



## **General Advantages of Frequency Drives**

- 1) Reduces energy consumption through improved power factor. The frequency drive acts like a power factor correction capacitor. This is especially useful when the motor HP is considerably larger than the actual load HP.
- 2) Eliminates high in-rush currents at starting. Since customer pays for peak demand, a frequency drive limits the starting peak and keeps the peak demand as low as possible – this can yield considerable savings, especially on high cyclic applications.
- 3) Increases the available number of starts and stops by keeping motor cooler through the elimination of high in-rush currents.
- 4) Eliminates expensive reversing contactors.
- 5) Drastically improves brake life in cyclic applications, since brake acts to hold, not to stop.
- 6) Provides soft start, which reduces shock and increases life on bearings and other components.
- 7) Eliminates mechanical motor starters that require maintenance and are increasingly expensive relative to inverters (especially for 2-speed motors).
- 8) Includes current overload protection for motor.
- 9) Includes voltage overload protection for motor.
- 10) Eliminates clutch/brakes and fluid couplings.
- 11) Allows user to standardize on a few select ratios within his plant and fine tune exact speed with inverter (fewer spare parts).
- 12) Provides variable speed without any wearing parts.