

RESIDENTIAL SPECIALIST SERIES II™

AIO PLUS OZONE FILTRATION SYSTEMS

- **Enhanced Oxidizing Filters with:**
- **BWS Specialist Series II™ AIO Valve**
- **Integrated EOG Ozone Unit**

| MODEL NUMBER SERIES | BTF9 | BTF10 | BTF12 | BTF13 | BTF14 | BTF16 |
|--|------|-------|-------|-------|-------|-------|
| Filter Media Capacity (CF) | 1 | 1.5 | 2 | 2.5 | 3 | 4 |
| Mineral Tank Size (inches) | 9x48 | 10x54 | 12x52 | 13x54 | 14x65 | 16x65 |
| Underbed "D" Gravel Required (lbs.) | 10 | 10 | 20 | 30 | 40 | 50 |
| Approximate Freeboard (from top of tank) | 18" | 18" | 16" | 16" | 26" | 27" |
| Service Flow Rate - Continuous | 2.2 | 2.8 | 4 | 5 | 6 | 7 |
| Service Flow Rate - Intermittent | 4 | 5 | 6 | 7 | 8 | 10 |
| Backwash Flow Rate | 4.2 | 5.3 | 7.5 | 9 | 10 | 15 |
| Approx. Floor Space Required (W x D) (in.) | 9x17 | 10x17 | 12x17 | 13x17 | 14x17 | 16x17 |
| Maximum height (inches) ¹ | 58 | 64 | 62 | 64 | 76 | 76 |

| Order # | Description | Weight (lbs.) |
|---|---------------------------------------|---------------|
| BWS AIO Valve with Bypass & 3/4" John Guest Adapters | | |
| BTF9COZ | Filter (Less Media) 9"x48" AIO/Ozone | 32 |
| BTF10COZ | Filter (Less Media) 10"x54" AIO/Ozone | 36 |
| BTF12COZ | Filter (Less Media) 12"x52" AIO/Ozone | 40 |
| BTF13COZ | Filter (Less Media) 13"x54" AIO/Ozone | 44 |
| BTF14COZ | Filter (Less Media) 14"x65" AIO/Ozone | 57 |
| BTF16COZ | Filter (Less Media) 16"x65" AIO/Ozone | 80 |
| BWS AIO Valve with Bypass & 1" John Guest Adapters | | |
| BTF91COZ | Filter (Less Media) 9"x48" AIO/Ozone | 32 |
| BTF101COZ | Filter (Less Media) 10"x54" AIO/Ozone | 36 |
| BTF121COZ | Filter (Less Media) 12"x52" AIO/Ozone | 40 |
| BTF131COZ | Filter (Less Media) 13"x54" AIO/Ozone | 44 |
| BTF141COZ | Filter (Less Media) 14"x65" AIO/Ozone | 57 |
| BTF161COZ | Filter (Less Media) 16"x65" AIO/Ozone | 80 |

STANDARD FEATURES:

All BWS Specialist Series II™ **AIO PLUS** Ozone Filters are preprogrammed and pre-assembled with the BWS AIO valve and the EOG Ozone Unit, and are provided with the following standard features:

- Polyglass Media Tank
- Isolation / Bypass Valve
- John Guest Adapters
- Other Pipe Adapter Types / Sizes Available
- Inlet Check Valve
- Air Draw Check Valve
- Ozone Check Valve

NOTES:

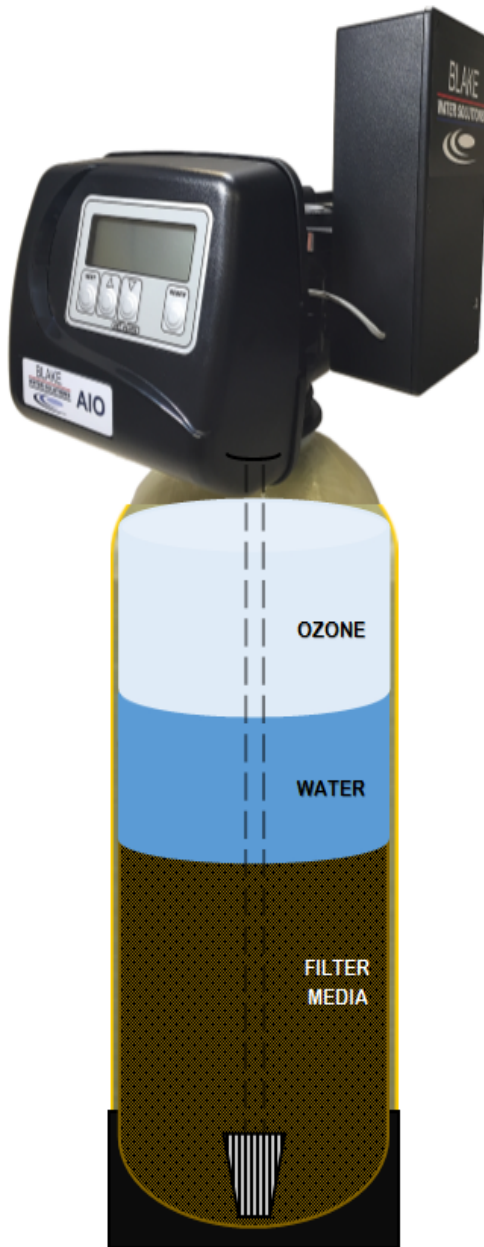
1. Allow a minimum of 7.5 inches additional headroom for valve removal / media loading.
2. Service flow rate is based on 5 gpm per square foot of media tank area and is optimal for most media. Actual field conditions or media selection may dictate higher or lower flow rates. TDS, pH, application, and flow rates may also affect the performance of the system.



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AIO PLUS OZONE FILTRATION SYSTEMS

Enhanced Oxidizing Filter



BWS Specialist Series II™ **AIO PLUS** Ozone Filtration Systems combine BWS' standard AIO valve with the fully integrated EOG ozone unit to create a tremendous enhancement over traditional aeration filtration techniques.

EOG Ozone Unit

The EOG ozone generator eliminates the need for harsh chemicals like chlorine and potassium permanganate and provides safe, natural disinfection, oxidation, and purification of water containing ferrous (clear water) iron, manganese, hydrogen sulfide VOCs, and unpleasant tastes and odors.

The EOG is a state-of-the-art device designed to produce ozone by "Pulse Modulated" Corona Discharge. Pulse Modulated Corona Discharge generators create ozone through the action of high voltage, low current electrical "arcs" across an air space. When oxygen (O₂) is passed through the air space, some molecules are split, resulting in "free" oxygen atoms which quickly attach themselves to intact O₂ molecules. The result is a very unstable form of oxygen, O₃ (ozone). It is the extra atom of oxygen that gives ozone its superior oxidation capabilities.

Operation of the AIO PLUS Filter

The **AIO PLUS** Ozone Filtration Systems utilize an air/ozone injection system to remove iron, manganese, and hydrogen sulfide from water via both oxidation and filtration. No chemical dosing or air compressors are required for operation or regeneration. During system regeneration, an ozone pocket is created when ozone is drawn in through an injector located in the brine port. During service, untreated water passes through the ozone pocket, oxidizing any iron, sulfur, and manganese. The particles are then filtered

out by the media bed. After a few days, the system's regeneration cycle backwashes the bed and refreshes the ozone pocket, allowing the process to begin again.

Media

The **AIO PLUS** filters ship without media or underbedding for increased adaptability and flexibility. Approved medias for use with the **AIO PLUS** filters include Katalox Light®, Greensand Plus™, and Catalytic Carbon. Please see **AIO PLUS** Media Options chart or consult your local Blake representative for guidance.

AIO Valve

BWS Specialist Series II™ AIO valves incorporate the latest user-friendly solid state microprocessor technology, giving them unparalleled flexibility. The weatherproof NEMA 3R controller has easy access front panel touch pads for setting time of day and days override, as well as diagnostic and installer functions for initial system set up and troubleshooting. The addition of integral check valves in the AIO inlet and brine elbow ensure the containment of the ozone pocket.

Media Tank

BWS Specialist Series II™ filters feature a non-corrosive tank design made up of a continuous seamless inner HDPE liner with composite fiberglass filament winding over the liner. The tank has a maximum working pressure of 150 psi and a working temperature of up to 120° F. The tank is certified to NSF/ANSI 61 and exceeds NSF/ANSI 44. All fiberglass tanks 12" diameter or less carry a 10 year warranty.

AIO PLUS Media Selection Guide

| | Fe | Mn | H ₂ S | pH |
|------------------|---------|---------|------------------|-----------|
| Greensand Plus™ | <10 ppm | <10 ppm | <5 ppm | N/A |
| Catalytic Carbon | <10 ppm | N/A | <10 ppm | N/A |
| Katalox Light® | <30 ppm | <10 ppm | <10 ppm | Increases |

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