



DESIGN, SPECIFICATIONS AND INSTALLATION GUIDELINES

ACOUSTIC SOIL AND WASTE PIPE SYSTEMS
VENTILATION BRANCH

CONTENTS

PRODUCT INFORMATION	4
OPERATING PRINCIPLE	4
ADVANTAGES OF THE VENTILATION BRANCH	5
DIMENSIONS	5
FLOW CAPACITY INFORMATION	6
INSTALLATION	7
1. GENERAL	7
2. FIXATION OF THE VENTILATION BRANCH	7
3. CONNECTION OF HORIZONTAL INLET PIPES	8
4. INSTALLATION DISTANCES AND VELOCITY REDUCTION	9
5. PRESSURE RELIEF LOOP	10
6. NO-CONNECTION ZONES	11

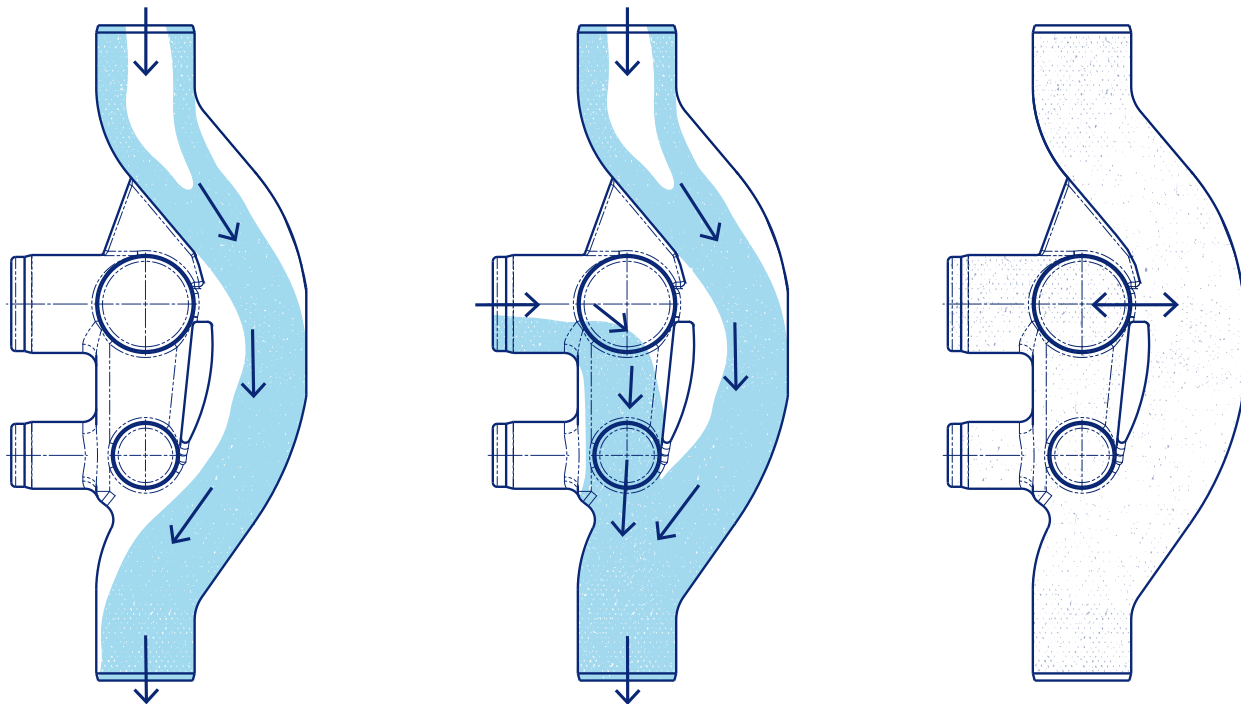
PRODUCT INFORMATION

A rapid increase in water flow in conventional fall pipes can dry out connected floor lines and empty water traps that prevent discharge odors from escaping.

To avoid this, fall pipes are often over-dimensioned or installed with a separate ventilation line. Neither of these options are ideal as they both require extra space. Eventually, this limits the number of horizontal connections that can be made and, accordingly, the overall number of floors in the building.

Our flow-optimized Master3Plus ventilation branch prevents this and facilitates the efficient installation of vertical fall pipes in high-rise buildings.

OPERATING PRINCIPLE



Due to its laterally offset design, the Master3Plus ventilation branch facilitates a reduced flow. This helps to avoid an increase in negative pressure that could dry out the water traps of connected facilities, such as toilets, wash basins, etc.

With the Master3Plus ventilation branch, inflowing water from horizontal connections can enter the vertical fall pipes without disturbing the main flow. The flows combine in a vertical trajectory, therefore minimizing turbulence.

The venting gap in the flow separator provides the air ventilation required to avoid adverse impacts on pressure.

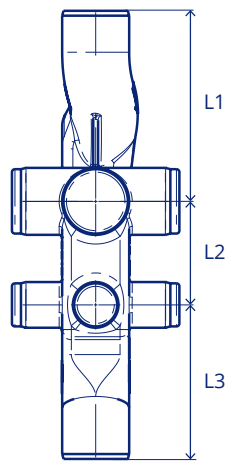
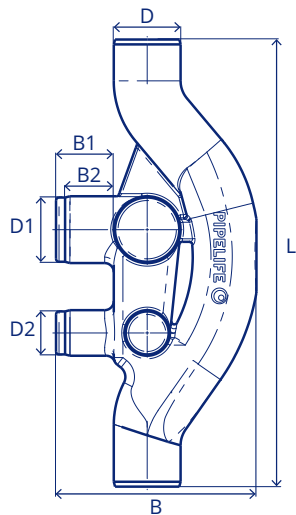
ADVANTAGES OF THE VENTILATION BRANCH



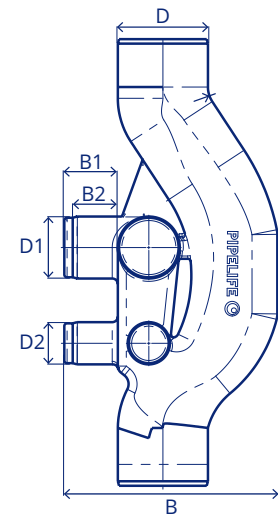
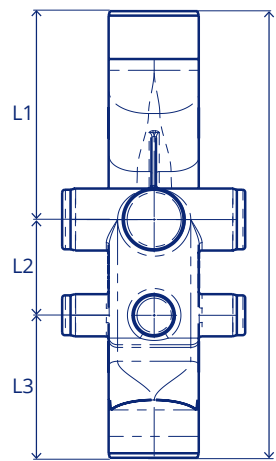
- Reduces fall line diameters
- Avoids the need for an additional ventilation line
- Minimizes space requirements in the installation duct
- Made from high-quality PP
- Offers six connection possibilities
- Facilitates easy connections to double sockets with pre-chamfered side inlets
- Optimized design enables a maximum flow capacity of 25 l/sec

DIMENSIONS

DN/OD 110



DN/OD 160



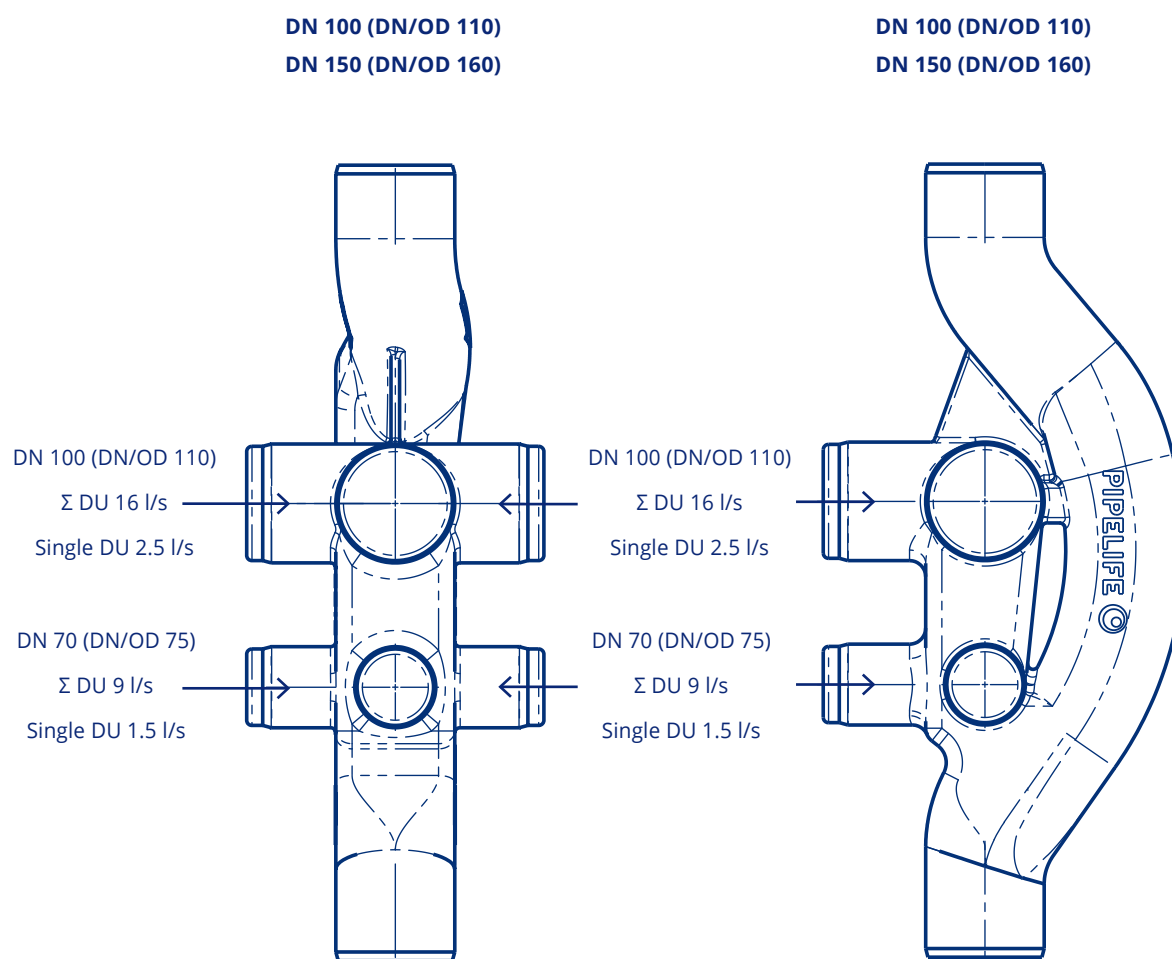
mm	D	D1	D2	B	B1	B2	L	L1	L2	L3
DN/OD 110	110	110	75	330	80	65	736	313	170	253
DN/OD 160	160	110	75	378	80	65	793	370	170	253

FLOW CAPACITY INFORMATION

The PIPELIFE ventilation branch offers six connection possibilities: three for DN 100 (DN/OD 110) and three for DN 70 (DN/OD 75). In general, the connections may be used simultaneously, however, the restrictions mentioned in the Installation chapter must be followed.

The single value for the DN 100 connection equals 2.5 l/s. This enables a wide range of sanitary devices to be connected up to a total DU of 16 l/s. The lower DN 70 connection allows for a single value of 1.5 l/s with a total DU sum of 9 l/s. For example, a toilet bowl must not be connected to the DN 70 inlet. Consult EN 12065-2 for an overview of the DUs for various sanitary devices.

The total branch discharge volume amounts to 25 l/s.



INSTALLATION

1.

GENERAL

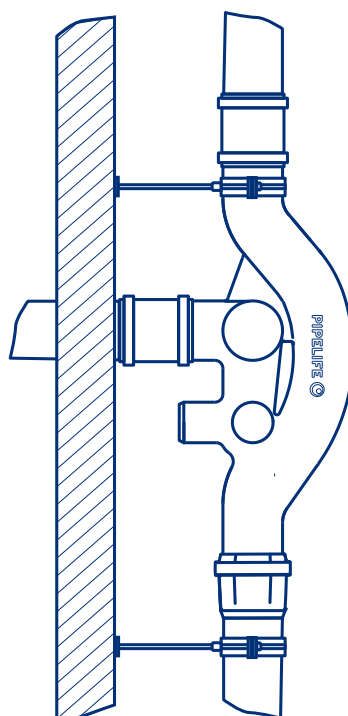
When installing Master3Plus ventilation branches, we advise adhering to EN 12056, as well as your national standards. While the following installation recommendations are derived from our best knowledge and practices, they are not necessarily complete for all scenarios and should not override your local regulations and specifications.

If an installation includes a Master3Plus ventilation branch, it should be installed on every floor — except where there are connecting pipes with a diameter less than or equal to 50 mm and an 87.5° angle branch inlet.

2.

FIXATION OF THE VENTILATION BRANCH

The ventilation branch should be fastened with two clamps. Attach the first clamp to the inlet section of the branch and the other below the branch, underneath the socket of the vertical connecting pipe.

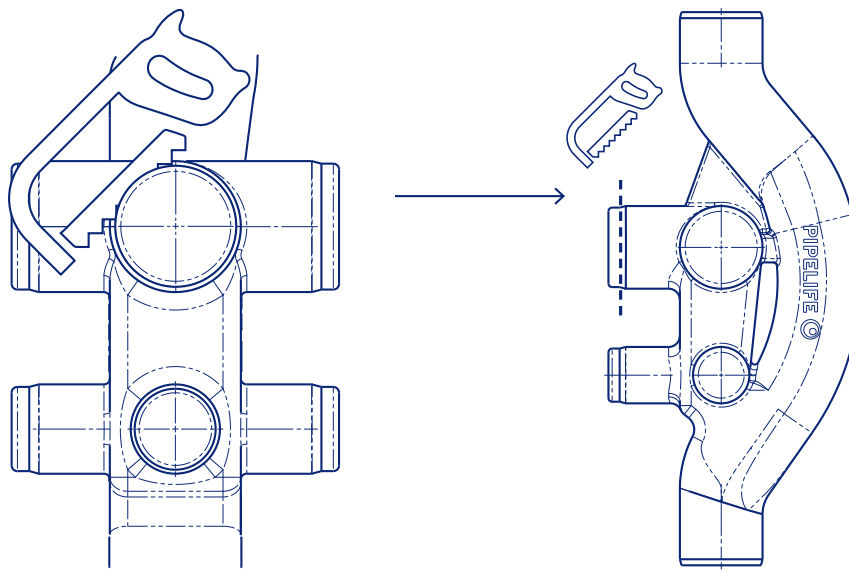


3.

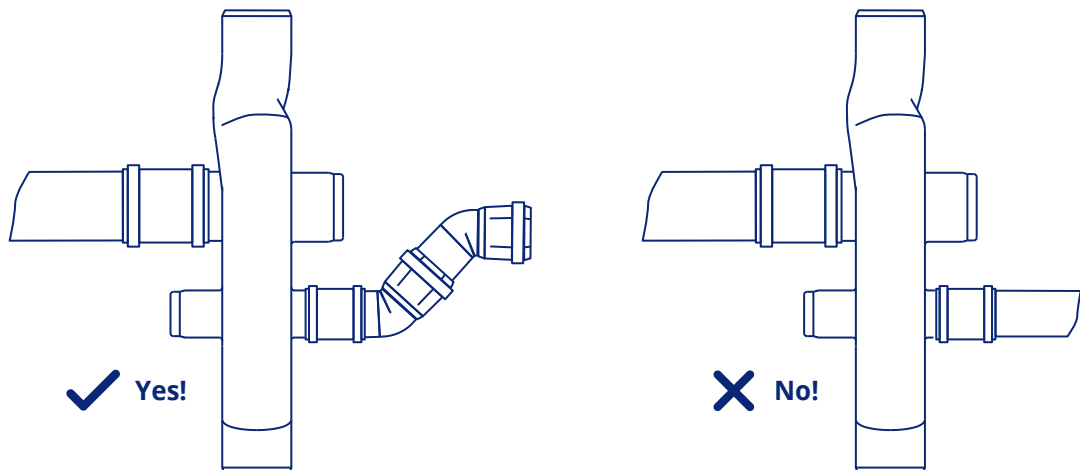
CONNECTION OF HORIZONTAL INLET PIPES

Horizontal connections can be made with Master3Plus double sockets:

- Open the connection spigot by cutting the seal at the chamfered edge of the connection inlet (ensuring the chamfer remains intact). This will enable the double socket to be inserted into place
- Remove any dirt or residue from both the spigot and the socket
- Thinly coat the spigot with PIPELIFE lubricant. Do not use oils or fats as lubricants
- Fully insert the lubricated spigot into the socket



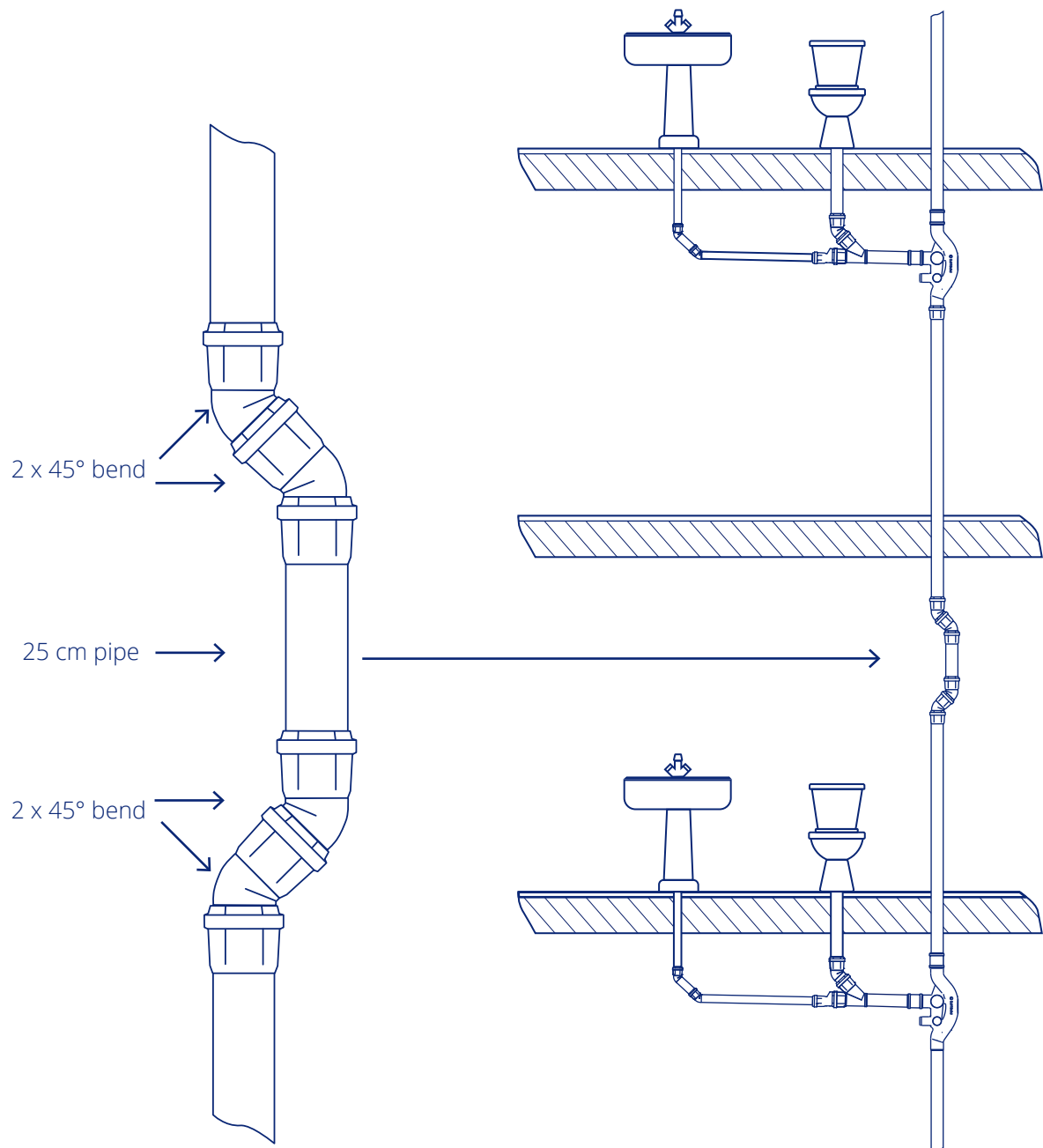
The Master3Plus ventilation branch enables multiple connection possibilities that can be applied simultaneously, but inflow from one connection into another must always be avoided. Therefore, we recommend all inflow connections are made on the same side. However, if an opposite diagonal installation is required, we recommend installing a 45° angle upward bend on the lower connection inflow. Pipe installations with a larger diameter than the branch inlet must not be connected to the ventilation branch.



4.

INSTALLATION DISTANCES AND VELOCITY REDUCTION

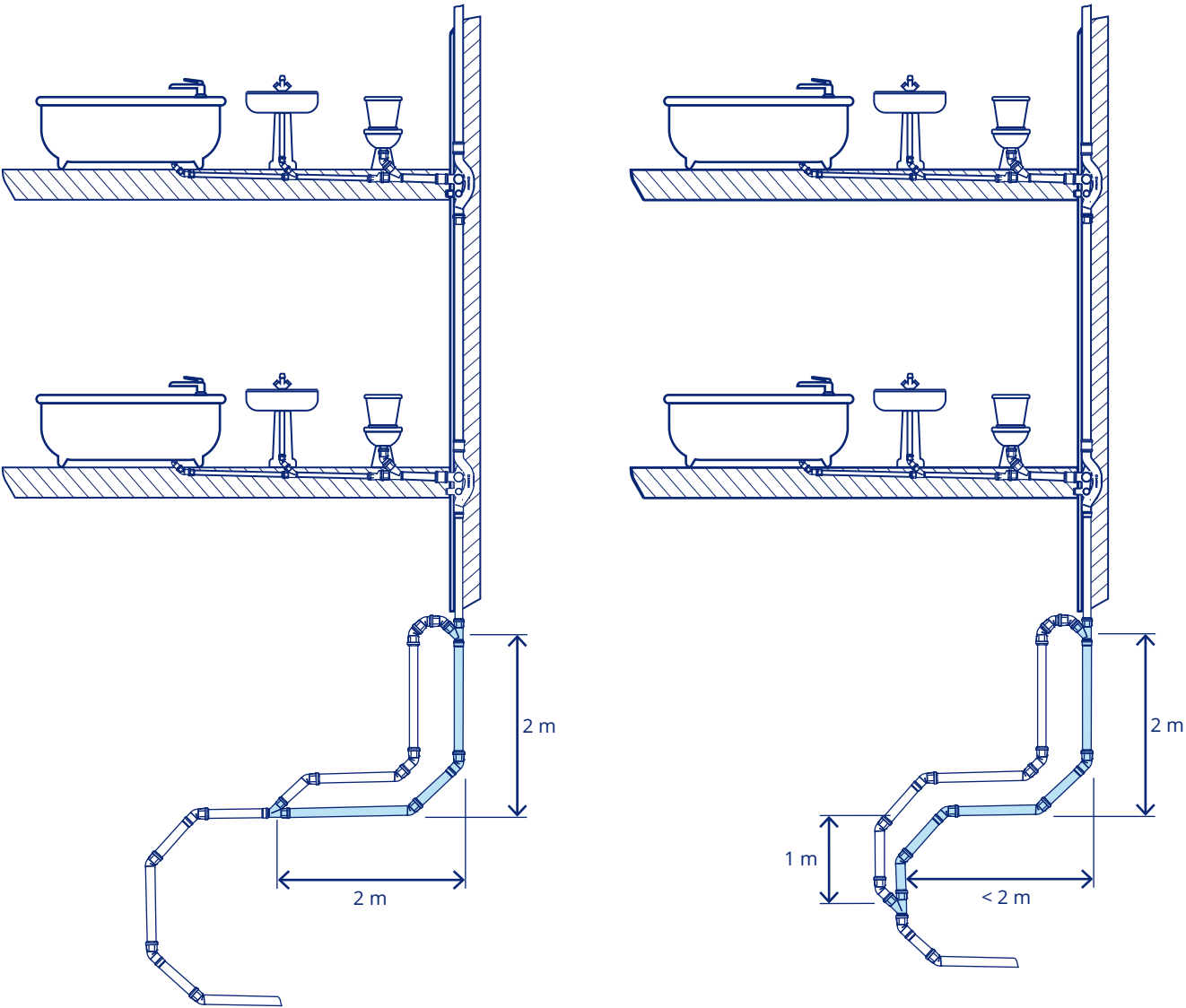
The offset design of the Master3Plus ventilation branch reduces the velocity of the downward flow. This should be consistent throughout the entire vertical installation. As previously indicated, the ventilation branch should be installed at every building level — ideally maintaining equal distances between the branches. However, if the distance between two ventilation branches is more than two floors (approx. 6 m), you will need to install an offset of a similar length to the ventilation branch on the vertical fall pipe (approx. 25 cm). To ensure a consistent flow, we recommend you only use 45° angle bends.



5.

PRESSURE RELIEF LOOP

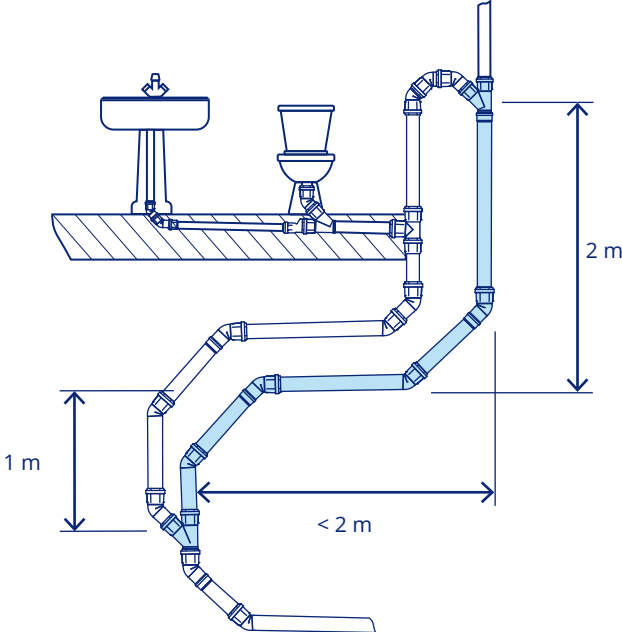
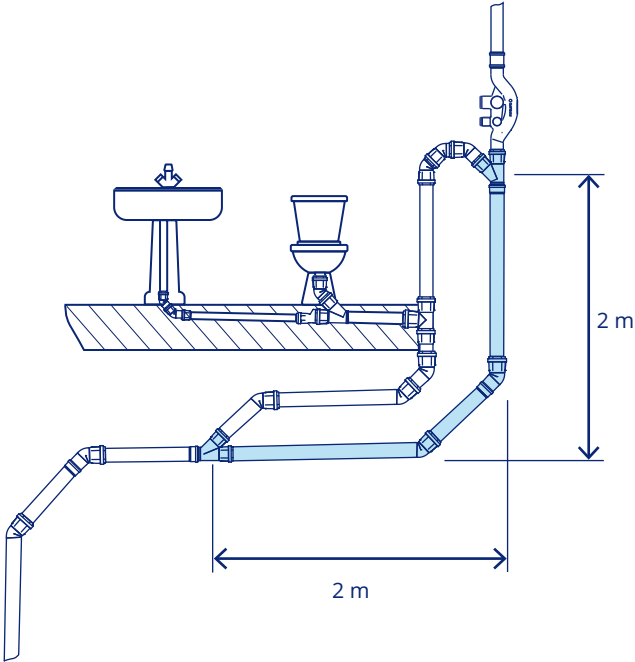
Fall pipe installations that include a Master3Plus ventilation branch must always be accompanied by a DN/OD 110 pressure relief loop at the bottom of the vertical fall pipe where the transition into the horizontal collection pipe takes place. This ensures any excess pressure that might occur in this section will be absorbed. If a horizontal installation of at least 2 meters cannot be established, the pressure relief loop must be extended vertically by at least 1 meter and then merged again into the horizontal pipe.



6.

NO-CONNECTION ZONES

To avoid water from sanitary pipes flushing into fall pipes, wash basins, showers and toilets must not be directly connected to the main fall pipe. These facilities need to be connected to the pressure relief loop via the vertical or horizontal section. They must be connected with a simple branch at a minimum distance of at least 10 times the pipe diameter from the base of the fall pipe.





The contents and information contained in this brochure are intended for general marketing purposes only and shall not be relied upon by any person as complete or accurate. In particular, this brochure cannot replace proper expert advice on the characteristics of the products, their usage, suitability for any intended purpose, or the proper processing method. All contributions and illustrations in this brochure are subject to copyright. Unless explicitly otherwise stated, the repetition of content is not permitted. The use of photocopies from this brochure is for private and non-commercial use only. Any duplication or distribution for professional purposes is strictly forbidden. Non-Liability: PIPELIFE has established this brochure to the best of its knowledge. PIPELIFE cannot accept any liability suffered or incurred by any person resulting from or in connection with any reliance on the content of or the information contained in this brochure. This limitation applies to all loss or damage of any kind, including but not limited to direct or indirect damages, consequential or punitive damages, frustrated expenses, lost profit or loss of business.