

Abstract**Hot Gas Filtration System and Process for Regenerating said System**

The present invention relates to a hot gas filtration system and a process for regenerating such a hot gas filtration system, said filtration system comprising a filter vessel, a tubesheet separating the interior of said filter vessel into a raw gas section and a clean gas section, and a plurality of filter elements. Said filter elements, arranged in two or more groups, are connected to the tubesheet with a clean end and extend with a raw gas portion into the raw gas section. Two or more plenum chambers are accommodated in the clean gas section and group-wise accommodate the clean gas ends of the filter elements, each of said plenum chambers comprising a gas exchange opening providing a direct fluid communication with the clean gas section. The hot gas filtration system furthermore comprises a blowback arrangement comprising a blowback gas reservoir and a blowback gas pipe for each group of filter elements, said blowback gas pipes having an outlet positioned in said clean gas section of the vessel, said outlet of the blowback gas pipes being directed at the gas exchange opening of the plenum chambers, said outlet of said blowback pipe having a free cross-sectional area of from about 10 % to about 90 % of the free cross-sectional area of said gas exchange opening.

Figure 1A