



#### Why reverse osmosis?

*Reverse osmosis* is a membrane separation technology capable of removing a full range of contaminants: sodium, nitrates, toxic metals, arsenic, lead, mercury, aluminum, pesticides, herbicides, trihalomethanes, bacteria, radioactive substances and much more. Unlike conventional filters, which trap and store some basic impurities, the self-cleaning design of the *reverse osmosis* membrane allows it to perform at optimum efficiency at all times even in the most adverse environments. Simply no other technology can remove the broad spectrum of contaminants and provide the overall water quality and taste of a *reverse osmosis* system.

#### The EuroSystem ES series FilterPac-2 mini RO,

a compact, versatile *reverse osmosis* system that is proven to work on both chlorinated or non-chlorinated feed water supplies without electricity or chemicals. Intended for residential and light commercial applications, the FilterPac-2 incorporates a precise *AutoFul™* shut-off system for the important purpose of water conservation. It automatically self-cleans without any special user attention and requires surprisingly less maintenance than most systems of its category.

The ES series FilterPac-2 is ready to accommodate all types of options, additional reservoirs for more pure water storage on hand; will accommodate the optional *UltraV™*, a snap-on Ultraviolet (UV) module for additional post-treatment, and also interfaces easily with its matching optional *Driver Booster*. Designed specifically for the FilterPac-2, the *Driver Booster* permits operation in low water pressure environments, high TDS environments, or it may be simply used for increasing the overall production capacity of the system.

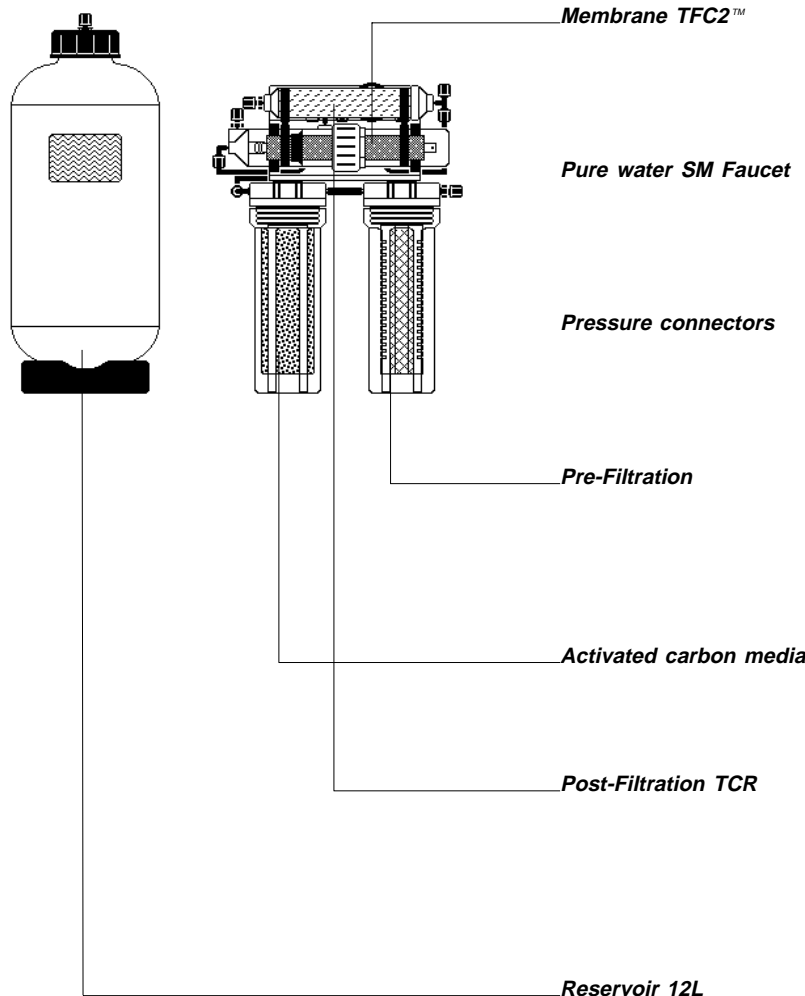
Today our ES series systems can be used more economically than ever before to efficiently separate contaminants. Our new *TFC2™* membrane is made of an exclusive Thin-Film C2 composite that offers greater structural stability and more chemical tolerance. It operates more effectively at lower pressures, and produces more water faster than other earlier types of membrane even when installed in heavily contaminated environments. It is precisely in these types of environments that a membrane's superiority becomes more evident, and where an overall test of system integrity becomes defined. Our ES series systems are known for being small powerful systems that are able to operate in even such problematic environments; the ability of our FilterPac-2 to operate effectively in higher contaminated environments is a demonstration of its excellence over others of its category.

So, no matter how demanding the environment, whether it's for residential or light commercial application, our ES series systems offer convenience, versatility and a history of reliability.

"The ES series FilterPac-2, a product that's proven and not just another new idea."



# Features & Components



## ***AutoFul™ Shut-Off***

operates fully automatic without special attention; system completely shuts-off whenever a full reservoir level is detected, preventing unnecessary wasted water. The AutoFul system interfaces with all types of additional storage reservoirs.

## ***Self-Cleaning system***

automatically self cleans during normal operation, prolonging the life of the membrane and enabling higher levels of recovery and rejection.

## ***Membrane TFC2™***

made of a exclusive Thin-Film C2 composite that offers higher rejection, greater structural stability, operates more effectively at lower pressures and will produce more water faster than other earlier types of membrane.

## ***Pure water SM Faucet***

for dispensing pure processed water; incorporates two smooth handle positions: intermittent or continuous open flow, easy to install anywhere and serviceable by replaceable valve kit.

## ***Pressure connectors***

made of high-pressure grade polypropylene with fitted tube inserts and sleeves capable of operating under continuous high pressure that would destroy connectors in most residential systems.

## ***Pre-Filtration***

by a special commercial grade cartridge with true graded density, removes sediment and rust an average of 40% better than conventional types found in most residential systems. Benefits are longer cartridge life, less frequent service and better overall system protection.

## ***Activated carbon media***

cartridge uses a proprietary blend of granular activated carbon that more effectively removes chlorine and chloramines assuring superior protection for the life of the TFC2 membrane.

## ***Post-Filtration TCR***

Toxic Contaminant Removal, additional protection for the final post-treatment, contains special activated carbon to significantly reduce high levels of organic chemicals, dissolved gasses and unpleasant tastes and odors; optional on most systems, standard on the model 51A.

## ***Reservoir 12L***

hydropneumatic storage vessel stores 8 to 10 liters of pure water for distribution on demand, made of non-corrosive materials and designed specifically for pure processed water; discharges completely when placed in a vertical or horizontal position and serviceable by a removable water cell.

## ***Special materials***

US-FDA compliant and/or US-NSF listed. All wetted parts are made with the finest non-corrosive materials and are approved for use with water intended for human consumption.

## ***Installation Kit***

includes all the items necessary for a quick and easy installation. A basic system installation normally requires 60 minutes.

# Technical information

Specifications

Version 4.3

Model

series es FilterPac-2

## Applications

recommended for residential and light commercial applications or anywhere pure water is necessary; installs neatly under a kitchen sink for residential applications and may be connected easily to any standard ice-maker or hot and cold water dispenser.

## Production capacity in liters <sup>1</sup>

Day	Hour	Minute
40.	1.67	0.028

## Characteristics

Process	reverse osmosis	(UV optional)
Number of phases	four (4) phases	
Membrane	Thin-Film C2 aromatic polyamide composite	(CE optional)
Recovery	25 to 35 % <sup>2</sup>	
Rejection (separation)	97 % average	(90 % nominal)
Service frequency	requires only a pre and carbon cartridge annually	(TDS < 2000. mg /liter)
	varies, depending on the operating environment	(TDS > 2000. mg /liter) <sup>4</sup>
	and filter cartridge configuration	

## Operating environment

### Parameters

Temperature fluid	3°C min. 45°C max.	
PH continuous operation	4 min. 11 max.	
Iron	0.10 mg /liter <sup>3</sup>	(dissolved)
Manganese	0.05 mg /liter <sup>3</sup>	
Free chlorine	1.00 mg /liter <sup>3</sup>	
Hydrogen sulfide	0.00 mg /liter	
Organics	1.00 mg /liter <sup>3</sup>	
Total hardness	360. mg /liter <sup>3</sup>	(PH 7.0)
Silt density index (SDI)	5.00 maximum	(15 minutes)
Total dissolved solids (TDS)	2000. mg /liter <sup>3</sup>	(system Version 1 or 3)
	5000. mg /liter <sup>3</sup>	(system Version 2) <sup>4</sup>
Feed water flow	3000. ml /minute	(at 2.5 Kg/cm <sup>2</sup> )
Feed water supply pressure	2.5 min. 7.0 max. Kg/cm <sup>2</sup>	(Bar) <sup>4</sup>

## Electrical requirements

Volts /Amps	no electrical required
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## Dimensions and weight

Product weight	system 5.75 reservoir 4.50 (Kg)
Dimensions	system height 440, width 400, depth 140, reservoir height 520, diameter 230, (mm)

- <sup>1</sup> Based on 250.mg/liter TDS or NaCl at 25°C (77°F), feed pressure 4.0 Kg/cm<sup>2</sup> (60.PSI). Performance of the reverse osmosis membrane element is affected by net driving pressure, feed water temperature, Total Dissolved Solids (TDS) and local water chemistry. These factors must be taken into account when comparing or evaluating the performance of a membrane element or reverse osmosis system. For production capacity in gallons divide by 3.785
  - <sup>2</sup> System recovery is factory pre-set; adjustments remain possible on all models. Actual recovery performance is influenced by feed water temperature, Total Dissolved Solids (TDS) and local water chemistry.
  - <sup>3</sup> Recommended limits for maximum membrane life. If the source is a private well, a complete water analysis should be evaluated to determine proper pre-treatment.
  - <sup>4</sup> The optional Driver Booster is required for installations where Total Dissolved Solids (TDS) exceed 2000.mg/liter and/or where the feed water pressure is below 2.5 Kg/cm<sup>2</sup> (36.PSI).
- \* TFC2 membrane is a registered Trademark of EuroSystem USA., Carelli International Corporation USA.

# EuroSystem options

Specifications

Version 4.3

Model

series es FilterPac-2

## Ordering information (systems) <sup>6</sup>

SYSTEM 51/A/CE	9001.2228
SYSTEM 51/A/S/CE	9001.2229
SYSTEM 51/A/TFC	9001.2230
SYSTEM 51/A/S/TFC	9001.2231
SYSTEM 51/A/S/TFC/B	9002.2231
SYSTEM 51/A/S/TFC/C	9003.2231
SYSTEM 51/A/S/TFC/UV2	9001.2232
SYSTEM 51/A/S/TFC/UV1	9001.2234
SYSTEM FILTERPAC-2 RO	9004.2231

## Ordering information (related products) <sup>7</sup>

DRIVER 51/A/H/230	9001.1236
DRIVER 51/A/H/115	9001.1237
DRIVER 51/A/H/24V	9001.1238
DRIVER 51/A/L/230	9001.1039
DRIVER 51/A/L/115	9001.1040
DRIVER 51/A/L/24V	9001.1041
PART INSERT/FEED/2/8	9001.3023
PART UNION /FEED/2/6	9001.3022
PART EXTENSION/FAUCET	9001.3025
PART KIT/UV/2.6/230/V	9221.5012
PART KIT/UV/2.6/115/V	9221.5014
PART KIT/FLUSH/51A/2	9121.5223
PART RESERVOIR / 12L	9001.5015
PART RESERVOIR / 75L	9001.5036
PART RESERVOIR /150L	9001.5038
PART RESERVOIR /300L	9001.5039
PART FAUCET/SM/CROME	9001.5019
PART FAUCET/LR/CROME	9102.5019

## Service Cartridges <sup>7</sup>

PART FILTER/PRE/ 1M	9001.4096
PART FILTER/PRE/ 5M	9001.4007
PART FILTER/PRE/CAL	9001.4009
PART FILTER/CARBON	9001.4008
PART FILTER/CARB/75	9101.4075
PART FILTER/TCR/10/2	9001.4010

## Testing instruments <sup>7</sup>

TEST METER/PO/PH	9001.8002
TEST METER/PO/TEMP	9001.8003
TEST METER/PO/TDS/10	9001.8001
TEST METER/PO/TDS/100	9102.8001

## System options and related products

### Driver Booster

enables a system to operate in low water pressure environments or where Total dissolved solids (TDS) exceed 2000.mg/liter. The driver booster may also be used for increasing the overall production capacity of a system.

### UltraV™ Kit

high performance Ultraviolet (UV) module that easily snaps-on to the system processor, provides additional post-treatment for pure processed water.

### Quick Flush Kit

provides a full manual control valve over system flushing for excessively high contaminated environments; easily attaches to the system processor.

### Additional Reservoirs

hydropneumatic storage vessel for increasing pure water capacity on hand, designed specifically for pure processed water made of non-corrosive materials, quick and easy to install, available in four sizes: 12, 75, 150 or 300 liter capacities. All sizes discharge completely in any position and are serviceable by a removable water cell.

### Pure water LR Faucet

recommended for commercial applications or anywhere a faucet installation requires more distance from a sink or for filling large containers. Incorporates two smooth handle positions: intermittent or continuous open flow; easy to install anywhere and serviceable by replaceable valve kit.

### Product support program

includes a full range of special products and technical information for special applications as well as standard service cartridges and replacement parts.

systems and technology

EUROSYSTEM PRODUCTS™



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<sup>6</sup> The installation and operation of our ES series systems are surprisingly quick and easy. They are completely assembled, factory tested, and ready to operate. The model 51A installs neatly under a kitchen sink for residential applications or anywhere a water supply and drain line is available. All items necessary for a quick and easy installation are included with each system. Systems also include an easy to understand installation/operation manual.

<sup>7</sup> Only a partial list of related products. Check with your local EuroSystem distributor for more specific details on system options and related products.

\* The ES series systems are warranted against defects in materials and workmanship for a period of one year. The membrane is covered for manufacturing defects for the period of one year on a pro-rated basis. Disposable cartridges are not warranted.