

Fluke 810 Vibration Tester Get answers now. Start saving money now.

The Fluke 810 Vibration Tester: saving money has never been this easy!

Vibration monitoring is a powerful maintenance practice which has never been widely applied. To understand and gain competence using traditional vibration monitoring equipment, companies had to:

1. Make significant investments for initial setup and training.
2. Change the maintenance culture from preventive maintenance to predictive maintenance or condition-based monitoring.
3. Allow two years—or more—for dedicated resources to be trained and become proficient in understanding vibration analysis.

Fluke redefines mechanical troubleshooting....

Fluke has developed an innovative solution to help teams take control of mechanical maintenance by diagnosing issues before they become real problems. The Fluke 810 Vibration Tester instantly identifies mechanical faults, their location and severity.

Benefits of the Fluke 810

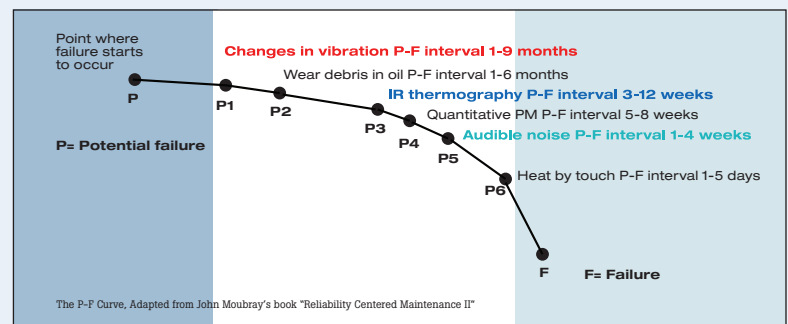
- Anticipate problem areas before failure and prioritize repair actions
- Reduce spare parts inventories
- Extend the life of existing equipment
- Reduce consulting costs by putting the expertise in the technician's hands



What is machine health and how does vibration play a role in it?

Machine health refers to the overall condition of equipment as a result of normal use, maintenance and repair actions and/or external events that impact the operation of the equipment. Vibration remains one of the earliest indicators of a machine's health. Vibration can identify problems before other symptoms—heat, sound, electrical consumption, lubricant impurities—can be detected.

Over half of unplanned downtime is attributed to mechanical failures. While many things can impact the life of a machine, once the first signs of failure appear a machine generally has a matter of months before failing completely. Vibration testing provides a way to determine where the machine is on the failure curve and react appropriately.



The Fluke 810 Vibration Tester ROI worksheet

See for yourself

Start saving money now!

Current machine health alternatives do not offer sustainable ROI. They require significant upfront investment and high ongoing training and support costs.

The Fluke 810 Vibration Tester offers a more practical approach. There is minimal upfront investment with a positive pay off only months from setup. No additional training costs. No additional software fees.

Cost of downtime/repair		Example ROI calculation (Medium size manufacturing facility)	Calculate your ROI savings
Lost production cost			
1	Average cost of unscheduled downtime due to mechanical failures	\$10,000/hr	\$ _____
2	Average downtime for each equipment failure	8 hrs	_____ hrs
3	Average number of events (failures) per year	5 failures	_____ failures
LPC	Average annual lost production cost	$(\$10,000 \times 8) \times 5 = \mathbf{\$400,000}$	\$ _____
Labor and spare inventory cost			
4	Average (regular + overtime) labor cost	\$30/hr	\$ _____ /hr
5	Average time to repair one piece of equipment	8 hrs	_____ hrs
6	Average number of technicians assigned for each equipment failure	2 technicians	_____ technicians
7	Average equipment and parts cost/failure	\$5,000	\$ _____
TMC	Average annual time and material cost to recover from downtime	$(\$30/\text{hr} \times 8 \text{ hrs} \times 5 \text{ failures} \times 2 \text{ techs}) + (\$5000 \times 5 \text{ failures}) = \mathbf{\$27,400}$	\$ _____
TDC	Total downtime cost = LPC + TMC	$\$400,000 + \$27,400 = \mathbf{\$427,400}$	\$ _____
Outsourcing cost			
OC	Vibration analysis - annual consultant fee (based on \$8000-\$15,000 range)	\$10,000	\$ _____
TOC	Total outsourcing costs	\$10,000	\$ _____
Cost of ownership			
8	The Fluke 810 Vibration Tester	\$8,000	\$8,000
9	Number of drive trains to be tested/month	100 drive trains	_____ drive trains
10	Average cost of dedicated, experienced technician for testing (Assume 0.5 hr/motor/month)	$0.5 \text{ hr/month/motor} \times 100 \text{ drive trains} \times 12 \text{ mos/yr} \times \$30/\text{hr} = \mathbf{\$18,000}$	\$ _____
11	Training cost	\$0	\$0
COO	Initial investment (First year cost of ownership)	$(\$8,000 + \$18,000) = \mathbf{\$26,000}$	\$ _____
Payback			
Annual savings from owning a 810 Vibration Tester (In the example ROI, it is assumed that 50% of the annual unplanned downtime cost and 100% of annual outsourcing costs are eliminated with the 810.)		$\$427,400 \times 0.5 + \$10,000 = \mathbf{\$223,700}$	\$ _____
Months to payback. (First year cost of ownership/annual savings x 12)		$\$26,000/\$223,700 \times 12 \approx \mathbf{1.4 \text{ months}}$	\$ _____