



OWE KALLSTROM

Managing Director of AVA Monitoring

Distributor of Sonitus Systems noise monitoring products in the Nordic region



Established in 1972 as an environmental consultancy, Sweden-based AVA Monitoring later expanded into the design and manufacture of metering instrumentation for monitoring ground vibration. Members of the founding family continue to work in the organisation today.

Since joining the organisation in 2010, Owe, together with his team, developed the design and manufacturing arm of the business that is today known as AVA Monitoring, which is distinct from the core environmental consultancy. AVA Monitoring designs and manufactures vibration metering hardware together with a cloud-based monitoring system. The company also acts as lead distributor to the Nordic region (Finland, Sweden and Denmark) of third party monitoring systems, including Sonitus Systems' sound level meters, to complement its vibration meter offering.

GROUND VIBRATION MONITORING

In addition to manufacturing ground vibration monitoring equipment for distribution in Western Europe, Australia and North America, AVA Monitoring provides cloud-based vibration monitoring services across Sweden, Finland & Denmark.





NOISE MONITORING

AVA Monitoring imports and distributes Sonitus Systems' sound level monitors to provide a broad range of environmental metering services. The core focus is on serving construction sites in urban areas.

These range from residential developments right through to large infrastructure or civil works projects. Current market need is driven primarily by restrictions and regulations with which construction companies must comply.

AVA Monitoring also supplies equipment to acoustic consultants who then utilise this noise monitoring system across many sectors, including live entertainment venues and in public spaces.

REGULATORY DIFFERENCES FROM REGION TO REGION

Identifying, understanding and ensuring compliance with regulations, which differ from region to region, can be troublesome. There are no shortcuts, for each project it is necessary to become familiar with the local or regional rules concerning acceptable noise, vibration or ground water levels. These can differ quite a lot. For example, there are significant differences between permissible levels in Germany and in the United Kingdom, and these are different to the permissible levels across many US states. All metering equipment must be adapted or adjusted accordingly.

As international manufacturers, Sonitus Systems' hardware for measuring sound levels is designed for use across many different countries and climates so the existing systems can be used well in its current state. That said, having environmental monitoring equipment adapted to suit the specific needs of a region is critical.





“One of the most important adaptations of the Sonitus Systems’ noise monitoring equipment that was needed for our clients came about because of the colder climate in Sweden. With temperatures varying from -2 to +7 degrees on a daily basis, moisture in the air caused water droplets. Obviously you cannot have water droplets on the microphone or you will ruin the reading, and this is a particularly common problem in the Nordic countries. Sonitus Systems designed a microphone heater to keep the temperature steady at +10 degrees. This mitigates the risk of any water on the microphone impacting readings.”



“There are certainly gaps in some countries between the minimum required standard and what we would consider to be best practice. In fact, this is one of the reasons why we work with Sonitus Systems. Our companies have exactly the same philosophy, that is, to keep things simple.”

“In our business, ‘simple’ means that there should be automated monitoring with little manual intervention and no need for manual labour performing the monitoring tasks. This is best practice in our industry. It also ensures that costs are kept to a bare minimum, compared with having high-salaried consultants attending to the instrumentation. This means we can deploy the equipment in Sydney or London or Stockholm and it could function unattended for up to eight months (depending upon battery life) while being accessible anywhere through your mobile phone. This is becoming best practice gradually, but some regions fall far short of this and still engage in more costly, manual monitoring exercises.”

MINIMUM REGULATORY STANDARDS VS. BEST PRACTICE



EVOLVING THROUGH INNOVATION

“20 years ago there would have been an equipment handler and one consultant tending to each monitoring feed. Today, one consultant sitting in an office in Stockholm can monitor more than one hundred simultaneous feeds from many different projects all over the world. This is quite a big difference for the industry, although the evolution has been gradual over the past two decades. We gradually invented better and better technology to utilise mobile cell networks and low power consumption for longer battery life. Then we used the power of cloud systems to automate this.”



WHAT'S NEXT FOR ENVIRONMENTAL MONITORING

“I think that we will continue to push the simplicity and the automation much, much further. Better use of IoT (internet of things) will be made, with sensors deployed in much greater numbers as the cost per measuring point continues to reduce. Battery power will likely continue to improve, which will lead to even higher levels of automation.”





SONITUS SYSTEMS

AVA Monitoring has been working with Sonitus Systems for more than four years, having met through mutual UK distributor, Campbell Associates.

“Paul and the team at Sonitus Systems are very easy to work with and their system is designed to be easy to handle. This is key for our customers. At AVA Monitoring, we share their philosophy about how products need to work and this is what benefits the end user.”

