

## 맥동하는 유체를 포함하는 3차원 배관계의 진동해석

서영수\*(부산대학교) · 정의봉\*\*(부산대학교) · 윤상돈\*(부산대학교)

**Vibration Analysis of A 3-Dimensional Pipe  
Conveying Pulsating Fluid Flow**

Young Soo Seo , Weui Bong Jeong , Sang Don Yoon

**Key Words** : fluid pulsation , FEM , fluid-structure interaction , vibration**Abstract** : A pulsation of fluid in a pipe sometimes cause severe vibration of pipe. The inertia, damping and stiffness characteristics of pipe will be changed by the effect of fluid-structure interaction. The velocity and pressure of fluid will impose the force to a bended shape pipe. In this paper, a pipe with fluid flow is modeled by finite element method and the fluid force from pulsation is also modeled by the fluid dynamics. The vibration of pipe conveying pulsating fluid flow can be estimated by taking into considering of fluid-structure interaction.

## 흡음을 평가방법의 KS 규격화 방안에 관한 연구

이태강\*(전남대 공업기술연구소) · 송민정\*(전남대 공업기술연구소) ·

김선우\*\*(전남대 건축학과)

**The establishing Korean Industrial Standard of the sound absorber  
for use in bildings**

Tai-gang Lee, Min-Jung Song, Sun-Woo Kim

**Key Words** : Korean industrial standard, rating of sound absorption, ISO 11654**Abstract** : Recently Korean Industrial Standards has been revised and established newly accordance with the ISO system, especially ISO 140 series. This study aims to introduce and review ISO 11654 which contents rating of sound absorption, and then this study suggests to establish appropriate evaluating method and Korean Industrial Standard of the sound absorber for use in building