

| # | A | B | C | Remarks |
|---|---|---|---|---|
| 1 | ☺ | ☺ | ☺ | This unit has a vertical flue with no restrictions ensuring a good flue draft. However with 50% of the flue inside and 50% outside, the section of the flue outside requires to be insulated, double skin construction. This will ensure that rising gases do not cool down which would then reduce the required draft. |
| 2 | ☺ | ☺ | ☺ | This unit has a vertical flue ensuring no restriction within the flue and terminating well clear of the apex. It has as much of the flue as possible within the building. |
| 3 | ☺ | ☹ | ☹ | This installation is not high enough. At least 5 metre vertical height is required on 150mm flues and 6 metre vertical height on 200mm flues to achieve the required flue draft. |
| 4 | ☺ | ☹ | ☺ | This flue stack mounted outside the building is totally incorrect. The flue gases can not travel horizontally for 1 metre before rising in the main flue and the stack is not insulated which will give a low draft reading. |
| 5 | ☺ | ☹ | ☺ | Never put 90 degree bends in a flue system, always have flue stack on an upward slope (45 degree maximum) to allow exhaust gases to rise. If 90 degree bends are necessary, every pair of bends require 1 metre additional vertical pipe to compensate. |
| 6 | ☺ | ☺ | ☺ | When installing 45 degree bends in a flue system, always install vertically as high as possible before passing through the wall. This allows the flue gases to rise before any restrictions. Always use 45 degree bends as a maximum and keep the distance between bends to a minimum. It is necessary to add 1 metre of vertical pipe for every pair of bends in the system in addition to the recommended height. |
| 7 | ☹ | ☹ | ☹ | This shows that there are two 90 degree bends and a horizontal pipe in the system which is totally unacceptable. Also the stack hood (or terminal pipe) is below the apex of the building and back drafting can occur which will reduce the flue draft. |
| 8 | ☺ | ☹ | ☹ | When units are installed using existing flues, ensure the following points for a good draft: <ul style="list-style-type: none"> • A minimum of 5 metre of vertical flue with a diameter of 150mm (AT-400); • A minimum of 6 metre of vertical flue with a diameter of 200mm (AT-500). The flue: <ul style="list-style-type: none"> • must be 1 metre above the apex of the building; • should ideally be made of stainless steel. |
| 9 | ☺ | ☺ | ☹ | <ul style="list-style-type: none"> • The heater is in the correct position within a building ensuring most of the flue is inside. • In this case the combustion fan is connected to fresh air supply. Always do so if there is any possibility of dangerous explosive fumes being present in the room. |

A: Position of heater

B: Construction of flue stack

C: Position of stack hood or terminal pipe

☺: Ideal

☺: Acceptable

☹: Not acceptable