(KEY CONCEPT) [D-3-4] D_f D_p D D_p Total drag Drag due Drag due to Less for laminar, More for laminar, to skin separation due to viscous more for turbulent less for turbulent friction (pressure drag) effects Relative drag force > Separated flow Separated flow (b) Streamlined body Code Skin friction drag Pressure drag (a) Blunt body Flow field sketch (source: J.D. Anderson "Fundamentals of Aerodynamics" 2016)

