세라믹캔들필터 집진장치의 유입방식에 따른 분진거동의 차이점 해석

박석주*, 이동근[1], 임정환, 박영옥
한국에너지기술연구원; [1]충남대학교 기계공학과
(sjpark@kier.re.kr*)

Filtration systems with ceramic candle filters have been used for removing dust particles in hot gas. In hot gas filtration systems, particle deposition pattern onto the candle filter surface is important because the deposition pattern influences pressure drop, dust cake formation and pulsing efficiency. In this study, computational simulation was performed to suggest an optimal type of the location of an inlet which might influence the loading onto the filter surface of particles entering a filter vessel. The inlet types considered are upper inlet, middle inlet, and bottom inlet. The FLUENT commercial program was used for computational simuation.