

## Industry: Water Treatment

- Desalination

# CiDRA<sup>®</sup>

## Application Note

### SONARtrac<sup>®</sup> SOLUTIONS

The **SONARtrac** flowmeter is a clamp-on system that does not come into contact with the fluid, is not affected by scale buildup or corrosive/abrasive slurries and provides an accurate, reliable flow measurement for the desalination process.

#### Benefits

- Not affected by scale buildup or liners
- Not affected by biofouling
- Not affected by corrosion
- No contact with the fluid
- Does not wear out
- Maintenance free
- No flanges required
- Works well on most pipe materials, including fiberglass

**SONARtrac** flowmeters are the proven standard for applications with corrosive and abrasive fluids.

#### Process

Due to the shortage of fresh water in regions throughout the world, and a facility's proximity to the ocean, seawater has become a part of the design and process for various industrial plants. Seawater presents challenges that fresh water does not, among these are the corrosive nature of the salt water and the scale buildup. The **SONARtrac** flowmeter's non-invasive design has been chosen by customers as the best technology to measure flow in the Seawater Intake facility, the Seawater Pretreatment facility, Waste Seawater Sludge Disposal facility, and Waste Seawater Discharging facility as it works well on pipes of all materials, and eliminates the need to shutdown the process to install or service a meter.

#### Challenge

Flow measurement on seawater or brine lines in desalination plants presents challenges caused by corrosion and deposits of organic and inorganic materials on the inside pipe walls. These conditions can cause measurement errors or outright failures with existing invasive and non-invasive flowmeter technologies. Also, often-used fiberglass pipe is typically not compatible with clamp-on ultrasonic flowmeters, and invasive electromagnetic flow meters require special metal flanges be attached to the fiberglass pipe, adding cost. **SONARtrac** meters solve these costly problems.



#### SONARtrac Solution

The highly abrasive and corrosive nature of brine slurry and saltwater would break down the seals of an invasive meter. Moreover, scale buildup on the interior pipe walls would hinder an invasive meter's ability to provide a measurement. The **SONARtrac** flowmeter is non-invasive and does not come into contact with the slurry, so its ability to provide an accurate, reliable measurement is not affected by scale buildup or corrosive/abrasive slurries. The **SONARtrac** system also provides accurate and reliable flow measurement without requiring maintenance on lines carrying these abrasive and corrosive fluids.

## SONARtrac<sup>®</sup> Technology

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