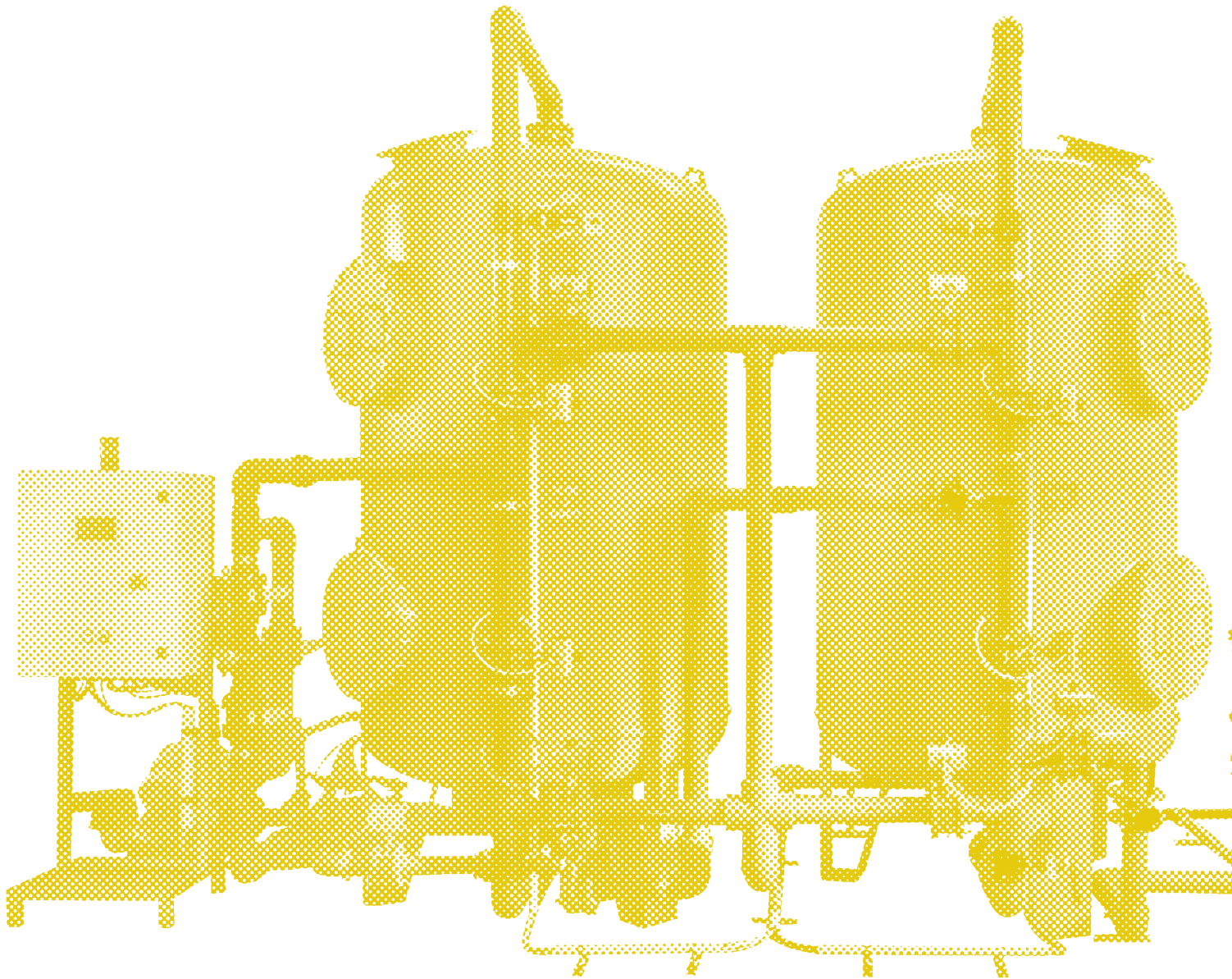


# FILTRATION SYSTEMS

MULTI-MEDIA FILTRATION



# MULTI-MEDIA FILTERS

Filtration systems to treat well or process water using different types of media filters installed in **sequence** or in **parallel**.

Filtration technology used to separate solid or dissolved particles from a fluid by passing through a porous media at a pressure gradient that is higher than atmospheric.

In addition to the removal of suspended solids, different types of filter media are used to retain pollutants by **adsorption**, **ion exchange** and **oxidation**.

These systems require frequent **flushing** operations which generally use counter current water to remove retained pollutants and restore the functionality of the filtration bed.

## Applications

### Ground water filtration

Removal of pollutants from well or ground water and upstream pre-treatment of membrane filtration systems.

### First rain

Final filtration of rainwater before discharge to sewer, removal of **hydrocarbons** and **heavy metals**.

### Reclamation of contaminated sites

Filtration equipment for **Pump&Treat** stations in the reclamation of sites which have been polluted with suspended and dissolved contaminants.

### Iron removal

Removal of **Iron** and **Manganese** contained in groundwater, filtration plants used for both filtration of water for industrial use and drinking water.

### Water treatment

Final filtration downstream of chemical-physical or biological treatment plants to ensure the compliance with the limits for sewage discharge.



## Specifications

SAITA filtration plants are designed to fit the specific application, the pollutants to be removed and the flowrate of water to be filtered.

The filtration columns, containing the filter media, can be made of: fiberglass, stainless steel or painted carbon steel.

The washing and backwashing operations of the filter beds can be manual or fully automated using pneumatic valves controlled by industrial PLC.

Filtration plants are supplied with the feed pump and process control instruments such as: analogic flow meters, counters and pressure controls



## Sectors

- Water purification
- Rainwater
- Membrane pre-treatment
- Ground water reclamation
- Cleaning water recirculation

## Advantages

- High flow rates
- Low energy consumption
- Low consumption of chemicals
- Removal of suspended and dissolved solids
- Easy use and maintenance

## Quartz sand

Quartz sand filters consisting of a single or multi-material granular filter bed are used to remove suspended solids.

## Activated Carbon

Mineral-type granular activated carbon (GAC) filters for adsorption of organics, solvents, phenols, chlorine, surfactants, PFAS, dyes, amines, etc.

## Zeolite

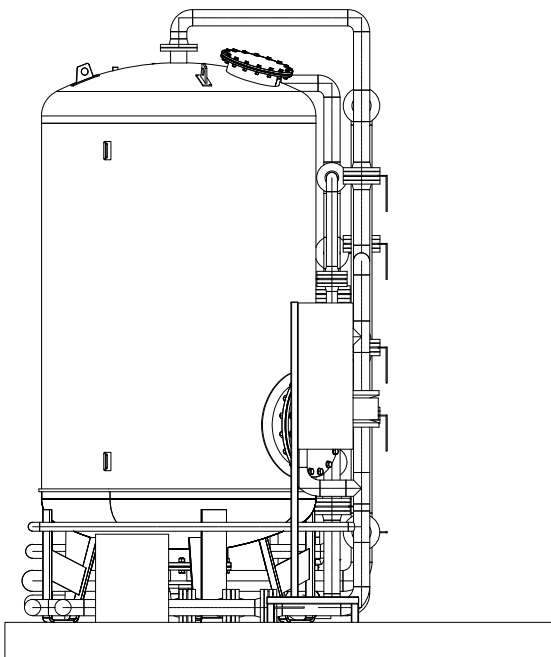
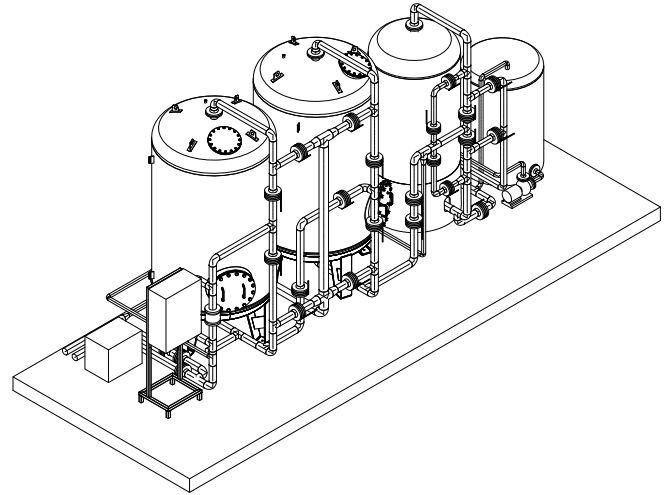
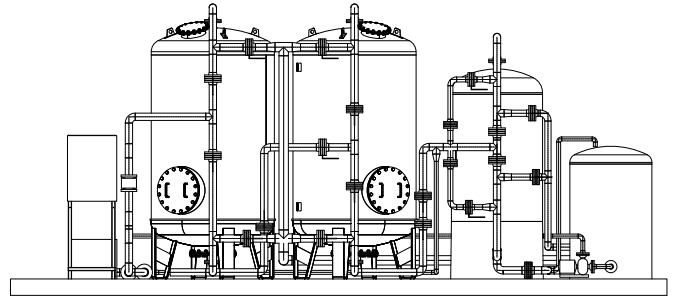
Mineral-type granular filter media with cation exchange capacity, used for the removal of ammonia.

## Selective resins

Used downstream of water treatment plants before discharge to the sewer. Selective ion exchange resins for heavy metals such as: Zinc, Nickel, Chromium, Copper, etc.

## Pyrolusite - BIRM

Granular manganese dioxide used to remove iron and manganese from well or city water for human or industrial use.



## Optionals

- Remote control on PC, tablet or mobile
- Pumps with inverter
- Sterilization system
- Analogic flow meters
- Storage tanks
- Backwash with air blower
- Industry 4.0 Ready

