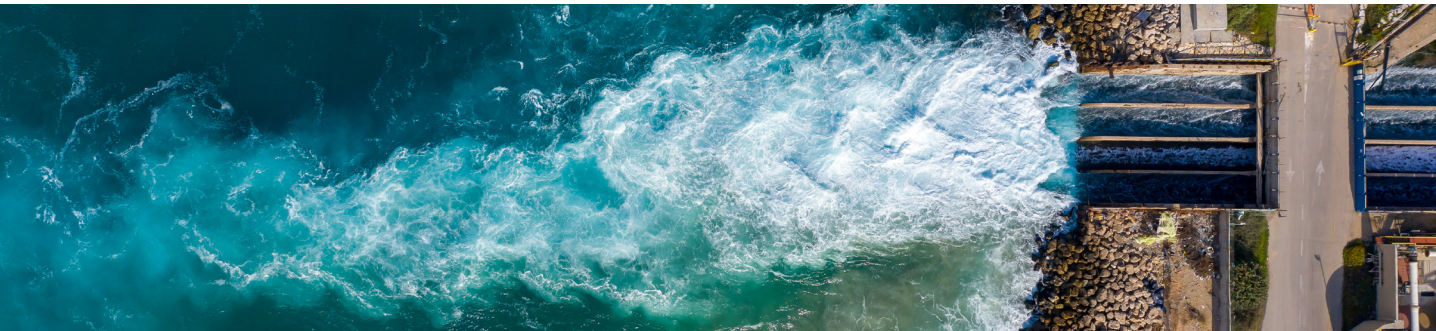




Intake and Discharge Project Reference List



Soreq



About

The **Soreq Desalination Plant**, one of the largest desalination facilities in the world, is situated three kilometers inland from the sea, with a nature reserve lying between the plant and the coastal area. To minimize environmental impact and protect the reserve's delicate ecosystem, pipe jacking technology was employed for pipeline installation in order to deliver water into the plant. This technique enables precise, minimally invasive drilling of small-diameter tunnels beneath the reserve, avoiding disruption to the surface environment. The system's offshore sea portion was also constructed using the pipe jacking method, creating a seamless pipeline capable of being cleaned through a pigging procedure, instead of harsh chemicals.

PROJECT DESCRIPTION	640,000 m ³ /day SWRO plant
LOCATION	Rishon LeZion, Israel
COMMISSIONING DATE	2013

Intake and outfall details	Intake	Discharge
Technology	Pipe jacking	Pipe jacking /Dredging
Number of pipes	2	1
Pipe lenght onshore (meters)	2,008	2,008
Pipe lenght offshore (meters)	1,277	2,050
Diameter External - Onshore/offshore (mm)	3,100	3,100
Diameter Internal - Onshore/offshore (mm)	2,600 / 2,500	2,600 / 2,500
Pipe material of construction	Concrete	Concrete / HDPE
Onshore/offshore		(final 750 m off-shore)
Discharge dispersing		Multi diffuser

Soreq II



About

The **Soreq II Desalination Plant**, like its predecessor Soreq I, demonstrates IDE Technologies' commitment to adhering to Israel's stringent environmental regulations. To ensure compliance and success, IDE replicated the proven intake and discharge system used in Soreq I, incorporating microtunneling pipe jacking technique for both onshore and offshore installations. IDE's extensive experience, successfully demonstrated at Soreq 1, was key to ensuring environmental sustainability and meeting the ambitious project timelines.

PROJECT DESCRIPTION	672,000 m ³ /day SWRO plant
LOCATION	Rishon LeZion, Israel
COMMISSIONING DATE	Exp. 2025

Intake and outfall details	Intake	Discharge
Technology	Pipe jacking	Pipe jacking /Dredging
Number of pipes	2	1
Pipe lenght onshore (meters)	1,920	1,920
Pipe lenght offshore (meters)	1,500	2,016
Diameter External (mm)	3,200	3,200
Diameter Internal (mm)	2,600	2,600
Pipe material of construction	Concrete	Concrete
Discharge dispersing	N/A	Multi-diffuser

Hadera



About

The **Hadera Desalination Plant**, designed and executed by IDE, initially utilized the adjacent power plant's open discharge system to discharge the effluents from the plant. In 2023, responding to new requirements set by Israel's Water Authority, IDE was commissioned to design and implement a new 2-kilometer discharge pipeline, featuring a multi-diffuser to enhance dispersion efficiency and minimize environmental impact on sea habitat. To address the challenging rocky terrain and pipeline length required by the regulation, IDE employed a microtunneling segment lining technique, a precise and minimally invasive method that navigates complex geological conditions without disruption to the surface.

PROJECT DESCRIPTION	525,000 m ³ /day SWRO plant
LOCATION	Hadera, Israel
INTAKE COMMISSIONING DATE	2009
DISCHARGE COMMISSIONING DATE	Exp. 2025

Intake and outfall details	Intake	Discharge
Technology	Cofferdam & dredging	Segment lining
Number of pipes	3	1
Pipe length offshore (meters)	1,350	2,000
Diameter External (mm)	1,800	3,900
Diameter Internal (mm)	1,680	3,400
Pipe material of construction onshore/offshore	HDPE	Concrete
Discharge dispersing	N/A	Multi diffuser

Ashkelon



About

The **Ashkelon Desalination Plant**, constructed in Israel, was one of the world's largest desalination facilities at the time of its completion. Its innovative design features an intake system with three pipelines, each extending 1300 meters from the shoreline into the Mediterranean Sea to draw seawater into the plant for processing. The concentrated byproduct is discharged through the adjacent power plant's open trench discharge system, effectively leveraging existing infrastructure to minimize the environmental impact on the shoreline. This landmark project showcases IDE Technologies' expertise in marine and large-scale desalination, serving as a foundation for dozens of successful desalination projects around the world.

PROJECT DESCRIPTION	525,000 m ³ /day SWRO plant
LOCATION	Ashkelon, Israel
COMMISSIONING DATE	2009

Intake and outfall details	Intake	Discharge
Technology	Cofferdam & dredging	Excavation
Number of pipes	3	1
Pipe lenght onshore (meters)	500	700
Pipe lenght offshore (meters)	1,300	
Diameter External (mm)	1,600	
Diameter Internal (mm)	1,480	1,600
Pipe material of construction	HDPE	GRP
Discharge dispersing		open trench

Aconcagua



About

The **Aconcagua Desalination Plant**, a SWRO facility under construction by IDE Technologies in Chile, is designed to supply fresh water to the mining industry. Situated 4 kilometers inland from the sea, the plant faces significant challenges due to its location near a large industrial area, the short work season, and the unfavorable sea conditions. To overcome these challenges, IDE is employing a temporary jetty and dredging technique, allowing the project to stay on schedule and extend the work period.

PROJECT DESCRIPTION	86,400 m ³ /day SWRO plant
LOCATION	Chile
COMMISSIONING DATE	Exp. 2025

Intake and outfall details	Intake	Discharge
Technology	Excavation & dredging	Excavation
Number of pipes	1	1
Pipe lenght onshore (meters)	4,000	3,300
Pipe lenght offshore (meters)	1,000	750
Diameter External - onshore/offshore (mm)	1,600	1,200
Diameter Internal - onshore/offshore (mm)	1,475	1,110
Pipe material of construction onshore/offshore	GRP PN12-16 / HDPE SDR-26	GRP PN12-16 / HDPE SDR-26
Discharge dispersing		Multi diffuser

Larnaca



About

The **Larnaca Desalination Plant**, constructed by IDE Technologies in 2008, is a key infrastructure project designed to address water scarcity in Cyprus. The plant's intake system includes a single pipeline extending 1200 meters into the sea, ensuring a reliable source of seawater for desalination. After processing, the discharge is channeled into the existing power plant's open trench discharge system, effectively utilizing pre-existing infrastructure to manage the environmental impact and streamline the disposal process.

PROJECT DESCRIPTION	65,000 m ³ /day SWRO plant
LOCATION	Larnaca Cyprus
COMMISSIONING DATE	2008

Intake and outfall details	Intake	Discharge
Technology	Cofferdam & dredging	Excavation
Number of pipes	1	
Pipe lenght onshore (meters)	750	
Pipe lenght offshore (meters)	1,200	
Diameter External - onshore/offshore (mm)	800/1,200	
Diameter Internal - onshore/offshore (mm)	738/1,110	
Pipe material of construction	HDPE SDR-26	
Discharge dispersing		Open trench

Sabcha



About

The **Sabcha Desalination Plant**, located in Eilat, Israel, is an existing facility situated near the ecologically sensitive Red Sea. In 2021, IDE Technologies was commissioned to design and implement new infrastructure, including two intake lines and one discharge line. Given the delicate nature of the Red Sea's ecosystem, pipe jacking technology with a multi-diffuser was selected for its minimal environmental impact and precision. This project underscores IDE's dedication to preserving fragile marine habitats while enhancing the plant's operational efficiency and sustainability.

PROJECT DESCRIPTION	Intake and discharge system for the existing Sabcha SWRO Plant
LOCATION	Eilat, Israel
COMMISSIONING DATE	Exp. 2025

Intake and outfall details	Intake	Discharge
Technology	Pipe jacking	Pipe jacking
Number of pipes	2	1
Pipe length offshore (meters)	417	558
Diameter External (mm)	2,160	2,160
Diameter Internal (mm)	1,600	1,600
Pipe material of construction	Concrete	Concrete
Discharge dispersing		Multi diffuser

Western Galilee



About

IDE Technologies is constructing the **Western Galilee Desalination Plant**, which features a design tailored to the region's challenging geological conditions and regulations. The plant's design includes two intake pipelines executed by pipe jacking technique and one discharge pipeline, using segment lining technique to accommodate the required length for appropriate diffusion. In addition to these challenges, IDE had to dig beneath existing terrestrial infrastructure, which required vertical excavation and the stabilization of the pipeline. With its vast experience in mega-projects, IDE successfully mitigates all challenges while meeting the project schedule and environmental requirements.

PROJECT DESCRIPTION	672,000 m ³ /day SWRO plant
LOCATION	Western Galilee, Israel
COMMISSIONING DATE	Exp. 2025

Intake and outfall details	Intake	Discharge
Technology	Pipe jacking	Segment lining
Number of pipes	2	1
Pipe lenght onshore (meters)	1,050	1,100
Pipe lenght offshore (meters)	1,350	3,350
Diameter External - onshore/offshore (mm)	2,500	2,500/3,900
Diameter Internal - onshore/offshore (mm)	2,000	2,000/3,400
Pipe material of construction onshore/offshore	Concrete	Concrete
Discharge dispersing		Multi diffuser