The measuring of the quantities of gas is a significant activity of the industry of the transport of gas by drain, as well in the contractual or commercial field as in the technical field where it makes it possible to give essential information for the design of the gas networks. The purpose of this study is essential, after a short recall on the methods of calculation of the factor of compressibility and the flow according to various standards, to give the importance necessary to carry out an adequate choice of the method of calculation of these parameters