ANSYS AIM - Fluid Flow Through a Transition Duct

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Fluid Flow Through a Transition Duct

Created using ANSYS 18.1

Problem Specification

In this tutorial, the common transition duct pictured below will be the subject of our simulation. These are commonly found in office buildings and are sometimes used to vent air into the atmosphere. For this example, the temperature at the inlet of the transition duct is 73 degrees Fahrenheit. If air travels at 33 feet/sec at the inlet, find the velocity vectors inside the transition duct and find the pressure exerted on the transition duct from the air within.