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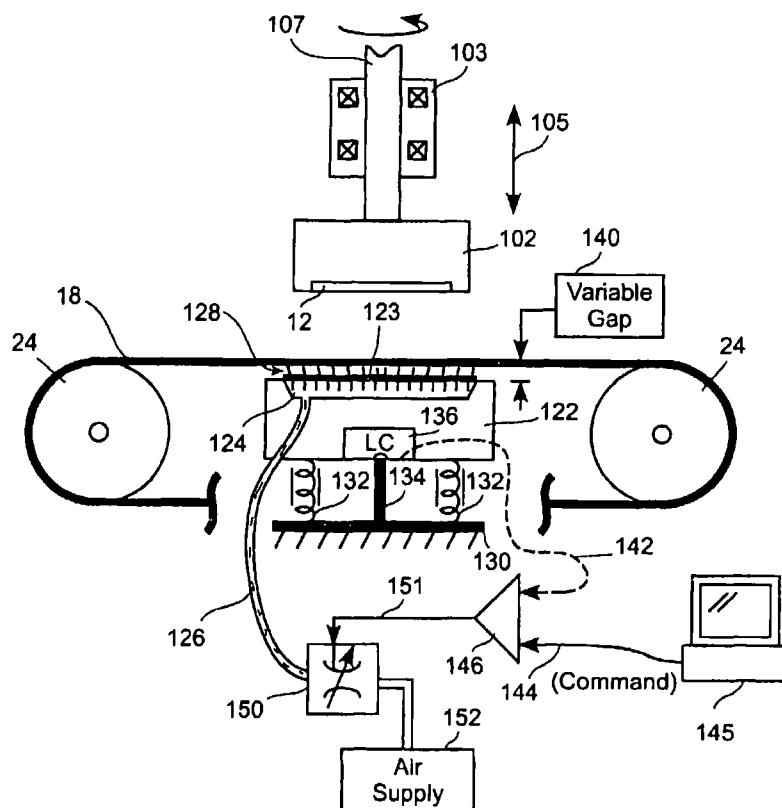
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(54) Title: A CHEMICAL MECHANICAL PLANARIZATION SYSTEM WITH AN ADJUSTABLE FORCE APPLYING AIR
PLATEN

(57) Abstract: An adjustable platen is provided. The adjustable platen (122) includes a platen body having a top region and a bottom region. The platen body is oriented under a linear polishing pad (18) of a CMP system (100). An air bearing is integrated with the platen body at the top region, and the air bearing (124) is configured to apply an air pressure to an underside of the linear polishing pad. A set of bearings (132) are connected to the bottom region of the platen body to enable controlled vertical movement of the top region of the platen body closer or further from the underside of the linear polishing pad depending on the applied air pressure. The applied air pressure is configured to exert a controllable force to the underside of the linear polishing pad. The force is controlled to meet a desired process parameters, while the carrier (102) simply moves the wafer (12) into position over the linear polishing pad.

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