

inspiralR® & FLOVAL®

Purchaser	P.O. #	Date
Project	Location	
Engineer	Architect	
Submitted by	For Approval	For Review Only

INDOOR ROUND & FLAT OVAL DUCTWORK

InspiralR® and Floval® are our patented indoor round and flat oval solutions that are UL 181 Listed for 10" w.c. positive and 8" w.c. negative applications. InspiralR® and Floval® are lightweight systems and can offer up to a 75% weight savings versus traditional double wall spiral duct. This ultra low air leakage system also provides an R-6 insulated value. Tight on ceiling space? Floval® is your solution as there's no need to insulate separately!

CONSTRUCTION TYPE

☐

inspiralR®

Round Ductwork

☐

FLOVAL®

Flat Oval Ductwork

Confirm Static Pressure:

" E.S.P.

Comments:



Duct Sections Come with Included Flange and Drawbands

STANDARD FEATURES

- High R-values
- Low air leakage
- Flanged Connections
- Closed cell insulation
- Low and medium pressure class
- ASTM E84 25/50 Compliant
- High IAQ Non-Perf Aluminum Facing
- Low Thermal Expansion
- Fully assembled and factory sealed
- LEED point eligible
- 10 year limited warranty *

PROPERTIES

Color: Aluminum FSK Exterior Silver Color
 Flammability: Core: ASTM E84 25/50 compliant Theratuff® Phenolic panel
 Thermal Conductivity: K = 0.146 BTU/in/ft²/hr./degree F
 Minimum R-value: R-6 both out of package and installed
 Temperature Limits: Interior; 185 F, Exterior; 165 F
 Vapor Barrier: Autohesively bonded aluminum foil with zero perforations with zero permeability UV stable vinyl
 Fire/Smoke Performance: ASTM E84 Flame spread / smoke development interior <25/50

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See warranty tatement in Contractor Installation Manual for full warranty details
 Other colors are available, minimum order required.

OPERATING RECOMMENDATIONS

It is recommended that the application of InspiralR® and Floval® supplied be utilized for operation as a supply, return, fresh air and exhaust air ductwork applications for heating, ventilation, and air conditioning applications.

Air Velocity (Maximum)	6000 fpm / 25.4 m/s
Design Pressure (Maximum)	Designed up to Pos 10 in w.g. Neg 8" w.g. / 2500 Pa *
Temperature	Internal; Continuous -15°F to +185°F
Size Limitations	None

* Proper reinforcement and installation required

COMPLIANCE & TESTING

InspiralR® and Floval® are comprised of a phenolic foam duct system in accordance with the requirements of factory-made air ducts. InspiralR® and Floval® are designed for use in indoor applications where traditional round duct would be used and incorporate the following standards

ASTM E84, NFPA 90A, 90B Interior Phenolic;
ASTM D-638, ASTM D790, ASTM D-256, ASTM D-4216,
ASTM D-792, ASTM D-2240, ASTM D-648;

FRICTIONAL PROPERTIES

InspiralR® and Floval® are factory assembled air distribution systems that employ a smooth aluminum surface with zero perforations that has frictional characteristics much like that of galvanized sheet metal (See ASHREA test RP-1764). As a result, the frictional pressure drop data for galvanized sheet metal ductwork can be applied when designing and specifying Thermaduct air distribution systems.

HEALTH & SAFETY

InspiralR® and Floval® are high efficiency air distribution systems have a non-fibrous insulation core that is completely odorless, non-tainting, non-deleterious, chemically inert and safe to use. For more information, see our SDS sheet.

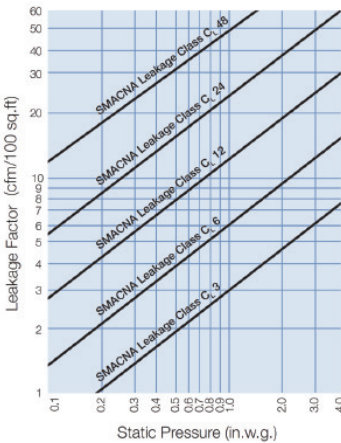
ADDITIONAL INFORMATION

Additional information, such as literature, online installation training and case studies are available on our website online at www.thermaduct.com or by calling (855) 566-5382. For general inquiries, you can also reach us at thermaduct.com/contact.

OPERATING RECOMMENDATIONS

InspiralR® and Floval® can be designed to withstand a continuous maximum static pressure of 10 inches positive, 8 inches negative water guage / 2500 pa* and is designed to have between a SMACNA Air-Leakage Class 1 and Class 3, depending on the static pressure and proper installation practices. Follow Thermaduct® installation guidelines for best results.

InspiralR® and Floval® are designed to provide some of the lowest air leakage rates in the industry. By combining an autohesively factory bonded aluminum foil vapor barrier with zero perforations to the inner and outer closed cell phenolic insulation core, the insulated panel is fully encapsulated for a air and water-tight ductwork system. For over two decades, Thermaduct®'s goal is to fabricate the best available products to create the finest air distribution systems for both outdoor and indoor ducting applications that can be manufactured.



This chart is based on SMACNA HVAC Air Duct Leakage Test Manual, 1995 Edition found in Figure 4-1 under "Duct Leakage Classification".

CODE COMPLIANCE

InspiralR® and Floval® will meet or exceed the current IECC energy codes and ASHRAE 90.1 Energy Standards for Buildings for both return and supply air ducts for both commercial and residential applications.

InspiralR® and Floval® are made using Thermatuff® phenolic panels and are NFPA 90A compliant duct system, meeting the necessary requirements for safe and effective outdoor use. All manufacturing is compliant to SMACNA duct construction methods employing trained SMART Union building trade professionals.

Comments



Thermaduct products are patented systems.
Review these patents and more at
www.thermaduct.com/patents



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