



ELECTROMAGNETIC BEARING MOUNTED CLUTCHES

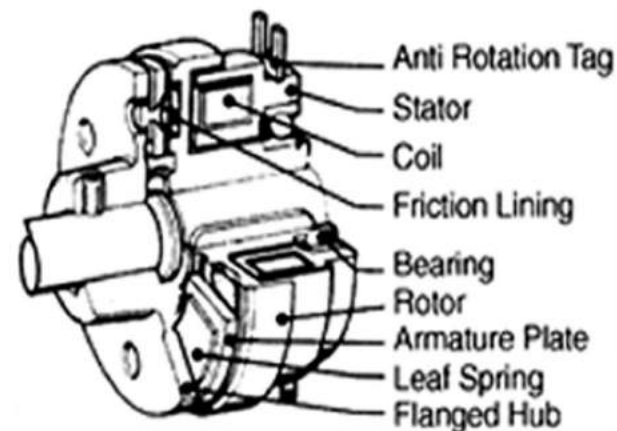
TYPE - UBC (NORMALLY OFF) | TORQUE: 1 NM - 2550 NM

UNITORQ[®]
Clutches & Brakes



DESCRIPTION:

These type of clutch consist of stator, rotor and armature, Stator consist of epoxy coated coil and rotor fitted with friction liner and armature comprises of prestressed leaf spring. When Power is given to the stator, the armature is attracted towards the Asbestos free friction liner of the clutch rotor, which in turn transmit torque free of backlash. On taking off power supply, the prestressed leaf spring pull back the armature plate into its original position, releasing clutch positively without residual torque.



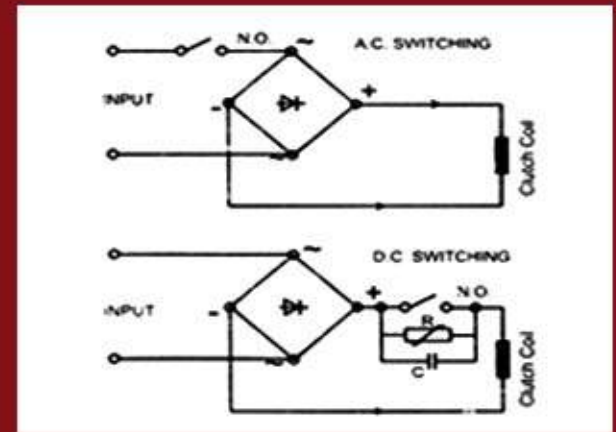
INSTALLATION

Clutch stator assembly has to be mounted on motor shaft smoothly with key, hold the stator assembly by bolting anti rotation tag so as to keep it stationary while running rotor. Mount armature on pulley/shaft, both the face of armature & rotor should be parallel & not eccentric to each other. Maintain specified air gap. Supply the proper voltage to coil.

SWITCHING

Normally Off type clutches operates on D.C. voltage, hence A.C. to D.C. conversion is done by means of a suitable rectifier. Switching of the clutch can be on either sides. However, once application demands, higher switching frequency / faster engagement and disengagement time.

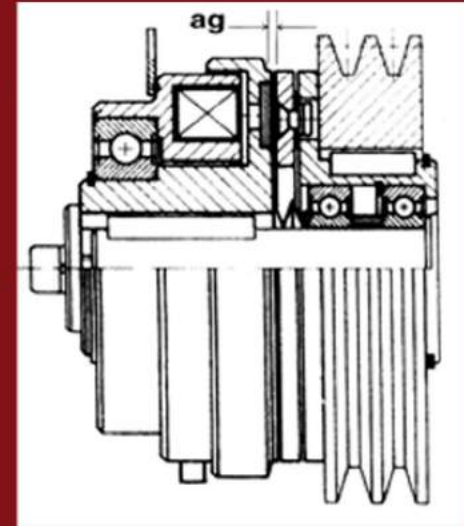
Switching must be carried out on D.C. side. To restrict the high inductive voltage / back EMF a suitable suppressor and capacitor network is provided across the contactor coil.



MAINTENANCE:

Unitorq clutches are almost maintenance free. For optimum performance it is desirable to check and adjust air gap "ag" periodically. This periodicity depends on application i.e. operating frequency, system inertia to be transmitted etc.

Air gap can be adjusted easily by reducing shims between rotor and armature adding in between armature and retainer or by pushing.



AIR GAP ADJUSTMENT:

1. Remove the axial retainer and thereafter withdraw the armature assembly from the shaft.
2. According to the size of the air-gap remove the shims and/or shorten the distance bush to bring air gap to its nominal value.
3. Re-fit the armature assembly and add equal length of shims between the outside of the armature assembly and the retainer.

CLUTCH	08	15	30	60	125	250	500	625	1240	2550
MINIMUM GAP	0.3	0.4	0.5	0.5	0.6	0.8	0.8	1.0	1.0	1.5
MAXIMUM GAP	0.4	0.4	0.4	0.7	1.25	1.0	1.0	1.2	1.2	2.0

IMPORTANT Do's & Don'ts

Do's:

For better life and best performance it is requested to check air gap regularly.

Also check supply voltage. It should be + 10% of rated voltage.

Don'ts:

Pour oil, grease, water and lubricant.

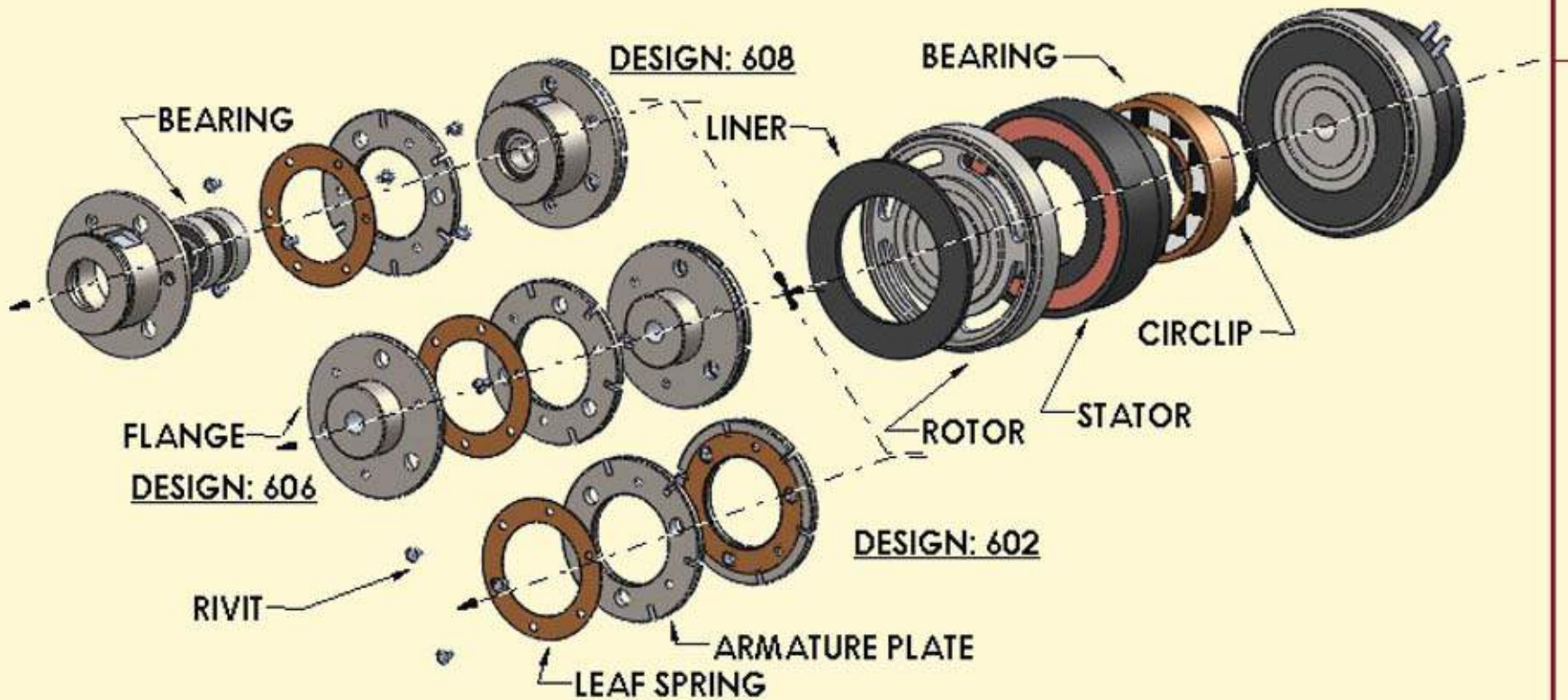
Allow dust and metal chips into brake unit.

Give improper voltages.

Adjust torque ring for gap adjustment.

Use hub puller on the periphery of rotor or armature assembly.

EXPLODED VIEW



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