

7. FRAMES FOR ANDREAE® FILTERS

ANDREAE® Filters are easy to install and remove.

Frame

Three simple elements constitute the Andrae® filter frame :

1. A U-shaped beam as upper part of the frame. This U is placed upside down and prevents the filter from falling forward when the ventilation is turned off. Its function is also to seal the top of the filter.

- Dimensions :
Height 1"
Depth 2³/₄"
Length as required to close in width.

2. A L shaped beam as side and bottom parts of the frame. The bottom part is the support where the filter stands.

- Dimensions of the bottom part :
Height 1"
Depth 2³/₄"
Length as required.

3. The L-shaped side clips. The first and the last pleat of the filter are inserted behind these clips to maintain the filter and seal the exhaust wall properly. These clips are installed as shown in the drawing below :

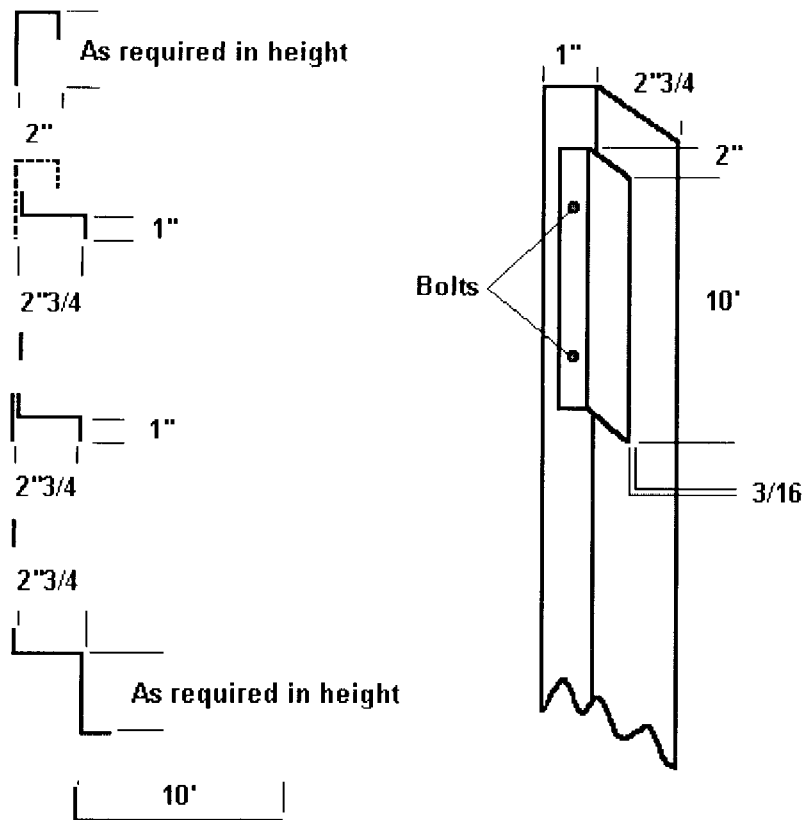


Fig.1 Insertion clips and example of frame parts

Parts

Regarding the choice of parts for the frame, we suggest two possible methods :

1. L shape profiles

The frame is built with the parts shown in fig.1 and 2.

These parts are cut to the booth size. Several layer of filters can be installed. Upper and lower spaces are filled with bent steel sheets.

This example of frame is a good solution when the Andreae® filter is factory mounted in the paint booth.

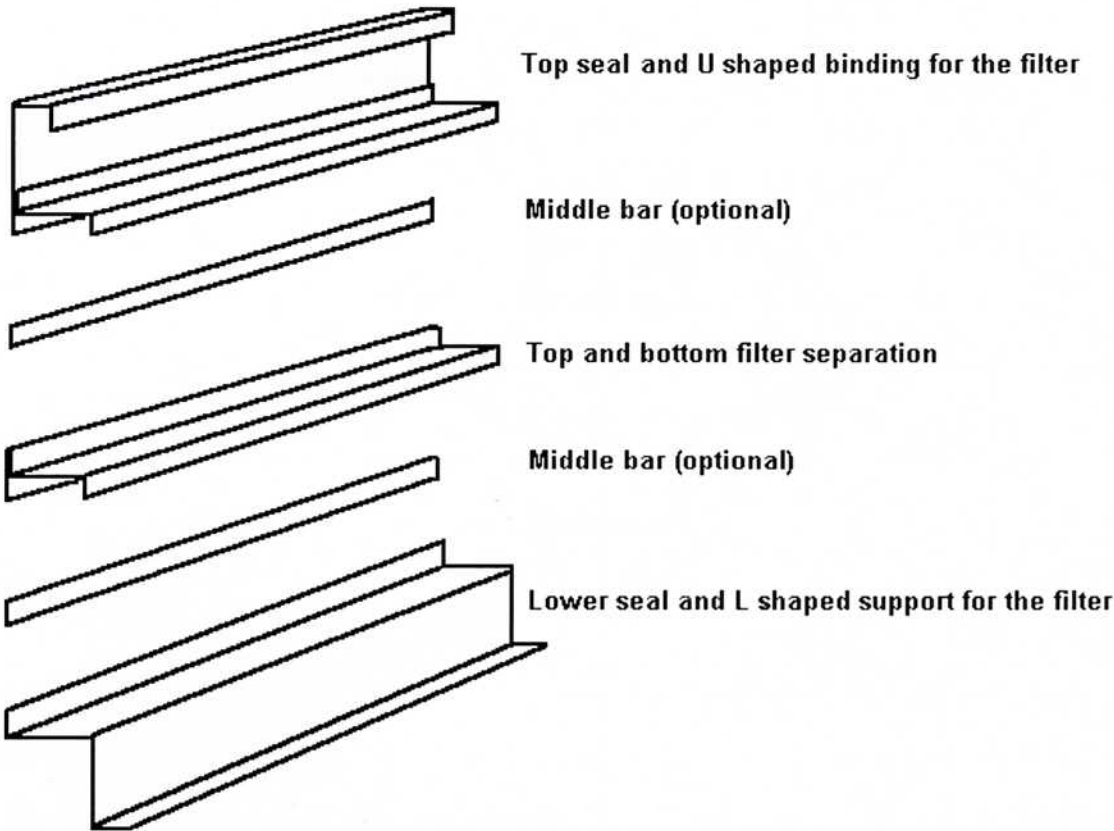
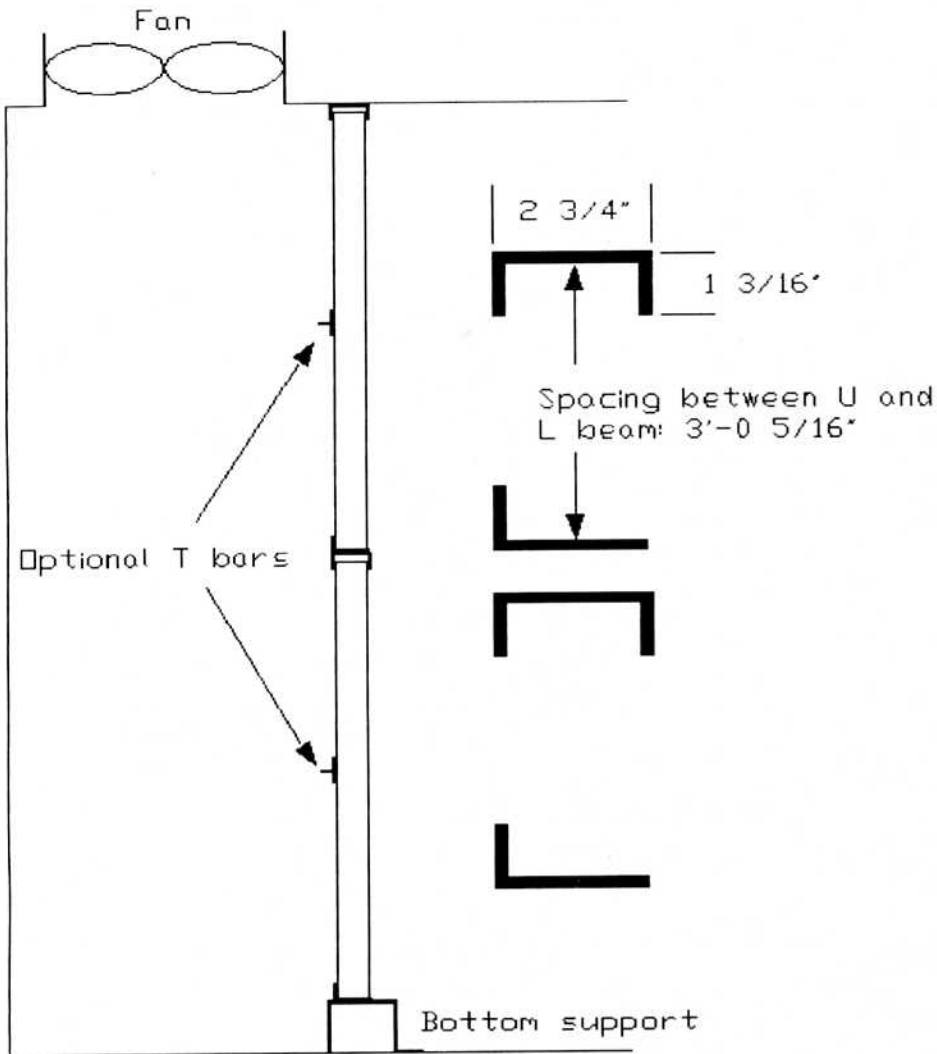


Fig.2 L-shape profiles

Easy booth installation of the ANDREAE® filter

1. Cross section : booth and frames

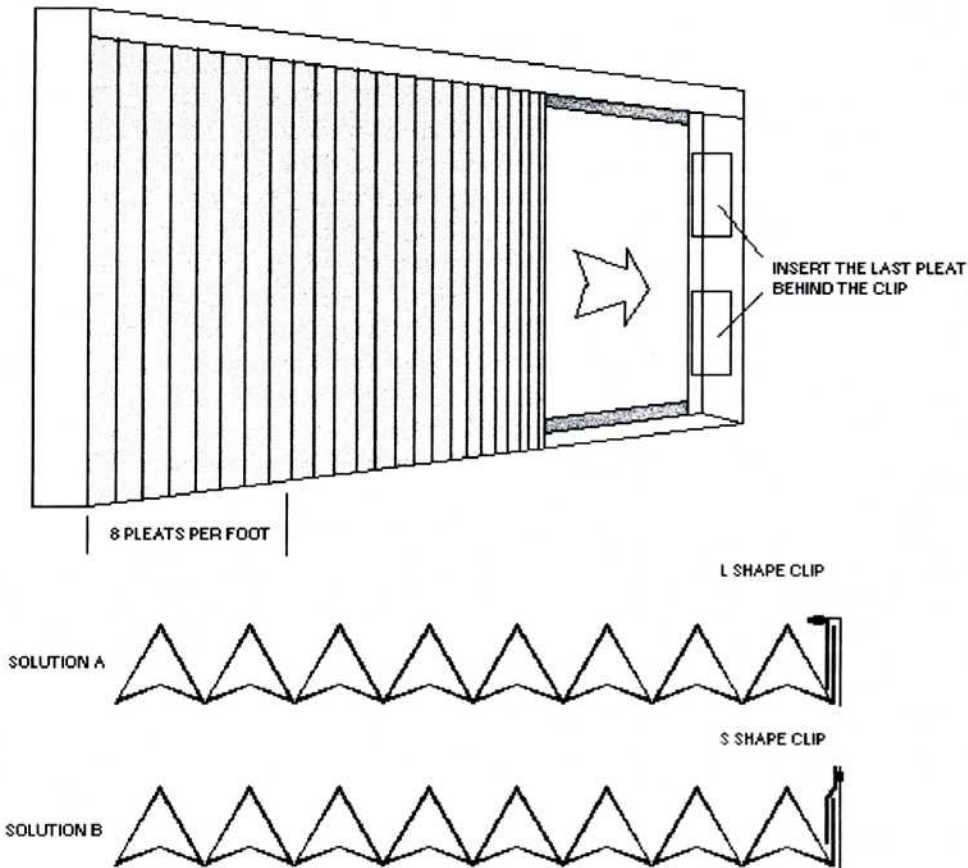


ANDREAE® filters are held on top by an inverted U beam and at the bottom by a L beam. If the booth has several rows of filters, each row is installed on the same beams.

In case of need, an optional T bar may be installed mid-height as additional support.

N.B. No grid is necessary. Therefore, the access to the exhaust plenum is open and there is no need for a side door.

2. Side clips



3. Combined wet/dry system

It is possible to use a combined wet/dry system. The ANDREAE® filter is used as first stage filtration and the water curtain as second stage. The advantages are :

- Savings on chemicals;
- Savings on water;
- Savings on maintenance time;
- No immediate need to modify the paint booth.

To avoid water spills, it is recommended to install the filter bank as far forward as possible of the waterfall.

If this is not possible, the water resistant ANDREAE® HYDRO filter may be used.