

Case Study

Indonesian Police Tactical Desalination Truck

EMERGENCY PREPAREDNESS & RELIEF

KATADYN GROUP
SWITZERLAND

Project: Indonesian Police Tactical Desalination Truck

Customer: Indonesian National Police

Product: Spectra LB 2800, Katadyn MF-7

Date: November 2021

Location

Indonesian Archipelago

Background

Although Indonesia is surrounded by seawater, major challenges exist in delivering safe, drinkable water to remote areas, particularly in the wake of a natural disaster. Many areas are nearly inaccessible due to extreme terrain, creating distribution difficulties when the need becomes severe. The population of these areas is often required to travel long distances or rely on NGO groups or government agencies during times of high water stress.

The Indonesian Police are well-positioned on the front lines of crisis situations to provide water relief. A need arose for a durable mobile solution that could purify both freshwater and saltwater in a variety of situations.

The Client

Indonesian National Police

Project Details

By combining Spectra's energy-efficient desalination technology with Katadyn's proven ceramic freshwater filtration, a solution was created that can purify water from essentially any water source. The truck was also sized and designed to be transportable by Hercules aircraft, extending the response range over the entire Indonesian archipelago.

Powered by a diesel generator, the truck's pump can pull raw water up to 80 meters and is also equipped with a 1600 liter water tank to hold the clean water for future distribution. The truck can provide 440 LPH if from seawater and 1500 LPH from a fresh water source. Using a daily drinking water standard of 4 liters per person, this output can provide safe water for up to 2600 people (seawater) or 9000 people (freshwater). UV postfiltration water treatment is included to ensure safe product water during storage. After arrival, the truck takes a maximum of 30 minutes to begin dispensing water to the local population.

Three trucks are currently operating with the Indonesian Police Force, with three more scheduled to become operational in 2022. The unit was built and commissioned by our local Indonesian partner TeknCorp, who also handled service, maintenance, and training. This project illustrates the portability, efficiency, and durability of Katadyn water solutions and is an excellent example for future relief vehicle projects.

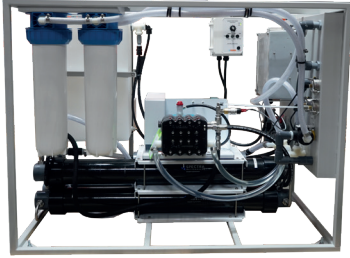


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About the Desalination System

The LB 2800F is a reverse osmosis watermaker that utilizes the Pearson Pump energy-recovery device. These durable systems are highly energy-efficient, making them a perfect match for solar power. A fixed recovery ratio means membranes last many years and are not considered consumables. Due to the system's simplicity, a highly trained operator is not required. In addition, the Spectra Connect Controller allows the watermaker's operations to be completely automated, with freshwater flushes occurring when necessary. These rugged watermakers can drastically improve the health and quality of life for the population of any water-stressed area with access to seawater or brackish water.



About the Freshwater Technology

The Katadyn MF-7 is a ceramic microfilter that removes bacteria, protozoa and other water contamination with no removal of essential minerals. The ceramic filter elements can perform up to 100 cleaning cycles before replacement is necessary. The Swiss-made filter can operate on its own to purify freshwater and acts as a prefilter for the LB-2800 when using a saltwater source.

About the Katadyn Group

The Katadyn Group is a global corporate group specialized in the area of self-sufficient nutrition and drinking water supply. Its brands include Katadyn, Trek'n Eat, AlpineAire Foods, Optimus, Pharmavoyage, Micropur, Certisol, Steripen, and Spectra Watermakers. With this broad brand portfolio, the group provides products and solutions for the outdoor and marine industries as well as for industrial and municipal needs. Its diverse product portfolio ranges from freeze-dried specialty meals and outdoor cooking gear to mobile and land-based water desalination systems and specialized disinfection systems for the industry. Indeed, humanitarian aid organizations and the military for years have been regular customers of the Swiss group of companies. With headquarters in Kempththal, the Katadyn Group employs about 200 people at its subsidiaries in Europe, Asia, and the United States.

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