CLAIMS:

1. An NBC filter assembly comprising:

a casing having first and second ends supporting an air inlet and an air outlet, respectively;

a particulate filter mounted in proper spaced relationship with the air inlet;

an adsorption filter mounted in proper spaced relationship with the air outlet and having a perforated air inlet plate facing the particulate filter; and

at least one spring having a first end supported within the first end of the casing via the particulate filter and having a floating second end, said at least one spring being adapted to apply pressure to the perforated air inlet plate of the adsorption filter when the casing is sealed.

2. The NBC filter assembly according to claim 1, wherein:

the casing is a split casing having first and second segments;

the air inlet is provided in the first segment and the air outlet is provided in the second segment;

the particulate filter is mounted in the first segment; and

the adsorption filter is mounted in the second segment.

3. The NBC filter assembly according to claim 1 or 2, further including a spring support element mounted between the particulate filter and the adsorption filter for supporting the first end of the at least one spring.

4. The NBC filter assembly according to claim 3, wherein the spring support element is supported by the particulate filter and the second end of coil springs abuts the air inlet plate of the adsorption filter.

5. The NBC filter assembly according to claim 4, wherein the spring support element comprises a peripheral frame formed of molded plastics and supporting recessed cavities dimensioned to accommodate compression springs by push-fitting the springs into the cavities, with no further assembly or tightening being required.

6. The NBC filter assembly according to any one of claims 1 to 5, wherein the air inlet plate is formed of steel having a thickness of at least 3 mm.

7. The NBC filter assembly according to any one of claims 3 to 5~~claim 1 or 2~~, wherein the spring support element is supported by the adsorption filter.

8. The NBC filter assembly according to any one of claims 1 to 7, wherein the at least one spring element is a plurality of coil springs mounted peripherally within the casing.

9. The NBC filter assembly according to any one of claims 1 to 7, wherein the at least one spring element is a single coil spring mounted circumferentially within the casing around the particulate filter.

10. The NBC filter assembly according to any one of claims 1 to 7, wherein the at least one spring element is a leaf spring or a Belleville spring or an elastomeric spring or a wave spring.

11. The NBC filter assembly according to any one of the preceding claims, being dimensioned to provide an air flow of between 24 and 50 m^3/h and having a height of less than 500 mm and a volume of less than 30 liters.

12. The NBC filter assembly according to claim 11, being dimensioned to provide a volume of less than 22 liters.

13. The NBC filter assembly according to claim 11, being dimensioned to provide a volume of less than 18 liters.

14. An NBC air filtration system comprising the NBC filter assembly according to any one of the preceding claims.

15. The NBC air filtration system according to claim ~~1~~ 14 being configured for deployment in a MAMAD or shelter.

16. A method for assembling the NBC filter assembly according to claim 1, the method comprising:

mounting the adsorption filter inside the casing;

mounting the particulate filter in association with the springs on top of the adsorption filter such that the floating ends of the springs press down on the adsorption filter;

mounting a cover on top of the particulate filter;

applying a sufficiently high compressive force between a lower end of the casing and the cover to close the casing such that respective peripheral rims of the lower end of the casing and the cover are in abutting relationship; and

sealing the abutting rims of the lower end of the casing and the cover.

17. The method according to claim 16, further including:

push-fitting the springs into cavities of a spring support element;

attaching the spring support element to the particulate filter so as to form an integral assembly.

18. The method according to claim 16 or 17, wherein the abutting rims are sealed by ~~crimping,~~ knurling, rolling, crimping or pressing, gluing, welding, or soldering.

19. ~~A low profile~~An NBC filter assembly comprising:

a casing dimensioned to provide an air flow of between 24 and 50 m^3/h, said casing having first and second ends supporting an air inlet and an air outlet, respectively;

a particulate filter mounted in proper spaced relationship with the air inlet;

an adsorption filter mounted in proper spaced relationship with the air outlet and having a perforated air inlet plate facing the particulate filter;

a plurality of bolts projecting upwardly from the second end of the casing through the perforated air inlet plate of the adsorption filter;

a plurality of compression springs supported by the bolts and adapted to apply pressure to the perforated air inlet plate of the adsorption filter; and

a support element mounted in association with the first end of the casing and having a plurality of cavities for accommodating a free end of the bolts when the casing is sealed thereby permitting a reduction in height of the casing such that a distance from the air inlet to the air inlet plate is no more than 100 mm.

20. The ~~low profile~~ NBC filter assembly according to claim 19, wherein the casing is dimensioned to have a height of less than 500 mm and a volume of less than 30 liters.

21. The ~~low profile~~ NBC filter assembly according claim 20, being dimensioned to provide a volume of less than 22 liters.

22. The ~~low profile~~ NBC filter assembly according claim 20, being dimensioned to provide a volume of less than 18 liters.

23. An NBC air filtration system comprising the low-profile NBC filter assembly according to any one of claims 19 to 22.

24. The NBC air filtration system according to claim 23 being configured for deployment in a MAMAD or shelter.