



Acoustic Emission Testing

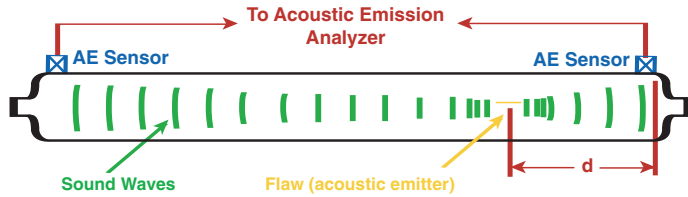
ISO 9001:2000 Certified

Cryogenic and Industrial Gas Services

AMKO is a comprehensive service company servicing the high pressure and industrial gas industries. AMKO, with five U.S. locations, specializes in cryogenic trailer, mobile high pressure and stationary tube rehabilitation. This includes repair and acoustic emission (AE) testing as well as offering vacuum-jacketed pipe manufacture and complete installations.

AMKO Customer Focus

Meeting customer delivery expectations is the key to success for any services company. AMKO satisfies those needs by following strict safety guidelines and continually improving its quality processes using Six Sigma practices.



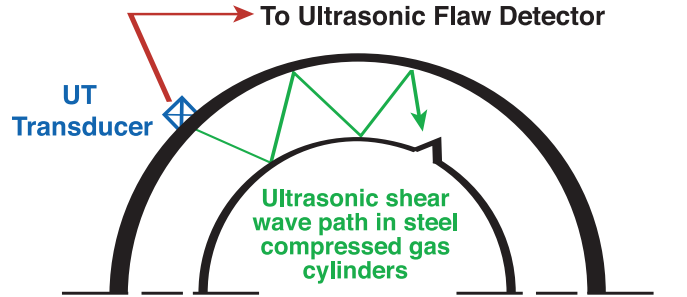
What is Acoustic Emission Testing?

Acoustic emission (AE) testing in cylinder applications uses sound to evaluate the condition of the metal. Externally applied sensors 'listen' for high frequency signals resulting from deterioration in the cylinder wall. This allows the cylinder to be tested quickly without introducing moisture. Acoustic emission is the sound produced by a material as stress is applied. An example in nature of applied stress is that of a tree branch breaking under a heavy load. The "cracking sound" is a warning that the branch may fail.

During the AE test, the cylinders are monitored for noise while the cylinder is being filled to 110% of its normal fill pressure. The AE is used to locate sites for follow up ultrasonic (UT) examination and to confirm the size and location of the defect.

Acoustic Emission Testing Benefits

- Dry gas used instead of water for testing
- Can be performed with the transported gas
- AE locates the defect, UT evaluates the defect
- Uses a lower test pressure than hydro:
 - 110% vs 167%
- Onsite AE testing is an option
- Pressure relief devices can be replaced when desired
- Faster turnaround time than hydrotest



Why Test with AMKO?

AMKO has been AE testing tube trailers and tube bundles since 1984. AMKO was the first to offer testing on 22" diameter tubes and is a leader in testing 9 5/8" diameter tubes. Our expert staff includes an ASNT Level III AE tester. AE testing is performed under DOT exemption 8944 for DOT spec 3AAX and 3T cylinders, and DOT exemption 11099 for DOT spec 3A and 3AA cylinders.

AE testing is offered at AMKO's facilities in Adelanto, CA and Gnadenhutten, OH. Through a service agreement, AE testing is also offered at a facility in Houston TX. All three facilities offer complete refurbishment of the tube trailer unit.

AMKO's mobile AE test lab can be moved to anywhere in North America or shipped worldwide. AMKO has conducted testing in Canada, Mexico, the Middle East, the Caribbean, and in Asia.

Contact AMKO Today

For more information about acoustic emission testing, or other AMKO services, call 1-877-USE-AMKO, or visit our website at www.amkoservice.com.