

CLAIMS

1. A subterranean irrigation system (100, 200, 300, 700), having a plurality of fluid conduit (130; 230) for applying a liquid from a source to an area of ground, to which said liquid is to applied while avoiding interference with the above-ground use of such area, wherein the fluid conduits (130; 230; 730) are connected relative to one another, wherein the plurality of fluid conduits (130; 230; 720) comprise a plurality of outlets (600; 621, 622, 632; 800; 821, 822, 823) to effect the distribution of the liquid to the ground area, characterized in that the fluid conduits (130; 230; 720) are positioned on the longitudinal edge of a plate-shaped conduit support structure (110; 114; 124; 714; 724).
2. The system according to claim 1, wherein the conduit support structure (110; 114; 124; 714; 724) has a cover plate (116, 716) with a top surface, preferably having a width corresponding to the outer diameter of the fluid conduit (130; 230; 720) it covers.
3. The system according to claim 1 or claim 2, further comprising a plurality of parallel positioned fluid conduits (130; 230; 720) and a plurality of further plate-shaped support structures (120; 124; 730, 740; 724) positioned in an angle to the conduit support structure (110; 114) forming a grid with intersection points (111; 711), wherein the angle is chosen from the group of 60, 90 or 120 degree, forming a rectangular grid, a triangular grid and a hexagonal grid, respectively.
4. The system according to any one of claims 1 to 3, wherein the plate-shaped conduit support structure (110; 114) is connected with a cover plate (116; 716) through conduit holding rings (314) and that the fluid conduits are pipes positioned as separate elements through the conduit holding rings (314) and preferably over a number of subterranean irrigation system elements.
5. The system according to any one of claims 1 to 4, wherein complementary locking profiles (140, 150; 240, 250; 440, 450; 760, 770) are provided at every free end (112, 113) of the plate-shaped conduit support structure (110; 114) of the fluid conduits (130; 230; 720) and at every free end (122, 123) of the further plate-shaped support structures (120; 124).
6. The system according to any one of claims 1 to 5, wherein the fluid conduits (130, 230; 720) of adjacent subterranean irrigation system elements are connected via a connector (400; 760) positioned on the free ends of the fluid conduits (130; 230).
7. The system according to claim 6, wherein the connector (400) comprises an inner recess (404; 764) and that, optionally, the fluid conduit (130; 230) comprises a nose (131) at its free end to be fitted inside the recess (404).

8. The system according to any one of claims 1 to 7, wherein at the free ends of adjacent fluid conduits (130; 230, 720) are provided a gasket insert (500).
9. The system according to any one of claims 1 to 8, wherein the plurality of outlets (600; 800) are provided as holes on the sides of the fluid conduits (130; 230), especially two holes provided at opposite sides of the fluid conduit (130; 230) between two transverse arranged further plate-shaped support structures (120; 124).
10. A spout for a system according to the preamble of claim 1 or any one of claims 1 to 9, characterized in that the outlets (600; 621, 622, 623; 800; 821, 822, 823) are provided at the underside (602, 802) of a nose-shaped spout attachment (600, 800), wherein the spout attachment (600; 800) is attached at the side in the upper half of the fluid conduit (130; 230; 720).
11. The spout according to claim 10, wherein the underside (602; 802) comprises a rounded surface starting tangentially from the outer diameter of the fluid conduit (130; 230; 720) and ends in the nose-shaped free end of the spout attachment.
12. The spout according to claim 10 or 11, wherein the free end of the underside (602; 802) is oriented horizontally or slightly curved downwards.
13. The spout according to any one of claims 10 to 12, wherein each spout attachment comprises three outlets (621, 622, 623; 821, 822, 823), a central outlet (621; 821) and two side outlets (622, 623; 822, 823) positioned farer away from the free end of the nose attachment (602) than the central outlet (621; 821).
14. The spout according to any one of claims 10 to 13, wherein each outlet comprises an internal pipe (630) in the nose attachment (600) converging to a single inner mouth (610; 810) of the spout, wherein the inner mouth is positioned in the upper half of the lumen of the fluid conduit (130; 230).
15. The subterranean irrigation system (100, 200, 300, 700) according to the preamble of claim 1, characterized in that a fluid conduit (230) is positioned inside a web-based framework (210; 215), in that the framework comprises hinge connectors (342; 352) at both longitudinal free ends.