

System of purified water desalting by reverse osmosis GDF

System of purified water desalting by reverse osmosis is intended for desalted water preparation for further purification on ion exchange filters. It also provides the partially desalted water preparation for make-up of the sprinkler pools and the heating system. The system is on constant duty.

The purified water is supplied to the reverse osmosis plants of the first stage through UV-disinfection plants and thin purification filters with filtration thinness 5 mcm. Before clarified water supply to the reverse osmosis plant of I stage for prevention of hard dissolved deposits forming on surfaces it is provided addition of antiscalant and biocide solutions.

After the reverse osmosis plants of the first stage the permeate goes to the decarbonizator for reduction of free carbon acid concentration to level 5-7 mg/dm³. Then the flow is fed under gravity to the partially desalted water tank.

The partially desalted water goes to the making-up of cooling systems of the consumers in charge and heat supply systems, and to the reverse osmosis plants of the second stage.

The UV-disinfection plants are intended for reduction of microbiological fouling of the reverse osmosis membranes of the second stage. The thin purification filters provide delaying of mechanic particles whose size is more than 5 mcm.

After the reverse osmosis plants of II stage the permeate goes to desalted water tank. Then it is supplied to ionexchange purification on the mixed beds of GCF system.