



## WATER/WATER HEAT PUMP IN BUILDINGS

**ES energy services / Ikea Strasbourg (France).** Protection of the store's heat pump heat exchanger using borehole water. AS 300 DN150 200 µm filter.

**SPIE Building Solutions / Municipality of Sandillon (France).** New cultural hall. Protection of the heat pump heat exchanger with a AS200 2" 100 µm filter. Borehole flow rate: 11 m³/h.

**Regmatherm / Community hall and daycare, Baldenheim (France).** Groundwater heat pump. Borehole with 17 m³/h pump. Protection of the heat exchangers with a AS200 2" 100 µm filter. Plate exchanger heat pump, power 60 kW.

**EIMI / Ikea, Nice (06).**



Aquathermie on groundwater for the store's air conditioning. To protect the exchangers, two AS300 DN100, 100 µm filters were installed. Insulation was added by the installer.

**Axima Equens / Bonnat-Helleu Museum, Bayonne (France).** As part of the museum's renovation and expansion project, installation of groundwater heat pumps. Protection by a Hectron AS300 316L DN150 (60 µm) filter.

**Gamon Chauffage / La Cerisaie Clinic, Tain l'Hermitage (France).** Protection of a groundwater heat pump plate heat exchanger. Lightly loaded water with no need of an automatic system. HNC 80 hydro-cyclone.



Store air conditioning system using a heat pump. At full flow (210 m³/h), the previous filters (cyclone and sieve) clogged within a few hours due to the presence of sand. Replacement with an AG400 (60 µm).

**Hervé Thermique / Hautes-Pyrénées Departmental Council, Tarbes (France).** Departmental House: Protection of the plate heat exchangers of a groundwater heat pump. AS300 DN100, 200 µm.



## DRINKING WATER NETWORKS

**ITE / industrial site in Isère (France).** City water supplying the plant had a turbidity of up to 5 ntu. Treatment was installed at the plant inlet using four ACS-certified AG300 1 µm filters.

**Marteau / Municipality of St Léger en Yvelines (France).** Drinking water plant. 6 µm filtration to stop lime residues (5 mg/L) downstream of a lime + CO2 remineralization treatment. Flow rate of 20 m³/h. ACS AG200-E 2" 6 µm filter.

**SEMG / Communauté de communes du Pays Rochois (France).** Filtration of groundwater to supply the drinking water network (40 m³/h). The old bag filters had to be washed weekly. Replacement with two AG300-E 50 µm filters.

**Irrigaronne / SNERHA project, Carcassonne (France).** For a 2 m³/h spring water purification system. Pre-filtration with an AG100-E, 100 µm.

**Veolia Water / Village of Seythenex (France).** Water from the catchment area for the village supply. Slight turbidity to be removed by filtration. Flow rate to be treated: 18 m³/h. Filter AG300-E 3" 2 µm.

**Saur, Bernica, and Charpentier (Réunion island).** In each of these two drinking water treatment units, ACS-certified AG200-E and AG300-E filters, 20 µm filtration, were installed.

**Suez Degrémont FA, Sarrazac (France).** Drinking water plant. Filtration of pre-treated raw water at the outlet of the Aquadaf flotation unit. Flow rate of 20 m³/h, pressure 7 bar. AG200-E 316L.



## URBAN WASTEWATER PLANT

**OTV / St Malo Agglomération (France).** St Malo wastewater treatment plant. As part of the construction of a sludge methanization unit, an exchanger protection filter was added to the treated water leaving the clarifier. AG200 316L DN80 PN10 filter, 300 µm.

**Degrémont / Clermont Auvergne Métropole (France), Trois Rivières WWTP.**



Clarifier water. Service water production and energy recovery: water/water heat pump exchanger. Supply of automatic filters: two AG400 filters (100 µm) and one AG300 DN150 (200 µm).

**Sogea Environnement, Ondres WWTP (France).** Filtration of industrial water at the clarifier outlet. 15 m<sup>3</sup>/h. AG200 2" PN10 filter, 200 µm.

**SIVU (Sewage Treatment Plant) in Mègeve-Praz sur Arly (France).** The WWTP had a 150 µm AG300 filter for eight years to treat the clarifier outlet water. To further improve water quality, a second filtration stage was added. AG300 DN150 PN10 IP65 filter, 20 µm.

**Veolia / Toulouse Métropole OTV, Ginestous Garonne wastewater treatment plant.** For use in the new methanization unit, industrial water filtration at the clarifier outlet. Flow rate of 200 m<sup>3</sup>/h. AG400 DN200 PN10 filter, 200 µm.

**Veolia, Bouillargues Manduel WWTP (France).** Water at the clarifier outlet of the wastewater treatment plant. AG200 2" 300 µm filter.

**Stereau, Saindo WWTP, Theix (France).**



Filtration at the clarifier outlet, before lagooning. AG200 2" 400 µm filter.



## INDUSTRY: COOLING

**La Mesta chimie fine, Gilette (France).**



Filter in the treatment of a cooling tower. Bypass filtration: pump + AG300 316L filter (50 µm) + VSM pressure maintainer. Flow rate 50 m<sup>3</sup>/h.

**Algerian Qatari Steel, El Milia, Algeria.** Bellara steelworks. Filtration of the steelworks' cooling network. Low-pressure network requiring fine filtration. Hectron supplied two AS400 DN150 6 µm filters (capacity of 100 m<sup>3</sup>/h each).

**Conflandey, Port-sur-Saône (France).** Steel wire drawing plant. Machine cooling network with cooling tower. To limit the growth of flora clogging the pipes while reducing chemical water treatment, a filtration system was installed. From a total flow rate of 350 to 400 m<sup>3</sup>/h, a portion of the water (60 m<sup>3</sup>/h) is sampled and filtered through an AG300 DN100 with a 20 µm filter.

**Johnson Controls Industrie / Thales, Thônnon les Bains (France).** Filtration of the plant's cooling network. AG400 DN250 with a 100 µm filter.



## INDUSTRY: EFFLUENTS / PROCESS WATER

**CMI Proserpol / Airbus Helicopters, Gyula, Hungary.** Acid-alkaline rinse water filtration, 5 m<sup>3</sup>/h, 5 bar. AG200 316L 6µm filter.

**SEFI Bordeaux, Lormet (France).** Plastic recycling plant. After grinding, the particles are washed. Washing is done in a drum, by spraying water through nozzles. This water is then directed to a settling tank and returned to the washing circuit. To protect the edges, a 100 µm AS200 VM filter was supplied.

**Fleury Michon, Chantonnay (France).** Filtration at the outlet of the plant's WWTP. The existing filters (500 µm) did not provide sufficient water quality. Installation of an AG200 2" PN10 200 µm filter.

**Nalco / Nestlé France, Boué (France).** Filtration at the outlet of the factory's wastewater treatment plant to comply with discharge standards. AS200 100 µm filter.

**Suez Eau Industrielle / ST Microelectronics, Crolles (France).**



Treatment of effluent from the manufacturing of electronic equipment. After a biological process, final filtration of the water at the flotation tank outlet by an AG300 316L-E DN150 100 µm.





## LAKE AND RIVER WATER

**Aquaprox I-Tech / ManikHeim, Bessé-sur-Braye (France).** River water stored in a tank, then pumped back, chlorinated, and filtered upstream of two UF units. The Hectron AG300 filter backwash system operates without interruption of filtration, ensuring continuous supply to the UF. AG300 DN150 PN10 - 50µm

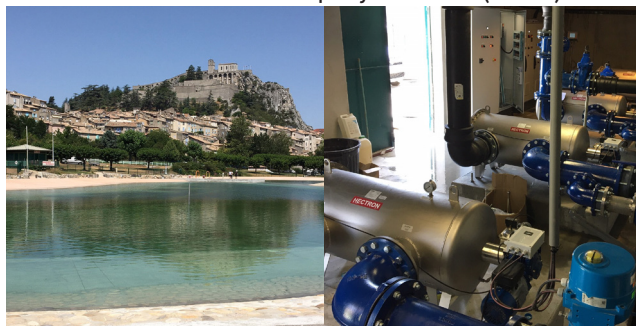
**Vinci Environnement / Syctom Paris, St Ouen l'Aumone (France).**



Household waste incineration plant. As part of the refurbishment of the flue gas treatment facilities, filtration of water taken from the Seine was installed. Set of four AG400 DN250 filters (up to 340 m<sup>3</sup>/h per filter). 400 µm filtration.

**SHEM, Paulhaguet (France).** River water filtration to protect a small hydroelectric power plant. AG100 100 µm filter.

**Les Techniciens de l'Eau / Municipality of Sisteron (France).**



Filtration of a swimming pool. Filtration of the water supply (borehole) (AG400 2 µm) and the water in the pool in a closed circuit: three AG400 316L 50 µm filters.

**Arkema, Feuchy plant, St Laurent Blangy (France).** River water filtration for the plant supply. Flow rate of 80 m<sup>3</sup>/h. AG300 DN150 40 µm filter.

**Suez, CIRSEE center, Croissy-sur-Seine (France).** On Seine river raw water (2 m<sup>3</sup>/h), a series of cartridge filters were installed: 50, then 20 and 10 µm. The cartridges were clogged in less than 2 days. This equipment was replaced by an AG100 filter in 11 µm.



## WATERING / MICRO-IRRIGATION

**Sénéquier, La Valette du Var (France).** Two boreholes feeding the same irrigation network. Water heavily laden with sand; all the solenoid valves clogged in less than 3 days. Installation of a 100 µm AG100.

**Pépinière des Avettes, La Genete (France).** Protection of the plant nursery's irrigation network: solenoid valves, micro-sprinklers, drip irrigation. Sand-laden borehole water. 80 µm AG100 filter.

**Catim, Sainte Bazeille (France).** Water drawn from the Garonne River for greenhouse irrigation. 0.5 mm nozzle protection. 2 AG200 DN80 PN10 filters in 100 µm.

**UV Germi / Squiban, Lapouyade (France).**



Closed-loop water filtration for greenhouse tomato irrigation. 20 µm filtration before UV system.



## SEAWATER

**Froy / Quantum, Norway.**



Protection of a reverse osmosis desalination system, used to fill freshwater tanks on live fish transport vessels (salmon farms). A set of AG400 Marine filters at 20 µm and 6 µm treats the raw seawater, protecting 10 µm absolute filters placed before the high-pressure pumps. Total flow rate of 500 m<sup>3</sup>/h.

**Aquassys / Ifremer. Argenton experimental site.** Bivalve mollusk breeding pool. As part of the overhaul of the seawater pumping and lifting system, installation of filtration using two Hectron AG200 Marine DN50 6 µm filters (15 m<sup>3</sup>/h each).

**Scop Hydro, Palm Beach, Cannes (France).** Renovation of the seawater pool. Pumped from the sea then stored in a tank. Flow rate of 8 m<sup>3</sup>/h, 100 µm filtration. AG200 Marine filter and PVC pressure sustainer.

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