The problem on the MHD flow at the inflow of the conducting fluid through the lateral side of the plane channel is considered. The external magnetic field is directed parallel to the walls of channel. At infinity the flow of fluid is transformed into Poiseuille flow. The solution of the problem is obtained in the Oseen approximation by the method of integral transforms. The initial length L, at which the flow is transformed into Poiseuille flow, is found. The value L is a function of Reinolds and Hartmann numbers. The asymptotic solution of the problem at Hartmann number tends to infinity is obtained. It is found, that the velocity of the fluid has M-shaped profile in the initial part of the channel at the large Hartmann numbers.