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[Continued on next page]

(54) Title: MULTI-VANE THROTTLE VALVE

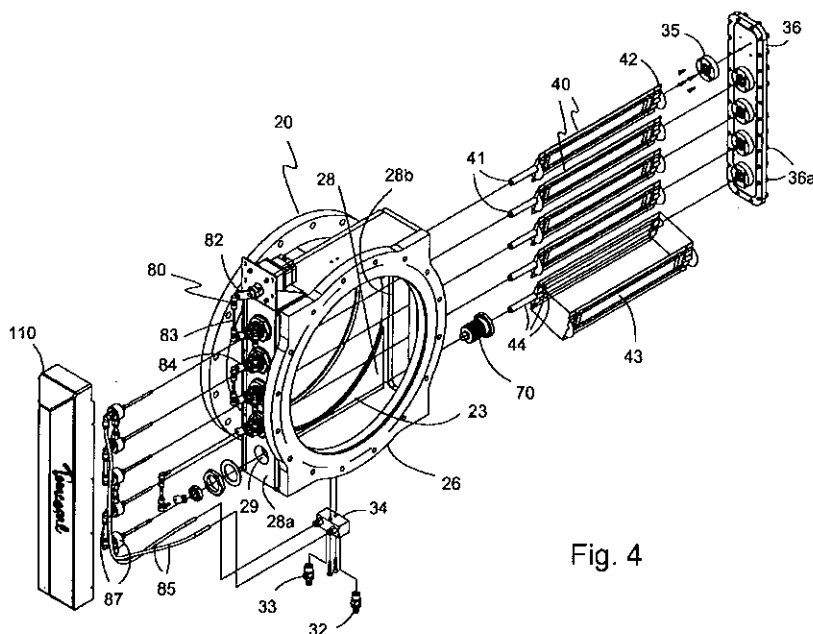


Fig. 4

(57) Abstract: A multi-vane throttling valve for a vacuum process chamber includes a throttle chamber body having an inside ex-
posed to the vacuum process chamber and an outside exposed to atmospheric pressure, the chamber body defining a through-open-
ing for controlling vacuum within the vacuum process chamber, a plurality of rotatable vanes mounted within the through-opening
for controlling a flow of gases through the through-opening where each rotatable vane includes a cooling flow pathway in fluid com-
munication with and disposed longitudinally along each rotatable vane, and a drive mechanism disposed on and connected to an out-
side of the throttle chamber body for rotating the plurality of rotatable vanes to vary the flow of process gases.



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