## ACOUSTICS2008/3404 The influence of the mean flow on the transmission properties of wind instruments

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The influence of mean flow on the transmission properties of wind instruments has traditionally been neglected due to the range of Strouhal numbers in which this family of instruments normally operate. However, this topic has gained considerable interest among the musical acoustic community during the last decade due to the appearance of new outcomes in research on duct acoustics. Nevertheless, very few contributions have investigated the effect of the mean flow on the transmission properties by taking into account the physical characteristics and dynamic peculiarities of wind instruments. The goal of this work is to present a numerical investigation of the influence of the mean flow on the end correction and on the magnitude of the reflection coefficient for different geometries and Strouhal numbers normally found in wind instruments. The results suggest that, excepting for a few cases, the mean flow can indeed be neglected and the aforementioned transmission properties can be described by the quiescent flow theory.