

Figure 2.1  
Tank of liquid rotated about vertical axis. (a) Liquid element rotating about a vertical axis and (b) liquid element between two horizontal plates.

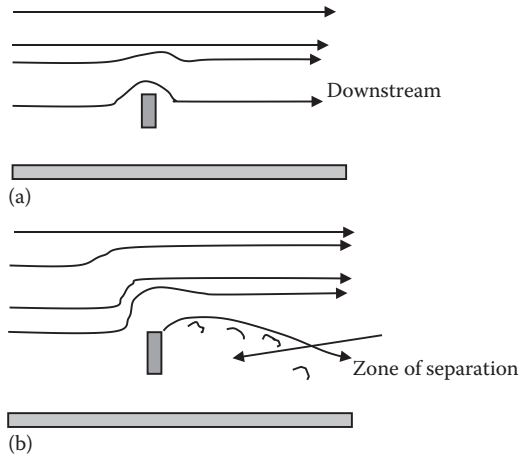


Figure 2.2  
Figure flow separation. (a) Ideal flow experiencing no separation and (b) real flow experiencing separation.

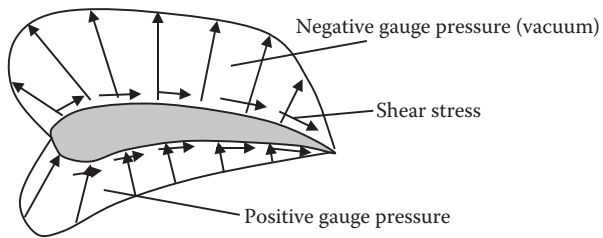


Figure 2.3  
Forces acting on an airfoil.

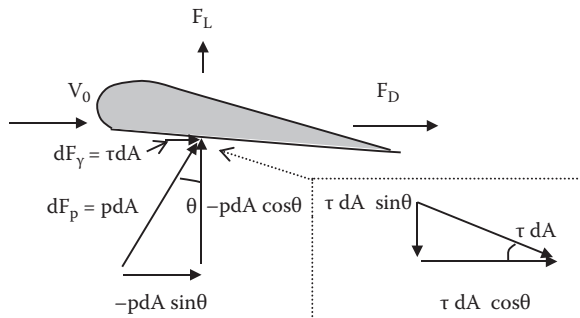


Figure 2.4  
Forces acting on a differential area of an airfoil.

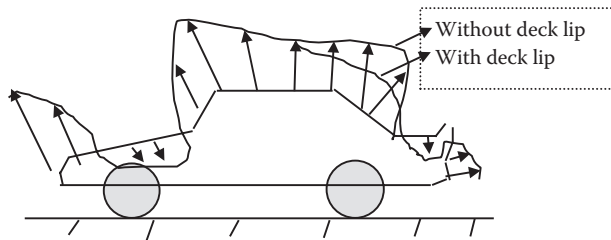


Figure 2.5  
Effect of a rear deck lip on model surface pressure coefficients normal to the surface.

Circulation:

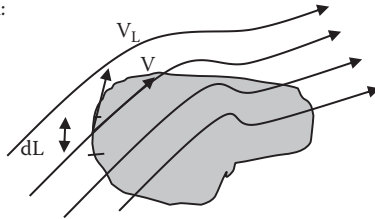


Figure 2.6  
Flow along a closed path.

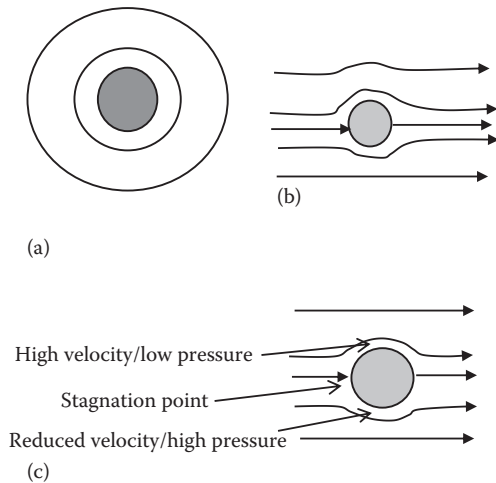


Figure 2.7

Velocity field with circulation. (a) Velocity field with circulation around the cylinder, (b) velocity field produced by uniform flow, and (c) superimposed velocity field.

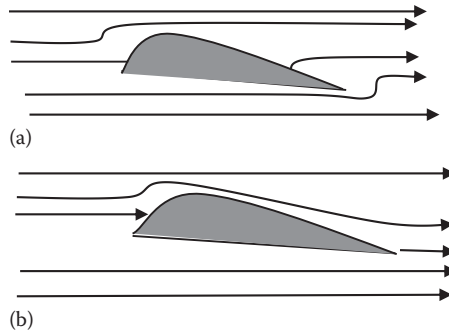


Figure 2.8

Flow pattern around an airfoil. (a) Flow pattern that is not possible at trailing edge and (b) flow pattern that is possible at trailing edge.



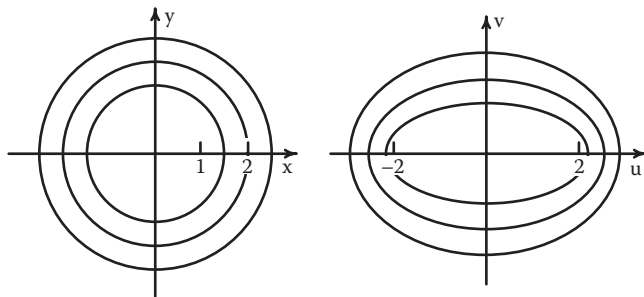


Figure 2.9  
The Joukowski transformation.

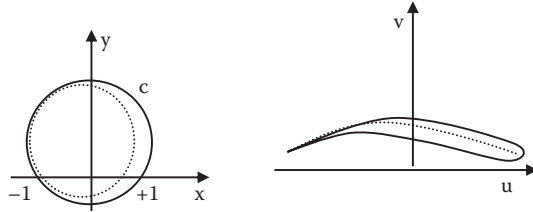


Figure 2.10  
Airfoil shape using the Joukowski transformation.

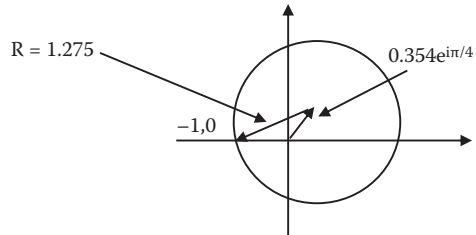


Figure 2.11  
The Joukowski transformation of a circle.

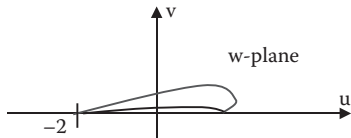


Figure 2.12  
The Joukowski transformation yielding an airfoil shape.

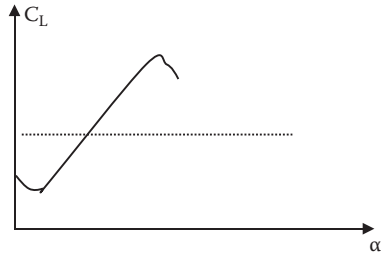


Figure 2.13  
Lift coefficient.