

Centrifugal pump with mechatronic automatic flow control device includes a rotating shaft with a centrifugal impeller, a cover with an inlet pipe, a spiral outlet with an outlet pipe. The spiral outlet includes a spiral chamber and a diffuser, as well as an additional chamber, which is separated from the spiral chamber by a flexible membrane and has a pipe for filling it with a process fluid to maintain the required pressure. The pipe for filling the additional chamber with a process fluid is connected by a pipeline to a mechatronic device, which includes a flow meter, a processing and control unit, a linear servo drive, a hydraulic cylinder with a piston connected to the linear servo drive by a rod.