreted as continuous service flow rate capability. These systems are designed to treat the domestic water used in a single family dwelling. For irrigation water treatment or higher volume applications please contact your Watts representative.
Peak service flow rates are based on a 15 psi drop.
Optimum service flow rate is specific to water chemistry and will vary.

For additional information, access online literature ES-WQ-PWFCAL.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWFMZ

Residential Sediment Backwashing Filter System

Connection Sizes: 1" (25mm)
Flow Rates: Up to 21 gpm (79 lpm)

Watts Whole House filters for superior sediment removal.

Watts filtration systems for sediment removal use our high performance Micro Z™ filter media to provide increased loading capacities and higher service flow rates. Micro Z™'s unique external surface offers increased porosity to out perform sand filters by reducing water consumption. A Micro Z™ filter bed holds 2.8 times the amount of solids a sand bed holds, reducing backwash requirements by almost three times.

FEATURES

- High service flow rates
- Superior filtration performance!
- Reliable equipment designed for long-term service
- Reduces water consumption because the need to backwash is less
- High solids loading
- 3-5 micron particle size removal
- Single media filter bed

MEDIA

Our Micro Z™ is a special highly efficient granular filter media that has a nominal particle size removal of 3-5 micron. Compare that to sand at 30 micron. Micro Z™ allows sediment to penetrate deep into the bed for high loading efficiencies to reduce backwash demands and overall wastewater generation.

CONTROL VALVE

Manufactured from high-tech materials, the PWF Series valve has been engineered and tested to perform in the most demanding environments. It has built a reputation of being one of the most reliable valve platforms in the industry. All surfaces contacted by water are made from 100% polymer components so that corrosion from acidic water and brine are no longer a concern.

FILTER TANK

Features a highly corrosion-resistant fiberglass tanks with a thermoplastic inner liner.

REDUCES

✓ Sediment

PWFMZ

MODEL NO.	ORDERING CODE	VALVE	MINERAL TANK SIZE	MEDIA CUBIC FOOT	GRAVEL (LBS.)	SERVICE FLOW (GPM)*	PRESSURE DROP (PSI)	BACKWASH (GPM)	FLOOR SPACE L X W X H
PWFMZ1	7100691	Time Clock	9" X 48"	1	10	5-9	15	5.3	16" x 10" x 55"
PWFMZ15	7100692	Time Clock	10" X 54"	1.5	10	7-10	15	7.5	16" x 11" x 62"
PWFMZ2	7100693	Time Clock	12" X 52"	2	30	9-15	15	11	17" x 13" x 60"
PWFMZ3	7100694	Time Clock	14" X 65"	3	40	13-21	15	15	18" x 14" x 74"

*Note: Peak service flow rate is for intermittent use only and is not to be interpreted as continuous service flow rate capability. These systems are designed to treat the domestic water used in a single family dwelling. For irrigation water treatment or higher volume applications please contact your Watts representative. Peak service flow rates are based on a 15 psi drop.
Optimum service flow rate is specific to water chemistry and will vary.

For additional information, access online literature ES-WQ-PWFMZ.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Whole House Chemical Feed Pump & Solution Tank

Chemical Feed Pumps for Chlorine and pH adjustment chemicals. Stenner® peristaltic feed pumps will not lose prime because they are self priming. Pumps may operate at pressures up to 100 psi, and may be mounted vertically or horizontally. Tube lubrication is not required.

PWCFP4510

PWCHMTNK15B

Chemical Feed Pump

MODEL NO.	ORDERING CODE	TYPE	DESCRIPTION	MODEL	GALLONS PER DAY	PSI	VOLTAGE	TUBING (SUCTION & DISCHARGE)	WEIGHT (POUNDS/KG)
PWCFP4510	7100522	Single	10 gpd Chemical Feed Pump	45	10	100	120v/60Hz	¼"	8

Chemical Solution Tank

MODEL NO.	ORDERING CODE	CAPACITY (GALLONS/LITERS)	DESCRIPTION	DIAMETER (INCHES/MM)	HEIGHT (INCHES/MM)	WEIGHT (POUNDS/KG)
PWCHMTNK15B	7100563	15/57	15 Gallon Solution Tank	14/355	24/610	7/112

Whole House Retention Tank

Retention tanks are installed to provide optimum contact time during chemical treatment such as chlorine injection. These non-corrosive retention tanks feature simple 1" NPT inlet/outlet connections at the top of the tank and a full ¾" blow down at lowest point of tank with 360° drain orientation.

PWTNKRET120

Whole House Retention Tank

MODEL NO.	ORDERING CODE	CAPACITY (GALLONS/LITERS)	DESCRIPTION	DIAMETER (INCHES/MM)	HEIGHT (INCHES/MM)	WEIGHT (POUNDS/KG)
PWTNKRET120	7300816	120/454	120 Gallon Retention Tank	24/607	78.5/1,994	80/36

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Micro Z®

Superior Filtration Media

Flow Rates: Up to 21 gpm (80 lpm)

Micro-Z™ granular filter media outperforms conventional multimedia materials due to its unique structure, allowing particulate to penetrate deeply into the filter bed to provide superior filtration at increased flow rates.

FEATURES & BENEFITS

- Higher solids loading capability
- Superior filtration performance
- Reduced backwash frequency
- Removes finer particles
- Reduces pressure drop
- Provides higher flow rates
- Light weight
- Reduces shipping costs
- Easy to handle

PHYSICAL PROPERTIES

Color	Light green
Bulk density	55 lbs. per cu. ft.
Specific gravity	2.2 gm/cc
Mesh size	14x40
Uniform coefficient	1.9
Hardness (Mohs scale)	4

CONDITIONS OF OPERATION

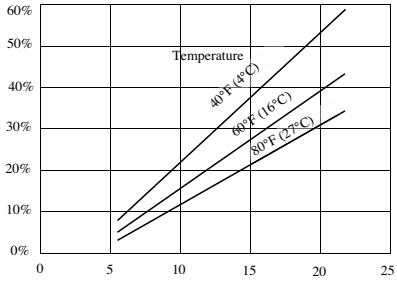
Recommended bed depth	36" - 48"
Recommended freeboard	50% of bed depth
Service flow rate	12-20 GPM/sq. ft.
Backwash flow rate	12-18 GPM/sq. ft.
Backwash bed expansion	30-40 percent

NOTICE Allow bed to soak overnight before initial backwash.

MICRO-Z vs. Conventional Filter Media

MEDIA	NOMINAL MICRON RATING	SOLIDS LOADING CAPACITY
Sand	20	1.0 X
Sand & Anthracite	15	1.4 X
Multimedia	12	1.6 X
Micro-Z	< 5	2.8 X

Micro Z
Backwash Bed Expansion



Flow Rate
(Gallons per Minute per Square Foot of Bed Area)

MICRO-Z Loading Information

VESSEL DIAMETER (INCHES)	MICROZ QUANTITY (CUBIC FT.)	GRAVEL UNDER BED (LBS.)	SERVICE FLOW RATE	BACKWASH FLOW RATE (GPM)
9	1	12	5-9	5-8
10	1.5	15	7-10	7-10
12	2	25	9-15	10-14
14	3	40	13-21	13-19
16	4	55	17-28	17-25
21	7	100	30-50	29-43
24	10	200	38-62	38-56
30	15	300	59-98	60-88
36	20	500	85-140	85-127
42	30	700	115-190	115-175
48	35	900	150-250	150-225

Ordering Information

MODEL NO.	ORDERING CODE	DESCRIPTION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PACKAGE	PER PALLET
PWRMMICROZ	7300105	Micro-Z	1	55	Bag	40

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Activated Carbon

Granular Activated Carbon (GAC)

Granular Activated Carbon (GAC) is a natural material derived from bituminous coal, lignite, wood, coconut shell etc., activated by steam and other means. Carbon is very popular due to its ability to correct many water quality problems.

BENEFITS

- Improve taste and remove odors
- Dechlorination of water
- Removes color from water
- Removal of organic substances
- Removal of synthetic organic substances
- Clear water for drinking, bathing and cooking!

ADSORPTION INFLUENCING FACTORS

Temperature Most effective 60°F - 80°F.

pH Most organics in water are more soluble at pH lower than 7.0.

Contact time Very important to achieve proper flow rates for any adsorption system to function properly.

CARBON MEDIA TYPES

Bituminous Basic coal based granular media

Coconut shell Superior level of hardness; high activity level; trihalomethane removal; longer life expectancy;

Acid washed Increases adsorptive capacity of carbon base and lowers the level of impurities.

Catalytic Specialized carbon media to remove hydrogen sulfide gas, iron, and chloramines.

Standard Operating Conditions

Service flow rate	2 - 6 gpm/cu.ft.
Backwash flow rate	10 gpm/sq. ft.
Freeboard	50% of bed depth
pH	6.5 – 7.5

CONTAMINATES ADSORBED

- Chlorine
- Organic Chemicals
- Fertilizers
- TCE (Trichloroethylene)
- EDB (Ethylene dibromide)
- THM (Trihalomethanes)
- Sediment
- Chemical odor
- Pesticides
- Detergents
- Chloramines
- Color

NOTICE

Service flow rates are calculated at 2-6 gpm/cu.ft. for standard taste, odor and chlorine removal application using bituminous carbon. Chloramines and TOC/VOC applications will require lower service flow rates and longer empty bed contact time or specialized carbon formulations.

Ordering Information

MODEL NUMBER	ORDERING CODE	DESCRIPTION	TYPE	MESH	APPLICATION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
PWRMGAC	7300111	Granular Activated Carbon	Coconut Shell	12 x 40	Chlorine taste and odor reduction	1	27.5	40

⚠ WARNING

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate procedures for potentially low-oxygen environment should be followed.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Catalytic® Granular Activated Carbon

Hydrogen sulfide, iron and chloramines removal

Catalytic carbon is a liquid phase virgin activated carbon that has been manufactured to develop catalytic functionality. The product is unique in that it concentrates reactants via adsorption and then promotes their reaction on the surface of the pores.

FEATURES & BENEFITS

- Catalytic activity allows for smaller more compact system sizing and lower capital requirements.
- No safety concerns with exotherms or toxicity like some impregnated medias.
- Improved trace organic capacity per unit volume.
- High hardness reduces fines and losses due to handling.
- Works with low oxidant levels and limits the need for chemicals.
- Simple and reliable equipment design that will handle spikes in concentration without metering of chemicals.
- Reduced carbon requirements, reduced operating costs.
- Enhanced carbon media performance for a greater degree of contaminant removal at reduced costs.
- Thermal reactivation is an option for recycle and reuse to minimize operating costs and eliminates disposal concerns.

Specification

Iodine number	Min. 1000 mg/g
Moisture content (as packaged)	Max. 5%
Total ash content	Max. 4%
Ball-pan hardness	Min. 98%
CTC activity	Min. 50%
Catalytic activity	Min. 20° C

APPLICATIONS

- Chloramines
- Hydrogen sulfide
- Taste and odor
- VOC removal
- Iron removal
- Residential water filters
- Commercial water filters
- Bottling and soft drink industries
- Aquarium water treatment

Typical Properties

Surface area (BET)	1060 m^2/g
Apparent density	490 kg/m^3
Bed density, backwashed and drained	420 kg/m^3

Design Considerations

Catalytic carbon is produced from coconut shell using a patented process for the use in liquid phase systems to promote catalytic reactions. The reactant concentration determines the effective contact time. Although it is not impregnated with metals or alkali, it displays the catalytic functionality of these materials.

Ordering Information

MODEL NUMBER	ORDERING CODE	DESCRIPTION	TYPE	MESH	APPLICATION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
PWRMCGAC	7300110	Catalytic Granular Activated Carbon	Coconut Shell	12x40	Chloramine taste and odor reduction	1	27.5	40

⚠ WARNING

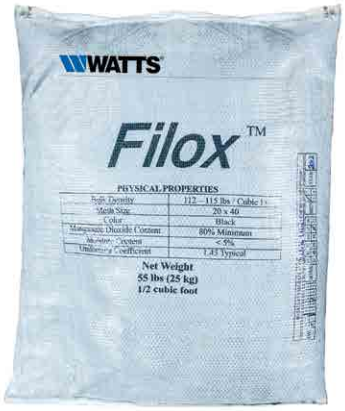
Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable federal and state requirements.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Iron, Hydrogen Sulfide, and Manganese Reduction

Filox™ Media

Filox™ media is an economical Iron and Hydrogen Sulfide filtration media that out performs traditional Greensand and Birm.



FEATURES & BENEFITS

- Superior high efficiency media for filtration and removal capabilities
- No oxidizing chemicals typically needed for regeneration (See Testing For ORP below)
- High efficiency with 80% manganese dioxide for enhanced performance and capacity.
- Effective, from 6.5 pH to 9.0 pH
- Highest flow rate of any standard iron removal media.

Operating Conditions

Active Ingredient	75-85% Manganese Dioxide
Max Service Flow	6 gpm/cu.ft.
Freeboard	30-50% of bed depth
Backwash rate	Backwash rate 16-30 GPM/sq.ft, depending on application specific variables, minimum recommended bed expansion is 15%
Bed depth	20 inch Minimum
pH Range	6.5 – 9.0
Screen size	12 x 40
Bulk density	110 lbs/cu.ft.

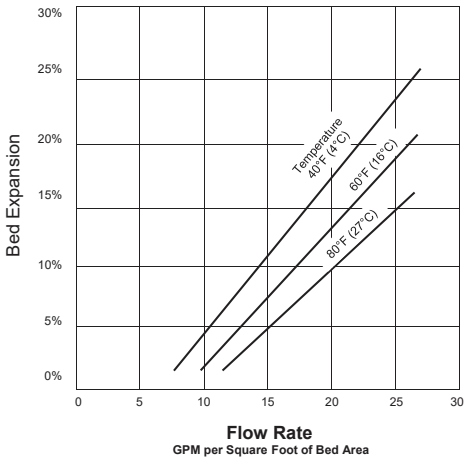
Removal Capacity

Iron	10 ppm
Hydrogen Sulfide	3 ppm
Manganese	5 ppm

Comparative Information

PRODUCT NAME	ACTIVE INGREDIENT
Greensand	0.5% Manganese Dioxide
Filox™	75% - 85% Manganese Dioxide

Filox Backwash Bed Expansion



Ordering Information

MODEL NUMBER	ORDERING CODE	DESCRIPTION	APPLICATION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
PWRMFILOX	7300108	Filox™ Media	Iron, HS reduction & Manganese reduction	0.5	55	38

The use of additional oxidizing agents (oxygen, chlorine, ozone, hydrogen peroxide, potassium permanganate, etc.) is recommended. Oxidizers will enhance the performance of Filox™. They oxidize the media, which enables Filox™ to perform quicker and keep cleaner. It is always a safe practice to install an oxidation method upstream (in front) of the Filox™ bed. Do not exceed 4 ppm free chlorine in the feed water stream or bed damage may occur.

Testing For ORP

Oxidation Reduction Potential (ORP) can be the most important factor to take into consideration in certain waters. Highly reducing waters may cause premature exhaustion or even destruction of the Filox™ bed. Precautions can be taken prior to installation that can prevent ORP problems. Use one of the screening tests and follow the instructions below if the subject water has reducing properties that will require additional oxidants.

NOTICE Watts recommends a small scale pilot test anytime the use of oxidizing agents are in question.

Simple Filox™ ORP Test Kit EDP#7300707 Instruction

1. Rinse bottle provided with sample water to be tested
2. Place sample water into bottle up to the fill line
3. Invert reagent dropper bottle 3 times to ensure it is thoroughly mixed
4. Remove reagent cap and add 1 drop of reagent into the bottle containing water sample
5. Cap sample bottle and invert
6. Let solution stand for 15 minutes
7. If solution remains pink, Filox™ can likely be used without using additional oxidizers
8. If solution does not remain pink and turns yellow or clear, additional oxidizers such as chlorine should be added upstream of the Filox™ system.

Note: If treating high levels or multiple contaminants, additional oxidants may be required even if the water passes this simple test.

ORP Meter Test

NOTICE

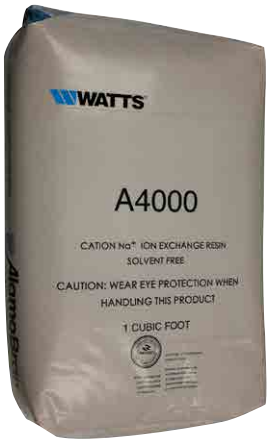
Must use a calibrated ORP meter. Any reading that is above a negative 170 millivolts indicates that Filox™ can be used effectively, possibly without additional oxidants. Any reading falling below a negative 170 millivolts indicates that additional oxidants will be required. See disclaimer on inside front cover

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Resin

Watts Brand Resin

Watts brand resin is a high purity, premium grade, prewashed, strong acid gel-type cation exchange resin specially designed for water softening applications. Resin is a bead type, cross-linked, polystyrene divinylbenzene resin that offers excellent bead integrity and very low extractables.



Resin Properties

TYPE	8% CROSSLINK POLYSTYRENE
Form	Gel- type, light amber bead
Ionic form	Na+ (as shipped)
Functional group	Sulphonic acid
Bead size	16 x 50 mesh
Effective size	0.45 ± 0.07 mm
Bulk density	~ 51 lb/ft3
Bead count	min. 90%
Water retention	45-48%
Total capacity	>2.0meq/l
Volume change	Na+ - H+ <5%
Stability, temp.	<300°F
Stability pH	0 – 14

Design Conditions

BED DEPTH	>30 IN
Flow rate	2-5 gpm/ft^3
Freeboard	50% of bed depth
Backwash expansion	50% of bed depth
NaCl concentration for regeneration	5-25%
NaCl flow rate for regeneration	0.25-0.5 gpm/ft^3
Turbidity	<5.0 NTU
Free chlorine	<1 ppm

Ordering Information

RESIN

ORDERING CODE	DESCRIPTION	APPLICATION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
7300100	Cation Resin 16 x 40 mesh 8 % Crosslink	Water Softener Resin	1	52	40

GRAVEL

ORDERING CODE	DESCRIPTION	APPLICATION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
7300101	Gravel ⅛" x 1⁄16" (#20) red marking	Sediment, bed support	0.5	50	56
7300102	Gravel ¼" x ⅛" orange marking	Sediment, bed support	0.5	50	56
7300103	Gravel ½" x ¼" black marking	Sediment, bed support	0.5	50	56
7300104	Gravel ¾" x ½" purple marking	Sediment, bed support	0.5	50	56

NEUTRALIZER

ORDERING CODE	DESCRIPTION	APPLICATION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
7300106	Flomag PWT Magnesium Oxide (similar to Corset)	Neutralizer	0.5	55	60
7300107	Calcite	Neutralizer	0.5	55	60

GREENSAND

ORDERING CODE	DESCRIPTION	APPLICATION	CUBIC FEET PER BAG	CONTAINER WT. (LBS.)	PER PALLET
7300109	Greensand Plus	Iron, HS reduction	0.5	42	50

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWRO440

Whole House Reverse Osmosis Systems Floor Mount

Connection Size: ¾" (20mm)

Max. Productivity: 2200, 4400 and 6600 gallons per day

Watts Pure Water Whole House Floor Mount Reverse Osmosis System with adjustable recovery. The Series PWRO440 uses advanced design with state-of-the art technologies and high-quality components to assure years of trouble-free performance. Includes many standard features that are only available as options on other reverse osmosis systems.

PWRO440

FEATURES

- Powder coated steel frame
- Inlet solenoid valve
- 20" prefilter
- Prefilter pressure gauge
- Multistage centrifugal pump
- Low-pressure protection with microprocessor auto reset
- Tank level input (dry contact)
- Pretreatment interlock input (dry contact)
- 2½" liquid filled pump pressure gauge
- FRP pressure vessels
- Product flow meter
- Reject flow meter
- Concentrate needle valve
- Non metallic recycle needle valve
- Feed water and product water TDS monitor
- Pump start delay
- Inlet valve close delay

ADDED CAPABILITIES

- Input for auto shutoff when storage tank is full
- Input for auto shutoff when pre-treatment is in regeneration

APPLICATIONS

- Whole house
- Boiler feed water
- Humidifiers
- Greenhouses
- Process water
- Electronics
- Car wash spot-free

NOTICE

Feed Water must be pretreated for scale prevention (softened), de-chlorinated (carbon filter), and free of sediment.

RO system requires separate RO storage tank/delivery pump - see page 34 or call Pure Water Technical Support at 1-800-659-8400 for details

For indoor installation only.

Performance

	PWRO4401	PWRO4402	PWRO4403
Ordering Code	7100152	7100153	7100154
Maximum Productivity (gallons per day) / (lpm)	2200 / 8328	4400 / 16,656	6600 / 24,984
Recovery (user adjustable)	15 - 75%	25 - 75%	32 - 75%
Replacement Pre-Filter	PWMB20M5		
Number of Membranes	1	2	3
Replacement Membrane	PWMEM2200		
Feed Water Required (maximum)	10 gpm (38 lpm)	12 gpm (45 lpm)	14 gpm (53 lpm)
Drain Required (maximum)	10 gpm (38 lpm)	12 gpm (45 lpm)	14 gpm (53 lpm)
Motor Horse Power	¾	1	1½
Electrical Requirement AMPS	15 | 8	20 | 10	13* | 13
Dimensions W x D x H	20" x 20" x 50" (600 x 600 x 1270mm)	20" x 20" x 50" (600 x 600 x 1270mm)	20" x 26" x 50" (600 x 600 x 1270mm)
Shipping Weight (estimated lbs.)	120 lbs. / 54 kgs.	150 lbs. / 68 kgs.	180 lbs. / 82 kgs.

*PWRO4403 is available only in 230-volt single phase

Notes:
Maximum production based on a feed water of 77°F, SDI < 1, 1000 ppm TDS, and pH 7. Individual membrane productivity may vary (± 15%). May be operated on other feed waters with reduced capacity. Percent rejection is based on membrane manufacturer's specifications; overall system percent rejection may be less.

For additional information, access online literature ES-WQ-PWRO440.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWTNKPKG

Atmospheric Tank and Pump Packages

Sizes: 165, 300, 500 gallons (625, 1135, 1893 liters)

Ideal for whole house and light commercial applications. Reduce installation labor with these complete tank and pump packages with components pre-installed to save time and money.

PWTNKPKG

Grundfos® MQ 3-45 Pump

This unique pump is included in the package for re-pressurization. It is a stand alone component, operating independently. Simply plug it in directly to a 110 VAC outlet and the pump turns itself on and off based on flow.

FEATURES

- Pre-installed float switch
- Polyethylene atmospheric storage tanks with float switch
- Atmospheric storage tank with bulkhead fittings installed
- Junction box connects to the float switch RO system
- UV inhibitors added to storage tank
- Storage tank manufactured from sturdy polyethylene
- Tank walls are translucent for level viewing
- Gallon indicators on side wall
- Basic installation fittings included from storage tank to pump (additional fittings and pipe may be required depending upon application)

Pre Installed Float Switch

MODEL NO.	ORDERING CODE	TANK SIZE GALLONS	DIAMETER X HEIGHT	OPENING	FLOAT SWITCH & JUNCTION BOX	BULKHEAD FITTINGS	OVERFLOW	PUMP	WEIGHT
PWTNK165PKG	7100459	165	31" x 56"	8" Lid, 2" Drain FDA	Installed	Installed	Installed	Grundfos® MQ3	112
PWTNK300PKG	7100460	300	36" x 79"	16" Lid, 2" Drain FDA	Installed	Installed	Installed	Grundfos® MQ3	132
PWTNK500PKG	7100461	500	48" x 72"	16" Lid, 2" Drain FDA	Installed	Installed	Installed	Grundfos® MQ3	184

For additional information, access online literature ES-WQ-PWTNKPKG

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

- **Plastic Filter Housings**
- **Individual Boxed Plastic Housing Kits**

Blue/Black

Clear

Housing Kit

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Plastic Filter Housings

Top Quality and Economical Plastic Filter Housings

Single Cartridge Filter Housings

Sizes: ¼" – 1½" (6 – 40mm)

PWHP Housings

Our poly filter housings are manufactured from the highest quality, 100% polypropylene and acrylic styrene (for clear housings). Leak-proof sealing is accomplished by compression against a top seated EPDM O-ring located in the housing's sump. Thick wall and added ribs make the housings ideal for a wide range of applications. Polypropylene construction provides excellent chemical resistance with most acids, alcohol, ammonia, oils, plating solutions and many aggressive chemicals. Housings supplied with pressure relief valves.

Full product line

We offer a complete line of poly filter housings for virtually every application where single cartridge housings are typically used. Select from standard, full-flow and valve-in-head models.

FEATURES

- Full product line for more types, models, pipe fittings and options
- Heavy-duty construction, made using high-quality polypropylene
- Superior chemical resistance from many aggressive chemicals
- Buttress thread design for superior security
- Thick side walls with heavy-duty ribs to provide greater strength
- Temperature rated to 100° F/37.8° C
- Cap, sump and top-seated O-rings compress to provide leak proof sealing

PWHIB Series

Individually Boxed Plastic Housings Kits EC END CAP

Watts Pure Water PWHIB Housing Kits come complete with housing, mounting bracket and screws and wrench

PWHIB10FF

MODEL NO.	ORDERING CODE	SIZE	PIPE	TYPE	SUMP	CAP	CASE QTY.
PWHIB34WVIH EC	7100550	10"	¾"	Valve-In-Head	White	White	4
PWHIB10FF* EC	7100268	10"	1"	Full Flow (FF)	Blue	Black	4
PWHIB20FF* EC	7100269	20"	1"	Full Flow (FF)	Blue	Black	4

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Poly Filter Housing

MODEL NO.	ORDERING CODE	SIZE	PIPE	SUMP	CAP	# CASE
White Housings						
PWHP512W	7100589	5"	½"	White	White	12
Clear Housings						
PWHP1034CPR	7100644	10"	¾"	Clear	White PR	4
10" Residential Housings						
PWHP1014BPR	7100277	10"	¼"	Blue	Black PR	4
PWHP1012BPR	7100279	10"	½"	Blue	Black PR	4
PWHP1034BPR	7100281	10"	¾"	Blue	Black PR	4
20" Residential Housings						
PWHP2012BPR	7100283	20"	½"	Blue	Black PR	6
10" Commercial Housings						
PWHP10COM34CPR	7100668	10"	¾"	Clear	6	6
PWHP10COM34BPR	7100669	10"	¾"	Blue	6	6
20" Commercial Housings						
PWHP20COM34BPR	7100670	20"	¾"	Blue	6	6
10" Full Flow Housings						
PWHP10FF34BPR	7100286	10"	¾"	Blue	Black PR	4
PWHP10FF1BPR	7100288	10"	1"	Blue	Black PR	4
PWHP10FF15BPR	7100290	10"	1½"	Blue	Black PR	4
20" Full Flow Housings						
PWHP20FF34BPR	7100291	20"	¾"	Blue	Black PR	4
PWHP20FF1BPR	7100293	20"	1"	Blue	Black PR	4
PWHP20FF15BPR	7100295	20"	1½"	Blue	Black PR	4
High Temp Housings (200°F / 93°C)						
PWHPHT1034	7100296	10"	¾"	Red	Red	4
PWHPHT2034	7100297	20"	¾"	Red	Red	4

Blue/Black

Mounting Brackets - includes housing mounting screws

PWMBVIH	7300605	Brkt, VIH Housing	1
PWMBSTD1	7100463	Single, 10" & 20" Residential Housings	1
PWMBSTD2	7100464	Double, 10" & 20" Residential Housings	1
PWMBSTD3	7100465	Triple, 10" & 20" Residential Housings	1
PWMBCOM1	7300808	Single 10" & 20" Commercial Hsg	1
PWMBFF1	7100466	Single, 10" & 20" Full Flow Housing	1
PWMBFF2	7100467	Double, 10" & 20" Full Flow Housing	1
PWMBFF3	7100468	Triple, 10" & 20" Full Flow Housing	1

Wrenches

PWWRSTDHSG	7100298	Wrench for Residential Housings	1
PWWRFFHSG	7100299	Wrench for Full Flow Housing	1
PWWRHTHSG	7300618	Hi Temp Housing Wrench	1
PWWRCOM	7300806	Wrench for Commercial Housing	1
PWWRDUAL	7100300	Dual Wrench for Membrane and Residential Filter Housings	1

Mounting Screws

PWMSSTDHSG	7300393	Mounting Screws for standard Housings	1
PWMSFFHSG	7300395	Mounting Screws for Full Flow Housings	1
PWMSCOMHSG	7300809	Mounting Screws for Commercial Housings	1

O-Rings

PWORSTDHSG	7300397	O-Ring for standard housings	1
PWORFFHSG	7300398	O-Ring for Full Flow housings	1
PWORHTHSG	7300399	O-Ring for high temp housings	1
PWORCOMHSG	7300807	O-Ring for Commercial Housings	1

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

- **Melt Blown Filter Cartridges**
- **Wound Cartridges**
- **Pleated Filter Cartridges**
- **Carbon Block Filter Cartridges**
- **Granular Activated Carbon (GAC) Cartridges**
- **In-Line Filters**

PWILGAC10

PWCB10LED

GAC Filters

Carbon Block Filter Cartridges

Pleated Filter Cartridges

Melt Blown Filter Cartridges

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Melt Blown Filter Cartridges

EC END CAP

Flow Rates: Up to 20 gpm (75 lpm) on 4½" x 20" cartridges

Watts Pure Water series of Melt Blown Cartridges reduce sediment, dirt, rust and particles. Food grade for use with beverages, food, and potable water. A wide range of lengths and micron ratings are available.

FEATURES

- Cost efficient
- Excellent chemical resistance
- Food grade for food and beverages
- No media migration
- High dirt holding capacity
- Wide range of lengths
- Five different micron ratings

APPLICATIONS

- Potable water
- Beverages
- Pre-filtration for RO
- Fine chemicals
- Electronics
- Metal finishing
- Plating solutions

Melt Blown Filter Cartridges

C US

NSF/ANSI STD 372 & 42

Standard Diameter (2½")

MODEL NO.	ORDERING CODE	LENGTH	OD	MICRON	NO. / CASE	WEIGHTS	
						lbs.	*kgs.*
5"							
PWMB5M5	7100587	5"	2½"	5	24	7.2	3.27
9⅞"							
PWMB10M1	7100330	9⅞"	2½"	1	12	3.6	1.6
PWMB10M5 EC	7100331	9⅞"	2½"	5	12	3.6	1.6
PWMB10M10	7100332	9⅞"	2½"	10	12	3.6	1.6
PWMB10M20	7100333	9⅞"	2½"	20	12	3.6	1.6
PWMB10M50 EC	7100335	9⅞"	2½"	50	12	3.6	1.6
20"							
PWMB20M1	7100336	20"	2½"	1	6	3.6	1.6
PWMB20M5	7100337	20"	2½"	5	6	3.6	1.6
PWMB20M20	7100338	20"	2½"	20	6	3.6	1.6
PWMB20M50	7100339	20"	2½"	50	6	3.6	1.6

Full Flow (FF) 4½" x 9¾"

9¾"							
PWMB10FFM1	7100348	9¾"	4½"	1	4	4.4	2.0
PWMB10FFM5	7100349	9¾"	4½"	5	4	4.4	2.0
PWMB10FFM20	7100350	9¾"	4½"	20	4	4.4	2.0
PWMB10FFM50	7100351	9¾"	4½"	50	4	4.4	2.0

Full Flow (FF) 4½" x 20"

20"							
PWMB20FFM1	7100352	20"	4½"	1	4	8	3.6
PWMB20FFM5	7100353	20"	4½"	5	4	8	3.6
PWMB20FFM20	7100354	20"	4½"	20	4	8	3.6
PWMB20FFM50	7100355	20"	4½"	50	4	8	3.6

For additional information, access online literature ES-WQ-PWMB

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWSW

Wound Polypropylene Filter Cartridges

Exceptional value when depth filtration is required.

Watts Pure Water series of String Wound Cartridges reduce sediment, dirt, rust and particles. Food grade for use with beverages, food, and potable water. A wide range of lengths and micron ratings are available.

PWSW10

PWSW10FF

FEATURES

- Cost efficient
- Polypropylene media for chemical resistance
- Food grade ingredients for potable water
- No leachables to contaminate downstream
- Wide range of lengths and micron ratings
- Cartridges with stainless steel center tubes for higher temperature applications

SPECIFICATIONS

Material – Polypropylene

Maximum Operating Temperature (Plastic Core) – 140°F (60°C)

Flow Rate (2.5" x 10" Cartridge)

1 micron - 3 gpm @ 4psi drop

5 micron - 6 gpm @ 3psi drop

20 micron - 9 gpm @ 2psi drop

50 micron - 9 gpm @ 1psi drop

Maximum Differential Pressure – 60 psid @ 73°F

Standard Diameter (2½")

MODEL NO.	ORDERING CODE	LENGTH	OD	MICRON	NO. / CASE	WEIGHTS	
						lbs.	*kgs.*
PWSW10M1	7100356	9⅞"	2½"	1	12	12.0	5.4
PWSW10M5	7100357	9⅞"	2½"	5	12	12.0	5.4
PWSW10M20	7100358	9⅞"	2½"	20	12	12.0	5.4
PWSW10M50	7100359	9⅞"	2½"	50	12	12.0	5.4
PWSW20M1	7100360	20"	2½"	1	6	13.5	6.1
PWSW20M5	7100361	20"	2½"	5	6	13.5	6.1
PWSW20M20	7100362	20"	2½"	20	6	6	6.1
PWSW20M50	7100363	20"	2½"	50	6	13.5	6.1

Full Flow (FF) 4½" OD Cartridges

PWSW10FFM1	7100370	9¾"	4½"	1	4	9.6	4.4
PWSW10FFM5	7100371	9¾"	4½"	5	4	9.6	4.4
PWSW10FFM20	7100372	9¾"	4½"	20	4	9.6	4.4
PWSW10FFM50	7100373	9¾"	4½"	50	4	9.6	4.4
PWSW20FFM1	7100374	20"	4½"	1	4	9.6	4.4
PWSW20FFM5	7100375	20"	4½"	5	4	9.6	4.4
PWSW20FFM20	7100376	20"	4½"	20	4	9.6	4.4
PWSW20FFM50	7100377	20"	4½"	50	4	9.6	4.4

For additional information, access online literature ES-WQ-PWSW

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWPL

Pleated Filter Cartridges

Greater surface area for longer life and reduced filtration costs.

Watts Pure Water Pleated filter cartridges reduce sediment, dirt, rust, and particles. They outperform wound, spun, melt blown, resin bonded, and other “depth” type filter elements because of their high surface area.

Lower pressure drop is another significant advantage. Using pleated cartridges allows for increased flow rates and the use of smaller filter housings to reduce capital equipment costs.

Further savings are provided because our 100% synthetic filter media is cleanable, 5 micron and up, to lower cartridge replacement costs. Our Pleated filter outperform other pleated elements because our high-performance filter media is systematically produced using 100% synthetic fibers, with no binders or additives to leave a residue, foam or contaminants.

Our filter media is dramatically thicker than other products. For this reason, Pleated cartridges provide “depth” filtration for greater sediment removal, along with more surface area.

Pleated Filter Cartridges

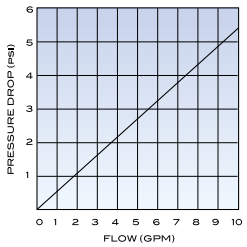
FEATURES

- Filter media is pleated for greater surface area
- Synthetic filter media is cellulose-free
- “Thicker” filter media has a greater capacity to capture and retain particles, compared to thin, more rigid media types, which have less void space for particle retention
- 0.35 media use a multi-ply laminate for superior performance
- Long lengths have netting to hold pleats in place
- All cartridge types and lengths are wrapped
- Full product line (Large selection of types, lengths and micron ratings)
- Low pressure drop, long life, and reduced filtration costs, compared to wound and spun cartridges
- No additives or binders, which may cause foaming.
- Increased dirt holding capacity, longer life, fewer cartridge replacements needed, and reduced filtration costs, compared to other pleated cartridge suppliers
- Increased particle removal efficiency
- Superior performance and appearance

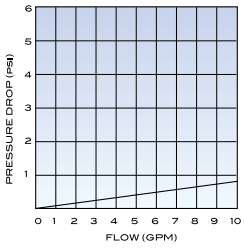
⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Lower pressure drop for higher flow rates

These cartridges are pleated, so initial pressure drop is significantly less compared to depth cartridges, such as wound, spun, melt blown and resin bonded. As a result, higher flow rates are possible, reducing filter housing size requirements to lower capital equipment costs.

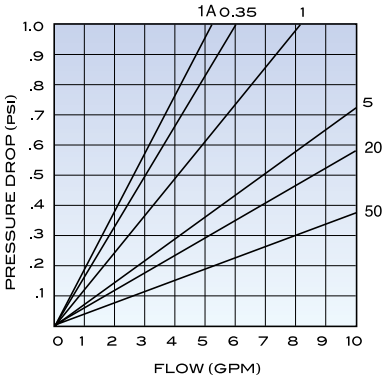


Depth Cartridge
(5 micron)

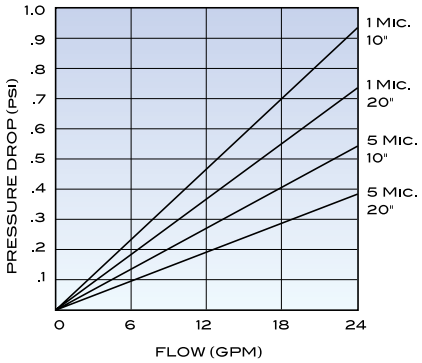


Pleated® Cartridge
(5 micron)

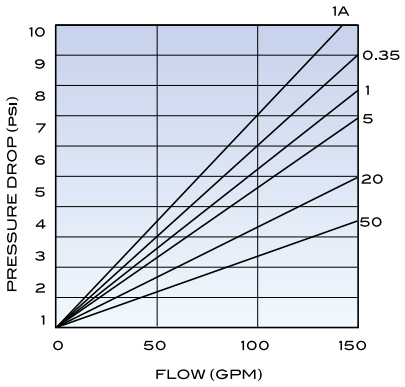
Use the pressure drop charts shown below to help determine the ideal flow rate for your particular application:



Standard Cartridges (9¾")



Full Flow (FF) Cartridges



Jumbo Cartridges

Note: Pressure drop data shown above include filter housing and cartridge.

Flow rates

Maximum flow rate guidelines for our cartridges are shown below:

MAXIMUM FLOW RATES PER CARTRIDGE (GPM)								
Micron Rating	Standard Cartridge			10" Full Flow	20" Full Flow	Jumbo Cartridge		
	9¾"	20"	29¼"			40	90	170
0.35 micron	4	8	12	9	13	25	50	100
1 micron	4	8	12	10	15	30	60	120
5 micron	7	14	21	15	25	50	100	150
20 micron	8	16	24	15	25	50	100	150
50 micron	10	20	30	15	25	50	100	150

NOTICE Filter housing selection should also be considered when flow rate per cartridge is determined.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**


PWPL10FF

Standard 2¾" x 9¾" Length

MODEL NO.	ORDERING CODE	MEDIA TYPE	MICRON RATING	NUMBER PER CASE
PWPL10M.35	7100388	Synthetic	0.35	12
PWPL10M1	7100389	Synthetic	1	12
PWPL10M5	7100390	Synthetic	5	12
PWPL10M20	7100391	Synthetic	20	12
PWPL10M50	7100392	Synthetic	50	12

Standard 2¾" x 20" Length

MODEL NO.	ORDERING CODE	MEDIA TYPE	MICRON RATING	NUMBER PER CASE
PWPL20M.35	7100398	Synthetic	0.35	6
PWPL20M1	7100399	Synthetic	1	6
PWPL20M5	7100400	Synthetic	5	6
PWPL20M20	7100401	Synthetic	20	6
PWPL20M50	7100402	Synthetic	50	6

Full Flow (FF) 4½" x 9¾" Length

MODEL NO.	ORDERING CODE	MEDIA TYPE	MICRON RATING	NUMBER PER CASE
PWPL10FFM.35	7100408	Synthetic	0.35	4
PWPL10FFM1	7100409	Synthetic	1	4
PWPL10FFM5	7100410	Synthetic	5	4
PWPL10FFM20 EC	7100411	Synthetic	20	4
PWPL10FFM50	7100412	Synthetic	50	4

Note: Cartridges listed above fit in Full-Flow and Big-Blue® filter housings.

Full Flow (FF) 4½" x 20" Length

MODEL NO.	ORDERING CODE	MEDIA TYPE	MICRON RATING	NUMBER PER CASE
PWPL20FFM.35	7100414	Synthetic	0.35	4
PWPL20FFM1	7100415	Synthetic	1	4
PWPL20FFM5	7100416	Synthetic	5	4
PWPL20FFM20	7100417	Synthetic	20	4
PWPL20FFM50	7100418	Synthetic	50	4

Note: Cartridges listed above fit in Full-Flow and Big-Blue® filter housings.

For additional information, access online literature ES-WQ-PWPL.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Premium Carbon Block

Filter Cartridges

Flow Rates: Up to 4 gpm (15 lpm)

Thick wall carbon construction for superior performance

Top-of-the-line coconut shell Carbon Block filter cartridge for chlorine taste, odor and sediment reduction.

FEATURES

- Superior chlorine reduction
- Low-pressure drop
- Will not channel
- Cost savings
- 100% coconut shell carbon
- FDA grade components and materials
- Solid Block Activated Carbon for long life

TEMPERATURE

Operating temperature: 40°F to 165°F (4.4°C to 73.8°C)

PWCB

PWCFFB

Dimensions

MODEL NO.	ORDERING CODE	TYPE	OD		LENGTH		MICRON RATING	CHLORINE REDUCTION*	NO. / CASE
			in.	*mm*	*in.*	*mm*			
PWCB5P**	7100588	Thick Wall	2⅞"	73	5"	127	5 nominal	3,000 Gal @ 1 gpm	6
PWCB10P EC	7100446	Thick Wall	2⅞"	73	9¾"	248	5 nominal	>6,000 Gal @ 1 gpm	12
PWCB20P	7100447	Thick Wall	2⅞"	73	20"	508	5 nominal	>12,000 Gal @ 2 gpm	6
PWCB10FFP EC	7100448	Thick Wall	4⅝"	117	9¾"	248	5 nominal	>20,000 Gal @ 2 gpm	4
PWCB20FFP EC	7100449	Thick Wall	4⅝"	117	20"	508	5 nominal	>40,000 Gal @ 4 gpm	4

* Estimated capacity using 2ppm free chlorine with greater than 90% reduction.

** 5" CB's are sold as 2-packs.

For additional information, access online literature ES-WQ-PWCB.

VOC, LCV Carbon Block and Lead Out Filters

Volatile Organic Compounds (VOC)

This VOC filter is capable of reducing harmful VOCs such as MTBE's, lindane, atrazine, benzene, 2, 4-D, and others from your drinking water.

It is estimated that VOC's are present in one-fifth of the nation's water supplies. These water contaminants can enter ground water from a variety of sources including localized use of herbicides and pesticides, gasoline or oil spills, leaking underground fuel tanks,septic system cleaners, and chemicals used in the dry-cleaning industry.

PWCB10VOC

LCV (Lead, VOCs)

Carbon Block Filter Cartridges are specially formulated and independently tested and verified for the reduction of lead and volatile organic chemicals (VOC's), chlorine taste and odor, sediment, dirt, rust and particles. Filters down to 1 micron. Excellent application for campers and RV units, also can be easily installed in your standard 10 inch filter bowl.

PWCB10LCV

Lead Out

Independently tested and verified for the reduction of lead, chlorine taste and odor, reduces sand, silt, sediment and rust. Filter uses unique Lead Out Filtration Media. Filters down to 1 micron. Excellent product for campers and RV units, also can be easily installed in your standard 10 inch filter bowl.

PWCB10LED

Dimensions

MODEL NO.	ORDERING CODE	OD		LENGTH		MICRON RATING	CHLORINE REDUCTION*	LEAD REDUCTION	VOC CAPACITY*	NO./ CASE
		in.	*mm*	*in.*	*mm*					
PWCB10VOC	7100450	2¾"	70	9¾"	248	1 Nominal	25,000 gallons @ 2 gpm	N/A	1,200 gallons @ 0.5 gpm	12
PWCB10LCV	7100451	2¾"	70	9¾"	248	1 Nominal	25,000 gallons @ 1 gpm	1,500 gallons @ 0.5 gpm	N/A	12
PWCB10LED	7100452	2½"	70	9⅞"	249	1 Nominal	6,500 gallons @ 0.75 gpm	2,500 gallons @ 0.75 gpm	N/A	12

Performance claims are based on independent lab results and manufacturer's internal test data. Actual performance is dependent on influent water quality, flow rates,system design and applications. Your results may vary. Micron ratings based on 85% or greater removal of a given particle size.

*Estimated capacity using 2ppm free chlorine with greater than 90% reduction.

For residential Point of Use only.

⚠ WARNING Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

GAC Filter Replacement Cartridges

Granular Activated Carbon (GAC) Cartridges

Sizes: 2¾" x 10", 2¾" x 20", 4½" x 10", and 4½" x 20"

GAC filters are an effective way of removing volatile compounds from drinking water for better tasting water. They are used to remove chlorine, odor and taste from water. Polishing RO water with a Watts GAC cartridge improves its taste.

GAC Filters

Specifications

Media	Water washed coconut shell activated carbon
Minimum / Maximum Working Pressure	20psi / 125psi
Minimum / Maximum Temperature	40°F / 100°F (4°C / 38°C)
Maximum Flow Rate	1 GPM (9¾"), 3 GPM (4.5" x 9¾"), 5 GPM (4.5" x 20")

Water Washed Coconut Shell Granular Activated Carbon Cartridges (GAC)

MODEL NO.	ORDERING CODE	TYPE	O.D.	LENGTH	CAPACITY (GALS.)	NO. / CASE
PWGAC10	7100442	GAC	2¾"	9¾"	2,500	12
PWGAC20	7100443	GAC	2¾"	20"	5,000	6
PWGAC10FF	7100444	GAC	4½"	9¾"	7,500	4
PWGAC20FF	7100445	GAC	4½"	20"	15,000	4

For additional information, access online literature ES-WQ-PWGAC.

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Series PWFIL EC END CAP

In-Line Filters

Connection Size: ¼" FNPT

Perfect for residential ice makers as well as refrigerators, drinking fountains, coffee and tea brewers, motor homes, and campers.

PWILGAC10

FEATURES

- Final polishing filter
- Reduces bad taste and odor
- GAC model with phosphate to help reduce scale
- GAC models with calcite to balance pH
- GAC model with KDF for reduction of scale build-up
- Coconut shell activated carbon. Rated for flow rates to 0.75. GPM and 1,500 gallons capacity

In-Line Filters RO Filters

Coconut Shell GAC – Ideal for RO Post Filter

MODEL NO.	ORDERING CODE	O.D.	LENGTH	MEDIA	TYPE	FITTING SIZE	FITTING TYPE	NO./CASE
PWILGAC10 EC	7100454	2"	10"	GAC	Coconut shell	¼"	FNPT	6
PWILGAC6	7100453	2"	6"	GAC	Coconut shell	¼"	FNPT	6

GAC with phosphate for scale reduction

PWILGACPH10	7100455	2"	10"	GAC/ Phosphate	Coconut shell/Phosphate	¼"	FNPT	6

In-line Filters with GAC and Calcite to balance pH

PWILGACCL10	7100456	2"	10"	GAC/Calcite	Coconut shell/Calcite	¼"	FNPT	6

In-line Filters with GAC and KDF** - Ideal for residential icemakers/refrigerators

PWGACKDFFTGS	7100457	2.5"	10"	KDF/GAC	KDF/Coconut shell	¼"	FNPT	5

These Filters reduce scale build-up in appliances** GAC and KDF inline filter lasts up to 20,000 Gallons.

For additional information, access online literature ES-WQ-PWIL

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- **Pressurized Steel Storage Tanks**
- **Pumps - Boosters and Demand/Delivery**
- **Standard Drinking Water Faucets (Air Gap and Non Air Gap)**
- **Designer Watts Top Mount Drinking Water Faucet**
- **Designer RO Drinking Water Faucets — Series 703 and 905**

PWFCT303

PWFCTTM

PWFCT905

PWFCT703

Permeate Pump

Storage Tank

⚠ WARNING **Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.**

Pressurized Steel Storage Tanks

These tanks are used for storing reverse osmosis water. The inside of the tank has a polypropylene liner and utilizes a butyl diaphragm for the water storage area.

Pressurized RO Storage Tanks

MODEL NO.	ORDERING CODE	VOLUME (GALLONS)	DESCRIPTION	DIAMETER (INCHES)	HEIGHT (INCHES)	COLOR	PIPE FITTINGS (INCHES)
PWROTNK3	7100174	3	3 Gallon - Metal Tank	11"	16"	White	¼"
PWROTNK14	7100175	14	14 Gallon - Metal Tank	15"	23"	Blue	¼"

Pumps - Booster

Permeate Pump

The Permeate Pump operates as a non-electrical energy recovery device which dramatically improves the efficiency of RO systems. Using only the available energy from the brine water (otherwise lost to the drain), the pump forces product water into the storage tank. This process effectively reduces membrane back pressure to less than 5psi and allows the membrane to maximize its use of the available feed pressure.

Booster Pump Kits

Designed as an accessory for Reverse Osmosis Units in areas with water pressure less than 40psi. These pump kits are quiet, easy to install, can significantly increase water output and work with all standard and manifold units.

Pumps - Booster and Demand/Delivery

MODEL NO.	ORDERING CODE	DESCRIPTION	FLOW RATE (GPM)	PIPE (SUCTION)	PIPE (DISCHARGE)	VOLTS	HZ	PRESSURE (MAX)	AMPS (MAX)
PWPERMKIT	7100180	Permeate Pump Kit	-	¼"	¼"	-	-	-	-
PWBOOST05KT	7100181	Lo-Flow Booster Pump Kit	0.5	¼"	¼"	115	50/60	125	1
PWBOOST75KT	7100182	Hi-Flow Booster Pump Kit	0.75	⅜"	⅜"	115	50/60	125	2
PWDELPMP4.9	7100183	Booster Pump 5 GPM	5	½"	½"	115	50/60	125	2.2

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Series PWFCT303

Standard RO Faucets

Watts Pure Water Standard Faucet comes in beautiful finishes to match today's designer kitchens. They are available in both Air Gap and Non Air Gap.

Faucet Type

Air Gap: The Air Gap faucet conforms to US plumbing codes and is designed for dispensing water from a Reverse Osmosis system or a Water Filtration system that requires a drain connection with an Air Gap.

Non Air Gap: This faucet is designed for dispensing water from a Reverse Osmosis system or a Water Filtration system that does not require a drain connection with an Air Gap.

FEATURES

- Many faucet finishes to choose from
- Lever for dispensing
- Push and hold lever down to hold in the open position
- Lift lever up to keep in the open locked position
- Swivel Neck

Standard Series Faucets - Air Gap

MODEL NO.	ORDERING CODE	FINISH	CASE QTY.
PWFCT303CHA	7100195	Chrome	50
PWFCT303BNA	7100196	Brushed Nickel	50
PWFCT3030BA	7100198	Oil Rubbed Bronze	50

Standard Series Faucets - Non Air Gap

MODEL NO.	ORDERING CODE	FINISH	CASE QTY.
PWFCT303CH	7100188	Chrome	50
PWFCT303BN	7100189	Brushed Nickel	50
PWFCT3030B	7100191	Oil Rubbed Bronze	50

For additional information, access online literature ES-WQ-PWFCT303

Series PWFCT703 & PWFCT905

Designer RO Faucets

Watts Pure Water Designer RO Faucet comes in beautiful finishes to match today's designer kitchens. This designer faucet retrofits to most brands and makes an excellent upgrade from the basic faucets that come with most reverse osmosis or other filtration systems. The Series 703 is available in Chrome, Brushed Nickel, and Oil Rubbed Bronze finishes. While the Series 905 is available in Chrome and Brushed Nickel.

FEATURES

- Smooth operating ceramic disk element
- Lever style handle
- High reach neck design
- Swivel neck
- Mounting hardware included
- Series 905 requires a ⅞" mounting hole and ½" for the Series 703

Series 703 Faucets

MODEL NO.	ORDERING CODE	TYPE	FINISH	CASE QTY.
PWFCT703CH	7100212	Ceramic Disc – Non Air Gap	Chrome	30
PWFCT703BN	7100213	Ceramic Disc – Non Air Gap	Brushed Nickel	30
PWFCT7030B	7100214	Ceramic Disc – Non Air Gap	Oil Rubbed Bronze	30

Series 905 Faucets

MODEL NO.	ORDERING CODE	TYPE	FINISH	CASE QTY.
PWFCT905CH	7100215	Ceramic Disc – Non Air Gap	Chrome	30
PWFCT905BN	7100216	Ceramic Disc – Non Air Gap	Brushed Nickel	30

For additional information, access online literature ES-WQ-PWFCT703905

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Series PWFCTTM

Top Mount Faucets

Size: ⅜" (10mm)

FEATURES

- Top mount design – you'll never need to crawl below the sink again!
- Reduces installation labor
- Components touching water are stainless steel or non-metallic
- Wide range of finishes, including chrome, brushed nickel, oil rubbed bronze
- Models with filter change monitors are available to remind customers when to change cartridges for water quality assurance
- Ceramic disc for durability
- One style works for air gap and non air gap installations

Models with monitors are available

Note - Not for sale or use in California

Top Mount Faucet Models

MODEL NO.	ORDERING CODE	FINISH	INSTALLATION TYPE	TUBING SIZE	FILTER CHANGE MONITOR
PWFCTTMMCH	7100202	Chrome	Air gap or non air gap	⅜"	Yes
PWFCTTMCH	7100203	Chrome	Air gap or non air gap	⅜"	No
PWFCTTMMBN	7100204	Brushed Nickel	Air gap or non air gap	⅜"	Yes
PWFCTTMBN	7100205	Brushed Nickel	Air gap or non air gap	⅜"	No
PWFCTTMOB	7100211	Oil Rubbed Bronze	Air gap or non air gap	⅜"	No

For additional information, access online literature ES-WQ-PWFCTTM

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Notes

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USA

For Technical and Ordering Assistance, please call us at 800-659-8400.

To locate your nearest Watts representative, please click on our *find a sales rep* locator on Watts.com/PureWater.

CANADA

For Technical and Ordering Assistance, please call us at 1-905-332-4090.

To locate your nearest Watts representative, please click on our *find a sales rep* locator on Watts.ca/PureWater.

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Canada: T: (905)-332-4090 • Watts.ca/PureWater
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