

# C390/C392 MAGNETIC HYSTERESIS CLUTCH

## GENERAL

The magnetic hysteresis clutch was developed to provide a precise torque for capping applications. The Model C390 clutch is adjustable from 0.5 inch-pounds to 12 inch-pounds. The Model C392 is adjustable from 4 inch-pound to 40 inch-pound. Maximum shaft speed on the Model C300 Swan-Matic capper for intermittent applications at maximum torque is 500 RPM. The hysteresis disc and the magnets are brittle by nature. Take steps to prevent impact with this assembly. DO NOT DROP.

### COGGING

When the unit is set to the maximum torque setting, the magnetic assembly actually induces magnetic poles on the hysteresis disc. If the unit is then adjusted to the minimum setting, those induced poles will remain and will try to line up with segments on the magnet assembly. This action will cause "cogging" or oscillatory torque. Starting at the maximum setting, manually rotate the shaft and then reduce the setting by one position. Continue rotating the shaft and reducing the setting until you have reached the minimum setting. This procedure will erase the induced poles on the hysteresis disc.

### ADJUSTMENT

Turn power off before attempting any adjustments. Rotate the clutch assembly until the index marks can be seen on the outer shell. Loosen the adjustment screw and hold the upper portion of the clutch assembly while rotating the lower housing of the clutch to the desired setting. Tighten the adjustment screw and check the performance at that setting.

The full adjustment range is from the zero index mark through the fifth index mark. The full torque range is 60 degrees, with the zero mark indicating minimum torque. Once you go past the maximum setting, the torque will fall off.

**NOTE:** The index marks are for reference only and precise measurements should be made with a torque measurement device.

#### MAINTENANCE

The clutch unit is factory sealed and does not require lubrication or maintenance. If service becomes necessary, return the clutch unit to the factory for repair.

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