



Design Advisory #4: CAS-DA4-2003

## **UNI-GASKET™ Assembly Efficiency Proof-of-Concept: Self-Sealing Fittings Save 30 to 40 Percent of Assembly Time**

### **Purpose**

The study was undertaken to demonstrate and quantify the ductwork assembly time efficiency gained from using self-sealing fittings over traditional slip-fit connectors requiring sealing with duct sealer.

### **Procedure**

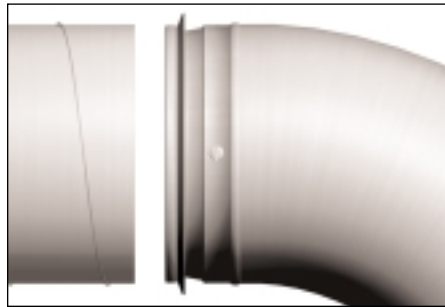
The study employed two 'average' installers assembling and sealing two 12- and two 24-inch diameter spiral duct runs. Each run was comprised of four 10-foot duct sections with a 90-degree elbow between the third and fourth section. One run in each diameter was assembled using traditional slip-fit connectors, and one each using McGill AirFlow's UNI-GASKET self-sealing connectors. The evaluation categories were: apply sealant, assemble, and seal outside surface. The time needed to hang the ductwork is not included in this analysis because it can vary according to site conditions.

### **Results**

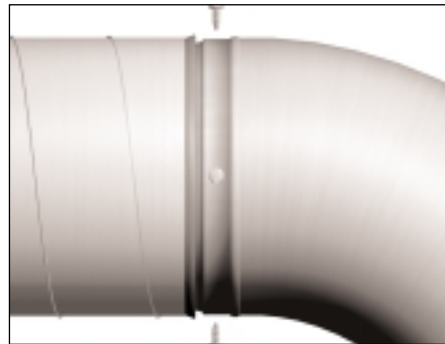
To seal, assemble, and seal the 12-inch diameter duct run took about 20 minutes. To assemble the same run with UNI-GASKET self-sealing fittings took about 12 minutes — a savings of about 40 percent. In the case of the 24-inch diameter runs the comparison times were 39 and 28 minutes — a savings of nearly 30 percent.

### **Conclusion**

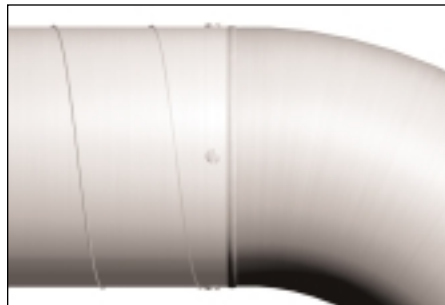
The proof-of-concept study demonstrates that, on average, a savings of about 30 to 40 percent assembly time is achievable when UNI-GASKET self-sealing fittings are used.



A side view of a UNI-GASKET fitting depicting its easy-to-assemble profile and its standing EPDM rubber gasket that provides an airtight seal.



The duct slips easily over the fitting's lip and standing gasket and comes to rest at its bead stop. Assembly requires no notching, crimping, or internal duct sealant.



Assembly is quickly completed with the installation of sheet metal screws that hold the duct and fitting in place. The airtight seal created requires no external duct sealing.



### **Products and Services Catalog on CD**

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To find out more about UNI-GASKET Fittings visit [DUCTEXPRESS.com](http://DUCTEXPRESS.com).