Addressing urban flooding with Grundfos wastewater solutions

The Situation

In 2015, the city of Chennai in India experienced unprecedented downpours during the northeastern monsoon period, as high as up to 19 inches of rain fell within a single day. Several areas were heavily flooded due to this heavy inundation, even leading to the closure of Chennai Airport for a brief period. This historical flood affected more than 4 million people in and around the city, bringing their daily life to a standstill for several weeks. Severe economic losses were also reported by business houses, to the tune of more than 3 billion USD.

Due to floods, water levels in the city canals and water bodies increased sharply, resulting in flooding of buildings, especially basements, damaging critical utilities like diesel generators, HVAC plants, and water supply and treatment systems.

Grundfos assisted city authorities and various building owners of Chennai city to dewater their facilities and resume their operations during these massive floods of 2015.

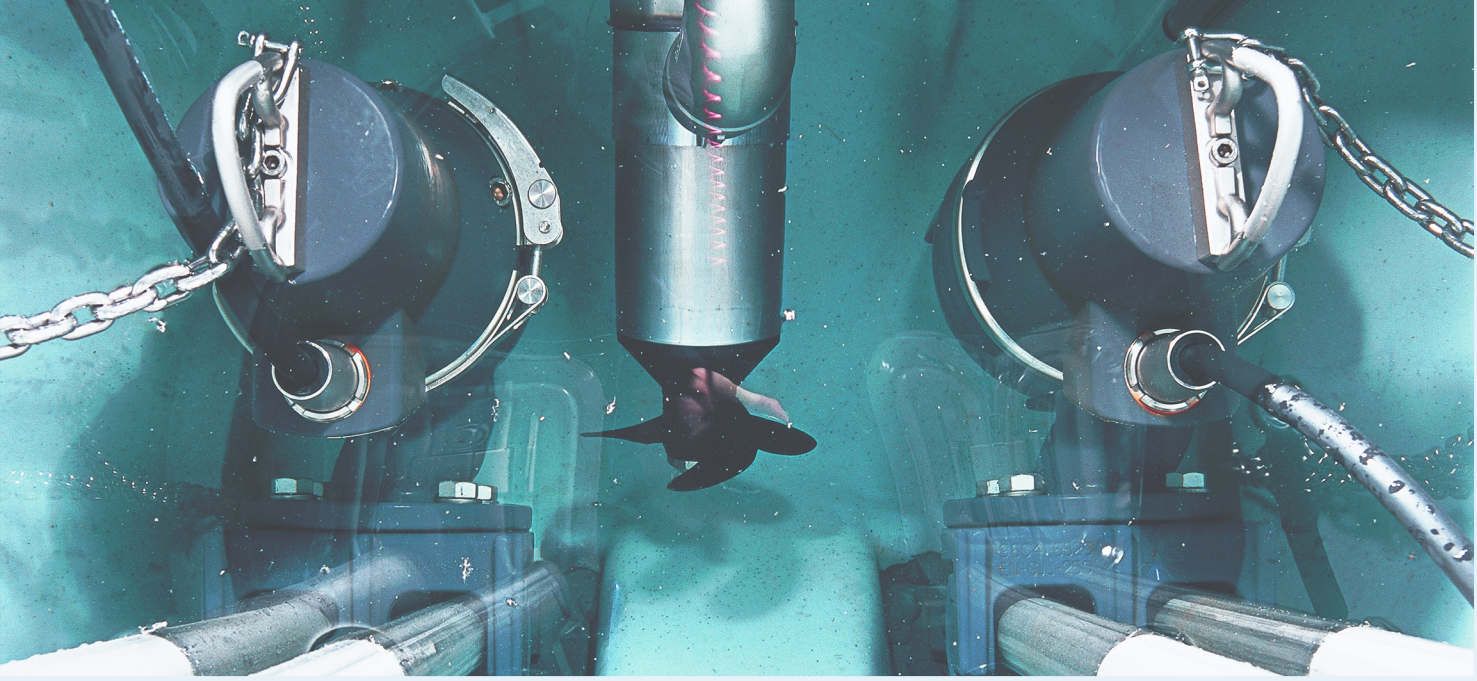
The Solution

During this critical period, Grundfos assisted one of its major client's IT park on an approximately 20-acre campus that was severely affected with heavy inundation. Stand-alone diesel-operated mobile pumping stations were deployed at their

> **"Now with Grundfos mobile dewatering units on skids, our client will be able to quickly respond to future weather events in a targeted manner."**
>
> J.F. Frederic Arul Raj
> Senior Manager of Sales
> Grundfos India

GRUNDFOS

Possibility in every drop



diesel-operated mobile pumping stations were deployed at their facility, pumping out close to 300 kiloliters of water per second for a week. This hard-hitting situation made the IT park infrastructure developers look for ways of mitigating these flood situations in the future to make their buildings more resilient to urban flooding.

Grundfos India sales team worked with the IT park's facility management team for nearly three years to design and optimize a long-term flood mitigation system. After a thorough technical evaluation of the site topography and the possible solutions, the final design consisting of mobile pumping solutions on trolleys with a diesel generator, submersible wastewater pumps, and a control panel was arrived at.

A further few submersible pumps with collection tanks were placed at strategic flood-prone locations across the client's campus to effectively dewater floodwater.

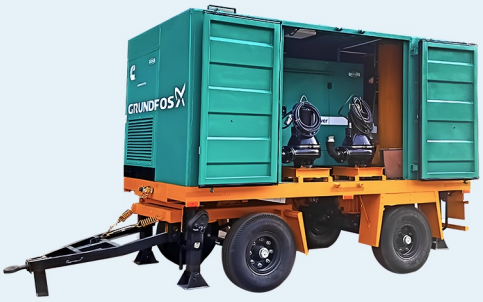
The Outcome

By providing a full complete technical solution and high-quality deliverables rather than just a 'set of pumps', the team at Grundfos India became their client's vendor of choice.

"Our client has been so impressed with how well the flood mitigation system has worked that they will install similar systems across their other facilities in India," Frederic Arul Raj continued. "With weather patterns becoming more and more unpredictable, having an effective system in place prior to major weather events becomes even more essential."

Grundfos Supplied

8 nos of S pumps with auto-coupling arrangements
4 nos of 2 pump digital control panels
Mobile pumping stations



Mobile pumping station

SL pumps

S pump

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