## HERITAGE SMOKE-SPILL SERIES



## Description

The Heritage Smoke-Spill Series of vertical discharge centrifugal roof units has been developed and tested for hot smoke exhaust applications. They are constructed from durable galvanised steel and feature a removable windband which provides easy access for cleaning and maintenance. There are 6 sizes in the series extending from 315 to 560mm diameter.

#### **Typical Applications**

Smoke-spill exhaust systems in commercial or industrial applications such as office buildings, shopping centres and universities. Can also be used for dual purpose in standard exhaust installations.

#### **Features**

- Durable all galvanised steel construction.
- Available in a range of speeds to suit specific applications.
- Windband can be easily removed to allow easy access for cleaning and maintenance.
- To maintain reliable operation, motor is mounted out of the airstream.
- Can be mounted at angles up to 15°C.

#### **Smoke-Spill Standards**

Designed to comply with the air performance and high temperature requirement of Standards AS/NZS1668.1:1998 and AS4429:1999. Both Standards are mandatory for smoke-spill installations.

Tests up to 300°C for 2 hours have been successfully concluded. Backdraft dampers are not fitted to these units so fail-open latching devices are not required.

#### Construction

Cowls are of galvanised steel. Impellers are backward-curved centrifugal design.

#### **Motor**

Type - Standard TEFC squirrel cage induction motors.

Electricity supply - 415V, three-phase, 50Hz.

Ball Bearing - sealed for life.

Multi-speed motors can be supplied.

Motors are selected to suit the nominated smoke-spill temperature requirements as prescribed in AS/NZS1668.1:1998 See pages O-3/4 and C-8 for details on these motors.

### Noise Data

| Model<br>CHS | In-I<br>63 | Duct S <sub>i</sub><br>125 | pectru<br>250 | m Cor<br>500 | rectio | ns, dB<br>2k | *<br>4k | 8k |
|--------------|------------|----------------------------|---------------|--------------|--------|--------------|---------|----|
| 314          | 35         | 29                         | 21            | 18           | 10     | 10           | 8       | 2  |
| 316          | 34         | 26                         | 22            | 18           | 12     | 12           | 6       | 0  |
| 354          | 28         | 26                         | 22            | 19           | 10     | 12           | 11      | 1  |
| 356          | 33         | 25                         | 22            | 19           | 14     | 8            | 3       | 0  |
| 404          | 28         | 26                         | 21            | 18           | 11     | 12           | 12      | 5  |
| 406          | 33         | 28                         | 22            | 19           | 14     | 10           | 7       | 3  |
| 454          | 27         | 25                         | 20            | 17           | 11     | 12           | 12      | 8  |
| 456          | 31         | 30                         | 21            | 18           | 13     | 11           | 9       | 5  |
| 504          | 26         | 26                         | 21            | 15           | 12     | 12           | 12      | 9  |
| 506          | 30         | 29                         | 22            | 16           | 12     | 10           | 8       | 6  |
| 564          | 26         | 27                         | 23            | 14           | 13     | 12           | 12      | 10 |
| 566          | 29         | 29                         | 23            | 15           | 12     | 10           | 8       | 7  |
| 568          | 30         | 27                         | 22            | 15           | 15     | 11           | 11      | 6  |

<sup>\*</sup> Add the In-Duct Spectrum Corrections to the closest dB(A) level shown on the fan curve to obtain the In-Duct Sound Power Level on the Inlet Side of the Unit.

#### **Internal Thermal Protection**

Thermisters can be fitted on request. If fitted they must not operate under smoke-spill mode.

#### **Testing**

Airflow tests to ISO5801:2007 Noise tests to ISO3744:2010

#### **Wiring Diagram**

See page N-6, diagrams DD 1, 2, 3.

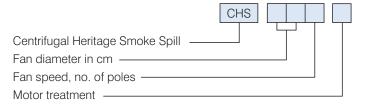
## Suggested Specification

The roof ventilators shall be of the Heritage Smoke-Spill Series vertical discharge type as designed and manufactured by Elta Fans

The cowl shall be of galvanised steel. Impellers shall be backward-curved centrifugal design and driven by motors selected to suit the elevated temperatures of the nominated smoke-spill application.

All performance data shall be based on tests on a complete assembled unit to ISO5801:2007 for airflow and ISO3744: 2010. Smoke-spill tests shall be to AS/NZS1668.1:1998 and AS4429:1999.

## How To Order

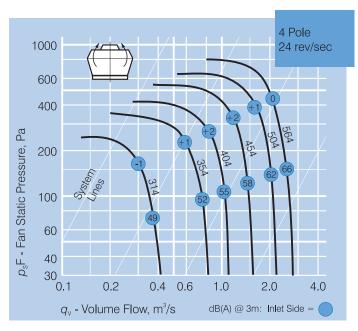


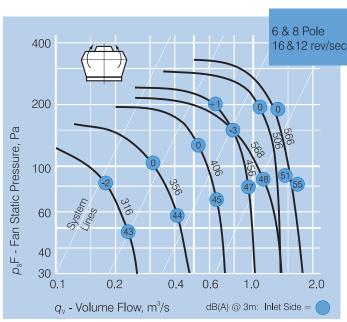
**D-50** Roof mounted fans

# **HERITAGE SMOKE-SPILL SERIES**

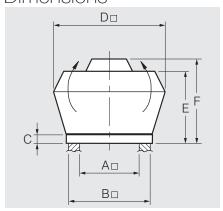
| Model<br>CHS | Nom.<br>Speed<br>rev/sec | Avg. dB(A<br>Low<br>Airflow | a) @ 3m<br>High<br>Airflow | Motor kW<br>3 ph. |
|--------------|--------------------------|-----------------------------|----------------------------|-------------------|
| 314          | 24                       | 48                          | 49                         | 0.55              |
| 316          | 16                       | 41                          | 43                         | 0.37              |
| 354          | 24                       | 53                          | 52                         | 0.55              |
| 356          | 16                       | 44                          | 44                         | 0.37              |
| 404          | 24                       | 57                          | 55                         | 0.55              |
| 406          | 16                       | 45                          | 45                         | 0.37              |
| 454          | 24                       | 60                          | 58                         | 0.55              |
| 456          | 16                       | 48                          | 47                         | 0.37              |
| 504          | 24                       | 63                          | 62                         | 1.1               |
| 506          | 16                       | 51                          | 51                         | 0.37              |
| 564          | 24                       | 66                          | 66                         | 2.2               |
| 566          | 16                       | 55                          | 55                         | 0.75              |
| 568          | 12                       | 45                          | 48                         | 0.37              |

Amperages for motors can be obtained at the time of order or from the motor nameplate.





## Dimensions



| Model<br>Number<br>CHS 3ph |     | nsions,⊣<br>B∐ | mm<br>C | D□  | E   | F max. | Approx.*<br>weight<br>kg. | Approx<br>volume<br>m³ |
|----------------------------|-----|----------------|---------|-----|-----|--------|---------------------------|------------------------|
| 314/6                      | 310 | 410            | 50      | 520 | 310 | 540    | 16                        | 0.1                    |
| 354/6                      | 400 | 500            | 50      | 665 | 420 | 550    | 26                        | 0.22                   |
| 404/6                      | 400 | 500            | 50      | 665 | 420 | 570    | 26                        | 0.22                   |
| 454/6                      | 620 | 720            | 60      | 900 | 540 | 790    | 49                        | 0.5                    |
| 504/6                      | 620 | 720            | 60      | 900 | 540 | 820    | 57/51                     | 0.5                    |
| 564/6/8                    | 620 | 720            | 60      | 900 | 540 | 850    | 65/56/55                  | 0.5                    |

Unit weights depend on the make of motor used. If critical this should be referred to our sales department at time of order.

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## Elta Fans Asia

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At Elta Fans we are dedicated to the continuous research and development of all our products. To provide you with the very best in air movement and ventilation, products supplied may differ from those illustrated and described in this publication. Confirmation of dimensions and data can be supplied on request from our team.