CLAIMS

1. A longitudinal grating plate for conduction of a fluid, said plate comprising a top portion and a bottom portion;

the top portion including a plurality of longitudinally extending apertures,

the bottom portion including a plurality of laterally extending apertures, and which cross below and at least partially overlap with the longitudinally extending apertures thereby forming a fluid flow path, which passes from a top surface of the grating plate through the longitudinally extending apertures and the laterally extending apertures; and

wherein the top portion and the bottom portion are formed from substantially one continuous piece of material without welds or joins.

2. The longitudinal grating plate according to claim 1 wherein the grating plate is further provided with a first longitudinal sidewall connected to a second longitudinal sidewall, the two sidewalls being connected by the grating plate which extends therebetween, and wherein the laterally extending apertures at least partially extend between the first and second sidewalls,

such an arrangement forming a channel between the first and second sidewalls and below the grating plate whereby the fluid flow path can extend into the channel.

3. The longitudinal grating plate according to claim 1 wherein the plurality of longitudinally extending apertures have a curved shape that comprises a bulbous portion whereby the bulbous portion is shaped to promote a flow of a fluid therethrough.

4. The longitudinal grating plate according to claim 1 wherein the plurality of longitudinally extending apertures are angled, and the angle of the longitudinally extending

apertures is such that debris positioned below the grating plate is not readily visible through the apertures when the grating is installed in a floor and viewed from above.

5. The longitudinal grating plate according to claim 1 wherein the longitudinally extending apertures are at least partly formed by an extrusion process, and the laterally extending apertures are substantially formed by a machining process.

6. The longitudinal grating plate of claim 1 wherein each of the plurality of laterally extending apertures are joined together by connecting apertures that extend in the longitudinal direction of the grating plate.

7. The longitudinal grating plate of claim 6 wherein the plurality of laterally extending apertures and the connecting apertures form a continuous and repeating S-shaped aperture in the bottom portion of the grating plate.

8. The longitudinal grating plate of claim 7 wherein the S-Shaped aperture is a curved zig-zag pattern.

9. The longitudinal grating plate of claim 8 wherein the repeating S-shaped aperture is formed by continuous computer numerical control (CNC) machining process.

10. The longitudinal grating plate of claim 9 wherein the continuous computer numerical control (CNC) machining process is by way of CNC router.

11. The longitudinal grating plate of claim 1 formed of a single piece construction of extruded aluminum.

12. The longitudinal grating plate of claim 11 wherein the aluminum is anodised.

13. The longitudinal grating plate of claim 2 wherein the first and second sidewalls and the grating plate are formed by continuous extrusion process.

14. The longitudinal grating plate of claim 2 wherein the first and second longitudinal sidewalls are adapted to sit within a gutter.

15. The longitudinal grating plate of claim 14 wherein the gutter is manufactured from an inert material, and the first and second longitudinal sidewalls are made of aluminum.

16. The longitudinal grating plate of claim 15 wherein the gutter is made of plastic, and when the grating and the gutter are installed in a floor, the plastic gutter shields the first and second aluminum longitudinal sidewalls from contacting any concrete in the floor.

17. A method of manufacturing a longitudinal grating plate comprising the steps of:

extruding a substantially one continuous piece of material without welds or joins to form a top portion and a bottom portion,

the top portion including a plurality of longitudinally extending apertures, which are shaped to induce flow of a fluid therethrough;

removing an amount of the material from the bottom portion to create a plurality of laterally extending apertures, which cross below and at least partially overlap with the longitudinally extending apertures of the top portion, thereby forming a fluid flow path, which passes from a top surface of the grating plate through the longitudinally extending apertures and the laterally extending apertures; and

anodizing at least one of the top and bottom portions.

18. The method of manufacturing a longitudinal grating plate of claim 17 further comprising the step of extruding a first longitudinal sidewall connected to a second longitudinal sidewall, the two sidewalls being connected by the grating plate, which extends therebetween, and wherein the laterally extending apertures at least partially extend between the first and second sidewalls,

such an arrangement forming a channel between the first and second sidewalls and below the grating plate whereby the fluid flow path can extend into the channel.

19. The method of manufacturing a longitudinal grating plate of claim 18 further comprising the step of anodizing at least one of the first and second sidewalls.

20. The method of manufacturing a longitudinal grating plate of claim 17 further comprising the step of forming a continuous and repeating S-shaped aperture in the bottom portion of the grating plate.

21. The method of manufacturing a longitudinal grating plate of claim 20 further comprising the step of forming a curved zig-zag pattern by continuous computer numerical control (CNC) machining process.