

# Acoustic Coupler

## Limit the noise in soil stacks.



Acoustic Coupler.

# Product features

## Wavin OSMA Acoustic Coupler

# Acoustic Coupler 4S125

The Acoustic Coupler from Osma has been designed to address the problem of unwanted noise in soil stacks, caused by thermal movement and unplanned contact between the stack and structure of the building.

Although revisions to Part E of the Building Regulations has resulted in a drop of noise complaints over the past 10 years, noise can still be a problem for new homeowners. The NHBC Foundation found that 15% of all noise complaints from new homeowners were caused by noise in pipework, stating: "noise problems were typically associated with lack of allowance for expansion or contraction movement, and contact with rigid brackets and linings"

These risks can be reduced by using the Osma Acoustic Coupler which features an acoustic rubber gasket. This limits the transfer of noise by accommodating thermal movement and reducing the transfer of structural borne sound (see Fig. A next page).

Also by integrating the gasket into the fitting, thermal expansion is achieved as a matter of course, without having to think about withdrawing the pipe by 10mm. This provides certainty that expansion has been allowed for during installation.

The fitting can be used as a coupler to connect pipe or other fittings including branches and access pipe fittings.

### Acoustic Coupler key benefits:

- ◎ Limits the effect of noise transfe between separating walls and floors when installed on all floors.
- ◎ Reduces stress on pipework from thermal movement.
- ◎ Allows the pipe to move within the body of the fitting by up to 18mm.
- ◎ Promotes best practice by managing the expansion.
- ◎ Expansion gap visible when installed with an Access pipe.
- ◎ Suitable for horizontal and vertical installations.



Expansion gap can be inspected by the installer and Building Control Officer when installed with an Access Pipe fitting.

Available in 110mm Black, Grey and Olive.



Captive Ring-Seal at one end, with a deep, expandable rubber gasket at the other.



Rubber gasket functions like a bellows to allow for thermal movement.



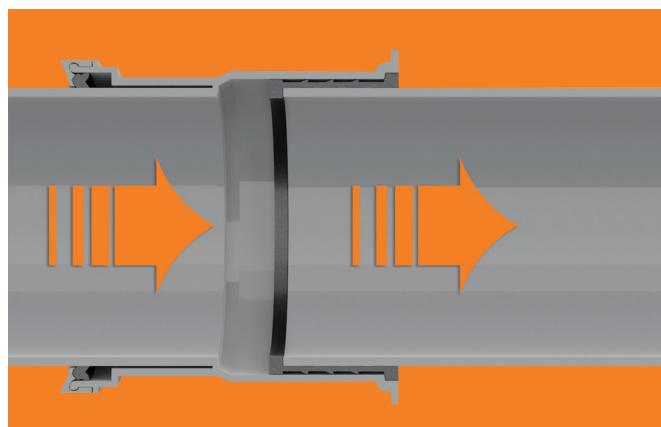
# Product features and benefits

## Wavin OSMA Acoustic Coupler

The gasket in the Acoustic Coupler is designed to work just like bellows, allowing the pipe to move in and out of the fitting. As the pipe expands and contracts with temperature changes, it accommodates thermal movement.

The Acoustic Coupler can be installed horizontally or vertically. Installed in the vertical position, it must be installed with the ring-seal at the top and the acoustic gasket will accommodate any movement from the pipe system from below.

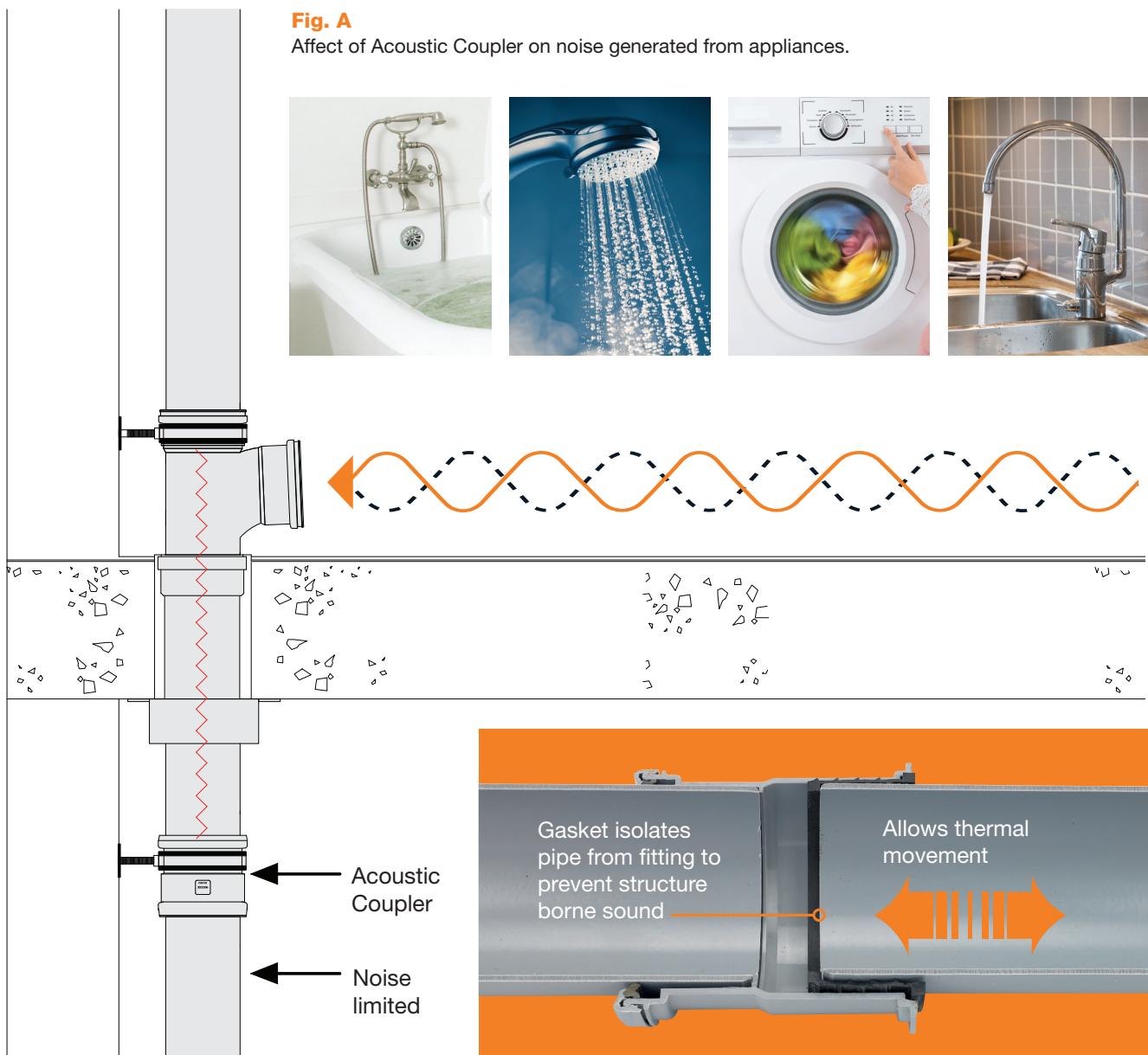
Whether it's installed in a vertical or horizontal position, the flow should be from the ring-seal side first, moving through the acoustic gasket.



Flow from ring-seal side for both vertical and horizontal installations.

**Fig. A**

Affect of Acoustic Coupler on noise generated from appliances.



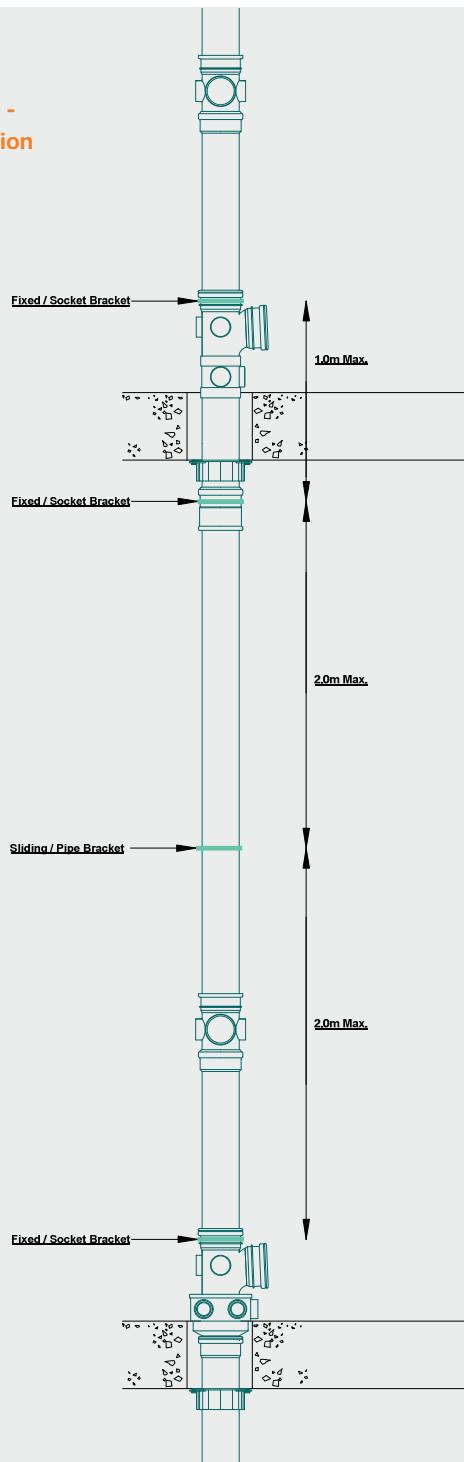
# Product design detail

## Wavin OSMA Acoustic Coupler

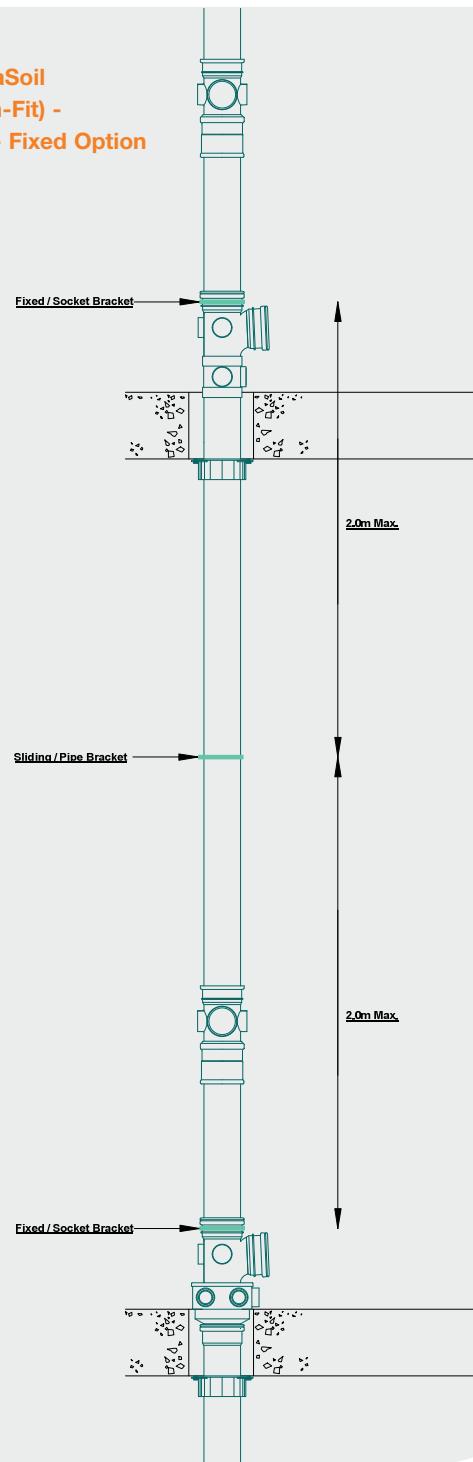
There are a number of options for locating the Acoustic Coupler in the stack. In example A, it is installed as a fixed point and is located just underneath the floor and can replace the need to use socketed pipe which is often used to pick up the upper pipe section running through the separating floor. In this scenario, we recommend that you locate the Acoustic Coupler less than a metre from the next fixed point above. This removes the need for further expansion allowance in the top section.

In example B, the Acoustic Coupler isn't used as a fixed point. In this situation, the Acoustic Coupler is located underneath the access fitting on the lower section of the soil stack. Here the Acoustic Coupler does not have a bracket because this would prevent the longer section of the stack above from expanding downwards and would only manage the expansion of the shorter stack section below.

**OsmaSoil  
(Push-Fit) -  
Fixed Option**



**OsmaSoil  
(Push-Fit) -  
Non - Fixed Option**



# Installation guide

## Wavin OSMA Acoustic Coupler

### Fitting Instructions

When making the connection with the 4S125 Acoustic Socket, the following instructions should be adhered to. When installed vertically, please ensure that the gasket end is facing down.

#### 1. Prepare the pipe

When fitting the acoustic gasket, cut the pipe to the required length, ensuring that the pipe end is deburred and cleaned. It is important that the pipe end is un-chamfered. Chamfering the pipe may result in the pipe pushing past the rubber stop-end at the end of the acoustic gasket, during thermal expansion.

#### 2. Check the condition of the seal and gasket

It is recommended that you check the acoustic gasket and rubber seal for any site contamination. Clean if necessary.

#### 3. Rubber acoustic gasket

Remove the rubber acoustic gasket from the coupler and push over the un-chamfered pipe end. Do not apply lubricant to either the pipe end or inside the rubber acoustic gasket as this may interfere with the combined movement of the pipe and gasket inside the body of the coupler, when in use.

#### 4. Apply Osma Lubricant inside the fitting

Apply silicon lubricant to the inside of the socket which houses the acoustic rubber gasket. Never use oil or grease.

#### 5. Apply Osma lubricant to the outside of the gasket

Apply silicon lubricant to the outside of the rubber gasket and then push the pipe and gasket assembly into the lubricated socket of the fitting until the gasket is fully inserted, with an 18mm expansion gap in place.

#### 6. Check final position

Ensure the un-chamfered pipe end is flush with the stopend on the rubber gasket.

#### 7. Complete Installation with pipe or fitting

For the remaining open connection, apply Osma lubricant to the spigot of the fitting (e.g. access pipe) or chamfered pipe end and insert into the standard ring-seal Osma socket.

**Note:** During and after installation, care must be taken to ensure that the expansion gap is retained. By installing the Acoustic Coupler with the access, it is possible to carry out a visual inspection by removing the screwed access cap and looking inside the fitting to check that the expansion gap is present. This will provide a check for the plumber and Building Control Officer that expansion allowance has been achieved on completion of the pipework.





Check out the Acoustic Coupler videos  
on the Wavin UK You Tube channel -  
OSMA Soil & Waste playlist.

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**wavin**