

ABSTRACT OF THE DISCLOSURE
WATER-LUBRICATED COMPRESSOR

A water-lubricated compressor is disclosed, in which a discharge on-off valve is disposed in a discharge channel located between a discharge port of a compressor body and a water separating/recovering unit and a water circulation on-off valve is disposed in a water circulation channel located between a water cooler and a water supply portion in the compressor body, while a gas release channel is formed to provide communication between a gas phase portion of the water separating/recovering unit and the exterior of the water separating/recovering unit and a gas release on-off valve is disposed in the gas release channel. When the compressor body is not in operation, the discharge on-off valve and the water circulation on-off valve are closed and the gas release on-off valve is opened, allowing water present within the water cooler to be recovered to the water separating/recovering unit through the water circulation channel. With this structure, when there is little or no demand for compressed gas in a compressed gas supply destination, it is possible to remove water from the water cooler which is particularly apt to be damaged by freezing of water among the devices included in the water system of the water-lubricated compressor, and thus possible to prevent freezing of water.