

## Adding an Expansion Joint Results In Reduced Noise and Equipment Damage

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### **Application:**

A restaurant has a large exhaust fan that is used to remove grease and other contaminants from inside the building where food is prepared.

### **Problem:**

This restaurant had problems with noise and vibration from their exhaust fan and contacted our distributor in the area to come up with a solution. When the exhaust ductwork was initially designed, the fan was connected directly to the building with a rigid metal duct. Because the duct is stiff, it was transferring fan vibration directly to the restaurant causing damage and noise inside the building.



The ductwork before the expansion joint was installed

### **Solution:**

The distributor called Holz Rubber to help them design an expansion joint to install in the ductwork between the building and the exhaust fan. Our Engineering Group designed a sleeve type joint to install by banding it in place effortlessly. The solution worked by isolating the fan from the building to reduce vibration and the likelihood of equipment damage. Also, without the vibration traveling along the ductwork, there is a noticeable reduction of fan noise in the building.