

Abstract

A Revolving Vane Compressor, Method of Manufacturing and Operating the Same

A revolving vane compressor, a method of operating a revolving vane compressor and a method of manufacturing a revolving vane compressor are provided. The compressor comprises a first housing member connected to a compressor inlet, a flow regulator disposed downstream of the compressor inlet and a sleeve assembly comprising a sleeve cover. The sleeve assembly is configured to be received in the first housing member downstream of the flow regulator and to be rotatable relative to the first housing member about a rotational axis. The sleeve cover abuts the flow regulator and comprises one or more openings, each of the one or more openings being associated with a respective chamber of the sleeve assembly. The flow regulator is shaped such that, in a first rotational position of the sleeve assembly relative to the first housing member, a chamber of the sleeve assembly is in fluid communication with the compressor inlet for drawing a compressible fluid into said chamber, and in a second rotational position of the sleeve assembly relative to the first housing member, the flow regulator seals said chamber from the compressor inlet for compressing the fluid within said chamber.

Fig. 7A