# HOUSINGS
# AND FILTER CARTRIDGES

ISO 9001:2000 CERTIFIED COMPANY

seko

innovation > technology > future

# HOUSINGS AND FILTER CARTRIDGES A WIDE

The need to address problems such as liquid pollution and public health protection drove **SEKO** to create its own line of housings and filter cartridges.

**SEKO** identified numerous solutions to satisfy the varying needs of water filtration, treatment, and pretreatment for all kinds of applications.

In fact, thanks to a variety of different materials and technical specifications, the proposed solutions ensure a broad number of combinations allowing creation of optimum configurations in full respect of current regulations.

The materials used make **SEKO** housings and filter cartridges suitable for the most common domestic applications, in professional filtration and industrial processes, guaranteeing the elimination of:

- specific suspended particles
- bad odors
- limescale
- corrosive agents

Indentifying the ideal solution for specific requirements requires careful analysis of all technical limitations dictated by the application. The variables to be considered are:

- type of liquid
- size of the particles that must be eliminated
- permeability of the material that filters
- loss of pressure in water system
- chemical compatibility
- resistance to operating temperatures
- maintenance costs
- process benefits

**SEKO** is a world-class filtration system manufacturer, present in all main markets. **SEKO**'s ample R&D capabilities allow us to build the ideal system for your filtration requirements.

# Housings for filter cartridges

## STANDARD

**2P** Series

4 Medium **5”** - Maior **9”3/4**

**3P** Series

5 Medium **5”** - Maior **9”3/4 -** Supra **20”**

## MINI

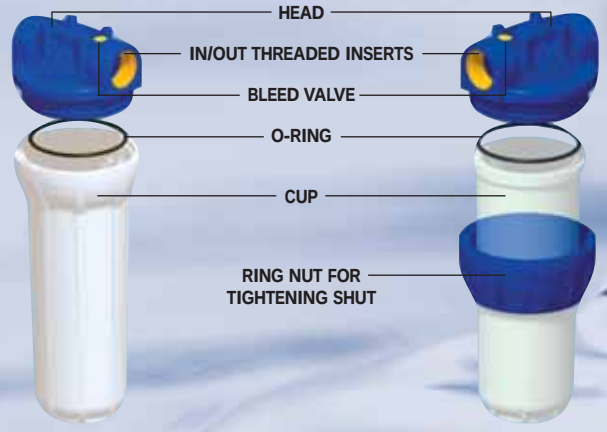
6 **Minor 5”** Series

6 **Micro** Series

## ANTI-SCALE

**Micro SEL** Series

7 Dosing unit polyphosphate salt crystals



# HOUSINGS FOR FILTER CARTRIDGES

## 2P Series

### Applications

The SEKO **2P Series** housings are designed to filter and treat drinking water. They are suitable for:

**Domestic applications:** filtering and treating drinking water, protecting washing machines, taps, boilers

**Industrial applications:** protecting pumps, purification systems and reverse osmosis systems with pre-filtration and microfiltration, anti-scale action for heating systems and dosing systems, application in water softening, dechlorination, demineralization systems, and UV sterilization

### Operating conditions

**Maximum pressure:** 8 bar
**Minimum temperature:** 2 °C
**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Head:** Loaded polypropylene
**IN/OUT threaded inserts and bleed valve:** Brass
**Cup:** SAN or White loaded polypropylene
**O-Ring:** NBR
**Flow rate:** from 100 to 230 lt/min
**Lifetime test:** 200,000 cycles from 0 to 10 bar

Also available with white opaque loaded polypropylene cup, impervious to light

**Upon request:**
GAS 1/4", 3/8", 1/2", 3/4" or 1" IN/OUT connectors with plastic female thread and polypropylene bleed valve with O-ring

Medium **5"**
Maior **9"3/4**


| HOUSINGS WITH TRANSPARENT OR OPAQUE CUP AND IN/OUT CONNECTORS AND BRASS INSERTS | CARTRIDGE HEIGHT | IN/OUT CONNECTORS | DIMENSIONS A X B (MM) |
|---|---|---|---|
| Medium 2P | 5" | 1/2"F | 190 x 120 |
| Medium 2P | 5" | 3/4"F | 190 x 120 |
| Medium 2P | 5" | 1"F | 190 x 120 |
| Medium 2P | 5" | 1"1/4F | 210 x 125 |
| Medium 2P | 5" | 1"1/2F | 210 x 125 |
| Maior 2P | 9"3/4 | 1/2"F | 315 x 120 |
| Maior 2P | 9"3/4 | 3/4"F | 315 x 120 |
| Maior 2P | 9"3/4 | 1"F | 315 x 120 |
| Maior 2P | 9"3/4 | 1"1/4F | 330 x 125 |
| Maior 2P | 9"3/4 | 1"1/2F | 330 x 125 |

## Accessories

Spanner wrench | Brass nipple fittings | Wall support | Screws

# HOUSINGS FOR FILTER CARTRIDGES

## 3P Series

### Applications

The SEKO **3P Series** housings are designed to filter and treat drinking water. They are suitable for:

**Domestic applications:** filtering and treating drinking water, protecting washing machines, taps, boilers

**Industrial applications:** protecting pumps, purification systems and reverse osmosis systems with pre-filtration and microfiltration, anti-scale action for heating systems and dosing systems, application in water softening, dechlorination, demineralization systems, and UV sterilization

### Operating conditions

**Maximum pressure:** 8 bar
**Minimum temperature:** 2 °C
**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Head:** Loaded polypropylene
**IN/OUT threaded inserts and bleed valve:** Brass
**Cup:** SAN or White loaded polypropylene
**O-Ring:** NBR
**Flow rate:** from 100 to 230 lt/min
**Lifetime test:** 200,000 cycles from 0 to 10 bar

Also available with white opaque loaded polypropylene cup, impervious to light

**Upon request:**
GAS 1/4", 3/8", 1/2", 3/4" or 1" IN/OUT connectors with plastic female thread and polypropylene bleed valve with O-ring

Medium **5"**
Maior **9"3/4**
Supra **20"**




| HOUSINGS WITH TRANSPARENT OR OPAQUE CUP AND IN/OUT CONNECTORS AND BRASS INSERTS | CARTRIDGE HEIGHT | IN/OUT CONNECTORS | DIMENSIONS A X B (MM) |
|---|---|---|---|
| Medium 3P | 5" | 1/2"F | 190 x 120 |
| Medium 3P | 5" | 3/4"F | 190 x 120 |
| Medium 3P | 5" | 1"F | 190 x 120 |
| Medium 3P | 5" | 1"1/4F | 210 x 125 |
| Medium 3P | 5" | 1"1/2F | 210 x 125 |
| Maior 3P | 9"3/4 | 1/2"F | 315 x 120 |
| Maior 3P | 9"3/4 | 3/4"F | 315 x 120 |
| Maior 3P | 9"3/4 | 1"F | 315 x 120 |
| Maior 3P | 9"3/4 | 1"1/4F | 330 x 125 |
| Maior 3P | 9"3/4 | 1"1/2F | 330 x 125 |
| Supra 3P | 20" | 1/2"F | 575 x 120 |
| Supra 3P | 20" | 3/4"F | 575 x 120 |
| Supra 3P | 20" | 1"F | 575 x 120 |
| Supra 3P | 20" | 1"1/4F | 590 x 125 |
| Supra 3P | 20" | 1"1/2F | 590 x 125 |

## Accessories

Spanner wrench | Brass nipple fittings | Wall support | Screws

# HOUSINGS FOR FILTER CARTRIDGES

## Minor 5” Series

### Applications

The SEKO **Minor Series** housings are designed to filter and treat drinking water. The small size and head with three connectors permits installation even where space is a problem. All of the housings are supplied with a threaded plug complete with O-ring that ensures a perfect seal on the unused connection. They are suitable for:

**Domestic applications:** Filtering and treating drinking water, protecting washing machines, taps, boilers

**Industrial applications:** Protecting pumps, purification systems and reverse osmosis systems with pre-filtration and microfiltration, anti-scale action for heating systems and dosing systems, application in water softening, dechlorination, demineralization systems, and UV sterilization

### Operating conditions

**Maximum pressure:** 8 bar
**Minimum temperature:** 2 °C
**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Head:** Loaded polypropylene
**IN/OUT threaded inserts:** Brass
**Cup:** SAN and White loaded polypropylene
**O-Ring:** NBR
**Flow rate:** 120 lt/min
**Lifetime test:** 200,000 cycles from 0 to 10 bar


- Also available with white opaque loaded polypropylene cup, impervious to light
- **Upon request:**
  > GAS 1/2” IN/OUT connectors with plastic female thread
  > Special probe-socket heads (pH, Redox, Conductivity, Temperature)

### Accessories

- Wrench
- Brass nipple fittings
- Screws

| HOUSINGS WITH TRANSPARENT OR OPAQUE CUP AND IN/OUT CONNECTORS AND BRASS INSERTS | CARTRIDGE HEIGHT | IN/OUT CONNECTORS | DIMENSIONS A X B (MM) |
|---|---|---|---|
| **Minor** | **5”** | **1/2”F** | **175 x 96** |

## Micro Series

### Applications

The SEKO **Micro Series** housings are designed for all installations that require a small size and low flow rate management. The connection line, from top to bottom, facilitates sequential insertion with standard G 3/4" connectors. They are suitable for:

**Domestic applications:** Filtering and treating drinking water, protecting washing machines, taps, boilers

**Industrial applications:** Protecting microdosing pumps and small purification systems

### Operating conditions

**Maximum pressure:** 8 bar
**Minimum temperature:** 2 °C
**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Head:** Loaded polypropylene
**Cup:** SAN
**O-Ring:** NBR
**Flow rate:** 60 lt/min
**Lifetime test:** 200,000 cycles from 0 to 10 bar


**RLN Micro Series** with washable nylon mesh (polyamide) cartridge and **80 μm filtration**

| HOUSINGS WITH TRANSPARENT CUP AND IN/OUT PLASTIC CONNECTORS | IN/OUT CONNECTORS | DIMENSIONS A X B (MM) |
|---|---|---|
| **Micro** | **3/4”F 3/4”M** | **140 x 62** |

# DOSING UNIT POLYPHOSPHATE SALT CRYSTALS

## Micro SEL Series

### Applications

The SEKO **Micro SEL Series** dosing unit is a polyphosphate salt-based system exclusively for domestic use for protecting washing machines and dishwashers from the formation of limescale. Very cheap and easy to install, it lowers energy and detergent consumption, taking the place of expensive anti-scale products.

It is directly assembled with a standard 3/4" connection on the water's supply pipe. The polyphosphate salts dissolved in the water do not lower the concentration of mineral salts but rather inhibit limescale deposits. Current regulations do not permit using polyphosphate salts for drinking water.

**Maintenance:** Periodically check the level of polyphosphates and replenish if empty

**Warning:** A pre-filter should be used to protect the dosing unit

### Operating conditions

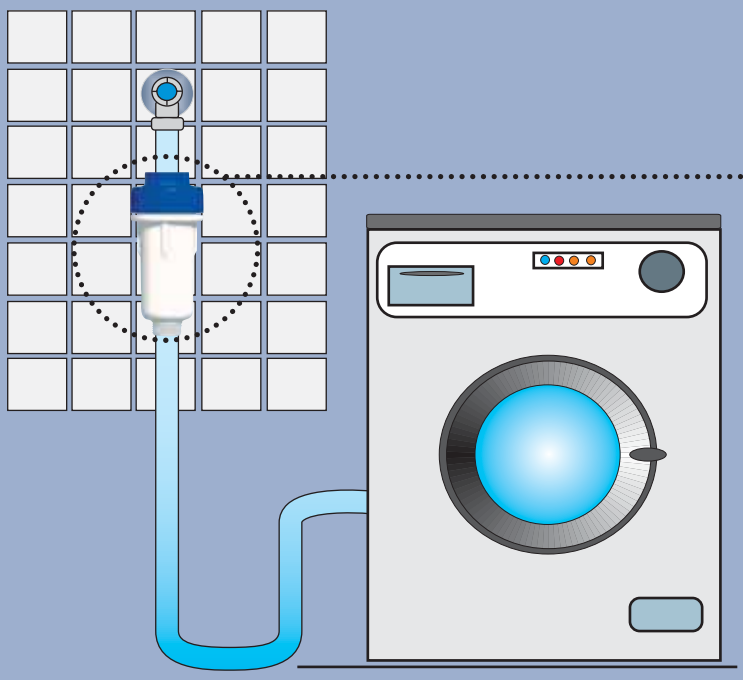
**Maximum pressure:** 8 bar
**Minimum temperature:** 2 °C
**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Head:** Loaded polypropylene
**Cup:** SAN
**O-Ring:** NBR
**Flow rate:** 60 lt/min
**Lifetime test:** 200,000 cycles from 0 to 10 bar
**Treatment material:**
Polyphosphate crystals (max 12-month storage)


| DOSING UNIT | IN/OUT CONNECTORS | DIMENSIONS A X B (MM) | OPTIMUM FLOW RATE (L/H) | AMOUNT OF POLYPHOSPHATE (GR.) |
|---|---|---|---|---|
| Micro SEL | 3/4"F 3/4"M | 140 x 62 | 1000 | 150 |

## Installation example



Assembly and maintenance are easy:
simply insert the dosing unit directly onto the water supply pipe using the 3/4" connectors. Approximately every six months, the polyphosphate should be replaced with **SEKO** refills.

# Filter cartridges

## FOR MECHANICAL FILTRATION

### THROW-AWAY CARTRIDGES



### WASHABLE CARTRIDGES



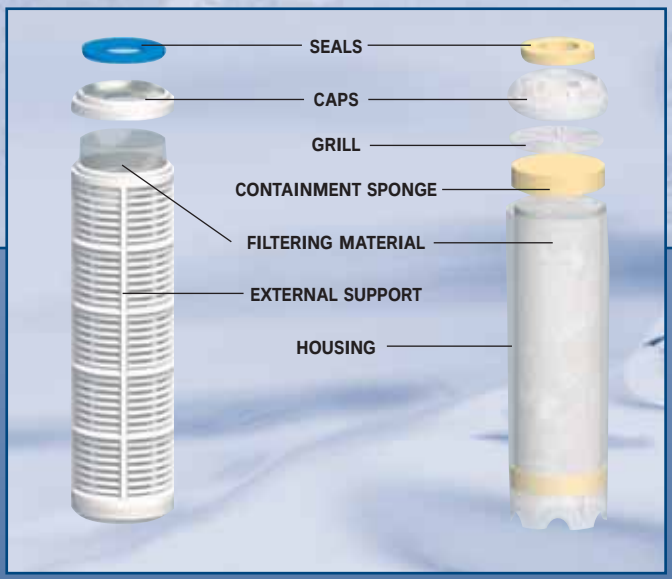
## FOR WATER TREATMENT

### ACTIVATED CARBON CARTRIDGES



### CARTRIDGES WITH POLYPHOSPHATE SALTS





# FILTER CARTRIDGES

## PFA Series THROW-AWAY WOUND POLYPROPYLENE YARN CARTRIDGE

### Applications

The **PFA Series** filter cartridges are created by winding a polypropylene yarn onto an internal rigid support. They are suitable for:

**Primary filtration** of small particles suspended in water (sand, rust, mud, scales)

**Domestic use:** protection of equipment (washing machines, boilers, furnaces, taps, etc.), filtration of water not destined to drinking (irrigation systems, pools, etc.)

**Industrial use:** protection of pumps, purification systems and reverse osmosis systems with pre-filtration, applications in the photography, electroplating, chemicals, petrochemistry, and pharmaceutical industries

**Average lifetime:** Variable, maximum 6 months
**Maintenance:** None, replace the cartridge if clogged

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Filtering material:** Polypropylene
**Internal support:** Polypropylene

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| PFA 5 | 5” | Medium | 128 x 62 x 28 | 500 |
| PFA 9 | 9”3/4 | Maior | 254 x 62 x 28 | 1000 |
| PFA 20 | 20” | Supra | 508 x 62 x 28 | 2000 |


Available degree of filtration in microns (μm): **1 μm • 5 μm • 10 μm • 20 μm**

## PMB Series THROW-AWAY “MELT-BLOWN” FOAMED POLYPROPYLENE CARTRIDGE

### Applications

The **PMB Series** filter cartridges are made using an innovative technological process that creates an even layer of filtering material. The special arrangement of the fibers guarantees gradual filtration with action that increases from the outside toward the inside. On the whole, the average lifetime and effectiveness of the cartridge is considerably increased. They are suitable for:

**Primary filtration** of small particles suspended in water (sand, rust, mud, scales)

**Domestic use:** Protection of equipment (washing machines, boilers, furnaces, taps, etc.), filtration of water destined to drinking as well (softeners, irrigation systems, pools, etc.)

**Industrial use:** Protection of pumps, purification systems and reverse osmosis systems with pre-filtration, applications in the photography, electroplating, chemicals, petrochemistry, and pharmaceutical industries, and ultraviolet sterilization systems. Post-filtration for granular activated carbon systems

**Average lifetime:** Variable, maximum 6 months
**Maintenance:** None, replace the cartridge if clogged

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials, suitable for drinking water
**Filtering material:** Polypropylene
**Internal support:** Polypropylene

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| PMB Minor | 5” | Minor | 130 x 50 x 23 | 500 |
| PMB 5 | 5” | Medium | 128 x 64 x 30 | 750 |
| PMB 9 | 9”3/4 | Maior | 252 x 64 x 30 | 1500 |
| PFA 20 | 20” | Supra | 508 x 64 x 30 | 3000 |


Available degree of filtration in microns (μm): **5 μm • 25 μm**

# FILTER CARTRIDGES

## RLN Series WASHABLE CARTRIDGE WITH NYLON MESH FILTER (POLYAMIDE)

### Applications

The **RLN Series** filter cartridges consist of an external hard polypropylene support onto which a nylon mesh filter is incorporated, which permits even filtering with minimum load loss and low risk of clogging. Easily washable, they do not release contaminating particles. They are suitable for:

**Primary filtration** of particles suspended in water (sand, rust, scales)

**Domestic use:** Protection of equipment (washing machines, boilers, furnaces, taps, etc.), filtration of water destined to drinking as well (softeners, irrigation systems, pools, etc.)

**Industrial use:** Protection of pumps, purification systems and reverse osmosis systems with pre-filtration, applications in the agriculture

**Average lifetime:** Variable, maximum 24 months

**Maintenance:** Wash every 3 months

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Filtering material:** Nylon (polyamide)
**External support:** Polypropylene
**Caps:** Polypropylene
**Seals:** EPDM

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| RLN Micro | - | Micro | 97 x 39 x 28 | - |
| RLN Minor | 5” | Minor | 129 x 50 x 27 | 500 |
| RLN 5 | 5” | Medium | 128 x 62 x 28 | 800 |
| RLN 9 | 9”3/4 | Maior | 254 x 62 x 28 | 1600 |
| RLN 20 | 20” | Supra | 508 x 62 x 28 | 3000 |


Available degree of filtration in microns (μm): **Minor 20 μm • 80 μm**
**5” 80 μm • 250 μm - 9”3/4 e 20” 80 μm • 250 μm • 430 μm**

## RLA Series WASHABLE CARTRIDGE WITH STAINLESS STEEL MESH FILTER

### Applications

The **RLA Series** filter cartridges consist of a stainless steel mesh filter secured onto a hard internal support, closed with polypropylene or steel caps. Easily washable, they may be restored through: mechanical action, backwashing, chemical cleaning.
They are suitable for:

**Primary filtration** of particles suspended in water (sand, rust, scales)

**Domestic use:** Protection of equipment (washing machines, boilers, furnaces, taps, etc.), filtration of water not destined to drinking (irrigation systems, pools, etc.)

**Industrial use:** Protection of pumps, purification systems and reverse osmosis systems with pre-filtration, suitable for applications with hot water and filtration of brackish water

**Average lifetime:** Maximum 5 years
**Maintenance:** Wash every 3 months

### Operating conditions

**Maximum temperature:** 50° C
(90 °C with steel caps)

### Characteristics

Non-toxic materials
**Filtering material:** AISI 316 stainless steel
**Internal support:** AISI 316 stainless steel
**Caps:** Polypropylene or steel
**Seals:** PVC

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| RLA 5 | 5” | Medium | 128 x 70 x 27 | 800 |
| RLA 9 | 9”3/4 | Maior | 252 x 70 x 27 | 1600 |
| RLA 20 | 20” | Supra | 505 x 70 x 27 | 300 |


Available degree of filtration in microns (μm): **70 μm**

Upon request, cartridges with various degrees of filtration are available for minimum quantities

# FILTER CARTRIDGES

## RPA Series WASHABLE CARTRIDGE WITH PLEATED STAINLESS STEEL MESH FILTER

### Applications

The **RPA Series** filter cartridges consist of a pleated stainless steel mesh filter secured onto a hard internal support, closed with polypropylene or steel caps. The larger filtering surface permits more efficient filtering and a longer lifetime. Easily washable, they may be restored through: mechanical action, backwashing, chemical cleaning. They are suitable for:

**Primary filtration** of particles suspended in water (sand, rust, scales)

**Domestic use:** Protection of equipment (washing machines, boilers, furnaces, taps, etc.), filtration of water not destined to drinking (irrigation systems, pools, etc.)

**Industrial use:** Protection of pumps, purification systems and reverse osmosis systems with pre-filtration, suitable for applications with hot water and filtration of brackish water

**Average lifetime:** Variable, maximum 5 years
**Maintenance:** Wash every 3 months

### Operating conditions

**Maximum temperature:** 50° C
(90 °C with steel caps)

### Characteristics

Non-toxic materials
**Filtering material:** AISI 316 stainless steel
**Internal support:** AISI 316 stainless steel
**Caps:** Polypropylene or steel
**Seals:** PVC

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| RPA 5 | 5” | Medium | 128 x 70 x 27 | 1100 |
| RPA 9 | 9”3/4 | Maior | 252 x 70 x 27 | 2200 |
| RPA 20 | 20” | Supra | 505 x 70 x 27 | 3800 |


Available degree of filtration in microns (μm): **70 μm**

Upon request, cartridges with various degrees of filtration are available for minimum quantities

## PLP Series WASHABLE PLEATED POLYESTER CARTRIDGE

### Applications

The **PLP Series** filter cartridges consist of a pleated polyester septum filter secured onto an internal rigid support. To guarantee compactness and resistance, an external polypropylene cage is applied. Its entirety is then sealed with polypropylene caps. Easily washable, they do not release contaminating particles.

They are suitable for:

**Primary filtration** of particles suspended in water (sand, rust, scales)

**Domestic use:** Protection of equipment (washing machines, boilers, furnaces, taps, etc.), filtration of water destined to drinking as well (softeners, irrigation systems, pools, etc.)

**Industrial use:** Protection of pumps, purification systems and reverse osmosis systems with pre-filtration

**Average lifetime:** Variable, maximum 24 months
**Maintenance:** Wash every 3 months

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Filtering material:** Polyester
**Internal support:** Polypropylene
**External support:** Polypropylene
**Caps:** Polypropylene
**Seals:** PVC

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| PLP 5 | 5” | Medium | 128 x 70 x 27 | 1100 |
| PLP 9 | 9”3/4 | Maior | 252 x 70 x 27 | 2200 |
| PLP 20 | 20” | Supra | 505 x 70 x 27 | 3800 |


Available degree of filtration in microns (μm): **50 μm**

# FILTER CARTRIDGES

## CLP Series THROW-AWAY PLEATED PAPER CARTRIDGE

### Applications

The **CLP Series** filter cartridges consist of a pleated cellulose septum filter secured onto an internal rigid support. To guarantee compactness and resistance, an external polypropylene cage is applied. Its entirety is then sealed with polypropylene caps.

They are suitable for:

**Primary filtration** of particles suspended in water (sand, rust, scales)

**Domestic use:** Protection of equipment (washing machines, boilers, furnaces, taps, etc.), filtration of water destined to drinking as well (softeners, irrigation systems, pools, etc.)

**Industrial use:** Protection of pumps, purification systems and reverse osmosis systems with pre-filtration

**Average lifetime:** Variable, maximum 6 months

**Maintenance:** None

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Filtering material:** Cellulose
**Internal support:** Polypropylene
**External support:** Polypropylene
**Caps:** Polypropylene
**Seals:** PVC

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| CLP 5 | 5” | Medium | 128 x 70 x 27 | 1000 |
| CLP 9 | 9”3/4 | Maior | 252 x 70 x 27 | 2000 |
| CLP 20 | 20” | Supra | 505 x 70 x 27 | 3500 |


Available degree of filtration in microns (μm): **20 μm**

## PCA Series THROW-AWAY SINTERED POLYPROPYLENE CARTRIDGE WITH ACTIVATED GRANULAR CARBON

### Applications

The **PCA Series** filter cartridges consist of a sintered polypropylene septum filter with granular activated carbon inside, compressed for vibration. Its entirety is then sealed with polypropylene caps.
They are suitable for:

**Elimination of** chlorine and chlorinated compounds; reduction of pesticides, insecticides and other organic compounds

**Elimination of** odors and tastes

**Domestic use:** For drinking water, only if combined with equipment approved by current regulations, for the anti-chlorine treatment of washing machines, showers, and other installations for water not destined to drinking

**Industrial use:** Anti-chlorine treatment for food, chemical, pharmaceutical industries and the protective pretreatment of reverse osmosis membranes

**Average lifetime:** Variable, maximum 3 months
**Maintenance:** None

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Filtering material:** Polypropylene
**Internal support and caps:** Polypropylene
**Seals:** PVC
**Treatment material:** Activated granular coconut carbon

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| PCA 5 | 5” | Medium | 128 x 70 x 27 | 300 |
| PCA 9 | 9”3/4 | Maior | 252 x 70 x 27 | 600 |
| PCA 20 | 20” | Supra | 505 x 70 x 27 | 1200 |


Available degree of filtration in microns (μm): **20 μm**

# FILTER CARTRIDGES

## CCA Series THROW-AWAY CELLULOSE CARTRIDGE IMPREGNATED WITH ACTIVATED VEGETABLE CARBON

### Applications

The **CCA Series** filter cartridges consist of a piece of cardboard treated with activated carbon, wound around a hard polypropylene support. To guarantee compactness and resistance, an external polypropylene cage is applied. Its entirety is then sealed with polypropylene caps. They are suitable for:

**Elimination of** chlorine and chlorinated compounds; reduction of pesticides, insecticides and other organic compounds

**Elimination of** odors and tastes

**Domestic use:** For drinking water, only if combined with equipment approved by current regulations, for the anti-chlorine treatment of washing machines, showers, and other installations for water not destined to drinking

**Industrial use:** Anti-chlorine treatment for the food, chemical, pharmaceutical industries and the protective pretreatment of reverse osmosis membranes

**Average lifetime:** Variable, maximum 3 months
**Maintenance:** None

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Internal support and caps:** Polypropylene
**Seals:** PVC
**Treatment material:** Activated vegetable carbon

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| CCA 5 | 5” | Medium | 128 x 70 x 27 | 300 |
| CCA 9 | 9”3/4 | Maior | 252 x 70 x 27 | 600 |
| CCA 20 | 20” | Supra | 505 x 70 x 27 | 1200 |


Available degree of filtration in microns (μm): **20 μm**

## GAC Series THROW-AWAY CARTRIDGE CONTAINER WITH ACTIVATED GRANULAR CARBON

### Applications

The **GAC Series** filter cartridges consist of an SAN container filled with activated granular coconut vegetable carbon. Two sponges guarantee containment of the granules, preventing the release of residues. They are suitable for:

**Elimination of** chlorine and chlorinated compounds; reduction of pesticides, insecticides and other organic compounds

**Elimination of** odors and tastes

**Domestic use:** For drinking water, only if combined with equipment approved by current regulations, for the anti-chlorine treatment of washing machines, showers, and other installations for water not destined to drinking

**Industrial use:** Anti-chlorine treatment for food, chemical, pharmaceutical industries and the protective pretreatment of reverse osmosis membranes

**Average lifetime:** Variable, maximum 3 months
**Maintenance:** None
**Warning:** A pre-filter should be used to protect the cartridge

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Container and caps:** SAN
**Seals:** PE
**Containment sponge:** Polyurethane
**Treatment material:** Activated granular coconut carbon

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| GAC 5 | 5” | Medium | 130 x 70 x 27 | 300 |
| GAC 9 | 9”3/4 | Maior | 250 x 70 x 27 | 400 |
| GAC 20 | 20” | Supra | 510 x 70 x 27 | 400 |


Upon request, opaque polypropylene containers are available for minimum quantities.
Various refill sizes of activated granular coconut carbon are available

# FILTER CARTRIDGES

## SEL Series THROW-AWAY CARTRIDGE CONTAINER WITH POLYPHOSPHATE SALT CRYSTALS

### Applications

The **SEL Series** filter cartridges consist of a SAN container filled with polyphosphate salt crystals in various sizes. Two sponges guarantee salt containment, preventing release of solid residues. Treatment with polyphosphate salts is a simple, effective, and low-cost solution to limescale deposits problems. The salts dissolved in the water inhibit the accumulation of deposits. If used in high concentrations, they contribute tobreak-up of existing deposits, forming a thin film that protects installations from corrosion.

They are suitable for:

**Domestic use:** Protection of pipes, taps, washing machines, boilers

**Industrial use:** Protection of furnaces, heat exchangers, reverse osmosis membranes, industrial systems, and other installations

**May not be used for treating water used for food or destined to drinking**

**Average lifetime:** Variable, maximum 3 months
**Maintenance:** None
**Warning:** A pre-filter should be used to protect the cartridge.

### Operating conditions

**Maximum temperature:** 50 °C
**Maximum hardness:** 50 °F (500ppm CaCO3)
**Warning:** The treated water may be heated up to 70°-80°C; above this temperature the polyphosphate loses its effectiveness

### Characteristics

Non-toxic materials
**Container and caps:** SAN
**Seals:** PE
**Containment sponge:** Polyurethane
**Treatment material:** Sodium polyphosphate crystals (max 12 month storage)

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| SEL 5 | 5” | Medium | 130 x 70 x 27 | 1000 |
| SEL 9 | 9”3/4 | Maior | 250 x 70 x 27 | 1400 |
| SEL 20 | 20” | Supra | 510 x 70 x 27 | 1400 |


Upon request, opaque polypropylene containers are available for minimum quantities.
Various refill sizes of polyphosphate salt crystals are available

## PSA Series EMPTY CONTAINER

### Applications

The empty **PSA Series** containers are made of SAN and contain two containment sponges for filling with materials for the chemical-physical treatment of water.

### Operating conditions

**Maximum temperature:** 50 °C

### Characteristics

Non-toxic materials
**Container:** SAN
**Caps:** SAN
**Seals:** PE
**Containment sponge:** Polyurethane

| CARTRIDGE MODEL | CARTRIDGE HEIGHT | HOUSING MODEL | DIMENSIONS A X B X C (MM) | OPTIMUM FLOW RATE (L/H) |
|---|---|---|---|---|
| PSA 5 | 5” | Medium | 128 x 70 x 27 | - |
| PSA 9 | 9”3/4 | Maior | 252 x 70 x 27 | - |
| PSA 20 | 20” | Supra | 505 x 70 x 27 | - |

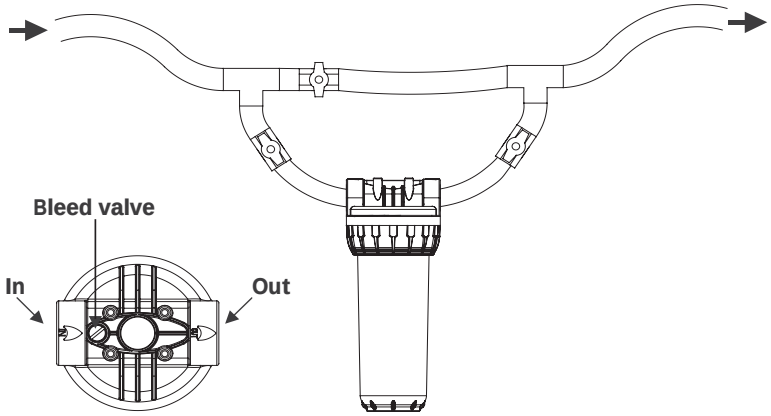

Upon request, opaque polypropylene containers are available for minimum quantities

# GENERAL RULES OF USE AND INSTALLATION

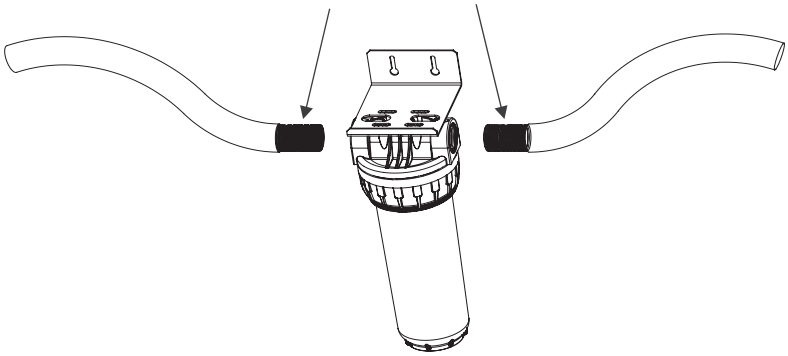
The products must be installed and maintained in accordance with the instructions contained in the **INSTALLATION SHEET** included in the packages of the housings; otherwise the warranty terms will become void.

In particular:

- Observe the indicated operation pressure limits. If higher pressures or sudden and frequent water hammering are foreseeable, install a pressure reducing system prior to the housing
- Use with liquids at room temperature (20- 25°C) or, in any case, within the indicated limits: If installed on a furnace, a non-return valve should be used in order to prevent boiling water from returning into the housing
- Do not store or install in places exposed to intense cold or very high temperatures since these conditions could jeopardize performance and cause breakage
- Do not use with liquids containing aggressive pH solutions such as chemical products, solvents, detergents, etc. The filter cartridge housings with SAN transparent cups must only be used for treating liquids with a neutral pH
- If the substances stated above are present, only housings with opaque polypropylene cups should be used. Their use is likewise recommended for installations with constant exposure to light, in order to prevent bacterial proliferation in the treated liquid
- Do not use for filtering compressed air or gas, even at low pressures
- In the case of wall installation:
  1. Secure the housings using the provided wall supports
  2. To prevent stressing of the pipes, connect the housings to the pipes using hose assemblies
  3. Always use GAS fittings with cylindrical threads: do not use conical fittings or pipes directly threaded onto the housing
  4. Provide enough space for carrying out maintenance and replacing filter cartridges
- To isolate the system and keep the supply of water possible during routine maintenance operations or in the case of breakage, provide for a by-pass system: A tap for verifying the quality of the treated water should also be installed
- Do not use sealing pastes, hardening liquids, silicones, hemp, etc., during installation. Use only Teflon tape




**Apply Teflon tape to guarantee the seal of the threads: the use of sealing liquids or hemp is not recommended.**



## MAINTENANCE

- The housings must be completely tightened: Check before starting the system to prevent water leaks
- The housings should only be cleaned with a sponge and running water each time work is done on the filter cartridge or when it is replaced: avoid the use of detergents, solvents, alcohol, and any other common household cleansing agents
- If the housing accidentally falls during cleaning or maintenance, it should be replaced since the drop could cause microcracks, not visible to the naked eye, that over time could cause the housing itself to break completely
- If not used for more than one week, especially during very hot periods, when used again for the first time run the water for several minutes so that any formation of bacterial flora flows out

## REPLACING THE FILTER CARTRIDGE

- To replace or wash the filter cartridge inserted in the housing, follow the instructions reported in the technical specifications of the cartridge itself
- Isolate the housing from the water mains or activate the by-pass, if present
- Unscrew the bleed valve located on the housing's head in order to release the pressure and facilitate unscrewing by using the provided wrench. Proceed by replacing and retightening, making sure that the O-ring is in its housing and the cartridge is properly positioned. Restart the water mains, keeping the bleed valve open until all of the air has been released and then close it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