

If You're
Serious About
Clean Water

-THE BLACKGUARD WTS-



Multi Process

Dual Stage

All in One

Water Treatment System

**Compact and Efficient
All-Purpose / Chemical-Free
Water Treatment System
for Residential and
Commercial Use**

**The
BLACKGUARD
WTS**

*Offers a new way to treat all
of the water - all of the time.*

*Our unique 2-Stage water
treatment means you have
high quality water for every
type of water use without
the risk of under-treatment
or the expense of over-
treatment.*

*The result is safe, clean,
beautiful water from every
faucet - all the time.*



*For illustrative purposes only.
Components and configuration subject to change.*

The **BLACKGUARD WTS** is suitable for a rich variety of water treatment applications and can be optimized for specific contaminant concerns. The system uses 4 water treatment processes to produce 2 stages of water quality,
Stage 1 for utility and general use and **Stage 2** for high purity drinking water.

The BLACKGUARD WTS from Wyckomar can be the perfect All-In-One water treatment system for many different types of applications. This 4 Process treatment system offers multiple technologies to provide 2 Stages of treated water – one for drinking water and one for everything else.

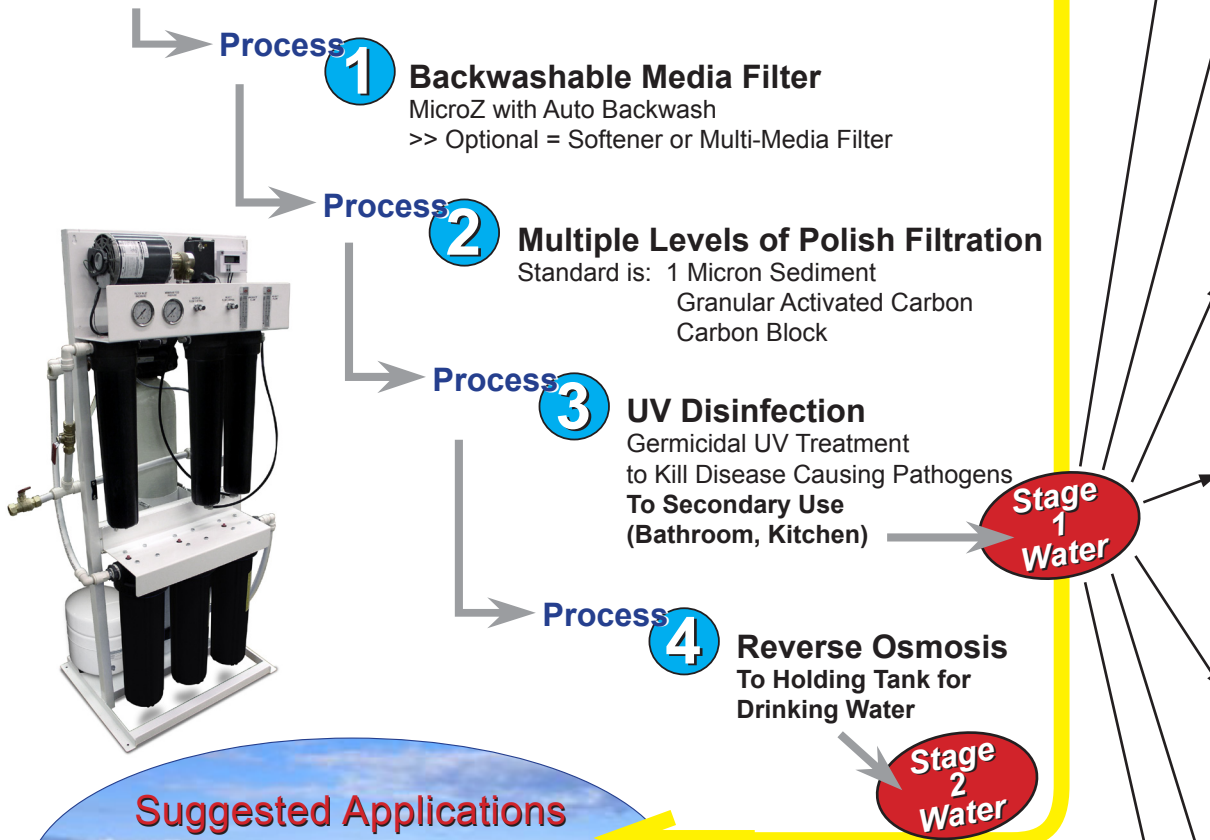
The BLACKGUARD WTS provides the perfect balance between treatment and cost/efficiency so you end up with the right type of water for every type of use – without over-treating or under-treating.

Process 1 involves deep filtration of the source water. This process offers a variety of media types based on the contamination level of the source water. Process 2 offers a fine polish filter to the water

using several stages of cartridge filters for clarity and removal of foul taste and odor. Process 3 offers complete UV disinfection to kill all pathogens that may be present in the water – this makes the water completely safe to use and consume. Process 4 will provide removal of dissolved contaminants and minerals that may be present in the source water, such as lead and other heavy metals. **The end result is superior quality water.**

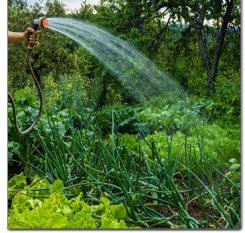
Everything comes mounted on a compact steel skid for easy transport and simple installation. The system offers automated backwashing and also features visual indicators for filter and UV lamp maintenance making the BLACKGUARD WTS extremely simple to operate.

Using the BLACKGUARD WTS, the water from the source is treated with 4 processes for two different purposes: High quality drinking water and water for secondary use.



- Suggested Applications**
- Homes
 - Farms
 - Cottages
 - Camps
 - Houseboats
 - Restaurants
 - Schools
 - Laboratories

How it works



BLACKGUARD Multi-Media Configuration

The Multi-Media configuration allows you to filter the water of many types of contaminants at the same time. This is an extremely efficient way to clarify and to de-odorize the water stream prior to additional treatment with the BLACKGUARD unit.

The standard configuration is perfect for surface water such as lakes, ponds or rivers, it comes with enhanced primary sediment filtration to clear the source water from any particulate matter such as fine silt and floating sediments. Secondary and final filtration remove colours, taste and odours as well as common pollutants like nitrate, nitrites, VOCs and pesticides.

This system is also highly specialized for any groundwater application. The media composition in the backwashable tank can be modified according to the source water analysis. Iron, manganese and other heavy metals such as lead and arsenic are removed using specialized media in the filter process.

In all configurations, a powerful UV system will disinfect the clean water by inactivating all disease causing pathogens that may be present, including bacteria, fungi & viruses. This **Stage 1 Water** is safe and perfect for every tap and any secondary use in the house, and it is safe to drink.

Stage 2 Water is high-purity drinking water free of contaminants, pathogens and heavy metals.

	Standard Configuration	Optional
Backwashable Pre-Filter	Micro-Z Media for effective primary filtration	Heavy Metals Removal Media Multi-Media Softening Resin
Secondary Filtration	Sediment 5 Micron Granular Activated Carbon Carbon Block	Sediment 1 Micron KDF Ultrafine Filter 0.3 M
UV Disinfection	Model UV-1200 High UV Dose Disinfection Kills Bacteria and Viruses	Model UV-1500 Increased UV Dose
Reverse Osmosis	RO system @ 250 GPD Membrane Filtration Producing High Purity Water	RO @ 600 GPD RO @ 1200 GPD

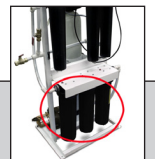
Process 1 Automatic Self-Cleaning Primary Filter Tank



Media Type	Benefits	Actions and Results
Sediment	Clarify the water	This media type removes fine dirt and sediment from the water, increasing clarity and purity
Heavy Metal KDF	Reduce lead and other contaminants	This specialized media type will reduce heavy metals in the water such as lead and iron, making the water healthier
Carbon	Clarify and deodorize the water	This media type will absorb contaminants such as herbicides and pesticides plus foul taste and odours that may be present in the water
Softening Media	Remove hardness and calcium	Remove calcium buildup along with iron and other contaminants

Process 2 Water Polishing Cartridge Filters

These cartridge filters provide additional heavy metals reduction plus additional fine filtering to further increase the overall quality of the water



Media Type	Benefits	Actions and Results
Fine Sediment	Very fine filtration	This type of filter cartridge will remove extremely fine sediments to make the water ultra clear
Carbon KDF	Reduce heavy metals such as lead	This cartridge type will provide additional reduction of heavy metals and acts as a second barrier
Carbon Block	Polish the water	This cartridge provides a finished water polish by further reducing taste and odour and acts as a second barrier for pesticides and other chemical contaminants

Process 3 Disinfection Using UV Light



Technology Type	Action and Result
UV Disinfection to kill pathogens using a completely chemical-free process	The UV light disinfection system will kill and inactivate all disease-causing pathogens that may be in the water. These pathogens include <i>E.coli</i> , Coliform, cholera, <i>Legionella</i> , and dozens more that are microscopic in size and may pass through conventional filtration systems. The high-powered UV disinfection system on board the BLACKGUARD WTS kills all disease-causing bacteria - virus and spores instantaneously making the water completely safe to use and consume as Stage 1 Water Quality



Process 4 Reverse Osmosis for High Purity Water



Technology Type	Action and Result
Reverse Osmosis (RO) Membrane	The RO system on the BLACKGUARD WTS offers a final and complete barrier to remove any remaining dissolved heavy metals and other contaminants such as salts, fluorides, arsenic, nitrate and phosphorus. This final process provides ultra clear and high purity water for drinking and other purposes and is considered Stage 2 Water Quality Finished water is held in a holding tank and the tank is automatically refilled by the system as needed.



Easy to Install and Operate

- Pressure gauges across the filter set help identify filter change frequency
- Fully automatic backwashable pre-filtration
- Compact footprint - highly efficient operation
- The BLACKGUARD WTS ships fully assembled and ready for easy installation



Additional Features (Optional):

- Multi-Media Pre-Filtration
- Scalable Flow Rates Available
- Integrated Surge Protector
- Simple Installation & Operation
- Holding Tank & Re-pressure Pump

Technical Data

Rated Flow:	Stage 1 Stream - 38 litres per minute (10 GPM) Stage 2 Stream - 950 - 4540 litres per day (250 - 1200 GPD)
Electrical:	110-130 Volt AC / 50-60 Hz 220-240 Volt AC / 50-60 Hz
Max. UV Operating Temperature:	40°C (104 °F)
Max. Operating Pressure:	90 psi - 6.3 bar
Plumbing:	1" In, 1" Out for Stage 1 Stream, 3/8" for Stage 2 Stream
Shipping Size /Weight:	22x26.5x65 inches / 56x67x165 cm, 265 lbs / 119 kg (depending on media and configuration)

Manufactured in Canada by



WYCKOMAR INC Ph ++1 519 822-1886
111 Malcolm Road Fx ++1 519 763 6580
Guelph, Ontario www.wyckomaruv.com
Canada N1K 1A8 sales@wyckomaruv.com

Available from:

