WHAT IS CLAIMED IS:

1. A stackable air filter module, comprising:

a base gas filter unit comprising a metal frame and at least one first filter body disposed within at least one filter channel of the metal frame, and the metal frame having an upper surface continually extending to surround the filter channel of the metal frame completely; and

at least one additional gas filter unit detachably superposed on the base gas filter unit, the additional gas filter unit comprising a filter frame and a second filter body disposed within a filter channel of the filter frame, the filter frame comprising an outer metal frame and an inner non-metal fireproof frame surrounded by the outer metal frame, the inner non-metal fireproof frame having a lower surface that is mutually complementary to the upper surface of the metal frame to form an airtight interface between the additional gas filter unit and the base gas filter unit,

wherein filter materials contained in the first filter body having a service life greater than that of filter materials contained in the second filter body.

2. The stackable air filter module of claim 1, wherein filter materials contained in the first filter body have the service life two times greater than that of filter materials contained in the second filter body.

3. The stackable air filter module of claim 1, wherein the filter channel of the metal frame has a cross-sectional area equal to that of the filter channel of the filter frame.

4. The stackable air filter module of claim 1 further comprising at least one second additional gas filter unit detachably superposed on the at least one additional gas filter unit, the second additional gas filter unit comprises a third filter body, wherein filter materials contained in the second filter body have a service life greater than that of filter materials contained in the third filter body.

5. The stackable air filter module of claim 1, wherein the filter frame is made from metal materials.

6. The stackable air filter module of claim 1, wherein the filter frame is made from non-metal fireproof materials.

7. The stackable air filter module of claim 1, wherein the filter channel of the metal frame has a cross-sectional area equal to that of the filter channel of the filter frame.

8. The stackable air filter module of claim 1, wherein the at least one filter channel of the metal frame comprises multiple filter channels.

9. The stackable air filter module of claim 1, wherein the metal frame has a height greater than or equal to that of the filter frame.