



Natural Ventilation by Monodraught



X-Air Thermal Mixing Unit

The X-Air Thermal Mixing Unit is designed to temper the incoming fresh air entering the space using the hot exhaust air leaving the room to ensure optimal thermal comfort for the room occupants. Ideally suited for classrooms with between 10 and 32 occupants, the system relieves unnecessary strain on the buildings heating system by making use of the thermal gains within the space. The unit intelligently analyses the external and internal environments to manage the rate of thermal energy transfer required.

Technical Specifications

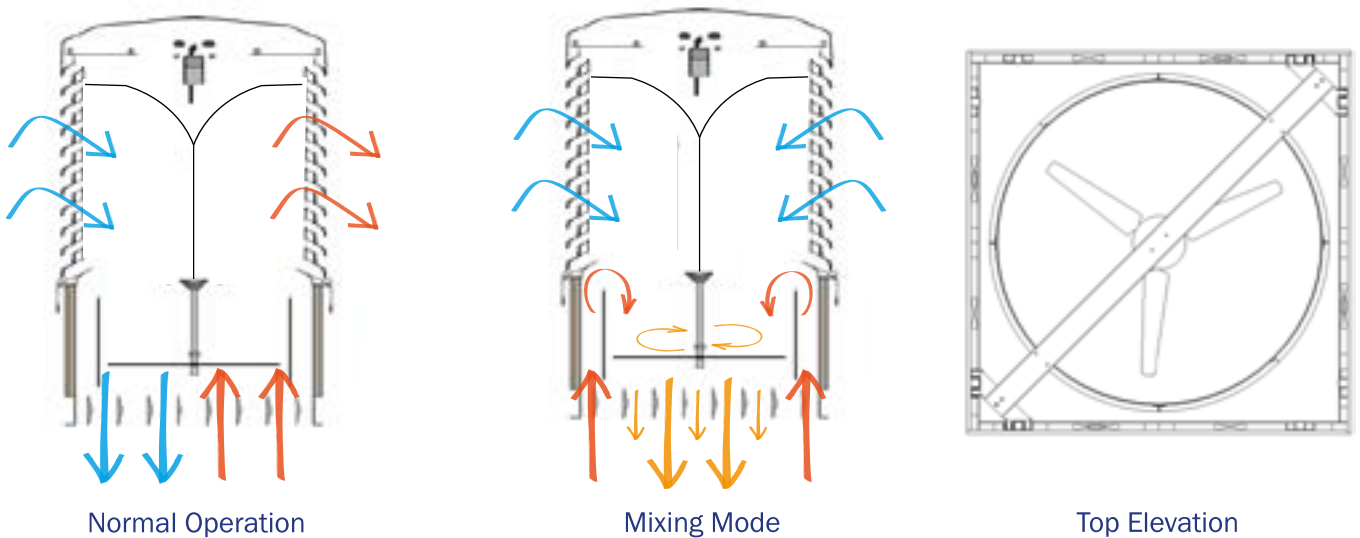
- Available for WINDCATCHER X-AIR and SOLA-BOOST X-Air 140, 170 and 200 systems. Upstands must be a minimum of 750 mm tall.

Operation Modes

- **Winter mixing:** when the external temperature is below 15°C the fan mixes the incoming air with exhaust air to provide natural ventilation in accordance with thermal comfort limits.
- **Summer Boost:** when the internal temperature is above 26°C the fan operates in reverse to assist in heat extraction from the room, working with façade grilles or windows to make the most efficient use of cross flow ventilation.

Product Description

Integrated aero-thermal heat recovery module for WINDCATCHER X-Air and SOLA-BOOST X-Air systems



Function

- Low energy thermal mixing fan alleviates risk of cold draughts in winter
- Summer exhaust boost mode
- Internal and external temperature sensors when used in conjunction with iNVent controls system
- Internal CO₂ sensor

Advantages

- Tempered natural ventilation ensures fresh air is supplied above 15°C within thermal comfort guidelines
- Low energy mixing fan significantly reduces energy usage over conventional thermal tempering methods
- No additional geometric considerations over X-Air systems
- Summer boosted exhaust mode provides additional rate of cross ventilation and cooling in summer

Standards

- PSBP
- BB101
- BB93

Materials

- Powder coated mild steel RAL 9003
- ABS

Dimensions

X-Air System	Internal Upstand [mm]	Mixing Chamber [mm]	Min Upstand Height [mm]
140	800 x 800	690 Ø	750
170	1000 x 1000	900 Ø	750
200	1200 x 1200	1090 Ø	750