FILTER ELEMENT AND FILTER COMPRISING AT LEAST TWO FILTER ELEMENTS

TECHNICAL FIELD

The invention relates to a filter element having a filtering mesh extending between two concentric edges, to a pair of such filter elements arranged one against the other and to a filter comprising a plurality of such filter elements, stacked along an axis. More particularly, the invention relates to an improvement of filter element.

TECHNOLOGICAL BACKGROUND

The European patent published under the number 1 091 791 describes a filter structure using annular flat filter elements, each having an internal face, an external face, and a filtering mesh. Figure 1 of the present application depicts such a filter element. The filtering mesh is annular and extends between two concentric edges, respectively an inner edge and an outer edge. Radial ribs that are regularly distributed circumferentially and that extend in axial correspondence on opposite sides of the filtering mesh between said concentric edges serve to form sectors on the internal face and on the external face. Such filter elements are designed to be assembled against each other in such a manner that their facing internal faces define a space that is compartmented circumferentially by the contacting radial ribs of said internal faces. For each sector, passages are arranged in the inner and outer edges. By stacking a selected number of filter element pairs, a desired filter area is obtained for an intended application. Typically, the fluid to be filtered penetrates into the stack via passages situated in the inner edge, passes through the filtering meshes, and, once purified, exits via the passages defined in the outer edge.