



# iLearnBalancing

Machine In-place Balancing Computer-based Training

Mobius iLearnBalancing™ (iLB) is a DVD or web-based training product that runs on your PC. iLB provides you with a complete understanding of how to perform in-place balancing and demonstrates why balancing is so important as part of your overall plant reliability program.

iLB will help you understand how unbalance creates high forces that rob rolling element bearings of their expected lifetime.

iLB not only provides you a solid foundation of understand how to balance machines, but also teaches you how not to chase the wrong balance solution. You will also gain confidence in whether that the machine is truly out of balance rather than exhibiting another fault condition with similar symptoms.

iLB's 3D animations and simulators will make learning more interesting and the course is fully narrated so you don't need to read making concepts easier to understand. iLB includes a number of interactive simulators so you can see the interaction between unbalance, rotational speed and phase, and work with balance vectors.

## Training in multiple balance methods:

- Single plane vector and program
- Two-plane program
- Overhung machines using single and two plane methods
- Four run, no-phase balancing

## Get iLearnBalancing today!

iLearnBalancing is available on DVD or through the iLearn Online Training Portal. Learn more by going to [www.MobiusInstitute.com/iLB](http://www.MobiusInstitute.com/iLB) or if you have questions, please email us at [learn@MobiusInstitute.com](mailto:learn@MobiusInstitute.com) or call us toll free in North America at (877) 550-3400, or international at (+1) 615-216-4811.



## iLearnBalancing Topic Details

With iLearnBalancing, we take you step-by-step and explain the principles behind unbalance, how machines go out of balance, how to balance a machine most effectively and the quality tolerances and levels that need to be achieved. Our interactive training, 3D animations, interactive simulators and tools make iLearnBalancing a very effective training system.

It is fully narrated with 25 chapters, including:

1. Introduction
2. What is unbalance?
  - a. Why balance a machine?
3. What causes machines to be “out of balance?”
4. Understanding phase
5. Phase conventions
6. Advanced phase
7. Understanding vectors
8. Terminology
  - a. Balancing theory
9. Different types of unbalance
10. Diagnosing unbalance
11. Confusing unbalance with other fault conditions
12. Preparing for the balance job: Safety first
  - a. Balance check-list
13. Single plane balancing: Introduction and balancing software
14. Single plane balancing: Vector balancing
15. Two plane balancing
  - a. Optimized balancing
  - b. Balancing with influence coefficients
16. Static/couple balancing
17. Balancing overhung rotors
18. Four run, no phase balancing
19. Trial weight selection
20. Splitting weights
  - a. Combining weights
21. What can go wrong during the balance job?
22. Tolerance and balance quality: Introduction
23. Tolerance and balance quality: ISO 1940-1:2003
24. Tolerance and balance quality: API & MIL-STD-167
25. Conclusion and references

While our training covers all of the essential procedures, and is filled with valuable tips and tricks, one of the greatest benefits is that our training will help people understand balancing.

### System Requirements – DVD Version

- Windows XP, Vista or Windows 7
- DVD /CD drive
- Sound card
- Video screen resolution of 1024x768 or better

### System Requirements – Online version

- Standard web browser; Internet Explorer, Firefox and Safari with Java enabled.
- Adobe® Flash installed
- Sound card
- Video screen resolution of 1024x768 or better

## **PUBLIC COURSES & ON-SITE COURSES**

Category I, II, III, IV Mobius Institute Vibration Training Courses, ISO/ANST Accredited Certification through Mobius Institute Board of Certification (MIBoC). Machine Balancing and Alignment courses are also available. Courses are available at training centers in more than 50 countries worldwide, or may be scheduled at your site.

## **DISTANCE LEARNING COURSES**

Web-based, self-paced Category I, II, III Mobius Institute Vibration Training Courses, ISO/ANST Accredited Certification through Mobius Institute Board of Certification (MIBoC). Machine Balancing and Alignment courses are also available.

## **PC-BASED TRAINING PRODUCTS**

- iLV – iLearnVibration™ – Vibration analysis training for beginner and intermediate vibration analysis.
- iLA – iLearnAlignment™ – Machine coupling alignment training for vibration analysts and machinists.
- iLB – iLearnBalancing™ – In-place machine dynamic balancing for vibration analysts and machinists.

## **ABOUT US**

MOBIUS INSTITUTE offers unique and easily understandable vibration analysis training and certification that follows ISO standards to Predictive Maintenance (PdM) technicians and Reliability Engineers, allowing companies to operate at higher levels of availability and profitability. Mobius Institute trains more analysts than any other vibration analysis training organization. Mobius' key advantage is its contemporary delivery of vibration analysis material using extensive 3D animations and advanced simulation tools that make complex concepts easy to understand and remember. Learn more at [www.MobiusInstitute.com](http://www.MobiusInstitute.com).

## **THE BEST ANALYSTS ARE MOBIUS TRAINED**

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