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(54) Title: ATOMIC LAYER DEPOSITION CHAMBER WITH THERMAL LID

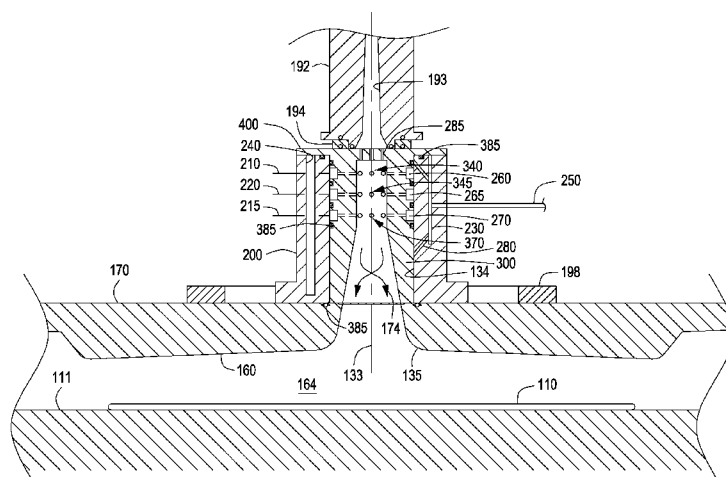


FIG. 1C

(57) Abstract: Methods and apparatus for cleaning an atomic layer deposition chamber are provided herein. In some embodiments, a chamber lid assembly includes: a housing enclosing a central channel that extends along a central axis and has an upper portion and a lower portion; a lid plate coupled to the housing and having a contoured bottom surface that extends downwardly and outwardly from a central opening coupled to the lower portion of the central channel to a peripheral portion of the lid plate; a first heating element to heat the central channel; a second heating element to heat the bottom surface of the lid plate; a remote plasma source fluidly coupled to the central channel; and an isolation collar coupled between the remote plasma source and the housing, wherein the isolation collar has an inner channel extending through the isolation collar to fluidly couple the remote plasma source and the central channel.