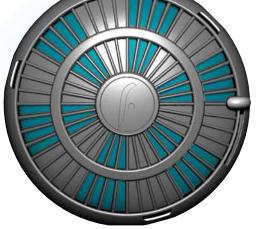
# Flettner TCX-2<sup>™</sup> Ventilator The new benchmark in rotary ventilators









#### World leader

Flettner Ventilator Ltd. is the world leader in wind-powered rotary ventilation systems.

Its ventilators, known for their amazing reliability, are widely used around the world on virtually every type of vehicle and for other diverse applications including caravans, mountain cabins, portable work units, greenhouses and farm buildings.

Engineered for sheer durability and toughness, Flettner ventilators can cope with the most extreme conditions from equatorial downpours to mountain blizzards and from desert heat to Antarctic ice.

Look for the 'Genuine Flettner' logo. Don't settle for less than the very best.

#### Ventilation is vital

Proper ventilation is not a luxury – it is absolutely vital. Excessive heat, condensation, stale air and dangerous fumes are just some of the by-products of inadequate ventilation. Protection of the public and of employees is now a legal obligation for firms in most countries of the world, whilst the prevention of damage to plant, equipment and perishable goods is an economic necessity. Increasingly, regulations requiring vehicles to be fitted with adequate ventilation apply to the transportation of gases and chemicals.

The Flettner TCX-2<sup>™</sup> ventilator combats the problems associated with poor ventilation in a simple, economical and highly effective way.

## The new benchmark in rotary ventilators

The **Flettner TCX-2<sup>™</sup>** represents the very latest generation of rotary ventilators and has been designed with one over-riding purpose in mind – to be the absolute best.

Flettner Ventilator Ltd has always designed ventilators that are extremely tough and thoroughly reliable. The new **TCX-2<sup>™</sup>** is no exception, but it represents a step change increase in performance.

The **TCX-2<sup>™</sup>** has been designed using leading-edge computer modelling techniques. No stone has been left unturned to maximise the efficiency and sheer torque it delivers. The result: a brand new rotary ventilator that extracts nearly twice as much air as the famous Flettner 2000 (*source MIRA Ltd*). Incorporating features that include an integral air concentrator and an ultra-efficient centrifugal fan the **TCX-2<sup>™</sup>** is finely tuned for Torque Concentrated Extraction. As if that weren't enough the new **TCX-2<sup>™</sup>** is also much simpler to fit than a conventional rotary ventilator. The reduced fitting time represents a substantial saving in labour costs compared with previous models.

Meticulous attention to every detail of quality and design are Flettner Ventilator's hallmarks. State-of-the-art manufacturing and rigorous quality management ensure that each and every **TCX-2<sup>™</sup>** Ventilator is built to Flettner's exacting standards. The bearings are incredibly smooth-running and are made from high quality stainless steel. The polypropylene rotor head is tough and durable.

The Flettner maxim has never been more true: 'Fit It and Forget It'







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Flettner TCX-2<sup>™</sup> Actual Size available in black or white.

## Technology

The **TCX-2<sup>™</sup>** is powered by a rotor that catches the wind or the air stream created by the motion of a vehicle. Beneath the rotor is a powerful centrifugal fan that expels air outwards and thus draws stale air from below. The principle is deceptively simple, but the **TCX-2<sup>™</sup>** has been designed using state-ofthe-art computational flow dynamics modelling combined with rigorous wind tunnel testing in order to achieve optimal air extraction and peak efficiency.

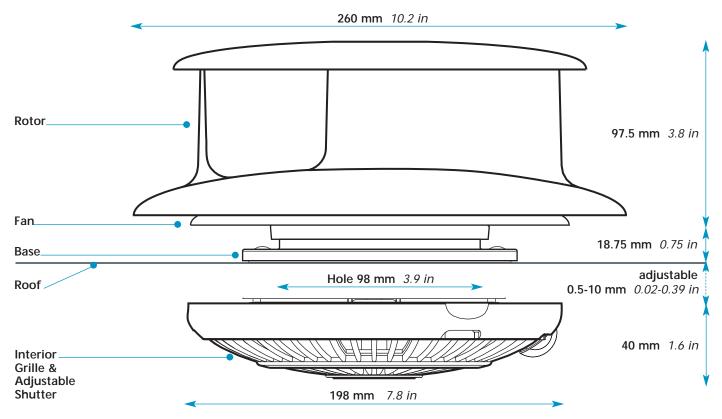
#### Peace of Mind

The **TCX-2<sup>™</sup>** is designed and constructed to eliminate the entry of rain, dust and downdraughts. The unit delivers maintenance-free performance with no electrical connections to worry about, no drain on batteries and no running costs. Round the clock ventilation is provided wherever there is a slight breeze even when a vehicle is parked or where a building has no power supply.

#### Installation

Installation onto the roof of a vehicle or building is simple, requiring only a single locking nut fixing and a 98 mm (3.9 inch) vent aperture. An adaptor is available to enable the ventilator to bridge thicker roof cavities, and base options are available for compatibility with most ribbed roofs.

# **Dimensions**



# Changes of Air

The number of changes of air per hour (N) provided by a single **Flettner TCX-2™** ventilator can be calculated as follows:

N = 60 x Extraction rate per minute at given wind speed Volume of space to be ventilated

The number of ventilators required for a given application can be calculated accordingly.

For stationary sites local wind speeds should be ascertained. Mean annual wind speeds in middle latitudes are typically 10 mph (*16 km/h*).

# **Base Options Available**

Standard Base: (Circular – diameter 145mm / 5.75in) Narrow Base\*: (Oval – width 108mm / 4.25in) \*Suitable for ribbed roofs.

#### Distributed by

# **Extraction Figures**

| Wind Speed |      | Air Extraction Rate |                    |
|------------|------|---------------------|--------------------|
| MPH        | km/h | Cubic Ft<br>per min | Cubic M<br>per min |
| 10         | 16   | 18                  | 0.52               |
| 20         | 32   | 37                  | 1.05               |
| 30         | 48   | 58                  | 1.64               |
| 40         | 64   | 81                  | 2.28               |
| 50         | 80   | 102                 | 2.89               |
| 60         | 96   | 126                 | 3.56               |
| 70         | 112  | 149                 | 4.21               |

#### Source: MIRA Ltd

The extraction rates quoted above are sourced from tests undertaken by MIRA Ltd, Watling Street, Nuneaton, Warwickshire CV10 0TU, UK Air extraction rates may vary according to the positioning of the ventilator(s) and the configuration of the vehicle or building to which the ventilator is fitted. It is the responsibility of the customer to ensure that the extraction achieved for any given application and configuration is adequate.



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