



TOWERING ABOVE THE COMPETITION

NAVIS Wind System helps Phoenix Fabricators and Erectors raise 100 foot water tank





PHOENIX FABRICATORS AND ERECTORS needed to cut a 100-foot water tank, add a 40-foot extension, then put the suspended piece back on. For a company with more than 30 years of experience in constructing,

installing, renovating and rebuilding large above-ground water tanks across the US, the project should have been routine.

It was anything but. Call it a perfect storm combining hazards and challenges that most project engineers do their best to avoid. "We were limited by sight constraints," says Kurt Fuller, Engineer of Record for Phoenix. "Our three large cranes had limited mobility and were set up on a very tight work site. On top of that, we were directly adjacent to a community high school."

After about nine months of planning and coordination, the entire high-risk project was balancing precariously on the unpredictability of lift day wind. "We really needed an accurate wind measurement system. We'd used weather stations before but they were extremely unreliable."

After a quick online search, Kurt had his solution: the Navis WSM W410 X/B/M. "Line of sight was a major issue with this project and the Navis handled that beautifully". Another deciding factor was the system's smartphone app that let others onsite monitor information.

Crews were mobilized and onsite doing prep work five days before the actual lift took place, which meant the Navis system had to be set up and working. "It was so easy to use. We installed it with the magnets, put the weather vane and anemometer cups on the tank, powered on the receiver and, within 30 to 40 seconds, we were receiving info." In the three days leading up to the lift, onsite weather and wind conditions were monitored constantly.

"On lift day, we relied solely on the Navis system to tell us whether or not we should proceed," says Kurt. "It was the deciding factor for us and it performed perfectly. This thing is badass!" With an hour's worth of prep work rigging the cranes to the load, he adds that by the time they made the final cut, put the new stem extension on the tower and reattached the container portion of the tank, they were done in less than seven hours.

"It went even better than we'd planned. We'll be using the Navis system on every project like this going forward."

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ABOUT PHOENIX FABRICATORS & ERECTORS

Based in Avon, Indiana, Phoenix Fabricators and Erectors, Inc. is an industry-leading provider of steel water storage tanks for the potable water and industrial markets. They are a single-source solution, providing engineering, fabrication, foundation installation, field construction and painting. Phoenix is one of the only companies in the world with the experience and expertise to modify, raise or lower existing water storage tanks.

Photos courtesy of Kurt Fuller

Where can you use the Navis Windy Smartphone Anemometer?

Anywhere that wind speed and temperature need to be monitored on a continuous basis in order to ensure the safety of a crew, workers or other resources. There are no limits to the multiple applications. The possibilities might just blow you away.



Measurement Range	0,6-50,0 m/s	Resolution	0,1 m/s
Unit of Measurement	m/s, km/h, knots, mph	Accuracy	+/- 3%
Averaging Period	Selectable: 2 s, 10 s, 30 s	Battery - Sensor (Changeable)	3,6 V AA Lithium battery
Transmission Distance	W410: 500m W410XB: 1300m 2 YAGI: 5-8x	Battery Life Sensor	Up to 5 yrs (3 yrs WSM W410XB Model)
Operating Voltage	12-24 V DC	Sensor Bearings	2x precision SS ball bearings
Power Consumption	Max. 300 mA	Sensor Housing Material	AL/PVC
Operating Frequency	868 MHz, optionally 908 MHz	Cup Material (Replaceable)	PA (NYLON)
Temp Operating Range	-25°...+60°C	Casing Receiver	ABS, Ip65
Outputs	3x relay, contact rating 2 A/24 V	Receiver Dimensions	150 x 80 x 55 mm
Signal Output (type WSM W410/4-20mA)	4...20 mA, (not isolated, common ground with supply) 4 mA = 0 m/s 20 mA = programmable 10-50 m/s	Receiver Weight	260 g
Alarms	Adjus. pre-alarm (yellow) + interrupted sound Adjus. max alarm (red) + continuous sound	Sensor Dimensions	210 mm H, overall dia 120 mm
Sound Sig. (Integrated Buzzer)	93dB/30cm	Sensor Weight	140 g
Antenna Input (Receiver)	50 Ohm, SMA Connector	Mounting	Mounted on 20 mm dia pipe
Data Transmission Rate	Every 2 seconds		



Android application requires device with Android 4.3 or newer with Bluetooth BLE



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