



Vibration Analyst, Reliability, Rotor dynamics and Diagnosis courses schedule for 2022

Vibration Analyst Course with Certification – Public courses in Denmark & Germany

Training Course	Dates 2022 in Denmark <i>(English only)</i>	Dates 2022 in Germany <i>(English only)</i>
Basic Vibration Analyst Category I Training & Certification	Week 14 April 4th to 7th	Week 6 February 7th to 10th
Intermediate Vibration Analyst Category II Training & Certification	Week 24 June 13th to 17th	Week 10 March 7th to 11th
Advanced Vibration Analyst Category III Training & Certification	Week 38 September 19th to 23rd	Week 17 April 25th to 29th
Master Vibration Analyst Category IV Training & Certification	N/A	Week 41 October 10th to 14th

Asset Reliability Practitioner Course – Public courses in Denmark & Germany

Training Course	Dates 2022 in Denmark <i>(English only)</i>	Dates 2022 in Germany <i>(English only)</i>
ARP-A, Advocate - Category I Training & Certification	Week 8 February 22nd to 24th	Week 26 June 28th to 30th
ARP-E, Reliability Engineer - Category II Training & Certification	Week 12 March 21st to 25th	Week 36 September 5th to 9th
ARP-L, Reliability Leader Category III- Training & Certification	Week 28 July 11th to 15th	Week 45 November 7th to 11th



Machinery Monitoring and Vibration Diagnosis Public courses Schedule for 2022 – Germany (Darmstadt)

Training Course	Description	Dates 2022 in Darmstadt <i>(English only)</i>
MD1 - Basic Protection and Condition Monitoring Training	<ul style="list-style-type: none"> ◆ Why use of vibration measurements, techniques and tools, off-line & on-line monitoring systems. ◆ Fundamentals of machine behavior. Best practice for taking measurements. ◆ Covering Auxiliary machines, Balance of Plant (Rolling Element Bearing). 	Week 19 May 9th
MD2 - Turbomachinery Diagnosis & Rotordynamics Training	<ul style="list-style-type: none"> ◆ Rotor diagnostics by vibration analysis, definitions, and theory. ◆ Fluid-film bearings and turbomachinery analysis techniques, fundamental rotor response, stiffness, instabilities. ◆ Interpretation of waveform, phase, orbit, polar & bode, vector, shaft centerline and full & half spectrum plots. Root cause analysis, recommendations exercise. 	Week 46 November 15th – 17th
MD3 - Balancing Rotors in-situ Training <i>(2 options available)</i>	Rigid rotor balancing <ul style="list-style-type: none"> ◆ Balancing using 1 or 2 planes, 4 run no phase and overhung balancing methods. Types of unbalance, vector review. 	Week 19 May 10th
	Flexible rotor balancing <ul style="list-style-type: none"> ◆ Vector review, balance response and recognizing resonance. Mode shape, rotor non-linearity, thermal vector, field consideration, with balancing workshop. 	Week 19 May 11th
MD4 - Hands-on Diagnostic Seminar Training	<ul style="list-style-type: none"> ◆ How to correctly diagnose machinery fault conditions, including turbomachinery, suggest the right recommendations and practices. ◆ Bearing types (journal and antifriction) and related faults. Interpretation of data plots and root cause failure analysis investigations, many case study and exercise. 	Week 49 December 6th – 8th



Machinery Monitoring and Vibration Diagnosis Public courses Schedule for 2022 – USA (Orlando and Gardnerville)

Training Course	Description	Orlando	Gardnerville
MD1 - Basic Protection and Condition Monitoring Training	<ul style="list-style-type: none"> ◆ Why use of vibration measurements, techniques and tools, off-line & on-line monitoring systems. ◆ Fundamentals of machine behavior. Best practice for taking measurements. ◆ Covering Auxiliary machines, Balance of Plant (Rolling Element Bearing). 	N/A	Week 24 June 14th
MD2 - Turbomachinery Diagnosis & Rotordynamics Training	<ul style="list-style-type: none"> ◆ Rotor diagnostics by vibration analysis, definitions, and theory. ◆ Fluid-film bearings and turbomachinery analysis techniques, fundamental rotor response, stiffness, instabilities. ◆ Interpretation of waveform, phase, orbit, polar & bode, vector, shaft centerline and full & half spectrum plots. Root cause analysis, recommendations exercise. 	Week 6 February 7th – 9th	Week 25 June 20th – 22nd
		Week 49 December 5th – 7th	
MD3 - Balancing Rotors in-situ Training	Flexible rotor balancing Vector review, balance response and recognizing resonance. Mode shape, rotor non-linearity, thermal vector, field consideration, with balancing workshop.	Week 6 February 10th – 11th	Week 25 June 23rd – 24th
		Week 49 December 8th – 9th	
MD4 - Hands-on Diagnostic Seminar Training	<ul style="list-style-type: none"> ◆ How to correctly diagnose machinery fault conditions, including turbomachinery, suggest the right recommendations and practices. ◆ Bearing types (journal and antifriction) and related faults. Interpretation of data plots and root cause failure analysis investigations, many case study and exercise. 	N/A	Week 24 June 15th – 17th