





Introduction to NADA

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1. About NADA

With over two decades' expertise in vibration/condition monitoring & analysis and predictive maintenance, NADA can offer you the most reliable, high performance and cost-effective solutions for your rotating machinery.

"How do you communicate with machines?"



"Machines speak to us in VIBRATION."











NADA - Your ONE source for rotating machinery monitoring solutions









Sensors

- Proximity Probes
- Accelerometers
- Piezoelectric Velocity Sensors
- Wireless Accelerometers
- Hazardous Area Sensors & Barriers
- Etc.

V-net 7000 System

- TSI (Turbine Supervisory Instrumentation)
- MPS (Machinery Protection System)
- Continuous online protection, condition monitoring & diagnostics for critical machinery

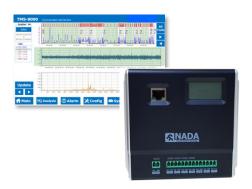
V-net 3000 System

- CMS (Condition Monitoring System)
- Predictive & preventive maintenance for general purpose machinery

V-net Software Package

- T-Server
- T-Configuration
- T-Monitor
- T-Report







- Machine Tool Monitoring System
- Complete monitoring system for machine tools combining vibration & current analysis
- Tool damage & abrasion, bearing defects, fabrication condition (e.g., chatters)



QMS-2000

- Quality Management System
- Comprehensive monitoring system for improving the qualities of automobile transmission, compressor, motor, etc.
- Root cause analysis, quality control,
 OK/Not OK decision making in
 production lines



▶ VibLow 7000

- 16 Ch Portable Vibration Analyzer
- Real-time signal processing, data acquisition & analysis



► VibLow CXII Plus

- 8 Ch Portable Vibration Analyzer
- Real-time signal processing, data acquisition & analysis





PdM (Predictive Maintenance) Service

- NADA's ISO 18436-2 Category III experts to your sites for an objective diagnosis
- Professional weekly/monthly in-depth reports about your equipment's condition
- Risk assessment, recommendation for the optimal timing for maintenance

Main Functions

- Condition Monitoring: Evaluating machinery's condition based on vibration data
- <u>Diagnosis Evaluation</u>: Diagnosing each problematic machinery and evaluating the causes of problems
- Health Evaluation: Evaluating the health of each machinery, line, or entire plant via vibration analysis. Predicting possible problems that may arise during normal operation

Expected Effects

- You can minimize unexpected failures
- You can evaluate the health of machinery and build a database using the health indexes. These data can later be used to preserve the machinery
 - You can learn about the cause of a failure and come up with prevention plans

PdM

Plans

- NADA's vibration analysis experts will be dispatched from the closest branch and perform the PdM service.
- 1) Installing sensors on machinery
- 2) Measuring vibrations periodically by using a portable analyzer (at least once a week)
- 3) Reporting Monthly reports

Applications

- Equipment Condition Assessment:
 Samsung, Hankook Tires, POSCO, etc.
- Safety Inspection: SK, Incheon drain pump, Kotec, etc.
- Troubleshooting: Hyundai motors,

Kumho petrochemistry, etc.

- Others: Renault Samsung motors, Kogas, etc.
- PdM services to Hyundai Alabama & Georgia plants, DYK





► ISO 18436-2 Training Center (Authorized by the Vibration Institute)

NADA Co., Ltd. became an authorized training center for vibration analysis training program (ISO18346-2) by making an exclusive contract with the Vibration Institute in 1999. We have trained about 5,000 engineers and We are dedicated to contribute to the enhancement of national competitiveness.

Area I(Beginner)

- Training of monitoring specialists
- Being able to measure vibrations, monitor trends, and predict the timing of a future breakdown by using Data Collector

(Area II(Intermediate)

- Training of diagnosis specialists
- Includes Area I
- Being able to analyze vibrations & failures by using multi-channel FFT analyzer

Area III(Expert)

- Training of sound & vibration control specialists
- Includes Area I & II
- Being able to increase or decrease vibrations with ease

Area IV(Expert)

- Training of advanced equipment administrators
- Includes Area I & II & III
- Being able to measure & analyze all kinds of mechanical vibrations



3. NADA | Customers

Power Plant

- [EWP] Remote Vibration Monitoring System (2017)
- [HEC] VMS for Indonesia KALSEL-1 Power Plant (2016)
- [KHNP] Portable VMS for the Central Research Center (2016)
- [KHNP] PI System™ Maintenance Contract (2016)
- [KHNP] PI System ™ for UAE Barakah Nuclear Power Plant (2016)
- [KOEN] PI System ™ for Yeongheung Power Plant Unit 1-4 (2016)
- [KHNP] VMS for Uiam Hydro Power Plant Unit 1 & 2 (2016)
- [KHNP] VMS for Shin Kori Nuclear Power Plant Unit 5 & 6 (2015)
- [KHNP] VMS for Kori Nuclear Power Plant Unit 3 (2015)
- [KHNP] VMS for Kori Nuclear Power Plant Unit 4 (2015)
- [KHNP] Pipe VMS for UAE Barakah Nuclear Power Plant (2015)
- [EWP] TSI/VMS for Donghae Coal-fired Power Plant Unit 1 (2015)
- [EWP] TSI/VMS for Donghae Coal-fired Power Plant Unit 2 (2015)
- [EWP] VMS for Dangjin Coal-fired Power Plant FGD Unit 1-4 (2015)
- [EWP] TSI/VMS for Dangjin Coal-fired Power Plant Unit 3 (2014)
- [EWP] TSI/VMS for Dangjin Coal-fired Power Plant Unit 4 (2014)
- [KHNP] TSI for Kori Nuclear Power Plant Unit 3 (2014)
- [KHNP] TSI for Kori Nuclear Power Plant Unit 4 (2014)
- [KHNP] VMS for Hanbit Nuclear Power Plant (2013)
- [KEPCO KPS] Turbine Monitoring System...and more

Oil & Gas/Petrochem / Tire / Steel

- [ONGC] VMS for India Dahej Plant
- [KOGAS] VMS for Pyeongtaek LNG Terminal Plant
- [Hyundai Oil Bank] Condition Monitoring Consulting
- [SK Innovation] VMS for Korea Seonsan Plant
- [Samsung SDI] VMS for Korea Ulsan/Giheung Plant
- · [Samsung SDI] VMS for China Tianjin/Jiangsu Plant
- [Samsung SDI] VMS for Hungary Plant
- [Samsung SDI] VMS for Malaysia Plant
- · [Hu Chems] VMS for Jilsan Plant
- [Kolon] VMS for Korea Gumi/Gimcheon/Gyeongsan Plant
- · [Kolon Benit] VMS for Giheung Plant
- [Hankook Tire] VMS for Korea Geumsan/Daejeon Plant
- [Hankook Tire] VMS for China Xiasing/Jiangsu Plant
- [Hankook Tire] VMS for USA Tennessee Plant
- · [Hankook Tire] VMS for Indonesia Plant
- [Hankook Tire] VMS for Hungary Plant
- [Kumho Tire] VMS for USA Georgia Plant
- [Nexen Tire] VMS for Korea Plant
- [POSCO] VMS for Gwangyang Plant Zinc Pot
- [POSCO] CMS for Raw Material Transportation System...and more

Automobile/Machine Tool/Etc.

- [Hyundai Mobis] Smart Factory for Mexico MMX Plant
- [Hyundai] VMS for USA Alabama/Georgia Plant
- [Hyundai] VMS for Korea Ulsan Plant
- [Hyundai] QMS for India Plant
- [Hyundai[Auto Shift Fault Analysis System for Czech Plant
- [Hyundai] Machine Tool Monitoring System
- [Kia] Cold Tester Fault Analysis System for Korea Hwaseong Plant
- [DYK] VMS for China Plant #1, #2, #3
- [Doosan Infracore] CMS for Heavy BG Frame Plant
- [Doosan Infracore] CMS for Engine BG G2 Plant
- [Doosan Infracore] Machine Tool Monitoring System
- [Iljin Global] Bearing Tester
- [Iljin Global] Bearing Fault Analysis System
- [Dongah Automotive] Bearing Fault Analysis Sysetm
- [BOE] CMS for Panel Transportation System
- [Myeonghwa] Fault Analysis System for Auto Transmission
- [Myeonghwa] Fault Analysis System for EQP
- [LG Display] CMS for Panel Transportation System
- [K-Water] CMS for Korea Gyeongnam Water Intake Station
- [KORAIL] Fault Analysis System for High-Speed Train...and more































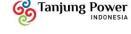


KUMHO TIRE













4. NADA | Certificates









ISO 9001

► ISO 14001

► OHSAS 18001

Certificate of Registration

: Approved VMS Supplier of Korea Hydro Nuclear Power



5. NADA | Worldwide Support









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