World-Unique Mobile Pump Well Revolutionizes Excavation Work

High groundwater levels and large volumes of water in excavations have long meant time-consuming and risky work steps — until now. IBECO is launching a new, patented product on the market: a *mobile pump well* that makes excavation work more efficient, safer, and more sustainable. The inventor, Rickard Wennberg, a pipe network technician at Karlstad Municipality, has created a solution with great potential far beyond Sweden's borders.

"There's nothing like it on the market today," says Rickard Wennberg.

Rickard has worked in the field for many years and knows the challenges that arise when groundwater levels are high and excavations quickly fill with water.

"I was standing in a trench with water problems when the idea struck me. I suddenly realized how the problem could be solved in a completely new way," he explains.

After some reflection, he decided to make his idea a reality. With support from Almi and help from a local workshop, Rickard developed a prototype, which he tested by simulating a water leak on his own property.

The concept worked just as he had imagined. Rickard then contacted IBECO, well known for its interest in innovative solutions for the water and wastewater industry.

"I thought this could be something for them — and they took to the idea immediately," says Rickard Wennberg.

How the Mobile Pump Well Works

Traditional installation of a submersible pump involves digging down manually, placing the pump, and filling with gravel — often under unsafe conditions in unstable excavations, sometimes requiring a vacuum truck to keep the water at bay.

The new mobile pump well revolutionizes this entire process in just a few steps:

1. The pump well has a standard coupling and is easily mounted on an excavator.
2. Gravel is filled between an outer and an inner (perforated) pipe.
3. The pump well is then pressed or excavated down to the desired level.
4. The outer pipe is lifted, leaving the perforated section surrounded by gravel as a capillary-breaking layer.
5. A submersible pump is lowered, and work can resume immediately.

The result is a stable, safe well solution with reduced risk of collapse and efficient water removal — allowing excavation work to continue without unnecessary delays.

"Work Safety Was the Key Factor"

IBECO aims to challenge the water infrastructure industry by continuously expanding its range of innovative products that make work both safer and more efficient. That made it natural for IBECO to take a closer look at Rickard's unique tool, says Andreas Carlberg, Commercial Product Manager at IBECO.

"The first thing we noticed was that the work environment becomes much safer. No one has to stand in a trench at risk of collapse. You also need to dig much smaller pits, which speeds up the work. On top of that, the pumps last longer because they're protected and don't clog as easily. This is an innovative product that improves both safety and cost efficiency," says Andreas Carlberg.

"It's a great example of how innovation is born from those who work in the trenches every day. We're always curious about new ideas and look forward to following the development of this product."

A Product for the Global Market

The mobile pump well made its public debut at the Entreprenad Live trade fair in Landvetter in September, where it attracted great interest among visitors. For IBECO, this marked the start of a journey with ambitions far beyond the Swedish market. The company is already in contact with distributors across Europe and sees global potential.

As climate change leads to more flash floods and higher groundwater levels, the need for smarter working methods grows — and the mobile pump well could play a key role.

An idea that began in a trench in Karlstad may now change the way large volumes of water are managed in excavation sites worldwide.

“This is a huge thing for an old municipal worker!” says a visibly proud Rickard Wennberg.

Fact Box – Three Key Advantages

The mobile pump well offers three clear advantages compared to traditional methods:

1. Safer working environment: Reduced risk of collapse and no workers required in water-filled excavations.
2. More efficient digging: Easy placement at the correct depth, smaller excavations, fewer transports, and faster work processes.
3. More reliable operation: Pumps are protected by gravel and the perforated pipe, reducing the risk of wear and clogging.