

# CENTRIFUGAL FANS

Single Width, Single Inlet  
WFS & WBS Series



TEB VENTILATION CO., LTD.

89/9 Moo.9 Chalokkrung Road, Lam Pak Chi, Nongchok Bangkok 10530, Thailand.

Tel: 02 171 1188 Fax: 02 171 1375

[www.tebven.com](http://www.tebven.com)

[sales@teb.co.th](mailto:sales@teb.co.th)

C1.1  
March 2022



# TEB Centrifugal Fans & AMCA Certification



TEB Ventilation Co.,Ltd. certifies that the WFS and WBS series shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program.





## COMPANY PROFILE

Since 1993, Our company was established as a joint venture company, between the shareholders from Europe and Thailand to manufacture industrial fans which has been a well recognized product.

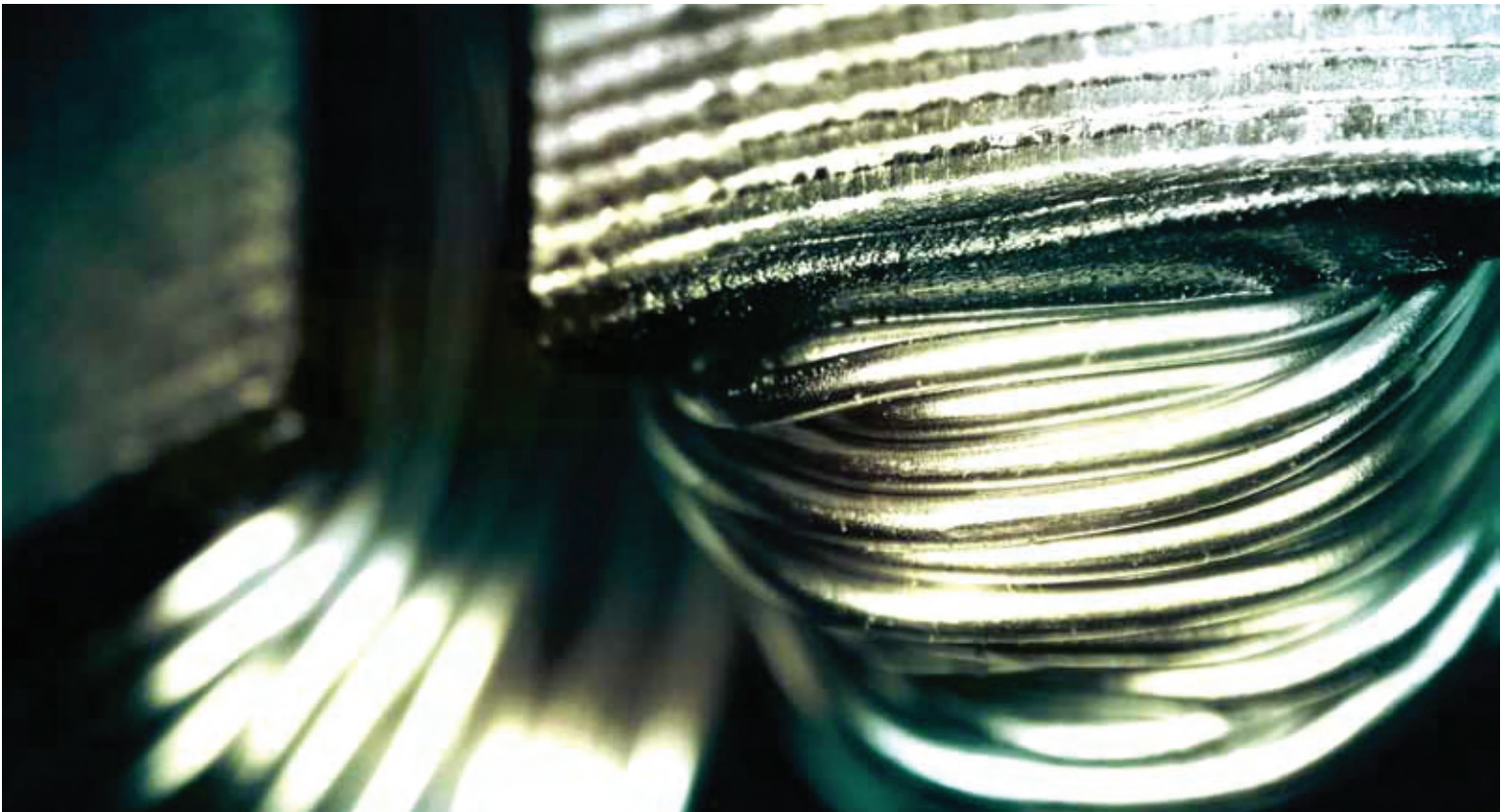
With the technology and knowledge transfer from experienced international engineers, we have been providing high-quality products that response to the customers demand throughout the last 28 years.

Over the past decade, we have developed and emphasized on reliable production process, quality control system and continuous development activities. With an emphasis on engineering knowledge as well as new technology, we have developed a lot of experienced and capable Thai engineers having charge of production

and quality control to manage the production activities to assure that the customers would acquire the standardized products and to be of assistance for any customers' inquiry.

With our quality policy, we have adopted & certified for ISO9001:2015 and AMCA sealed for Centrifugal Single Inlet Fans that will guarantee our quality commitment to deliver to all the customers.

TEB Ventilation Co., Ltd. as the experienced manufacturer proudly presents  **TEB**, the quality brand of industrial fans. With our high standard production and quality control process, we assure all customers that we will offer only quality products, competitive price, reliable delivery and professional service support for the customer's highest satisfaction.



|                                    | Page |
|------------------------------------|------|
| Company Profile                    | 4    |
| Introduction                       |      |
| General                            | 7    |
| Why ventilate?                     | 7    |
| Fan Engineering                    | 7    |
| Fan's Law                          | 8    |
| Materials and Construction         | 9    |
| Conversion Factors                 | 10   |
| Serie WFS Technical Specifications | 11   |
| Serie WFS-O Dimensions & Weights   | 40   |
| Serie WBS Technical Specifications | 43   |
| Serie WBS-O Dimensions & Weights   | 68   |

GENERAL

All dwellings need a supply of fresh air, not just for the health and comfort of the occupants, but also to control condensation, remove pollutants and to ensure the safe and efficient operation of some combustion appliances. The amount of fresh air should match the needs of the dwelling and the people living within it.

To achieve an energy efficient standard of ventilation requires consideration of both the building fabric and the efficiency of the ventilation system. Whether designs for new or existing buildings are under consideration, ventilation should be thought of as part of an integrated design approach for achieving energy efficiency.

The thermal insulation, heating systems and controls, and householder advice are some other important aspects to consider during the design process.

WHY VENTILATE ?

Ventilation is necessary to provide a healthy and comfortable internal environment for the building's occupants. The main task of ventilation is to remove polluted indoor air from a building and replace it with 'fresh' outside air.

Ventilation can also serve other roles—for instance, to provide and air supply to open-flued combustion appliances and to form part of an integrated strategy to provide thermal comfort and control summertime over-heating.

FAN ENGINEERING

**Airflow**  
Airflow is most commonly expressed as a Volumetric Flow Rate. It can be considered as an amount of air that is move. Typical units of measurement are:

# INTRODUCTION

m<sup>3</sup>/h (CMH): Cubic metres per hour  
CFM: cubic feet per minute  
L/s: litres per second

## Resistance To Airflow

Air needs to be pushed or pulled to move it from one point to another. When moving any object, force is required to overcome the resistance to movement. Moving air requires a force to overcome the resistance through a duct or tube. The resistance to flow is due to the viscosity of air and the friction of each molecule passing over one another. Typical Units of measurement are:

mBar: millibar  
Pa: Pascals  
InWg: Inches Water Gauge  
mm.Aq.: millimetre Aqueous

## Fan Performance

Fan performance is presented on a graph called a fan curve. Volume flow is on the X axis and pressure is on the Y axis. It shows how much volume of air is moved against resistance to flow, or pressure development of the fan. As you increase the resistance to flow, the volume output of the fan decreases.

## System Resistance

The system be it a tube, black box or a room has a resistance to airflow, along it or through it. This resistance to airflow is expressed as a pressure. The value of this resistance to flow increases with increase in volume. The system resistance curve is a air volume to the power of two.

P is proportional to V<sup>2</sup>

For example twice the volume is 2<sup>2</sup> which = four time of pressure.

Half the volume 0.5<sup>2</sup> = 0.25 of the pressure.

This can be plotted on a fan curve and where the system with that fan fitted.

## Noise

A fan is a good generator of noise! We hear noise by sensing pressure variation on our ear drums. When a fan operates the noise generated from various parts of the fan is transmitted by air molecules bouncing against each other and spreading out as small pressure waves.

Sound power and Sound pressure: Sound can be expressed in two ways. Sound power, how many watts of energy is converted into sound, or Sound pressure where the pressure of the sound waves are measured in Pascal's.

Decibels (dB): Both sound power and sound pressure are expressed in units of measurement called decibels. The measurements are on a logarithmic scale as the ear is sensitive to noise in a logarithmic fashion.

A Weighting sound pressure level (dBA): Noise figures are commonly expressed as A weighted. This is a method to provide a figure which gives a sound level which is perceived by the human ear.

## FAN'S LAW

The most commonly used fan laws in simplified form are:

1. CFM varies directly with RPM.  
$$\frac{CFM_1}{CFM_2} = \frac{RPM_1}{RPM_2}$$
2. SP varies with the square of the RPM.  
$$\frac{SP_1}{SP_2} = \left(\frac{RPM_1}{RPM_2}\right)^2 = \left(\frac{CFM_1}{CFM_2}\right)^2$$
3. HP varies with the cube of the RPM.  
$$\frac{HP_1}{HP_2} = \left(\frac{RPM_1}{RPM_2}\right)^3 = \left(\frac{CFM_1}{CFM_2}\right)^3$$

Which:

CFM = Fan Flow rate (F<sup>3</sup>/Min. )

RPM = Speed of Rotation (rpm.)

SP = Fan Static Pressure (in.wg.)

HP = Fan Power In

# MATERIAL AND CONSTRUCTION



## Fan Casing :

The fan casings are made of galvanized sheet metal. Predrilled holes are provided for easy to installation located on the side plates to fix mounting frames. The casings are available for single inlet type.

## Impeller :

The impellers forward curved are made of galvanized steel sheet. Backward curve impellers are made of aluminum. All the wheels are statically and dynamically balanced.

## Inlet cone :

Inlet cones matched to the impeller reduce entry losses to minimum. Inlet cones are made of polyamide reinforced with fiberglass.

## Shaft :

Fan shafts are steel turned, ground and polished to precise tolerances. All shaft is sized for critical speed of at least 125 percent of maximum operating speed.

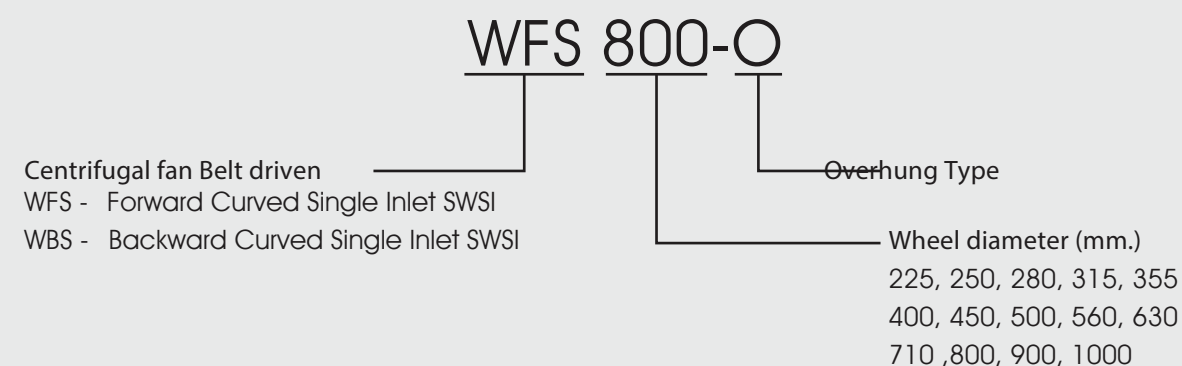
## Motor :

Motors are heavy duty type with permanently lubricated bearing Degree of protection is IP55 (Protection against water jets from any direction.)

## Bearing :

Bearings are heavy duty regreasable ball type in a pillow block cast iron housing select for at least 20,000 working hours and low noise while working.

## Fan Model Code :



# Conversion Factors

## Length

|             |          |               |
|-------------|----------|---------------|
| Centimetres | x 0.3937 | = Inches      |
| Fathoms     | x 6.0    | = Feet        |
| Feet        | x 12.0   | = Inches      |
| Feet        | x 0.3048 | = Meters      |
| Inches      | x 2.54   | = Centimetres |
| Kilometres  | x 0.6214 | = Miles       |
| Metres      | x 3.281  | = Feet        |
| Metres      | x 39.37  | = Inches      |
| Metres      | x 1.094  | = Yards       |
| Miles       | x 5280.0 | = Feet        |
| Miles       | x 1.609  | = Kilometres  |
| Rods        | x 5.5    | = Yards       |
| Yards       | x 0.9144 | = Metres      |

## Pressure

|                    |                      |                      |
|--------------------|----------------------|----------------------|
| millibar           | x 100                | = Pascal             |
| Pascal             | x $4.02 \times 10^3$ | = Inches water       |
| Pascal             | x 0.1021             | = millimetre aqueous |
| Inches water gauge | x 25.4               | = millimetre aqueous |

## Flow rate

|                        |          |                         |
|------------------------|----------|-------------------------|
| Cubic metre per hour   | x 0.5886 | = Cubic feet per minute |
| Cubic metre per minute | x 35.315 | = Cubic feet per minute |
| liters per second      | x 2.1189 | = Cubic feet per minute |

## Torque

|                  |          |                |
|------------------|----------|----------------|
| Gram-centimetres | x 0.139  | = Ounce-inches |
| Newton-metres    | x 0.7376 | = Pound-feet   |
| Newton-metres    | x 8.851  | = Pound-inches |

## Volume

|              |          |                  |
|--------------|----------|------------------|
| Cubic feet   | x 0.283  | = Cubic metres   |
| Cubic feet   | x 7.481  | = Gallons        |
| Cubic inches | x 0.5541 | = Ounces (fluid) |
| Cubic metres | x 5.31   | = Cubic feet     |
| Cubic metres | x 1.308  | = Cubic yards    |
| Cubic yards  | x 0.7646 | = Cubic metres   |
| Gallons      | x 0.1337 | = Cubic feet     |
| Gallons      | x 3.785  | = Liters         |

## Force and Weight

|              |          |                  |
|--------------|----------|------------------|
| Kilograms    | x 2.205  | = Pounds         |
| Newtons      | x 0.2248 | = Pounds (force) |
| Ounces       | x 28.35  | = Grams          |
| Pounds       | x 453.6  | = Grams          |
| Tons (short) | x 907.2  | = Kilograms      |
| Tons (short) | x 2000   | = Pounds         |

## Energy or Work

|     |         |                 |
|-----|---------|-----------------|
| Btu | x 778.2 | = Foot-Pounds   |
| Btu | x 252.0 | = Gram-calories |

## Power

|                       |         |               |
|-----------------------|---------|---------------|
| Btu per hour          | x 0.293 | = Watts       |
| Horsepower per second | x 550.0 | = Foot-pounds |
| Horsepower            | x 746.0 | = Watts       |

## Plane angle

|           |                        |           |
|-----------|------------------------|-----------|
| Degrees   | x 0.0175               | = Radians |
| Minutes   | x 0.01667              | = Degrees |
| Minutes   | x $2.9 \times 10^{-4}$ | = Radians |
| Quadrants | x 90.0                 | = Degrees |
| Quadrants | x 1.5708               | = Radians |

\* Pounds are U.S. avoirdupois.

\* Gallons and quarts are U.S.



# Forward Curved Single Inlet SWSI

## WFS 225-1000

\*Overhung Type Centrifugal Fan Curves are as same as those of the standard Centrifugal



# WFS 225

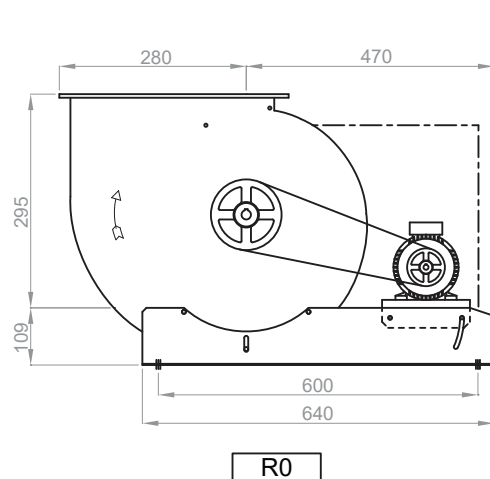
Forward Curved Single Inlet SWSI



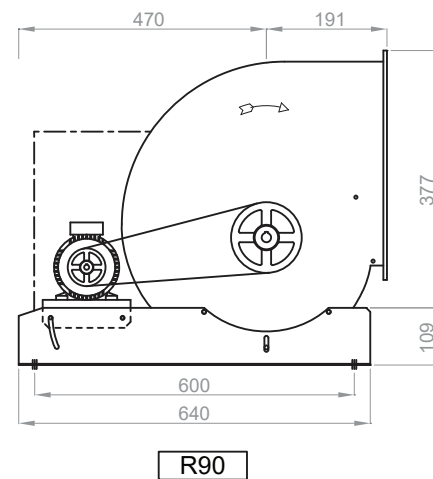
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 225 mm.               |                  |
| Outlet Area    | 0.0412 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 19   | 19   | 19  | -   | -   | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 27.5 | 30   | 39  | -   | -   | -   | -   | -   | -   | -    | -   |

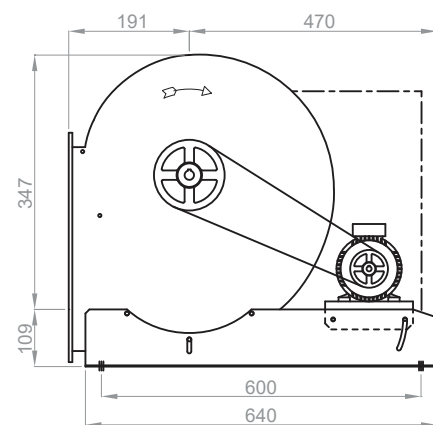
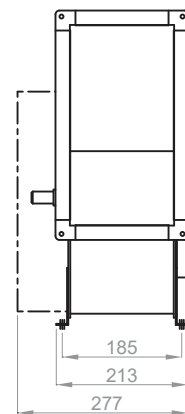
Unit : mm



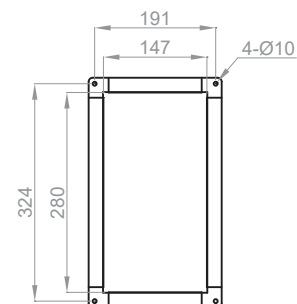
R0



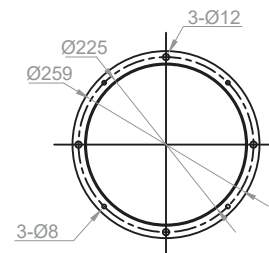
R90



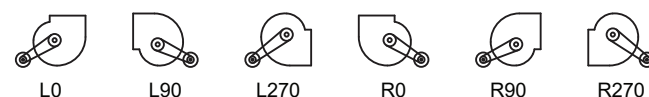
R270



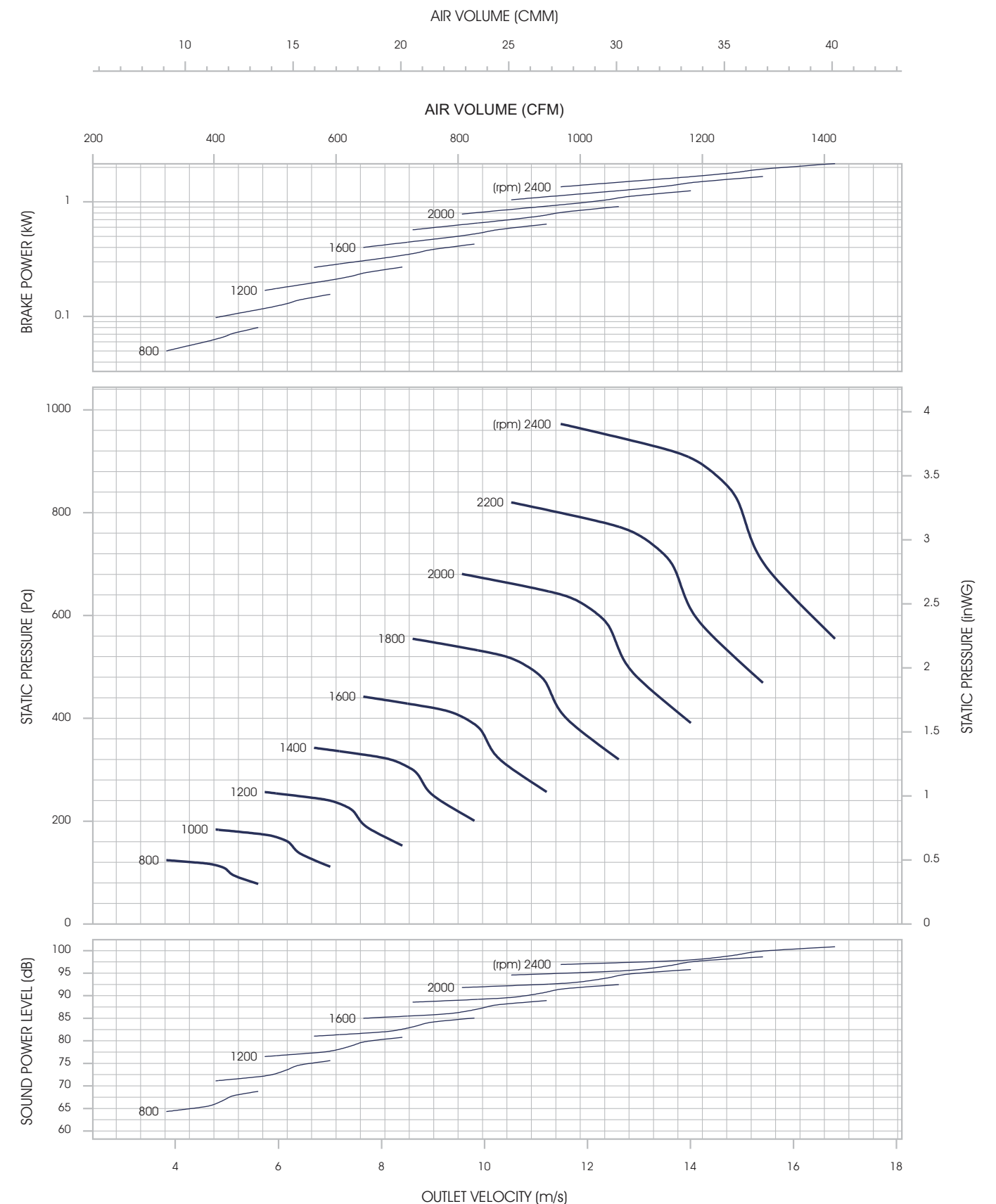
OUTLET FLANGE



INLET FLANGE



\*Refer to page 40 for dimensions and weight of WFS 225 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.



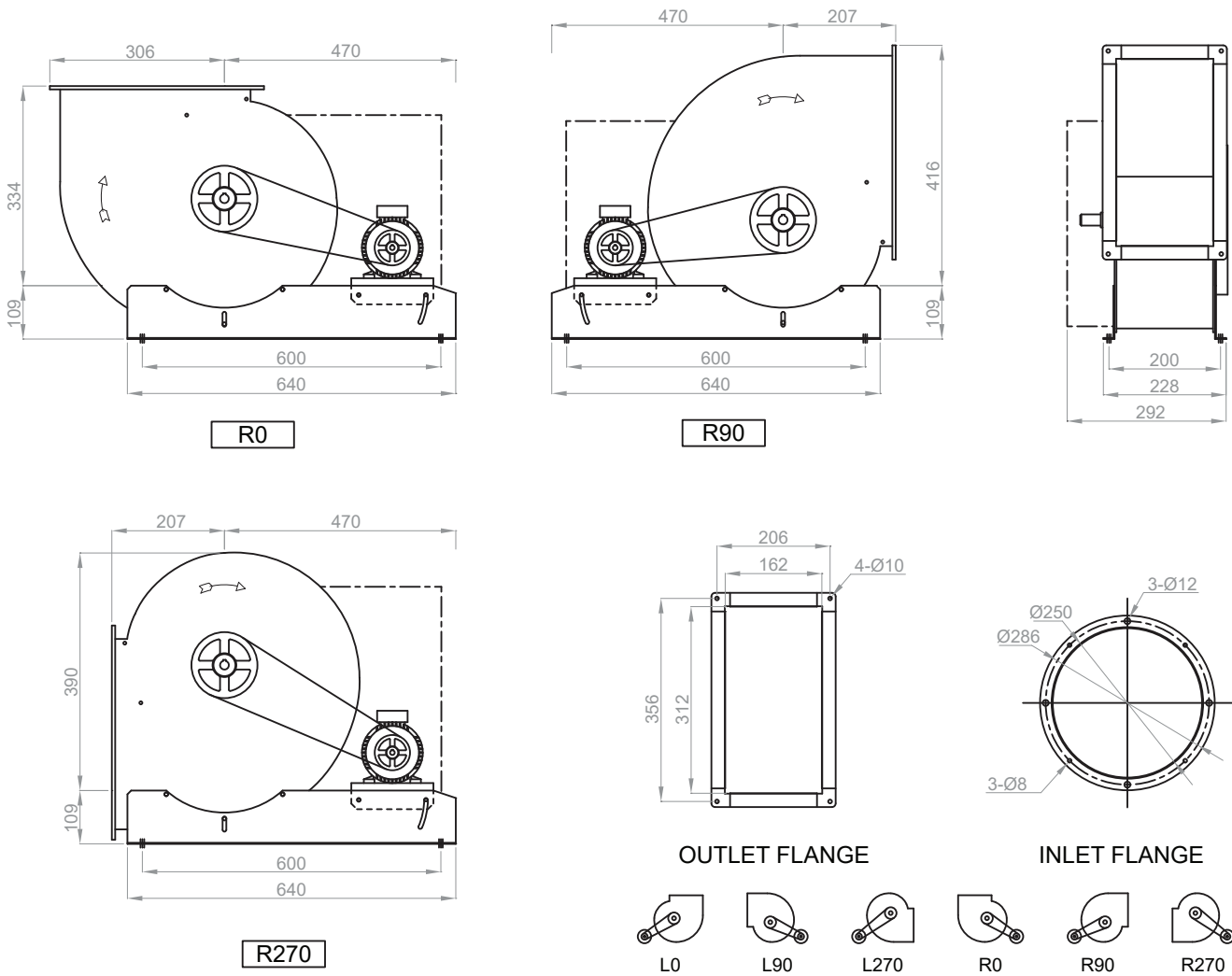
# WFS 250

Forward Curved Single Inlet SWSI

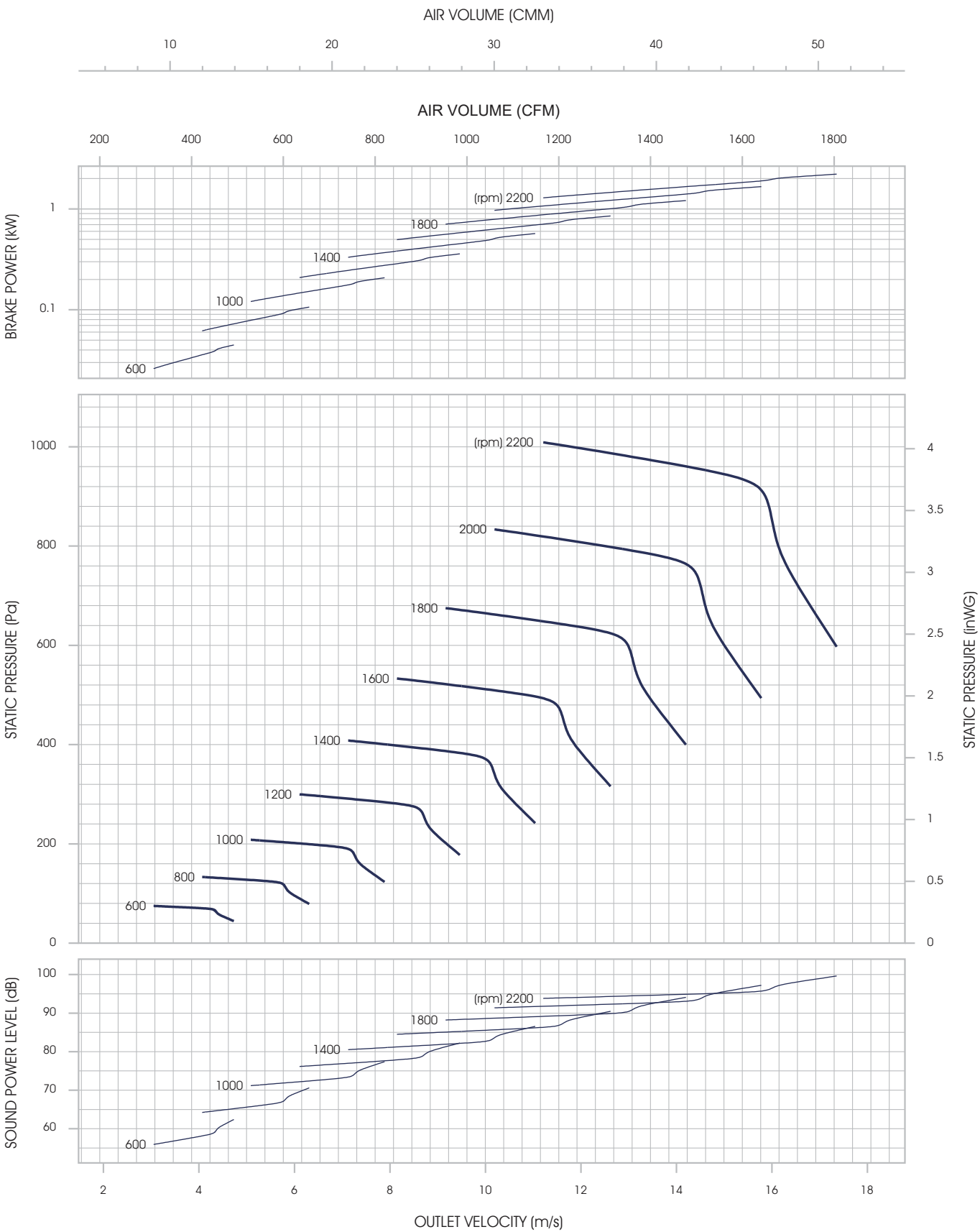
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 250 mm.               |                  |
| Outlet Area    | 0.0505 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 20   | 20   | 20  | -   | -   | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 28.5 | 31   | 40  | -   | -   | -   | -   | -   | -   | -    | -   |

Unit : mm



\*Refer to page 40 for dimensions and weight of WFS 250 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.



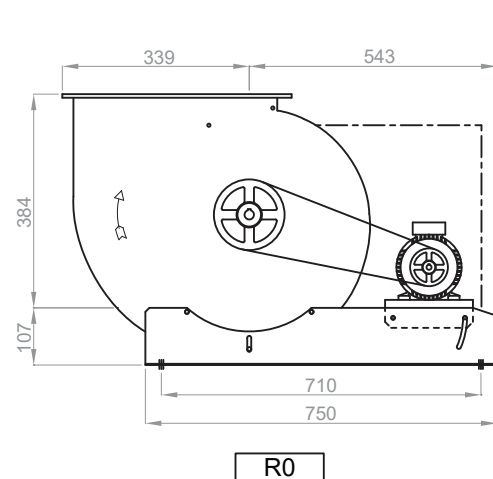
# WFS 280

Forward Curved Single Inlet SWSI

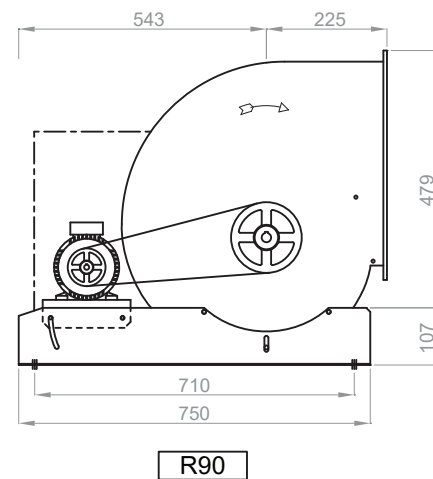
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 280 mm.               |                  |
| Outlet Area    | 0.0644 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 27   | 27   | 27  | 27  | -   | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 35.5 | 38   | 47  | 51  | -   | -   | -   | -   | -   | -    | -   |

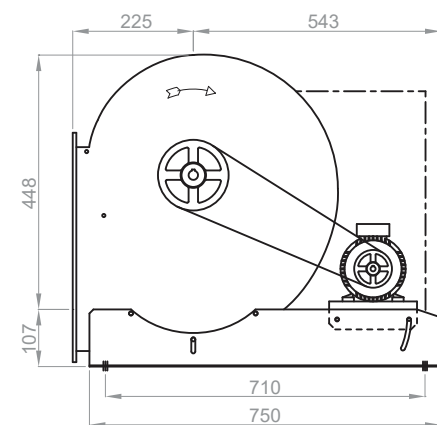
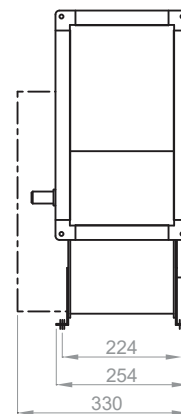
Unit : mm



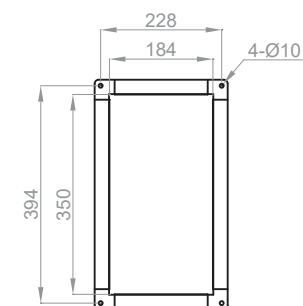
R0



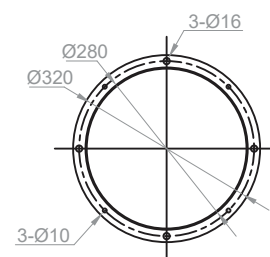
R90



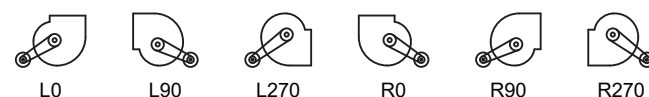
R270



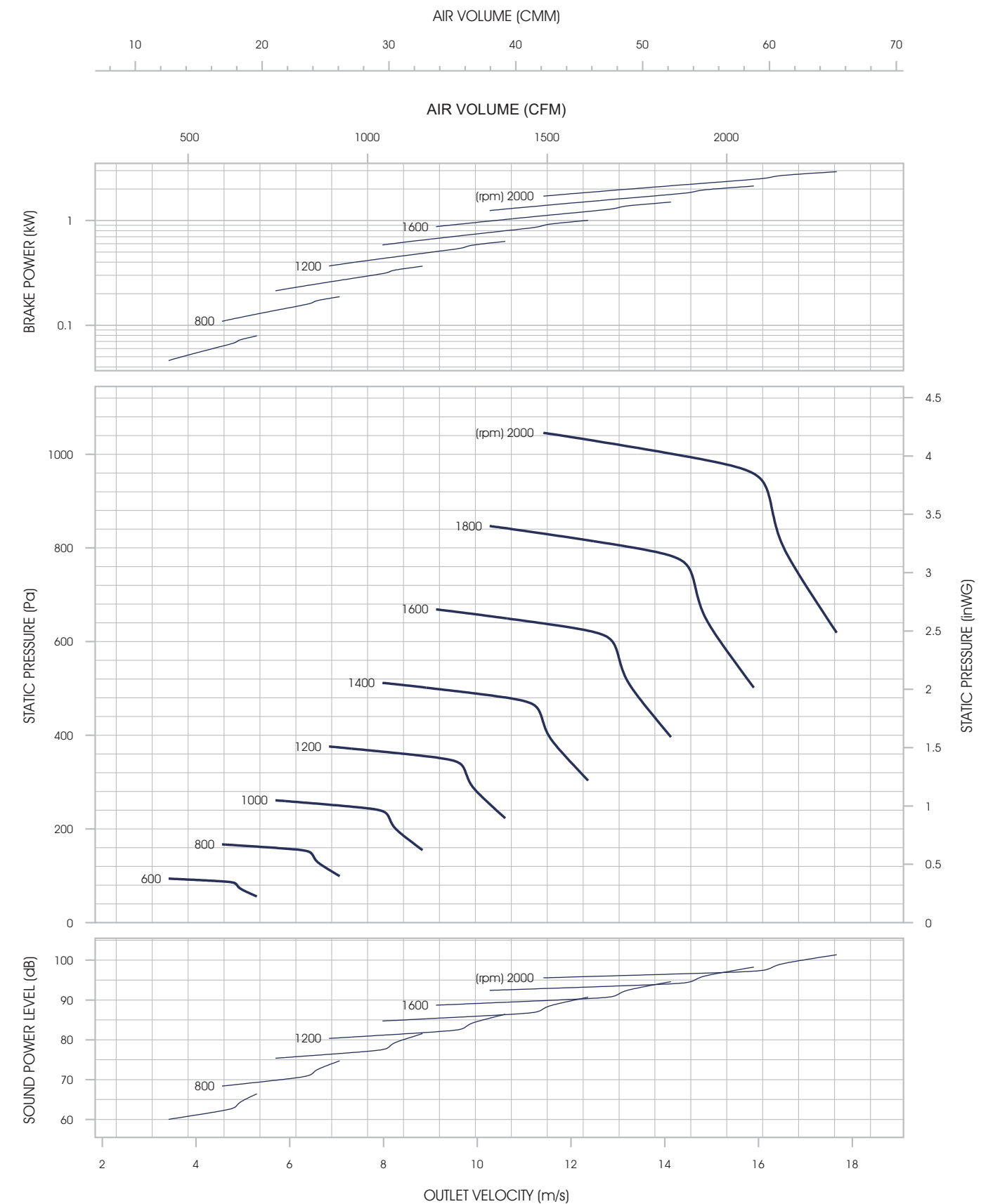
OUTLET FLANGE



INLET FLANGE



\*Refer to page 40 for dimensions and weight of WFS 280 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWI sound power levels for Installation Type B: free inlet, ducted outlet.



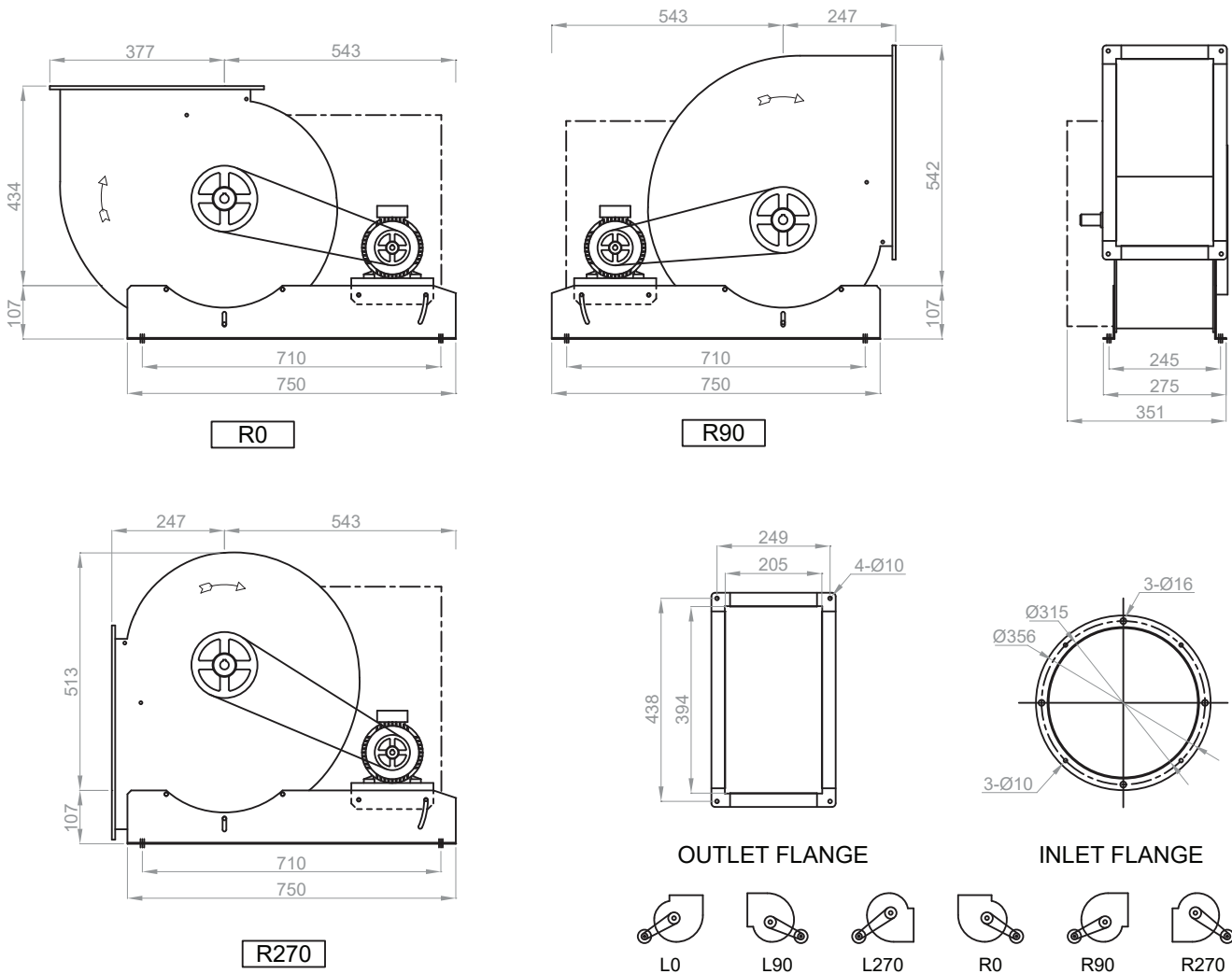
# WFS 315

Forward Curved Single Inlet SWSI

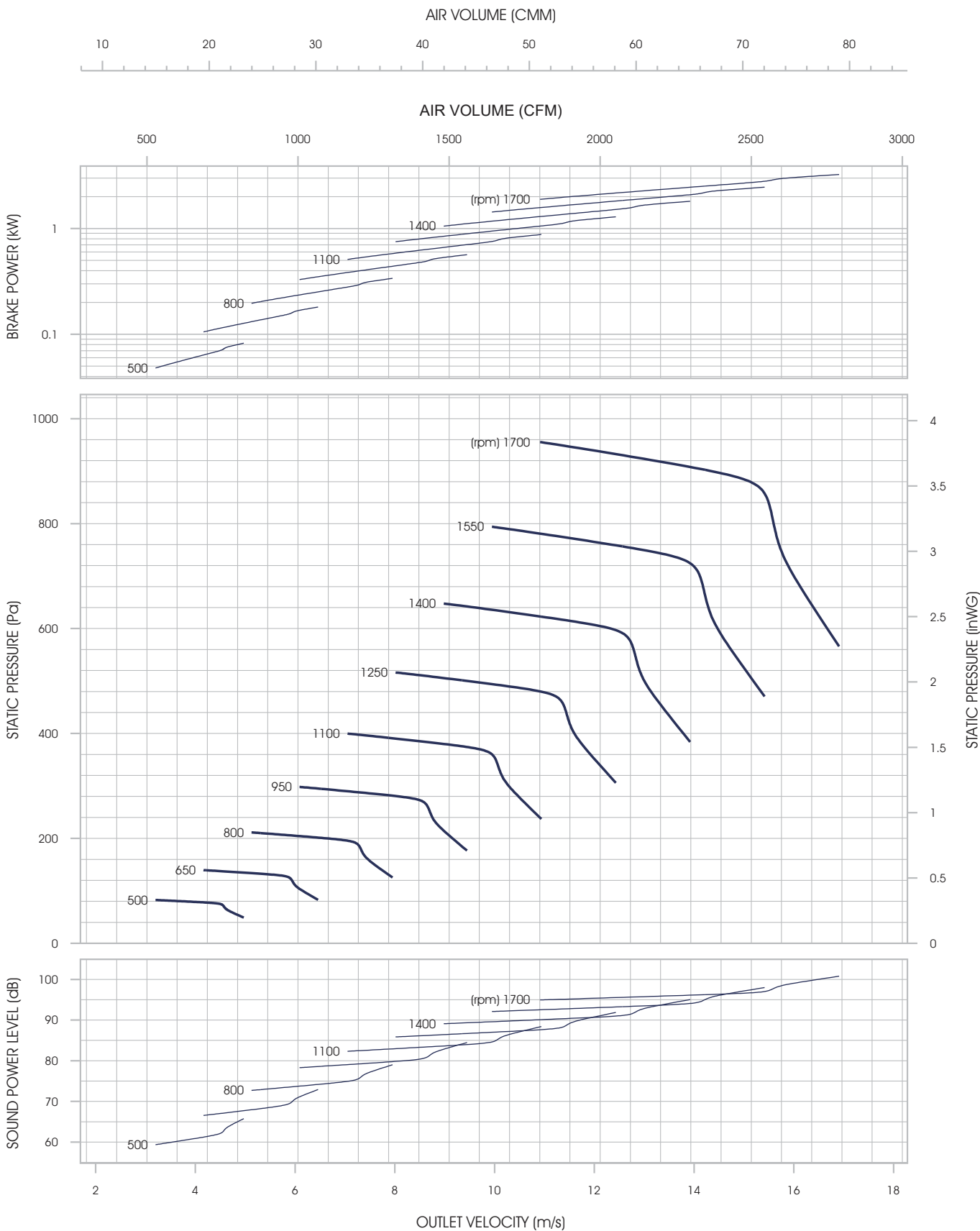
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 315 mm.               |                  |
| Outlet Area    | 0.0808 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 29   | 29   | 29  | 29  | -   | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 37.5 | 40   | 49  | 53  | -   | -   | -   | -   | -   | -    | -   |

Unit : mm



\*Refer to page 40 for dimensions and weight of WFS 315 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WFS 355

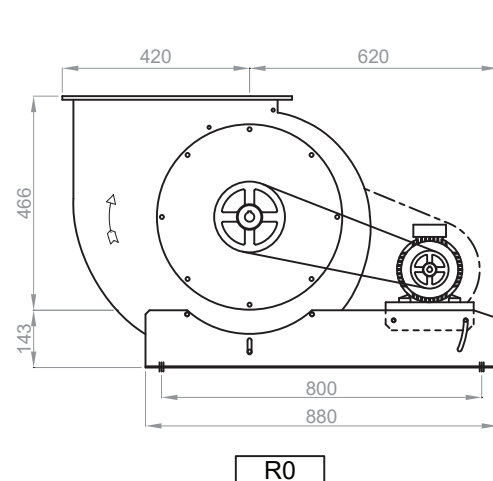
Forward Curved Single Inlet SWSI

|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 355 mm.               |                  |
| Outlet Area    | 0.1035 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

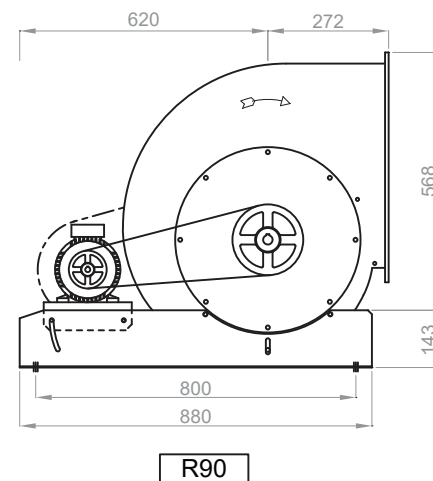


| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 44   | 44   | 44  | 44  | 44  | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 52.5 | 55   | 64  | 68  | 84  | -   | -   | -   | -   | -    | -   |

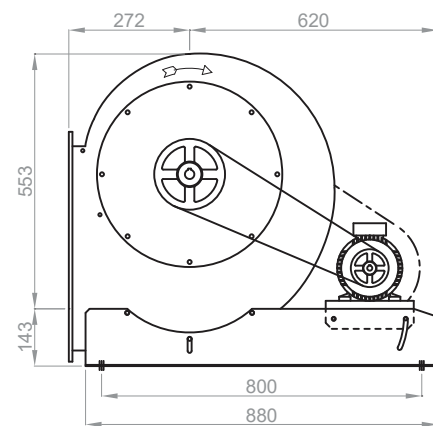
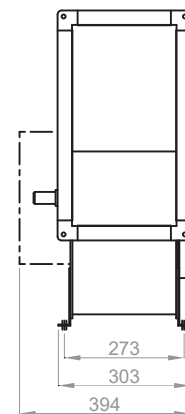
Unit : mm



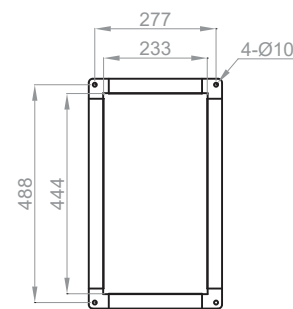
R0



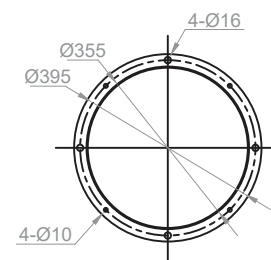
R90



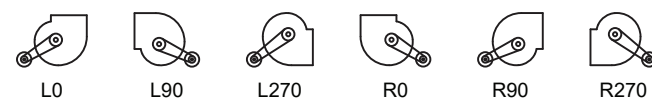
R270



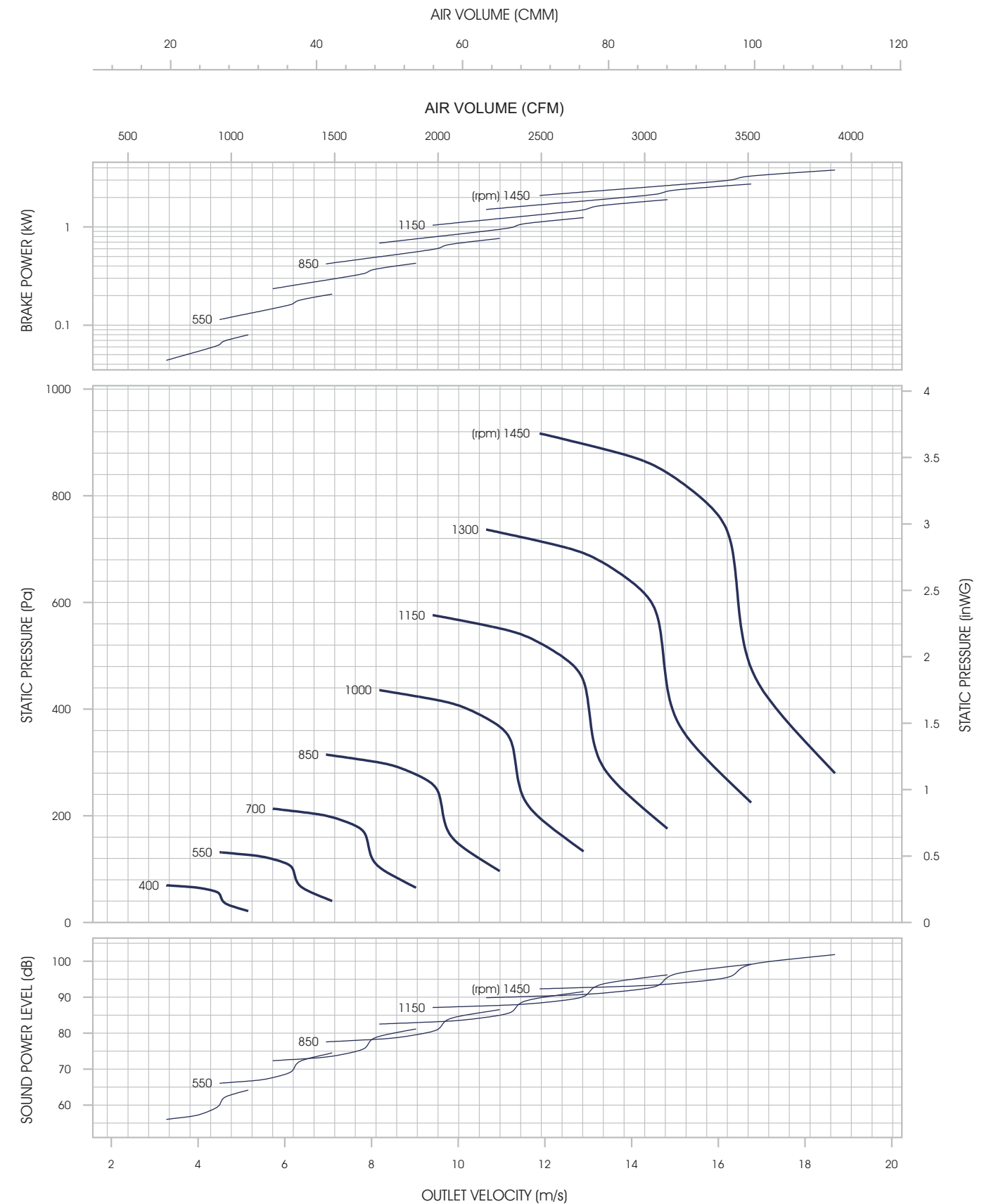
OUTLET FLANGE



INLET FLANGE



\*Refer to page 40 for dimensions and weight of WFS 355 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WFS 400

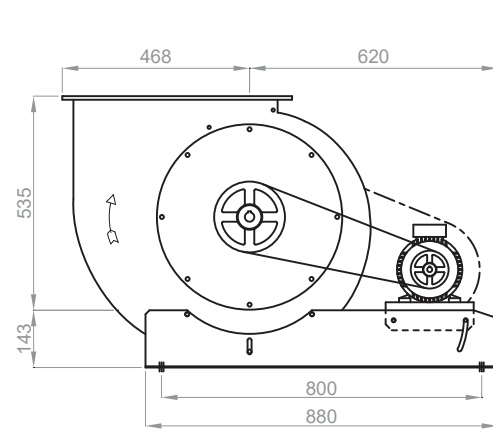
## Forward Curved Single Inlet SWSI

|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 400 mm.               |                  |
| Outlet Area    | 0.1295 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

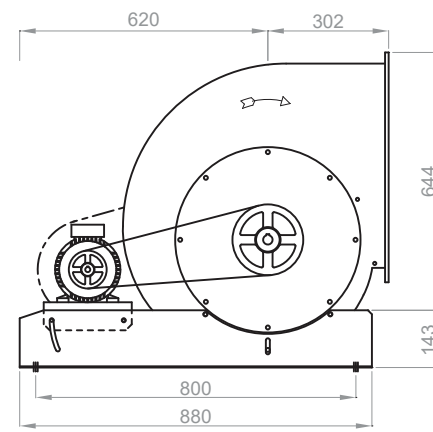


| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 47   | 47   | 47  | 47  | 47  | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 55.5 | 58   | 67  | 71  | 87  | -   | -   | -   | -   | -    | -   |

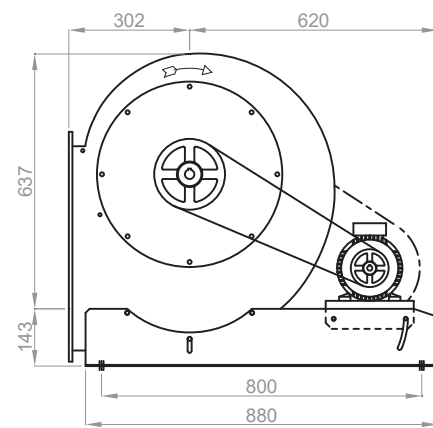
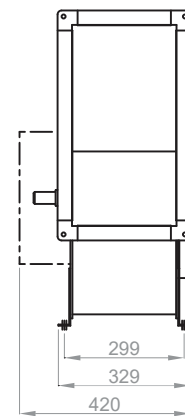
Unit : mm



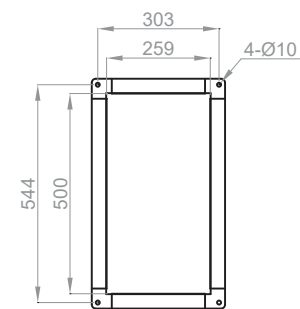
R0



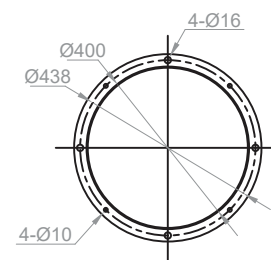
R90



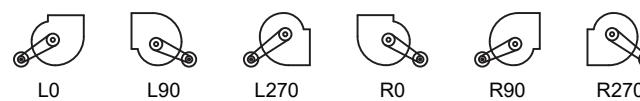
R270



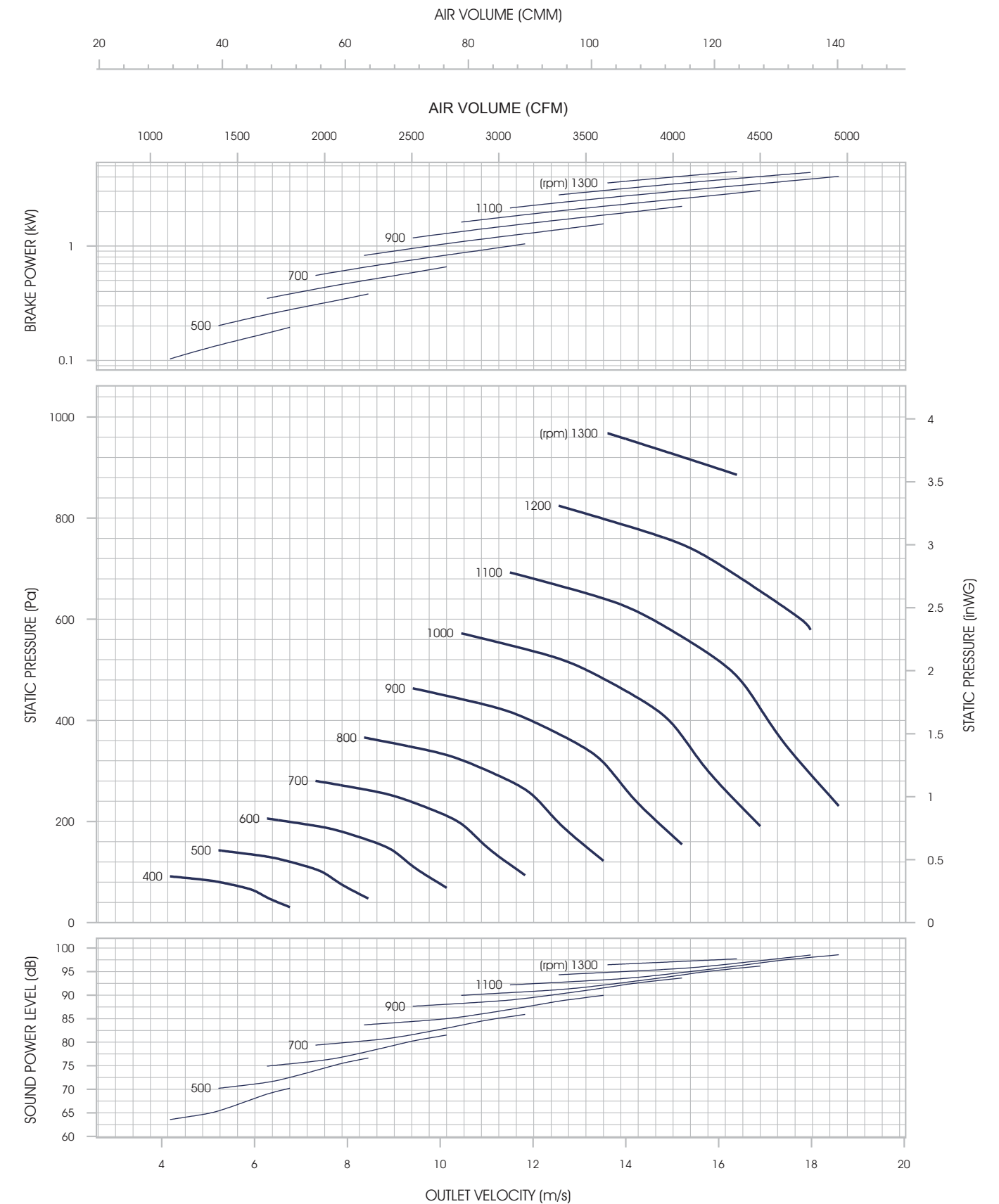
OUTLET FLANGE



INLET FLANGE



\*Refer to page 41 for dimensions and weight of WFS 400 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

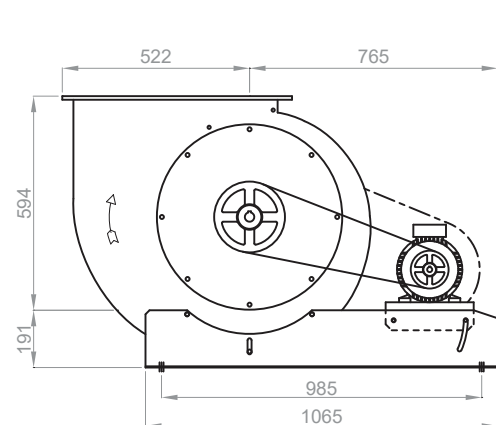
# WFS 450

Forward Curved Single Inlet SWSI

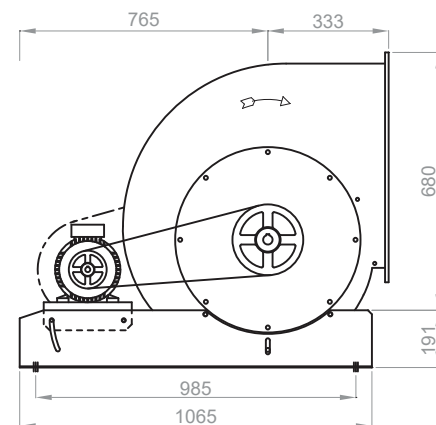
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 450 mm.               |                  |
| Outlet Area    | 0.1641 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | 66   | 66  | 66  | 66  | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | -    | 77   | 86  | 90  | 106 | -   | -   | -   | -   | -    | -   |

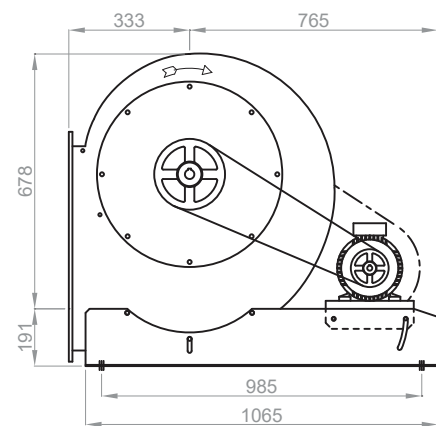
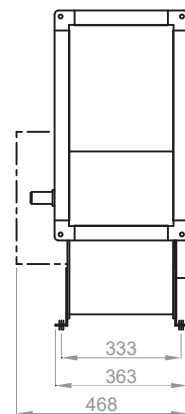
Unit : mm



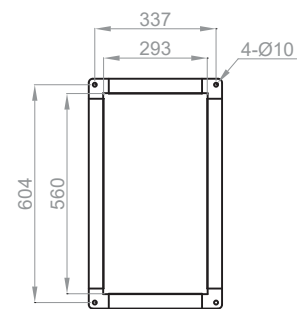
R0



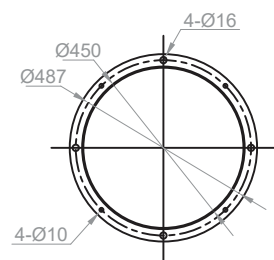
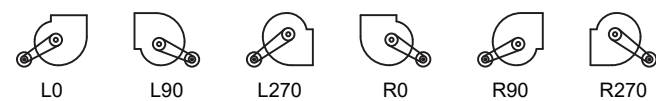
R90



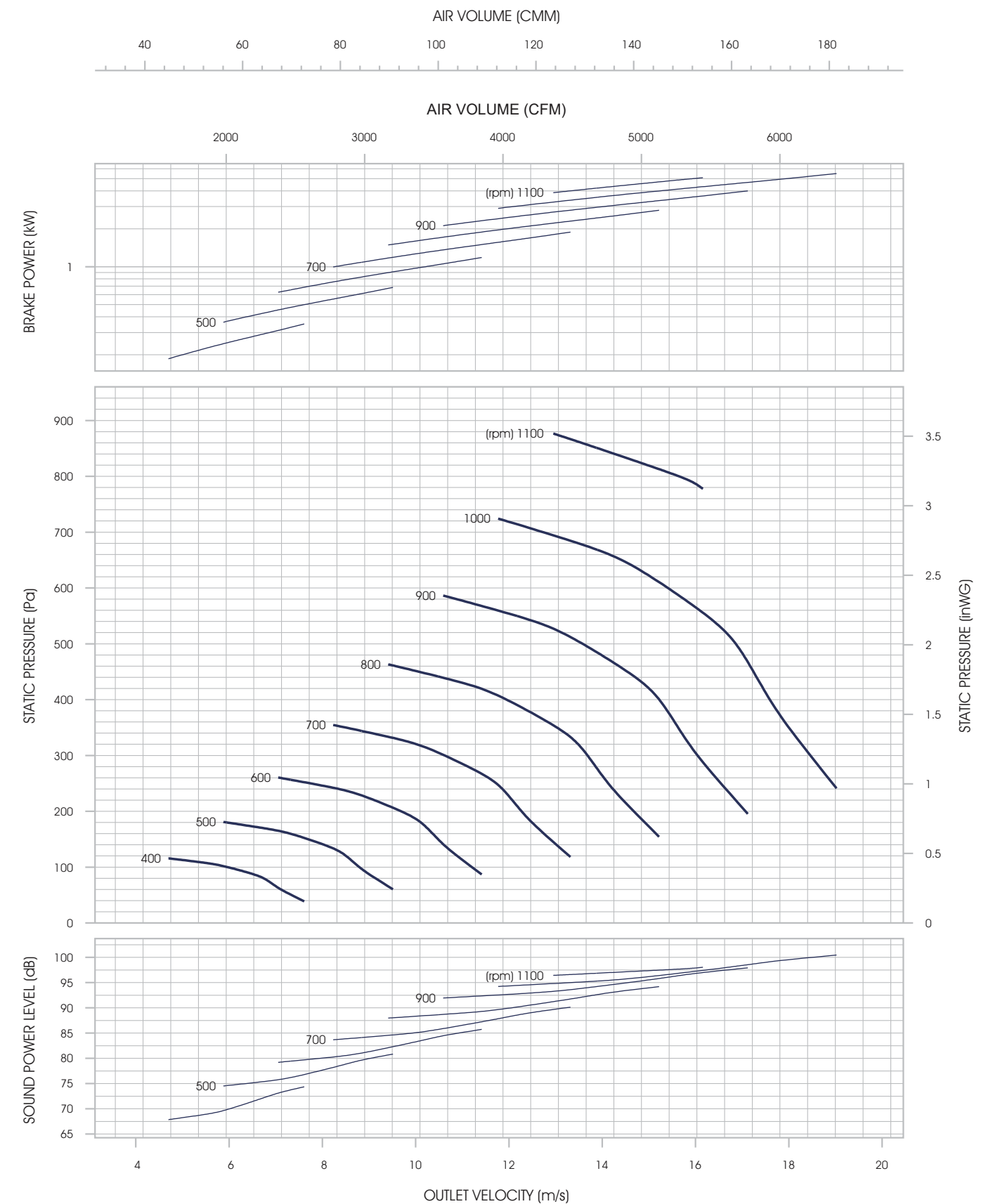
R270



OUTLET FLANGE



INLET FLANGE



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

\*Refer to page 41 for dimensions and weight of WFS 450 Overhung Type.

# WFS 500

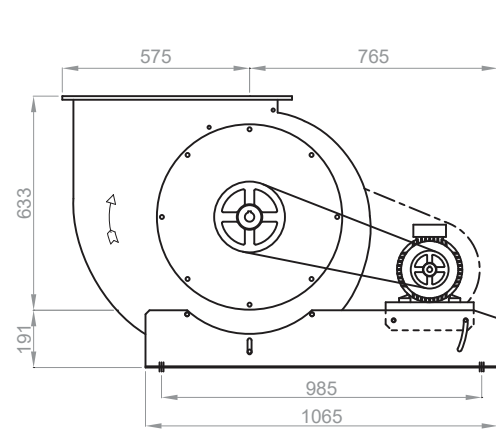
## Forward Curved Single Inlet SWSI

|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 500 mm.               |                  |
| Outlet Area    | 0.2041 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

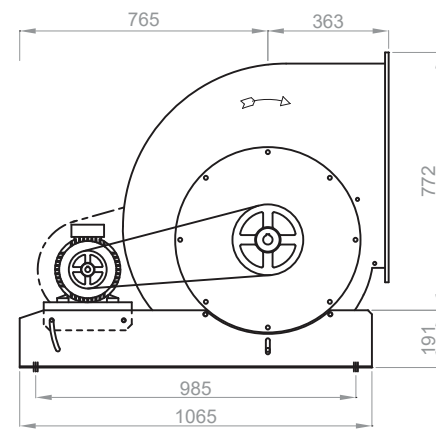


| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | 78   | 78  | 78  | 78  | 78  | -   | -   | -   | -    | -   |
| Total Weight (kg) | -    | 89   | 98  | 102 | 118 | 127 | -   | -   | -   | -    | -   |

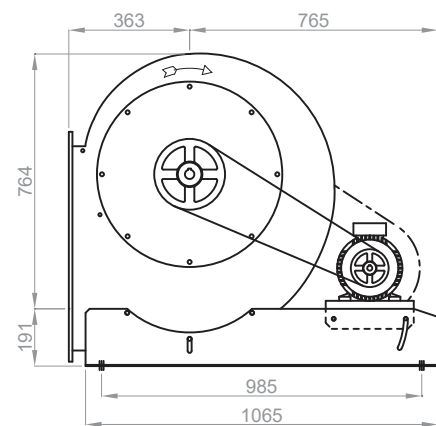
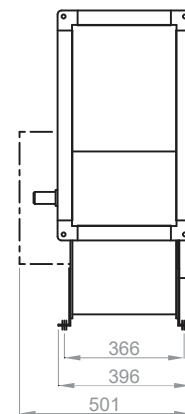
Unit : mm



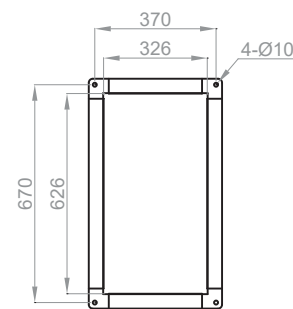
R0



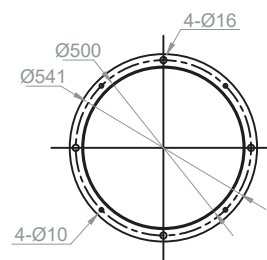
R90



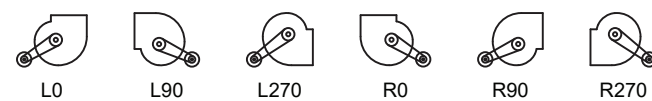
R270



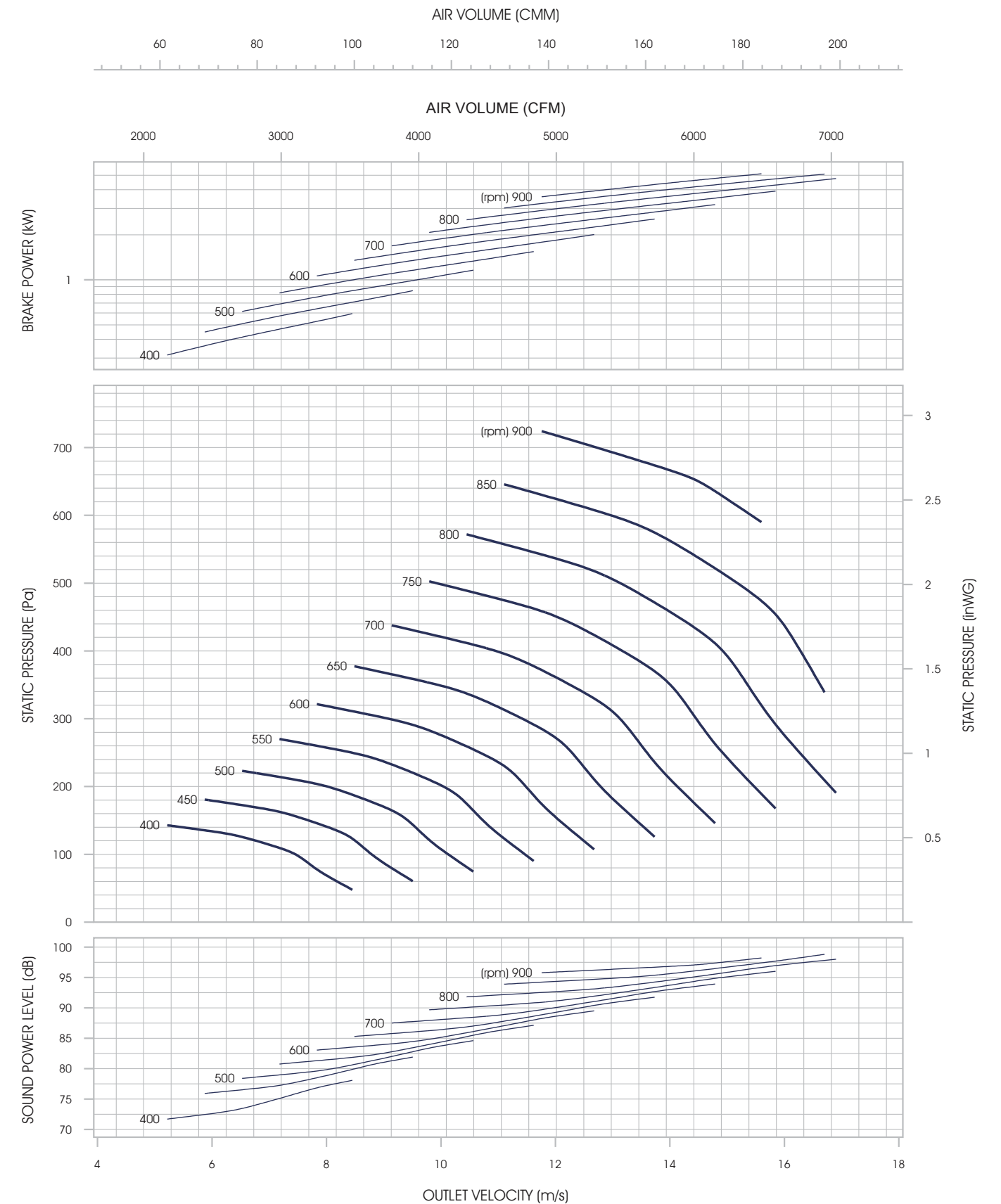
OUTLET FLANGE



INLET FLANGE



\*Refer to page 41 for dimensions and weight of WFS 500 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WFS 560

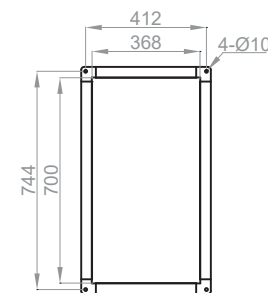
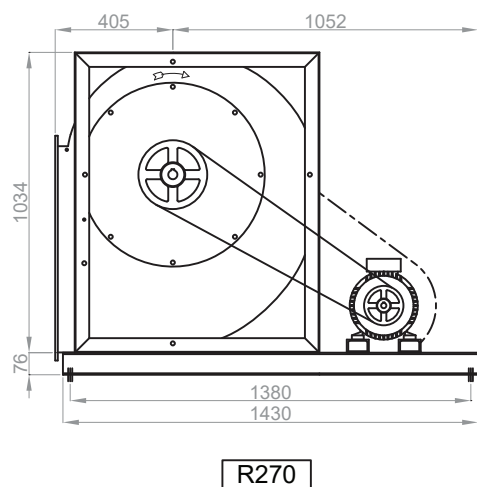
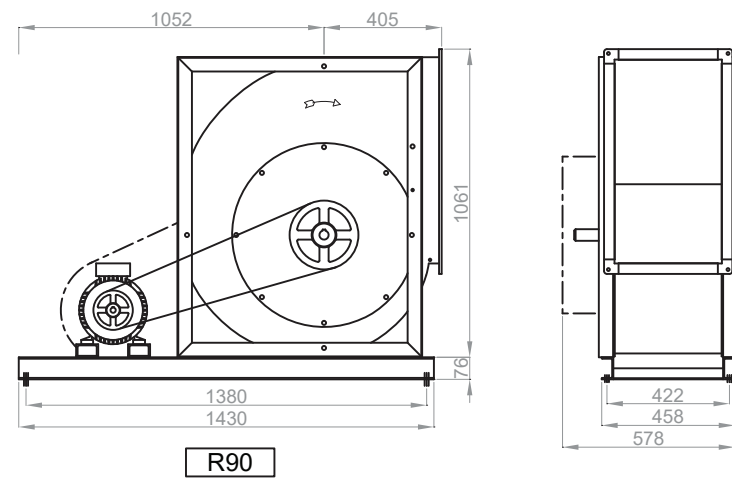
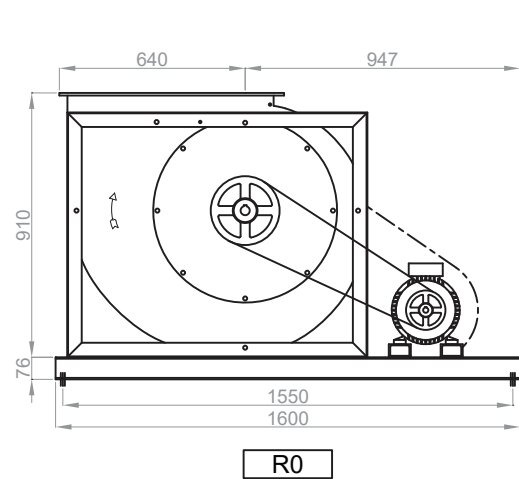
Forward Curved Single Inlet SWSI



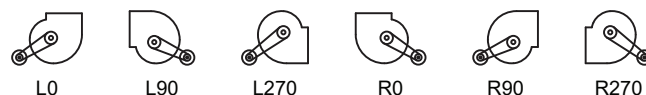
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 560 mm.               |                  |
| Outlet Area    | 0.2576 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | 130  | 130 | 130 | 130 | 130 | -   | -   | -   | -    | -   |
| Total Weight (kg) | -    | 141  | 150 | 154 | 170 | 179 | -   | -   | -   | -    | -   |

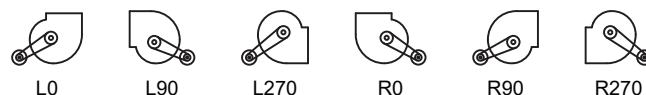
Unit : mm



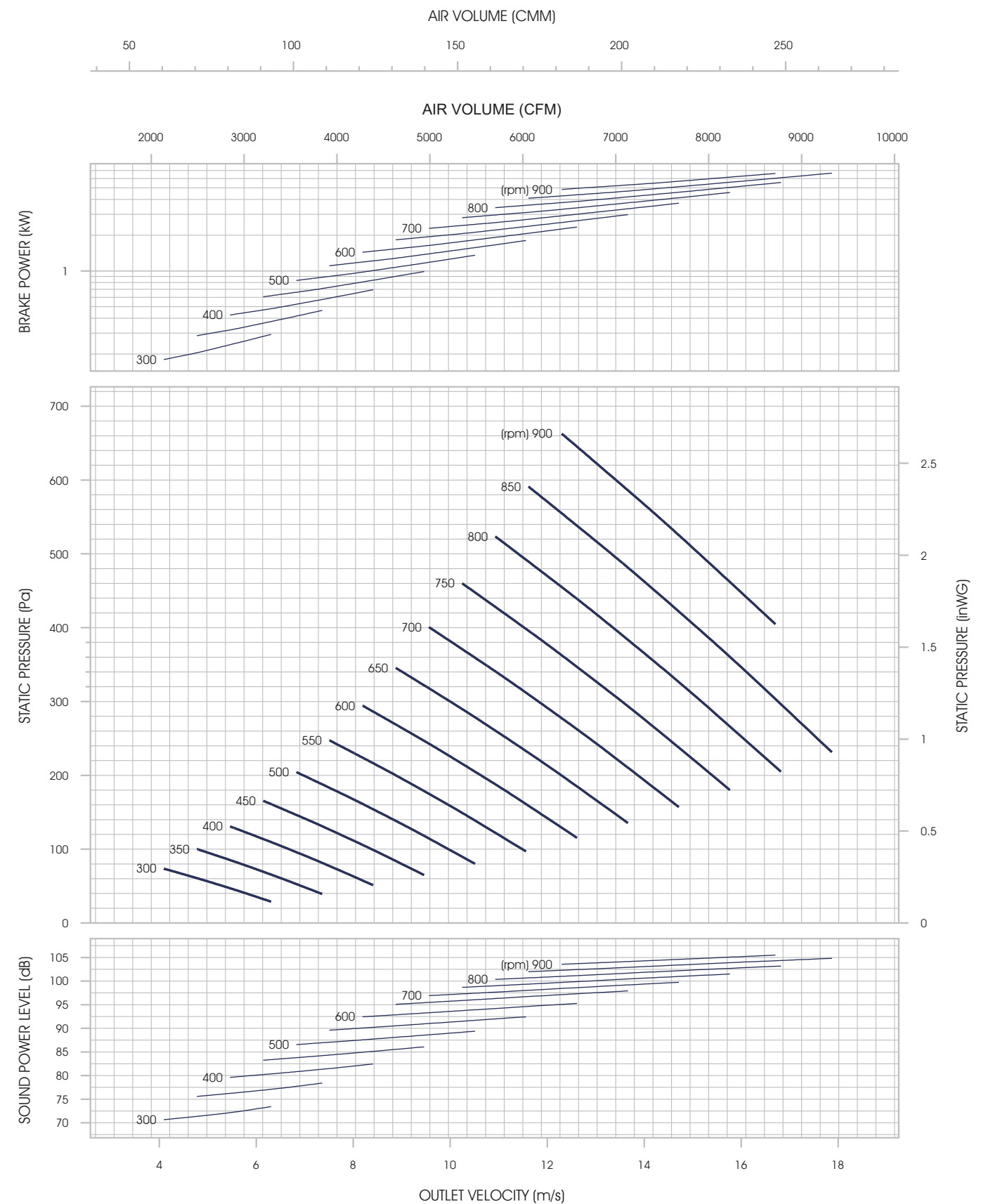
OUTLET FLANGE



INLET FLANGE



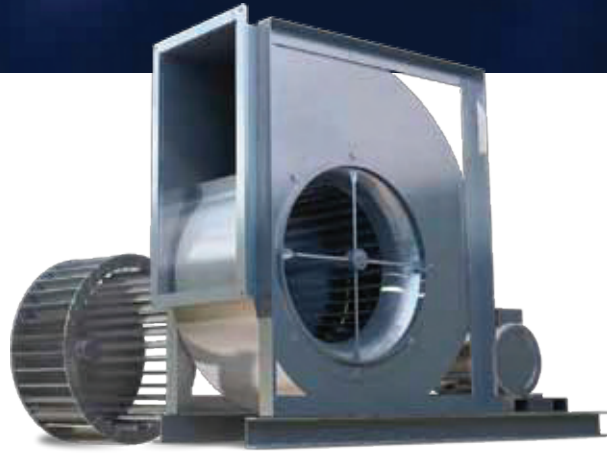
\*Refer to page 41 for dimensions and weight of WFS 560 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WFS 630

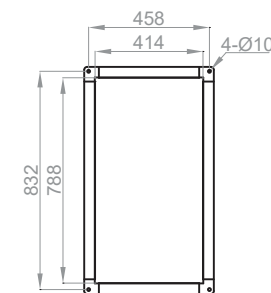
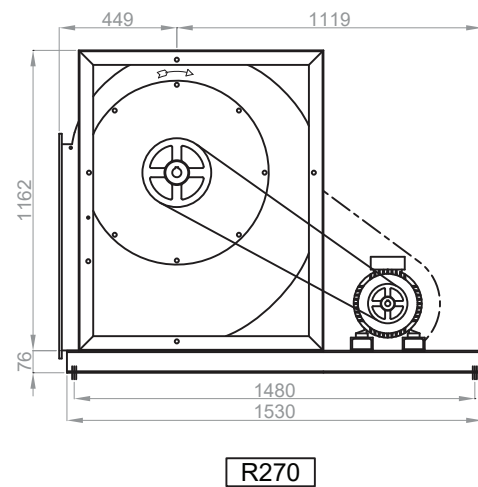
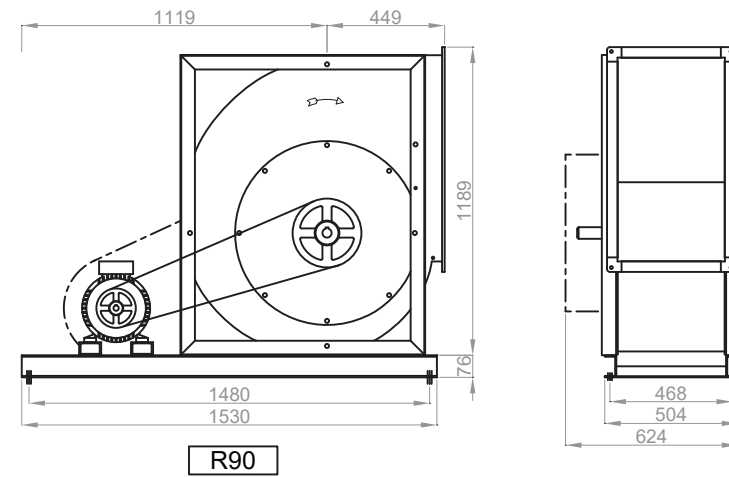
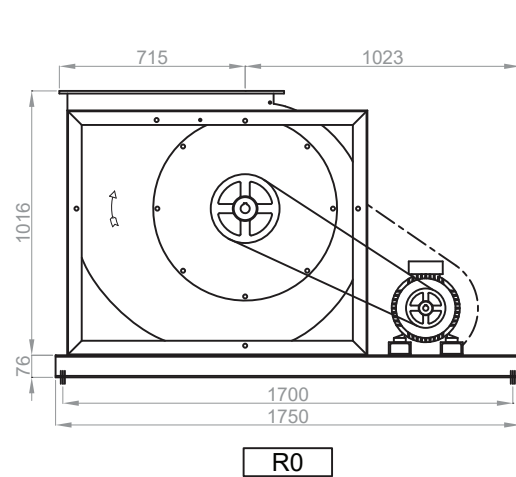
## Forward Curved Single Inlet SWSI



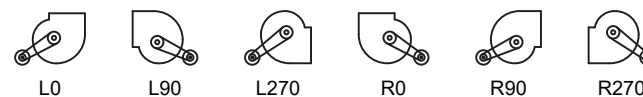
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 630 mm.               |                  |
| Outlet Area    | 0.3262 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | 141 | 141 | 141 | 141 | 141 | -   | -   | -    | -   |
| Total Weight (kg) | -    | -    | 161 | 165 | 181 | 190 | 195 | -   | -   | -    | -   |

Unit : mm

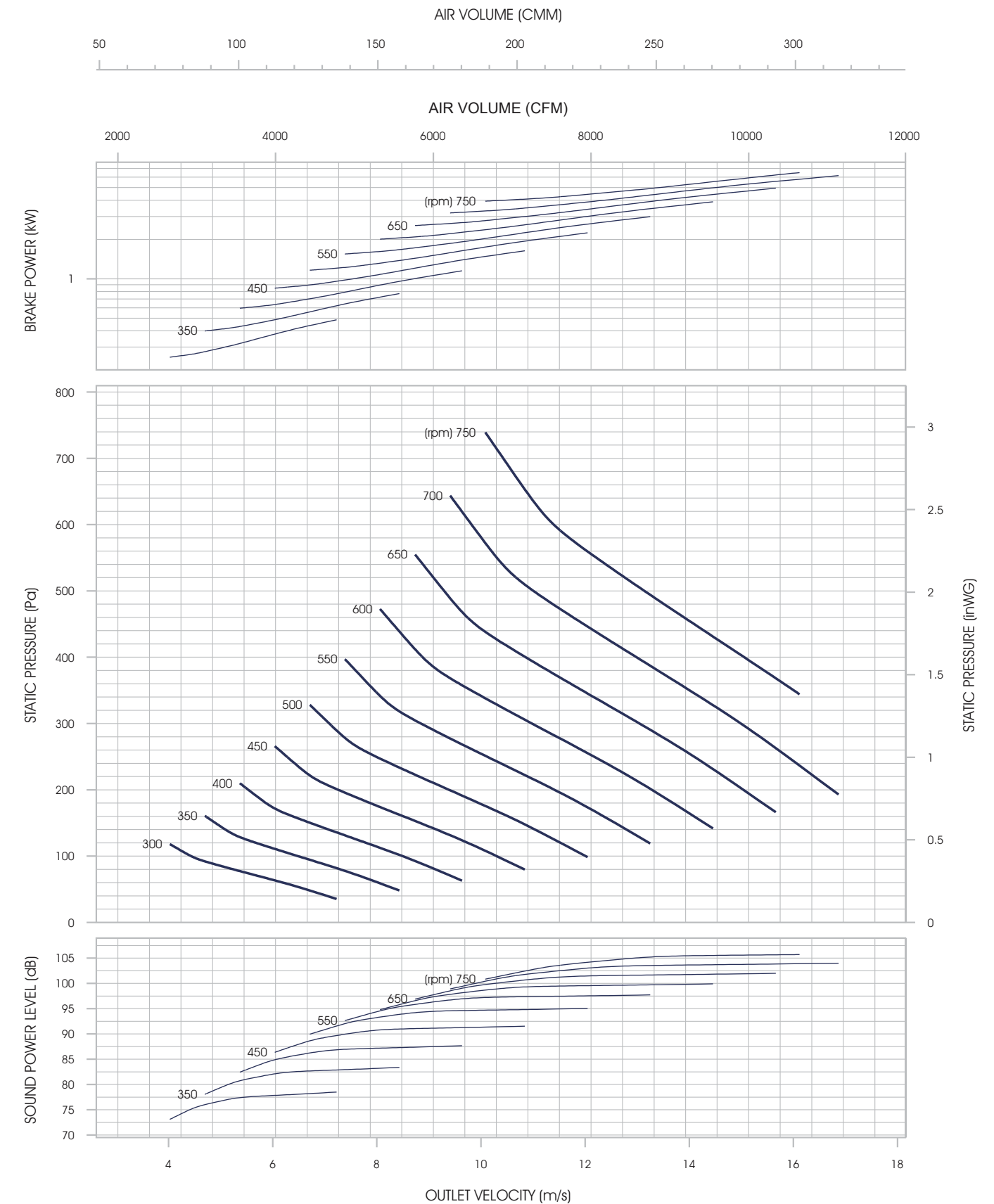


OUTLET FLANGE



INLET FLANGE

\*Refer to page 41 for dimensions and weight of WFS 630 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WFS 710

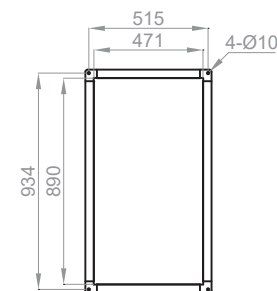
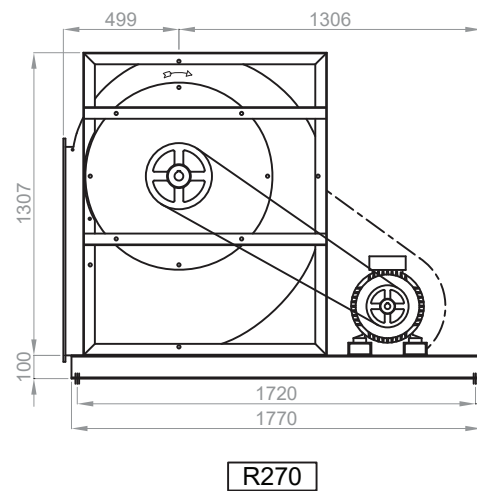
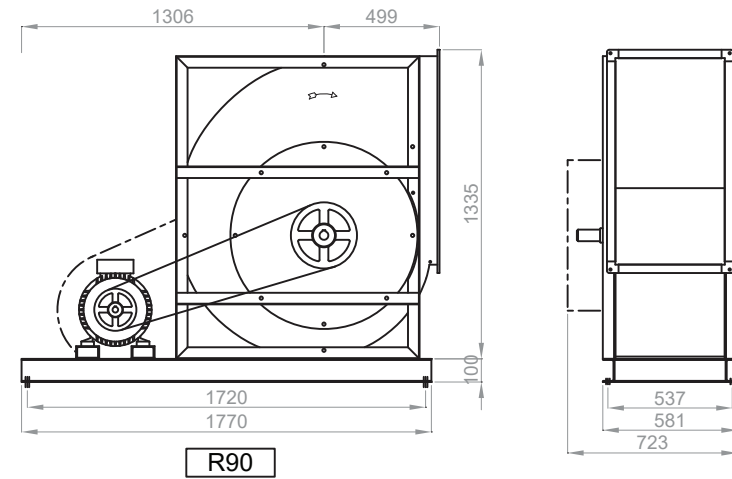
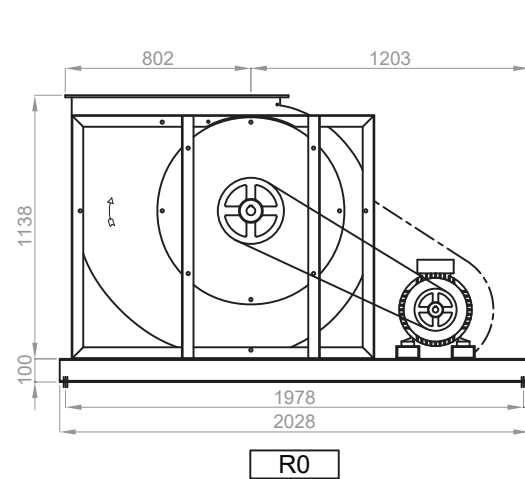
Forward Curved Single Inlet SWSI

|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 710 mm.               |                  |
| Outlet Area    | 0.4192 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

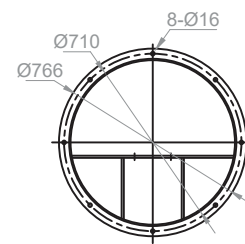
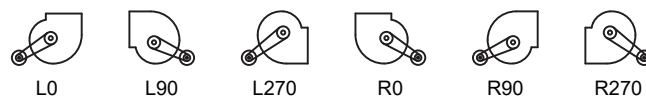


| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | 232 | 232 | 232 | 232 | 232 | 232 | -   | -    | -   |
| Total Weight (kg) | -    | -    | 252 | 256 | 272 | 281 | 286 | 332 | -   | -    | -   |

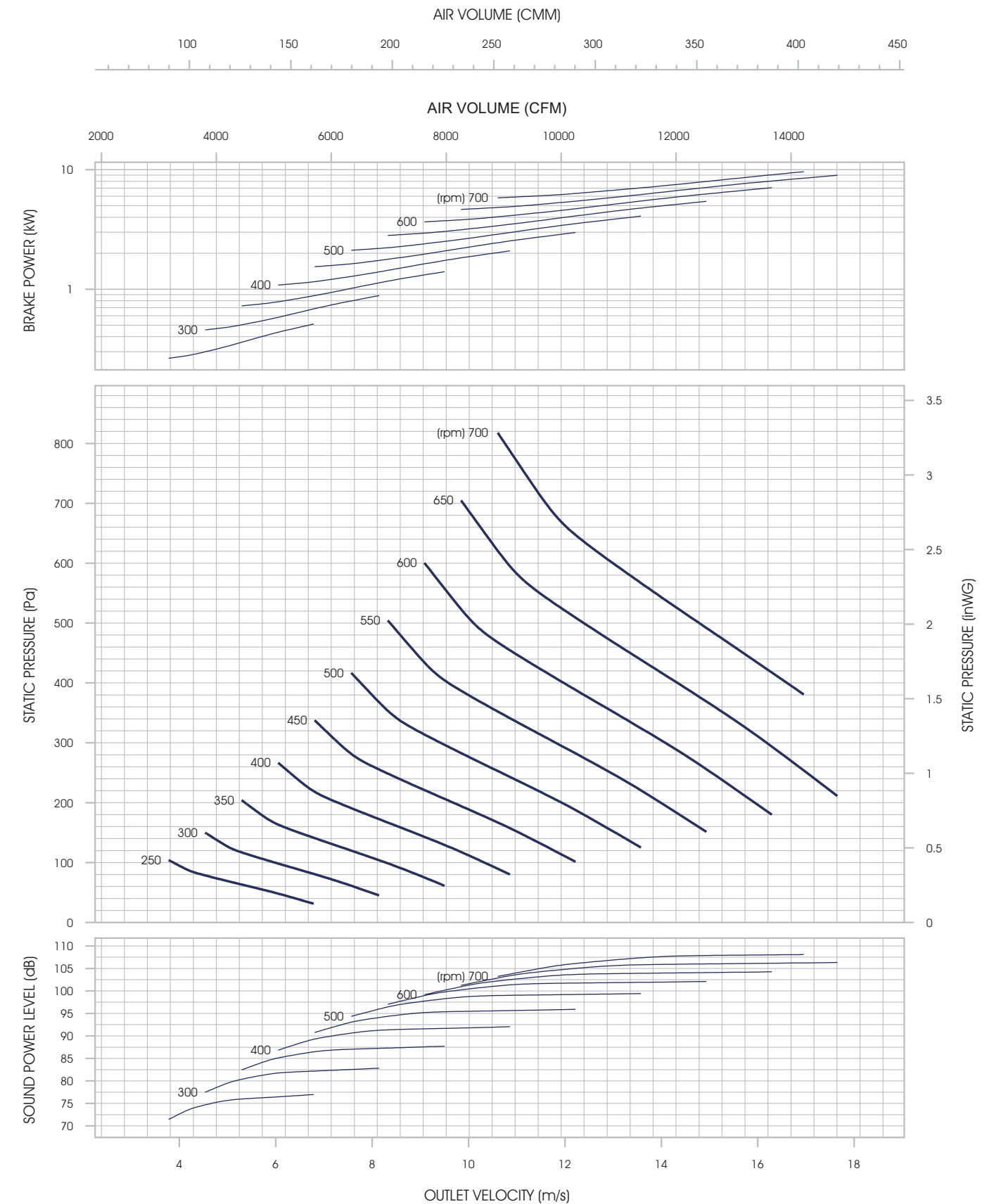
Unit : mm



OUTLET FLANGE



INLET FLANGE



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWI sound power levels for Installation Type B: free inlet, ducted outlet.

\*Refer to page 42 for dimensions and weight of WFS 710 Overhung Type.



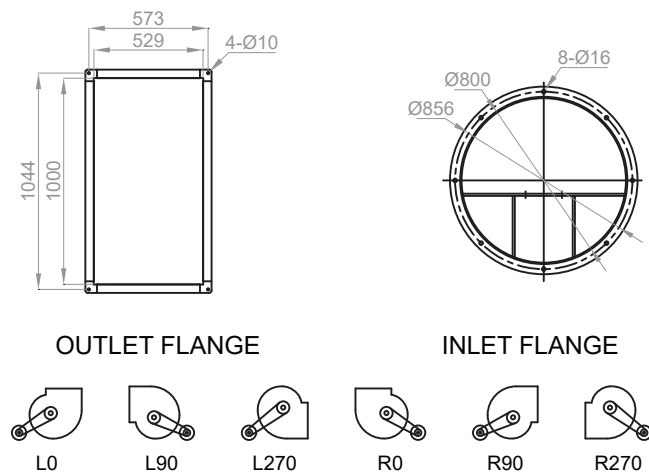
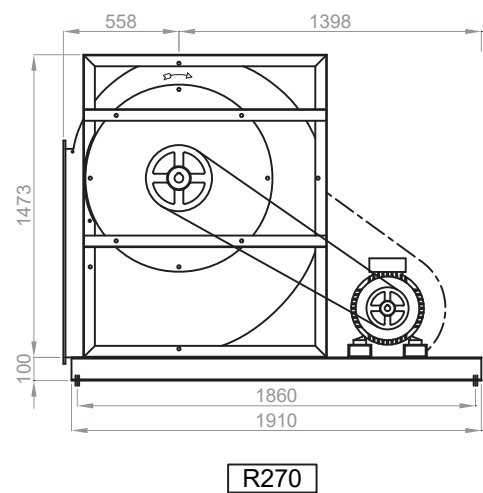
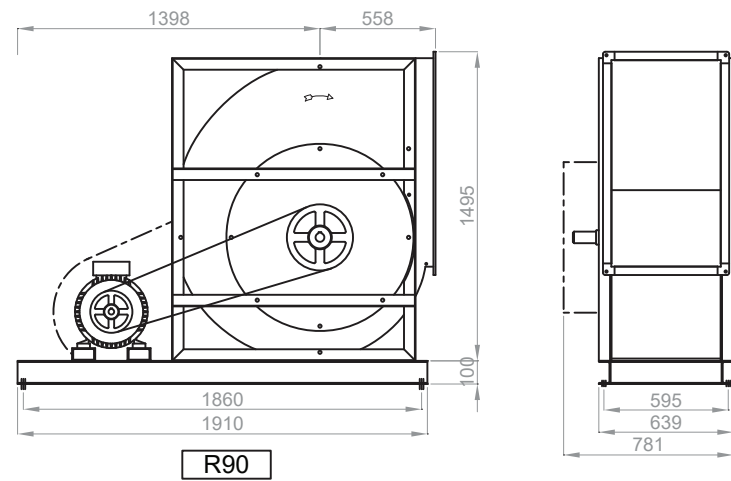
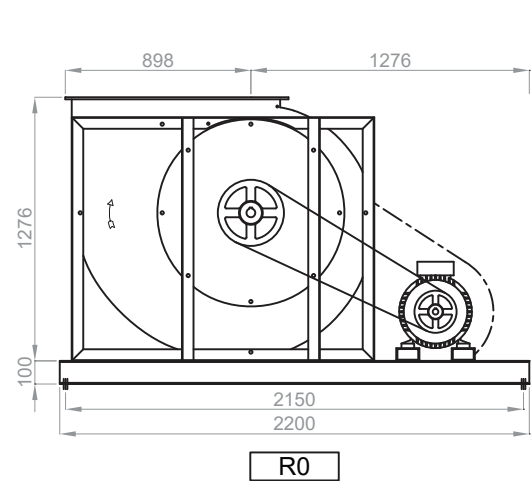
# WFS 800

## Forward Curved Single Inlet SWSI

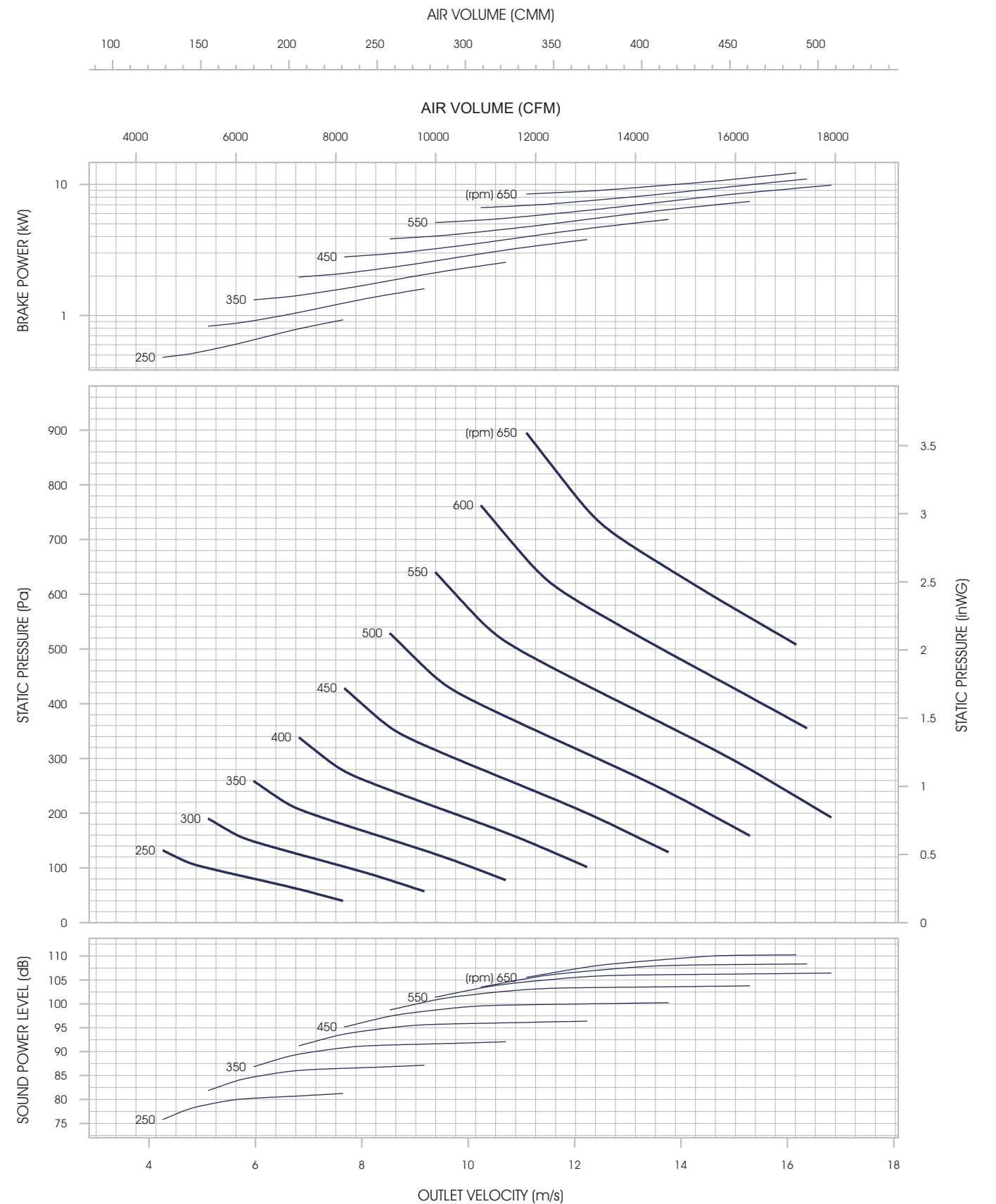
|                |                      |                  |
|----------------|----------------------|------------------|
| Wheel Diameter | 800 mm.              |                  |
| Outlet Area    | 0.529 m <sup>2</sup> |                  |
| Material       | Casing:              | Galvanised Steel |
|                | Impeller:            | Galvanised Steel |
|                | Inlet Cone:          | Polyamide FRP    |
| Rotation       | Forward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | 243 | 243 | 243 | 243 | 243 | 243 | 243 | -    | -   |
| Total Weight (kg) | -    | -    | 263 | 267 | 283 | 292 | 297 | 343 | 368 | -    | -   |

Unit : mm



\*Refer to page 42 for dimensions and weight of WFS 800 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WFS 900

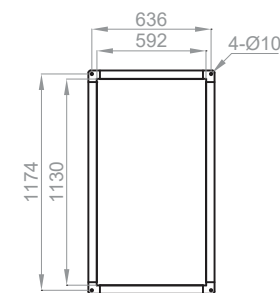
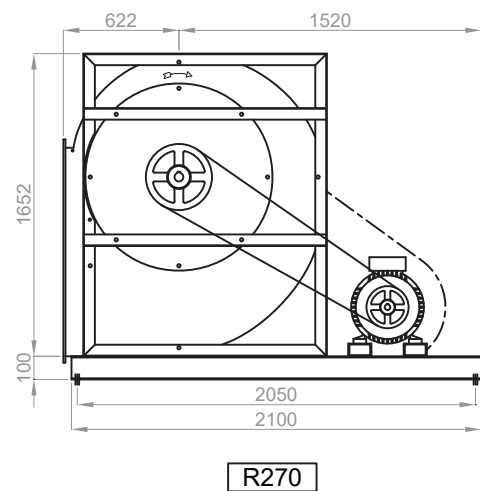
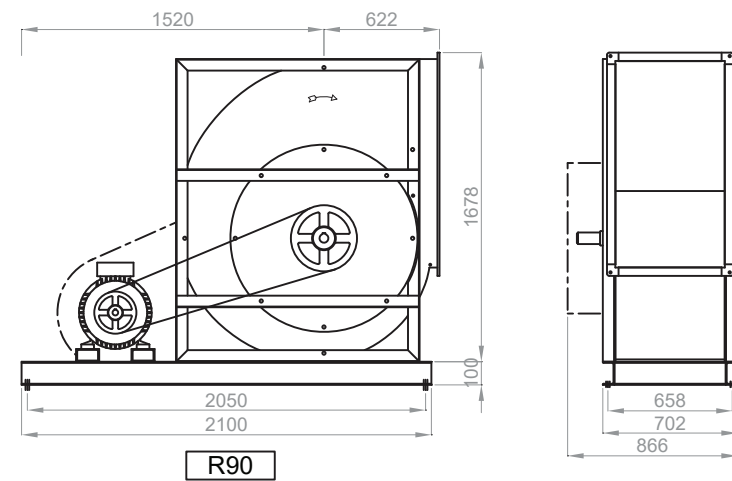
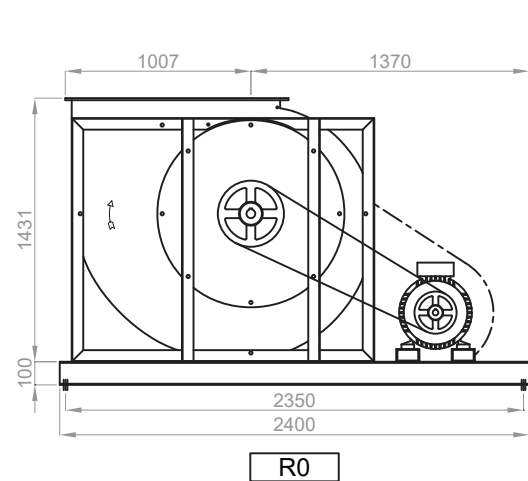
## Forward Curved Single Inlet SWSI

|                |                      |                  |
|----------------|----------------------|------------------|
| Wheel Diameter | 900 mm.              |                  |
| Outlet Area    | 0.669 m <sup>2</sup> |                  |
| Material       | Casing:              | Galvanised Steel |
|                | Impeller:            | Galvanised Steel |
|                | Inlet Cone:          | Polyamide FRP    |
| Rotation       | Forward              |                  |

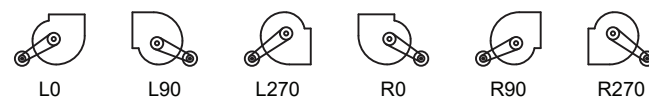


| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | -   | 319 | 319 | 319 | 319 | 319 | 319 | -    | -   |
| Total Weight (kg) | -    | -    | -   | 343 | 359 | 368 | 373 | 419 | 444 | -    | -   |

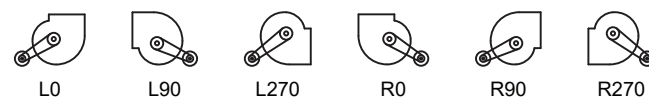
Unit : mm



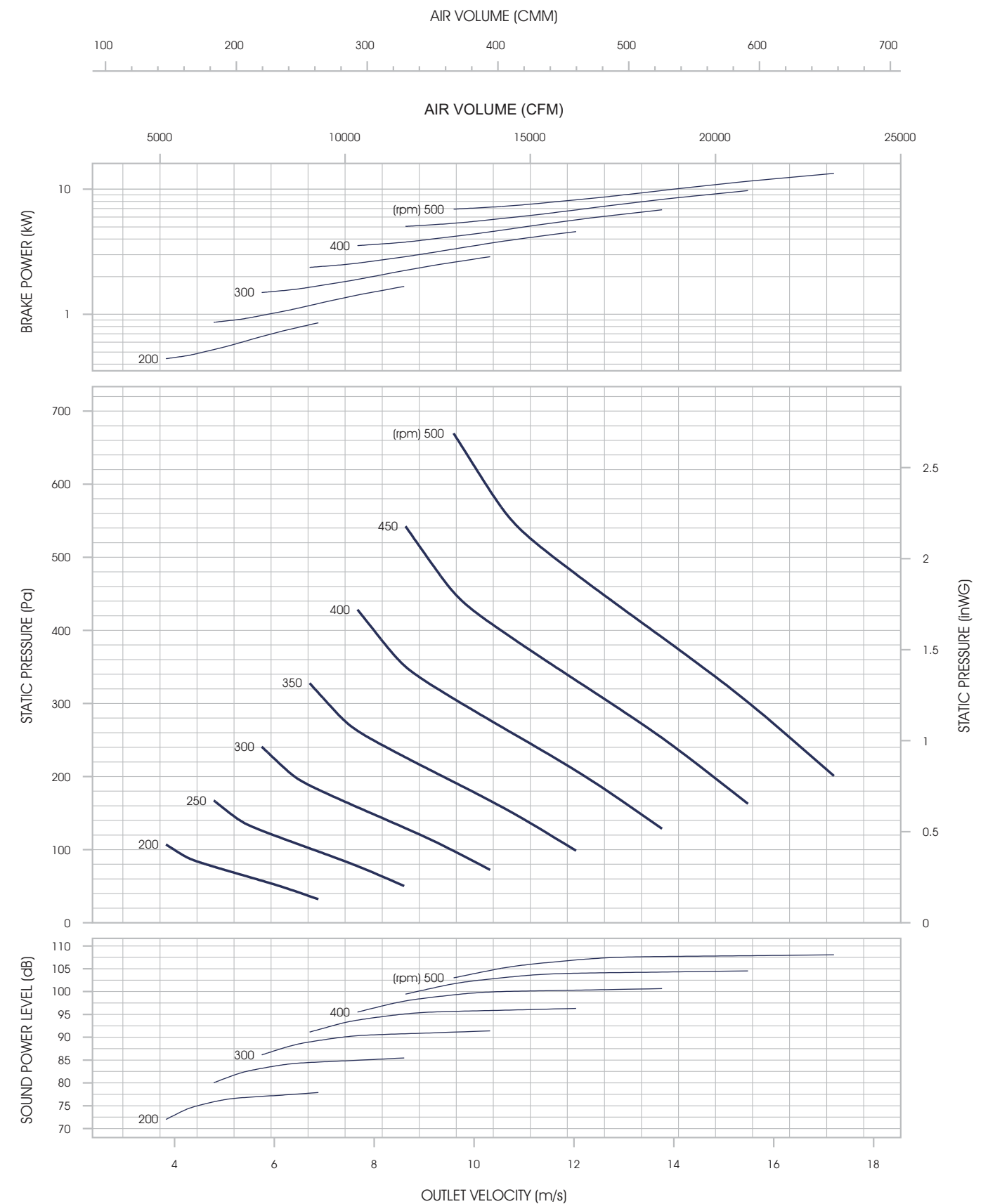
OUTLET FLANGE



INLET FLANGE



\*Refer to page 42 for dimensions and weight of WFS 900 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.



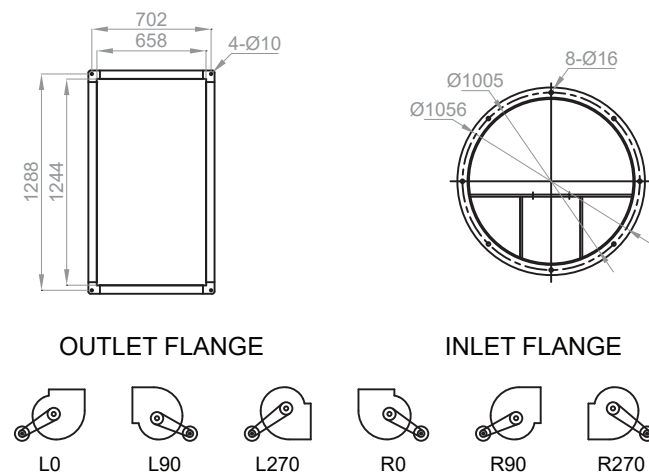
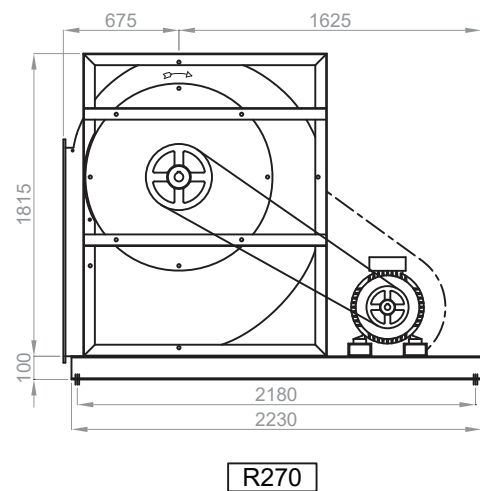
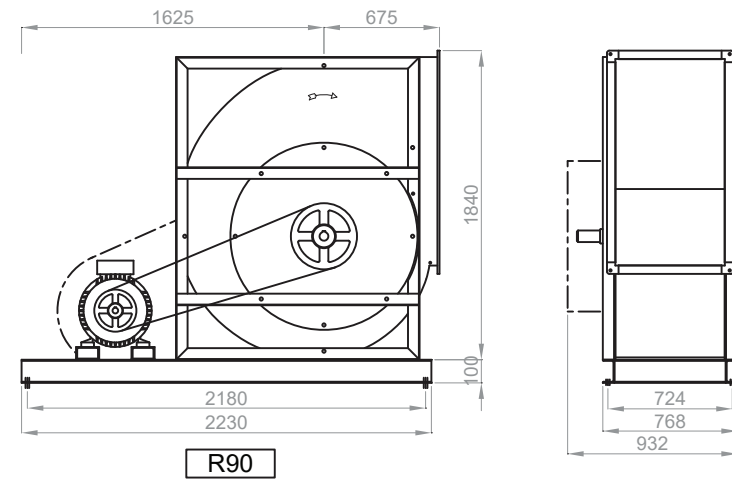
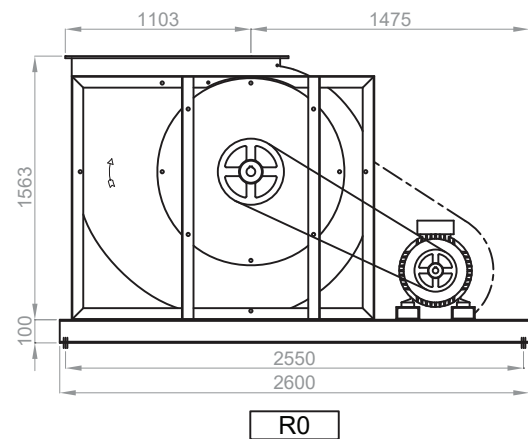
# WFS 1000

Forward Curved Single Inlet SWSI

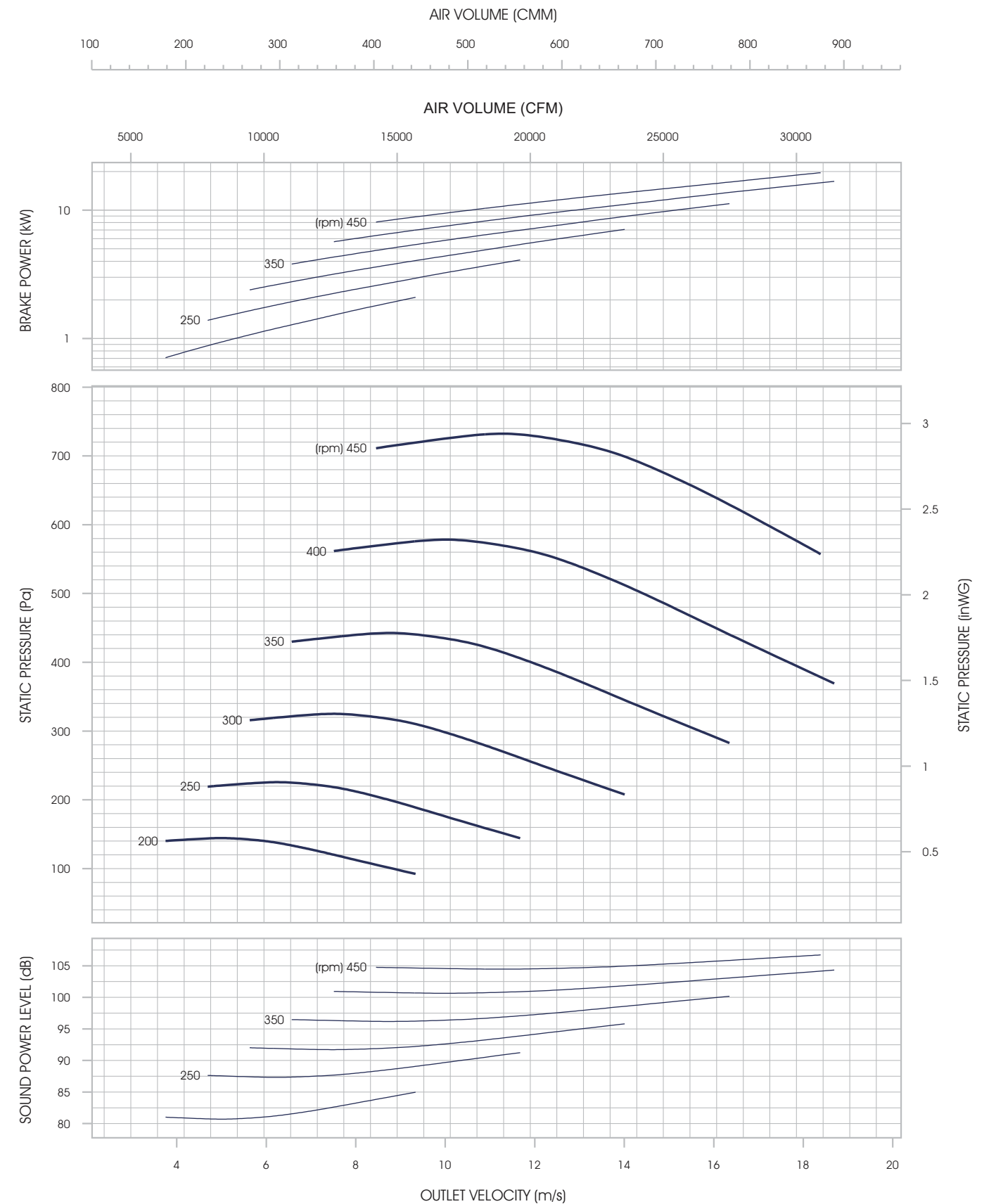
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 1000 mm.              |                  |
| Outlet Area    | 0.8186 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Galvanised Steel |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Forward               |                  |

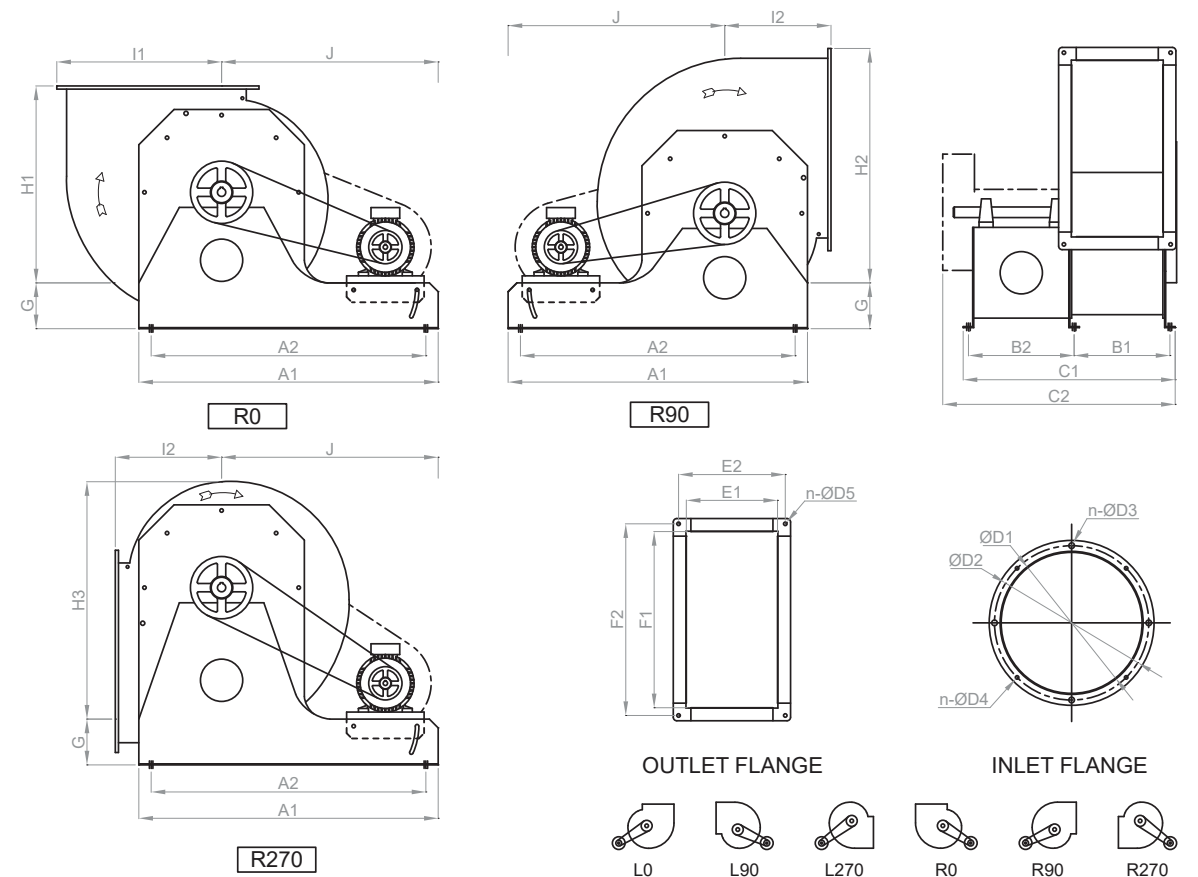
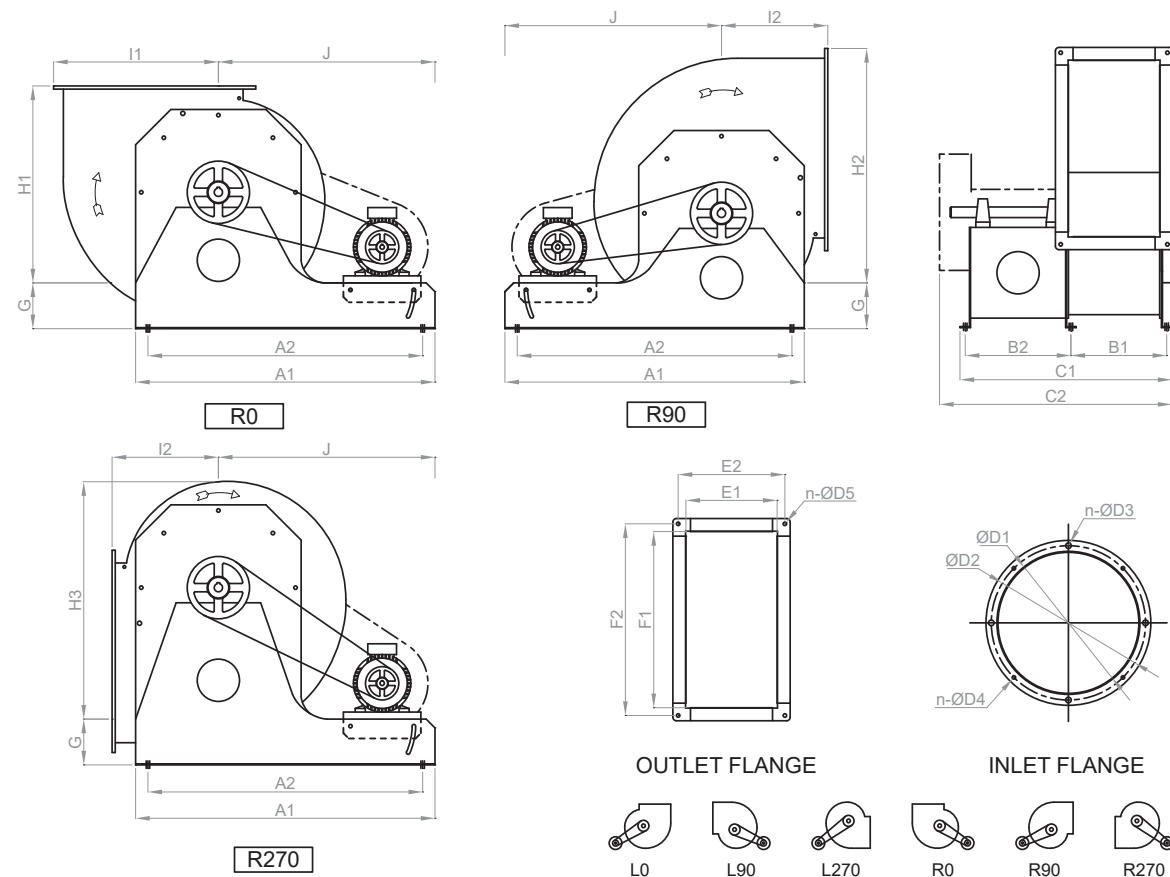
| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | -   | 379 | 379 | 379 | 379 | 379 | 379 | 379  | -   |
| Total Weight (kg) | -    | -    | -   | 403 | 419 | 428 | 433 | 479 | 504 | 539  | -   |

Unit : mm



\*Refer to page 42 for dimensions and weight of WFS 1000 Overhung Type.





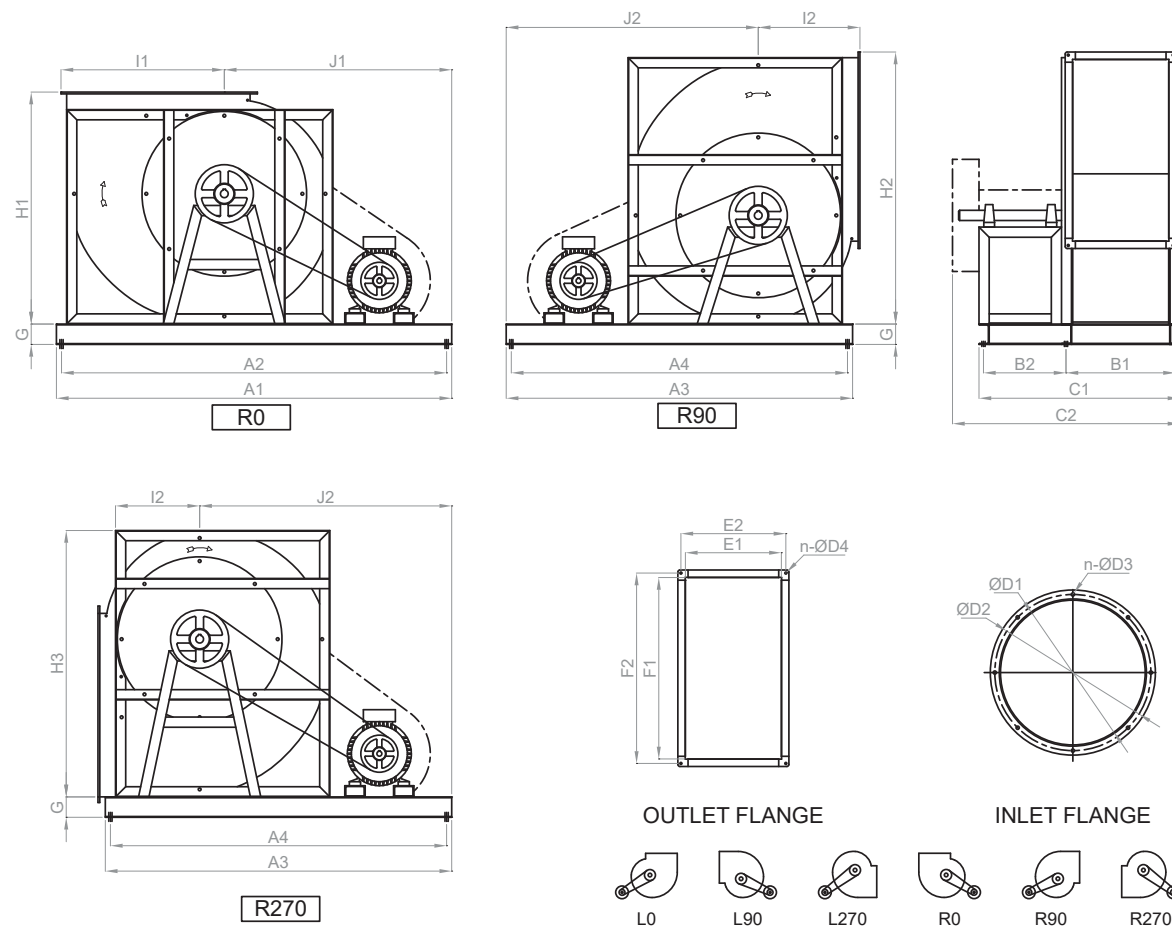
# DIMENSIONS & WEIGHT

Forward Curved Single Inlet SWSI - Overhung Type

| Model No.  | A1   | A2   | A3   | A4   | B1  | B2   | C1   | C2   | ØD1  | ØD2  | n-ØD3 | n-ØD4 |
|------------|------|------|------|------|-----|------|------|------|------|------|-------|-------|
| WFS 710-O  | 1940 | 1890 | 1700 | 1650 | 537 | 405  | 986  | 1116 | 710  | 766  | 8-16  | 4-10  |
| WFS 800-O  | 2100 | 2050 | 1800 | 1750 | 595 | 445  | 1084 | 1211 | 800  | 856  | 8-16  | 4-10  |
| WFS 900-O  | 2300 | 2250 | 1960 | 1910 | 658 | 530  | 1232 | 1371 | 900  | 956  | 8-16  | 4-10  |
| WFS 1000-O | 2500 | 2450 | 2130 | 2080 | 724 | 620  | 1388 | 1524 | 1005 | 1056 | 8-16  | 4-10  |
| Model No.  | E1   | E2   | F1   | F2   | G   | H1   | H2   | H3   | I1   | I2   | J1    | J2    |
| WFS 710-O  | 471  | 515  | 890  | 934  | 100 | 1138 | 1335 | 1307 | 802  | 499  | 1116  | 1237  |
| WFS 800-O  | 529  | 573  | 1000 | 1044 | 100 | 1276 | 1495 | 1473 | 898  | 558  | 1174  | 1295  |
| WFS 900-O  | 592  | 636  | 1130 | 1174 | 100 | 1431 | 1678 | 1652 | 1007 | 622  | 1269  | 1400  |
| WFS 1000-O | 658  | 702  | 1244 | 1288 | 100 | 1563 | 1840 | 1815 | 1103 | 675  | 1372  | 1522  |

| Model No.  | MOTOR (kW)  | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|------------|-------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Model No.  | WEIGHT (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| WFS 710-O  | 315         | -    | -    | 335 | 339 | 355 | 364 | 369 | 415 | -   | -    | -   |
| WFS 800-O  | 393         | -    | -    | 413 | 417 | 433 | 442 | 447 | 493 | 518 | -    | -   |
| WFS 900-O  | 488         | -    | -    | -   | 512 | 528 | 537 | 542 | 588 | 613 | -    | -   |
| WFS 1000-O | 556         | -    | -    | -   | 580 | 596 | 605 | 610 | 656 | 681 | 716  | -   |

Unit : mm



## Backward Curved Single Inlet SWSI

WBS 280-1000

\*Overhung Type Centrifugal Fan Curves are as same as those of the standard Centrifugal





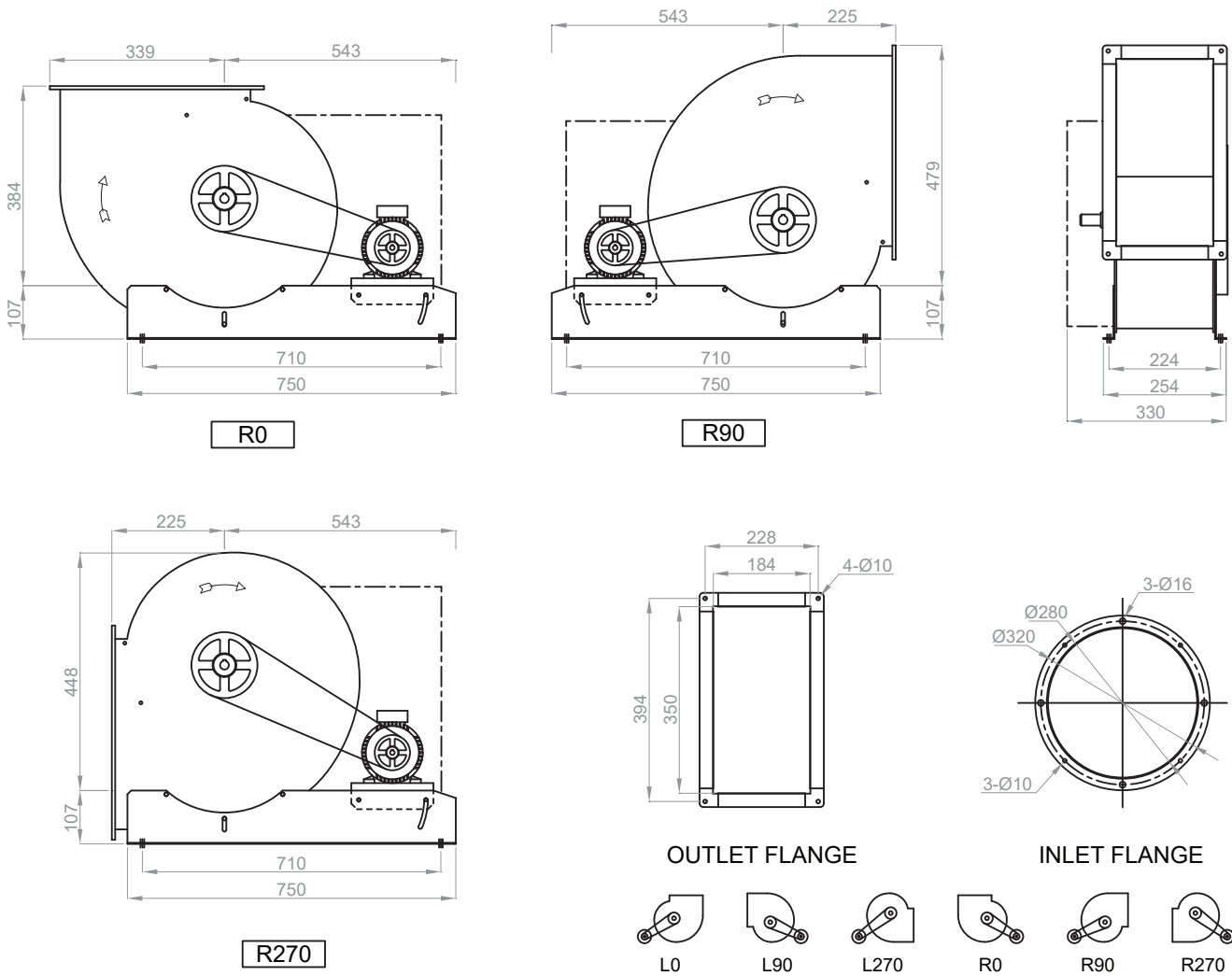
# WBS 280

## Backward Curved Single Inlet SWSI

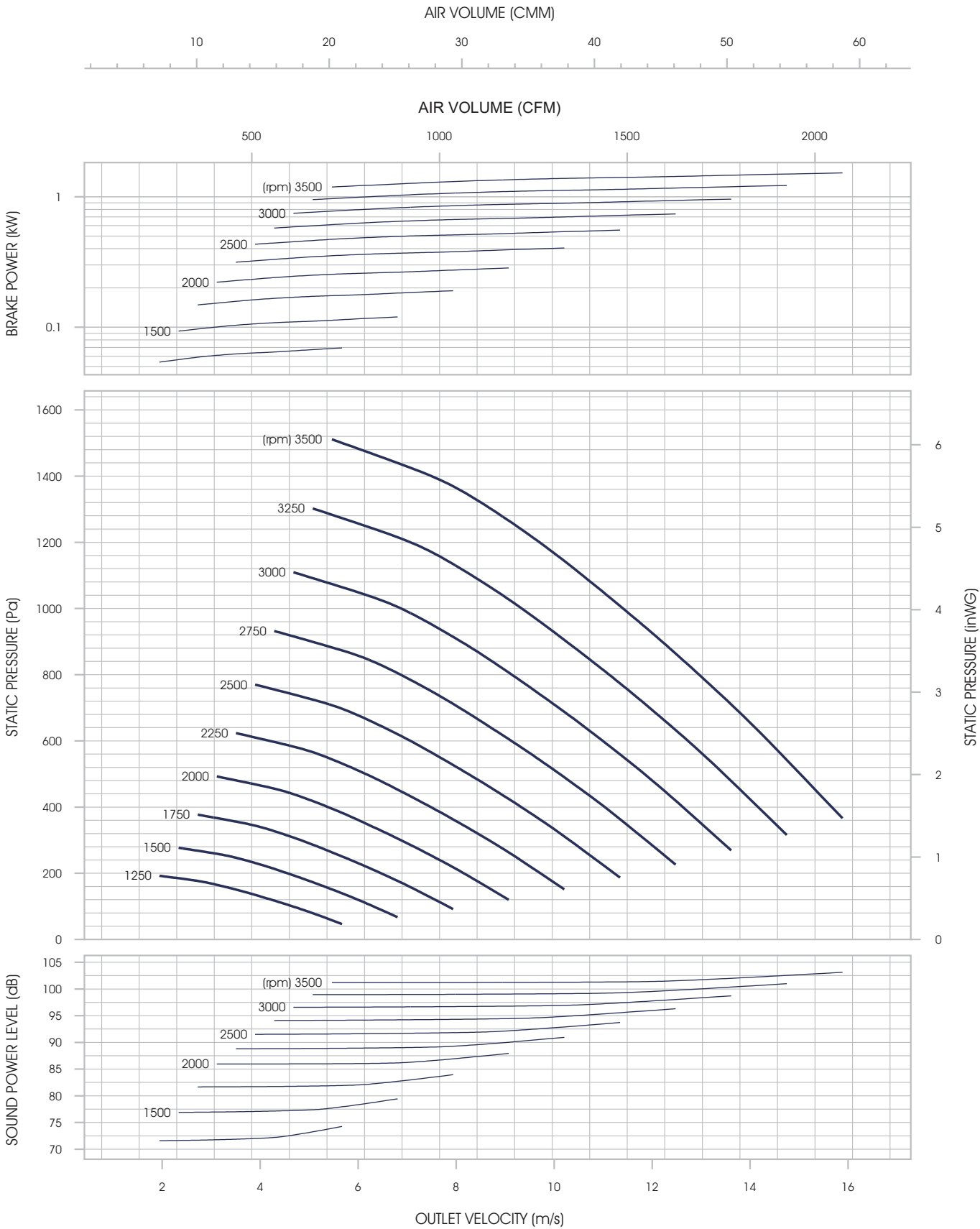
|                |             |                  |
|----------------|-------------|------------------|
| Wheel Diameter | 280 mm.     |                  |
| Outlet Area    | 0.0644 m²   |                  |
| Material       | Casing:     | Galvanised Steel |
|                | Impeller:   | Aluminum         |
|                | Inlet Cone: | Polyamide FRP    |
| Rotation       | Backward    |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 25   | 25   | 25  | 25  | -   | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 33.5 | 36   | 45  | 49  | -   | -   | -   | -   | -   | -    | -   |

Unit : mm



\*Refer to page 68 for dimensions and weight of WBS 280 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.



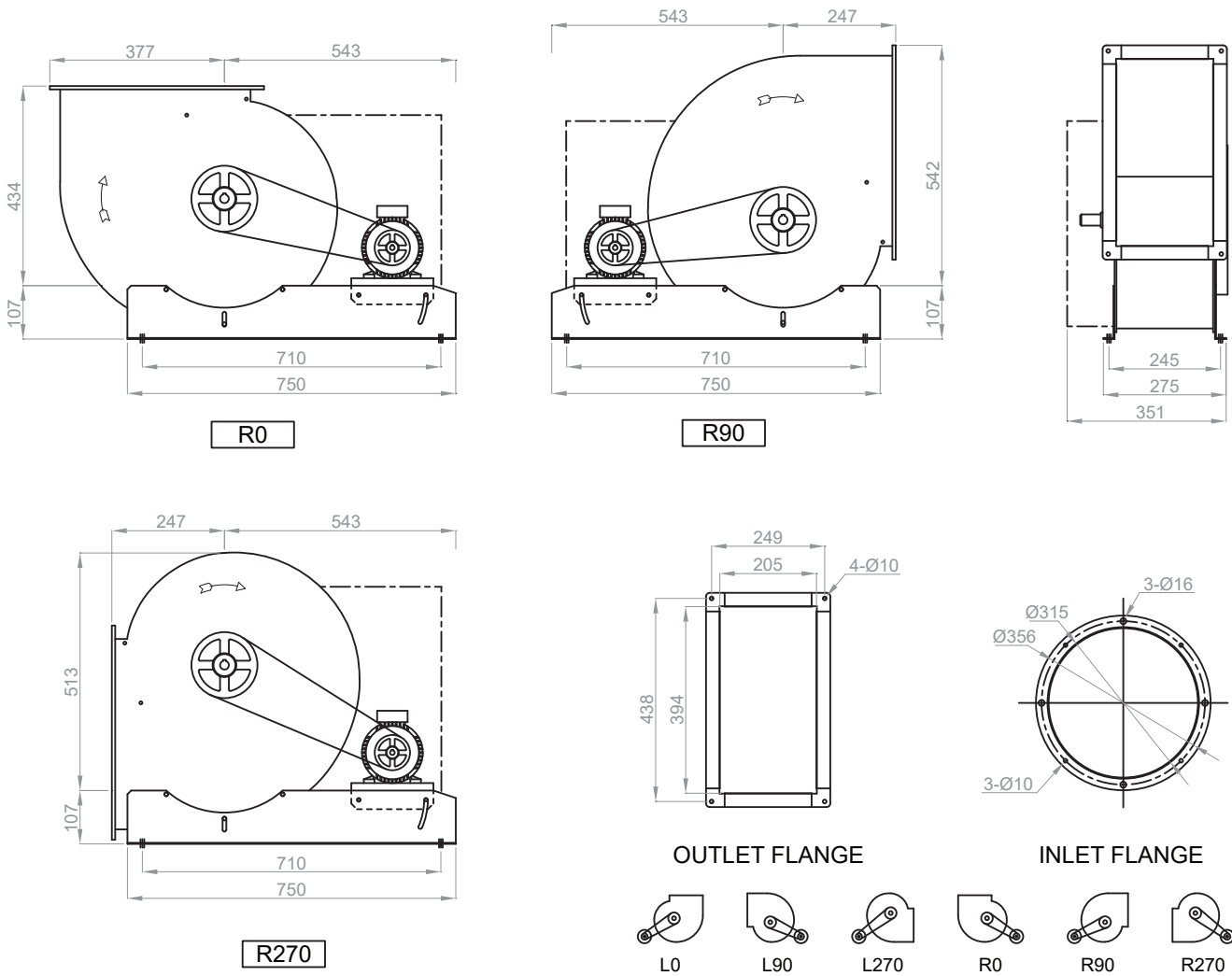
# WBS 315

## Backward Curved Single Inlet SWSI

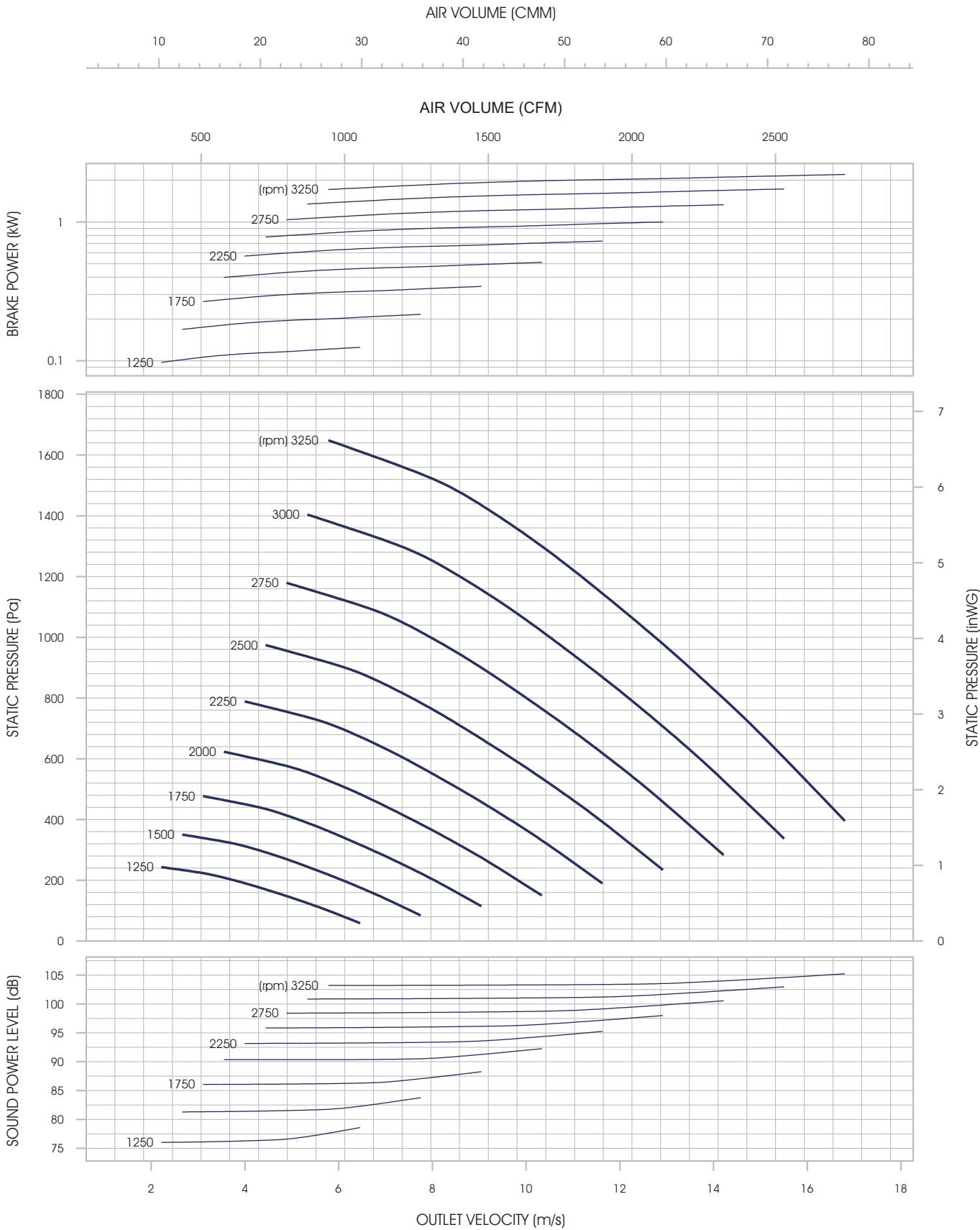
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 315 mm.               |                  |
| Outlet Area    | 0.0808 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 26   | 26   | 26  | 26  | -   | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 34.5 | 37   | 46  | 50  | -   | -   | -   | -   | -   | -    | -   |

Unit : mm



\*Refer to page 68 for dimensions and weight of WBS 315 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WBS 355

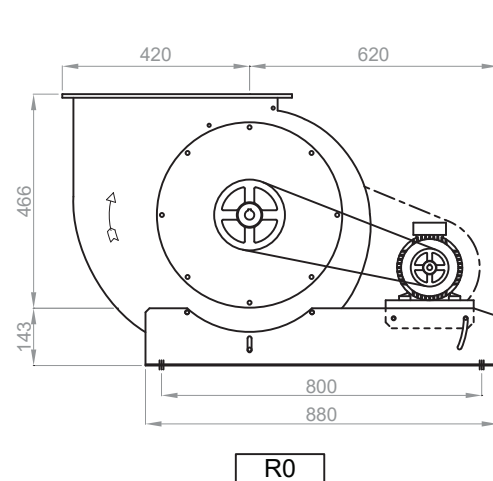
## Backward Curved Single Inlet SWSI



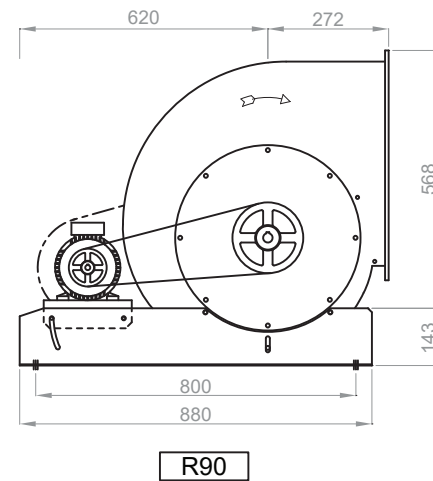
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 355 mm.               |                  |
| Outlet Area    | 0.1035 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 42   | 42   | 42  | 42  | 42  | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 50.5 | 53   | 62  | 66  | 82  | -   | -   | -   | -   | -    | -   |

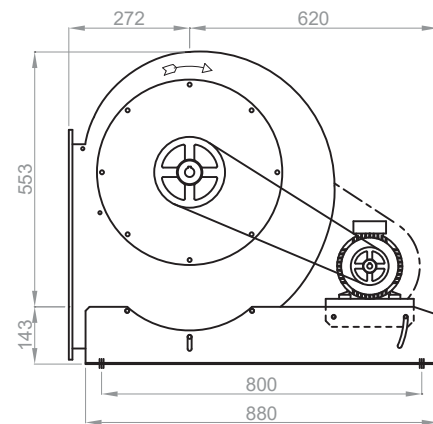
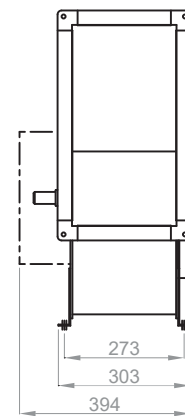
Unit : mm



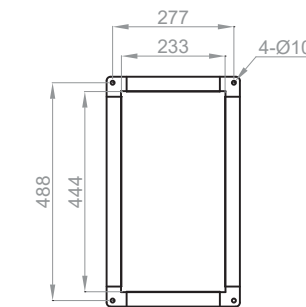
R0



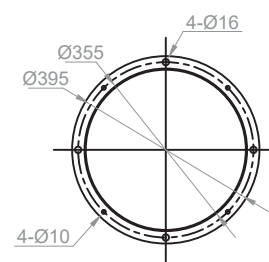
R90



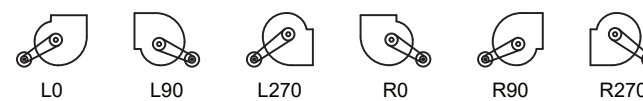
R270



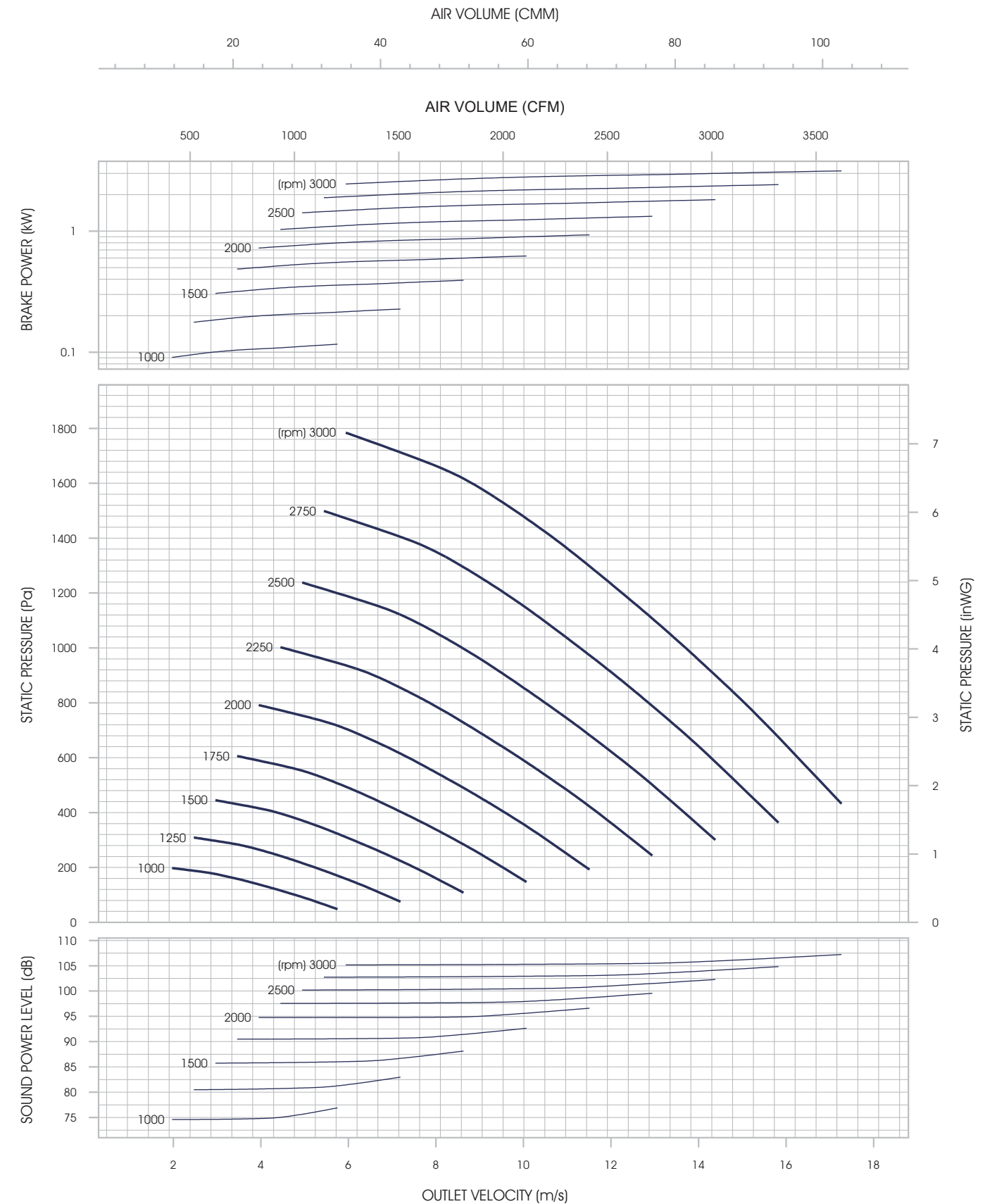
OUTLET FLANGE



INLET FLANGE



\*Refer to page 68 for dimensions and weight of WBS 355 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WBS 400

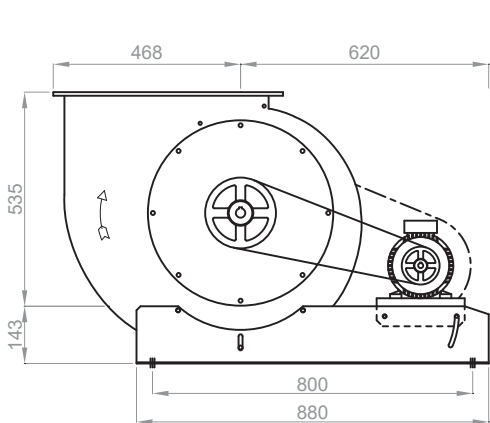
## Backward Curved Single Inlet SWSI



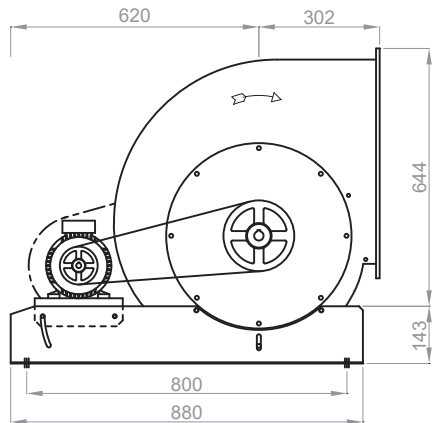
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 400 mm.               |                  |
| Outlet Area    | 0.1295 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | 44   | 44   | 44  | 44  | 44  | -   | -   | -   | -   | -    | -   |
| Total Weight (kg) | 52.5 | 55   | 64  | 68  | 84  | -   | -   | -   | -   | -    | -   |

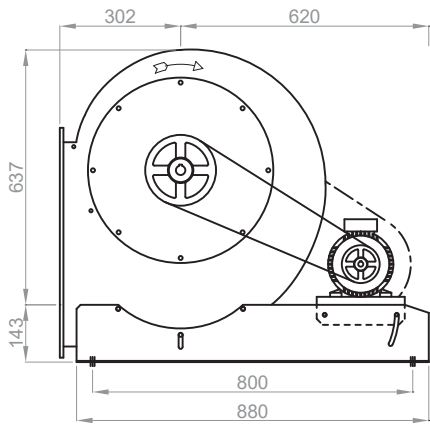
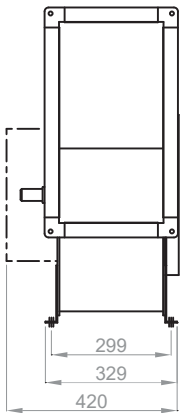
Unit : mm



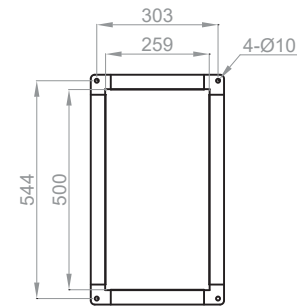
R0



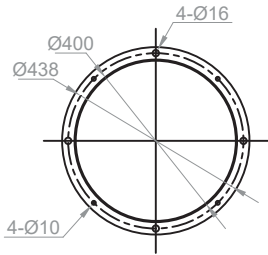
R90



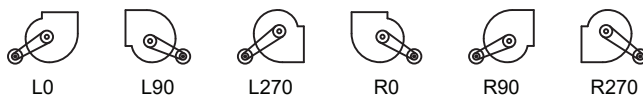
R270



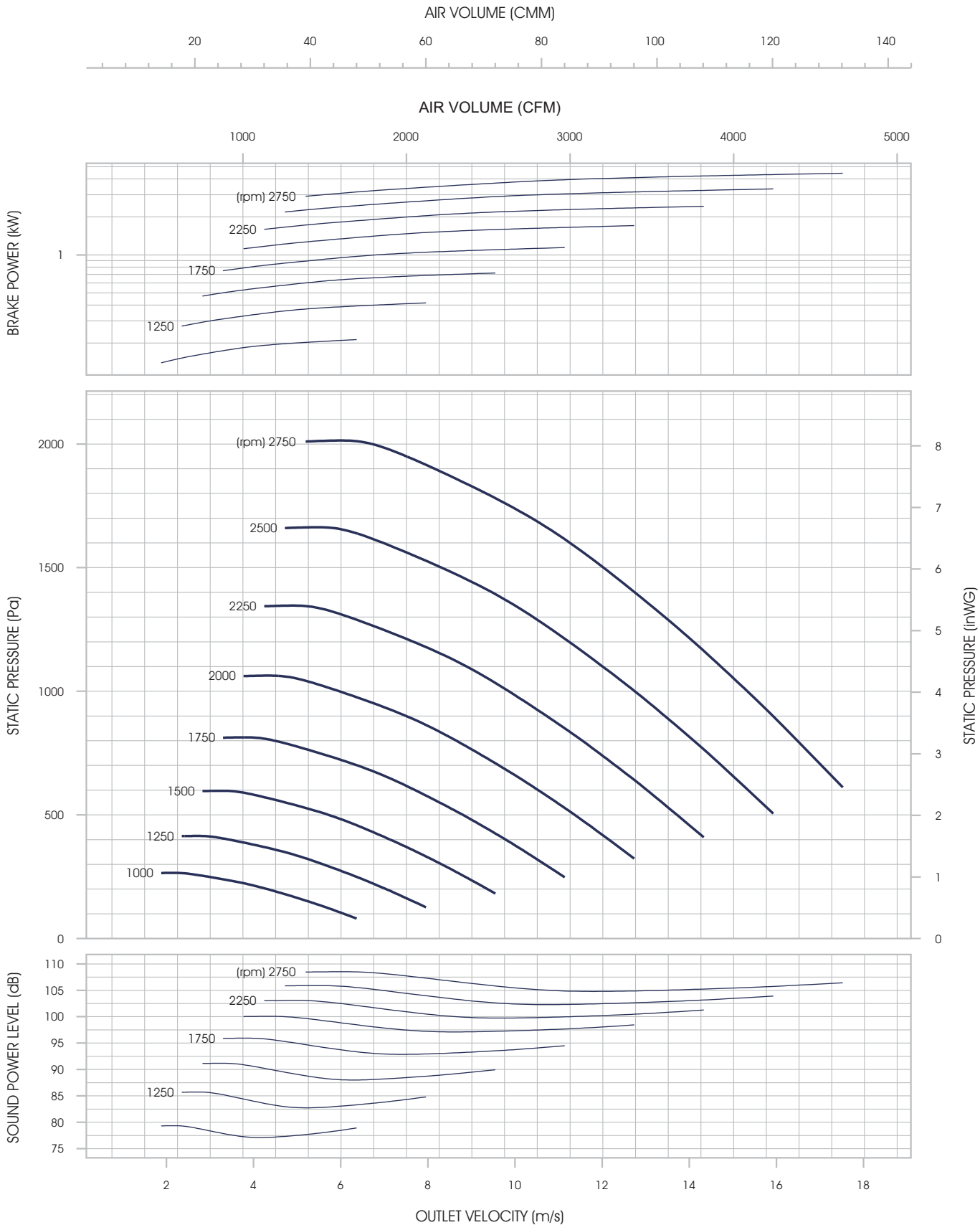
OUTLET FLANGE



INLET FLANGE



\*Refer to page 68 for dimensions and weight of WBS 400 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WBS 450

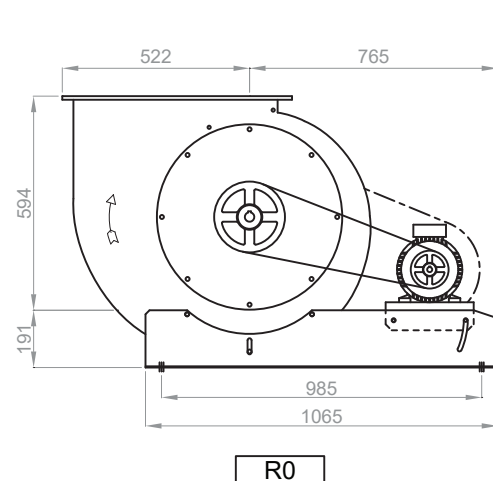
## Backward Curved Single Inlet SWSI



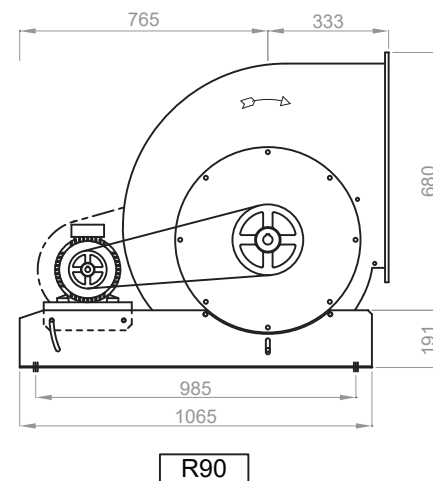
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 450 mm.               |                  |
| Outlet Area    | 0.1641 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | 61   | 61  | 61  | 61  | 61  | -   | -   | -   | -    | -   |
| Total Weight (kg) | -    | 72   | 81  | 85  | 101 | 110 | -   | -   | -   | -    | -   |

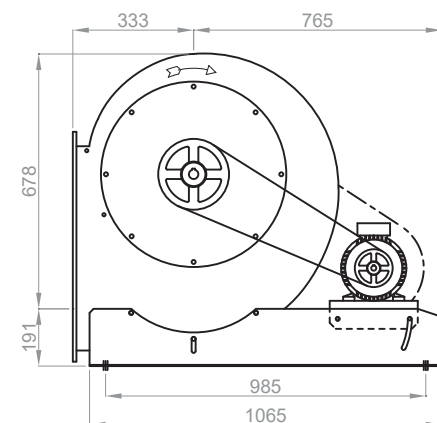
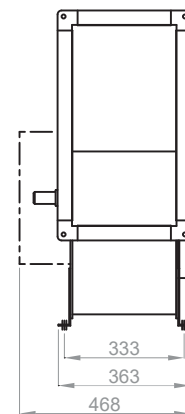
Unit : mm



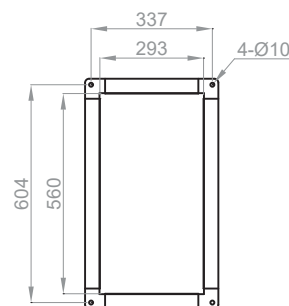
R0



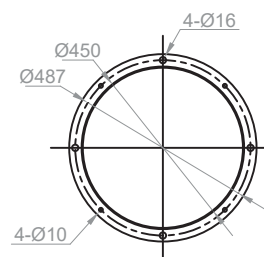
R90



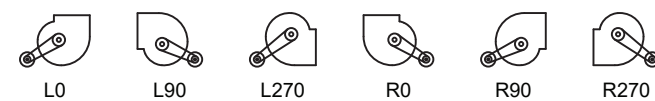
R270



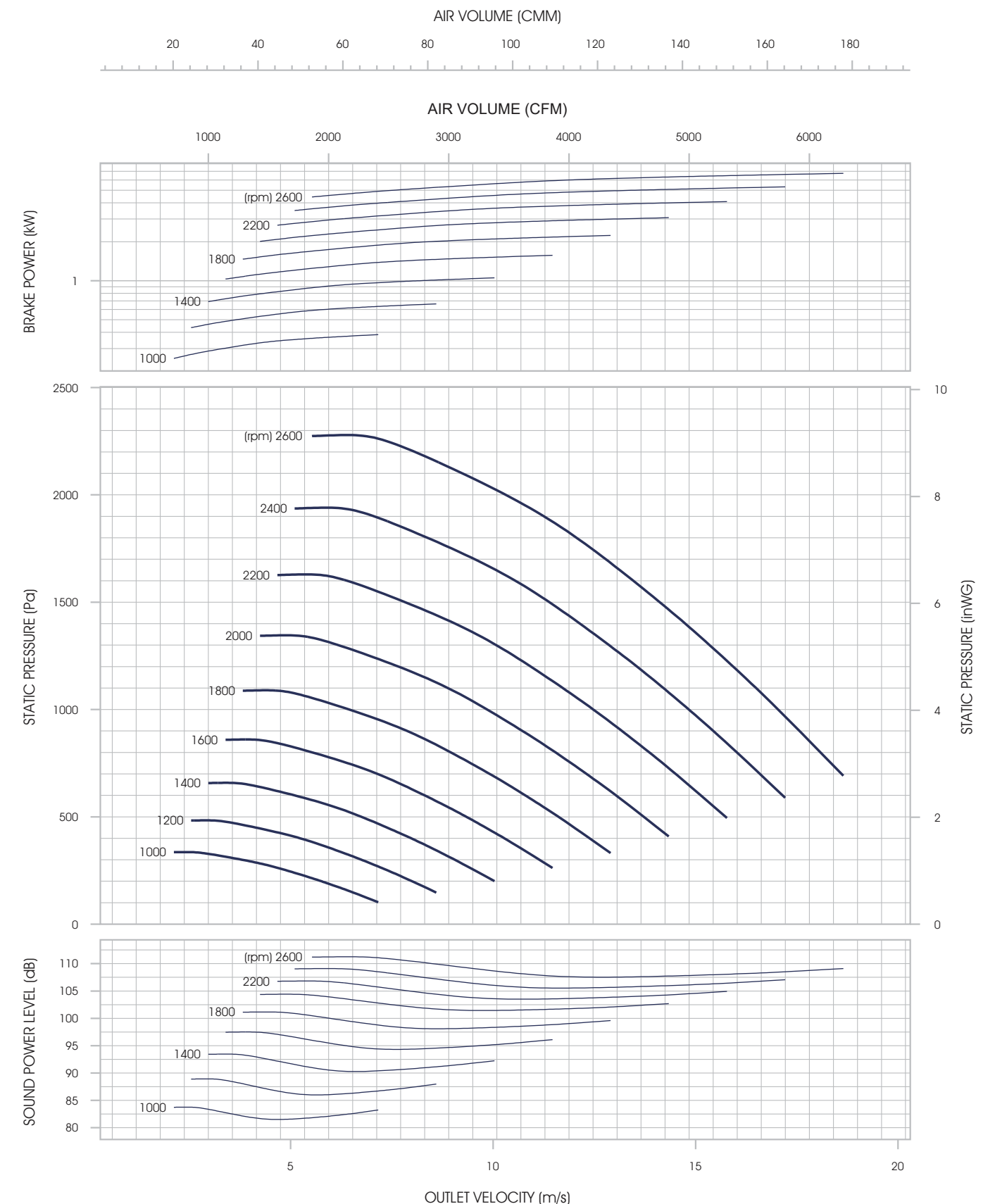
OUTLET FLANGE



INLET FLANGE



\*Refer to page 69 for dimensions and weight of WBS 450 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WBS 500

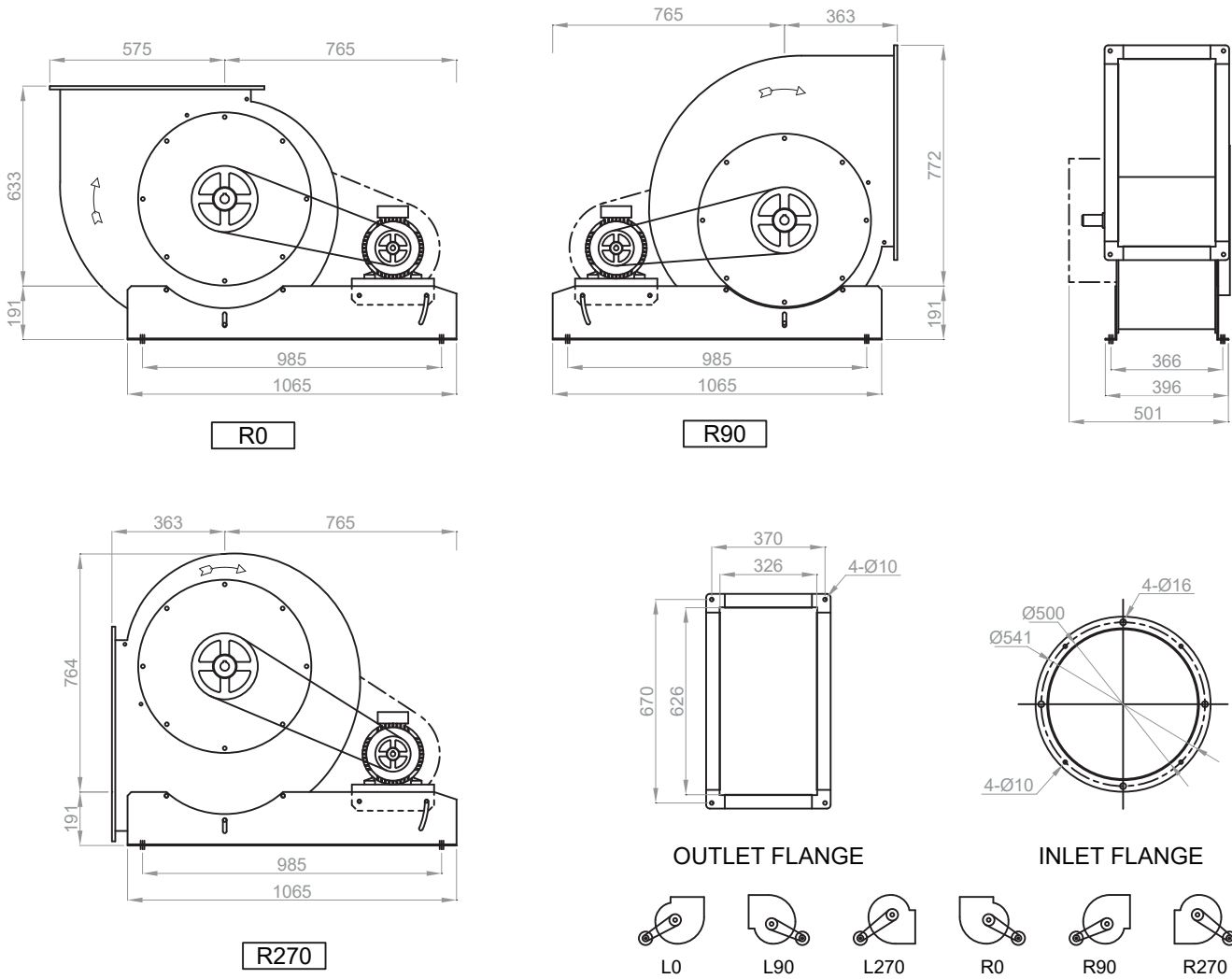
## Backward Curved Single Inlet SWSI



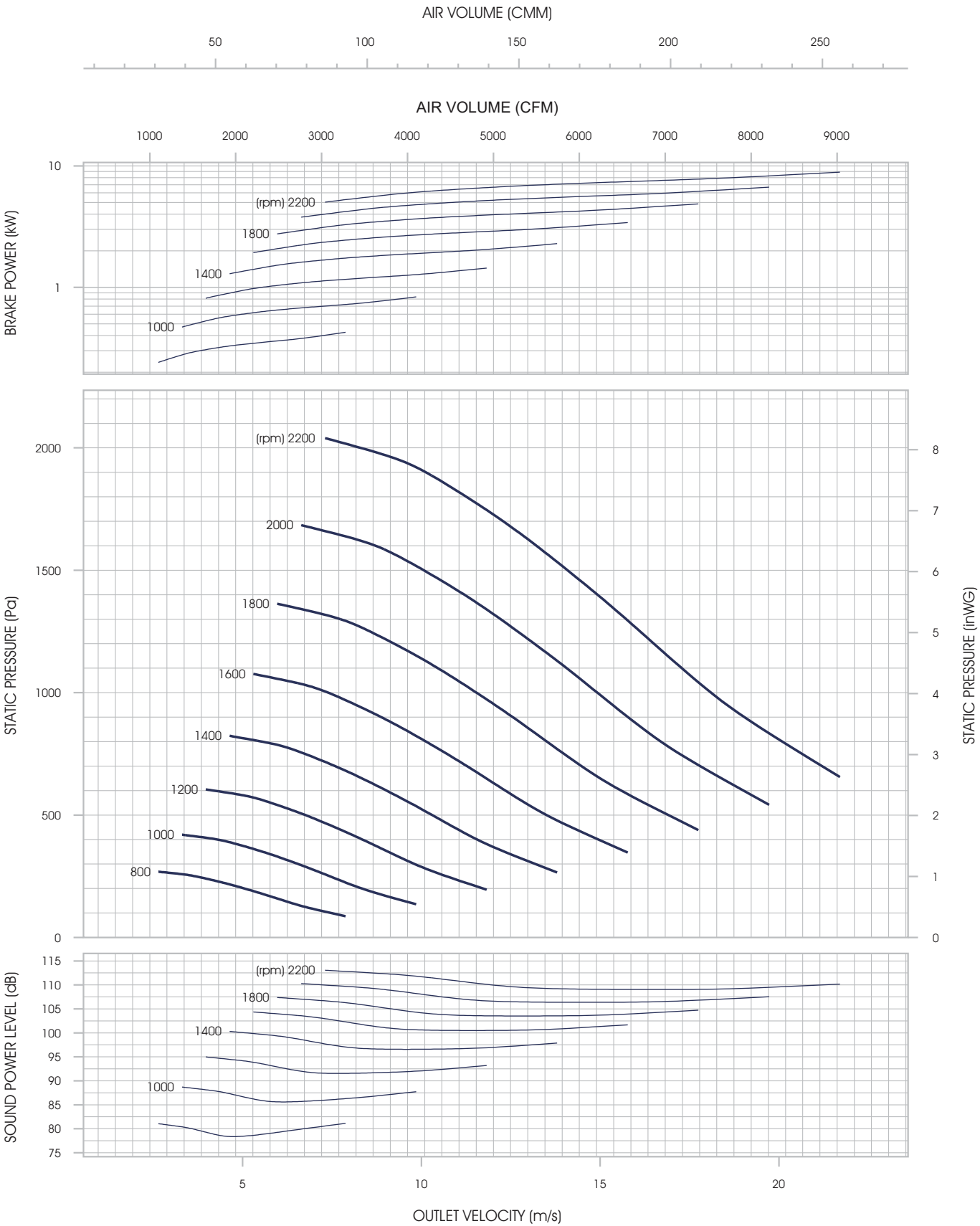
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 500 mm.               |                  |
| Outlet Area    | 0.2041 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | 73   | 73  | 73  | 73  | 73  | 73  | -   | -   | -    | -   |
| Total Weight (kg) | -    | 84   | 93  | 97  | 113 | 122 | 127 | -   | -   | -    | -   |

Unit : mm



\*Refer to page 69 for dimensions and weight of WBS 500 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WBS 560

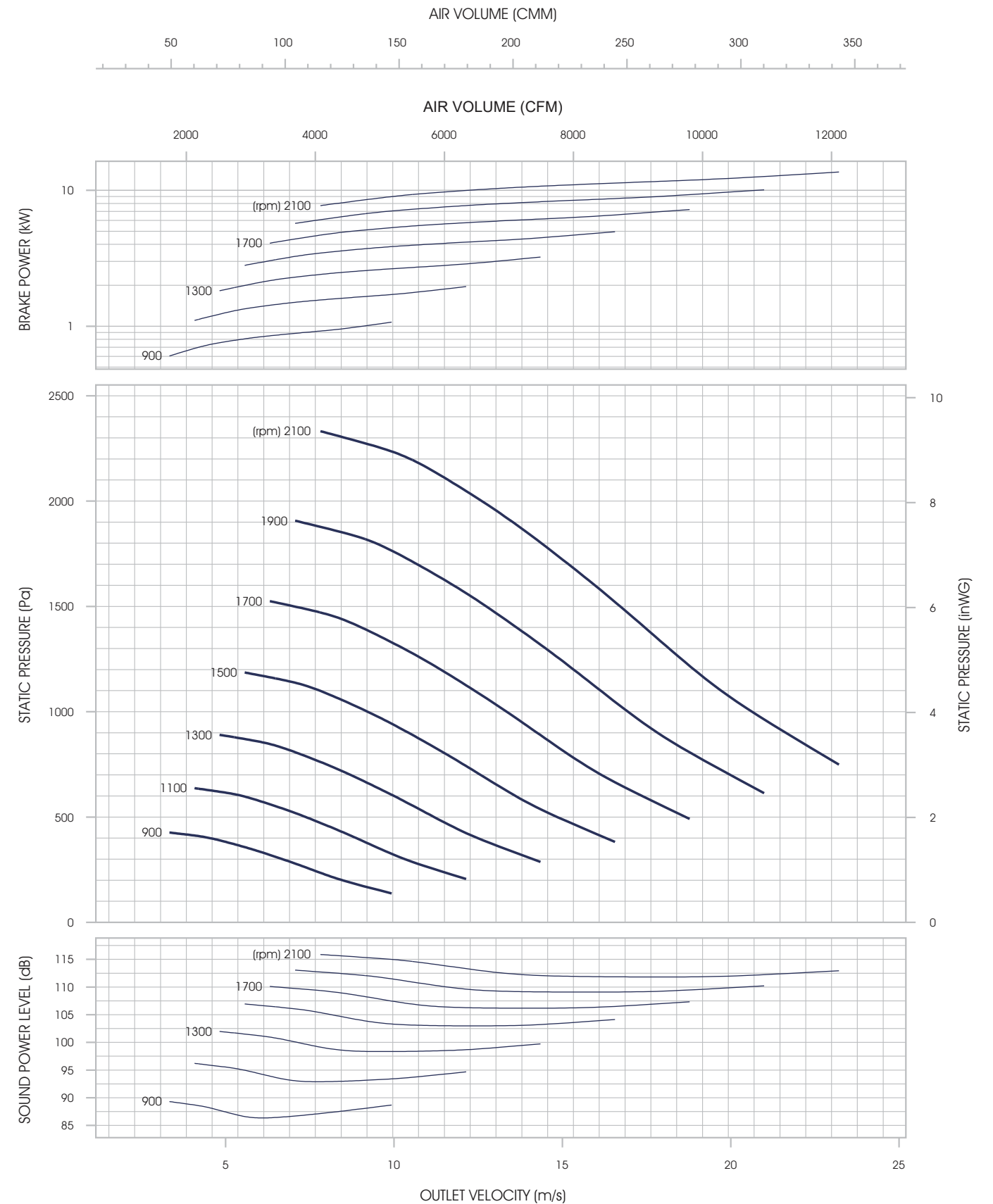
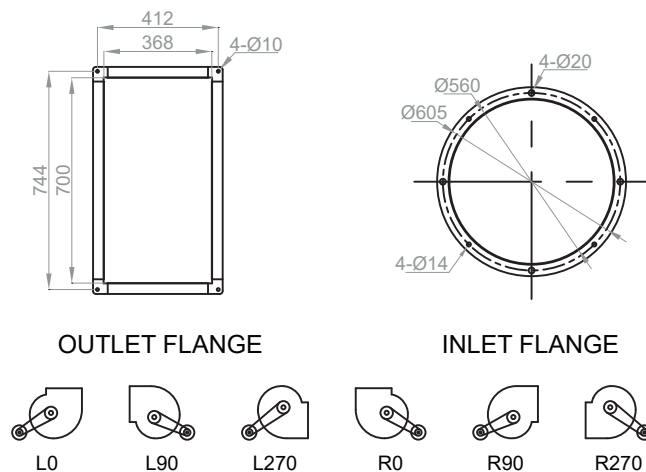
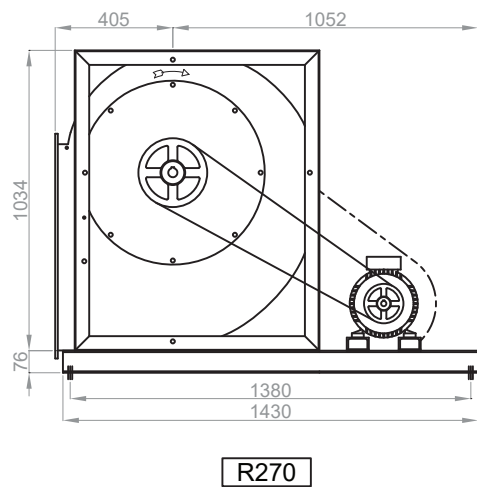
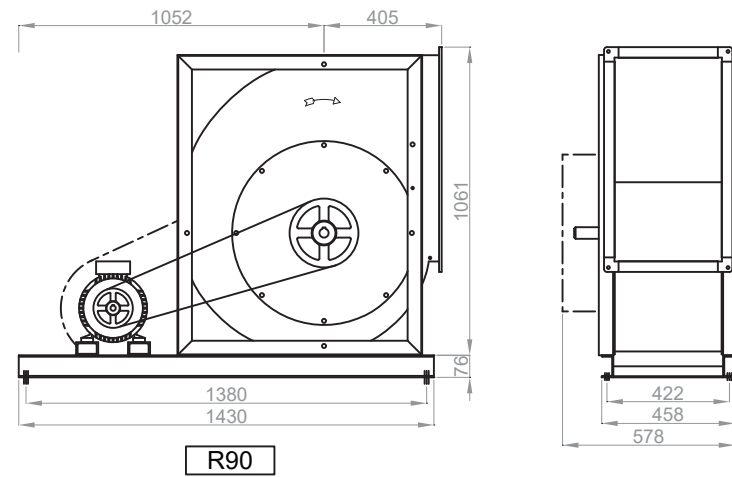
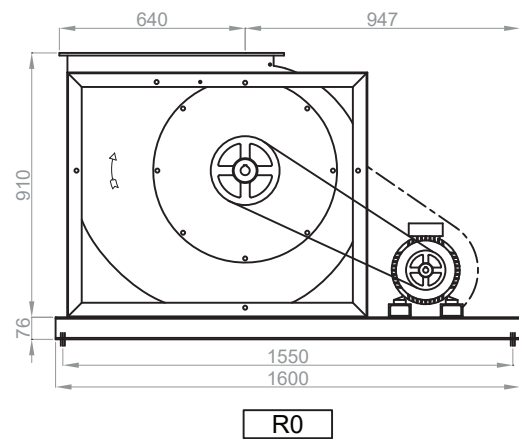
## Backward Curved Single Inlet SWSI



|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 560 mm.               |                  |
| Outlet Area    | 0.2576 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | 122  | 122 | 122 | 122 | 122 | 122 | 122 | -   | -    | -   |
| Total Weight (kg) | -    | 133  | 142 | 146 | 162 | 171 | 176 | 222 | -   | -    | -   |

Unit : mm



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

\*Refer to page 69 for dimensions and weight of WBS 560 Overhung Type.

# WBS 630

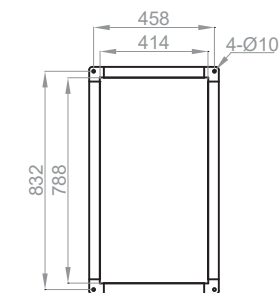
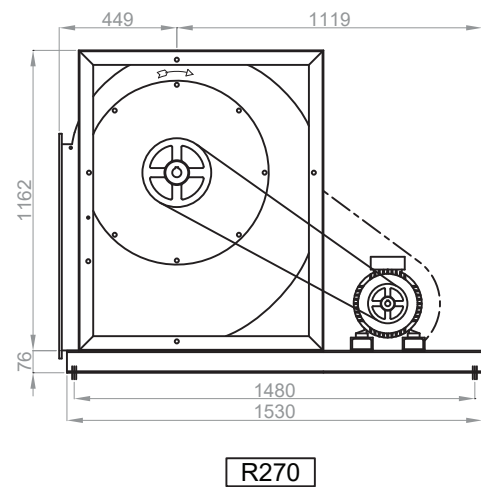
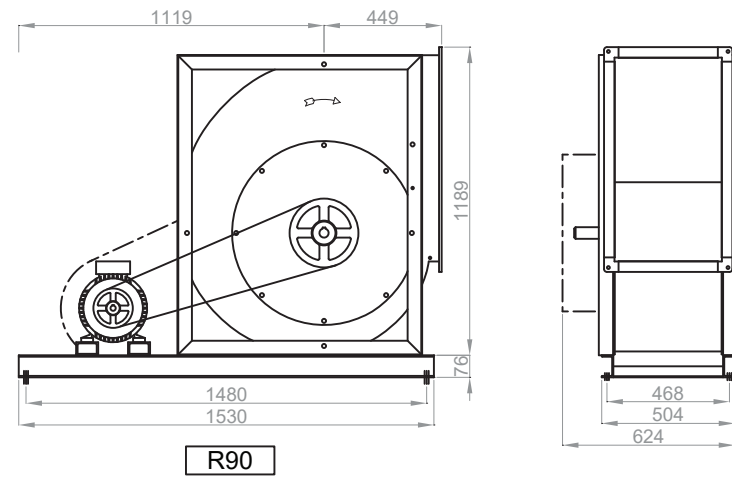
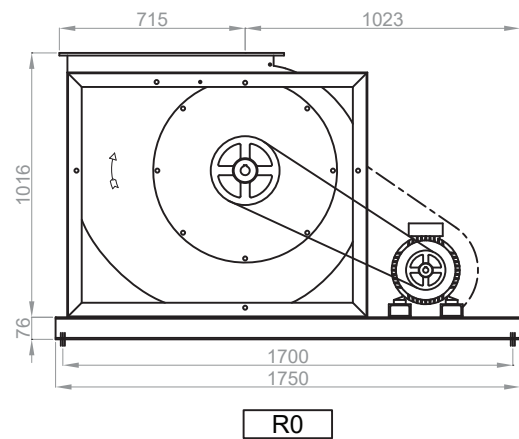
## Backward Curved Single Inlet SWSI



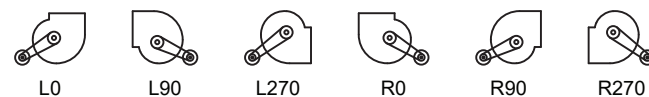
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 630 mm.               |                  |
| Outlet Area    | 0.3262 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | 134 | 134 | 134 | 134 | 134 | 134 | -   | -    | -   |
| Total Weight (kg) | -    | -    | 154 | 158 | 174 | 183 | 188 | 234 | -   | -    | -   |

Unit : mm

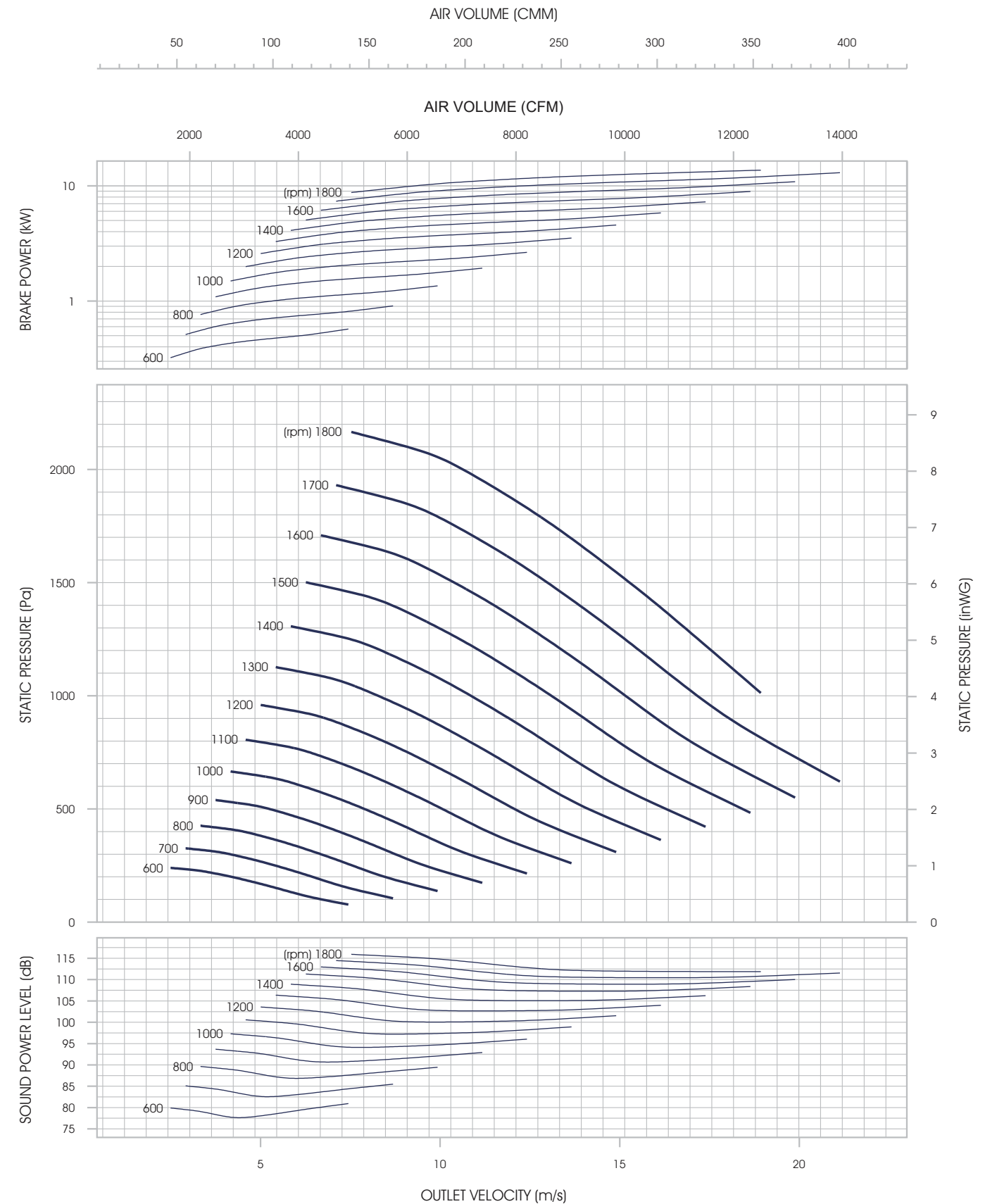


OUTLET FLANGE



INLET FLANGE

\*Refer to page 69 for dimensions and weight of WBS 630 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

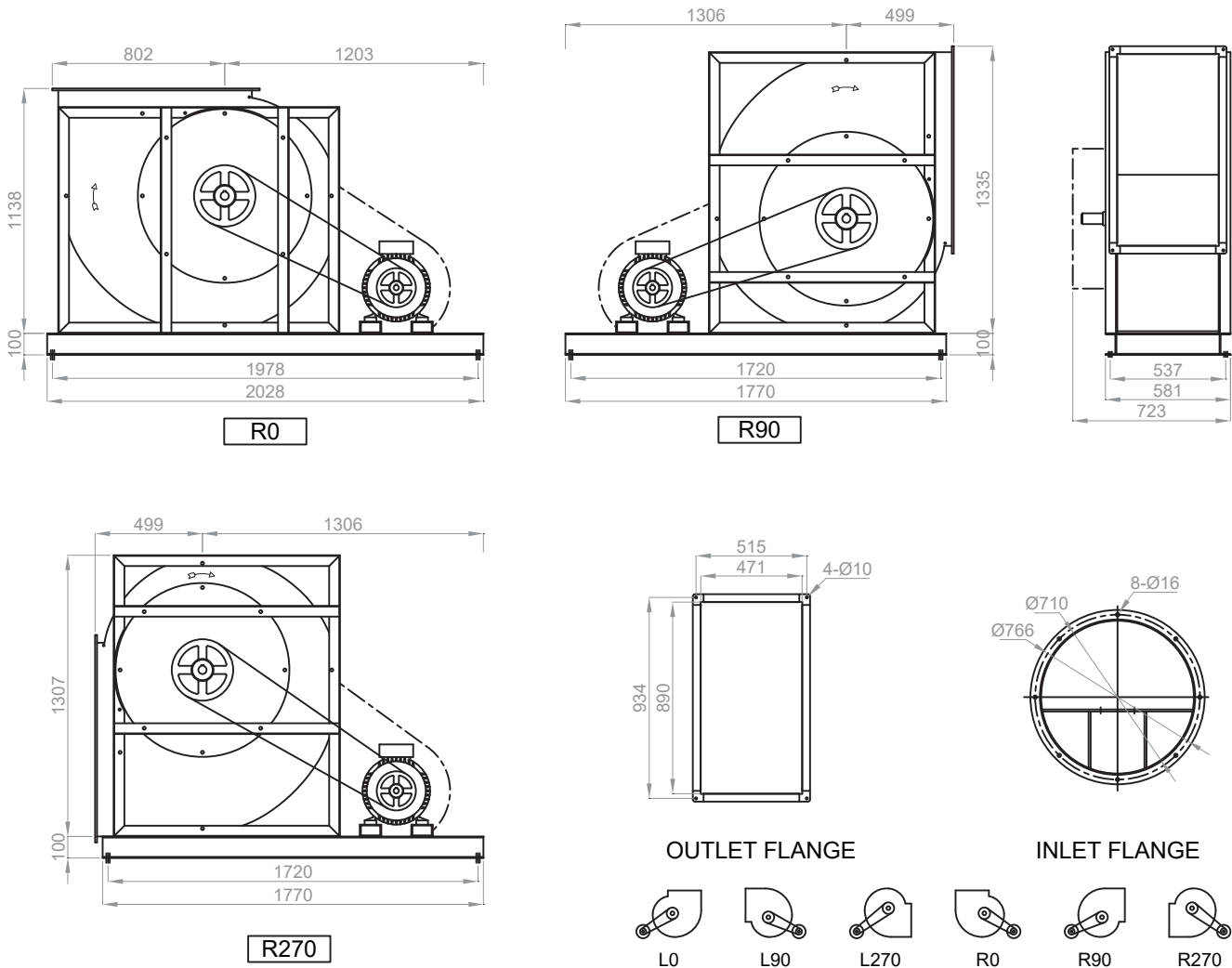
# WBS 710

Backward Curved Single Inlet SWSI

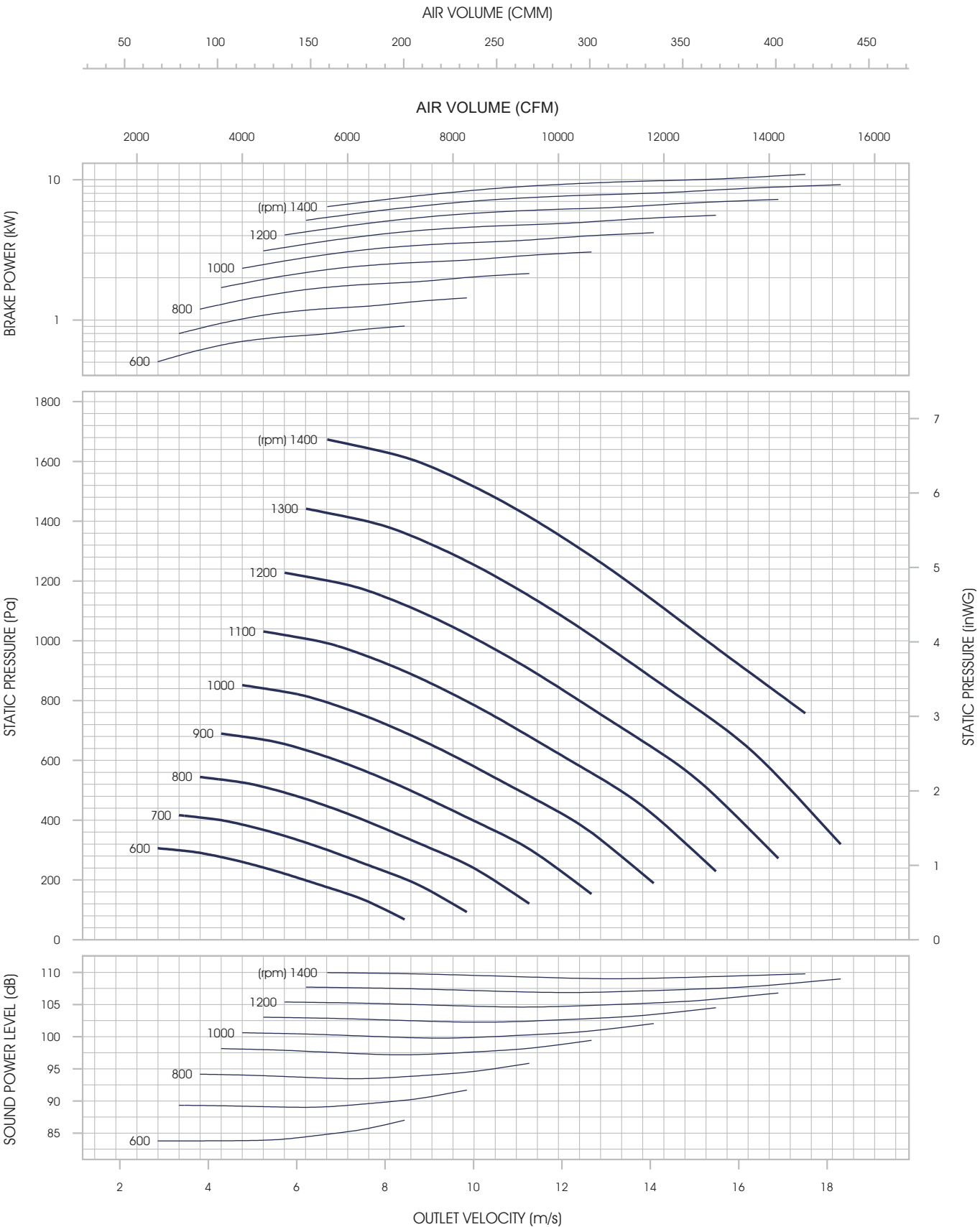
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 710 mm.               |                  |
| Outlet Area    | 0.4192 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | 232 | 232 | 232 | 232 | 232 | 232 | 232 | -    | -   |
| Total Weight (kg) | -    | -    | 252 | 256 | 272 | 281 | 286 | 332 | 357 | -    | -   |

Unit : mm



\*Refer to page 70 for dimensions and weight of WBS 710 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.



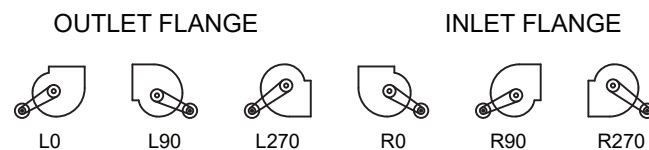
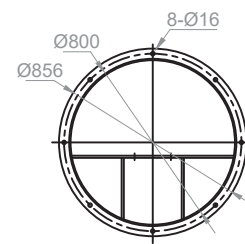
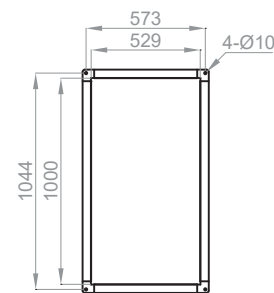
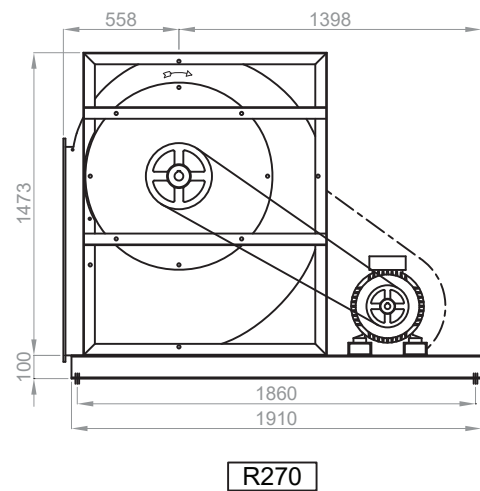
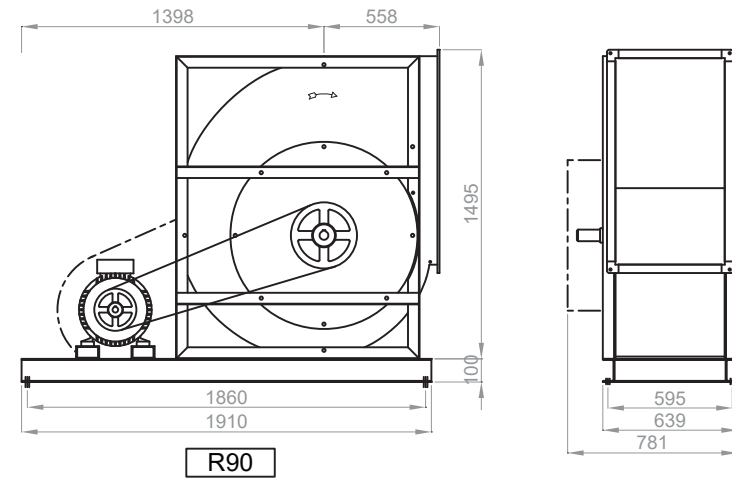
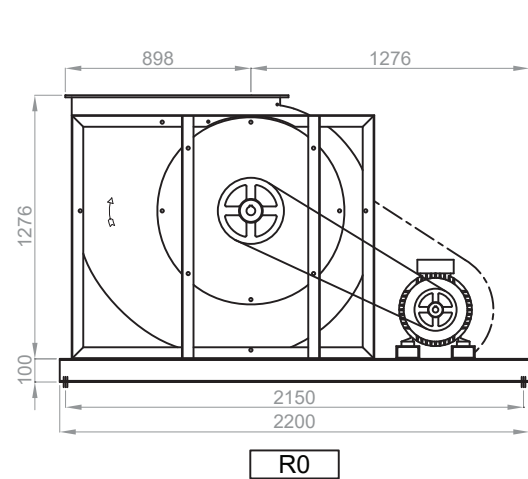
# WBS 800

Backward Curved Single Inlet SWSI

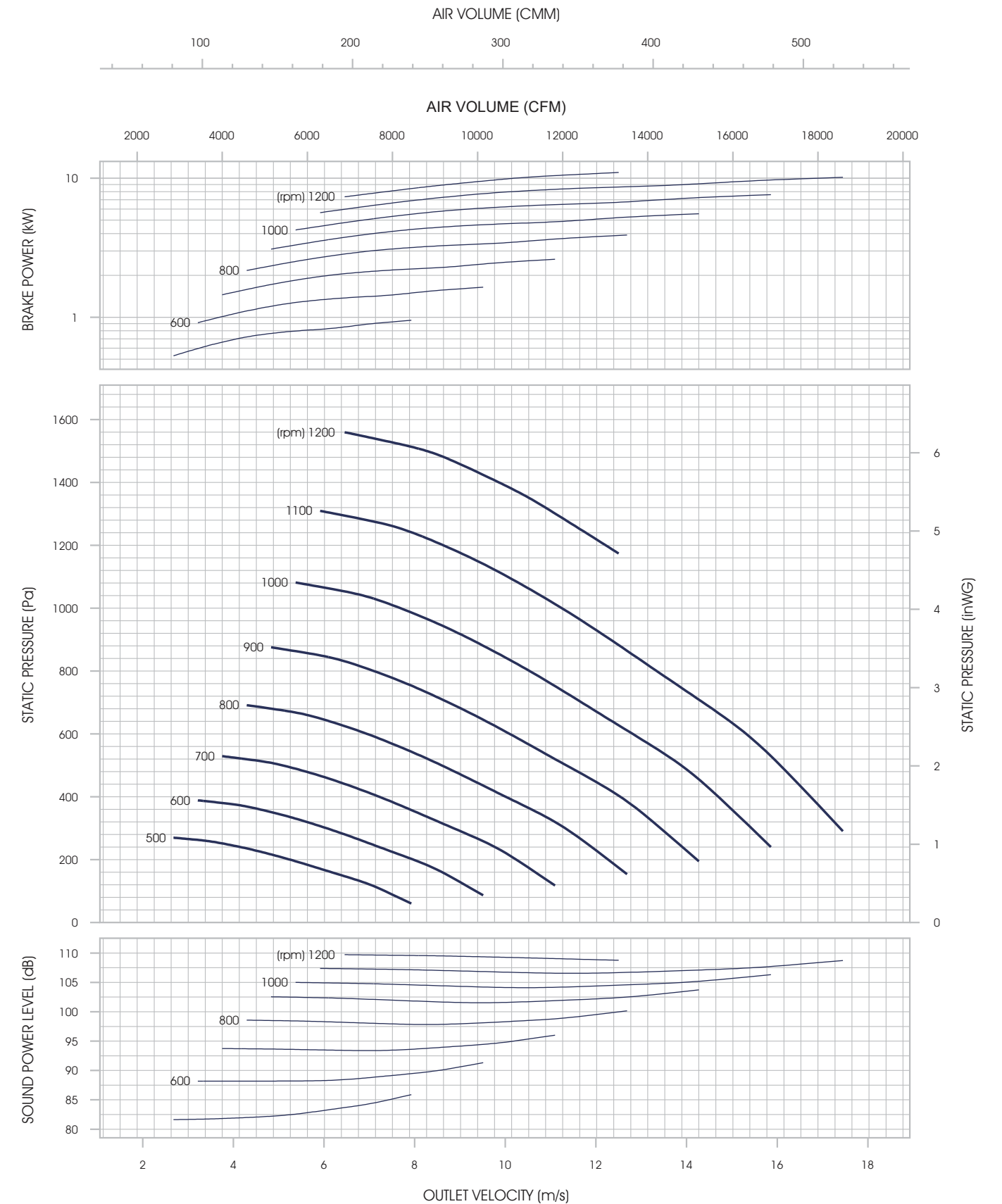
|                |                      |                  |
|----------------|----------------------|------------------|
| Wheel Diameter | 800 mm.              |                  |
| Outlet Area    | 0.529 m <sup>2</sup> |                  |
| Material       | Casing:              | Galvanised Steel |
|                | Impeller:            | Aluminum         |
|                | Inlet Cone:          | Polyamide FRP    |
| Rotation       | Backward             |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | 245 | 245 | 245 | 245 | 245 | 245 | 245 | -    | -   |
| Total Weight (kg) | -    | -    | 265 | 269 | 285 | 294 | 299 | 345 | 370 | -    | -   |

Unit : mm



\*Refer to page 70 for dimensions and weight of WBS 800 Overhung Type.



- 1) Power rating (B.KW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WBS 900

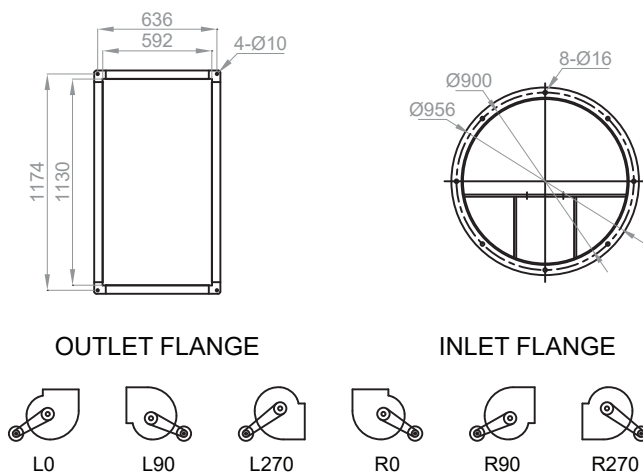
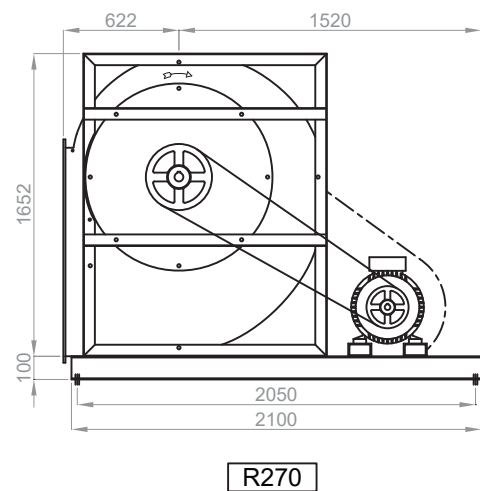
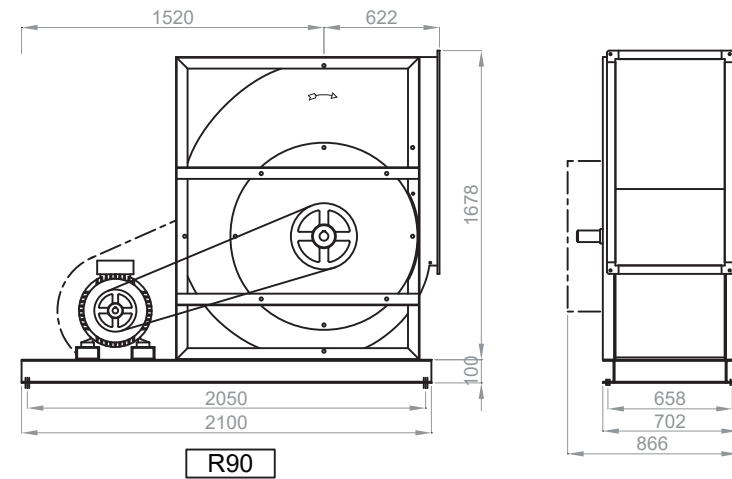
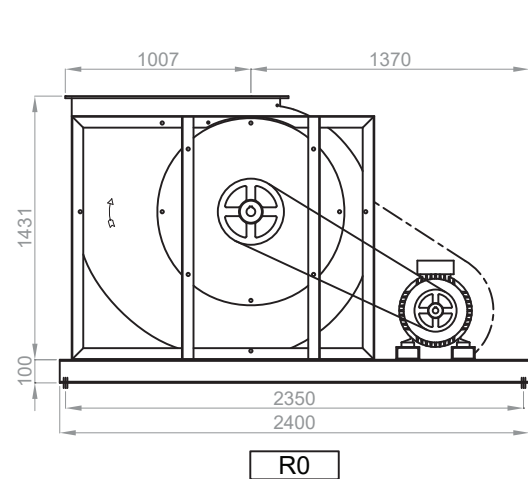
## Backward Curved Single Inlet SWSI



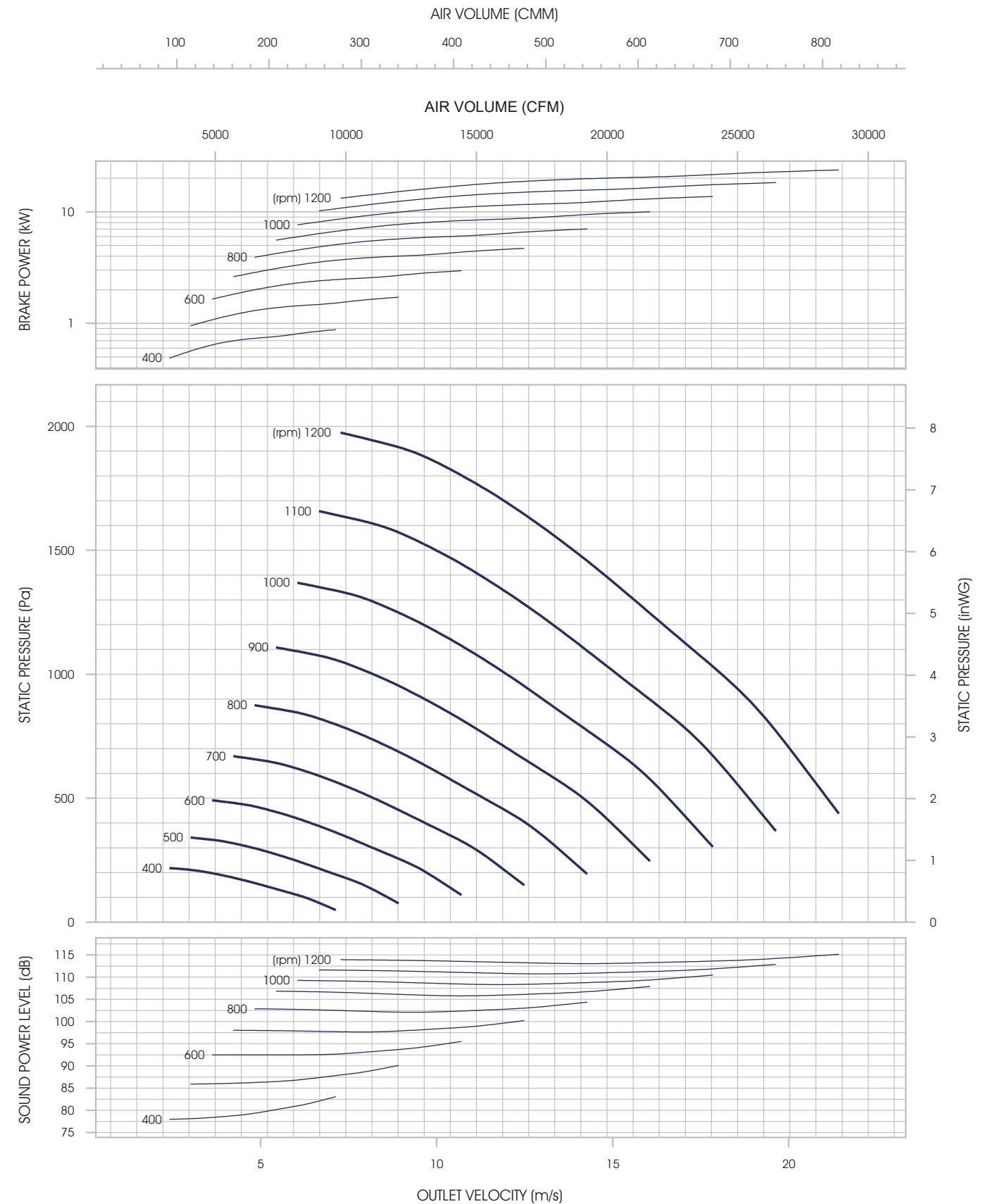
|                |                      |                  |
|----------------|----------------------|------------------|
| Wheel Diameter | 900 mm.              |                  |
| Outlet Area    | 0.669 m <sup>2</sup> |                  |
| Material       | Casing:              | Galvanised Steel |
|                | Impeller:            | Aluminum         |
|                | Inlet Cone:          | Polyamide FRP    |
| Rotation       | Backward             |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | -   | 336 | 336 | 336 | 336 | 336 | 336 | 336  | -   |
| Total Weight (kg) | -    | -    | -   | 360 | 376 | 385 | 390 | 436 | 461 | 496  | -   |

Unit : mm



\*Refer to page 70 for dimensions and weight of WBS 900 Overhung Type.



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

# WBS 1000

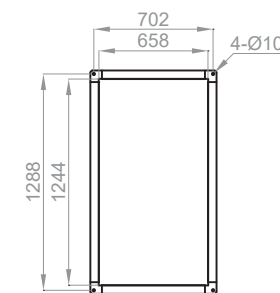
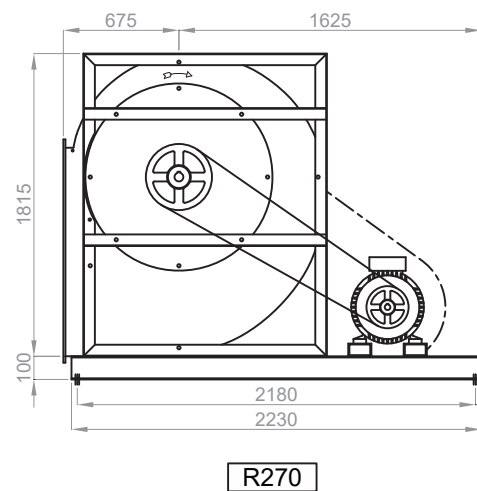
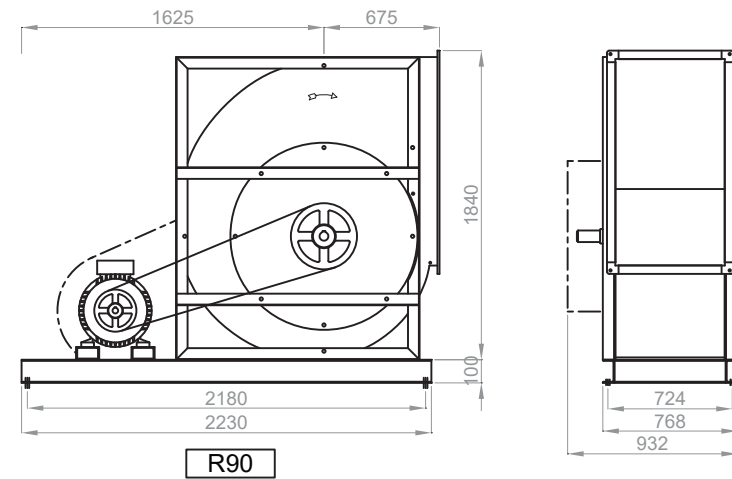
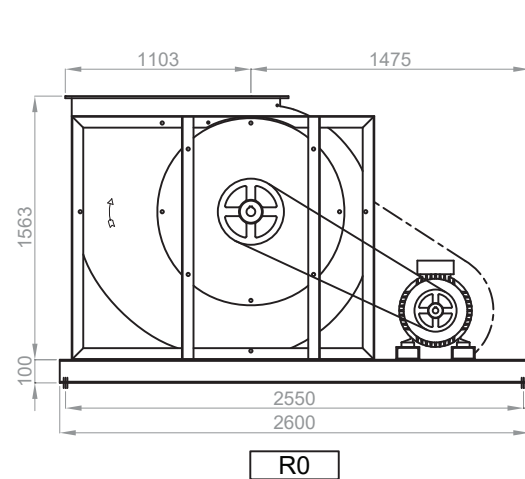
Backward Curved Single Inlet SWSI



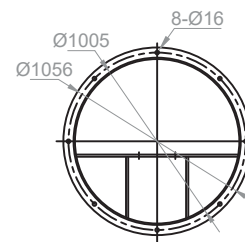
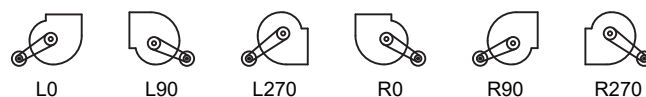
|                |                       |                  |
|----------------|-----------------------|------------------|
| Wheel Diameter | 1000 mm.              |                  |
| Outlet Area    | 0.8186 m <sup>2</sup> |                  |
| Material       | Casing:               | Galvanised Steel |
|                | Impeller:             | Aluminum         |
|                | Inlet Cone:           | Polyamide FRP    |
| Rotation       | Backward              |                  |

| Motor (kW)        | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-------------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Motor Weight (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| Fan Weight (kg)   | -    | -    | -   | 389 | 389 | 389 | 389 | 389 | 389 | 389  | 389 |
| Total Weight (kg) | -    | -    | -   | 413 | 429 | 438 | 443 | 489 | 514 | 549  | 569 |

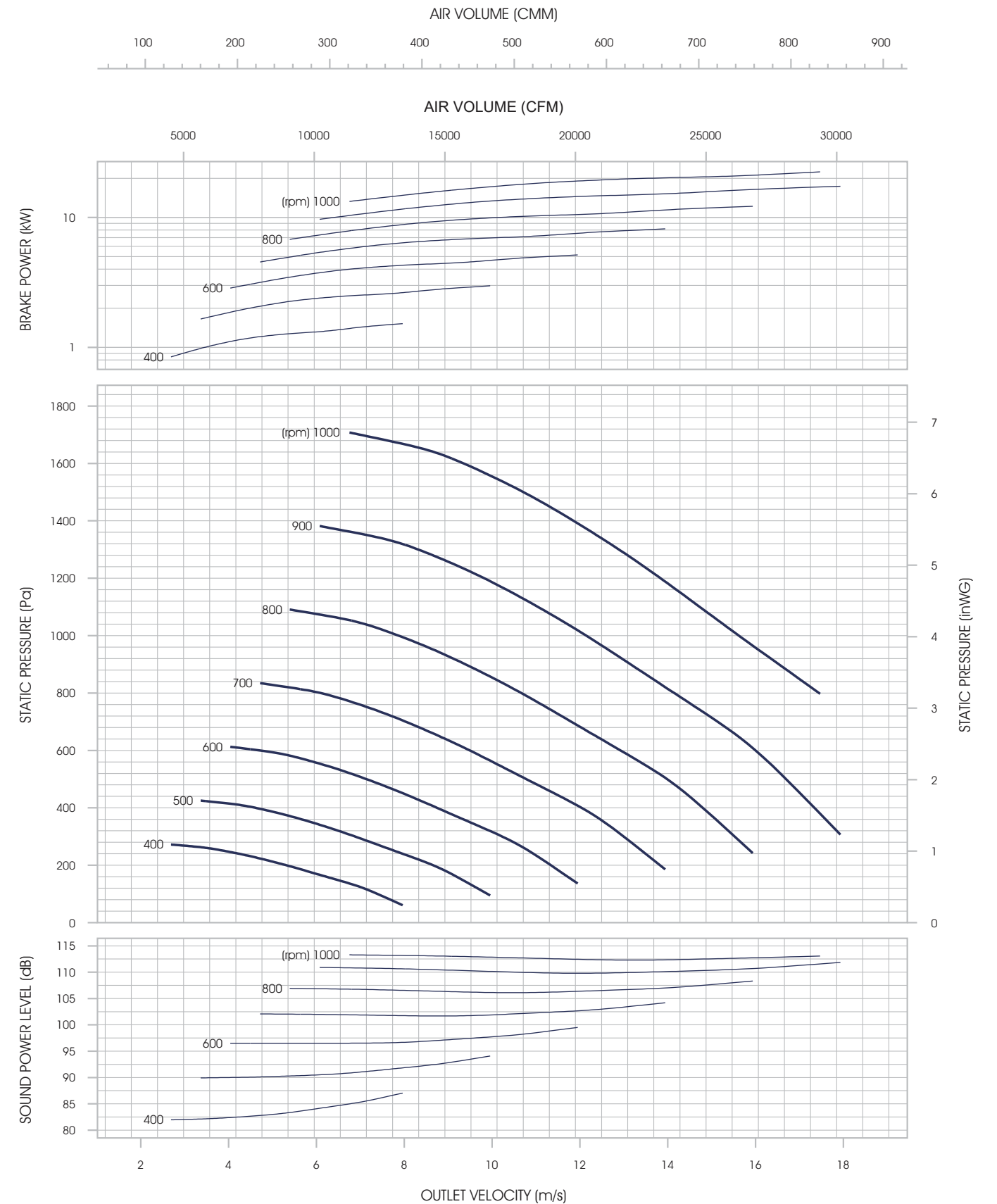
Unit : mm



OUTLET FLANGE



INLET FLANGE



- 1) Power rating (B.kW) does not include transmission loss.
- 2) Performance ratings do not include the effects of appurtenances (accessories).
- 3) Performance certified is for installation type B - Free inlet, Ducted outlet.
- 4) The sound power level ratings shown are in decibels, referred to 10<sup>-12</sup> watts, calculated per AMCA International Standard 301.
- 5) Values shown are for inlet LWi sound power levels for Installation Type B: free inlet, ducted outlet.

\*Refer to page 70 for dimensions and weight of WBS 1000 Overhung Type.

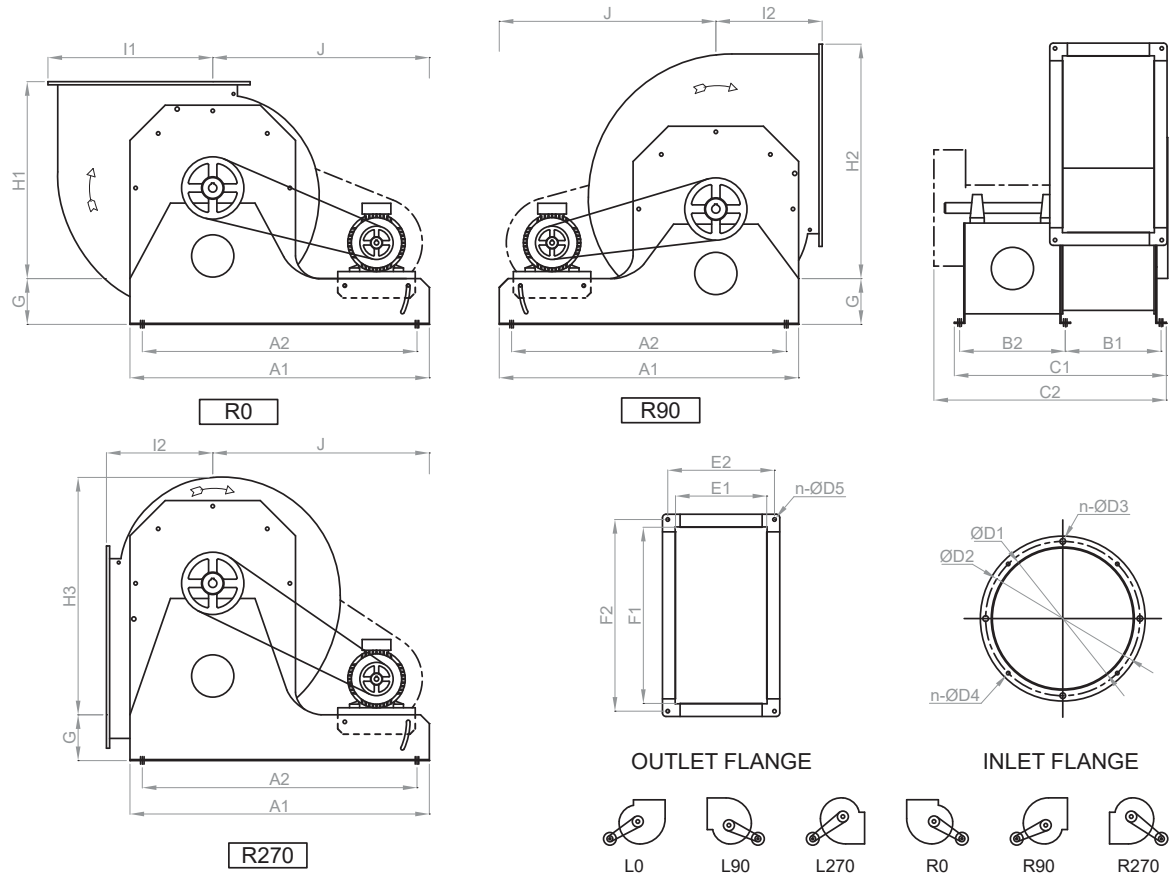
# DIMENSIONS & WEIGHT

Backward Curved Single Inlet SWSI - Overhung Type

| Model No. | A1  | A2  | B1  | B2  | C1  | C2  | ØD1 | ØD2 | n-ØD3 | n-ØD4 | n-ØD5 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| WBS 280-O | 690 | 620 | 197 | 230 | 457 | 500 | 280 | 320 | 3-16  | 3-10  | 4-10  |
| WBS 315-O | 740 | 670 | 218 | 250 | 498 | 541 | 315 | 356 | 3-16  | 3-10  | 4-10  |
| WBS 355-O | 810 | 740 | 246 | 290 | 566 | 619 | 355 | 395 | 4-16  | 4-10  | 4-10  |
| WBS 400-O | 850 | 780 | 272 | 300 | 602 | 655 | 400 | 438 | 4-16  | 4-10  | 4-10  |
| Model No. | E1  | E2  | F1  | F2  | G   | H1  | H2  | H3  | I1    | I2    | J     |
| WBS 280-O | 184 | 228 | 350 | 394 | 110 | 397 | 469 | 477 | 347   | 225   | 515   |
| WBS 315-O | 205 | 249 | 394 | 438 | 130 | 430 | 512 | 520 | 377   | 247   | 550   |
| WBS 355-O | 233 | 277 | 444 | 488 | 130 | 490 | 585 | 593 | 420   | 272   | 597   |
| WBS 400-O | 259 | 303 | 500 | 544 | 130 | 559 | 665 | 674 | 468   | 302   | 615   |

| Model No. | MOTOR (kW)  | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-----------|-------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Model No. | WEIGHT (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| WBS 280-O | 23          | 31.5 | 34   | 43  | 47  | -   | -   | -   | -   | -   | -    | -   |
| WBS 315-O | 31          | 39.5 | 42   | 51  | 55  | -   | -   | -   | -   | -   | -    | -   |
| WBS 355-O | 35          | 43.5 | 46   | 55  | 59  | 75  | -   | -   | -   | -   | -    | -   |
| WBS 400-O | 48          | 56.5 | 59   | 68  | 72  | 88  | -   | -   | -   | -   | -    | -   |

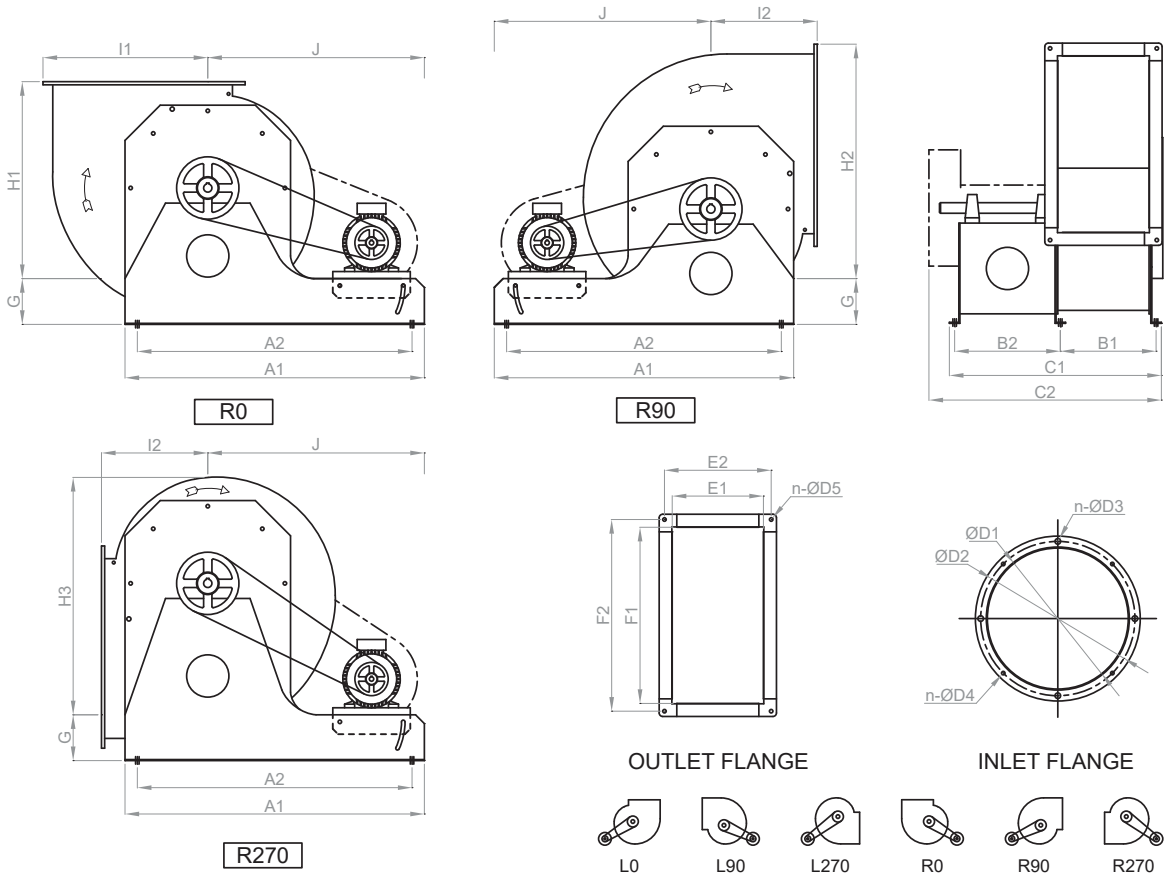
Unit : mm



| Model No. | A1   | A2   | B1  | B2  | C1  | C2  | ØD1  | ØD2  | n-ØD3 | n-ØD4 | n-ØD5 |
|-----------|------|------|-----|-----|-----|-----|------|------|-------|-------|-------|
| WBS 450-O | 980  | 910  | 306 | 350 | 686 | 749 | 450  | 487  | 4-16  | 4-10  | 4-10  |
| WBS 500-O | 1050 | 980  | 339 | 375 | 744 | 807 | 500  | 541  | 4-16  | 4-10  | 4-10  |
| WBS 560-O | 1150 | 1070 | 382 | 440 | 862 | 936 | 560  | 605  | 4-20  | 4-14  | 4-10  |
| WBS 630-O | 1250 | 1170 | 428 | 440 | 908 | 982 | 630  | 674  | 4-20  | 4-14  | 4-10  |
| Model No. | E1   | E2   | F1  | F2  | G   | H1  | H2   | H3   | I1    | I2    | J     |
| WBS 450-O | 293  | 337  | 560 | 604 | 190 | 575 | 697  | 705  | 522   | 333   | 720   |
| WBS 500-O | 326  | 370  | 626 | 670 | 193 | 648 | 786  | 794  | 575   | 363   | 760   |
| WBS 560-O | 368  | 412  | 700 | 744 | 204 | 733 | 885  | 893  | 640   | 405   | 820   |
| WBS 630-O | 414  | 458  | 788 | 832 | 204 | 839 | 1012 | 1020 | 715   | 449   | 885   |

| Model No. | MOTOR (kW)  | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|-----------|-------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Model No. | WEIGHT (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| WBS 450-O | 61          | -    | 72   | 81  | 85  | 101 | 110 | -   | -   | -   | -    | -   |
| WBS 500-O | 129         | -    | 140  | 149 | 153 | 169 | 178 | -   | -   | -   | -    | -   |
| WBS 560-O | 172         | -    | 183  | 192 | 196 | 212 | 221 | 226 | -   | -   | -    | -   |
| WBS 630-O | 196         | -    | -    | 216 | 220 | 236 | 245 | 250 | -   | -   | -    | -   |

Unit : mm



# DIMENSIONS & WEIGHT

Backward Curved Single Inlet SWSI - Overhung Type

| Model No.  | A1   | A2   | A3   | A4   | B1  | B2   | C1   | C2   | ØD1  | ØD2  | n-ØD3 | n-ØD4 |
|------------|------|------|------|------|-----|------|------|------|------|------|-------|-------|
| WBS 710-O  | 1940 | 1890 | 1700 | 1650 | 537 | 405  | 986  | 1116 | 710  | 766  | 8-16  | 4-10  |
| WBS 800-O  | 2100 | 2050 | 1800 | 1750 | 595 | 445  | 1084 | 1211 | 800  | 856  | 8-16  | 4-10  |
| WBS 900-O  | 2300 | 2250 | 1960 | 1910 | 658 | 530  | 1232 | 1371 | 900  | 956  | 8-16  | 4-10  |
| WBS 1000-O | 2500 | 2450 | 2130 | 2080 | 724 | 620  | 1388 | 1524 | 1005 | 1056 | 8-16  | 4-10  |
| Model No.  | E1   | E2   | F1   | F2   | G   | H1   | H2   | H3   | I1   | I2   | J1    | J2    |
| WBS 710-O  | 471  | 515  | 890  | 934  | 100 | 1138 | 1335 | 1307 | 802  | 499  | 1116  | 1237  |
| WBS 800-O  | 529  | 573  | 1000 | 1044 | 100 | 1276 | 1495 | 1473 | 898  | 558  | 1174  | 1295  |
| WBS 900-O  | 592  | 636  | 1130 | 1174 | 100 | 1431 | 1678 | 1652 | 1007 | 622  | 1269  | 1400  |
| WBS 1000-O | 658  | 702  | 1244 | 1288 | 100 | 1563 | 1840 | 1815 | 1103 | 675  | 1372  | 1522  |

|            | MOTOR (kW)  | 0.37 | 0.75 | 1.5 | 2.2 | 3.7 | 5.5 | 7.5 | 11  | 15  | 18.5 | 22  |
|------------|-------------|------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Model No.  | WEIGHT (kg) | 8.5  | 11   | 20  | 24  | 40  | 49  | 54  | 100 | 125 | 160  | 180 |
| WBS 710-O  | 327         | -    | -    | 347 | 351 | 367 | 376 | 381 | 427 | 452 | -    | -   |
| WBS 800-O  | 396         | -    | -    | 416 | 420 | 436 | 445 | 450 | 496 | 521 | -    | -   |
| WBS 900-O  | 520         | -    | -    | -   | 544 | 560 | 569 | 574 | 620 | 645 | 680  | -   |
| WBS 1000-O | 610         | -    | -    | -   | 634 | 650 | 659 | 664 | 710 | 735 | 770  | 790 |

Unit : mm

