

ABSTRACT

A diffuser (10) includes a lower element (12) and an upper element (14). The upper element (14) is fixed on the lower element (12), and the upper element (14) and the lower element (12) are formed separately. The lower element (12) includes a lower inner wall (120) and a lower outer wall (122), and the upper element (14) includes an upper inner wall (140) and an upper outer wall (144). The upper inner wall (140) is connected to the lower inner wall (120) to form an internal air-guiding surface (16), the upper outer wall (142) is connected to the lower outer wall (122) to form an external air-guiding surface (18), and the internal air-guiding surface (16) is disposed opposite to the external air-guiding surface (18) to define an air-guiding channel (20) for air flow diffusion. The upper element (14) further includes an upper air-guiding wing (144) for connecting the upper inner wall (140) and the upper outer wall (142), and the lower element (12) further includes a lower air-guiding wing (124) for connecting the lower inner wall (120) and the lower outer wall (122). The upper air-guiding wing (144) is connected to the lower air-guiding wing (124) to form an air-guiding wing (22) for connecting the internal air-guiding surface (16) and the external air-guiding surface (18). Thus, fractures of the air-guiding wing due to a shrinkage strain thereof can be reduced, and the diffuser has a simple structure and is convenient to mount and detach. The present disclosure further provides a centrifugal compression power system and a bladeless fan.