

ABSTRACT

VARIABLE-VOLUME EXHAUST SYSTEM

An exhaust system for exhausting air from a space includes a variable- volume exhaust air moving system having at least one fan having an inlet and an outlet. A duct is connected to the inlet and an outlet nozzle defining a variable cross-sectional outlet area is fluidly connected to the outlet. A selectively operable bypass damper is fluidly connected to the inlet. A sensor is located in the exhaust system for detecting at least one of a pressure condition and a flow condition therein. A control system controls the at least one fan, the outlet nozzle, and the bypass damper, based on a signal sent from the sensor.

FIG. 1