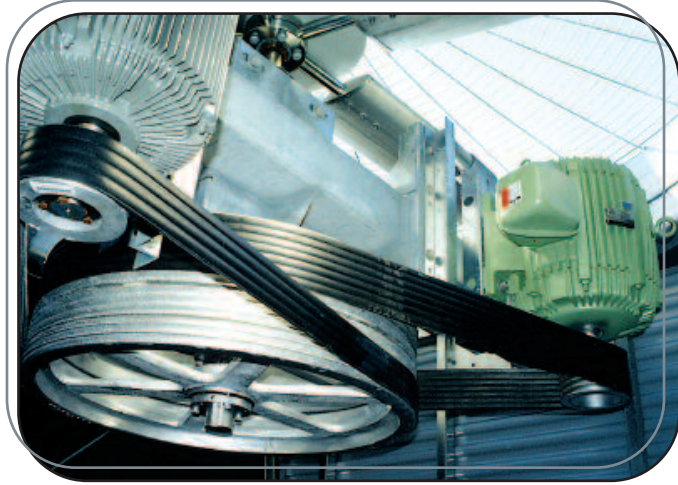




# BALTIGUARD™ Fan System Option for the BALTIDRIVE® PowerTrain\*

The BALTIGUARD™ Fan System is an option available on the BALTIDRIVE® Power Train\* used on Series 3000 and 1500 Cooling Towers, Closed Circuit Cooling Towers (FXV) and Evaporative Condensers (CXV). It consists of two single speed fan motors and drive assemblies connected to a common shaft. A full size fan motor and drives are installed at one end of the mechanical equipment support and a lower horsepower motor and drives approximately 1/3 the standard motor horsepower, is installed on the other end of the mechanical equipment support. Drives for the lower horsepower motor are sized for approximately 2/3 of design fan speed. This arrangement allows the unit to be operated at either full or 2/3 speed for capacity control and provide significant energy savings during periods of reduced load and/or lower ambient temperatures. The controls and wiring required are virtually identical to those of two-speed, two-winding motors.



*Product Report*

## **BALTIGUARD™ Fan System Provides:**

**Standby Protection** - The BALTIGUARD™ Fan System consists of two independent belt drive systems. Because of this, the BALTIGUARD™ Fan System is the only drive system that provides standby protection in the event of a motor failure. As a minimum, approximately 70% capacity will be available from the low horsepower motor, on a design wet bulb day. On an air conditioning application, the unit can usually meet 100% of the building requirements within 7°F of the design wet bulb temperature.

**Energy Savings** – The BALTIGUARD™ Fan System provides significant energy savings throughout most of the operating season. Since the fan drives are sized so that the lower horsepower motor operates the fans at approximately 2/3 fan speed, the switch to the lower horsepower motor occurs more rapidly than with a conventional two-speed motor. With the BALTIGUARD™ Fan System, the switch point to the lower horsepower motor operation can occur within 6°F of the design wet bulb temperature on a typical air conditioning application. This results in significant energy savings since the lower horsepower motor operates approximately 95% of the time.

**Reduced Sound Levels** – Operation of the BALTIGUARD™ Fan System at the low speed reduces unit sound levels by approximately 6-8 dBA. Since periods of reduced load often coincide with requirements for lower noise levels (such as at night), the BALTIGUARD™ Fan System is a solution to meet the needs of sound sensitive installations.

**Capacity Control** – The BALTIGUARD™ Fan System can be used in conjunction with fan cycling. This doubles the number of control steps and provides a greater reduction in energy consumption compared to simple fan cycling for capacity control during part-load conditions.

\* Patent: This equipment is manufactured under U. S. Patent 4,601,684

*...because temperature matters™*



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