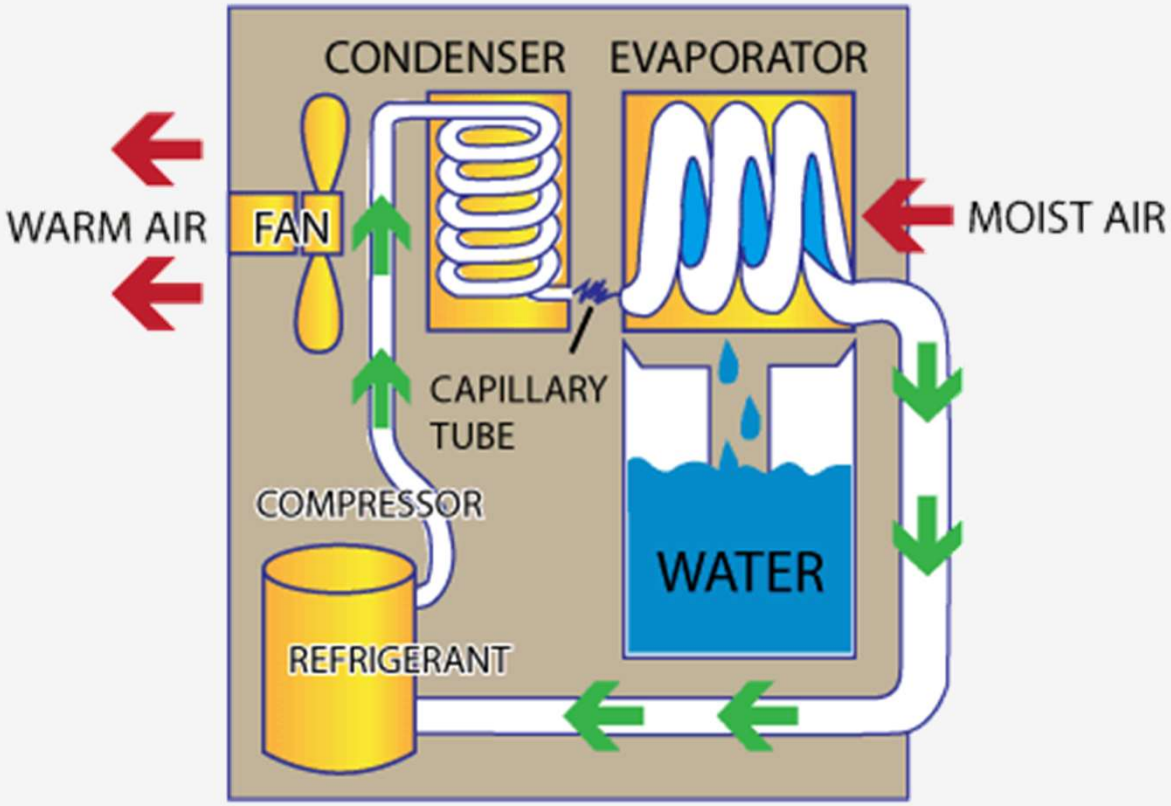
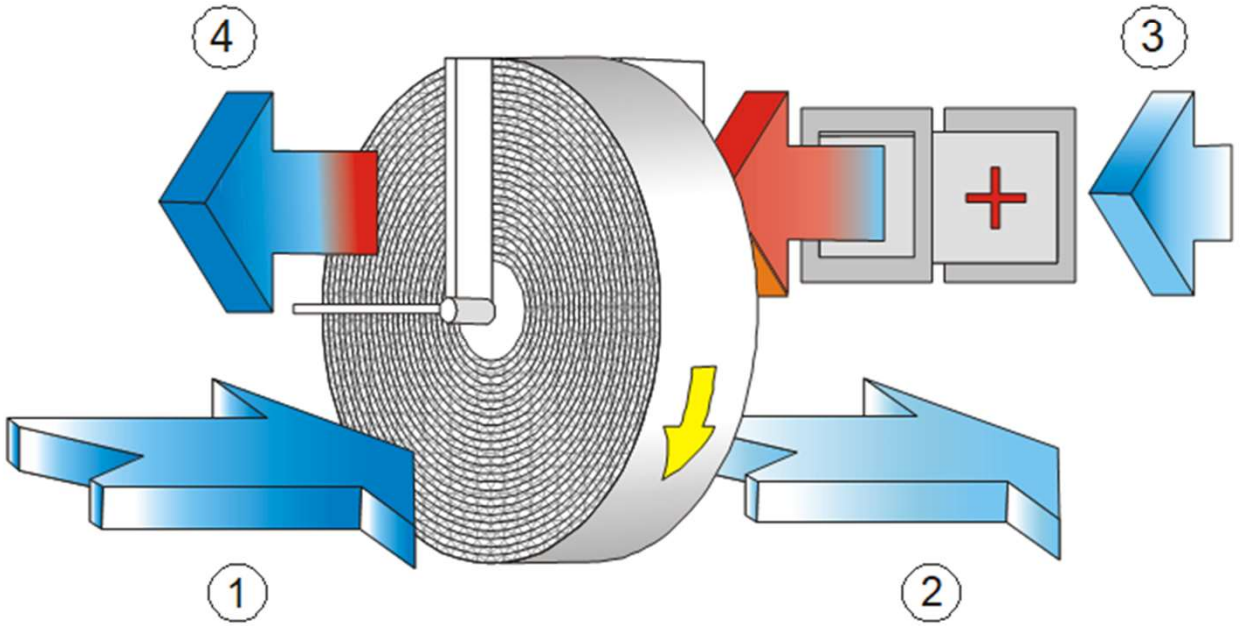
AIR DEHUMIDIFIERS DH

Principles: Mecanical Dehumidifier



Principles: Sorption Dehumidifier



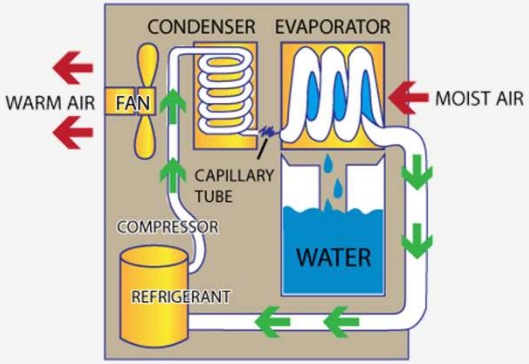
1 – Process air 2 – Dry air 3 – Reactivatión air 4 – Wet air

Principles: Sorption vs Mechanical

Mechanical:

-Condensation on the evaporative coil of a cooling system.

-Limitated to comfort applications

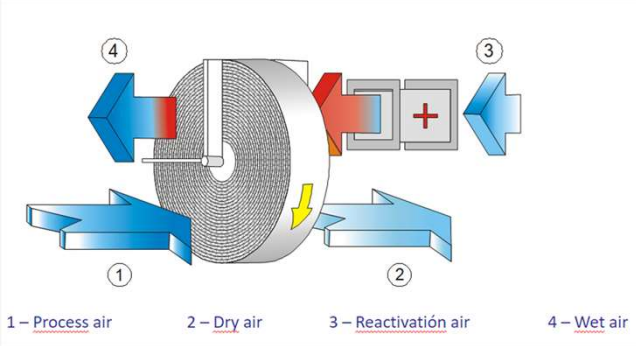


Sorption:

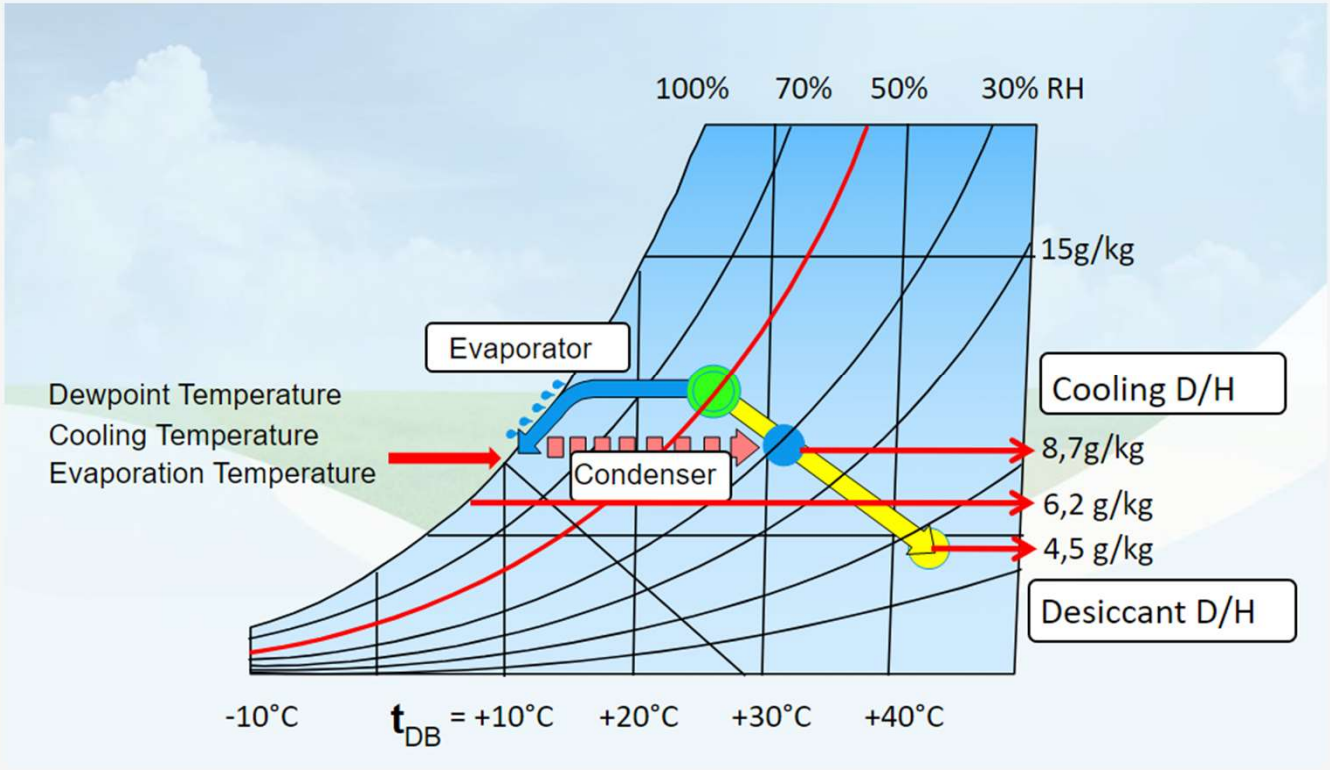
-Using material properties to adsorb moisture: Silicagel

-More energy but mostly heat, very available on humid season.

-Drying up to very low dew points.



Principles: Sorption vs Mechanical



Sorption: to reach low dew points

AIR DEHUMIDIFIERS DH

CONDENSING DEHUMIDIFIERS FISAIR DFC

Dehumidification and ventilation for industrial processes and swimming pools

DCS

DDS

DOS

DVS

IT/ST

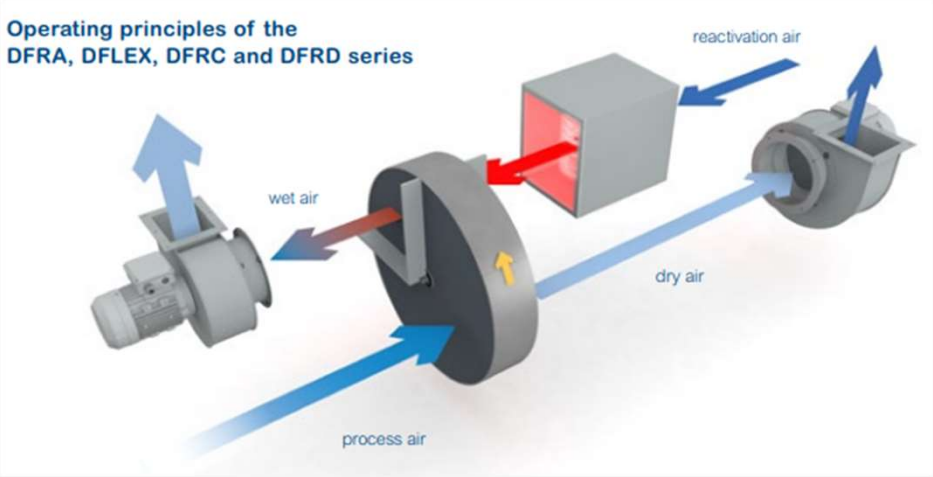
SPR

Video

AIR DEHUMIDIFIERS DH

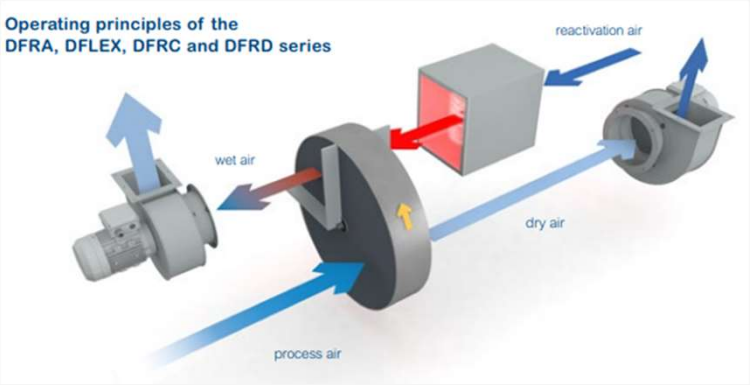
DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR

The operating principles of FISAIR desiccant rotor air dehumidifiers are based on an exclusive high performance water vapour retaining silica gel desiccant rotor.



AIR DEHUMIDIFIERS DH

DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR

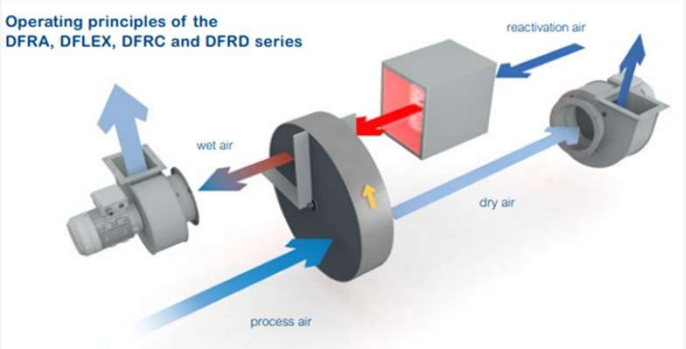


DFRA

Highly reliable units with drying capacities from 3 to 42 kg/h and dry air flows from 450 to 6,000 m3/h.

AIR DEHUMIDIFIERS DH

DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR

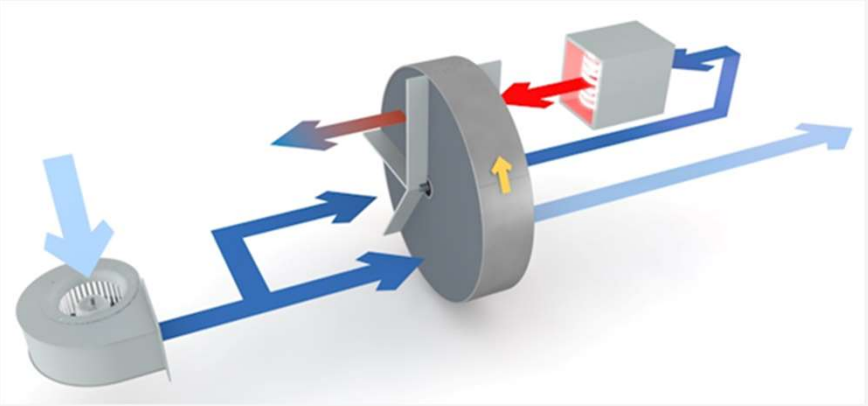


DFRD

- Drying capacities from 3 to 4.2 kg/h and dry air flow rates from 300 to 700 m3/h.
- Double fan for deep drying in closed circuit.
- Compact stainless steel series, ready for operation.
- Smart heaters.

AIR DEHUMIDIFIERS DH

DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR

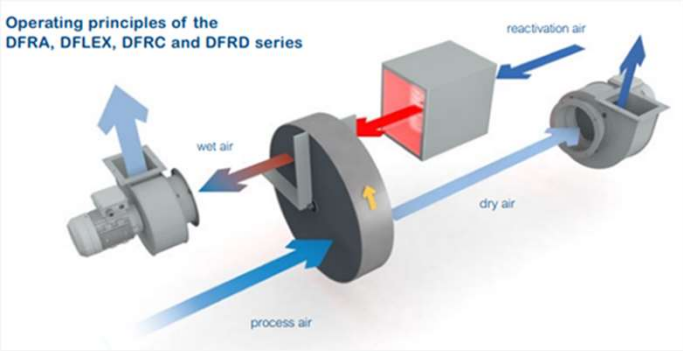


DFRB

- Drying capacities from 0.5 to 4.2 kg/h and dry air flow rates from 140 to 700 m3/h.
- Compact stainless steel series, ready for operation.
- Smart heaters.
- Desiccant rotor with heat recovery sector.

AIR DEHUMIDIFIERS DH

DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR



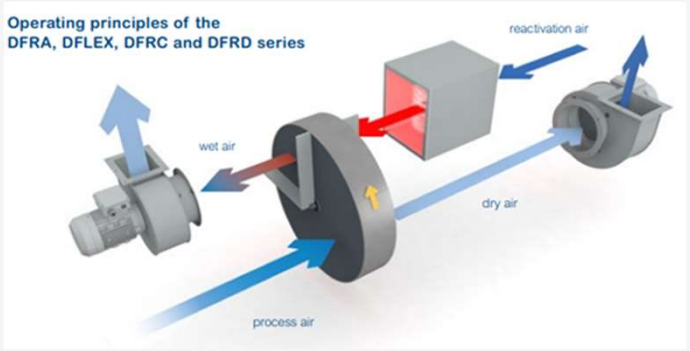
DFRC

Mobile and heavy duty drying. Series aimed at temporary drying with a robust chassis and finish to protect against corrosion. Ideal for surface treatment and rental applications.

- Drying capacities from 9 to 106 kg/h and dry air flow rates from 1,200 to 15,000 m3/h.
- Robust construction for harsh environments and weathering.
- Simple and reliable operation.
- High static pressures available.

AIR DEHUMIDIFIERS DH

DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR



DFLEX

Flexible modular range. Adaptable to specific solutions. Highly reliable equipment with drying capacities from 51 to 152 kg/h and dry air flow rates from 7.500 to 24.000 m3/h.

Fisair DFLEX

AIR DEHUMIDIFIERS DH

DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR

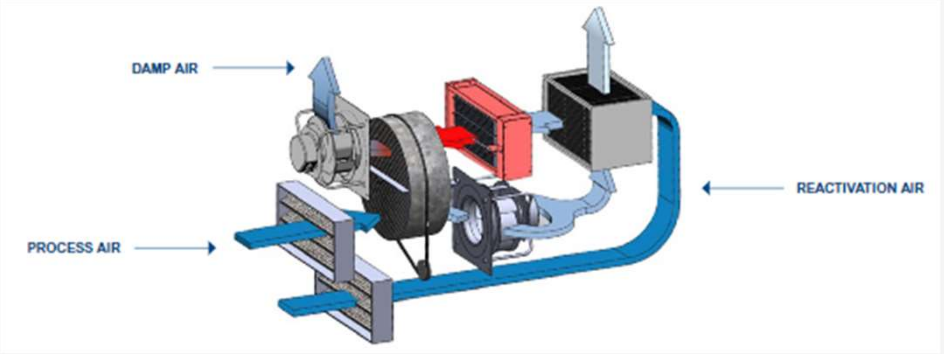
DFLOW

Excellent low dew point performance with low energy consumption.
Flexible modular range.
DFLOW dehumidifiers are the best choice for their modulating capacity, low maintenance, uniform operation and low cost. Applications include the manufacture of lithium batteries that require humidity conditions with dew points from -40ºC to -60ºC and in clean rooms or laboratories where air conditioning systems must be exhaustively controlled.

Fisair DFLOW

AIR DEHUMIDIFIERS DH

DESICCANT ROTOR AIR DEHUMIDIFIERS FISAIR DFR



DFRIGO

Units designed to reduce humidity in refrigerated areas and processes. Leader in its field in terms of its thermal insulation, robust design and energy efficiency.

Fisair Selection Tool

Configurator

Working conditions for dehumidifier

Installation

Humidity loads calculations	No	Include/Edit/Remove
Altitude:	0	m

Process air

	Highest Humidity Conditions	
Airflow:	5000	Nm3/h
Dry bulb temperature:	21	°C
Relative humidity	60,0	%

Dry air requirements (DA)

	Highest Humidity Conditions	
Dry bulb temperature:		°C
Absolute humidity	1,00	g/kg

Reactivation air

	Highest Humidity Conditions	
Dry bulb temperature:	30	°C
Relative humidity	40	%

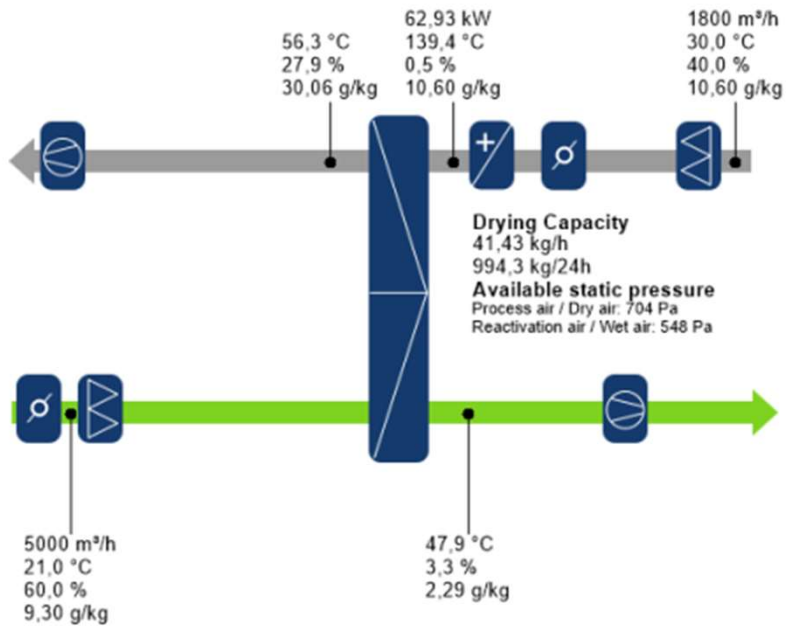
< Back > Next

Configurator | Notes

DFRA-0900E G0G0 0000 0000 SFSF 000 000 405BE00000

Edit

Operation sketch (Dehumidification)



Configurator | Dimensions | Optionals

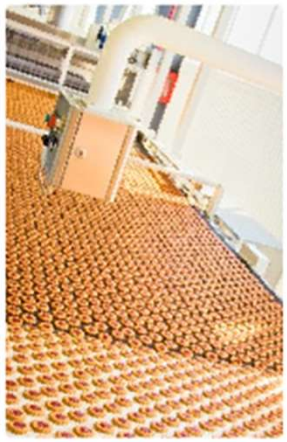
public buildings

- Hospitals
- Commertial buildings
- Swimming pools, spas
- Museums, Libraries and Archives
- Repair of water damage
- Ice rinks
- Chillers
- Drying of building works
- Preservation of bridges and other metal structures

process industry

- Pharmaceutical industry
- Bulk product transport and storage
- Cleanrooms
- Lithium Ion battery production
- Plastic forming industry
- Paint booths
- Filling, packaging and labelling
- Laminated security glass
- Tyre manufacturing
- Anti-corrosion paint application

food Industry



- Confectionery industry
- Baking industry
- Slaughterhouses and meat processing plants
- Cold storage
- Drying in spray towers
- Fruit, vegetables and flower cold storage
- Fruit and vegetable drying
- Yeast manufacturing
- Brewing industry
- Seed conservation
- Cheese production and maturation
- Wineries and distilleries

energy

- Power plant preservation
- Preservation of aerogenerators
- Pre-cooling of the intake air to engines
- Thermal plants forced cooling and advanced preservation

hygroscopic material industries

- Timber processing and furniture manufacturing
- Paper and cardboard industry
- Humidification in the textile industry

other applications

- Medical cannabis production
- Arms preservation
- Ammunition preservation
- Preservation of pyrotechnics
- Data centers
- Record storage & manufacturing
- Water treatment plants