AQUAPHOR
PROFESSIONAL

Product Line Overview

2023

AQUAPHOR
PROFESSIONAL

AQUAPHOR Consumer, Professional and Industrial Products

R&D leader in decentralized water purification from filter bottles for consumers to large systems for small towns and manufacturing plants. AQUAPHOR manufacturing, research and development facilities total 53 000 m^2, including 51 000 m^2 of modern manufacturing in Estonia and 2 000 m^2 in Israel.

AQUAPHOR products and production facilities have been certified by TUV and SGS since 2006.

- Chemistry
- Mechanical and Chemical Engineering
- Automated manufacturing
- Distribution
- Marketing
- Service

Softeners. S-series

AQUAPHOR softeners are an advanced alternative to the classic whole-home water softeners. AQUAPHOR softeners are exceptionally efficient, with low salt consumption and small amount of water needed for regeneration.

Whole-House
Water Supply

Laundry
& Cleaning

Beauty
& SPA

Advantages

Fully automatic, compact and silent softeners feature exceptionally low salt usage, highly effective iron removal (up to 14 mg/L), prefiltration down to 20 microns. AQUAPHOR softeners contain patented high-efficiency Dual Core Valves and other engineering solutions to ensure long-term trouble-free performance.

- **Salt savings up to 60%**
  Thanks to the unique tank design and extra-fine ion-exchange resin, salt efficiency is maximized.
- **2-in-1: water softening & iron removal**
  The patented system design provides larger contact surface, eliminates channeling, while small ion-exchange granules regenerate faster and more efficiently. As a result — removal of high concentration of Fe (up to 14 mg/L concentration in water) and hardness.
- **Exceptionally small water usage for regeneration**
  The innovative, patented Dual Core Valves of the AQUAPHOR softener assure long-term trouble-free performance whilst wasting minimal amount of water.
- **10-year warranty for the main parts**
  The high-strength thick wall made of homogeneous glass-filled composite will serve over 10 years, while classic columns typically serve less than 5 years.
- **Low maintenance**
  In addition to low salt consumption of the system, ion-exchange resin lasts 10 times longer that in typical water softeners.
- **Operates efficiently even at very low tap pressure**
- **Fully recyclable body and tank**
- **NSF certified**

Specification	S550	S800	S1000
Maximum compensated hardness, mg/L	1 200	1 380	1 712
Maximum concentration of dissolved iron and manganese, mg/L	10	12	14
Nominal/maximum flow, L/min	23/25	25/38	28/42
Capacity in HE mode, kg of salt/gram of hardness	0.8/465	1.1/670	1.4/900
Dimensions (length x height x width), mm	322 x 554 x 430	404 x 706 x 485	404 x 795 x 485
Fine mesh resin, L	15	23	28

Viking Series

The AQUAPHOR Viking is made either of stainless steel, withstanding temperatures of up to 90 °C, or entirely of special plastics. It is resistant to pressure surges, guarantees trouble-free operation and protects other filters downstream ensuring purified drinking water.

Whole-House
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Advantages

AQUAPHOR Viking series delivers drinking water filtration as well as pre-filtration, depending on the cartridge type. Viking can be used with hot and cold water to remove suspended and dissolved compounds, heavy metals, chlorine and other contaminants.

- **Clean water at home**
  Provides water for all bathing and housekeeping needs.
  Viking protects all household appliances and lowers overall maintenance costs.
- **Space saving, elegant shape**
  The housing fits into tight bathroom spaces and comes in three sizes, including Midi and Mini options.
- **Simple to install and use**
  Designed for easier installation and maintenance with the quick-release fittings.
  You will not need any tools to replace filters on your own.

Viking PRO is a prefiltration housing made of high-strength glass fiber filled plastic to be used for cold water treatment. Great for HoReCa and office use.

NEW

CARTRIDGE B520 PRO for cold water

Patented high-capacity corrugated multilayer filtration cartridge

Capacity — 150 000 L

	Viking	Viking PRO	Viking Midi	Viking Mini
Dimensions, mm	180 x 595	225 x 606	180 x 425	180 x 225
Cartridges for cold water	B520 PRO		B515 PRO	B505-13
Recommended flow rate, L/min	25		15	10
Filter cartridge capacity, L	150 000		90 000	30 000
Cartridges for hot water	B520-14	—	B515-14	B505-14
Recommended flow rate, L/min	25		15	10
Filter cartridge capacity, L/min	50 000		35 000	15 000
Cartridges for drinking water	B150 Plus		B150 Midi	—
Recommended flow rate, L/min	10		7	
Filter cartridge capacity, L	40 000		25 000	

Gross Series

The AQUAPHOR Gross series comes in high-strength glass fiber filled polymer housing. With a variety of filter cartridges, Gross ensures pre-filtration and protects the drinking water filters downstream.

Whole-House
Water Supply

Laundry
& Cleaning

Beauty
& SPA

Advantages

Gross housing is a durable and reliable solution that can be equipped with sediment filters to protect home appliances from solid particles. Carbon Block + AQUALEN™ filter cartridges for Gross series will reduce chlorine, heavy metals and other dissolved impurities.

- **Long-lasting housing**
  The filter housing is made of high quality plastic and can withstand high pressures in high performance situations.
- **Protects household appliances & downstream filters**
- **Wide range of filters cartridges**
- **BigBlue standard replacement filters 10” and 20”**

Specifications and Performance

MODEL	SIZE	NOMINAL PARTICLE RATING	DP AND FLOW RATE	CHLORINE TASTE AND ODOR REDUCTION	VOC REDUCION	LEAD REDUCION
B510-12	100 mm x 254 mm	5 microns	0,2 bar and 7,5 Lpm	24 000 L	NA	NA
B520-12	100 mm x 508 mm	5 microns	0,2 bar and 15 Lpm	48 000 L	NA	NA

Replacement Filters

B510-12 GROSS 10"	B520-12GROSS 20"
Gross 10 replacement filter for cold water purification for the entire home. Its unique structure and design allow the module to remove sediments, chlorine, heavy metals and other impurities from the water.	Gross 20 replacement filter for cold water purification for the entire home. Its unique structure and design allow the module to remove sediments, chlorine, heavy metals and other impurities from the water.

Nano Purity 1200

Eco-friendly and multipurpose whole-home & commercial RO station. Affordable and practical water purifier for houses, small municipal entities or local businesses. Fully automatic all-in-one solution that replaces salt-emitting water softeners and cuts maintenance costs.

The Nano Purity 1200 is a unique water purification system designed to combine various technologies including reverse osmosis, nano filtration, precision dosed antiscalant, and ultra-violet sterilization. The system is fully automatic with the APRO intelligent controller and wi-fi enabled monitoring app.

- **Soft and safe water for the whole house**
  The Nano Purity 1200 system both softens water without sodium additives and efficiently removes harmful impurities: nitrates, nitrites, bacteria, viruses, hormones, residual pharmaceuticals, microplastics, heavy metals, chlorine, THM's and most other harmful contaminants found in municipal water.
- **Prevents corrosion**
  The Nano Purity 1200 prevents pipework corrosion by providing water at pH 7–8.
- **Works with any water source**
  The system purifies practically any tap or artesian well water with high levels of hardness and iron.
- **Smart permeate recovery up to 95%**
  The patented AI controlled high-frequency drainage system allows a high-speed recirculating water flow, keeping the membrane clean, providing exceptionally high permeate recovery up to 95%.
- **Artificial Intelligence (AI) saves up to 50% of energy**
  Patented AI effectively controls a high-efficiency booster pump and a high-flow yet low-energy recirculation pump, which saves up to 50% of energy consumption.
- **Fully automated and easily controlled**
  The Nano Purity 1200 is fully automated and can be easily remotely controlled with a monitoring app (Wi-Fi/GSM).
- **Great tasting, healthy drinking water!**
  The innovative Nano Purity 1200 mineralization unit delivers optimized, balanced drinking water with all the body's necessary minerals and nutrients.
- **Wi-Fi & GSM enbled**
- **Optional rainwater purification**
- **Low cost & low maintenance**
- **High-capacity pre-filtration cartridges**

Patented high performance pre-filtration cartridge

MODEL	**Nano Purity 1200**
Operational pressure, bar	7–10
Membrane quantity* size, inch	3 x 4040
Max inlet TDS, ppm	2000
Reduction of salt content, %	up to 95
System recovery, %	up to 99
Accumulation tank	**internal, 80 L**

Nano Purity 120

The Nano Purity 120 — a compact reverse osmosis solution for whole-house operated by smart APRO controller. The system provides adjustable mineralization ensuring stable taste & healthy drinking water.

- **Extremely energy-saving**
  Patented dual pump system, combining two highly efficient yet low-energy pumps, saves up to 50% of energy.
- **Adjustable and stable mineralization**
  Patented Nano Purity technology allows to setup the desired level of minerals in water. Smart controller keeps this level stable, so the system always provides tasty and healthy drinking water.
- **Compact design**
  The Nano Purity 120 is perfect for space-limited areas.

Nano Purity 120

Low-energy consuming water purifier with an exceptionally high permeate recovery, and reduced waste-water drainage.

External tank

Tank for purified water in one of three sizes (300 / 500 / 800 L)

Viking PRO

Removes suspended and dissolved compounds, heavy metals, chlorine, rust and other dirt for the whole house.

Nano Purity 80

Whole-House Water Supply

Municipal Entities

Small Business

Water mineralization affects the taste of coffee and tea, a process of wine and beer fermentation, and hundreds of other drinks from different parts of the world.

This time, Aquaphor Professional focused on water treatment for the most popular drinks in the world — coffee and tea — and developed an innovative **Nano Purity 80** system with water remineralization.

Water is the most important ingredient in coffee, and it is responsible for absorbing the extracts from beans and grounds. It is necessary to maintain a high quality of water because even a tiny bit of impurities can crucially change the whole card of coffee flavor.

Nano Purity 80 carefully removes all the impurities affecting the taste of a drink. At the same time, we leave the necessary minerals that are essential for a rich coffee flavor, refreshing tea, and pure drinking water taste. The mineralization is easily adjustable and stable.

Advantages

- Smart permeate recovery up to 60%
- Ultra-low energy consumption patented technology
- User-friendly operation
- Adjustable mineralization
- Stable taste
- Compact design
- Easy maintenance

Permeate Flow, LPH	80
Membrane Quantity	1
Membrane type	1000 GPD
Prefiltration cartridge	2 × K2
Adjustable mineralization	+
Max inlet TDS, ppm	1500
Reduction of salt content, %	Up to 95 (before remineralization)
System recovery, %	60
Input pressure, bar	2-4
Power supply	24VDC (AC/DC adapter is installed)
Dimensions (LxWxH), mm	492 × 290 × 535
Net weight, kg	26
Size (inlet, outlet, concentrate)	3/8” / 1/4” / 1/4” 3G

APRO 120

Whole-House
Water Supply

Municipal
Entities

Small
Business

Small & Meduim
Business

APRO 120 is a flexible solution that delivers high-quality pure water. It is an indispensable companion for every small business holder: boutique hotels, restaurants, bars, beauty salons, small farms, and others.

With **APRO 120** small business appliances serve much longer since pure water helps to avoid scaling and rusting. Pipes and plumbing avoid clogging, while dishwashers and washing machines require fewer detergents.

The system is fully automatic and requires minimum maintenance, making it an easy-to-use.

- **Energy use reduction up to 50%***
  Fast recirculating flow saves up to 50% energy.
- **Crucially reducing scaling, rusting and clogging of appliances**
- **Space-saving design**
  The system is suitable for a small technical room or a compact kitchen in a local bar, small restaurant, or boutique hotel.

Permeate Flow, LPH	120
Membrane Quantity	2
Membrane type	1000 GPD
Prefiltration cartridge	2 × K2
Adjustable mineralization	-
Max inlet TDS, ppm	1500
Reduction of salt content, %	Up to 95 (before remineralization)
System recovery, %	50
Input pressure, bar	2-4
Power supply	24VDC (AC/DC adapter is installed)
Dimensions (LxWxH), mm	485 × 215 × 662
Net weight, kg	27
Size (inlet, outlet, concentrate)	3/8” / 1/4” / 1/4” 3G

APRO SST 150–750 Systems

Ultra low-energy systems suit small & medium businesses in the food industry, professional kitchens, service and public entities. They are ready to supply as much clean filtered water as the business requires.

The stainless steel housing in the SST line suits areas of high humidity or sites with stringent cleanliness and hygiene requirements.

- Low enerrgy consuming booster pump saves up to 50% electricity
- Permeate recovery up to 99%
- Extended membrane life
- Easy maintenance
- Space saving design
- Low cost operation

Whole-House Water Supply

Municipal Entities

Small Business

Small & Meduim Business

MODEL	APRO SST 150	APRO SST 300	APRO SST 250	APRO SST 500	APRO SST 750
Operational pressure, bar	7-10				
Permeate Flow, LPH	150	300	250	500	750
Membrane Quantity	1	2	1	2	3
Membrane Size, inch	4 × 21		4 × 40		
Max inlet TDS, ppm	2 000				
Reduction of salt content, %	up to 95				
System recovery, %	75 - 99				
Power supply	single-phase 230V, 50Hz				
Dimensions, mm	510 × 390 × 725	595 × 390 × 845	555 × 390 × 1 210	630 × 390 × 1 270	765 × 390 × 1 270
Net weight, kg	38,5	49,5	47,5	58,5	72
Size (inlet, outlet, concentrate)	¾"/½"/½" NPTF				

APRO 150–750 systems are also available in versions for High Pressure (HP) and High Salinity (HS)

APRO-HP series Compact high-pressure RO units that feature supreme salt rejection.

MODEL	APRO 250 HP	APRO 500 HP	APRO 750 HP
Operational pressure, bar	12-16		
Membrane Quantity	1	2	3
Membrane Size, inch	4 × 40		
Max inlet TDS, ppm	4 000		
Reduction of salt content, %	up to 98		
System recovery, %	75 - 95		
Power supply	three-phase 400V, 50Hz		

APRO-HS series RO units for sea water purification. Serves civil and business needs.

MODEL	APRO 250 HS	APRO 500 HS	APRO 750 HS
Operational pressure, bar	16-30		
Membrane Quantity	1	2	3
Membrane Size, inch	4 × 40		
Max inlet TDS, ppm	8 000		
Reduction of salt content, %	up to 98		
System recovery, %	75 - 95		
Power supply	three-phase 400V, 50Hz		

APRO 3000 / 4000 / 6000

The game-changing stackable RO water purification solution for businesses. These innovative technology allow a business to vary water output capacity and flex the system to perfectly fit current and future needs and conditions, altering as and when these changes are required.

Municipal

Agriculture and Farms

Industrial Processes

Innovative modular RO units with varying production rates can be easily rearranged or reinforced with other units to meet the changing requests of capacity and space.
Remote control allows managing the system from any place.
Booster pump and recirculation pumps save up to 50% electricity.

Advantages

- Permeate recovery up to 99%
- Extended membrane life
- Patented high frequency discharge
- Ultra low energy consumption (saves approx. 40–50% as compared to the competitors)
- System operates in fully automatic mode with remote control
- Robust construction and easy maintenance
- Quiet operation
- Space saving design
- Mass produced

MODEL	APRO 3000	APRO 4000	APRO 6000
Operational pressure, bar		7-10	
Permeate Flow, LPH	3 000	4 000	6 000
Membrane Quantity	3	4	6
Membrane Size, inch		8 × 40	
Max inlet TDS, ppm		2 000	
Reduction of salt content, %		up to 95	
System recovery, %		up to 98	
Power supply		three-phase 400V, 50Hz	
Dimensions, mm (L×W×H)	3 640 × 840 × 1 150	2 800 × 840 × 1 150	2 800 × 840 × 1 150
Net weight, kg	236	287	389
Size (inlet, outlet, concentrate)		2"/ 1"/ 1"	

Multiarray of Monoblocks

Innovative RO monoblocks of 6000 LPH allow the user to set inexpensive, multipurpose water purification units into a high-capacity multiarray with up to 8 monoblocks combined under one master control board.

Municipal

Medical and Pharmaceutical

Agriculture and Farms

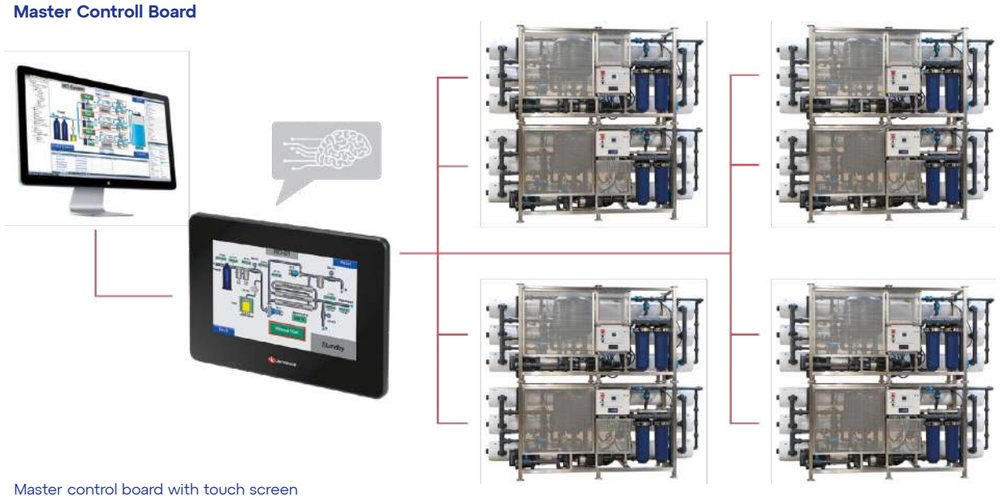
Industrial Processes

By managing the number of monoblocks in a multiarray, a business stays lean in resources and keeps a minimal needed number of monoblocks working at any given time.
More RO units of monoclocks can be added or detached as soon as it is required.

Advantages

- System recovery, % up to 95
- Patented high frequency membrane cleaning concentrate discharge
- Low energy consuming Grundfos booster pumps and high flow, low energy recirculation pumps (save up to 50% of electricity)
- Self-sufficient monoblocks with slave controllers and smart master controller (cloud optimization)
- Optional built-in UF pre-filtration
- Extended membrane life
- Space saving design
- Low-cost operation
- Easy maintenance

Master Controll Board



Master control board with touch screen color monitor supports management of up to 8 monoblocks and all kinds of the prefiltration and supply systems.

Monoblocks consist of standart APRO 6000 units

AP-UF-RO Systems

The powerful RO system turns seawater to fresh drinking water for business and civil purposes in multiple applications from marinas, hotels, resorts, off-shore platforms to vulnerable communities living by the sea who face shortages of municipal or natural freshwater sources.

Drinking Water
for Seashore Housing

Alternative
to City Water

Freshwater
for Marinas

Advantages

Watermaker seawater desalination systems use reverse osmosis technology to turn virtually any seawater source into fresh, safe water which can be used for drinking, bathing, cooking, deck and exterior wash-downs, and a variety of other applications.

AP-UF-RO SW (Sea Water)

MODEL	AP-UF-RO SW
Operational pressure, bar	35-50
Permeate Flow, LPH	5 000
Max inlet TDS, ppm	45 000
Reduction of salt content, %	up to 99
System recovery, %	up to 90
Power supply	three-phase 400V, 50Hz

Laboratory Water Purifier

This Laboratory Water Machine provides high purity water to fit most laboratory needs, including the cleaning of instruments and preparing the basis for cell cultures, buffers and reagents. The system ensures ultra high quality purified water, crucial for the accuracy of experiments.

Medical & Pharmaceutical

Testing Laboratories

LWM (Laboratory Water Machine)-205:

- Patented Double pass RO
- Large capacity patented filter cartridges for any type of tap water
- 0.1 micron microfiltration hollow fiber membrane
- Internal 5 L storage tank
- Highly efficient recirculation pump
- Fully automatic TDS measurements and control
- High permeate water recovery & high capacity patented pre-filtration
- LCD control panel

Crystal DI PRO (Demineralization):

- Designed for deionizing water up to 18 MΩ
- Online TDS control
- Mixed bed demineralization cartridge
- 0.1 micron microfiltration hollow fiber membrane post filter
- High capacity mixed bed cartridges

PWD (Pure Water Dispenser)-05:

- User-friendly dispenser with the advanced water quality control features

MODEL	CRYSTAL DI PRO	LWM-205	LWM-205 + CRYSTAL DI PRO
Process	Mixed beds	Double pass RO system	Double pass RO system + mixed beds
Output of pure water	120l/h	50 l/h	50 l/h
Conductivity at 25˚C	0.1-18 MΩ	≤1 MΩ	≤18 MΩ
Minimal Inlet Pressure, bar	0.1	1	
Permeate recovery, %	100	up to 80	
Reactive Silica (SiO2)	<0.01ppm		
Heavy metals	<0.01ppm		

**Filtrate performance depends on the feed water quality*

APRO-100-DI, APRO-500-DI

The APRO water deionization systems are housed in high quatity steel cabinets, providing complete solutions for delivering ultrapure water whenever required. Deionized water helps maintain product safety and integrity.

Medical and Pharmaceutical

Testing Laboratories

MicroChip Production

Advantages

- Fully automated AQUAPHOR APRO-100-DI and APRO-500-DI RO systems with advanced drainage system provide a steady ultrapure water supply
- A conductivity measuring unit ensures that only high-quality water passes to the storage tank
- A two-step prefiltration system for mechanical impurities removal
- An indicator box measures the membrane pressure
- Water supply monitoring sensors
- Fully equipped electric board
- Exceptionally low energy consumption (classical RO needs twice more energy)

MODEL	APRO-100-DI	APRO-500-DI
Permeate capacity, LPH	100	500
Permeate accumulation tank volume, liters	200	560
Supply pump flow	max 3 000 LPH	max 3 000 LPH
Supply pressure	max 4 bars	max 4 bars
Mixed bed ion-exchange resin volume, liters	18	50
cabinet dimensions, mm	600 × 800 × 1600	600 × 800 × 1600
Accumulation tank, mm	build in (100l)	1000 × 750 × 1500 (450l)
Power supply	230 V, 50 hz	230 V, 50 hz
Connection Sizing (inlet, outlet, drainage)	1” / ½” / ½” NPTF	1” / ½” / ½” NPTF

Containerized Water Purification Plant

When a stand-alone drinking water solution is required anywhere in the world, regardless of the incoming water quality, the AQUAPHOR containerized mobile solution delivers clean drinking water that meets the WHO Guidelines for Drinking-water Quality at low cost of less than €0.20 per cubic meter.

Drinking Water
for Communities

Alternative
to City Water

Advantages

- **Any source of water**

  Fast production of clean drinking water from wells, open sources like lakes, rivers, ponds, and brackish water.

- **Instant deployment**

  13 stages of water treatment technologies are packed in the size of a standard 20 ft container that can be mounted as far as 20 meters high, 100 meters away from any available water source, and launched immediately.

- **Over 10 years of operation**

  Robust and tamper-proof self-sufficient construction of the container protects the high-end equipment against the weather and other threats.

- **Requires minimal maintenance**
- **User-friendly plug-and-play installation**
- **Remote control through encrypted internet traffic**

Rainwater Collection

The system represents an additional or alternative whole-home water source. Featuring a multisource function, it automatically switches to a reserve source of inlet water when rainwater is not sufficient.

Whole-House
Water Supply

Advantages

This compact and low-energy system is fully automated when there is a need to switch between the sources of water — municipal or harvested rainwater. It also features the stagnation protection technology against bacteria growth and automatically starts recirculation when the system is in standby mode.

- Low energy consuming booster pump
- Permeate recovery up to 99%
- Extended membrane life
- Easy maintenance
- Space saving design
- Low cost operation
- Reduced antiscalant consumption

NEW

CARTRIDGE B520 PRO for cold water

Patented high-capacity corrugated multilayer filtration cartridge

MODEL	APRO 500RW
Operational pressure, bar	7-10
Permeate Flow, LPH	500
Membrane quantity	2
Membrane size, inch	4 × 40
Max inlet TDS, ppm	2 000
Reduction of salt content, %	up to 95
System recovery, %	75-98
Storage tank	external, 100 liters
Power supply	single-phase 230V, 50Hz
Size (inlet, outlet, concentrate)	¾"/½"/½" NPTF

AQUAPHOR
PROFESSIONAL

Aquaphor International OÜ
L. Tolstoi 2A, 40231, Sillamäe, Estonia
pro.sales@aquaphor.com
aquaphor-pro.com