

*Development of a Next Generation Burner Using Compressed Air and a Sonic Orifice for Controlling the Volumetric Flowrate of Air*

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Abstract. This presentation will focus on the development of a replacement oil burner to be used for the burnthrough test apparatus and other fire tests. Unlike the present oil burners, which utilize an electric motor and blower to produce the required amount of combustion air, the new equipment relies on compressed air and a sonic orifice to accurately meter the proper amount of combustion air. The new equipment minimizes the impact of varying atmospheric conditions on the burner performance, such as barometric pressure and altitude.