

ELASTIC INSERT SHROUD TO PROVIDE MAXIMUM EFFECTIVE SHROUDING
SHOCK MITIGATION AND FILTERING IN HIGH SPEED DISK DRIVES

ABSTRACT

A separate elastic shroud (16) to surround a disk pack (11) is inserted into a disk drive (10) after the disk pack (11) and the actuator (14) thereof have been merged. The shroud (16) can contain a filter (37) which permits the passage of air from within the shrouded enclosure to the outside. The filter (37) is disposed in a region wherein a positive pressure exists. The shroud (16) further can be provided with flanges or ribs (30) which will engage the periphery of deflected disks (12) to eliminate disk-to-disk contact, thereby reducing damage to the disk drive mechanisms and the disks proper. The shroud (16), the design and placement of the filter (37), as well as the inlet and outlet shapes of the shroud (16), each contribute therefore to reduce energy consumption and temperature rises within the disk drive (10).

Fig. 4

This Sheet Has Been Replaced

