



Solving the water needs for the industry

Abengoa has more than **35 years of experience** in industrial water treatment, with more than **650,000 m³/d** of treated water for different industrial sectors, such as power generation, steel production, pulp&paper industry, leachate, oil & gas, petrochemical, pharmaceutical, mining and food, among others.

It brings a high level of specialization, with the **latest technological solutions** to solve the current challenges in **process water and wastewater, reuse and Zero Liquid Discharge (ZLD)** for industrial, private and municipal clients.

Abengoa provides alternatives that convert effluents into own resources, thus accelerating the transition towards a **circular economy** that encourages the modernization of its clients and guarantees them a competitive advantage, as well as helping to preserve and restore the planet's natural capital towards a blue economy where nutrients, energy or materials are always reused and waste does not exist.

More than 650,000 m³ of industrial water treated per day

Process and service water treatment

- Physical and chemical treatments.
 - Conventional multimedia filtration.
 - Membrane filtration (microfiltration, ultrafiltration and nanofiltration).
 - Settling.
 - Softening.
 - Desalination (reverse osmosis, reversible electrodialysis, thermal).
- Ion Exchange Demineralization (IX).
- Electrodeionization (EDI).

Important references in power generation, steel production, pulp&paper industry, oil and gas

Abengoa is an international company that applies innovative technology solutions for sustainability in the **infrastructures, energy and water** sectors. It has over 75 years of experience in **engineering and construction**, being specialists in the execution of complex "turnkey" projects or engineering, supply and construction projects (**Engineering, Procurement and Construction, EPC**) for third parties in four fundamental areas: **energy, water, services and transmission and infrastructure**.

Abengoa provides sustainable solutions to the integral water cycle, both to the shortage of water resources, through **large desalination and water treatment plants**, and hydraulic infrastructures, as well as to the protection of the environment with the construction of **wastewater treatment plants urban and industrial**.

Technological solutions for process and waste water, reuse and ZLD

It also works as a **global technological operator** in the water sector and integrates development, engineering, technology and project execution activities for public institutions, private and industrial clients.

Industrial wastewater treatment

- Physical and chemical treatments.
- Dissolved Air Flotation (DAF).
- Aerobic biological processes.
- Anaerobic biological processes.
- Membrane Biological Processes (MBR).
- Advanced oxidation (ozonation, etc.)

Reuse and Zero Liquid Discharge

- Evaporation.
- Concentration.
- Desalination.
- Distillation.
- Disinfection.
- Advanced physical and chemical treatments.
- Biological treatments (conventional and emerging).

Industrial Outsourcing

- Technical assistance
- O&M
- Project Finance
- Asset Management

Process Know-How

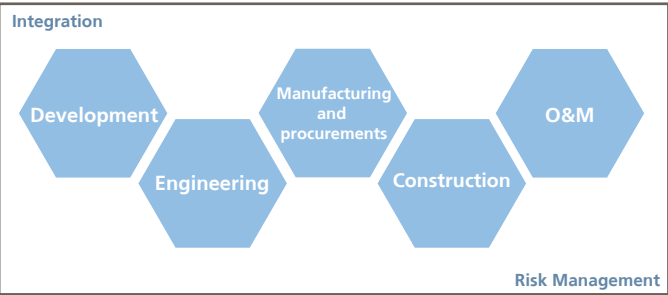
- Process
- Mechanical
- Electrical
- I&C
- Civil
- CAD design

Integrated Process Guarantees

- Complete scope responsibility
- One stop provider

Project Execution

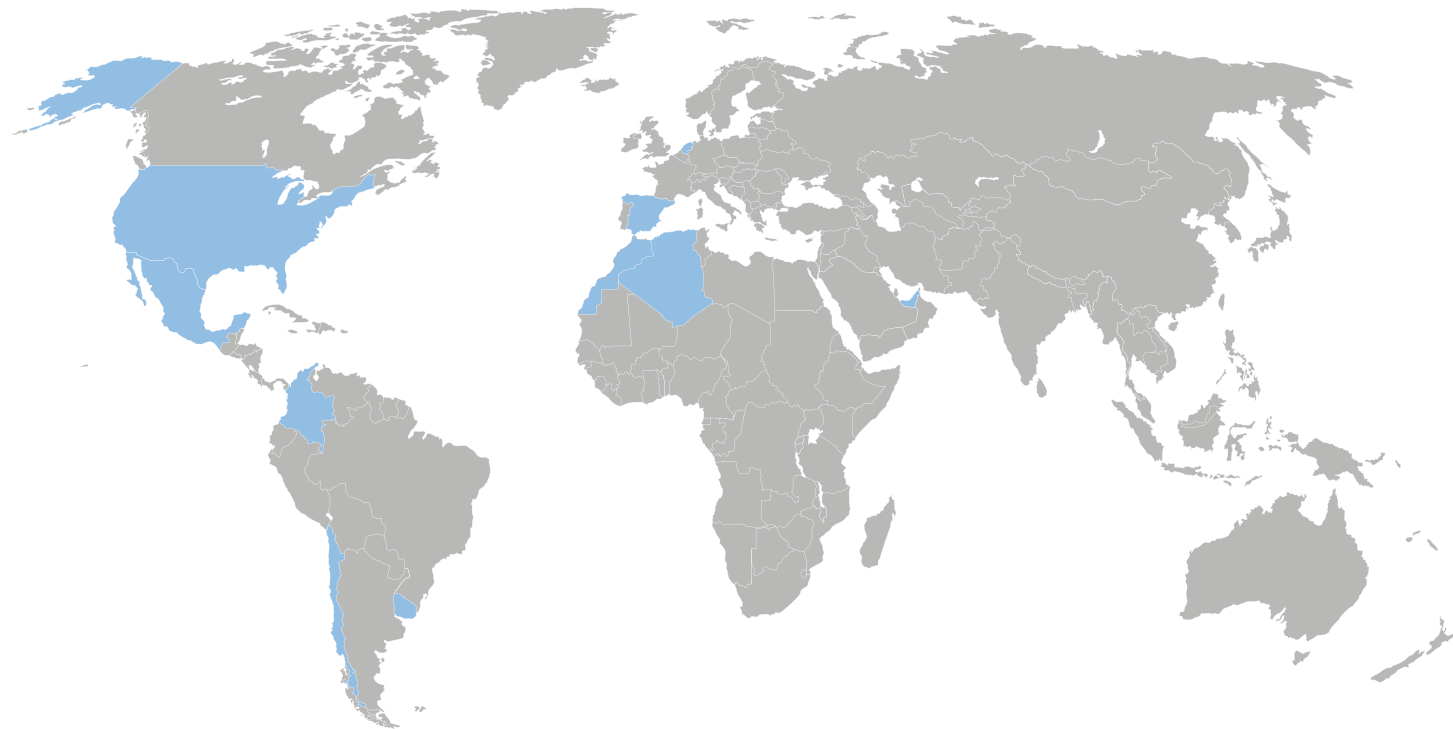
- Pre assembled skid mounted systems
- Project Management
- Turn-key Solutions



Industrial water

www.abengoa.com/water

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South America

Punta Pereira (Uruguay) (several).	376,000 m³/d
Mantoverde (Chile).	33,000 m³/d
Cerro Dominador (Chile) (ZLD).	300 m³/d
La Sierra (Colombia).	240 m³/d

Middle East

Dubal, United Arab Emirates.	47,750 m³/d
Masdar, United Arab Emirates.	1,000 m³/d

Spain

ENCE, Pontevedra.	46,800 m³/d
Zicuñaga, Guipúzcoa.	40,800 m³/d
ArcelorMittal, Gijón (several).	20,260 m³/d
Aboño, Asturias.	20,160 m³/d
ENCE, Huelva.	19,200 m³/d
ArcelorMittal, Avilés (several).	13,700 m³/d
Son Reus, Mallorca.	3,120 m³/d
Solúcar, Seville.	2,600 m³/d
Ineos Sulphur Chemic, Bilbao.	720 m³/d
Bioetanol Cartagena.	400 m³/d
Babilafuente Salamanca.	375 m³/d
Bioetanol Galicia.	300 m³/d
Befesa, Cartagena (ZLD).	250 m³/d

Netherlands

Rotterdam.	39,120 m³/d
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United States

Solana.	14,100 m³/d
Hugoton.	6,650 m³/d
Carty.	490 m³/d

Africa

Hassi R'Mel. (Algeria).	3,100 m³/d
Ain Beni Mathar. (Morocco).	2,900 m³/d

Mexico

Norte III (ZLD).	1,700 m³/d
Hermosillo.	1,400 m³/d
Durango CCD (Close Circuit Desalination)	1,000 m³/d
El Saúz.	750 m³/d
A3T.	300 m³/d

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Water

