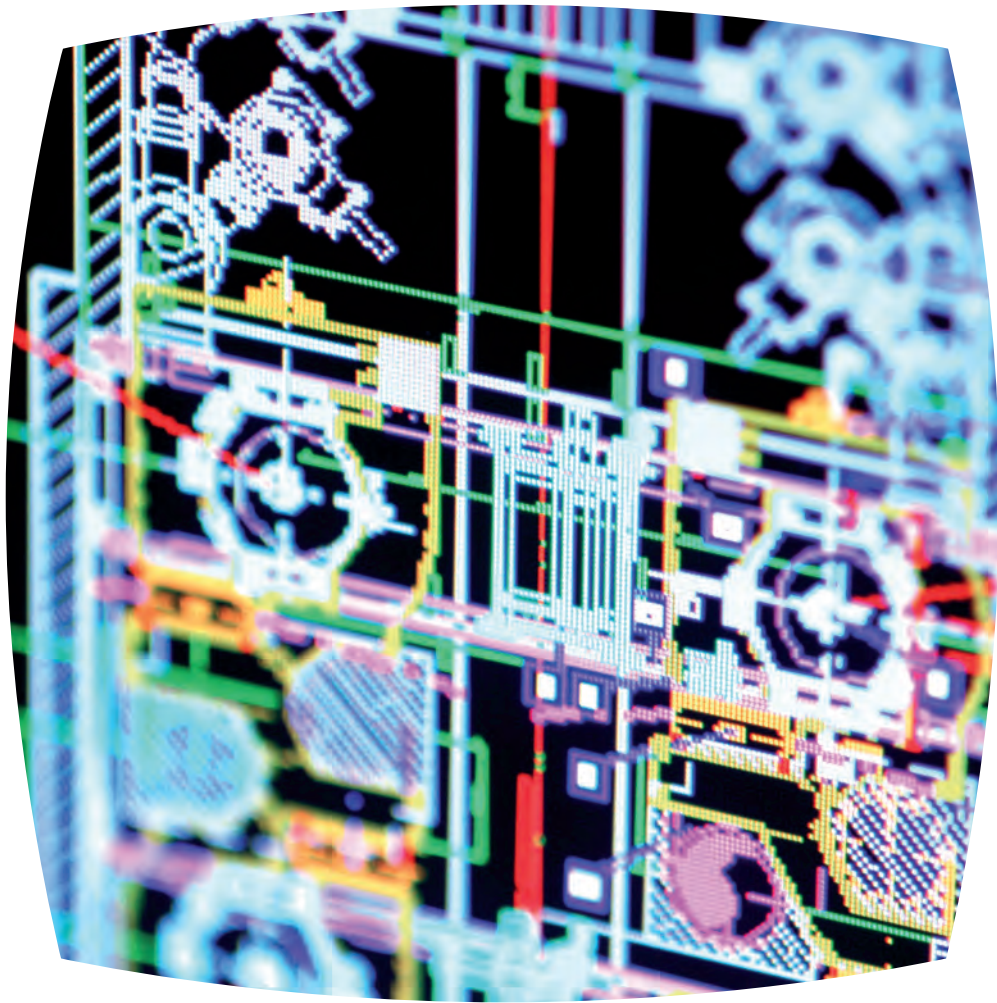


# sade



## Design Office



## Our business lines

SADE's Design Office produces all technical studies and production drawings for all the construction projects entrusted to the company, whether in France or abroad.

At the heart of the water operating business from the beginning, SADE's Design Office also plays the role of an engineering consulting company, combining knowledge of the works with the design and management of water and sewerage networks.

SADE's Design Office also benefits from the regional and international feedbacks of a company that both designs and executes works.

Numerous clients in the public (local authorities) and industrial sectors have already entrusted SADE's Design Office with the diagnostic studies on their networks (drinking water distribution and wastewater collection systems).



## Our activities



### Hydraulics and wastewater treatment

The hydraulics studies concern the design of global water supply and sewerage projects for urban, industrial and rural purposes. The wastewater treatment studies are aimed at defining the best-adapted treatment methods and drawing up complete wastewater treatment plant projects. All stages of the water cycle are studied, both for project design and for works preparation and execution.

#### Sewerage

- Networks design and calculation
- Storm water tanks
- Lifting stations
- All types of special installations, facilities or works
- Bringing industrial sites' wastewater collection systems into compliance with environmental standards

#### Wastewater treatment plants

##### Water system

- Sludge activation through extended aeration (thin bubbles or turbine)
- Sand filters
- Reed filters

##### Sludge system

- Mechanical dewatering
- Solar drying
- Reed beds

#### Water supply and distribution

- Networks design and calculation
- Fire-fighting systems
- Pumping stations
- Water treatment
- Boreholes and catchment wells



## Civil engineering and industrial piping

The civil engineering and industrial piping studies are aimed at producing the construction and installation solutions best adapted to SADE's construction works.



### Industrial piping

- Design and preparation of the manufacturing and installation of water, steam, overheated water and chilled water networks
- Study of pipe rehabilitation or replacement techniques
- Knowledge of the different materials used in our profession (concrete, steel, stainless steel, cast iron, HDPE, epoxy, polyester, vinylester, composite ...)

### Civil engineering

- Design and production of drawings of formworks, reinforcements and armouring for hydraulic installations: reservoirs, pumping stations and wastewater treatment plants, pipe jacking, galleries, vertical kirving, culverts...
- Foundations, industrial paving, technical buildings, pits, supporting walls, storage areas, transfer areas...



## Our expertise

In its head office and operational branches, SADE's Design Office employs over 50 people, half of whom are specialised engineers.

The studies carried out use both engineering techniques and ever more efficient and constantly changing computer resources for calculations, as well as computer-aided drafting and design applications.

The most appropriate softwares are used to help solve the numerous issues encountered in the water profession: calculation for waterhammer effects, pressurized water networks, free surface sewer systems, etc., with possible simulations of the quality of water and the effluent, calculation for structural finite elements, reinforced concrete, pipes, etc. Every year, SADE's Design Office conducts more than 400 studies and produces more than 2,000 drawings (some of them in 3D).

Whichever the activity concerned, SADE's Design Office offers its clients in the public, private and industrial sectors turnkey solutions which free them from all administrative, technical, legal and financial constraints. SADE's Design Office deals with the technical aspects in their entirety.



## We make the difference through:

- Extensive skills
- High-level expertise
- Solid experience
- Turnkey solutions
- Recognized know-how
- The efficiency of integrated engineering
- A team of specialists



