

Introduction

In this and the following connected sections, we briefly survey the more detailed analyses of the flow in axial and centrifugal pumps, and provide a survey of some of the models used to synthesize the noncavitating performance of these turbomachines. The survey begins in these sections (Mbc) with a summary of some of the results that emerge from a more detailed analysis of the two-dimensional flow in the meridional plane of the turbomachine, while neglecting most of the three-dimensional effects. In this regard, sections (Mbcb) through (Mbcd) address the analyses of linear cascades for axial flow machines, and sections (Mbce) and (Mbcf) summarize the analyses of radial cascades for centrifugal machines. Three-dimensional effects are addressed in the sections (Mbd).