

Title (en)

Open bladed impeller, particularly for centrifugal pump.

Title (de)

Offenes Laufrad, insbesondere für eine Zentrifugalpumpe.

Title (fr)

Roue ouverte, particulièrement pour pompe centrifuge.

Publication

**EP 0406788 A2 19910109 (EN)**

Application

**EP 90112638 A 19900703**

Priority

IT 8561489 A 19890705

Abstract (en)

The present invention relates to an open bladed impeller (1), particularly for a centrifugal pump, comprising a substantially planar disk-like supporting element (5) having a central hub (7) adapted to be keyed to a drive shaft (3) and a plurality of blades (6) rigidly attached to the front surface of said supporting element at regularly angularly spaced locations thereof, wherein each blade is formed by a longitudinal core (15) extending transversely of the main plane of said supporting element, and has a back longitudinal edge (11) affixed to said supporting element and a front longitudinal edge (12) adapted to cooperate with an adjacent stationary wall (13) of the casing; the front longitudinal edge of each blade has a profile which is substantially parallel to the inner surface of the stationary wall with such a substantially uniform axial clearance (d) to form a free frontal skimming surface providing partial sealing with said stationary wall. At the front longitudinal edge of each blade there is provided a substantially planar, longitudinal flange formation which projects laterally from said longitudinal core to extend parallel to the facing surface of the stationary wall, to thereby increase extension of the front skimming surfaces and improve their sealing action relative to the inner casing wall.

IPC 1-7

**F04D 29/18**

IPC 8 full level

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CPC (source: EP)

**F04D 29/2222** (2013.01); **F04D 29/245** (2013.01)

Cited by

ITPD20100386A1; DE4128536A1; EP0899463A1; CN108799181A; US11655821B2; US7207967B1; US10533557B2; US11168693B2; US11560894B2

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