

The invention relates to the field of compressor engineering and may be used for obtaining gases compressed up to high pressures and vacuum free from oil vapour impurities.

Summary of the invention consists in driving the compressed gas out of the working chambers with the help of the working fluid, being into a closed-circuit hydraulic system under overpressure about the pressure from outside the system. The gas alternately entering into the working chambers of the diaphragm-type compressor is driven out of them under the power action exercised on it by elastic membranes from the end of the working fluid. The commutation of the working fluid currents from one chamber into another is carried out through the current distributor supported in bearings and coupled with the pump through the supply pipe-line and the drainage pipe-line. The working fluid advanced through the pipe-lines into one of the working chambers is concomitantly supplied to one of the inlets of the current distributor control device, which under the pressure of the working fluid is commuted from a stable position into another. During commutation, the control device, being in mechanical interaction by means of devices of engagement with the current distributor, transfers the latter into another position, thus changing the direction of the working fluid currents.

The proposed diaphragm-type compressor equipped with the required current distributor and control device is able to function with high productivity in any conditions of exploitation: ground, subaquatic, cosmic, which considerably extends the functional and exploitation possibilities thereof.

Claims: 12

Fig.: 6