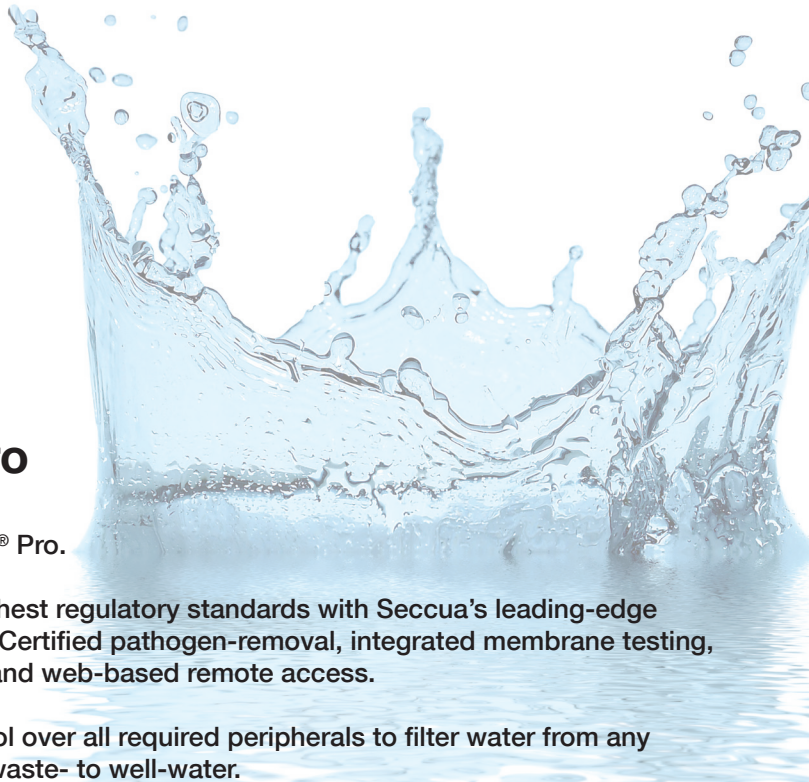


Water Wonderful Life



Virex Pro

The new Virex® Pro.

Meet the toughest regulatory standards with Seccua's leading-edge Ultrafiltration: Certified pathogen-removal, integrated membrane testing, data-logging and web-based remote access.

Plus full control over all required peripherals to filter water from any source, from waste- to well-water.

Ultimate Removal Performance

The nano-pores of the Seccua Virex Pro provide removal characteristics, that meet and exceed regulatory requirements for membrane filtration used in drinking water treatment. The Virex Pro has proven to fully remove virus, cyst and bacteria, tested against US EPA and DVGW standards.

Integrated Membrane Testing

The Virex Pro provides a fully automated, integrated, state-of-the-art membrane integrity test. It detects membrane damages smaller than the size of bacteria and parasites. The Virex Pro complies to US EPA and German DVGW requirements for membrane integrity testing.

Removes Bacteria and Parasites

As the only standardized, light scale membrane filtration system, the Virex Pro meets the regulator's requirements for reliable long-term removal of bacteria and parasites. Every day the system tests itself, without requiring any operator's attention, for damages small enough to let bacteria and parasites pass, and alerts the user immediately should it detect a defect. Many Health Authorities in the US, Germany, Canada, Australia and other countries have selected the Virex Pro to be their system of choice when it comes to treating microbiologically contaminated raw water.

Wherever you are

Once the system is equipped with its unique GPRS interface, the Virex Pro offers access to its operating parameters and extensive logged history of operating-data from any computer connected to the internet.

Natural filtration - still most reliable

The Virex Pro has copied one of nature's most effective processes when it comes to water purification: filtration. With its filter's pores being smaller than pathogens and turbidity-causing particles, the Virex Pro removes bacteria, parasites and turbidity in one single treatment step. With its state-of-the-art technology, the Virex Pro offers water purification at lowest driving pressures and therewith lowest energy consumption.

Long filter-life

Being able to clean itself fully automatically, without requiring any operator-attention, the Virex Pro offers long filter-life and significantly lower operating costs than any other conventional filtration technology. If required, the Virex Pro can even run chemically enhanced cleaning sequences using different cleaning chemicals to clean the filters most efficiently.

Go Green!

Without any additional equipment required, the system can be connected to solar power supplying 12 VDC. Its ultimate low power consumption gives it a superior advantage over disinfection technologies like UV, using often more than 97% less energy than UV disinfection systems. Furthermore Seccua offers a unique recycling program for its filter elements, helping you to act more sustainably.



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seccua
Solutions for better living.

Water Wonderful Life

Performance Data

| | |
|---|--|
| Membrane surface area | 16 m ² (172 ft ²) |
| Filtration Performance ¹ | |
| Peak load, short term | up to 1.3 l/s (20.6 gpm) |
| Continuous load | up to 1,600 l/h (10,000 gpd) |
| Removal performance | |
| Virus (MS2 Phage) ² | full removal (>4.7 log tested) |
| Bacteria (B. Subtilis, E-Coli) ² | full removal (>4.9 log tested) |
| Parasites (Crypto) ² | full removal (>4.7 log tested) |
| Water consumption during flushing | typically less than 2% |

¹ Filtration performance depends on water quality and temperature. Please design carefully before designing a Virex Pro system and consult with Seccua Authorized System Partners for advise if required.

² Virus and Bacteria removal of the Ultrafiltration membrane was measured by US EPA against EPA Standards for Ultrafiltration systems used on surface water filtration on a new membrane.

Operating Conditions

| | |
|----------------------------|----------------|
| Max. operating pressure | 5 bar (75 psi) |
| Max. operating temperature | 40 °C (104 °F) |

Operating Modes

| | |
|------------------------------|---|
| Filtration | Feed pressurized by gravity or pump (I/O or 4-20 mA), feed flocculation can be controlled |
| Cleaning method | Flushing and backwashing by interval-, time of day- or fouling. Automatic chemically enhanced cleaning possible |
| Maximum Δp inlet to filtrate | 3.0 bar (45 psi) |

Integrated Integrity Testing

| | |
|-------------|---|
| Test method | Pressure Hold Test, Patent pending US 12/293,071 PCT/EP 2007/052477 |
| Resolution | Adjustable (approx 0,5 - 3 µm) Standard settings: 1,6 µm |
| Frequency | Triggered by turbidity threshold or daily |

³ requires external turbidity-meter, not supplied.

Programming and remote access

The unit is programmed comfortably through a Windows (XP/7) software and can be accessed locally through CAN-Bus or USB connection or remotely over the internet (GSM Modem optional).

Data Logging

| | |
|------------------|--|
| Data Logging | Event-driven or by time-interval |
| Logged Data-Sets | Date, Time, feed- filtrate- pressure, turbidity, flow, Tank- buffer-level, alerts and failures |
| Data Memory | Approx. 40,000 data-sets |

Power supply

| | |
|-------------------------------------|---|
| Voltage ⁴ | 12 V DC, 110 V AC, 230 V AC |
| Power consumption during filtration | approx. 5 W |
| during cleaning | max. 35 W (typically ⁵ hourly for 20 s.) |

⁴ Units are shipped with US and German power-cables. Other country-specific equipment and an adaptor to connect to 12 VDC is upon request.

⁵ The cleaning frequency depends on the contamination of the raw water and may vary. The power requirement of the pumps is not included in the consumption data.

Control system interfaces

Output interfaces⁶

| | |
|----------------------------|---|
| Feed-Pump | Power On/Off or 4-20 mA |
| Feed-Dosing-Pump | Power On/Off or 4-20 mA (flow) |
| Backwash Pumps | Power On/Off |
| Alert Monitoring | Cold Contact, CAN Bus or SMS (modem optional) |
| Flow measured by Virex Pro | 4-20 mA |
| Operating mode status | CAN Bus |

Input interfaces⁶

| | |
|------------------------------|----------------|
| Turbidity meter | 4-20 mA |
| Alert monitoring peripherals | 12 V Potential |
| Feed-/Storage tank signal | 4-20 mA |

⁶ Some of the listed functions require the optional Virex Pro Connectivity Kit.

Control interfaces⁶

Integrated CAN-BUS signal can be translated to Ethernet-IP Bus (e.g. Allen Bradley PLC), Serial- or Profi-BUS (e.g. Siemens S7 PLC) through an available Gateway-Module.

| | |
|--------------------------------|---|
| Controllable functions (slave) | All standard operating functions |
| Monitored Functions | Flow, Operating Mode, Pumps' & Peripherals' Modes, Alarms |

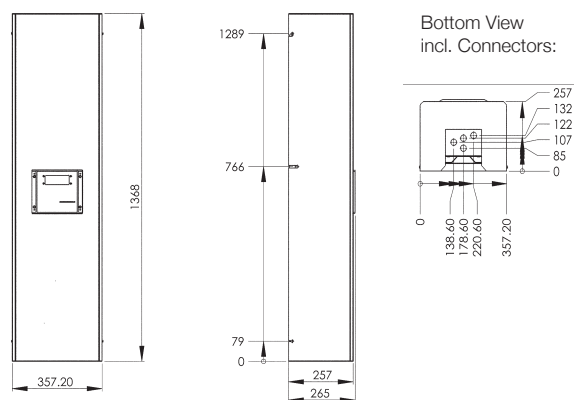
Approvals and Compliance

NSF 61, DVGW KTW, DVGW Info 71, CE, VDE
Tested by US EPA to EPA Filtration Guidance Manual Standards (equals NSF ETV standards) for removal of Parasites, Bacteria and Virus to >4 log removal.



Weights and Dimensions

| | |
|--------------|-------------------|
| Width | 358 mm (14 in.) |
| Depth | 265 mm (10.5 in.) |
| Height | 1,368 mm (54 in.) |
| Weight (dry) | 35 kg (77 lb) |



WATERTIGER

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