



# Howden



## SX-series axial fans



Howden SX axial fans are the top of the range in low-noise fans available in the market, used in evaporative cooling systems and ventilation systems that have to meet strict environmental noise levels

SX fans achieve fan noise reductions of up to 20 dB(A) and prevent the need for expensive and bulky sound attenuation equipment.

SX 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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# SX-series axial fans



Top: "High speed" SX fan  
with a double hub-plate

Bottom: Master blade  
construction

## Standard features

- Specially shaped aerofoil designed for ultra-low noise applications for clockwise rotation in the horizontal or vertical plane.
- Fan diameters from 710 mm to 10,400 mm (28 inch to 34 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 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

- SX fans reduce fan noise by up to 20 dB(A), when compared with standard cooling fans.
- FRP blade material offers superior damping of mechanical vibrations and of structure borne noise compared with metal blades. This is especially important for low noise applications.
- SX-fan 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.
- 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.
- SX fans can also be applied to increase the capacity of air-coolers. In such cases, the reduction in fan noise achieved by the SX fan is exploited to increase the air volume going through the air-cooler.