Beginning Of Duct Run

19.7820" OD
Insulated Duct

Aluminum Jacket
0.016 inches thick
Emissivity = 0.11

12.75 " OD
12.00" ID
Duct

3 ½ inches thick
Fiberglass Insulation
850 F max.

Wind 100 ft/min

Ambient Air
Dry Bulb = 90 F
RH = 80 %
Dew Point = 82.99 F

Air Inside The Duct
Dry Bulb =   45.00 F
Dew Point = 39.21 F

Inside Duct Surface Temperature
45.34 F
No condensation because the surface
is warmer than the inside duct air dew
point temperature.

Outside Duct Surface Temperature
85.64 F
No condensation because the surface
is warmer than the ambient air dew
point temperature.