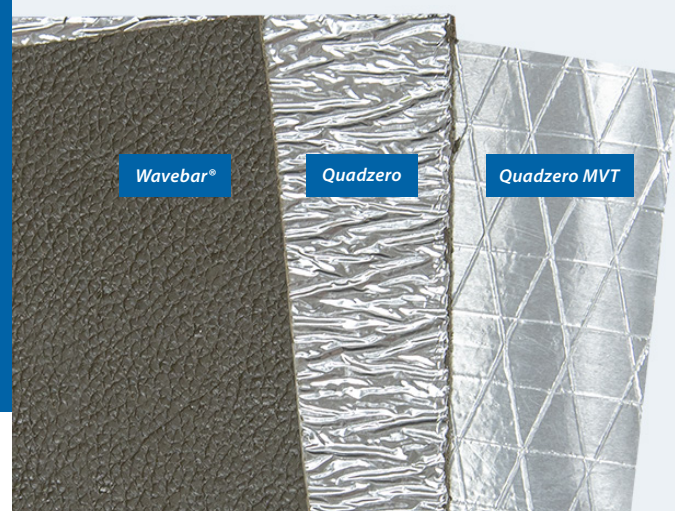


WAVEBAR® | QUADZERO™ RANGE

This installation guide provides recommendations to maximise the service life of Wavebar®, Quadzero and Quadzero MVT for LNG and cryogenic pipe applications.



KEY INSTALLATION REQUIREMENTS

- Attention to detail and good workmanship in cutting, applying and fixing the product on to the pipe is essential.
- Coverage of the pipe insulation being treated must be continuous.
- Coverage will vary depending on the pipe or insulation diameter.
- There should be no gaps at joints or edges.
- The smallest gap at any joint will result in performance loss.
- Fixseal MSP15 is the recommended joint sealant for Wavebar.
- Tape ALR MVT or equivalent tape is recommended for Quadzero and Quadzero MVT.
- Ensure pipe and pipe insulation work surface is clean and dry before installing product.
- It is essential to ensure the material is clean and dry even when stored for an extended period of time. It must also be free from oil, dirt, rips or tears.
- Do not overstretch Tape ALR MVT when applying as this will create buckles and voids in the contact area.

DESCRIPTION

- The Wavebar® and Quadzero range are dense, flexible noise barriers that reflect unwanted sound.
- Quadzero MVT is a 2-in-1 solution offering a noise and vapour barrier.
- Coverage will vary with the pipe diameter.

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.
- If unsure, please consult with your local Pyrotek representative regarding the application of the product.

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

Pyrotek offers noise barriers and vapour barriers (Quadzero MVT) for liquefied natural gas (LNG) and cryogenic pipelines.

applications

- Liquefied natural gas (LNG) and cryogenic pipes treated with insulation
- Wrapped around other noisy pipes, valves and fan casings e.g. fluid or gas pulsation in chemical, petrochemical and wastewater treatment plants
- Compressor jackets for both acoustic and thermal is required

HOW TO MEASURE AND CUT MATERIAL

For Straight Pipe Sections

Measure the length (L) and outside diameter (OD) of the pipe requiring lagging.

Apply the following formula to calculate and cut the required wrapping width (W):

(The formula allows for a 50 mm overlap)

$$W = \pi \times (OD + (2 \times T)) + 50 \text{ mm}$$

OD = outside diameter of the pipe or insulation being treated.

$$\pi = 3.14 (\text{pi})$$

T = Total thickness of acoustic insulation

Mark the calculated width (W) along the length of the roll and cut material with a retractable utility knife or equivalent.

Always cut from the foil faced side of the material.

GENERAL INSTALLATION OF PIPES

STEP 1

- Roll out the product to an appropriate length and measure the coverage required to fit around the pipeline insulation. Please refer to “**How to measure and cut material**” formula on page 1.
- Once measured, cut the product with an appropriate retractable utility knife or equivalent.
- **It is highly recommended to allow at least a 25 mm to 100 mm overlap** when wrapping around the pipe or insulation being treated. A tight seal around all joints and edges is critical to attain maximum performance.

STEP 2

- Ensure pipe work surface is clean and dry before installing product.
- Line up product towards the pipe area and wrap the product around the pipe.
- Ensure the front of the product is on the exterior.
- Recommended overlap when applied.

STEP 3

- For Wavebar® - it is recommended to use Fixseal MSP15 for the joint sealant. Apply the sealant across the joints and edges to create a tight seal. Hold firmly and apply pressure for maximum bonding.
- For Quadzero and Quadzero MVT - Pyrotek can provide Tape ALR MVT on request. Apply the tape centrally over the sections to be joined and press firmly along the entire tape surface.
- Wipe or rub the tape with firm pressure across the tape with a cloth or equivalent to smooth out any air bubbles or buckles.
- Tape ALR MVT is a high-quality self-adhesive insulation joining tape. The pressure-sensitive reinforced aluminium foil tape is designed to serve as a joining or covering tape for Pyrotek’s foiled-faced products. Please refer to Tape ALR MVT technical datasheet for more information.
- **Do not overstretch the tape when applying as this will create buckles and voids in the contact area.**

STEP 4

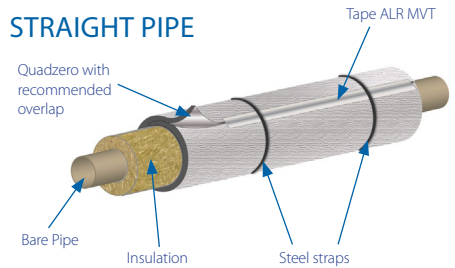
- Mechanically fasten with an approved strap or equivalent after fitting to reinforce the performance of the product.
- All joints along longitudinal pipe sections must be fitted with an overlap for each segment. Continue wrapping with an overlap until the whole section is covered with the joint treatment and mechanical fixing.

NOTE: All information above only serves as a general guideline for installing Wavebar®, Quadzero and Quadzero MVT around pipeline insulation in LNG and Offshore applications. Installation may vary in a case-by-case situation.

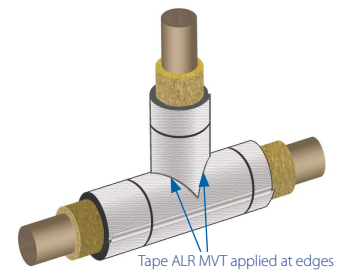
Please contact Pyrotek® for further information or detailed advice on your specific application.

Illustrations are based on Quadzero/Quadzero MVT installation with Tape ALR MVT. Use recommended sealant for Wavebar.

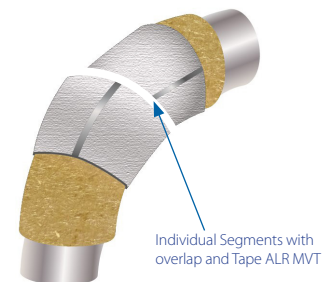
STRAIGHT PIPE



T SECTION



PIPE BENDS



REDUCING SECTIONS

A reducing section connects pipes of different diameters

