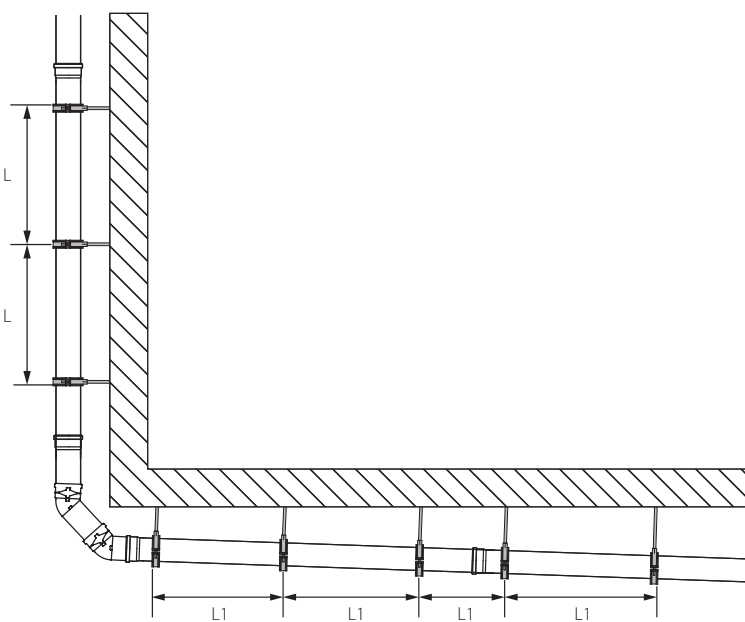


1.1 | Pipe preparation and assembly

- Pipes are produced in various lengths with one or two sockets and with plain pre-beveled ends. If cutting to length is needed, use only proper cutting tools for plastic pipes (manual or mechanical) and bevel the cut pipe end with an angle of approximately 15° with bevel length of about 5 mm
- Remove chips, shavings and sawdust before installing
- Check the position and integrity of the lip seal in the socket gasket slot. Clean the seal and the socket and apply a thin layer of lubricant around the plain pipe end
- Fittings should be inserted to maximum socket depth whereas pipes, after being pushed completely into the socket, have to be pulled back of approximately 10 mm
- For anchoring Ultra Silent™ system to walls and ceiling use steel brackets with rubber inserts approved for acoustic insulation systems
- Horizontal pipes should be installed with a slope of 1 to 5%. Unless differently prescribed by specific country regulation a 2% slope is a good compromise between a good flow and the space needed for the installation
- As a general rule straight lengths of pipe must be anchored by mean of fixed point brackets (F) under each socket while the rest of the pipework and the fittings will be supported by sliding point brackets (S)
- The Maximum distances between the brackets for horizontal and vertical installation are shown in the below table

Pipe DN (External diameter)	Max. bracket distance for Horizontal installation - L1 max	Max. bracket distance for Vertical installation - L max
Ø 50	0.80	1.50
Ø 75	1.10	2.00
Ø 90	1.40	2.00
Ø 110	2.00	2.00
Ø 125	2.00	2.00
Ø 160	2.40	2.00
Ø 200	2.40	2.00



1.2 | Repairs and installation

- To add a branch (USEA) to an existing pipe with long socket (USTL) and sleeve (USU), insert the long socket plain end into the branch socket, cut the equivalent of the socket length from the existing pipe piece. Insert the long socket into the upper pipe all the way. Fix the sleeve on the lower pipe and slide the branch and long socket down into the sleeve (Figure A). An alternative possibility is to use two sleeves and plain pipe (the minimum plain pipe length must be more than double that of the external pipe diameter DN, as in Figure B).
- To fix punctured or damaged pipe, the same methods can apply with one socket pipe (USEM) instead of the branch and for adding inspection pipe (USRE) or double branch (USDA).

Figure A

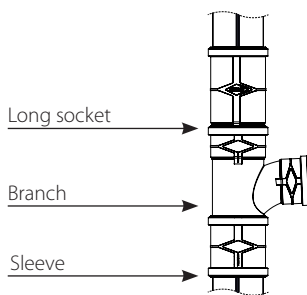
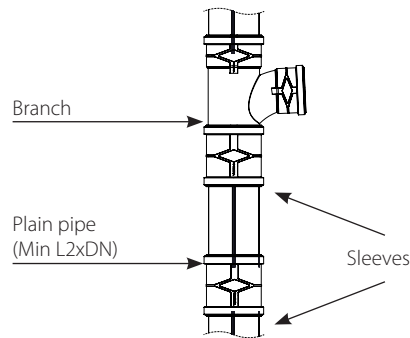


Figure B



1.2 | Installation through ceilings, floors and walls

- It is important in acoustic insulated systems to avoid contact between system components and rigid elements, such as walls, ceilings, floors etc., in order to prevent structure-borne noise transmission.
- For pipes traversing walls and ceilings, a space of at least 30 mm should be maintained between the pipe and any rigid material.
- If the spaces around the pipes traversing walls and floors must be filled, use only soft construction materials such as foam or glass fiber (Figure 7).
- In case of pipes traversing floors where protection against humidity is needed we recommend to use Huliote Ultraseal (see description in following pages).
- For improved hydraulic flow and reduced noise, 87° bends are not recommended to be used for changing flow direction from vertical to horizontal. It is preferable to use two 45° bends, with 2D minimum length of connecting pipe between them (Figure 8).

Figure 7

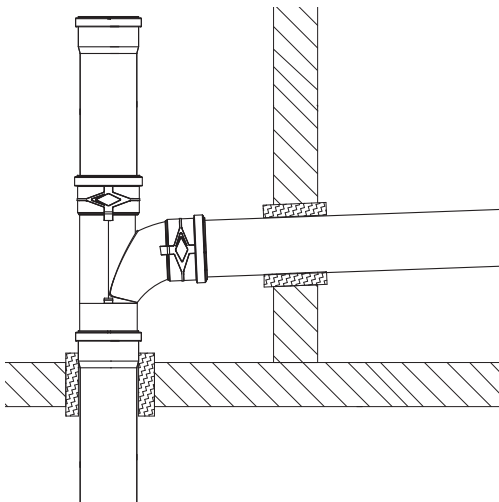
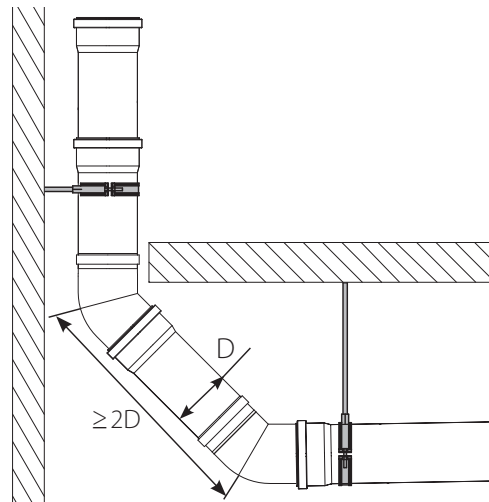


Figure 8



- When installing pipes in open spaces (such as basements, parking garages etc.), above suspended ceilings or behind screen walls, prevent any contact of other material (such as suspended ceiling, electrical, water, ventilation and air conditioning systems etc.) with the pipes (Figure 9).

Figure 9

