

What is “Native Advertising?”

A type of online advertising that matches the form of the other content on the platform on which it appears. An example is an article written by a company to promote its expertise on a topic or a success story showcasing its product or service. The article appears in the same form as other editorial content.

What do you get with a BIC native ad?

- Second or fourth story in BIC Industry Report E-Newsletter
- Dedicated landing page with top banner and floor ad
- Within and at the end of the article, the sponsor can provide “call to action” links, videos, white papers, etc.
- Posted on BICMagazine.com for one year
- Promoted on social media for one week
- Advanced analytic report



Dedicated Landing Page Example



How ultrasonic sensors and artificial intelligence improve condition monitoring

SEPTEMBER 8, 2020 7:02 AM

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In an industrial setting, assets are everything. A breakdown can cause hours of downtime, and thus hours of lost productivity and lower financial gains. Preventive maintenance is one way facility managers counteract system entropy, but it isn't a perfect strategy. In some cases, a preventive approach to maintenance can actually lower the overall effectiveness of an asset. In the case of a valve, for example, constant tightening can cause premature wear and tear.

Predictive maintenance was the next logical step forward. Rather than scheduling maintenance, this method anticipates failure and only takes action when it's most necessary. This too has its downsides, such as when an asset is so complex that it becomes impossible to predict every impending failure.

Now, facility managers can use sensors, machine learning and artificial intelligence to predict failure states with a much higher degree of accuracy. Implementing a smart monitoring system takes time and considerable effort – but when dealing with multi-million dollar assets, the value becomes obvious.

Complex assets are resistant to traditional condition monitoring

When a pharmaceutical company reached out to Blair Fraser's team at Lakeside Process Controls, they wanted to improve the uptime of a critical industrial asset, an industrial autoclave.

"It was a simply request from our client to improve the reliability and uptime of this industrial asset. The client identified, through risk assessment, what could have the biggest impact on production," Fraser noted.

However, that goal turned out to be more complex than anticipated. The autoclave featured hundreds of critical components.

"We started out by doing failure mode and effect analysis, which is a way of looking at an asset and breaking it down into its components and then determining how that asset could fail. In doing that, we identified about 260 ways that asset could fail. About 150 of those could be mitigated through condition monitoring," Fraser said.

Through assessments, the team identified three components within the autoclave that would have the biggest impact on future productivity: steam traps, diaphragm valves and the vacuum pump. However, even narrowing the problem down to a single component proved to be a problem, considering the asset could operate in 13 different ways.

Traditional condition monitoring works well for continuous assets that consistently output a regular stream of data. Complex assets with several dozen variables, on the other hand, cannot be monitored in the same way. Industrial Internet of Things (IIoT) sensors have made some progress toward a more granular approach to asset condition monitoring, but they still require human intervention. And when an asset outputs variable data faster than a human can comprehend, it's all but impossible to produce value from that data.

In the case of the industrial autoclave, traditional condition monitoring wasn't reliable enough to accurately predict asset failure. There were simply too many variables.

Controlled scenarios versus real world applications

The first step toward creating an effective condition monitoring strategy is to determine a baseline of optimal functionality. In other words, before you can determine if an asset is about to fail, you need to know what it looks like when it's in perfect condition.

For example, the team at Lakeside Process Controls brought in a diaphragm valve to test at their own lab. They attached an Ultra-Trak™ 750 to monitor ultrasonic amplitude. With the sensor in place, they benchmarked the valve in proper working order, then induced a failure to see how the data output changed. In this way, the team was able to see how the ultrasonic readings changed when the valve was in various states of failure.

However, in a real-world setting, the team found it was impossible to reproduce the results they produced in the lab. Too many ambient factors affected the diaphragm valve to be able to take an accurate reading while working.

"Using manual root-based condition monitoring technology, we found that it was nearly impossible to get good, repeatable data. In order for condition monitoring technology to work, we need to have repeatable data," said Fraser.

To learn more about how remote ultrasonic sensors can improve your condition monitoring strategy, visit [UESystems.com](#) today.

“BIC’s native advertising program is a proven way to get our company’s message in front of a relevant and engaged audience.”

Jason Broha
Marketing Director
Turner Industries

Typical response:

- On average, depending upon content, there will be 40 to 100+ email addresses clicking on sponsor’s content (minus opt-outs)
- Up to 100+ total page views

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Rate:

- \$5,100 Native Ad #1
- \$3,750 Native Ad #2

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Justin Nickel
Director of Marketing
PK Companies

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