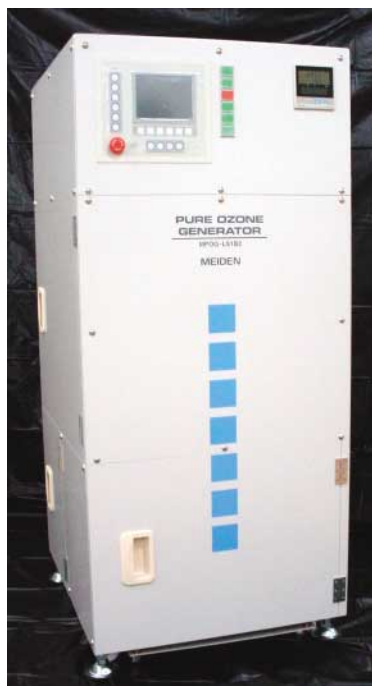


Development and Commercialization of 100% Ozone Gas Generator

We have succeeded in the development of a new ozone generator that can supply 100% (over 93% at sample position) ozone gas, and its commercialization through the collaboration with Meidensha Co. at the product name of "Pure ozone generator". The outlook of the generator is shown in Fig.1.

The generator adopts distillation process to obtain highly concentrated ozone gas. That is, 5%-ozone/oxygen mixture gas generated by a commercial ozonizer is let through an ozone vessel kept at 90 K to accumulate pure liquid ozone, with oxygen gas being evacuated by a vacuum pump. Then the ozone vessel is heated to a selected temperature (usually between 95K and 120K) to supply pure ozone gas having an equilibrium vapor pressure at the temperature. The highest ozone pressure and the maximum amount of ozone gas supplied with the generator are 2000 Pa and 3.7 m³ (at 100 Pa), respectively. The supplied ozone flux is very stable, typically with 2% fluctuation, since the vessel temperature is controlled with an accuracy of 0.1 K,



Pure ozone generator which has been put on sale since Dec. 2002 by Meidensha Co.

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