

Lubricious Dursan® Improves VERIS Verabar® Sensor Lifetime in Corrosion- and Fouling-Prone Power Application



For the original Armstrong International, Inc. version of this case study please visit their [website](#).

A SILCOTEK® CASE STUDY



"The Dursan® coating helped reduce maintenance and cost of operation."

- Armstrong International

SUMMARY:

Armstrong International is a company dedicated to providing solutions, products, and services to improve utility performance, lower energy consumption, and reduce environmental impacts while providing an enjoyable experience. SilcoTek is proud to work with Armstrong as they help their customers at the Mindanao Steag Power Station achieve their full potential with a higher-performing, longer-lasting sensor product.

CHALLENGES:

The Mindanao Steag Power Station is a 232 megawatt, coal-fired power plant in the Phividec Industrial Estate Villanueva, Philippines that was first commissioned in 2006, and expanded to three power generation units in 2010 to increase capacity by 150 megawatts. When the third unit did not realize its full potential due to frequent downtime for maintenance in the harsh environment, a project started to improve overall flow and flow measurement of their flue gases.

HOW SILCOTEK HELPED:

Armstrong International - VERIS Flow Measurement Group designed and supplied several VERIS Verabars® with a high-performance coating of Dursan® from SilcoTek to prevent erosion and corrosion. Steag Power Plant was supplied an array of sensors allowing triple redundancy and a final sampling velocity profile providing a more accurate reading. Armstrong International - VERIS Flow Measurement Group supplied a Dursan coating on all sensors to provide a slippery texture known as lubricity. The Dursan coating helped reduce maintenance and the cost of operation.

GAME-CHANGING BENEFITS:

Armstrong International - VERIS Flow Measurement Group designed and supplied the VERIS Verabars® with Dursan® high-performance coating and included a V150 flanged model with opposite-end support to average the entire flow velocity profile for a more accurate flow measurement. This allows triple redundancy and a final sampling profile providing a more accurate sampling.

The Dursan coating's high lubricity reduces the risk of any fouling or clogging on the VERIS Verabar® sensor from occurring, and the coating's corrosion resistant properties increase the sensor's usable life to maximize plant efficiency and keep costs down. The pressure loss was a benefit Steag Power Plant enjoyed as using the VERIS Verabar® **resulted in a 2% increase of 150 megawatts. Steag Power Plant gained an additional 3 megawatts of power generation capabilities allowing them to generate more power, especially during the hot season.**



FIG 1 VERIS Verabars® V510-15 sensors in front of duct louvers.



FIG 2 Transmitter installation showing impulse lines and isolation valves coming off the VERIS Verabar sensors.



FIG 3 Three Yokogawa transmitters installation.

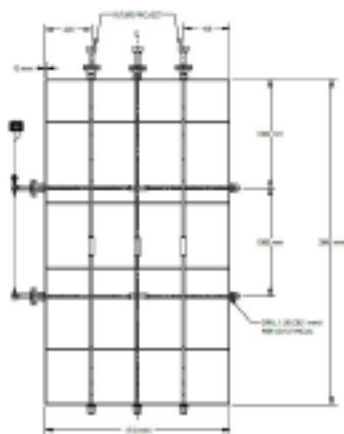


FIG 4 VERIS Verabar® V510-15 Sensor Array in Duct showing vanes and dampers.

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