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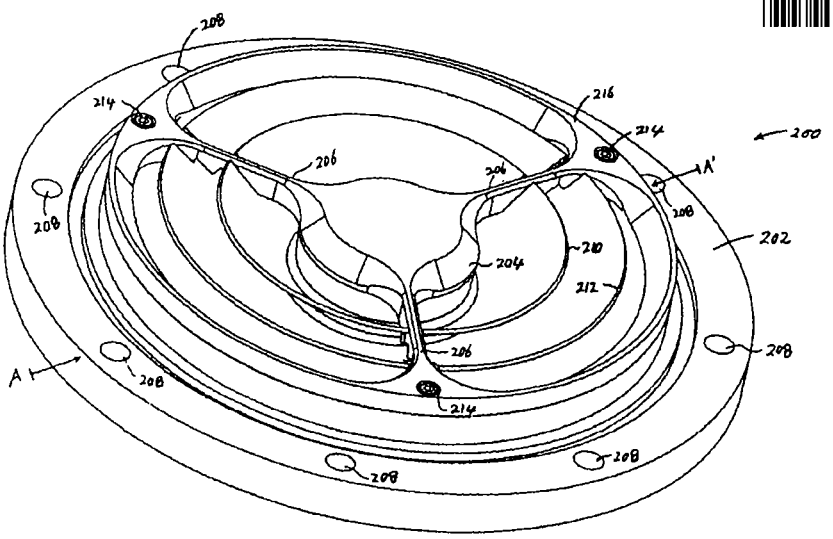
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(54) Title: DIFFUSER AND RAPID CYCLE CHAMBER



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(57) Abstract: The present invention provides a diffuser (200) and a chamber for venting and/or pumping gas. The diffuser (200) includes a body (202), a reflector (204), and a set of vanes (210, 212). The body (200) includes a nozzle through a center portion and has a curved surface on an upper side to define an open space above the curved surface. The nozzle is arranged to allow a gas to flow through and expand in the nozzle. The reflector (204) is disposed over the nozzle and is arranged to reflect the gas from the nozzle into the open space in the body (202) while expanding the gas flow. The vanes (210, 212) further divide the flow into roughly equal portions. In this configuration, the flow of the gas is slowed in the nozzle, the reflector portion (204), and the open space in the body (202) between the vanes (210, 212) so that the gas flows out of the open space with substantially uniform low velocity.

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