

ENERGY-SAVING ELECTRIC STEAMING DEVICE CONTAINING HEAT RECOVERY SYSTEM

ABSTRACT

An energy-saving electric steaming device containing a heat recovery system includes a heating chamber, a steaming chamber body, an upper heat recovery chamber, where the heating chamber is located below and communicated with the steaming chamber body, the upper heat recovery chamber is located above the steaming chamber body in such a manner that the bottom of the upper heat recovery chamber is attached to the top of the steaming chamber body, the steam inlet of the upper heat recovery chamber is connected with the steam outlet of the steaming chamber body, and a heat storage medium is provided within the upper heat recovery chamber. When the steam is accumulated relying on its own buoyancy at the top of the steaming chamber body, the heat of the steam can be transferred to the heat storage medium within the upper heat recovery chamber; alternatively, the steam may flow into the upper heat recovery chamber via the steam outlet of the steaming chamber body, to transfer the heat to the heat storage medium. When the heat storage medium within the heat recovery chamber reaches a certain temperature, it is equivalent to that an additional heating source is provided at the top of the steaming chamber body, thus both the recovery and utilization of the steam power can be achieved, while improving the operational safety of the operator.

[Fig. 5]