

# Ultra - (EFU)

## Short Case Sickle Fans



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

**Air Volumes up to 3.998m<sup>3</sup>/s**

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

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

**Operating Temperatures 40°C to +70°C**

**Motor Insulation Class F**

**HOT SPOT protection**

**2 Year Warranty**

**Tough epoxy paint finish**

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

**Performance tested to BS848 Part 1 1980**

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

To ensure a compact short cased design, the units shall be constructed from a single sheet of steel. The motor and impeller are to be mounted within the casing length, to ensure a compact, lightweight short cased unit, protected with a tough fawn grey epoxy paint finish to RAL 7035, suitable for coastal environments.

Motor mounting supports, shall be manufactured from steel rod, electro welded for strength, epoxy paint finished. Inlet and discharge impeller finger guards for all sizes shall be available as optional accessories, giving protection to BS848 Part 5.

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

Sizes 315 and 630 shall be protected to IP54, against dust and water complying with BE EN 60529:1992. With motor insulation Class F as a minimum, Sizes 315 to 630 suitable for operating temperatures 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 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 20mm and PG11 entry protected against dust and water jets from any angle ensuring suitability for external use.

### Impeller Form of Running

Ultra short case sickle fans, shall be supplied as standard for extract, with a Form 'B' 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.

### Performance

The fan performance, shall be in accordance with tests to BS848 Part 1 1980, with the fan sound levels, measured 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 Short Case Accessories

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

- Electronic Speed Controllers
- Auto Transformer Speed Controllers
- D.O.L. & Electronic Starters
- Ancillary Packs consisting of:
  - 4 Anti-Vibration Mounts,
  - 2 Mounting Feet and
  - 2 Matching Flanges
- Cased attenuators with and without pods, 1 & 2D in length
- Flexible connectors