



ABSTRACT

A ventilator/dryer assembly for drying wet air comprising a treatment chamber, a rotary drying device and a forced circulation mechanism housed in a case main body provided with an air inlet port and an air outlet port exposed to the outside is characterized in that the treatment chamber is divided into a primary side section and a secondary side section with the rotary drying device disposed therebetween, that the forced circulation mechanism draws air from the room where the ventilator/dryer assembly is installed via said air inlet port to the primary side section of the treatment chamber, passes it through the rotary drying device and sends it back into the room through the secondary side section of the treatment chamber and the air outlet port by means of a single blower and that the rotary drying device is adapted to take a drying position, a regenerating position and a heat recovering position sequentially in the sense of rotation, the device adsorbing moisture from the air passing therethrough from the primary side section of the treatment chamber in the drying position, hot air being made to pass through the device in the regenerating position to remove moisture adsorbed by the device in said drying position, cooled air being made to pass through the heated device in the heat recovering position to cool the device heated in said regenerating position. With such an arrangement, the



operation of drying wet air in the room where the assembly is installed by means of the rotary drying device and that of regenerating the rotary drying device can be carried out on a continuous basis in the drying mode of operation.

- 5 Additionally, since the forced circulation mechanism of the ventilator/dryer assembly comprises a single blower that draws and discharges air both for air circulation in the room and for regeneration of the rotary drying device, the overall configuration of the ventilation system of the room can be
- 10 simplified for downsizing to realize a lightweight apparatus at reduced cost. Finally, the assembly can significantly reduce the contamination of the rotary drying device as compared with a comparable conventional apparatus that use ambient air as regenerating air.