

SOFT - NO - R[®]

COMMERCIAL ANTI SCALE

SALT-FREE WATER TREATMENT SYSTEMS

FEATURES

- ❖ 5 – 7 years media life
- ❖ **N**ucleation **A**ssisted **C**rystallization (**NAC**)
- ❖ Non-chemical **Scale Prevention** Technology



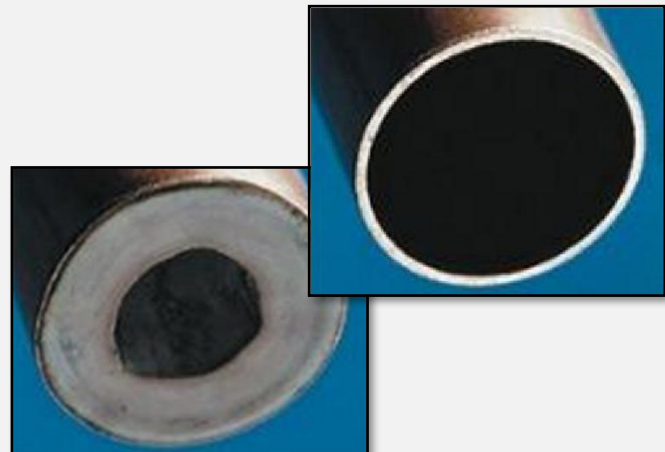
BENEFITS

- ❖ Certified to NSF/ANSI 61
- ❖ No salt
- ❖ No Brine Tank
- ❖ No backwash
- ❖ No electricity
- ❖ Easy installation
- ❖ Removes pre-existing scale
- ❖ No costly repairs to appliances due to scale



SOFT - NO - R

System eliminates previous scales within a few weeks



SOFT-NO-R[®]

THE NON-CHEMICAL SCALE PREVENTION SYSTEM

INTRODUCTION

Did you know water softener is polluting the environment? Watch Water got a neat and clean chemical free **scale prevention**

FILTERSORB[®] SP3 media to convert hardness minerals to harmless inactive sub-micron crystals, making **SOFT-NO-R** series systems, the truly effective alternative technology to water softeners for the prevention of scale due to water hardness.

- **Filtersorb SP3 media does not remove healthy minerals or add sodium to the water supply**

SOFT-NO-R systems requires **No** control valve, **No** electricity and **No** wastewater - an absolute environmentally friendly "**GREEN**" technology. Simple sizing and installation are perfect for today's and future homes, towns and all communities where water softeners are forbidden. **SOFT-NO-R** systems are maintenance free and last up to 5 -7 years.

SOFT-NO-R systems are perfect for residential and large commercial applications. Combination with **INSTANT I-SOFT** in Industrial applications (multipurpose steam boilers and hot water boiler, cooling tower, heat exchanger, reverse osmosis and etc) offers a complete solution including corrosion and bio-fouling problems. **INSTANT I-SOFT** certified to NSF/ANSI 60.

NUCLEATION ASSISTED CRYSTALLIZATION

FILTERSORB[®] SP3 beads enable the **Nucleation** site to transform the calcium bicarbonate **Ca(HCO₃)₂** into **aragonite** form of calcium carbonate **CaCO₃** crystals. These crystals are formed through decomposition and **Crystallization** process forming very stable and harmless crystals that does not adhere to surfaces up to **80°C**.

Nucleation Assisted Crystallization is the basis of reliable **Scale Prevention** capability of **FILTERSORB[®] SP3**.

The transformation of water hardness takes place in the following steps:

1. Continuous transformation of water hardness makes the immediate crystal growth possible with **unidirectional** chemical equilibrium viz.

$$\text{Ca(HCO}_3\text{)}_2 \rightarrow \text{CaCO}_3 + \text{CO}_2 + \text{H}_2\text{O}$$
2. The crystals developing on the surface of the **FILTERSORB[®] SP3** bead, grow rapidly and **nucleates**.
3. After a short time the micro-emulsion of **CO₂** and **CaCO₃** forms colloid particle and leaves the media bead surface in neutral form. The transformation of **CaCO₃** are sub micro-meter scale and are transform into insoluble crystals that prevent scale without any additional chemicals.

SOFT-NO-R[®]

THE NON-CHEMICAL SCALE PREVENTION SYSTEM

THE PROBLEM

Calcium creates **scale** in pipes, on appliances and other plumbing surfaces. This leads to higher Heating and energy costs and expensive repairs to appliances, such as ice machines, coffee makers, dishwashers and cooling towers in commercial buildings. **Scale** can also be a source of bacteria to grow, which can be a health concern in drinking water applications. **Calcium**, on the other hand, is an important mineral to human health, and supplements are recommended if **Calcium** is reduced in one's diet.



THE SOLUTION

Watch Water[®] Anti-Scale Treatment Systems transform Calcium ions into Calcium Carbonate **CaCO₃** crystals, which are stable and cannot attach to pipes, surfaces, and hardware of heat exchanger components. The crystals are so small they are easily rinsed away by the water flow and leaving behind No scale and No additional chemicals.

THE BENEFITS

- **Scale Prevention:** Scale deposits causes blocking and the failure of the water flow systems in household appliances (Washing machine, dish washer, coffee machine etc). A huge replacement cost for the pipes and the systems affected by the water hardness can be avoided using **SOFT-NO-R** systems.
- **Hygiene:** **SOFT-NO-R** scale prevention unit treated water is enriched with naturally occurred CO₂ in the water. The benefit & essence of CO₂ enriched water is medically proven, that helps with skin problems, lusterless hair and has many therapeutic applications.
- **Health:** Unlike any water-softening unit that works based on ion-exchange, that takes out Calcium and Magnesium from the water and pollute it with unhealthy Sodium, **SOFT-NO-R** scale prevention unit preserves the two essential minerals Calcium and Magnesium in the water. Thus making the water the best natural-mineral enriched drink available.
- **Economical:** **SOFT-NO-R** scale prevention unit is very economical in the long run. **Easy** installation and setup, No power consumption, No drain, No backwash, No salt consumption, No chemicals and almost No maintenance is necessary.

COMMERCIAL **SOFT-NO-R** SYSTEM DESCRIPTION - 1" PIPE

The flow direction of the Commercial **SOFT-NO-R** anti-scale System is **Up-Flow**. Therefore, the inlet and outlet connections are opposite of traditional water treatment equipment. The flow rate must not exceed the **maximum** specified flow rate of the system. A flow control device will be required for applications where flow rate may exceed the specified maximum flow rate.

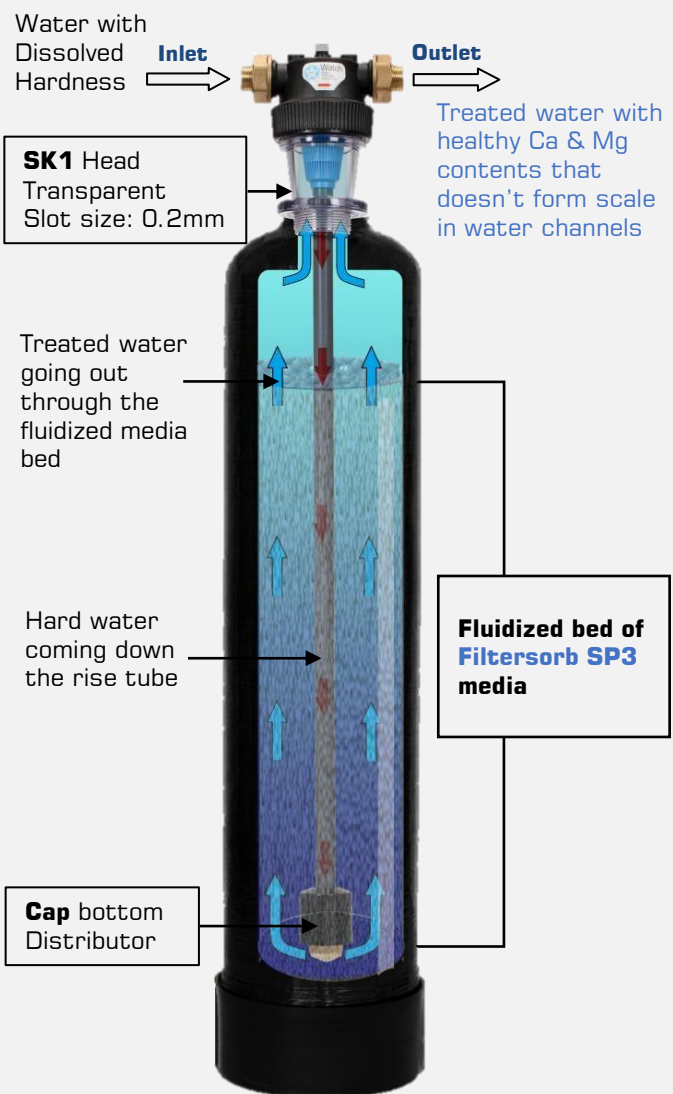
- NO SALT
- NO ELECTRICITY
- NO CHEMICALS
- NO REGENERATION

CONDITIONS OF OPERATION

- Minimum pressure: 1 bar
- Maximum Pressure :10 bar
- Minimum operating temperature: 5 °C
- Maximum operating temperature: 80 °C
- Water pH range: 6.5 to 9.5
- Top Distributor: 0.2 mm slot size
- Maximum feed water hardness is 1340 ppm
- Pre-treatment required for Hydrogen Sulfide, Iron and Manganese (**Katalox-Light**)
- Maximum Chlorine 3ppm, de-chlorination recommended (**Catalytic Carbon**)
- Oil and grease should not be present

Note: Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. System must be maintained according to manufacturer's instructions. Pre-treatment for sediment, Iron, Hydrogen Sulfide, Manganese, hydrocarbons and Copper may be required depending on conditions. Install systems in new facilities with copper pipe after six weeks of water use.

SOFT-NO-R (One-inch Pipe)





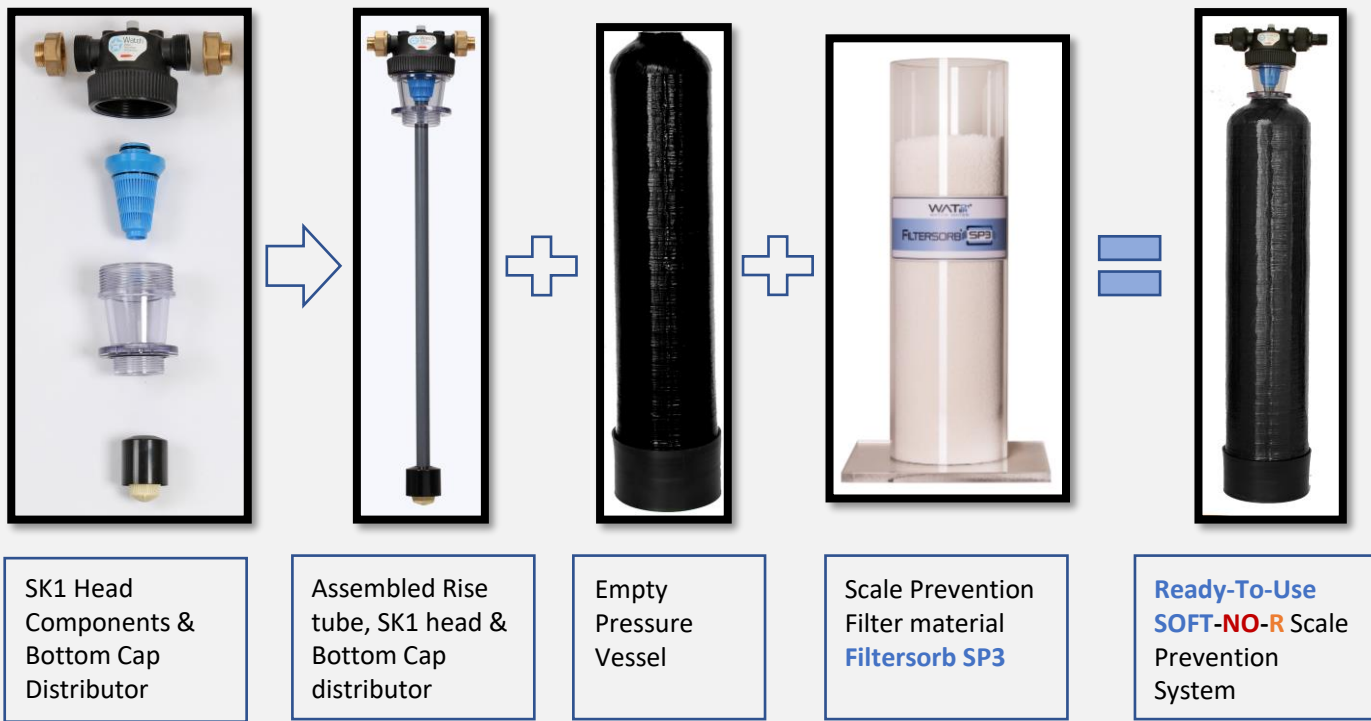
SOFT-NO-R SYSTEM

1" PIPE

| System Name 1" Pipe | | Flow Rate (m ³ /h) | | Tank Size | Quantity Filtersorb SP3 (liter) | Pressure (bar) | |
|------------------------|------|----------------------------------|-----|-----------|---------------------------------------|-------------------|-----|
| | | Min | Max | | | Min | Max |
| SOFT-NO-R | 500 | 0.4 | 0.5 | 7 x 17 | 1.5 | 1 | 10 |
| SOFT-NO-R | 1000 | 0.8 | 1.0 | 8 x 35 | 3 | 1 | 10 |
| SOFT-NO-R | 1500 | 1.2 | 1.5 | 8 x 44 | 4.5 | 1 | 10 |
| SOFT-NO-R | 2000 | 1.6 | 2.0 | 10 x 35 | 6 | 1 | 10 |
| SOFT-NO-R | 2500 | 2.0 | 2.5 | 10 x 44 | 7.5 | 1 | 10 |
| SOFT-NO-R | 3000 | 2.4 | 3.0 | 10 x 54 | 9 | 1 | 10 |
| SOFT-NO-R | 5000 | 4.0 | 5.0 | 13 x 54 | 15 | 1 | 10 |

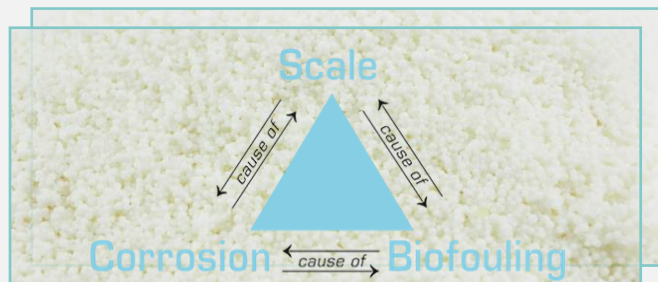
SOFT-NO-R System assembly:

SOFT-NO-R System is very easy to install. You save your time, money & maintenance costs.
Four components; 1) SK1 Head 2) Riser tube 3) Bottom Distributor & 4) Pressure Vessel 5) Filtersorb SP3



COMMERCIAL **SOFT-NO-R** SYSTEM DESCRIPTION - 2" PIPE

The flow direction of the Commercial **SOFT-NO-R** anti-scale System is **Up-Flow**. Therefore, the inlet and outlet connections are opposite of traditional water treatment equipment. The flow rate must not exceed the **maximum** specified flow rate of the system. A flow control device will be required for applications where flow rate may exceed the specified maximum flow rate.

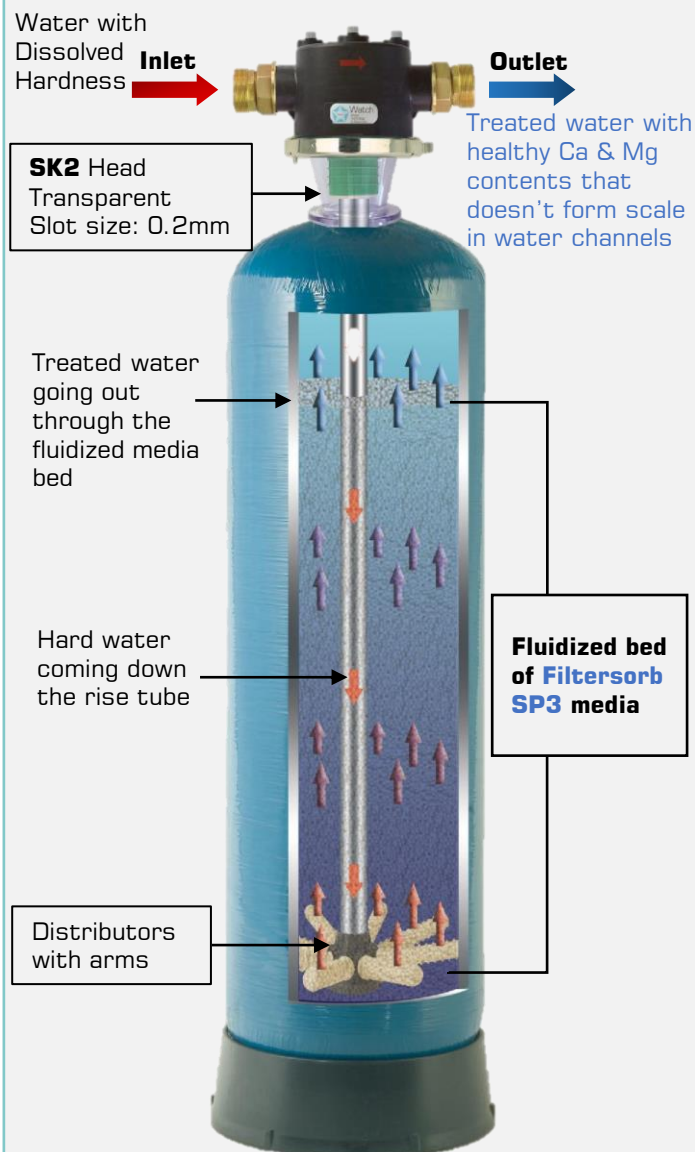


CONDITIONS OF OPERATION

- Minimum pressure: 1 bar
- Maximum Pressure :10 bar
- Minimum operating temperature: 5 °C
- Maximum operating temperature: 80 °C
- Water pH range: 6.5 to 9.5
- Top Distributor: 0.2 mm slot size
- Maximum feed water hardness is 1340 ppm
- Pre-treatment required for Hydrogen Sulfide, Iron and Manganese (**Katalox-Light**)
- Maximum Chlorine 3ppm, de-chlorination recommended (**Catalytic Carbon**)
- Oil and grease should not be present

Note: Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. System must be maintained according to manufacturer's instructions. Pre-treatment for sediment, Iron, Hydrogen Sulfide, Manganese, hydrocarbons and Copper may be required depending on conditions. Install systems in new facilities with copper pipe after six weeks of water use.

SOFT-NO-R (Two-inch Pipe)





SOFT-NO-R SYSTEM

2" PIPE

| System Name 2" Pipe | | Flow Rate (m ³ /h) | | Tank Size | Quantity Filtersorb SP3 (liter) | Pressure (bar) | |
|------------------------|-------|----------------------------------|------|-----------|---------------------------------------|-------------------|-----|
| | | Min | Max | | | Min | Max |
| SOFT-NO-R | 6000 | 4.8 | 6.0 | 14 x 65 | 18 | 1 | 10 |
| SOFT-NO-R | 8000 | 6.4 | 8.0 | 14 x 65 | 24 | 1 | 10 |
| SOFT-NO-R | 10000 | 8.0 | 10.0 | 16 x 65 | 30 | 1 | 10 |
| SOFT-NO-R | 12000 | 9.6 | 12.0 | 18 x 65 | 36 | 1 | 10 |

INSTALLATION INSTRUCTION

1. Place system on a smooth flat surface.
2. Install the fittings.
3. Connect incoming cold water to the inlet of the system.
4. Connect system outlet to service water of the house.
5. Partially open a valve downstream of the system to allow the air to purge from the system.
6. Slowly open inlet valve and allow the system to fill with water.
7. Close the downstream valve five minutes after the air has been purged from the system and plumbing. The flushes any fines out of the system.
8. Check for leaks and repair as required.
9. System is ready to use.

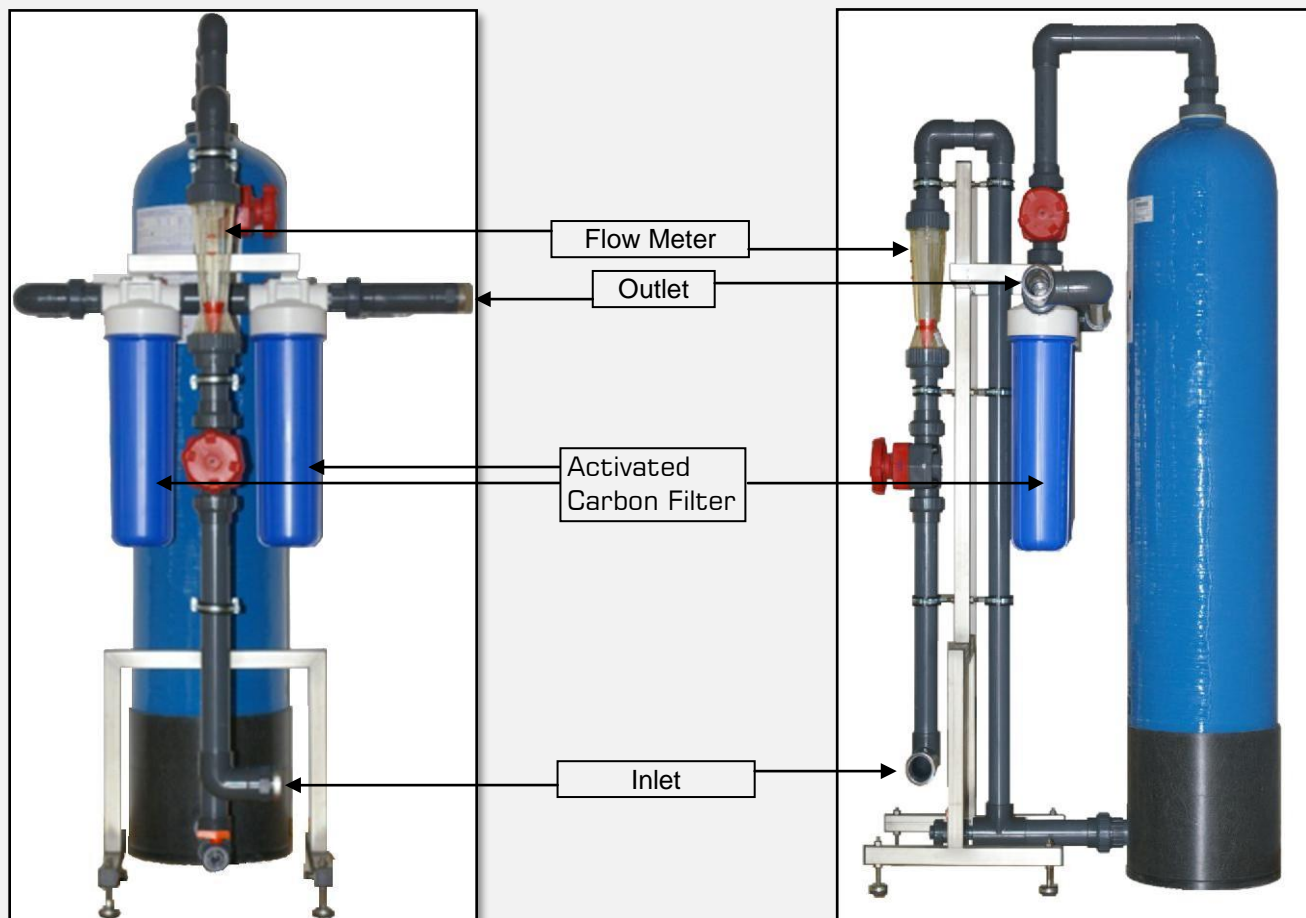
The amount of **FILTERSORB SP3** listed in the table is based on the calculation to treat the hardness up to **420 ppm/ 25 gpg** (USA). To determine media amount for treating water hardness over 420ppm contact Watch Water for calculation details



COMMERCIAL SOFT-NO-R SYSTEM DESCRIPTION - 4" PIPE

Convenient and easy operation with **SOFT-NO-R** High Flow Kits, which are skid-mounted units. These systems include (ball/membrane) valves, PVC piping's, flow meter with one or several parallel-installed tanks which are top/bottom openings. Additionally, an Activated Carbon in 20-inch big blue at inlet to increase the life span and efficiency of **Filtersorb SP3** media. The units are supplied ready to install (plug and play).

SOFT-NO-R High Flow Kits 4" Front & Side View



SOFT-NO-R SYSTEM 4" PIPE

| System Name | | Flow Rate (m ³ /h) | | Tank Size | Quantity Filtersorb SP3 (liter) | Pressure (bar) | |
|------------------------|-----------|-------------------------------|-----|-----------|---------------------------------|----------------|-----|
| | | Min | Max | | | Min | Max |
| SOFT-NO-R | 15000 | 12 | 15 | 21 x 60 | 45 | 1 | 10 |
| SOFT-NO-R | 20000 | 16 | 20 | 24 x 69 | 60 | 1 | 10 |
| SOFT-NO-R | 25000 | 20 | 25 | 24 x 69 | 75 | 1 | 10 |
| SOFT-NO-R | 30000 | 25 | 30 | 30 x 72 | 90 | 1 | 10 |
| Parallel System | | | | | | | |
| SOFT-NO-R | 2 x 20000 | 35 | 40 | 2 x 2469 | 2 x 60 | 1 | 10 |
| SOFT-NO-R | 2 x 25000 | 45 | 50 | 2 x 2469 | 2 x 75 | 1 | 10 |
| SOFT-NO-R | 2 x 30000 | 50 | 60 | 2 x 3072 | 2 x 90 | 1 | 10 |
| SOFT-NO-R | 2 x 35000 | 60 | 70 | 2 x 3072 | 2 x 105 | 1 | 10 |
| SOFT-NO-R | 2 x 40000 | 70 | 80 | 2 x 3072 | 2 x 120 | 1 | 10 |
| SOFT-NO-R | 2 x 50000 | 90 | 100 | 2 x 3672 | 2 x 150 | 1 | 10 |
| SOFT-NO-R | 2 x 60000 | 110 | 120 | 2 x 3672 | 2 x 180 | 1 | 10 |
| SOFT-NO-R | 2 x 65000 | 120 | 130 | 2 x 4278 | 2 x 195 | 1 | 10 |
| SOFT-NO-R | 2 x 85000 | 160 | 170 | 2 x 4882 | 2 x 255 | 1 | 10 |

Special Information: **FILTERSORB® SP3** has good capacity to absorb Iron, Copper, Manganese, Lead, Zinc etc. Hence in high concentration presence of these contaminants the **FILTERSORB® SP3** beads may change color and come to an end of the media life. From studies it's also possible that the media might change color due to dye leaching from the container tank made of polyethylene. In case of any strange color change of the **FILTERSORB® SP3** media beads or the treated water is noticed, please contact us with detailed water analysis.

Note: Do not use where water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. System must be maintained according to manufacturer's instructions. Pre-treatment for sediment, Iron, Hydrogen Sulfide, Manganese, hydrocarbons and Copper may be required depending on conditions. Install systems in new facilities with copper pipe after six weeks of water use.