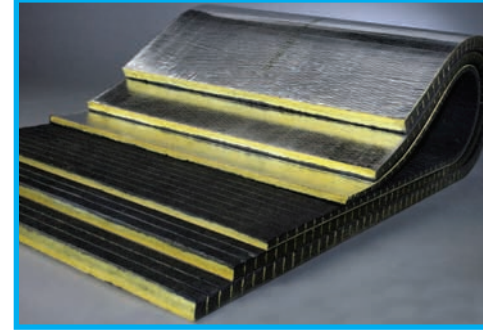


Spiracoustic Plus™ System* ...For All Your Round Duct Liner Needs

Description

The Spiracoustic Plus System from Johns Manville is a comprehensive group of duct lining products specifically engineered to provide very high acoustical and thermal performance in round air ducts of virtually any size.

Based on high-density fiber glass board technology, Spiracoustic Plus has factory-made, evenly-spaced kerfs to allow the material to conform to the inside diameter of round air ducts. The airstream surface and transverse edges are coated with Johns Manville's proprietary black Permacote® acrylic polymer. The coating is treated with an immobilized protective agent, specifically registered with the EPA for HVAC duct applications, to protect the coating against potential microbial growth.



Spiracoustic Plus eliminates the need for costly double-wall insulation practice in round air duct, and provides consistent thermal and acoustical performance throughout. The bottom line: Comfort with peace of mind.

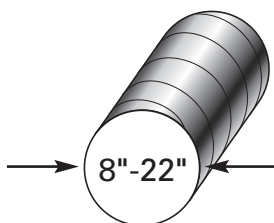
Uncomplicated Installation

Spiracoustic Plus is easy to install, and can be fabricated in the shop or field to meet individual job requirements. Simply cut each liner section to the proper circumference "stretch-out", form it into a round configuration, and close the seam with tape. The liner is now ready for either "snap-in" or "slip-fit" installation, depending upon duct diameter. Spiracoustic Plus is self-supporting in most round applications, with adhesives and pins typically required only in fitting applications and very large diameter or unusual duct configurations.

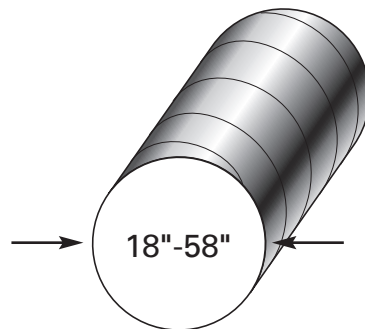
Johns Manville provides the finishing touches to Spiracoustic Plus round duct insulation with a complete line of SuperSeal® coating products. These unique acrylic coatings are air-drying versions of the factory-applied airstream coating designed for fabrication and repair use. SuperSeal products help retain all the performance characteristics engineered into Spiracoustic Plus.

For additional information on fabrication and installation of Spiracoustic Plus, refer to the "Spiracoustic Plus Installation Guide", AHS-306.

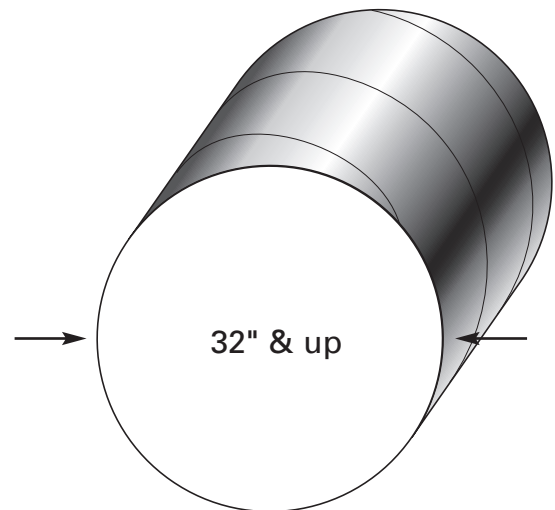
**VSD for Very
Small Diameter
Metal Ducts
"Slip-fit"
Installation**



**SD for Small
Diameters
"Snap-in"
Installation**



**LD for Large Diameters
"Snap-in" Installation**



Minimum to maximum metal duct inside diameter ranges vary by insulation thickness. Please refer to the tables in AHS-361, AHS-362 and AHS-363 for specific applications for 1", 1½" and 2" thick insulations, respectively.

* Covered by one or more of the following U.S. patents: 5,379,806 • 5,487,412 • 5,697,282 • 5,762,109 • 5,855,154 • 5,953,818
Other U.S. and foreign patents pending.

System Advantages

Double-Wall Performance with Single-Wall Simplicity.

Spiracoustic Plus allows single-wall ducts to equal or exceed the acoustical and thermal performance of double-wall insulated round ducts. The self-supporting insulation eliminates the need to connect both an internal core and external duct shell, and can be easily cut in the field if changes are required.

Superior Temperature Control. The high density and manufactured thickness of Spiracoustic Plus means the thermal performance needed is always there. Ever wonder what the performance of the low density insulation typically used in double-wall ducts really is? Spiracoustic Plus helps eliminate concerns about condensation, and maximizes comfort.

Quieter Operation. With a dense insulation core and high surface area, Spiracoustic Plus gives dramatic acoustical results. In well-designed systems, it virtually eliminates air rush noises, fan noise, and crosstalk. No wonder it's used in sports arenas and performance halls across the country!

Airstream Surface Protected Against Microbial Growth. The airstream surface and transverse edges are coated with Johns Manville's proprietary black Permacote® acrylic polymer. The coating is formulated with an immobilized protective agent, specifically registered with the EPA for HVAC duct applications, to protect the coating from potential growth of fungus and bacteria.

Tough Airstream Surface. The black acrylic polymer surface of Spiracoustic Plus offers minimal resistance to airflow, but stands up to fabrication and installation handling. Use of available SuperSeal coating products allows the system to retain all engineered performance characteristics when fabrication cuts or repairs are needed.



Physical Properties

	I-P Units	SI Units
Thickness	1", 1½" & 2"	25 mm, 38 mm & 51 mm
Nominal Density	4.0 pcf	64 kgs/m ³
Air Velocity (max.)	6,000 fpm	30.5 m/sec.
Service Temperature (max.)	250°F	121°C

Available Sizes

Spiracoustic Plus comes in cartons and on pallets in 4' x 10' (1.22 m x 3.05 m) boards and is available in 1", 1½" and 2"

(25 mm, 38 mm and 51 mm) thicknesses with butt edges to fit very small diameter (VSD), small diameter (SD) and large diameter (LD) metal ducts. Boards are cut to the proper circumference in the shop or field prior to installation.



Spiracoustic Plus Delivers the Performance You Asked For

Did you ever stop to think about the thermal and acoustical performance of a double-wall insulated round air duct? What kind of insulation is really going into that system? Is the density, fiber diameter, and thermal (k-value) performance of the insulation material specified? Is the insulation actually installed at the design thickness?

With Spiracoustic Plus, all of these questions are answered in one easy sentence: The acoustical and thermal performance of the air ducts are assured by the high density and controlled thickness of the material. With Spiracoustic Plus, you can be sure you'll get the performance you asked for.

Additional Information

For additional information on Johns Manville's key Spiracoustic Plus System Products, request the following product literature by the form numbers below from the Product Information Center by calling **(800) 654-3103**, or visit us online at **www.jmairhandling.com**.

Product Information

- Spiracoustic Plus™ Presentation Folder
- Spiracoustic Plus™ System Brochure
- Spiracoustic Plus™ 1" Product Information
- Spiracoustic Plus™ 1½" Product Information
- Spiracoustic Plus™ 2" Product Information
- Spiracoustic Plus™ VSD for Very Small Diameter
- Spiracoustic Plus™ System Guide Specifications
- Spiracoustic Plus™ Installation Guide
- SuperSeal® Coating Products
- Spiracoustic Plus™ Air Friction Chart

Literature Form No.

AHS-300
AHS-360
AHS-361
AHS-362
AHS-363
AHS-347
AHS-320
AHS-306
AHS-202
AHS-182

Project Reports

For information on specific Spiracoustic Plus installations, request the following project reports by the form number below:

- Bank One Ballpark
- Heart of Texas Coliseum
- Pepsi Center (Denver)
- Corning Science Products Manufacturing Plant
- Busch Stadium

AHS-304
AHS-309
AHS-310
AHS-322
AHS-389

Product Samples

For samples of Spiracoustic Plus System products, request the following by the sample numbers below:

- Spiracoustic Plus™ System
- Spiracoustic Plus™ VSD for Very Small Diameters
- SuperSeal® Duct Butter (16 oz. aerosol can)
- SuperSeal® HV™ (10.5 oz. tube)
- SuperSeal® Edge Treatment (16 oz. jar)

L-10314
S-0191
L-10273
L-10272-S
L-10062-S



Specification Compliance

Specification or Standard	Spiracoustic Plus Round Liner Board
ASTM G21 and G22	X
State of Washington Building Services Department requirements for emissions of Total Volatile Organic Compounds (TVOC) and formaldehyde (CHOH) in accordance with ASTM D 5116-90	X
NFPA Standards 90A and 90B	X
ASHRAE 62-2001	X
UL 181/ASTM C 1071 Air Erosion Test	X
ULC S102-M88; FHC 25/50	X
ASTM E 84; FHC 25/50	X

ISO 9000 Certification

Johns Manville mechanical insulation products are designed, manufactured and tested in our own facilities, which are certified and registered to stringent ISO 9000 (ANSI/ASQC 90) series quality standards. This certification, along with regular, independent third-party auditing for compliance, is your assurance that Johns Manville products deliver consistent high quality.

Availability

Please contact your Regional Sales Office for price and availability of Spiracoustic Plus System products.



North American Sales Offices, Performance Materials Division

Eastern Region

P.O. Box 158
Defiance, OH 43512
(800) 334-2399
Fax: (419) 784-7866

Western Region and Canada

P.O. Box 5108
Denver, CO 80217
(800) 368-4431
Fax: (303) 978-4661



Johns Manville

Performance Materials Division

P.O. Box 5108
Denver, CO 80217-5108
Product Information: (800) 654-3103
pic@jm.com
www.jmairhandling.com



The physical and chemical properties of the Spiracoustic Plus™ Round Liner System Products presented herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you to assure current information. **All Johns Manville products are sold subject to Johns Manville's Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville Limited Warranty and Limitation of Remedy, and information on other Johns Manville thermal insulations and systems, call (800) 654-3103.**