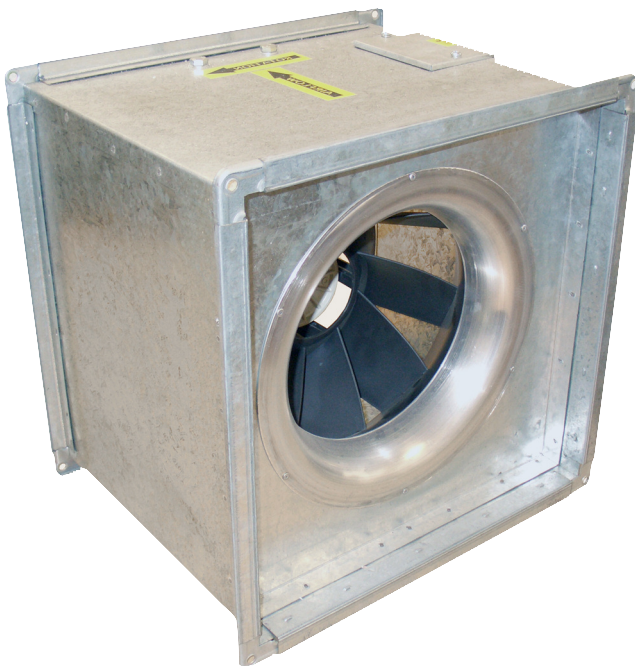


# "SMX" - Square Cased Mixed Flow Fans

## Installation, Operating and Maintenance Instructions



### General Construction

Designed for internal applications, the SMX range has a standard construction of a single skinned, galvanised sheet steel box fitted with 25mm MEZ flanges on both inlet and discharge.

Fans are pre-wired to an externally accessible terminal box.

For maintenance purposes, the fitting of access panels both up and downstream in adjoining ductwork is recommended. Alternatively, the unit can be unbolted from adjoining ductwork.

Units can be mounted in either vertical or horizontal plane.

### Safety Information

SMX fans are not ready-to-use products and are only to be put into operation after they have been built into machines, ducted systems or when suitable guards have ensured their safe operation.

Installation must be carried out in such a manner that contact with rotating parts is **NOT** possible. Competent personnel must complete installation only.

The units are **NOT** suitable for use in a potentially explosive atmosphere or in flue ducts.

These units are **NOT** suitable for external applications.

The fans must be installed so that safe operation and maintenance is ensured. Safety devices, ie guards, must **NOT** be dismantled, circumvented or made inoperative.

**Note:** Before servicing or maintenance, **SWITCH OFF POWER**, [all-pole circuit breaker], and make sure the impellor has stopped rotating.

Note: The fan can have sharp edges or corners, which may cause injury.

### Maintenance, Service and Repair

Before maintenance, service or repair make sure that:

Power supply is interrupted [all-pole circuit breaker]

Fan impellor has come to a complete standstill.

Observe personnel safety regulations.

The fan should be cleaned when necessary. At least once a year or more if the application dictates. This will prevent imbalance and subsequent damage to bearings.

The fan bearings are maintenance free and should only be replaced if damaged.

**DO NOT** use a high pressure cleaner (steam jet), water or liquids when cleaning the fan. Internal cleaning should only be performed with a dry brush or vacuum cleaner. Make sure the fan balancing weights on the impeller are not disturbed. Check the impeller is not hindered or the motor protection triggered. If the fan does not start after it has been checked, and/or the thermal contact is reset, contact the manufacturer.

## Transport and Storage

All quality fans are packed to withstand normal transport handling.

When handling goods, ensure suitable lifting equipment is employed to prevent damage to goods, personnel.

These units do **NOT** have lifting eyebolts.

**Note:** Do **NOT** lift the fans by the connecting cable, connection box, and impeller or inlet cone. Avoid blows or shock loads.

Be on the alert for any damage on the packaging or the fan.

The fans should be stored in a dry area, protected from the weather and dirt until final installation.

During storage, rotate the impeller periodically to prevent bearing seizure.

Avoid excessive storage periods. We recommend a maximum of one year.

## Installation

Installation, electrical connection and commissioning are only to be performed by authorised personnel in accordance with current legislation.

Before mains voltage is connected the resistance to earth should be measured. If found to be less than one megohm, the unit **MUST** be dried out prior to any connection being made.

Electrical connections should be made in accordance with the wiring diagram located in the terminal box or by markings on the terminal block. If none are available contact the supplier.

**Note:** Do **NOT** use metal compression gland fittings with plastic terminal boxes.

Fans with thermal contacts having external leads must be connected to external motor protection.

This device should have a manual re-set so that automatic re-starting after failure is not possible.

The fan should be installed so that vibrations are not transmitted to dust systems or the frame of the building. Suitable accessories such as fast clamps and anti-vibration mounts are available. Make sure the installation of the unit is secure and stable.

Units **MUST** be installed to enable easy servicing. Installing a suitable silencer can eliminate excessive noise.

## Operating Conditions

**DO NOT** operate the fans in ambient condition outside of the fans normal working parameters.

**DO NOT** operate the fan in a potentially explosive atmosphere.

When using a long wire lead, install an output filter between the frequency inverter.