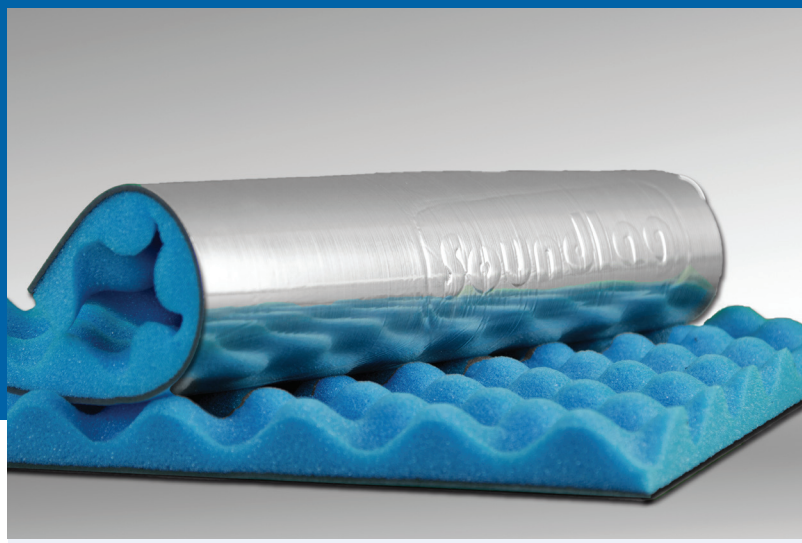
# SOUNDLAG®

## HVAC AND DUCTING INSTALLATION GUIDE

The Installation Guide provides recommendations to maximise the service life in various applications. Soundlag lagging provides the dual benefits of a noise barrier and sound absorber.



*Soundlag is a high-performance composite acoustic lagging product consisting of a reinforced aluminium foil faced, mass-loaded flexible vinyl noise barrier bonded to a decoupling layer.*

## KEY INSTALLATION REQUIREMENTS

- Attention to detail and good workmanship in cutting, applying and fixing the product on to the duct is essential.
- Ensure the duct and insulation is clean and dry before installation.
- Coverage of the treated duct must be continuous.
- There should be no gaps at joints or edges and adequate overlaps must be applied according to the specification as the smallest gap at any joint will result in performance loss.
- Allow at least a 50 mm to 100 mm overlap at joins. A tight seal around all joints and edges is critical to attain maximum performance. Use Pyrotek's reinforced aluminum Tape ALR.

## CIRCULAR DUCTS

For circular ducts ensure the overlapping joint is placed at the bottom of the duct, to prevent the weight of the barrier from opening the seam over time.

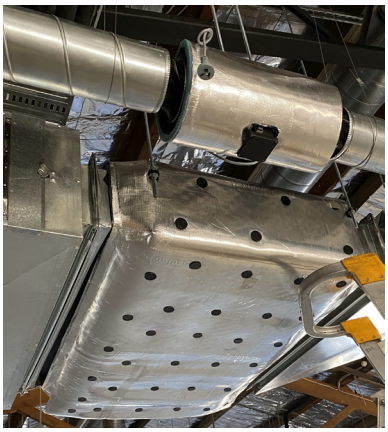
## applications

- Hydraulic and waste pipe lagging in all locations
- HVAC acoustic duct lagging - circular and square
- Fan coil units (FCU)
- Compressor wraps
- Spa motor wraps

## INSTALLATION METHOD

1. Ensure duct surface is clean and free from dust, oils and other contaminants.
2. Measure the perimeter of the duct, allow for thickness of the insulation and add 50 mm as an overlap (see how to measure).
3. If using pins, attach the securing pins to the duct. Pins should be located 100 mm from any joint and every subsequent 250 mm. A minimum of 2 pins should be installed on each side of a rectangular duct, or a minimum of 8 pins per duct section Additionally pins may be added to prevent sagging, particularly on the underside of the duct. When load-bearing, the load on the pins should not exceed their capacity. Pins may be welded or adhered, follow installation guide for pins.
4. After cutting all the lengths install first section by draping the first section over the duct or pipe. Equal amounts should be hanging on either side of the duct, bring one side flush with the duct then adhered with ALR Tape. Bring the other side ensuring you overlap the first side then secure it with Tape ALR (see image 1).
5. Add additional wraps of Tape ALR to achieve a snug lagging to duct or pipe. Tape can be applied over pins (see image 2).
6. It is recommend to apply metal banding every 250 mm to secure lag, note the ties should be at least 10 mm wide to prevent them from cutting into the barrier. Additional banding may be required on smaller sections.
7. Start new section, providing at least a 50 mm overlap on the previous section and taping the seam down with Tape ALR.
8. When covering an elbow start with smaller sections and provide a 50 mm overlap on both sides to ensure there are no gaps or leaks throughout.

**1.**



**2.**



## HOW TO MEASURE AND CUT MATERIAL

Apply the following formula to calculate and cut the required wrapping width of Soundlag.

Circle: Wrap (duct perimeter) = $\pi$ x (OD + (2 x T)) + 50 mm (overlap)

Square / Rectangular: Wrap (duct perimeter) = (H+W+(4 x T)) * 2 + 50 mm (overlap)

OD = outside diameter of the pipe

$\pi$ = 3.14 (pi)

T = Total thickness of acoustic insulation (allow 20% compression on thickness when using convoluted foam or fibreglass decoupling layers.)

H = height of rectangular duct (mm)

W = width of rectangular duct (mm)

Mark the calculated perimeter along the length of the roll and cut material with a retractable knife or scissors.

Soundlag is easy to cut to size with a retractable knife or scissors, minimising wastage.

Always cut from the foil faced barrier side of the material.

## OVERLAPPING

- All joins must be fitted with an minimum of 50 mm overlap of adjoining pieces of Soundlag. Overlapped sections must be taped and sealed with Tape ALR or equivalent.
- A strip of 50 mm foam can be removed along one of both edges as required to provide overlap at joints.
- Joints overlapped with removed foam provide a smooth surface finish.
- If required, a small addition piece of Soundlag can be installed over a butt join or gap. It should overlap adjoining Soundlag and create a tight seal.







Images (***left to right***) show the removal of foam ***before*** being overlapped at joints.

Joints overlapped without foam removal provide a smooth surface.

## TEST TO CHECK FOR A TIGHT SEAL OF JOINTS




Overlap

A correctly sealed joint will NOT allow the metal object to pass through the tape.




No Overlapping

An incorrect butt joint or no overlap will allow the metal object to pass through the tape and lagging.

## ACCESS AND SERVICE HATCH

1. Remove the section of Soundlag by cutting out hole over section that requires access.
2. Install a larger piece of Soundlag over the hole, removing foam from edges and allowing overlap of the barrier layer. Tape joins to ensure a good seal.
3. Mark or label the cover as an access point, so that it can be removed for access to the treated unit.

## WORKING HEALTH AND SAFETY

- Personal Protection Equipment (PPE) is recommended.
- Always follow, read and understand any information contained within the product technical datasheets and safety data sheets.
- Ensure treated structures have sufficient bracing for additional load applied by lagging.
- If unsure, please consult with your local Pyrotek representative regarding the application of the product.

***Note: This installation is suitable for professional and experienced users only.***

Please contact Pyrotek® for further information or detailed advice on your specific application.



*Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic, mechanical and fire engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights.*
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