



Howden



E-series axial fans



Howden E-series axial fans are most widely used and are available in three different blade profiles, ENF, ELF & ELFA, for application in cooling towers, air-cooled steam condensers and air-cooled heat exchangers. Whether you are looking for a highly efficient impeller and/or a low noise solution, the E-series offers you a choice.

E-series fan blades have an integral shaft construction and are positioned on the fan hub-plate by aluminium blade supports and fastened through U-bolts for simple field assembly and blade pitch adjustment.

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E-series axial fans features

Standard features

- Classic straight aerofoil (ENF), also available for low noise (ELF) and extra low noise applications (ELFA), designed for clockwise rotation in both the horizontal or vertical plane.
- Fan diameters range from 1,219 mm to 14,630 mm (3 ft. to 48 ft.)
- Standard operating temperature range from $-20\text{ }^{\circ}\text{C}$ to $+65\text{ }^{\circ}\text{C}$ ($-4\text{ }^{\circ}\text{F}$ to $+149\text{ }^{\circ}\text{F}$).
- Fibreglass reinforced polyester (FRP) fan blades.
- A mild steel, polyurethane coated, fan hub-plate with aluminium blade supports and stainless steel U-bolts, nuts and washers.

Optional features

- Polyurethane blade leading edge protection for wet cooling tower applications.
- Cast iron, polyurethane coated, coupling flange to suit the mating drive shaft with either a cylindrical bore or a tapered bushing connection.
- Material upgrade for sea water cooling tower applications.

Design advantages

- FRP blade material offers superior damping of mechanical vibrations and of structure borne noise compared with metal blades, prolonging the fan's lifetime.
- E-series blades have an integral shaft. This eliminates concentration of stress at mechanical joints, typical of blades with a bolted on shaft, which is a major cause of fan failures in operation.
- E-series fans can be selected for a wide range of duties, up to a load of 40 HP per blade.
- Howden E-series fans have excellent operating efficiencies, resulting in low power consumption.
- Reliable fan selection data reduces the need to reset the blade tip angle during start up.
- Simple field assembly and individual adjustment of the blade pitch.
- Chemical resistance of FRP blades.



Top: E-series fan
in a 32 ft. cooling tower

Bottom: E-series fan
in a complete fan-unit