



Retractable Hose System Installation Guide

Use as a template to cut the opening in the brick wall:



Table of contents

Plan the installation	4
Hose lengths	
Power Unit Selection	
Valve locations	
Plan pipe runs	
Rough In	5
Determine Valve Height	5
New construction	6
Gyproc Installation	
Brick and Plaster Installation	
Operation Instructions	6
Low voltage wire	7
Grooved coupling	7
Door Installation	7
Safety Stopper	7
Pipe runs	8

Warning

This manual assumes that the installer has working knowledge and experience installing traditional central vacuum systems. It is critical that only original parts are used in the installation. That includes screws, seals, washers, hoses, sweep 90's, 45's, etc. Failure to use these parts will void any warranty offered by the manufacturer. Installers are responsible for adhering to all local building codes.

Plan the installation

Planning is the key of a successful installation of a central vacuum system. A balance between the best locations for the inlet valves and the practicality of installing in these locations is essential. With a little ingenuity, most locations can be reached.

Hose lengths

The length of the hose can be adjusted according to the size of each floor. Hose kits come in 30' (9.1 m), 40' (12.2 m), 50' (15.2 m) or 60' (18.2 m) lengths.

Power Unit Selection

It is important to keep in mind that air flow is reduced with longer hoses. To compensate for the loss of air flow, a larger power unit is required.

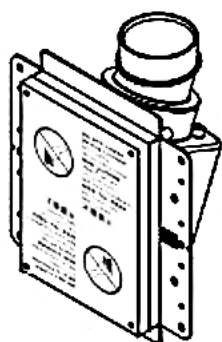
Valve locations

Usually a 9m hose – if positioned well – will cover 60-90 mq; a 12m hose will cover 80-160 mq; a 15m hose will cover 150-200 mq; a 18m hose will cover up to 250 mq.

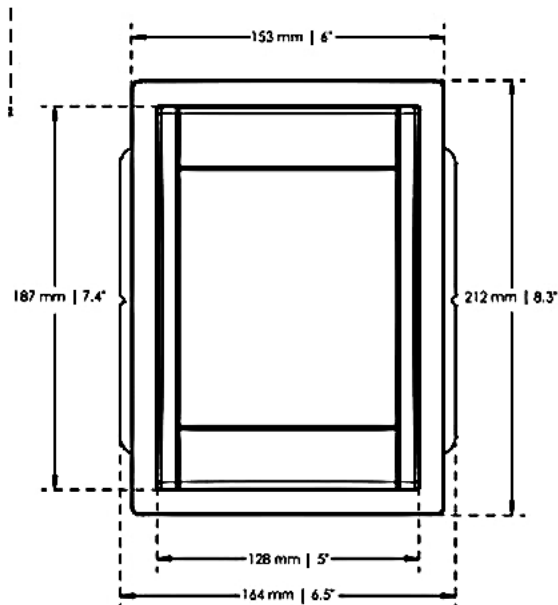
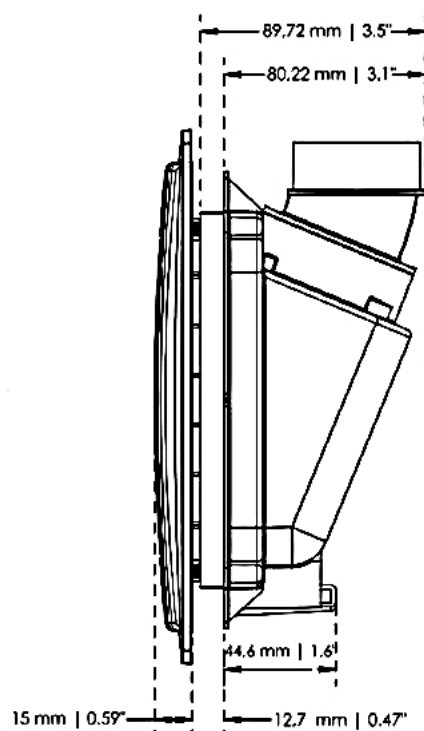
Plan pipe runs

Carefully read the "pipe runs" section of this guide. There is also a diagram of four typical pipe runs.

Rough In



Valve assembly

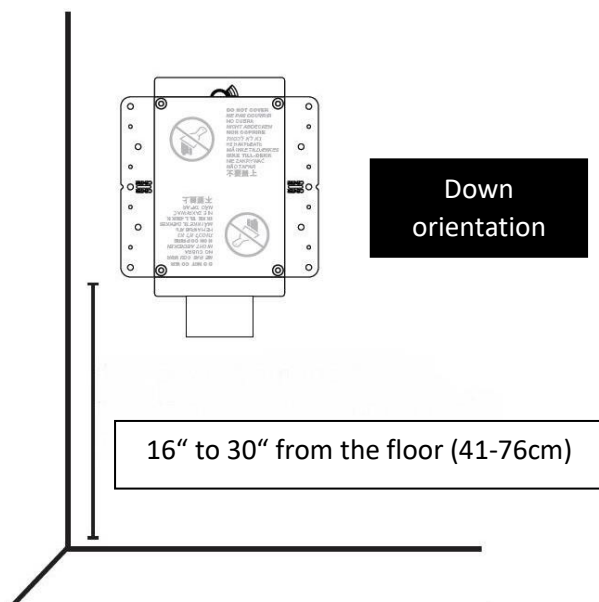


Door

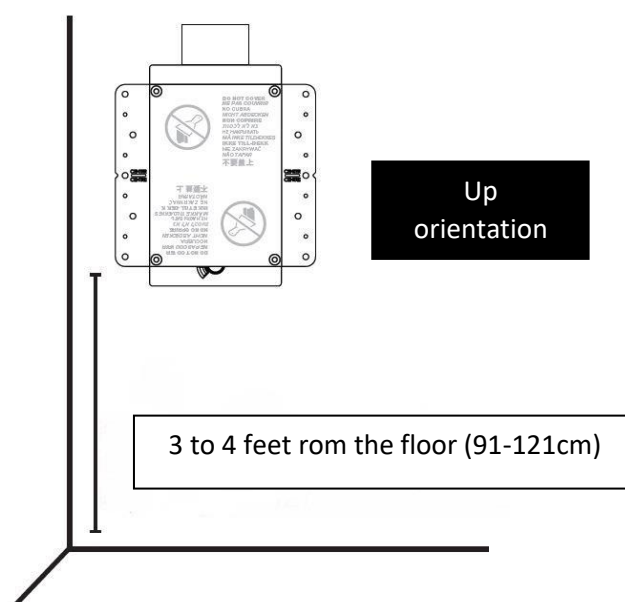
WARNING:

The thickness of the wall in which the casing will be installed must meet the requirements of the following dimensions: min.: 12 mm (0.47") | max.: 27 mm (1.063") If not, you must make the required adjustments so that the thickness of the wall is between 12 mm (0.47") - 27 mm (1.063").

Determine Valve Height



If the inlet is to be installed in a downward orientation (hose comes out from the bottom), we recommend that the bottom of the inlet be at 16" to 30" from the floor, for maximum ease of use.



In an upward orientation (hose comes out from the top), we recommend that the bottom of the inlet be at 3 to 4 feet from the floor, for maximum convenience.

New construction

Gyproc Installation

Attach the frame of the inlet to the stud (2x4) **1**. Make sure that the inlet is leveled (figure 1) and that you leave 3" free behind the inlet.

We recommend to add another stud **2** on the other side to secure the inlet in place (figure 2).

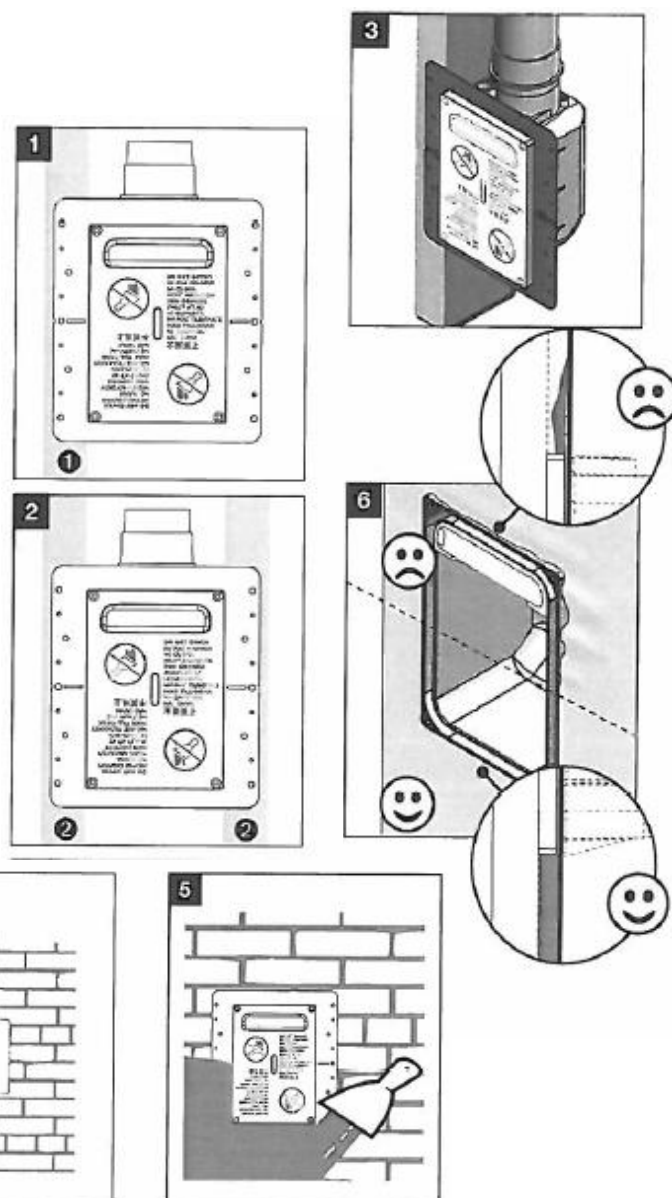
Install the pipe into the fitting (figure 3). Glue the pipe into the fitting, making sure it sits all the way to the ridge of the pipefitting.

Brick and Plaster Installation

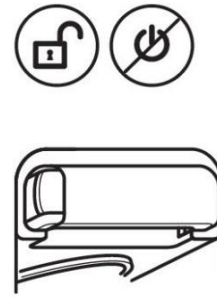
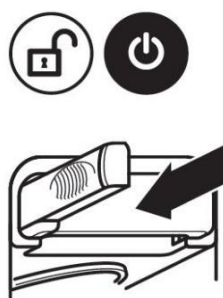
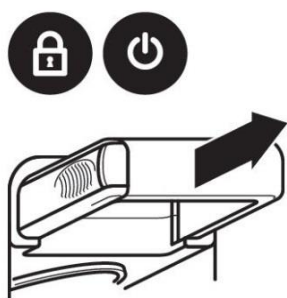
Use the template provided in this booklet to cut a hole in the brick (figure 4).

Insert the back of the inlet into the wall and screw the frame of the inlet directly to the brick (figure 5). Once the piping network and wires are connected, seal the back of the inlet into the wall by adding plaster all around it. The thickness of the plaster cover must follow the separation between the inlet's edge and the yellow plate without running over the latter.

Make sure that the thickness of the plaster is flush with the inlet (about 2 cm) all around the inlet (figure 6).



Operation Instructions



Hose  Locked in position

Vacuum  Power On

 Released

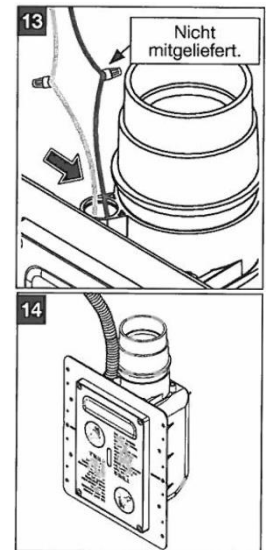
 Power Off

Low voltage wire

Run low voltage wire to each inlet just as you would in a standard central vacuum installation.

Slide the two low voltage wires from the system through the round opening at the bottom of the inlet. (figure 13) Connect these to the two leads from the switch. Make the connection from the front and store the wires in the empty space that runs around the inlet's casing.

Once the low voltage wires are connected, do a conductivity test before closing wall. We also recommend to perform a suction test to make sure that the installation is sealed properly.



Grooved coupling

Install a grooved coupling on the inlet's fitting, using glue. Apply glue on the inlet's fitting **ONLY**, to prevent excess glue.

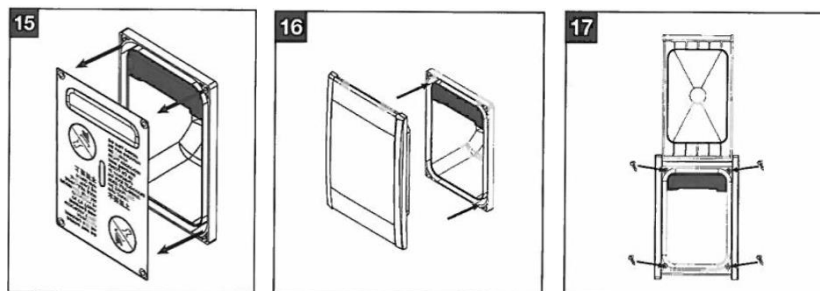
IMPORTANT: If the inlet is installed in an existing wall, attach the grooved coupling to the PVC pipe rather than on the inlet's fitting.

Door Installation

Once the wall is finished, remove the temporary cover plate (figure 15).

Simply insert the door into the appropriate slot (figure 16).

Then, open the door and insert the four screws in the corners to hold the piece in place. Adjust the 4 screws (figure 17) so that the door closes properly.



Safety Stopper

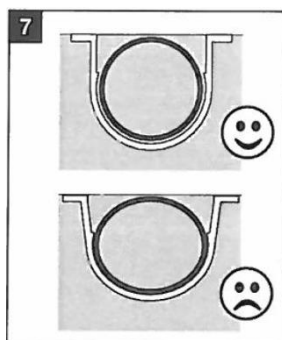
Add the safety stopper before joining main pipe run. It must be located at the point where the hose length needs to stop (full hose length starting from inlet, that means 9/12/15/18m) when it is stored in the pipe.

You can find more information on the sheet that comes with the installation kit.

Note: the safety stopper prevents the hose to accidentally pursue its run in the pipes.

Pipe runs

Don't forget to use a miter saw to cut your PVC pipes at perfect 90° angle. We also advise you to use the deburring tool on your PVC pipes to make sure that the inside is exceptionally smooth.



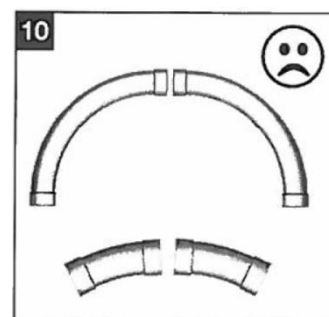
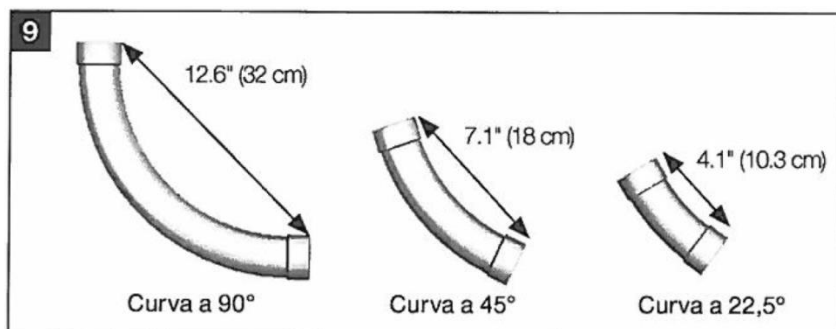
Do not connect the main pipeline before making sure that you have enough length to store the whole flexible hose.

If the inlet is installed upwards and the pipe runs straight up for 10' (3.05 m) or more, add two 22.5° elbows close to the inlet (figure 9) to keep the hose from slipping out.



When installing the pipe straps to secure the piping in place, make sure not to squeeze the pipes (figure 7), so as not to alter the movement of the hose inside the piping system.

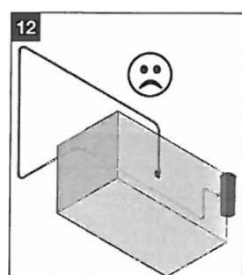
Any burr or excess glue glob can snag and damage the hose sock as it travels through the tubing. To prevent this, make sure to always apply the glue on the male end, not the female (figure 23).



After cutting the PVC pipes make sure to eliminate all the cutting edges. Check all the pipes to ensure that they are completely smooth, perfectly round and not damaged.

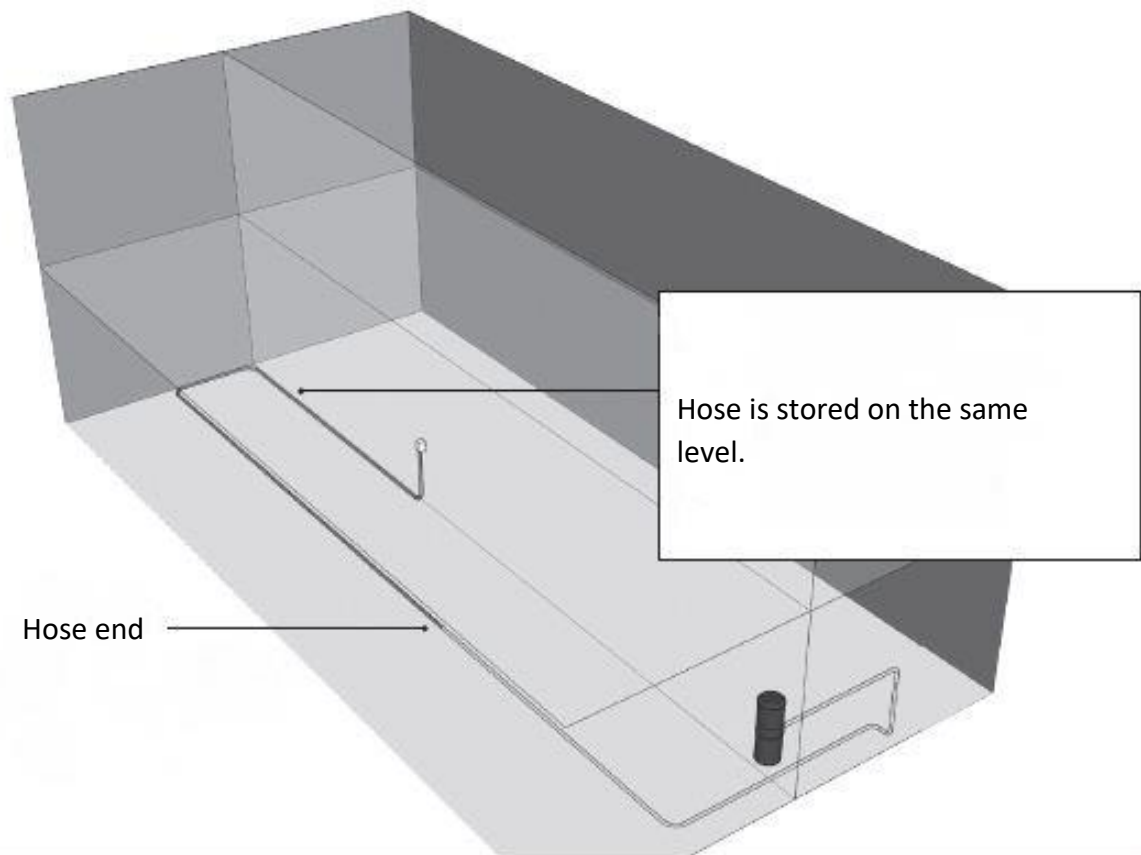
Only fittings designed for retractable hose systems can be used in the section of pipe that stores the hose.

The more 90's used the more force is needed to pull the hose out of the valve. Try not to use more than four 90's for each valve.

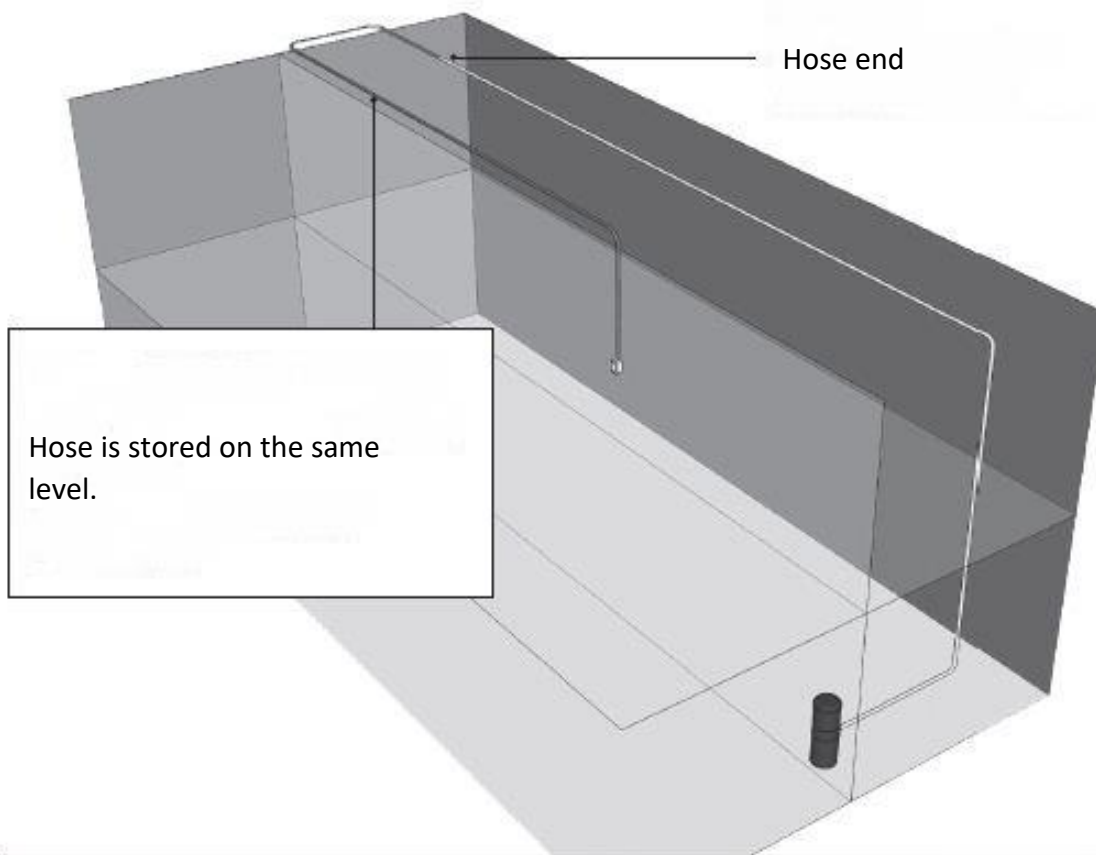


Try to avoid back to back elbows (figure 10). Try to space them out as much as possible.

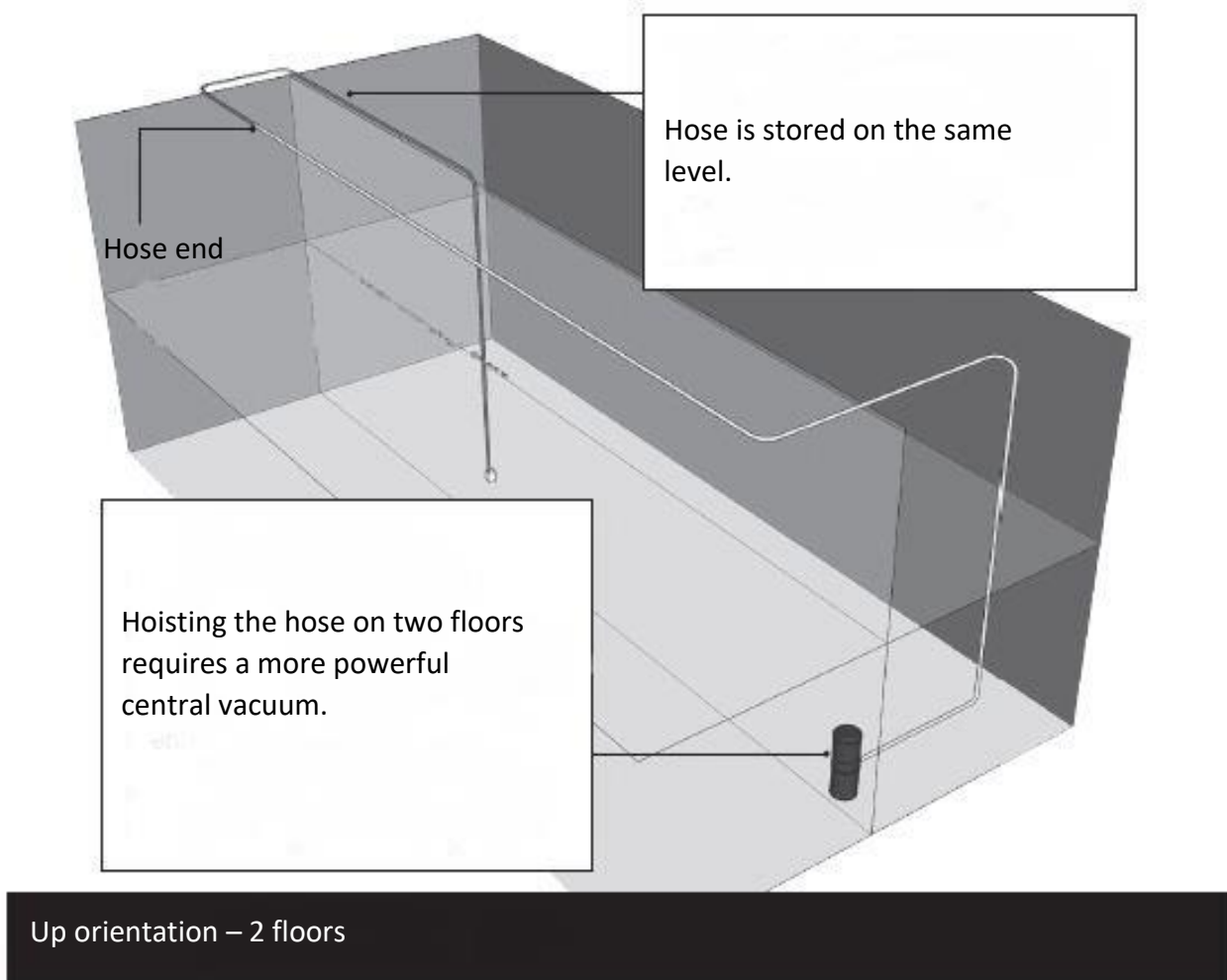
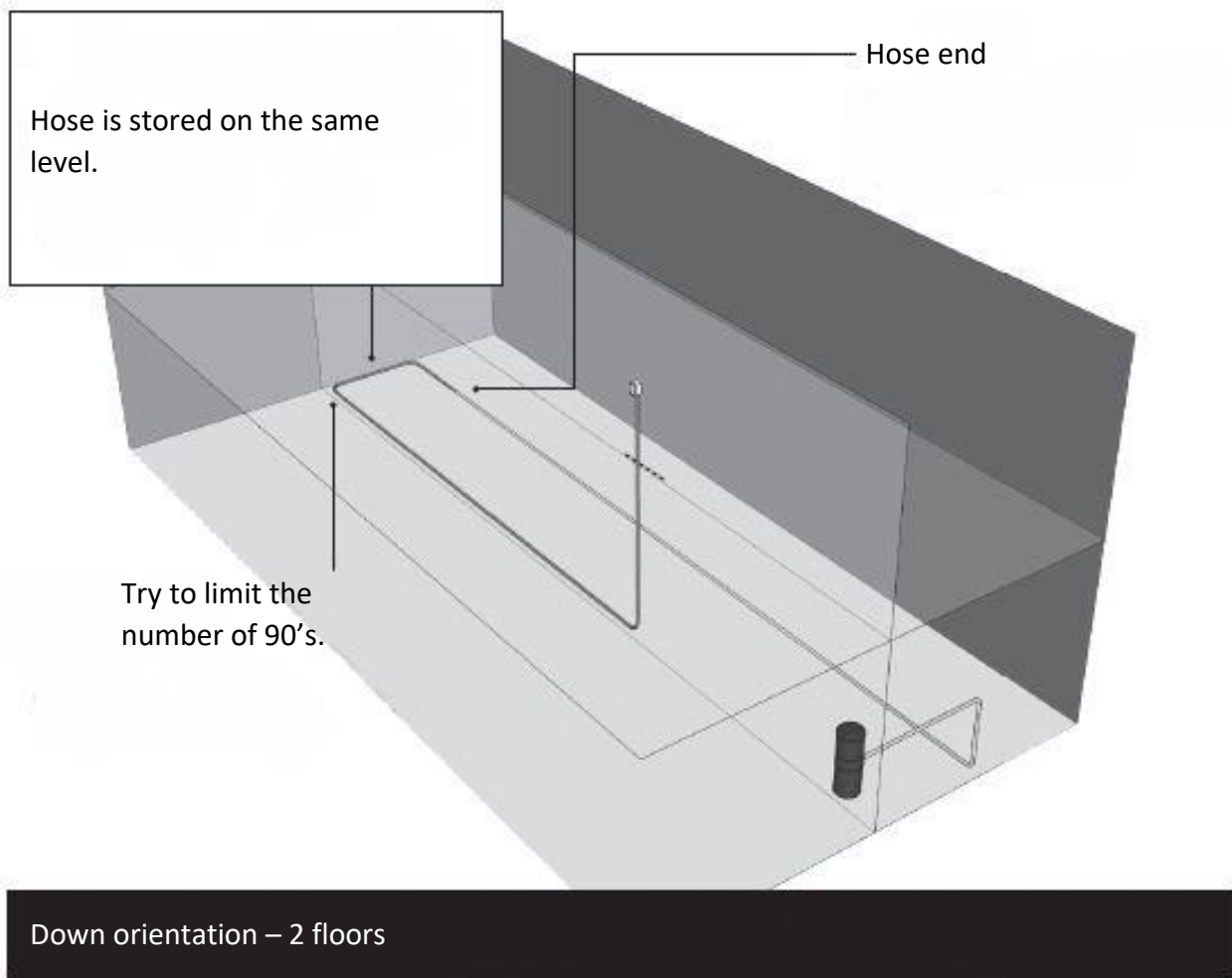
It is important to design the pipe runs so the hose is stored on one level (figure 11). Avoid storing hose on two different levels (figure 12).



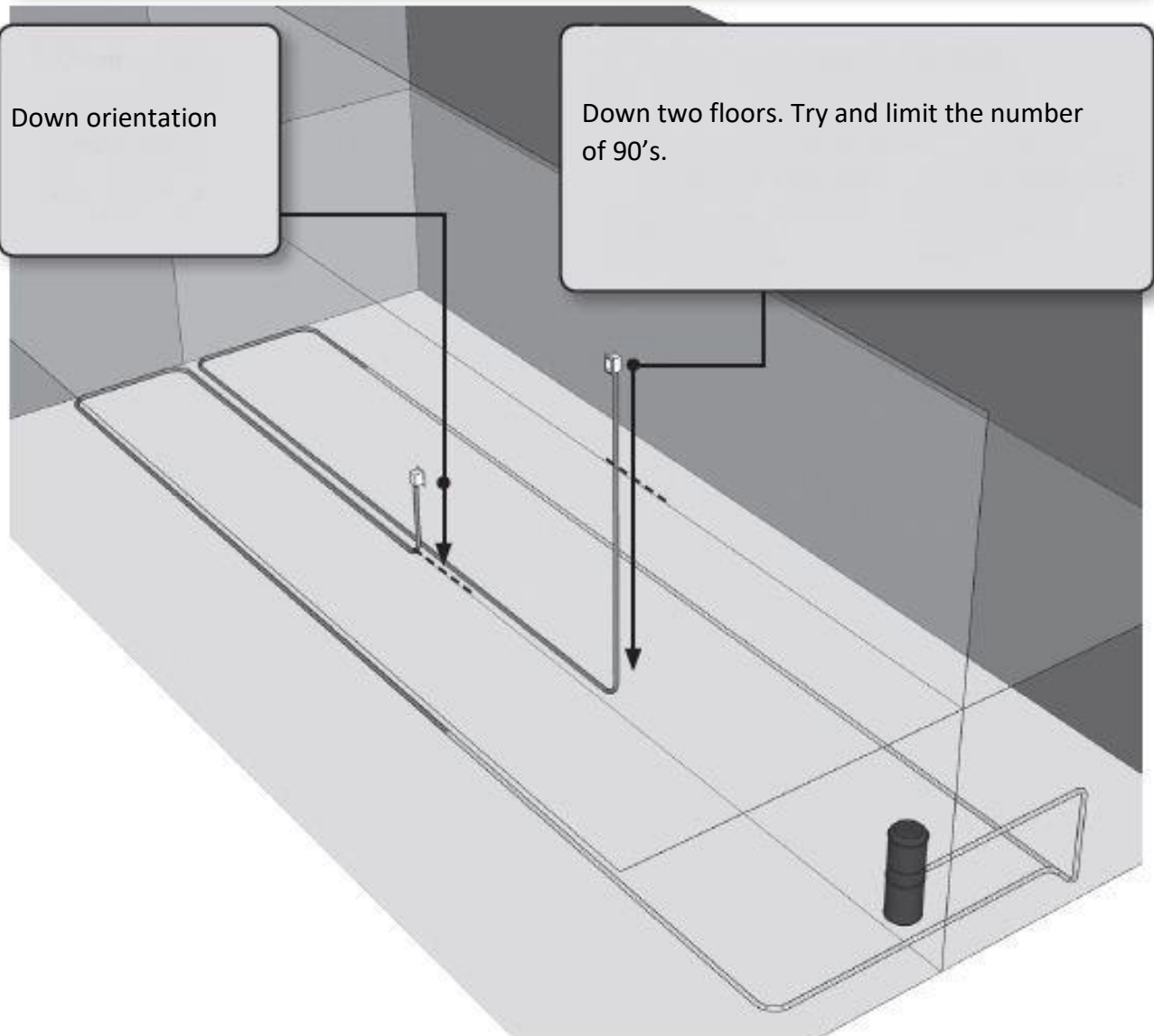
Down orientation



Up orientation

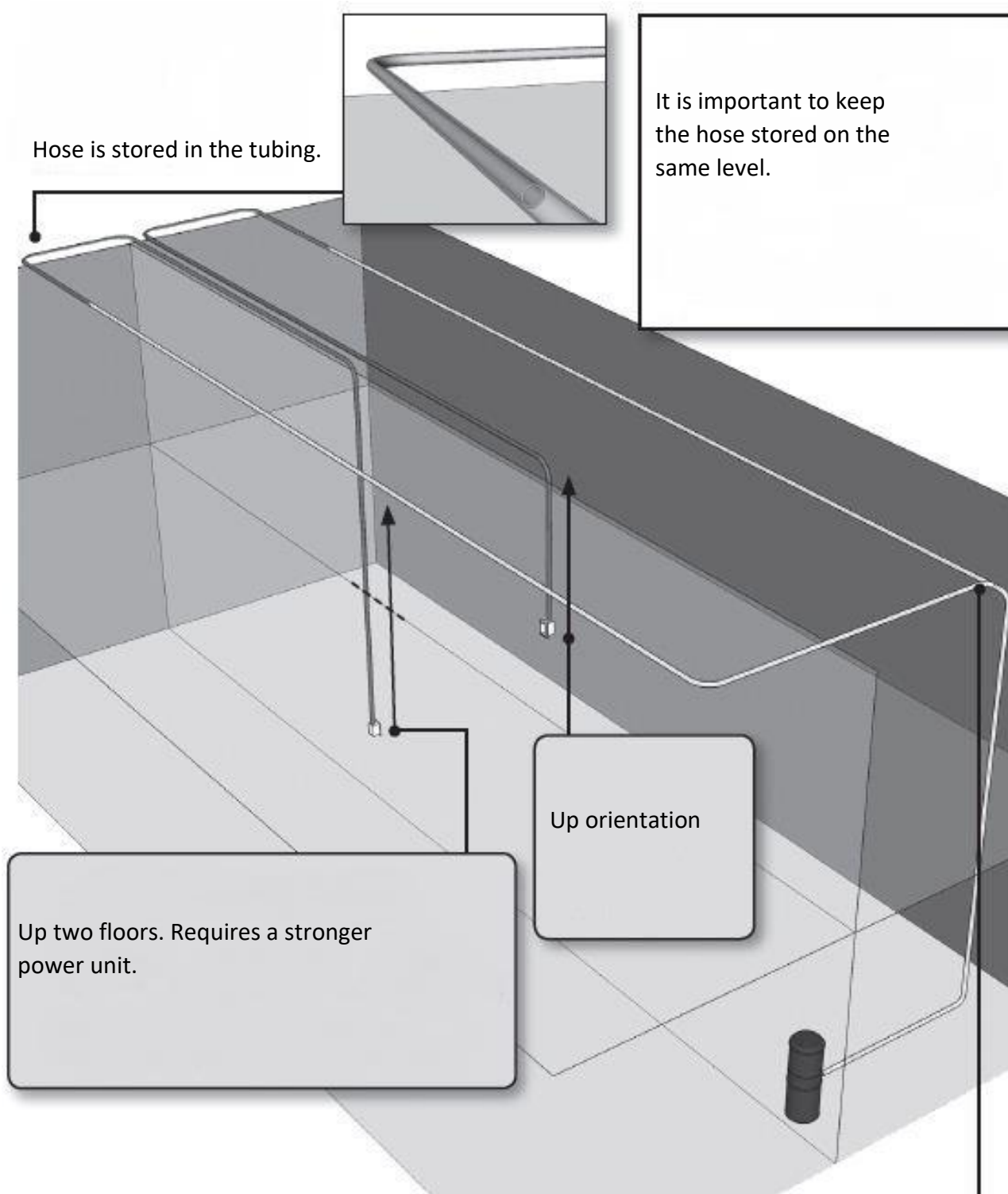


Only fittings designed for retractable hose systems (90's, 45's and 22.5's) can be used in the section of pipe that stores the hose.



In order to ensure enough pipe to store the hose, the pipe runs will sometimes need to be diverted in order to lengthen piping, and then head back to the power unit.

Typical Pipe Runs Diagram



Do not join pipe run until you have enough pipe length to hold the hose, plus an extra length of 20% or 10' (3.05 m) minimum. For example, if using a 60' (18.3 m) hose, install at least 72' (21.9 m) of pipe before connecting to another pipe run.