

The invention can be used in food, chemical, petrochemical, oil-refining and other branches of industry. A mass-exchange contact device contains the plate of tray with contact element, cowling, mobile two-way valve, limiter of rising and lowering, on the perimeter the cowling has openings made in two rows, upper and lower, and mobile two-way valve is made in the form of continuous plates mounted above each other. The device is equipped with additional tray plate. The device is also equipped with a jacket mounted coaxially to cowling with formation of annular space around contact element and upper row of the openings of cowling. Annular space and external space around the jacket are connected through upper and lower rows of the openings of the cowling. The invention provides for optimum conditions for operation of apparatus in cyclic mode of conducting mass-exchange processes, extension of operating range of loads of liquid and steam, decrease of the influence of pulse delay of the pressure of gas (steam) flow on the height of column and, thus, increase of the output, increase in reliability and service life of the device.