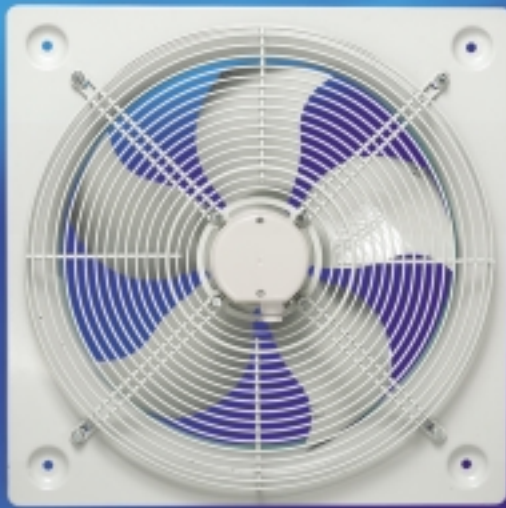


# Ultra™ - (ESU)

## Plate Mounted Sickle Fans



**Revolutionary Sickle impeller offering greater duties, improved efficiency, lower sound levels**

**Air Volumes up to 3.9m<sup>3</sup>/s**

**200 to 630 dia single and three phase motors**

**450 to 630 3 phase motors, 2 speed as standard**

**Operating Temperatures, Size 200 from -15°C to +45°C, Sizes 250 to 630 from -40°C to +70°C**

**Motor Insulation Class F**

**HOT SPOT protection**

**Tough epoxy paint finish**

**Quality Assurance to BS EN ISO 9001:1994**

**Performance tested to BS848 Part 1 1980**

**2 Year Warranty**

The Revolutionary range of Ultra plate mounted sickle fans, shall be as supplied from Roof Units. The Ultra plate sickle fans shall be designed around an advanced, aerodynamically shaped sickle blade, for high efficiency, maximum performance, reliability and excellent speed controllability.

To ensure a compact and flush fitting design, the mounting plate shall be pressed from a single sheet of steel. Incorporated into the design, shall be a bellmouth inlet with the dynamically balanced motor and impeller mounted onto a steel plate, via a steel wire-mounting frame, also acting as a finger guard. All sizes shall be protected with a tough fawn grey epoxy paint finish to RAL 7035, suitable for coastal environments.

The finger guard and motor mounting supports shall be manufactured from steel rod, electro welded for strength, ensuring safety in operation. Sizes 200 to 630, shall have finger guards fitted as standard to the motor side, giving protection to BS848 Part 5, Impeller side discharge guards are to be available as optional accessories.

The complete design shall ensure an excellent performance to sound levels @ 3m from the unit, with all manufacturing of the Ultra fan controlled to BS EN ISO 9001 Standards.

### Sickle Impellers

The impellers shall be aerodynamically designed, combining the impeller with the rotor motor. The motor and impeller shall be factory matched, statically and dynamically balanced on precision machines, to VDI 2060 Quality Class G.6.3.

### Motors

Size 200, shall be protected to IP44, 250 to 630 IP54, against dust and water complying with BE EN 60529:1992. With motor insulation Class F as a minimum, Size 200 suitable for operating temperatures from -15°C to +45°C, Sizes 250 to 630 from -40°C to +70°C.

The motors shall be wound, to suit a 230V/1ph/50Hz or a 400V/3ph/50Hz electrical supply. 1 phase motors shall be permanent capacitor type to optimise efficiency. HOT SPOT protection, by means of a thermal contact switch incorporated

within the windings, shall be provided to prevent motor damage due to overloading/overheating. 3 phase units sized from 450 to 630 dia. are fitted as standard with 2 speed delta/star connection motors. Most models are suitable for speed control by either electronic, voltage reduction, or frequency inverter where permissible. NOTE: 3 phase, 450 to 630, 6 & 8 pole motors are only suitable for operating in temperatures of +40°C max when speed controlled.

### Terminal Box

An IP54 terminal box, shall be supplied with all models with 20 mm and PG11 entry protected against dust and water jets from any angle ensuring suitability for external use.

### Impeller Form of Running

Ultra plate mounted sickle fans, are to be supplied as standard for extract, with a Form 'A' impeller. When used for intake and extract the fan can be wired for reverse running but a 30% (min.) reduction in performance will occur on input only (reversed running).

### Performance

The fan performance, shall be in accordance with tests to BS848 Part 1 1980, with the fan sound levels, measured in a reverberant chamber in accordance with BS848 Part 2 1985.

### Quality Assurance

Design and manufacture shall be in accordance with the standard for quality management systems BS EN ISO 9001:1994.

### Ultra Accessories

A full range of accessories are available with the Ultra plate sickle fans such as:

- Electronic Speed Controllers
- Auto Transformer Speed Controllers
- D.O.L. & Electronic Starters
- Backdraught Louvre Shutters
- Impeller Discharge Side Wire Guards
- RTRE Controller offering remote On/Off operation