

ABSTRACT

Removable Disk Cartridge

A disk cartridge comprises a disk enclosed within a casing and arranged on a
5 hub for rotation within the casing. The casing comprises upper and lower
shells. The shells have identical annular herringbone-grooved air bearing
surfaces close to opposite faces of the disk at corresponding positions. As the
disk rotates, each of the air bearing surfaces generates an air film with a
positive pressure between itself and the corresponding surface of the disk, so
10 that the air films reduce the vertical vibration of the disk. The groove pattern
on the upper shell is a mirror image of the one on the lower shell, so that the
disk is centralised. The air bearing also provides a dynamic seal to minimise
radial air flow, thus suppressing turbulence and reducing the risk of disk
contamination. Mechanisms are provided for limiting the motion of the hub to
15 reduce the risk of the shells contacting the disk.

Fig. 1