

Abstract

HYBRID DYNAMIC PRESSURE GAS THRUST BEARING

A hybrid dynamic pressure gas thrust bearing, comprises two outer discs, an inner disc clamped between the two outer discs, and foil type elastic parts arranged between each outer disc and the inner disc; and the two end faces of the inner disc are respectively provided with regular groove-type patterns, and the groove-type pattern in one end face is in mirror symmetry with the groove-type pattern in the other end face. The hybrid dynamic pressure gas thrust provided by the invention has the rigidity characteristic of the high-limit rotating speed of the groove-type dynamic pressure gas thrust bearing, and has the flexible characteristic of the high impact resistance and the load capacity of the foil type dynamic pressure gas thrust bearing, it can meet the application of dynamic pressure gas thrust bearings in ultra high-speed areas under larger loads.

[Fig. 1]