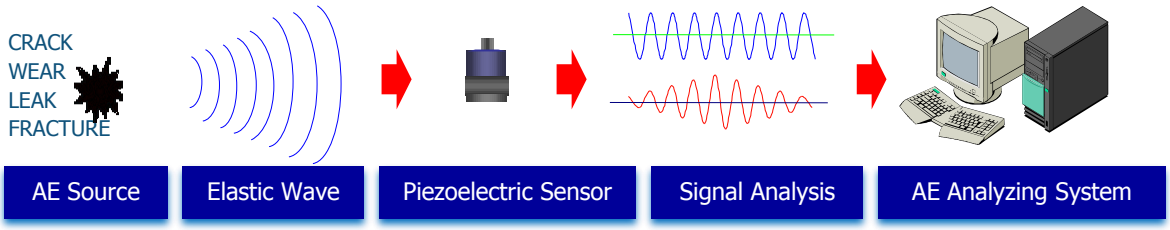
On Line Valve Leak Monitoring System

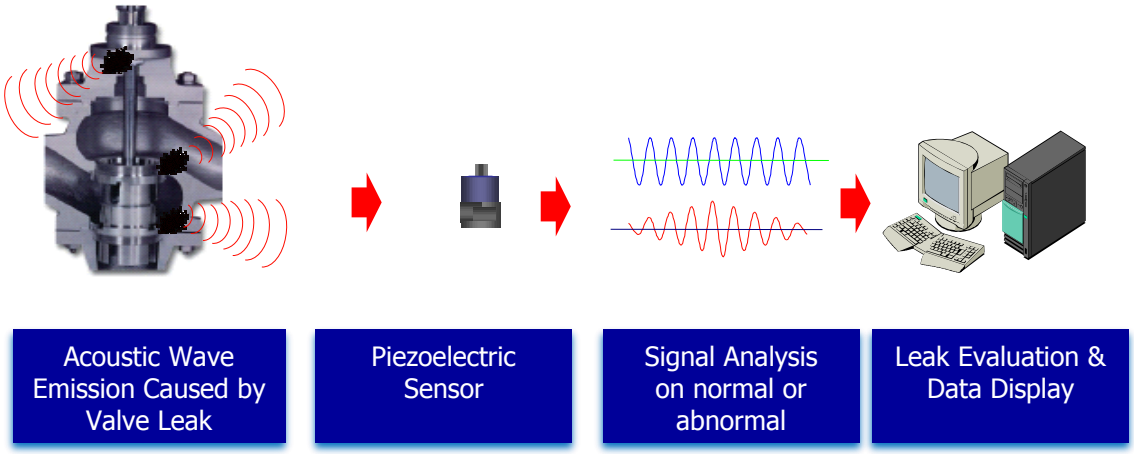
AE Technology for Valve Leak Detection

The system is intended for valve leak detection continuously for all kinds of high pressure and high temperature valves in power plant and industries. The acoustic emission(AE) technology is based on elastic wave technology caused by strain energy. The piezoelectric sensors detect elastic wave signal both low frequency and high frequency at same time and also transmit the signal to analyzing system.



Principle of Acoustic Valve Leak Detection

- ▶ The signal analysis on normal and abnormal status for object valve
- ▶ The separation of leak signal from background noise
- ▶ Display the leak condition and alarm data simultaneously



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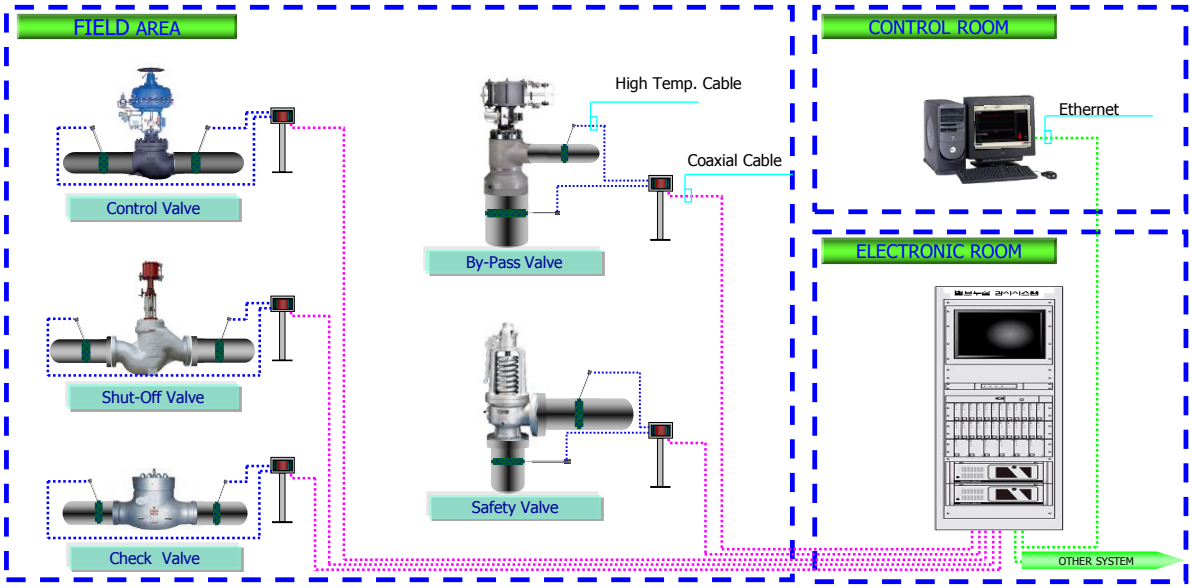
Features & Functions

- ▶ Early detection for valve internal leakage using high sensitivity AE sensor
- ▶ Reduce the valve maintenance cost and prevention from power plant accident and energy loss
- ▶ Adoption of data storage logging system for 2 years per each valve data
- ▶ 3D valve map display to inform sensor locations and alarm indications

System Configuration



Software