



Emerson Impact Partner



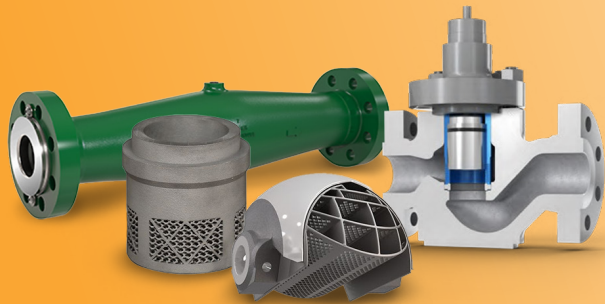
The Cost of Hazardous Occupational Noise & Benefits of New Noise Reduction Technologies

By Brian Weaver, Executive Director of Sales & Adam Paris, Inside Sales Engineer



Many industrial sites experience high levels of noise exposure. [OSHA](#) reports that 22 million workers are exposed to hazardous occupational noise each year. Prolonged exposure to excessive noise can lead to permanent noise-induced hearing loss (NIHL). According to the [CDC](#), about 46% of workers in manufacturing are exposed to hazardous noise.

Process control environments are no exception. Control valves and regulators critical to enabling processes and advancing production create noise. High flow and high pressure drop applications tend to reach high sound levels quickly. Noise solutions for valves and regulators can be specified to address decibel requirements. Controlling noise volumes at their source is the most effective solution.



Emerson and ECI supply products developed specifically to reduce noise. Fisher's Whisper Trim Technology, including [Whisper Trim Cages](#), [WhisperTube](#), [Whisper NXV Trim](#) and [Whisper NXG Trim](#), reduces noise up to 30 dBA.



Traditional noise trim inhibits process flow. Emerson's Whisper Trim™ series was developed with new designs and additive manufacturing, enabling complex trim configurations that reduce noise without impacting flow efficiency. This delivers an ideal solution supporting both production and safety goals.

An organization's lack of attention to noise volume is costly. In addition to the diminished quality of life caused by NIHL, there are financial implications. Employers can expect reduced productivity, more sick days, medical costs and more. [OSHA](#) estimates the cost annually for employers to be \$242 million for hearing loss disability compensation. The corresponding employee turnover also has significant implications including the time and cost to hire and train employees. Retaining experienced valve technicians through noise-reduction safety initiatives not only protects the technicians but supports improved productivity and operational performance.

NIOSH publishes noise exposure limits for occupational environments. Their recommended exposure limits are intended to help protect personnel from hazards in the workplace.



Time to reach 100% noise dose	Exposure level per NIOSH REL
8 hours	85 dBA
4 hours	88 dBA
2 hours	91 dBA
1 hour	94 dBA
30 minutes	97 dBA
15 minutes	100 dBA

Exposure to 85 dBA for 8 hours is a 100% noise dose. If the 8 hours is exceeded, companies must supply the means to mitigate the hazard. NIHL is preventable and proper product specifications utilizing new technology can support safety initiatives.

The acoustical attenuation capability of the Fisher™ Whisper Trim series delivers actionable solutions for control valve environments. These solutions must be carefully sized and specified to ensure not only noise reduction but effective operation and long-term performance. Integrating these noise abatement products, in conjunction with a properly sized valve body, will help reduce noise at the source and create safer environments.



Access Solutions That Will Help You Reduce Noise and Create a Safer Environment!

Founded in 1956, ECI specializes in providing best-in-class process control systems, automation products, pumps, and related solutions for manufacturing and industrial customers in the oil and gas, chemical, power, food and beverage, mining and metals, life sciences, pulp and paper, refining, petrochemical, OEM, and nuclear industries. In addition, ECI's experts and certified technicians provide reliability solutions, plant lifecycle services, process solutions, automation, and valve repair services for a wide variety of products. The company is proud to be your local Emerson Impact Partner serving Western Pennsylvania, West Virginia, Western Maryland, and Ohio.



ECI.us
724-746-3700
2 Park Drive, Lawrence, PA 15055