

Thermal degasification plant for a chemical company in Leipzig



Customer:	Power plant operator
Procedure:	Thermal degasification
Capacity:	45 t/h
Year of realisation:	2013
Specialities:	Degasification plant with measurement and safety instrumentation, vapour condenser, substructure and access platform

Canal water filtration on multi-layer filter in the region Rhein-Ruhr



Multi-layer filter

Customer:
Service provider for recycling

Procedure: Filtration
Capacity: 25 m³/h
Year of realisation: 2012

Specialities:
Flocculation by iron-3-chloride dosing with a following filtration by fully automatic multi-layer filter, including filtrate tank, backwash components and waste water tank



Railing on vessel top

Extension of a condensate polishing plant for a paper mill



Condensate polishing line with resin trap



Condensate polishing line

Customer: Paper mill
Procedure: Filtration / ion exchange
Capacity: 85 m³/h
Year of realisation: 2010
Specialities: Extension of an existing condensate polishing plant, with a further cartridge filter for a prefiltration and a second fully automatic condensate polishing line, consisting of cation exchanger and anion exchanger as fluidised bed system



Prefiltration by cartridge filter



Anion exchanger

Two-line-reverse osmosis plant for a cement factory in Middle East



Reverse osmosis plant

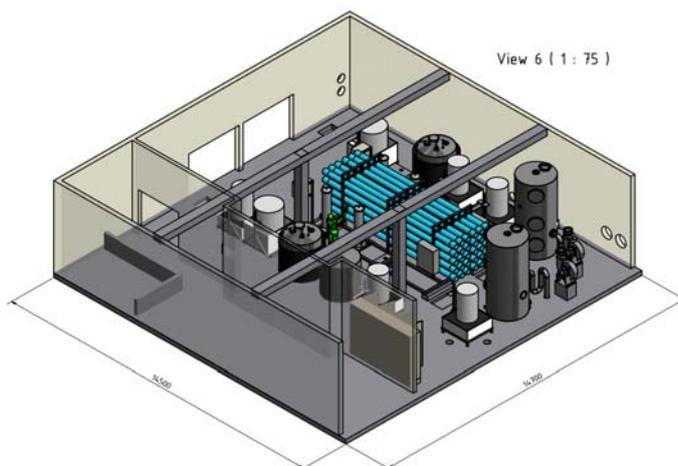


Dosing plant for antiscalant

Customer: Company for plant and machine engineering for the cement and mining industry
Procedure: Reverse osmosis
Capacity: 2 x 75 m³/h
Year of realisation: 2013
Specialities: Fully automatic plant with reverse osmosis plant, dosing plant for antiscalant, sulfuric acid, sodium hypochlorite, caustic soda and corrosion inhibitor, UV disinfection, CO₂ trickle degasser and cleaning station for membrane element (CIP)



Dosing plant for caustic soda



3D arrangement plan

Two-line-demineralisation plant for two power stations in the region “Ruhr”



Demineralisation line 20 m³/h



Demineralisation line 45 m³/h

Customer: Power supply industry
Procedure: Ion exchange
Capacity: 2 x 20 m³/h / 2 x 45 m³/h
Year of realisation: 2012
Specialities: Fully automatic plant with chemical supply and neutralisation



Neutralisation



Regeneration plant

Two-line-demineralisation plant for a paper mill in Schleswig-Holstein

Customer: Paper mill
Procedure: Ion exchange
Capacity: 2 x 15 m³/h
Year of realisation: 2014

Specialities:
 Fully automatic plant with iron-3-chloride dosing and filtration step, demineralisation with polishing step (mixed bed filter)



Gravel filter



Regeneration plant



Cation exchanger as a compound fluidised bed



Anion exchanger as a compound fluidised bed

**Water treatment with softening, demineralisation and oxygen removal
by reverse osmosis and membrane degassing**



Customer: Sugar manufacturer
Procedure: Softening (ion exchange), reverse osmosis, membrane degasification, UV disinfection
Capacity: 300 l/h
Year of realisation: 2016
Besonderheiten: Fully automatic plant with duplex softening, reverse osmosis for a conductivity of $< 20 \mu\text{S}/\text{cm}$, membrane degasification for a residual oxygen of $< 0,1 \text{ ppm}$ with support of technical nitrogen and vacuum, storage tank with inert gas overlay, booster pump with UV filter

Thermal degasification plant for a food distributor



Degasification plant in the planning stage



Degasification after erection



Access platform

Customer:	Power plant operator
Procedure:	Thermal degasification
Capacity:	15 t/h
Year of realisation:	2017
Specialities:	Degasification plant with measurement and safety instrumentation, substructure and access platform

Replacement of a demineralisation plant for an automobile manufacturer

Customer: Automobile manufacturer
Procedure: Ion exchange
Capacity: 1 x 50 m³/h
Year of realisation: 2015

Specialities:
Fully automatic plant with
Demin step by cation exchanger,
trickle degasser (CO₂-Removal),
anion exchanger and mixed bed for
achievement of a residual
conductivity of < 0,08 µS/cm in demin
water



Regeneration system



Cation exchanger



Anion exchanger



Mixed bed for polishing

Two-line ultrafiltration plant for beverage manufacturer

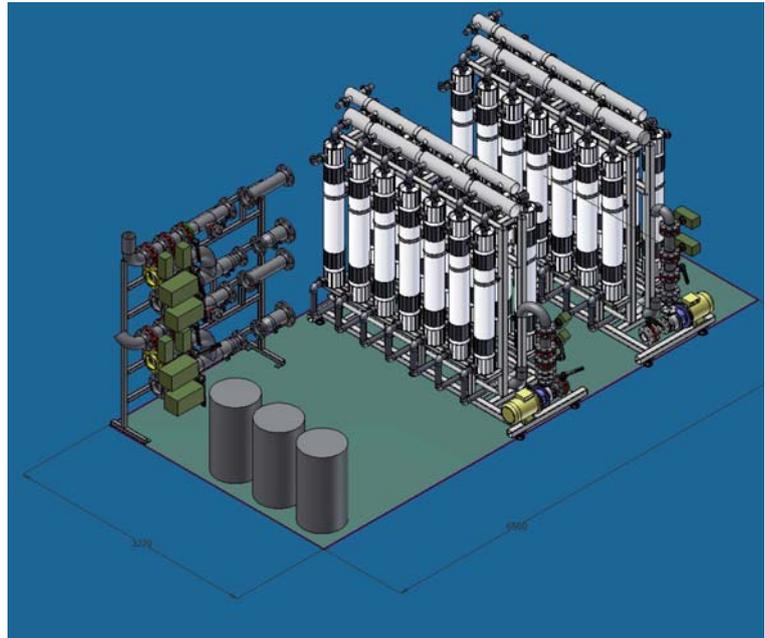


Ultrafiltration plant

Customer: German beverage manufacturer, factory in Spain
Procedure: Ultrafiltration by Dead End operation
Capacity: 2 x 40 m³/h
Year of realisation: 2011
Specialities: Fully automatic plant with hollow fiber ultrafiltration modules (OUT-IN) for Dead End operation, with pore size 0,03 µm; plant incl. automatic backwash and CEB system



Ultrafiltration plant



3D arrangement plan

Water treatment for filtration of river water



Filter vessel with automatic front piping



Control cabinet with touch panel



Inside view of the control cabinet

Customer:	Baumgarten handle systems KG
Procedure:	Filtration for iron and suspended particles removal
Capacity:	1x15 m ³ /h
Year of realisation:	2017
Specialities:	Fully automatic plant with water-air-mixer for addition of oxidation air, 1 x filter vessel, piping from steel-galvanised, with pneumatic valves, control Siemens Logo! for backwash, controlled by differential pressure, incl. control cabinet for pumps and blower.

Thermal degasification



Degasification plant at manufacturing

Customer:	Fabricom sa/nv, Belgium
Procedure:	Thermal degasification
Capacity:	6 t/h
Year of realisation:	2016
Specialities:	Incl. vertical pipe for level measurement



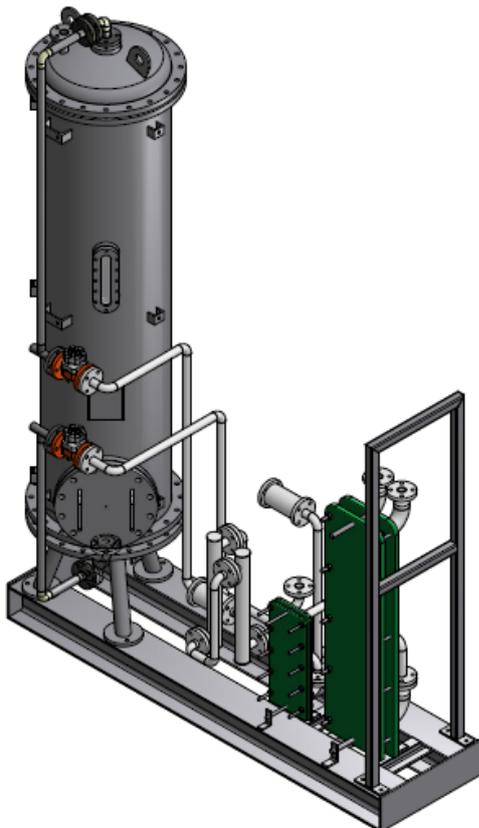
Degasification plant after installation and insulation by customer

Removement of copper from raw condensate with selective exchanger

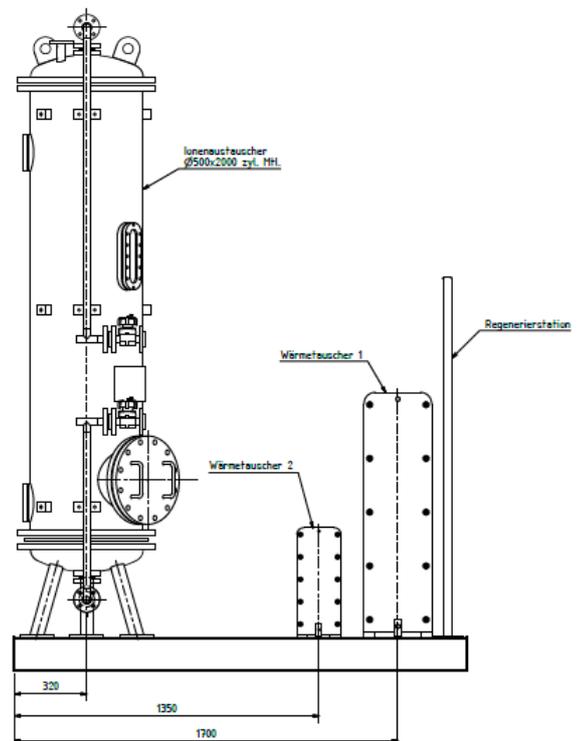


Complete plant with necessary equipment

Customer: Merck KGaA
Procedure: Selective exchanger for removement of copper (Co-flow regeneration)
Capacity: 1,5 m³/h
Year of realisation: 2013
Specialities: Vessel from steel with inner rubber coating, equipped with adsorbation resin Lewatit TP 207 for removement of copper from raw condensate, plate heat exchanger for a needed working temperature of <40 °C. Valves for manual resin regeneration with hypochlorid acid. All components pre-mounted on a steel frame. The capacity between two regenerations at full load is about 120 days.



Pre-design off he plant (3D-view)



Pre-design off he plant (2D-view)

Vacuum deaerator for district heating water for an existing demineralisation plant

Customer: Stadtwerke Kiel AG, Germany
Procedure: Vacuum deaeration
Capacity: 16 t/h
Year of realisation: 2015
Specialities: Deaerator from 1.4541, with perforated plate, upper packing column und lower storage tank and plugged-in heat exchanger, vapour condenser and two redundant liquid ring vacuum pumps, Online-oxygen analyser and further equipment for automatic operation. The deaerator operates at 70 °C (partial vacuum, approx. 300 mbar abs.). The residual oxygen is well below < 20 ppb.



Vacuum deaerator, insulated



Rack with vapour condenser, vacuum pumps and additional preheater for feed water (from right to left)

Referenz rwt014