Flatsimmetric one-dimensional flow, which is the solution of the complete system of Navier–Stokes equations, constructed using infinite series of harmonics in the space variable. Used for presentation at the ends of a segment of the spatial variable slip conditions and thermal insulation. The coefficients of infinite sums have unknown functions, depending on the time. When taking into account a finite number of harmonics via parallelization calculations numerically constructed solution of the corresponding finite system of ordinary differential equations. The basic idea of parallelization is as follows: there is a control processor performing reception and transmission of data, and processors who calculates their every equation of the system of ordinary differential equations. The results of calculations.