



VORTEX SPRAY COUNTER-CURRENT FLOW MASS-TRANSFER DEVICES

Application: the processes of absorptive dehumidification of natural and associated petroleum gas, reprocessing of steady carbonic gas condensate and oil into diesel fuel and flash gasoline with the help of rectification using the engine fuel plants; heat and mass-transfer processes.

Liquid atomization takes place due to the influence of high-speed gas flow on water flow. So as a result, we get superfine spraying, the drops move on a spiral path to the periphery of mass-transfer chamber being counter-current to gas flow.

The counter-current vortex gas and liquid (drop) flows were used in the real construction of mass-transfer device for the first time. It allowed achieving several stages of concentration change in one degree of spraying and replacing the column equipment, which contains 6-10 contact elements with one device.

Specifications:

- Hydrodynamic resistance of the device 2.4 kPa;
- Efficiency of gas cleaning 98-99%.

