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(54) **Title:** MULTI-STATION PROCESSING TOOL WITH PRECURSOR DISTRIBUTION SYSTEM

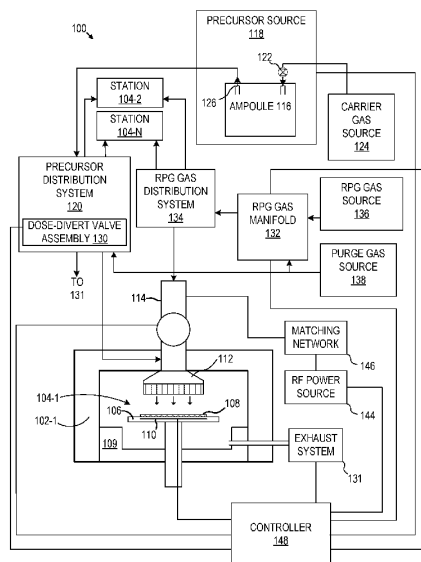


FIG. 1

(57) **Abstract:** Examples are disclosed that relate to a precursor distribution system for a multi-station processing tool and its method of operation. One example provides a multi-station processing tool that comprises two or more processing stations, a precursor source, a dose-divert valve assembly operable to selectively direct a precursor flow received from the precursor source between a dose path or a divert path. The dose-divert valve assembly includes: a precursor inlet to receive the precursor flow from the precursor source, a dose valve operable to selectively provide the precursor flow to the dose path, and a divert valve operable to selectively provide the precursor flow to the divert path. The multi-station processing tool further comprises a dose line comprising two or more branches. The dose line is connected to the dose valve and each branch of the dose line to be fluidly coupled with a corresponding processing station.

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