

3M™ Home Water Filtration Systems



**Provide You with Water
Of Superior Quality**

3M

Product – History

Expert in Water Filtration Technology for 100 years!



CUNO Incorporated, a 3M company, is a world leader in the design and manufacturing of a comprehensive line of filtration products for separation, clarification and purification of fluids and gasses. It was set up in 1912 and began as a supplier of mechanical parts to the automobile industry and, at the same time, developed metal and mechanical filters.

During the 1960's it turned its attention solely to filtration and developed a line of resin bonded depth filters for the industrial market that are still in production today. Progressing towards finer and more sophisticated filtration, CUNO's engineers invented a cellulose based filter that was charge modified, permitting the filtration of sub-micron particles. Variations of this filter are still used today in the blood fractionation and biopharmaceutical industries. CUNO was also a pioneer in the development of microporous membranes, and the use of nylon 66 for the formation of filtration membrane. Finally, leveraging the technology developed for the industrial market over to the residential and commercial drinking water market, the Company launched a full line of products under the "Aqua-Pure" brand name. CUNO's unique carbon block process results in a product that reduces a wide variety of chemical contaminants in water while delivering high flow rates and low pressure drop.

In 2005, CUNO was acquired by 3M to combine the innovation of 3M with the filtration application know-how of CUNO. The combined entity participates in virtually all the key markets for liquid filtration. In 2009, CUNO Incorporated officially changed its name to 3M Purification Inc.

Located in Connecticut, the USA, the manufacturing plant of water filtration products has been certified to NSF standards to maintain the quality management and ensure every filter produced is of the highest standard.

Product – Product Intro

Why Filtering Water?

There are numerous ways of obtaining drinking water, such as in the form of tap water, boiled water, bottle water or water from purification systems etc. However, how do you know which is the best way to obtain safe and quality water?



Tap water: The Water Department in Hong Kong claims that the quality of our tap water complies with the Guidelines for Drinking Water Quality recommended by the World Health Organization. (WHO). However, the tap water can be contaminated by the condition of the water piping and water tank of your building during the delivery process.

Boiled water: There is a popular belief that boiling can disinfect water and kill the germs in it. There is no doubt that most of the germs in water can be removed after boiling for 15-20 minutes. However, as demonstrated in experiments, cysts, chlorine, sediment, heavy metal, VOCs and so on still remain in the water after boiling. It is also inevitable that during the boiling process, chlorides and VOCs will be combined and converted into some other kinds of harmful or even carcinogenic substances, causing undesirable impacts on our health.



Bottled water: It may not be as clean as it seems because we are uncertain about the source, treatment of water and the bottling process. Also, most of the bottled water is actually distilled water which is harmful with prolonged consumption. It is because when we drink distilled water, a kind of pure water, it will absorb and take minerals away from your body via osmosis. Moreover, plastic water bottles are a serious environmental problem as it takes hundreds of years for them to biodegrade.

Filtered water: Carbon filtration is the oldest means of water purification. It is the most effective and reliable method in the market to reduce common but harmful contaminants, e.g. chlorine, sediment, VOCs etc, and retain minerals in water. Compared with other options, filtering water can save water, i.e. it simply connects to your water supply piping and obtains filtered water from a dedicated drinking water faucet, thus causing no water wastage.

3M Brings you Water of Superior Quality!

3M water filtration products use the world's most advanced carbon block filtration system to remove contaminants while retaining essential minerals in your drinking water. You can be sure that your kids and family are drinking safe, clean and great-tasting water every day.

Over 360 pieces of 3M water filtration products have been tested and certified by NSF International under NSF/ANSI Standard 42 (Aesthetic Effects) and Standard 53 (Health Effects). Products that meet these standards bear the NSF Mark and are considered to be reliable and safe. To search for the NSF listing, please visit this website www.nsf.org/certified/consumer/listings_main.asp.



3M Home Water Filtration Systems

3M Smart Drinking Water System AP DWS-2500T

- Pharmaceutical grade filter media**
 Adopt IMPACTechnology – premium carbon/nylon membrane to achieve filtration capacity of 0.2 micron rating.
- 3-step “SMART” cartridge change monitoring system**
 Monitor usage and provide audio and visual alarm for cartridge change.
 - Step 1: LCD cartridge life indicator (left) and alarm based on *TIME*.
 - Step 2: LCD cartridge life indicator (right) and alarm based on *CAPACITY*.
 - Step 3: Light indicator at dedicated drinking water faucet alerts you on cartridge change.



Integrated
Membrane
Pre Activated
Carbon
Technology



Red light indicates
cartridge change
required.

Blue light
indicates
normal use.



- Sanitary Quick Change (SQC) Replacement Filter Cartridge**
 Its exclusive quick-change replacement filter cartridges design allows for fast and easy cartridge replacement and requires no contact with the filter media.

3M Drinking Water System AP DWS-1000



- Dedicated drinking water faucet**
 A dedicated stainless steel drinking water faucet is provided to prevent cross contamination with tap water.
- Built-in Shut-off Meter**
 It has a built-in shut-off meter to cut off the water supply when it reaches the set capacity in order to ensure that only the highest quality water is passed through.
- Exclusive Quick-change Replacement Filter Cartridge**
 Its exclusive quick-change replacement filter cartridge design allows for fast and easy cartridge replacement and requires no contact with the filter media.



3M AP Easy Series Drinking Water System – Complete and LC



- Dedicated drinking water faucet or flow divert**
 A dedicated 3M drinking water faucet for undersink installation or flow divert for DIY installation.



- Sanitary Quick Change (SQC) Replacement Filter Cartridge**
 Its exclusive quick-change replacement filter cartridge design allows for fast and easy cartridge replacement and requires no contact with the filter media.



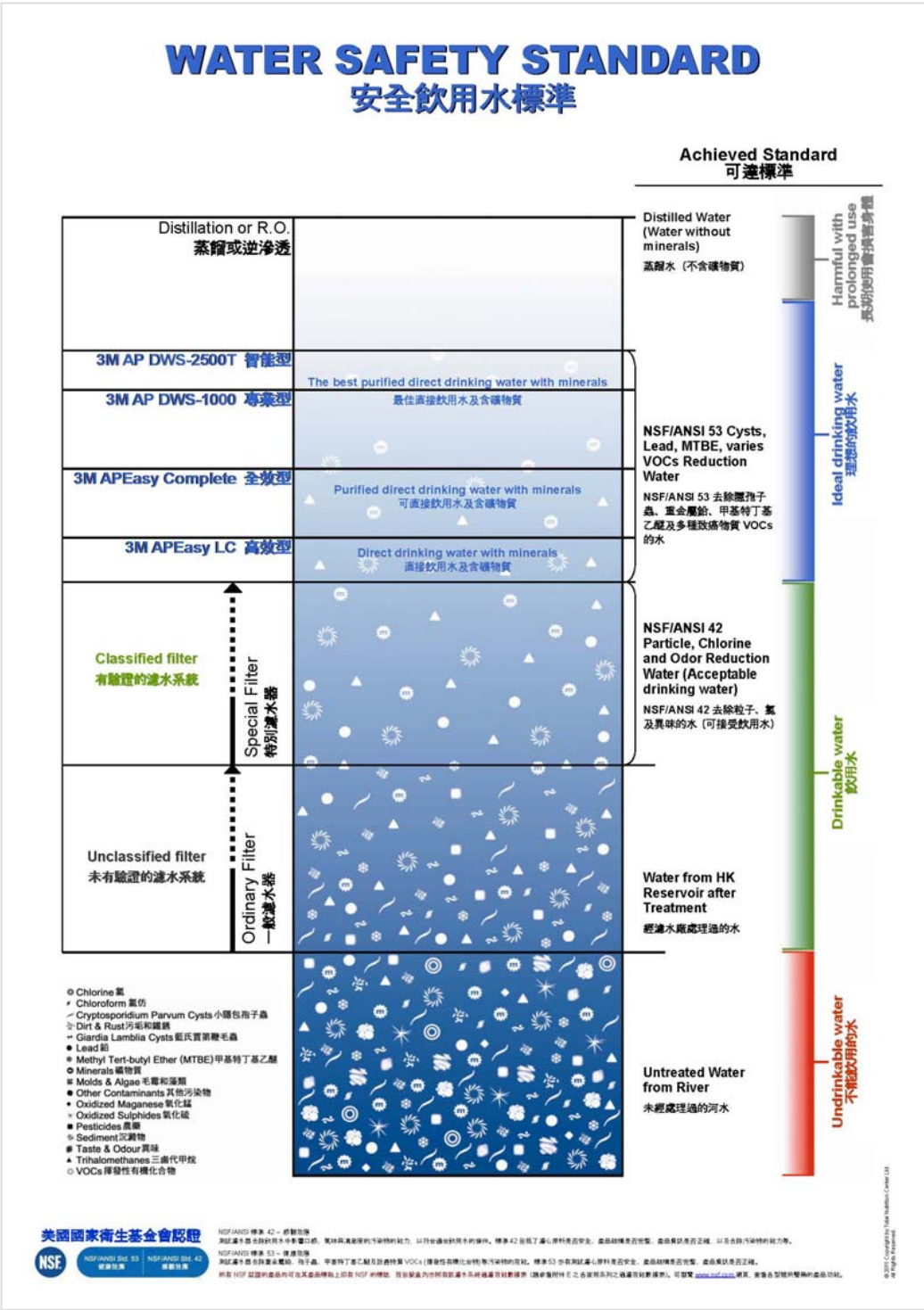
3M Home Water Filtration Systems Specifications

Model	AP DWS-2500T	AP DWS-1000	AP Easy Complete	AP Easy LC
Micron rating	PFS2500-C –CN 3 micron DWS2500-C –CN 0.2 micron	AP DWS80 – 1 micron AP DWS90 – 0.5 micron	0.5 micron	0.5 micron
Reduction claims	Chlorine, taste and odor, particulates, cyst, lead, mercury, MTBE, bacteria and VOCs. (Please visit www.nsf.org for the claims associated with products that are NSF listed)	Chlorine, taste and odor, particulates, cyst, lead, MTBE and more than 50 nos. of VOCs. (Please visit www.nsf.org for the claims associated with products that are NSF listed)	Chlorine, taste and odor, particulates, cyst, lead and 8 nos. of VOCs. (Please visit www.nsf.org for the claims associated with products that are NSF listed)	Chlorine, taste and odor, particulates, cyst and lead. (Please visit www.nsf.org for the claims associated with products that are NSF listed)
Claimed capacity	750 gallons (2,839 liter)	625 gallons (2,363 liter)	750 gallon (2,839 liters)	750 gallons (2,839 liters)
Water temperature	4.4-38 °C (40-100 °F)	4.4-38 °C (40-100 °F)	4.4-38 °C (40-100 °F)	4.4-38 °C (40-100 °F)
Flow rate	0.75 gallon/min - gpm (2.84 liters/min - lpm)	0.6 gallon/min - gpm (2.27 liters/min - lpm)	0.75 gallon/min - gpm (2.84 liters / min - lpm)	0.75 gallon/min - gpm (2.84 liters / min - lpm)
Cartridge model	PFS2500-C –CN DWS2500-C –CN	AP DWS80/90	AP C-Complete	AP C-LC
Cartridge replacement period	12 months	12 months	6 months	6 months
Dimension	480(H) x350(W) x150(D) mm	480(H) x350(W) x110(D) mm	320(H) x74(W) x69(D) mm	320(H) x74(W) x69(D) mm

- Remark:
1. The operation temperature and pressure of all the models shown above are 38°C and 125psi (862kPa) respectively.
 2. It is recommended that the filter cartridges be replaced as per the period shown in above table in order for the products to deliver the best performance. However, the performance may vary depending on the water usage and quality. The cartridge should be changed once the flow of water slows down.
 3. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection.

Water Safety Standard

Quality and safe drinking water is important to our life. However, how do we know which is the proper standard for water safety? You can refer to the following “Water Safety Standard” chart which shows you how to obtain the ideal drinking water with the proper use of water filtration system.



Product – Other Info

3M Home Water Filtration Systems - Certifications

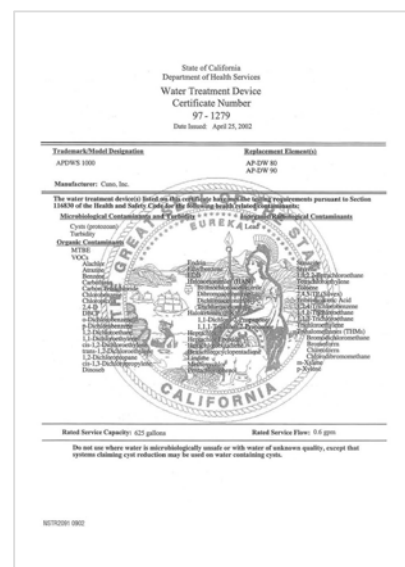
With over 100 years' experience in developing filtration technology, 3M provides the best-in-class filtration products in the market, whose performance has been approved by international standard inspections and testings. Here you can view the certifications of the following home models:

3M Smart Drinking Water System AP DWS-2500T



Certificate from
The Ministry of Health, PRC

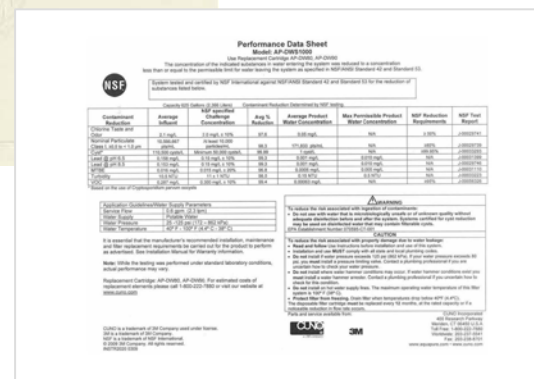
3M Drinking Water System AP DWS-1000



Certificate from Department of Health
Services of State of California



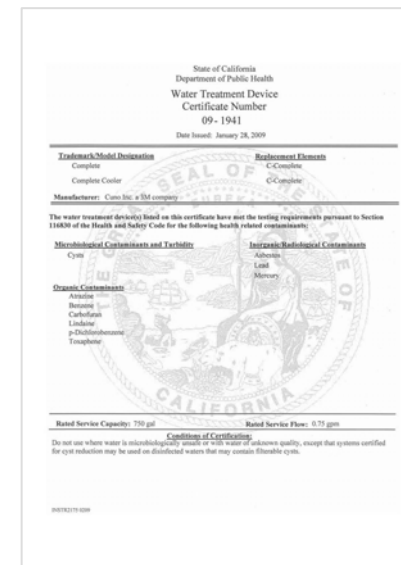
Certificate from
The Ministry of Health, PRC



Performance Data Sheet with NSF Information

Product – Other Info

3M AP Easy Complete Drinking Water System



Certificate from Department of Health
Services of State of California

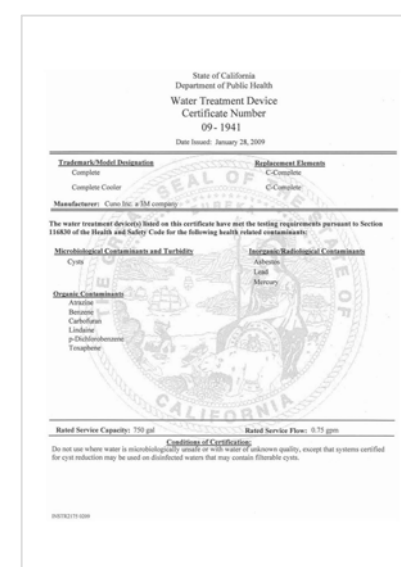


Certificate from
The Ministry of Health, PRC



Performance Data Sheet with NSF Information

3M AP Easy LC Drinking Water System



Certificate from Department of Health
Services of State of California



Certificate from
The Ministry of Health, PRC

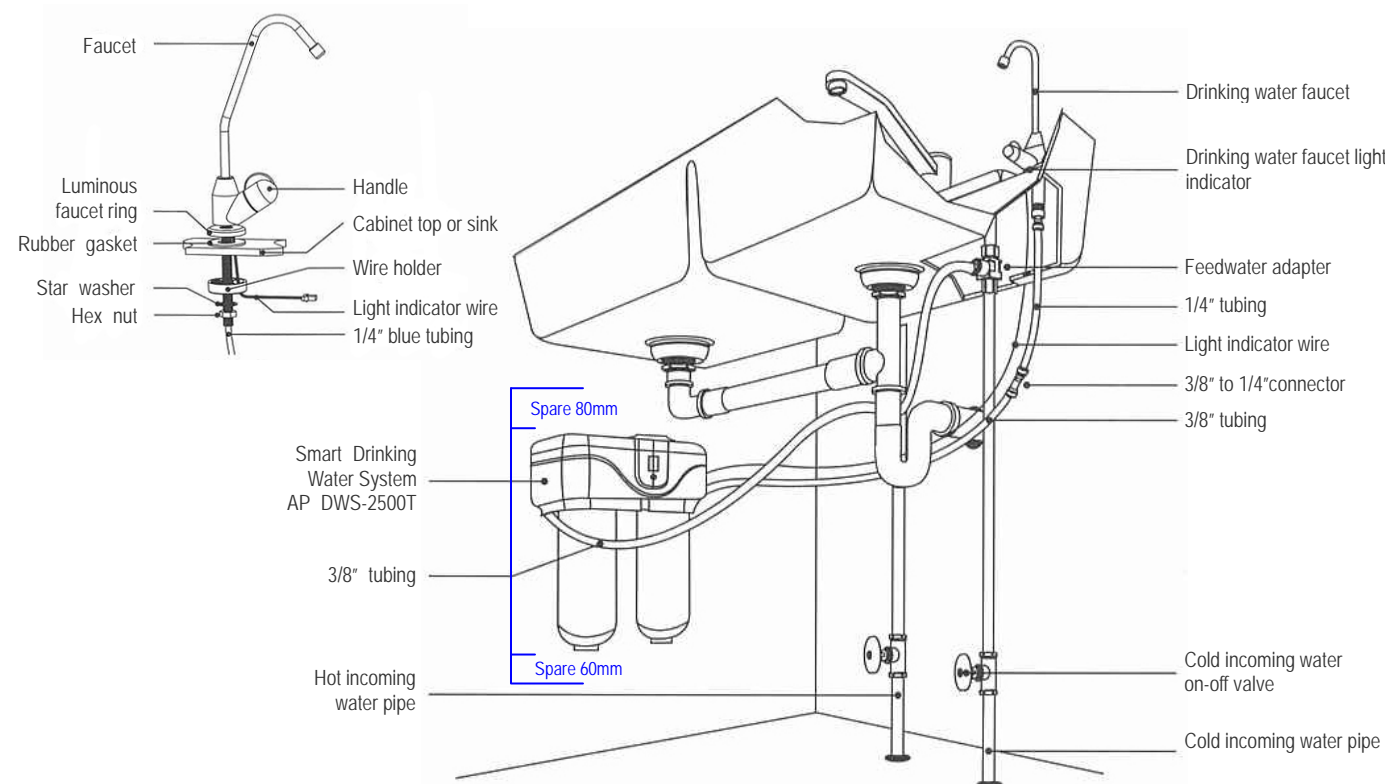


Performance Data Sheet with NSF Information

3M Home Water Filtration Systems - Installation Tips

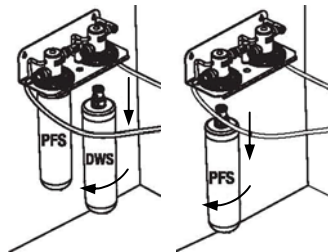
3M Smart Drinking Water System AP DWS-2500T (suitable for under-sink installation only)

Please ensure the cold water supply valve is turned off during installation and replacement of filter cartridge.

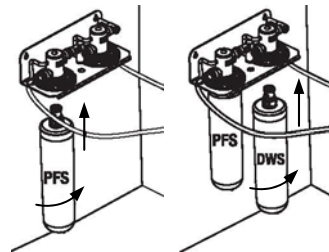


Replacement of Filter Cartridge for AP DWS-2500T

1. Turn off the water supply valve and remove the filter cover. Take off the DWS cartridge by turning it to left until it is loose and pull it down. Repeat with PFS cartridge.



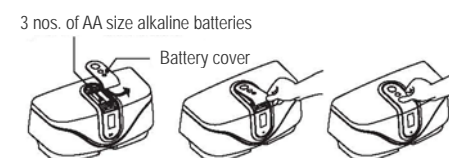
2. Remove the red plastic cover from the new PFS cartridge, insert it to the filter head and turn it to right until a clicking sound is heard. Repeat with DWS cartridge. Turn on the water supply valve and water faucet, run the water for 10 min to flush the system before use.



3. After replacing PFS and DWS cartridges, the filter monitoring system should be reset. Remove the battery cover, press F1 button and hold for at least 4 sec until the left side of the monitor lighting up and a long buzzes followed by 3 short buzzes sound is heard. Repeat with F2 button.

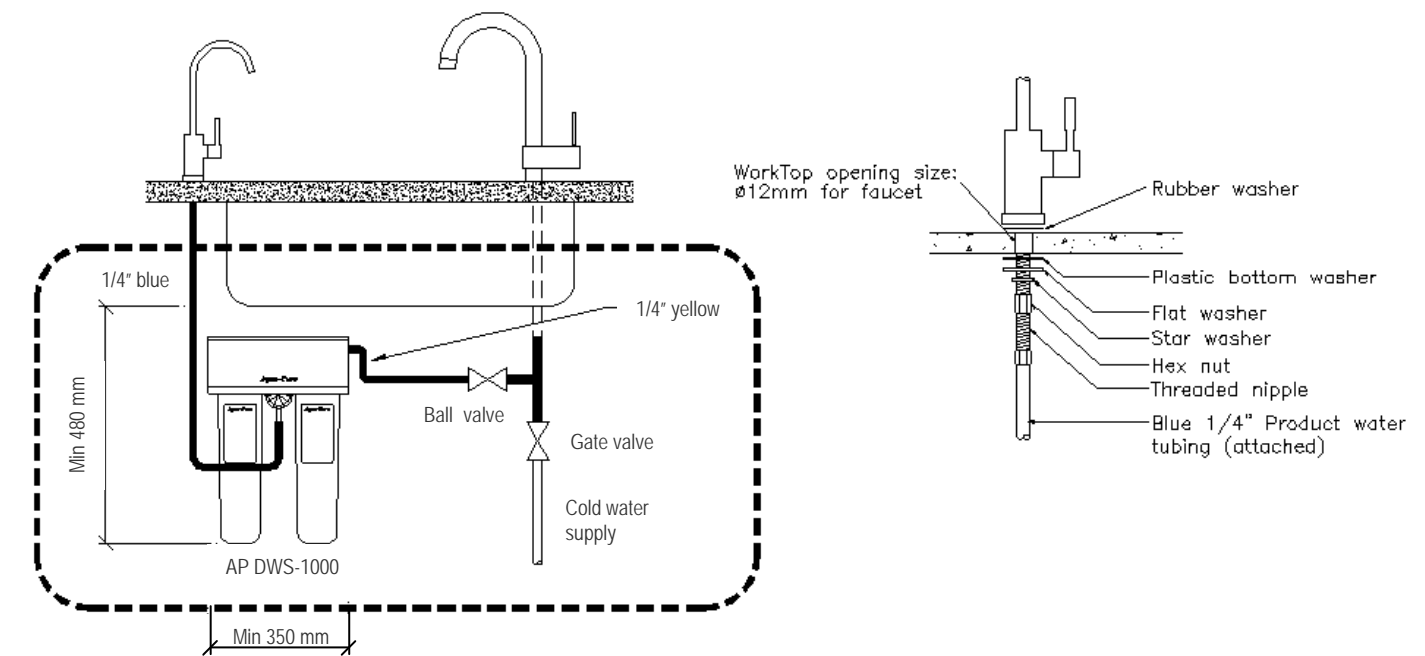


4. Slide out and lift the battery cover, replace 3 nos. of AA size alkaline batteries and place the cover back.



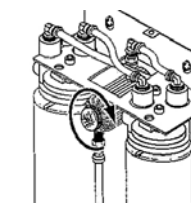
3M Drinking Water System AP DWS-1000 (suitable for under-sink installation only)

Please ensure the cold water supply valve is turned off during installation and replacement of filter cartridge.

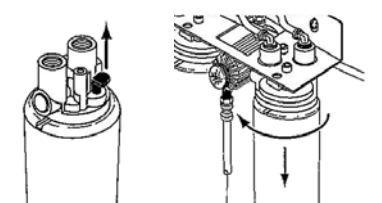


Replacement of Filter Cartridge for AP DWS-1000

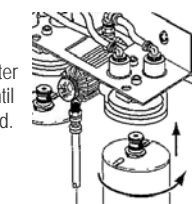
1. Turn off the water supply valve and remove the filter cover. Reset the shut-off meter by pushing the knob and turning clockwise until the arrow of the meter lines up to "Start".



2. Take off the cartridge of Filter1 by lifting the red knob upward and hold, turning the cartridge to left and pull it down. Repeat for Filter2.



3. Remove the red plastic cover from the new Filter1, insert it to the filter head and turn it right until a clicking sound is heard. Repeat for Filter2.



4. Turn on the water supply valve and allow the drinking water faucet to run the water for 10 min to flush the system before use.

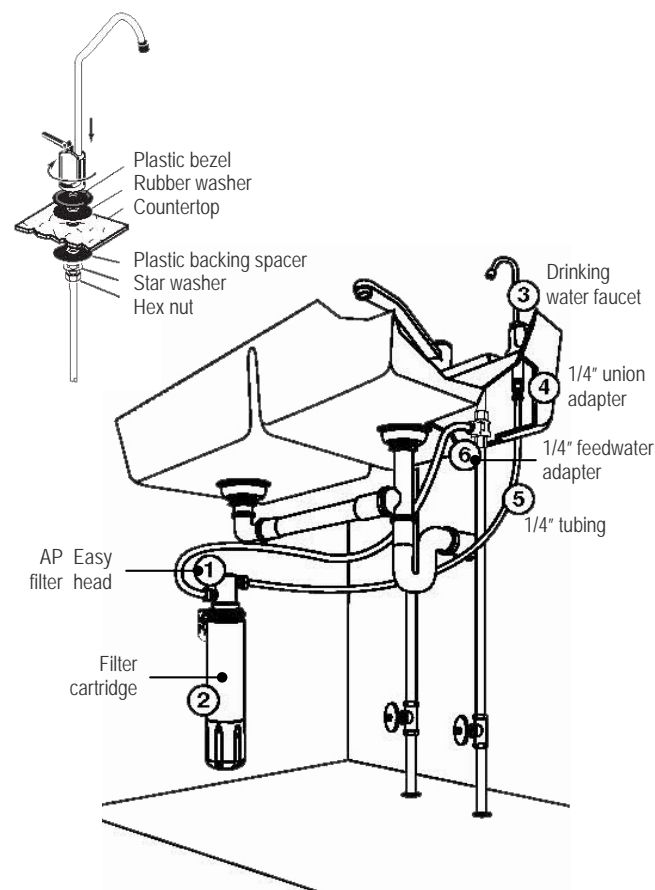


Product – Other Info

3M AP Easy Series – Complete & LC (suitable for on-counter and under-sink installation)

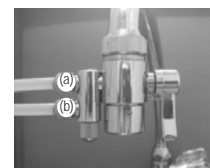
Please ensure the cold water supply valve is turned off during installation and replacement of filter cartridge.

Using Drinking Water Faucet



Using Flow Diverter

1. Select and mark a location under the sink that allows access for filter change.
2. Fix the flow diverter to the tap water faucet, insert the tubes to position (a) and (b) of flow diverter separately.
3. Insert the other end of tubing at flow diverter (a) to "INLET", (b) to "OUTLET" and cartridge to (c).
4. Turn on the flow diverter, run the water for 5 min to flush the system and check if there is any leakage before use.



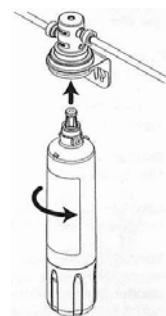
Flow diverter is not recommended to fit into hot & cold water faucet as avoid hot water will damage the carbon block inside the cartridge.

Replacement of Filter Cartridge

1. Turn off the water supply valve, take off the cartridge by turning it left until it is loose and pull it down.



2. Remove the red plastic cover from the new cartridge, insert it to the filter head and turn it to right until a clicking sound is heard. Turn on the water supply valve and water faucet or flow diverter, run the water for 5 min to flush the system before use.



Applications

Filtered Water Applications

With 3M™ water filtration system, the filtered water carries no contaminants while retaining essential minerals that can bring out the best flavor of your food and drinks, especially when it comes to preparing coffee, tea, fresh juice, rice, soup and fresh produce etc.

Direct Drinking



Making Coffee or Tea



Washing Fresh Produce

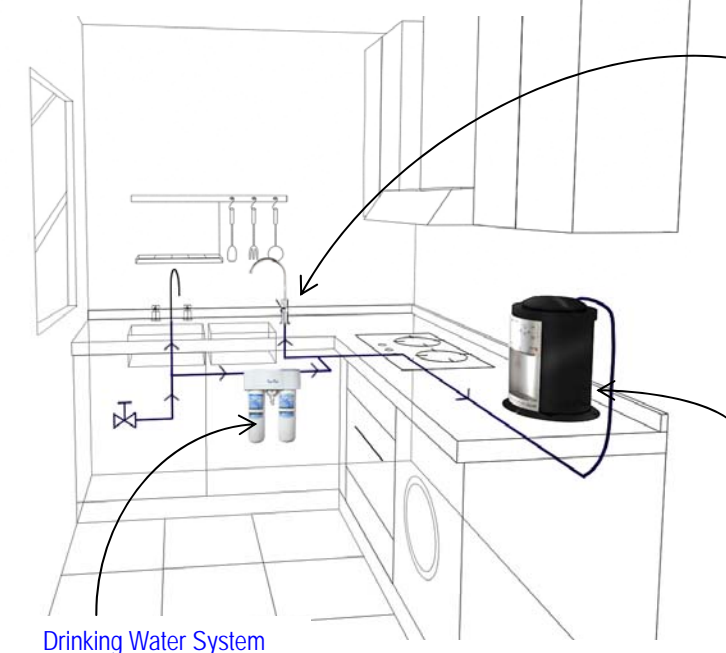


Cooking rice and soup



However, how to design a suitable filtration system for use at home? With a minimum set-up of high quality water filtration system and facilities, you can have safe, clean and great-tasting water to prepare any foods and drinks for your family at home.

Minimum set-up of water filtration system and facilities at home



Drinking Water Faucet (stainless steel)

Usage:
direct drinking, salad vegetable washing, soup making, and rice cooking

Countertop Hot & Cold Water Station

Usage:
direct drinking, coffee and tea making

Drinking Water System

Related Product

*With just a touch of the button,
you can enjoy quality drinking water anytime you want!*

It is truly wonderful if near-boiling water can be provided instantly in the kitchen to prepare foods, wash utensils and make hot drinks etc. With InSinkErator's Instant Hot Water Dispenser, it saves time and adds elegance to the kitchen.

Its Indulge Contemporary model is the finest line of instant hot water dispensers with stainless steel tanks for near-boiling 93.3°C (200°F) filtered water. The contemporary design, in an array of beautiful designer finishes, will complement any kitchen.



FAQ

About 3MTM Water Filtration System

Q: What is the filter media made of in the 3M filter cartridge?

A: 3M uses its patented technology to develop graded density and multi-composite carbon block as the core material for the filter cartridge. By the principle of carbon atom bonding, pollutants and impurities can be removed while ions like magnesium and potassium that are essential for human body can be retained as they will not bond with carbon atom.

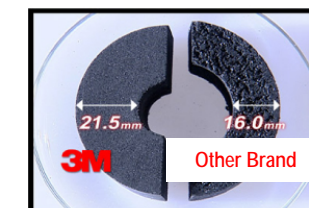
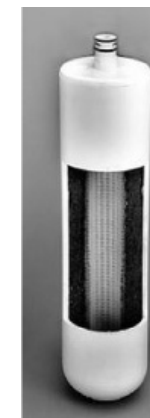
Q: Water filters in the market mainly use activated carbon as filter media. What is the difference between 3M's and other brands' water filters?

A: While many filtration systems in the market claim that they are using activated carbon as filter media, the efficiency varies depending on the source of activated carbon, manufacturing method, density, granule size and adsorption area etc.

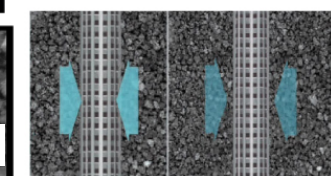
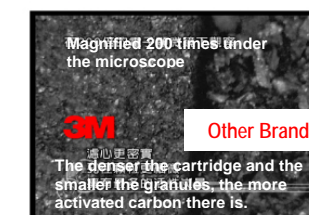
With 100 years' patented filtration technology, 3M's water filtration products have been granted certification by many international standard organization. Its activated carbon has been certified by the Food and Drug Administration (FDA) in the USA. The density and amount of activated carbon used in 3M water filter are many more than those of the other brands in the market. The greater the number of activated carbon, the greater the density and surface area for pollutant adsorption. Therefore, its performance is much better.

When you decide to buy a quality water filtration product, it is important that you choose a brand which is internationally renowned for its superior quality.

Cross section of 3M filter cartridge



Comparison between 3M water filter and other filters



The more the activated carbon and the smaller its granules, the bigger the absorption area and the better in performance

Q: How often should the filter cartridge be replaced?

A: The average life span of the filter cartridge is 6-9 months and a maximum to 12 months. However, the performance may vary depending on the water usage and quality. The cartridge should be replaced once the flow of water slows down to ensure the best performance.

FAQ

Q: What should I do if the water flow does not slow down at the time when the filter cartridge should be replaced?

A: It is still recommended to replace it. It is because the life span of the filter cartridge is based on the efficiency of the removal of insoluble impurities and chemicals adsorption. If it is not replaced as per the suggested timeline, it may not reach its claimed performance.

Q: Can 3M filter cartridges be washed?

A: The design of the 3M filter cartridge is fully enclosed to avoid cross contamination of the filter media and ensure its efficiency. Also, every single filter cartridge is manufactured by 3M in the USA so that the quality is guaranteed. Instead of washing the filter cartridge, you only need to replace the entire cartridge with a new set.

Q: Is it easy to replace the filter cartridge?

A: 3M has two patented designs for replacing the filter cartridge:

(i) Sanitary Quick Change (SQC) for fast and easy cartridge replacement.



(ii) Built-in Bypass Valve enables the change of the cartridge without closing the water valve. *(Only suitable for model AP DWS-2500T and AP Easy series)*

Also, the filter head is designed to fit the original 3M filter cartridge only to ensure the product quality.

FAQ

Q: How do I know whether or not 3M water filtration systems will be as safe and effective as claimed in reducing various contaminants from water?

A: All the 3M home use water filtration systems have been tested and certified by NSF/ANSI Standard 42 and Standard 53.



NSF (National Sanitation Foundation) is committed to protect the public safety and environment. It is an independent, non-profit organization that develops standards and certifies products for the world's food, water and consumer goods. The standard of NSF is being adopted by the American National Standards Institute (ANSI) and recognized worldwide.

For drinking water treatment units, NSF has developed key standards for evaluation and certification, like the safety of the material used for filter media, the integrity of the product and the correctness of the product information provided etc. The standards include:

NSF/ANSI Standard 42: Aesthetic Effects

It applies to drinking water treatment units designed to reduce aesthetic contaminants, like chlorine, taste and odor and particulates that may be present in public or private drinking water.

NSF/ANSI Standard 53: Health Effects

It applies to drinking water treatment units designed to reduce specific health-related contaminants, such as lead, volatile organic chemicals (VOCs), MTBE (methyl tertiary-butyl ether) and cysts etc that may be present in public or private drinking water.

Products that meet these standards bear the NSF Mark (it does not apply to model: AP DWS-2500T as certification is still in process). Every set of 3M home use water filtration product includes the Performance Data Sheet. To look for the NSF listing, please visit this website www.nsf.com for details.

Q: Other than NSF certifications, did 3M water filtration products obtain any other certifications?

A: Other than obtaining the NSF/ANSI Standard 42 and Standard 53, 3M water filtration products have also obtained the following certifications:-



Food and Drug Administration (FDA)

The material used in 3M's filter media complies with the FDA CFR-21 standard.



Ministry of Health of the People's Republic of China

3M water filtration products comply with the relevant regulations on drinking water treatment.

FAQ

Q: There are 2 filter cartridges for the home use model: AP DWS-1000, i.e. 'FILTER1' and 'FILTER2'. What is the difference between them?

A: The AP DWS-1000 is the premium model amongst 3M's home series. It can effectively reduce the most number of contaminants than other models. Its two filter cartridges are:

- (i) "FILTER1" — AP-DW80: The density of this filter cartridge is 1 micron and can effectively reduce chlorine, sediment, odor, particles, lead and rust.
- (ii) "FILTER2" — AP-DW90: The density of this filter cartridge is 0.5 micron and can effectively reduce cysts and the carcinogenic VOCs.

When replacing the filter cartridges, both of them should be replaced at the same time in order to deliver the best performance.

Q: Can hot water be filtered using 3M water filtration system?

A: Since high temperature can damage the activated carbon of the filter cartridge and thus affects its efficiency, please **do not** use 3M water filtration system to filter hot water. The suggested operation temperature should be within 4.4 - 37.8°C.

Q: Can you tell me the reason why the price of 3M filter cartridge is relatively higher than that of other water filters?

A: Every single 3M filter cartridge is produced by 3M's manufacture plant in the USA. To ensure the efficiency of each filter, the products have to be tested by NSF and labeled with the NSF mark before being released into the market. Moreover, the fully enclosed filter cartridge design and Sanitary Quick Change (SQC) feature make replacement of cartridge extremely easy. Therefore, the price is certainly worth it.

Q: Does the warranty cover filter cartridge?

A: No, the warranty does not cover filter cartridge. It is because when the filter cartridge is used, it cannot be verified if the input water is potable tap water or not. Besides, filter cartridges are consumable goods and its life span depends on the water usage and quality.

FAQ

Differences between 3M water filtration system and other filtration methods

Q: What is ionized water?

A: Ionized water is formed when water charged with electricity and water molecules are discharged into ions. By using membrane or salt bridge, the exchange of ions is blocked, causing the change in the pH value of water. Meanwhile, it leads to the change in redox electric potential and dissociation constant, and thus acidic or alkaline water will be formed. There are popular notions asserting that acidic ionized water has disinfection function while alkaline ionized water can neutralize the acidic toxins in the body and remove carcinogenic free radicals. Also, it is claimed that ionized water can treat chronic diseases etc.

Actually, when alkaline ionized water reaches our stomach, it will be neutralized by the strong acidic gastric juice. Also, the healing function of ionized water has not yet been proven. In fact, you should be extremely careful about the use of water-ionizers machine. Underground water, spring water, mineral water or polluted water cannot be used as input water into the machine. It is because after ionization, water with heavy metals such as cadmium, lead and copper will become 'concentrated heavy metal liquid' which is toxic to human.

Q: What is Reverse Osmosis (RO) filtration?

A: Reverse Osmosis (RO) uses TFC membrane to separate the contaminants from water. The size of the membrane is 0.0001 micron. When water is pressed through the membrane, it can remove most of the bacteria, viruses and other harmful contaminants in water. The water treated by RO will become high purity water. Any substances and harmful contaminants that cannot pass through the membrane will be discharged as waste water.

Since the water treated by RO will become high purity water, i.e. minerals like zincs, copper, calcium and irons etc, that are good to our health will also be discharged. Prolonged consumption of purity water may affect our health. Also, the membrane used for filtration is easily damaged by chlorine. Water in Hong Kong contains a lot of chlorine for disinfection during water treatment. Over time, it cannot be confirmed if the membrane is still intact, thus casting doubt on effectiveness.

Also, the operation of RO system requires the infusion of a great amount of water but it can only filter out a relatively small of water for use. The wastage can be as much as 75-85% of incoming water, depending on external environmental factors, like temperature.

Q: Will there be any changes in the pH value with the use of 3M water filtration system?

A: No. There will not be any major change in the pH value of the water treated by 3M water filtration system.

FAQ

Q: There are 6 filter cartridges used in the filtration system of other brands, while only 1 or 2 in 3M water filtration systems. Can you tell me why?

A: With its patented technology, 3M has managed to combine filter cartridges of different functions into one, leading to a more-closely-packed filter cartridge and tinier granules. Through layers of filtration, impurities can be effectively removed while minerals which are essential to human body can be retained.

Also, the installation space required for 3M water filtration system is relatively small.

With the poly-filter-cartridge of 3M water filtration system, you do not need to change filter cartridges with different expiry dates at different times, or worse, get a technician to help you replace the cartridges. 3M allows you to save cost and time in comparison to using other filtration systems with multi filter cartridges.

3M Water Filtration System – Others

Q: Can the water treated by 3M water filtration system be drunk directly? What can I use the filtered water for?

A: Definitely. The 3M water filtration system is a direct drinking water system. The filtered water can be used for:

- (i) Direct drinking;
- (ii) Washing vegetables or fruits for salad;
- (iii) Making coffee and tea etc after boiling;
- (iv) Cooking soup and rice.

Q: The material used in the filter cartridge of 3M water filtration system is PP. Can PP withstand high water pressure?

A: The maximum pressure that the PP can withstand is 375 psi, according to NSF's test, while the optimum operating water pressure is 25-125 psi. Therefore, it should work well with the regular household water pressure. In order to lower the risk of bursting the filter cartridges, our technician will check on-site if the water pressure is over 70 psi during installation. If it is above that level, a pressure-reducing valve will be added to regulate the water pressure.



3M Authorized Distributor of Water Filtration Systems in HK:
Total Nutrition Center Ltd.
Tel: (852) 2881-8270 Email: enquiry@tnc.com.hk
Website: www.tnc.com.hk