CLAIMS

1. A bi-directional filter comprising an outer housing and a filter assembly unit, the outer housing being provided with one inlet for contaminated fluid and at least one outlet, where the filter assembly unit comprises at least one separation void for contaminated fluid, the filter assembly unit, at least one separation void and the outer housing providing an outer dead end and an inner dead end within the bi-directional filter, the filter assembly unit being connected to a drive unit through a shaft.
2. The bi-directional filter according to claim 1,
wherein the filter assembly unit comprises a lower disc, an upper disc and at least one filter.
3. The bi-directional filter according to claim 1 or 2,
wherein the filter assembly unit comprises a lower disc, an upper disc and a plurality of filters, the lower disc, upper disc and plurality of filters are arranged with spaces between them, the spaces being used to transport contaminated fluid from the inlet to plurality of filters and to transport filtered fluid to the at least one outlet.
4. The bi-directional filter according to any of the preceding claims 2-3,
wherein the lower disc is provided with one or more riser inlet holes and risers arranged at a distance from a centre of the disc.
5. The bi-directional filter according to any of the preceding claims 2-4,
wherein the filter is provided with one or more riser inlet holes and risers arranged between the end stops.
6. The bi-directional filter according to any of the preceding claims 2-5,
wherein the lower and/or upper disc is/are made of steel or a magnetic material.
7. The bi-directional filter according to claim 1,
wherein the drive unit is an electrical motor or a horizontal and/or vertical rotating magnetic field.
8. The bi-directional filter according to any preceding claims,
wherein the bi-directional filter comprises a coil and/or means to provide magnetic and electrostatic fields.

9. The bi-directional filter according to any preceding claims,
wherein the filter is a membrane filter and/or a mesh filter.

10. The bi-directional filter according to claim 10,
wherein the mesh filter is a single-sided filter with a mesh area or a double-sided filter with mesh areas.