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## ***Should I Contract My Vibration And PDM Program?***

Dollar for dollar, a qualified contract service is a great value. The cost of an in-house monitoring project typically runs 2 - 3 times that of a contract service. *Consider the following:*

- ◆ Qualified contract services are less expensive than in-house projects while offering high return on the investment.
- ◆ *No learning curve.* A qualified contractor comes to the table ready to produce results from the very first day of the project. This will save countless dollars in equipment losses and downtime that would be experienced while the in-house personnel learn.
- ◆ No personnel or equipment management responsibility for the in-house supervisor or manager. *Question:* What is a manager's responsibility? *Answer:* Manage personnel? Manage Equipment? Manage projects?

Not really. The goal should be to minimize the need to manage these items while maximizing the company's investment / value / profitability ratios. Often managers want every project they can get to manage under their own umbrella, not because it is the best value for the investment, but because they want control. Unfortunately, control does not equal results.

A contract service must produce a management report which can be used to direct better scheduled maintenance. This is a product which managers and supervisors can use to increase profitability. Minimum in-house investment in time and money and maximum product.

- ◆ *Fear Factor.* Many managers "fear" that if the vibration team is not on site that a machine may go critical and the team won't be able to respond in a timely fashion. This is a valid concern but consider: If a machine goes critical during an off shift, the same situation exists for the in-house project as does for the contractor. Both have to be called in. A well maintained monitoring program should reduce unexpected downtime due to "machines going critical."

*Fact;* most situations where machines go critical in a matter of hours do not need a vibration technician. These require a mechanic!

Page 2 of this document offers a realistic cost projection for beginning an in-house program.

## **VIBRATON ANALYSIS – START-UP COST PROJECTION**

Listed are most of the basic expenses required to operate an in-house vibration monitoring and analysis program. The values are estimates, but are very realistic.

### INITIAL ANALYTICAL EQUIPMENT PURCHASE

1 Ea. FFT Data Collector	\$13,000.00	2
Ea. Personal Computer(s)	3,000.00	1 Ea. Data
Analysis Software	7,500.00	
1 Ea. Bearing / Other Frequency Analysis Software	1,500.00	
2 Ea. Additional Transducers	1,000.00	1
Ea. Phase / Optical Pickup	1,500.00	1
Ea. Strobe Light	750.00	2
Ea. Extra Cables	500.00	
2 Ea. Spare Battery for Data Collector		300.00
Misc. Including Reach Poles, Carrying Cases, Magnets, Stingers, Back-up CD's, etc.	2,000.00	
	\$31,050.00	

YEARLY SOFTWARE AND EQUIPMENT UPGRADE / REPAIR  
\$ 3,000.00

OFFICE EXPENSE  
18 X 20 Office space @ \$1.25/sq.ft. / Month \$ 5,400.00  
(Includes electrical and depreciation)  
Office Equipment (est.)

PERSONNEL  
2 Full-time Employees @28.00 / hr., 40 hrs/week \$107,520.00  
(Includes Salary, Benefits and Management  
Expense – Shop Rate)

TRAINING  
1<sup>st</sup> Year, 3 Weeks per employee @ \$2,500.00 \$ 15,000.00  
Per week (includes cost of course, travel, etc.)  
Years after, 2 weeks per year \$ 10,000.00

**COST OF FIRST YEAR OF OPERATION \$161,970.00**  
**COST OF CONTINUED OPERATION BY YEAR \$125,920.00**

*Based on the volume of work, pricing for our contracted service ranges between \$3.00 - \$5.00 per bearing!*

For a free cost estimate and survey of your plant equipment, contact MDI @ 912-924-3030 or E-mail us from our contacts page: <http://www.machinediagnostics.com>.