

# A Single Tool for Both Vibration and Alignment



*“It costs approximately 50% more to repair a failed asset than if the problem had been addressed prior to failure.”*

— U.S. National Response Center

## What if...

- you could do vibration and alignment with best-in-class tools?
- you had confidence in a reliable, efficient tool?
- you had a single tool for both vibration and alignment?

Ensuring safety and producing high-quality products demand that the process run smoothly with few surprises. To create such an environment, the maintenance group must ensure accuracy and efficiency in vibration analysis, machine shaft alignment, and balancing. But if your multiple vibration analysis and alignment correction tools do not assist with efficiency, are not accurate, or do not have built-in expertise, potentially dangerous conditions can go undetected.

Emerson's CSI 2140 Machinery Health Analyzer can be your single tool for vibration analysis, alignment correction, and balancing. Accuracy and efficiency characterize the CSI 2140 with CSI 8240 high-precision laser shaft alignment fixtures (laser and sensor) and simple three-step user interface. Using Emerson's full solution, you will avoid these painful situations:



**Emerson's CSI 2140 Machinery Health Analyzer is best-in-class for speed and performance in field vibration data collection and analysis.**

## ANTIQUATED TECHNOLOGY WITH DIMINISHING VALUE

Your work tools leave problems unsolved and do not take advantage of advances in technology: modern laser alignment systems, wireless data transfer, touchscreens, and long-life batteries. The old technology leaves you spending too much time doing low-value, non-repeatable, time-consuming work instead of focusing on analysis of your data and solving machine issues. Some analyzers offer these advances, but vibration and alignment tools are separate.

## LIMITED, POOR QUALITY TOOLS AND RESTRICTED ABILITIES

Awkward, restrictive, poor-quality tools require more time to operate and limit your abilities. Do your tools gather the required data while offering field analysis and correction tools? Compensating for awkward tools by using add-ons, does not produce reliable, error-free integration. If the technology does not offer repeatable, accurate results will you be confident? A poor quality tool often indicates poor vendor support.

## FRUSTRATION IN SEPARATE, INEFFICIENT VIBRATION AND ALIGNMENT TOOLS

Maintaining separate vibration and alignment methods creates inefficiencies and poor results. Data is stored and viewed separately thus providing no overall picture of your assets.

- Performing the jobs yourself: You deal with two separate boxes, two sets of accessories, and two different interfaces. You detect conditions with one tool, correct with another, and then return to confirm.
- Inviting multiple service providers: One service provider performs vibration analysis. Another performs alignment. They don't work together, and they might blame each other for errors.

## SIMPLIFY ROUTES WHILE IMPROVING VIBRATION AND ALIGNMENT DATA

### MOVE TO SUPERIOR TECHNOLOGY

The CSI 2140 is both a fast data collection device AND a powerful diagnostics tool with many ease-of-use features built in, such as these:

- As one technician collects data or corrects alignment in the field, vibration and alignment data can be transmitted wirelessly to the database so that a partner can analyze or verify data in parallel.
- Extra power comes from the streamlined vibration data gathering and in-the-field analysis tools. Using four-channels for data collection allows use of a triaxial accelerometer to speed up collection — by up to 30% — to increase efficiency significantly, including the speed of Operating Deflection Shape (ODS) testing.
- The touchscreen capability means you can place the cursor easily.
- The battery gives longer life for all-day operation, and a spare battery charger is available so you always have a backup.

### IMPROVE RESULTS WITH HIGH-QUALITY TOOLS AND SUPPLIER

The CSI 2140 now interfaces with industry-leading alignment tools to offer powerful vibration, balancing, and alignment technology in a single box. The rugged and high-quality construction of the CSI 2140 surpasses the lifespan of many of today's existing alignment-only tools. In addition, support and training are offered by local sales channel as well as Emerson headquarters.

And because the Emerson tool is upgradable and Emerson offers a long lifecycle for analyzers, your data/technology does not get left behind even if you don't upgrade right away.

### REDUCE COSTS AND INCREASE EFFICIENCY BY USING A SINGLE TOOL

Using Emerson's CSI 2140, you have the best vibration analysis, balancing, and alignment tools in the industry integrated into a single box; using a single operating system; and using the same accessories, a single battery charger, straps, case, and more. In addition, all the data is collected in the same database.

All the steps for a successful vibration-analysis and alignment-correction jobs are performed with a single familiar ergonomic interface that saves training time and work time. Save more time and money by standardizing on the CSI 2140.

*"We are definitely saving maintenance dollars as a result of the extended mean time between repairs (MTBR) on rotating assets."*

**Michael Popelka,**  
Reliability Engineer,  
Pine Bend Refinery



*Emerson's CSI 2140 now interfaces with leading laser alignment fixtures for a single-box solution for your route-based predictive maintenance program.*

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