



## **INSTALLATION OF MULTIDISC CLUTCHES AND BRAKES**

1. The Clutches should be thoroughly cleaned before fitting.
2.
  - a. It is very much essential that the clutch is installed using pressure only and not by hammering it into position. Apply pressure at C or D and never at A or B.
  - b. The class fitting for the shaft should always be between h7 and j6.
  - c. When fitted, the clutch body must run true both axially and radially.
3.
  - a. The discs must be assembled in such a manner that the clutch body and the armature plate are in contact with a disk which revolves with these components.
  - b. The expander springs of the outer disc must bear against the surface of the adjacent outer disc.
  - c. The outer plates are arranged in such a way that the expander springs are facing the armature plate and are out of phase with one another by 30°.
  - d. The last outer plate is assembled in such a way that the expander springs are facing the coil housing and are out of phase with the previous plate by 30°.
4. When the magnet body is pressed on to the shaft, care must be taken to avoid burring. All sharp edges must be rounded off.
5. The gap between the two halves of the clutch should be maintained as per catalogue very strictly.
6. A multiple disc slipping clutch (type with drive transmitted from inner to outer plate) must not be used as a brake with the magnet body stationary since the dirt build up on the slip Ring will cause short circuit. In this type of clutch the outer carrier is supplied with a pilot bore and arrangements for centering and attachment should be made by the customer. If necessary, the carrier must be bolted and pinned to its mating part.  
The pilot provided on the carrier can be turned to any diameter required. The bore is ground to facilitate easy mounting of a bearing. While turning care should be taken to fix the carrier true with respect to the bore.
7. In a stationary field type of clutch the maximum speed permitted is determined by the maximum speed permitted for the bearings.
8. The restraining device (holding the coil housing) which prevents the magnet body from rotating must not cause any axial or radial distortion to load the bearings in a stationary type of clutch.
9. While mounting two stationary field clutches back-to-back a small space should be left between the units for the oil to reach the bearings.
10. In a stationary field clutch the air gap between stator and rotor is very critical. Hence, it should never be disassembled.

### Vertical Installation:

If the clutch or the brake is to be installed vertically, then the armature disc should be at the bottom. The disc clearance should be reduced to 0.2mm to reduce the engagement time.