



Flowstar Industrial Inc

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Subject – Vibration Training – Category I

Date – October 2nd – 5th 2017 - **Location** – Holiday Inn – Saint John, NB

Course cost – \$2,195.00

Flowstar Industrial Inc. is pleased to offer a vibration Category I course; all course material will be in accordance with ISO 18436-2 standards. Students will write their exam on Friday Morning October 6th/17. Due to the rising costs to offer our vibration courses, we have determined that a minimum number of students must be enrolled in the courses to make them feasible. In our Cat 1 level course we will need a minimum of 8 students, so please consider registering early. Once a student is enrolled, and if the student is unable to attend a seat will be reserved in the next Cat 1 course, and a nominal charge will apply for meals at that course. Flowstar Industrial will also make all hotel reservations if requested, please contact our office @ 902-896-0051 or email phil@flowstarind.ca . Deadline for registration is August 15th 2017, after this we cannot guarantee we can get an exam for the student.

Category I – Course

Instructor – Paul DuJohn, Cat II certified

Paul DuJohn has delivered training in Level 1 CMVA for the last several years, drawing on over 30 years of mechanical maintenance experience as a machinist, millwright and in machine design. He holds a Teaching Certificate in Technical Education from the University of New Brunswick, and a Level II CMVA certification. On his last six Level 1 courses, Paul has had 100% pass his course. He has been employed as a Vibration Analyst at Irving Paper Limited in Saint John, N.B. for 23 years.

Category I course outline

This course is 4 days of classroom training following the guidelines developed by the Canadian Machinery Vibration Association, in accordance with the training and certification requirements of the ISO 18436-2 Standard.

This course will prepare students for the CMVA written exam for Category 1, and will also provide them guidance for completion of the 'Field Practicum' part of the certification under the CMVA program.

According to the ISO Standard:

Individuals meeting the requirement for Category 1 are recognized as being qualified to perform a range of single-channel machinery vibration condition monitoring and diagnostics of machines activities in Accordance with ISO 17359 and ISO 13373-1. They shall not be responsible, for example, for the choice of sensor or for any analysis to be conducted, or for the assessment of test results, except for Identifying alert conditions against a pre-established alert setting or settings.

They shall be qualified

- a) To operate portable instrumentation on pre-assigned or pre-programmed routes.
- b) To acquire readings from permanently installed instrumentation.
- c) To input results into a database and download routes from a computer.
- d) To conduct testing under steady-state operation conditions following predefined procedures.
- e) To be able to recognize that no signal is present, and
- f) To be able to compare overall or single value vibration measurements against pre-established alert settings.

The focus of this level of certification is ensuring the ability to collect good data. The training goes into greater

depth in the vibration analysis technology and analysis procedures. The goal is to provide a basic understanding and appreciation of the technology and methods, putting the specific data collection into perspective, and enable participants to relate to the bigger picture of a successful vibration analysis program.

Training is provided for the following subjects as outlined in the ISO standard and detailed further in CMVA's Performance Objectives. Both of these documents are available from CMVA to its members, on the CMVA's web site Members only area.

The subjects to be covered are:

- Principles of Vibration
- Data Acquisition
- Signal Processing
- Condition Monitoring
- Fault Analysis
- Corrective Action (incl. basic balancing)
- Equipment Knowledge
- Acceptance Testing

A total of 32 hours of training is provided. This includes some hands on exercises.

Students are encouraged to bring their own vibration instruments if at all possible and the appropriate software on their laptop computers; however, it is not necessary to rent a unit to participate in the course. Opportunity to use some other vibration instruments will also be provided with accessibility depending on the number of participants and how many systems students bring.

Opportunity to write the CMVA Category 1 exam will be provided at the end of the course. This exam is 50 questions that are multiple choice and 75% or better is required to pass. There is also the 'hands-on' practicum that must be completed to be eligible for certification by CMVA. It is the participant's responsibility to make arrangements that allow them to complete this part of the requirement.

Candidates hoping for certification should also be aware that ISO standard recommends a minimum of 6 months full time (40 hours per week) experience with vibration analysis data collection work in addition to the 32 hours of training provided in this course.

The CMVA Certification requirements and policies should be reviewed and understood by all candidates as these are not flexible and not at the discretion of the trainers.

Cost – \$2,195.00 plus HST

Deadline for Registration – August 15th, 2017

Late registration cost, August 16th is \$2,350.00 plus HST

Company_____

Applicant_____

Purchase Order_____