

Asymmetric Metal Membrane Filter For Catalyst Recovery

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Abstract

Sintered metal filter elements have been successfully used for years in different applications. These elements show advantages when fatigue, impact and shock pressure resistance or high temperature and corrosion resistance is required. The introduction of asymmetric Metallic Membranes elements has disclosed many benefits for particle retention in terms of back flushing performance and pressure drop reduction. The filtration active layer with a thickness of 200µm is diffusion bonded by the sinter process onto a coarse support structure which is responsible for mechanical stability of the filter element.

The presentation points out the membrane performance for catalyst recovery with different filtration concepts (batch and cross flow filtration). The filtration characteristics like back pulsing, initial pressure drop, pore size distribution, particle retention and filtration mechanism of the asymmetric filter elements are described and compared to conventional sintered metal filter elements.

Biography, short sketch

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Bio

Since 2007: R&D and plant engineering manager, GKN Sinter Metals Filters

2005-2006: Project manager diesel particulate filter, GKN Sinter Metals Filters

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