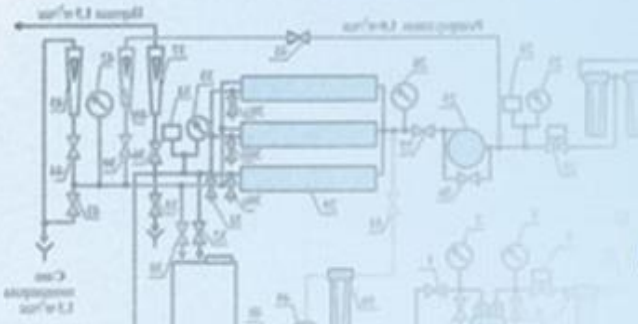

Akvainvest

MODERN WATER TREATMENT METHODS

Commercial and industrial water treatment equipment

Engineering Production Installation

SPA “AKVA INVEST”

Water treatment is a treatment of water from natural sources to the water supply for human and domestic use.
Industrial water treatment is used to purify water from excess salt including hardness salts , nitrates, heavy metals and other impurities. It prevents from scaling, metal corrosion and other negative effects for the equipment.

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Water treatment and purification system has a lot of water treatment methods,
specifically:
- clarification;
- removal of hardness by sodium-cation exchange;
- salt rejection;
- iron and manganese oxides removal;
- water treatment from different microorganisms (bacteria, viruses etc.);
- odor pollution removal.

“Akva Invest” offers a water treatment equipment of high quality. It includes a wide range of filters, membranes, waterpumps, sterilizers, batchers,
instrumentation and controls, etc.

Our experts carry out all necessary works including development, installation and debugging of water treatment equipment. We provide different services such as
water analysis, engineering of water treatment system, equipment installation. Our experience and resources allow us to prepare a high-quality and cost-effective water treatment unit.

Our company has implemented scores of projects for many commercial and public facilities successfully. We know how to select the most cost effective equipment for you. With “AkvaInvest” water treatment and purification will be done with quality, quickly and cost-efficient.

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Installation of chemical ROx-filter

It is intended for removal of aggressive gases from water.

A ROx-filter is an alternative way traditional methods of water deaeration, based on high temperature treatment use.

ROx-filter installation has a number of important advantages:

-no need in water preheat;
-any external heat losses;
-no constant electric energy consumption;
-short payback period (around 1-2 years).

External appearance of metal and plastic equipment

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Installation of chemical deaeration ROx-P filter

A ROx-P filter is an alternative way to traditional methods of water deaeration, based on high temperature treatment use, and also a chemical deaeration installation.

ROx-P filter installation has a number of important advantages:

- no need in water preheat;
- any external heat losses;
- no constant electric energy consumption;
- no need in a constant reagent dosage;
- fully automatic;
- minimum operating costs;
- compact;
- short payback period (around 1-2 years);
- extended operating domain.

The module system serves as the basis for the filter. It consists of 1-3 filter cartridges. They work by turn and have a vertical installation. Fibreglass enclosure filled with redoxide are used as filter cartridges. While in operation filter cartridges are changed (a service maintenance) for a postreduction of a redoxide performance.

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Removal of hardness by sodium-cation exchange installation

The point of ion exchange is that hard water is passed through a filter layer of granular polymeric ion-exchange material (cation exchanger), called "an ion-exchange resin", which is "charged" with sodium ions.

When in contact hard water with grains of the cation exchanger, the ions of "hardness salts" are replaced by sodium ions from the cation exchanger. In other words the ion exchange resin absorbs hardness salt ions and releases an equivalent amount of sodium ions into the water in return. Sodium salts are easily soluble and do not create hard scale on heated surfaces. As a result, the treated water becomes softened.

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Combined modular water treatment plant

External appearance of plastic equipment

The equipment is used for a deep softening and deaeration of industrial water for low- and medium-powered steam and water heating boilers.

Combined modular water treatment plant consists of two units:

- A softening unit is completed with y-strainer or
- countercurrent ion-exchange filters.
- A deaeration unit is completed with
- a ROx – filter(ROx -K filter).

Combined modular water treatment plants have a wide performance series.
According to customer's wishes they can be produced in metal or plastic.

SPA “AKVA INVEST”

Reverse osmosis systems

Reverse osmosis is a simultaneous water demineralization, sterilizing and cleaning from dissolved contaminants. It is the most universal and eco-friendly method in a modern water conditioning.

Deironing

The highest iron concentration more often can be found in wellbore water in the form of ferrous ions.
Iron in water can do a great deal of damage to the industrial equipment, boilers, water supply, heating and water impounding systems.
During the commercial water cleaning iron pollutes softening and demineralization systems rapidly. That is why deironing is one of the most important goals of water conditioning.

SPA "AKVA INVEST"

Automatic proportional dosing station

The equipment is used for a coordinated phosphate water control via chemical solution proportioning in a stoichiometric amount depending on a water rate.

The dosing stations are recommended for such processes as:

•A pipeline transfer system (a water two-bath process) of
a corrosion inhibitor solution for heat supply systems, DHW, water-recycling cooling systems.

•Special reagents dosing for chemistry corrections of steam and water heating boilers:

•chemical deoxygenation;

•pH correcting;

•hardness scaling prevention;

•Corrosion prevention in steam-and-condensate links of steam boilers.




Possible operational conditions of dosing stations:

- Constant dosage;
- Proportional dosage from an impulse signal (a pulse emitter water meter) or an external current signal (a flow meter).

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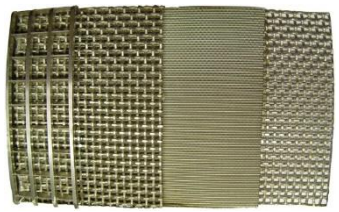
Self-cleaning strainer AMIAD

Self-cleaning strainers are used in water purifing from insoluble particles via its filtration through a micromesh. The degree of water purification depends on a screen opening's size, while the efficiency depends on a filtering mesh size.
Strainer's efficiency is in direct proportion to a filtering mesh purification efficiency.

The fields of utilization:

- reverse water supply;
- heat supply and cooling systems;
- waterpump and other equipment protection.

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