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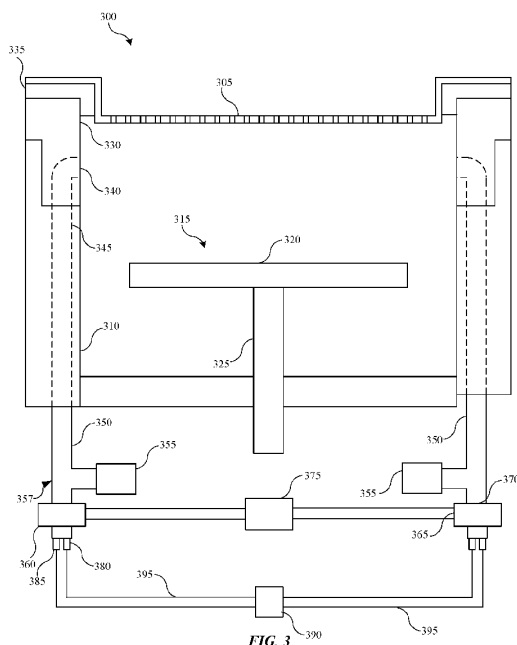
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(54) Title: THROTTLE VALVE AND FORELINE CLEANING USING A MICROWAVE SOURCE



(57) Abstract: Exemplary semiconductor processing systems may include a processing chamber defining a processing region. The systems may include a foreline coupled with the processing chamber, the foreline defining a fluid conduit. The systems may include a radical generator having an inlet and an outlet. The outlet may be fluidly coupled with the foreline. The systems may include a gas source fluidly coupled with the inlet of the radical generator. The systems may include a throttle valve coupled with the foreline downstream of the radical generator.

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