

INSTALLATION GUIDE

# ISODRIVE MOTOR

**SE** - 3200 m<sup>3</sup>/hr

**schweigen**

[www.schweigen.co.nz](http://www.schweigen.co.nz)

**Thank you for purchasing your new Schweigen Isodrive system.**

To get the maximum output from this unit, please read through this guide before use and installation.

This guide contains important information on the correct use and maintenance of the unit, as well as important safety notes. This will ensure your personal safety and the lasting value of your Isodrive system.

Please always retain your proof of purchase to aid in any warranty queries.

This appliance and its packaging are produced by processes that minimise waste and respect the environment.

Please help us to continue this effort to protect the environment by using the appliance efficiently and dispose of the packaging in a responsible manner.

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### RECEIVING YOUR RANGEHOOD

Please read this section thoroughly before attempting to operate the appliance. Inspect your product upon receipt. **Any damage or defects MUST be reported within 48 hours, or no claim will be recognised.**

#### **DO NOT INSTALL THIS APPLIANCE IF YOU FIND IT DAMAGED.**

If this product is installed damaged, the supplier, nor the retailer, will be responsible for the costs associated with the repair, replacement, removal or re-installation of the appliances.

This appliance is not intended for use by person/s (including children) with reduced physical, sensory or mental capabilities, or lack of experience and/or knowledge. Unless the person has been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance, it is not a toy.

Do not install Isodrive motor to a non-Schweigen and/or non-silent rangehood. If you fail to do so, your warranty will be voided.

The manufacturer declines all responsibility in case of failure to adopt proper safety measures when installing or using the appliance.

Ensure that the location in which this appliance is installed, has good and permanent ventilation.

Please consult local laws and regulations and install in accordance.

Use an electrical connector with earth that is correct for your location.

Check that the voltage in your area corresponds to the appliance as indicated on the rating label.

### Before Installation

We recommend this appliance to be installed or repaired by a qualified Schweigen Home Appliances technician.

Please see our website **[www.schweigen.com.au](http://www.schweigen.com.au)** for recommended installers.

It is dangerous to modify any part of this appliance. Modification of any kind, will immediately void the warranty.

### Electrical Cord

Ensure the supply cord is not exposed to heat, chemicals or sharp objects. If the supply cord is damaged, it must be replaced by the manufacturer, service agent or a similarly qualified person in order to avoid a hazard. The power supply cord connection **MUST BE** installed in such a way that access is easy in case of emergency.

This guide is for the installation of the Isodrive motor system after the canopy/rangehood has been mounted on the wall or ceiling. (Refer to canopy/rangehood unit installation manual).

**NOTE:** All PVC pipe and flexi ducting measurements are referring to inside measurements, unless otherwise mentioned.

### Motor Features

- Roof and wall mounting with IPX4 degree of weather protection.
- Super quiet, long vane, backward curved centrifugal fan.
- Airflow is dependant on installation and the ducting used. Using single 250mm flex duct, you should attain up to 3200m<sup>3</sup>/hr depending on the ducting installation. The use of a smaller than 250mm (ISD) pipe would result in a loss of airflow.
- Simple installation: mounts onto a 250mm PVC pipe for ultimate strength and allows for easy Dektite roof sealing.
- Industrial quality motor and fan made in Germany and rated at 40,000 hours.
- Motor is a high efficiency PSC type and rated at 150W costing around the same as two 70W light globes to run.
- **WARRANTY 10 YEARS** return to manufacturer. Covers faulty manufacturing or components. It does not cover normal wear and tear.

### General Notes on Installation and Use

This fan unit is designed to be installed using 250mm (OSD) PVC pipe as the initial connection to the fan module. The fan unit is supplied with a 250mm (OSD) PVC pipe, 250mm (ISD) flexible duct. (See page 10 for installation detail).

This fan is suitable for connection to multiple duct runs with a minimum inlet area of 22,000mm<sup>2</sup>. When installing, 15 metres of 250mm flexi ducting **MUST** be used and no more than 2 to 3 bends in the flexi ducting. Where possible flexible ducting must be extended sufficiently to present a smooth air passage with bends of at least the radii of twice the diameter of the duct.

**WARNING:** The rangehood must not be ducted into a wall cavity or a ceiling space, where a build up of grease can occur and become a potential fire risk. This will void warranty.

**NOTE:** Fan module and dual foil flexi-duct are acoustically matched. Use of semi-rigid or rigid ducting will result in increased noise and may void warranty. See installation instruction notes 'Why flexi-duct'.

### Recommended Installation Distance

Isodrive 3200 motor, **recommended 4 to 5 metres** of flexi ducting.

**NOTE:** Although less than 4 to 5 metres will increase extraction power this may result in a higher air noise level. Maximum duct length 15 metres (use 250mm ducting), however please be aware that **increasing the duct length above 5 metre will decrease airflow**. Check with supplier if longer duct length is required. Do not reduce the duct size at any time and avoid sharp bends.

## 2. Your Safety

### Minimum Mounting Height

This fan unit is intended for mounting at a minimum height of 2.1 metres (measured to the lower part of the fan impeller) above a floor or the ground.

### Avoidance of Back Flow

Care should be taken to avoid the back flow of gases into the room from the open flue of gas or other open fire appliances.

### Safety of Children

This fan is not intended for use by young children or infirm persons without supervision.

### Replacement of supply cord

If the supply cord is damaged, it must be replaced by a service agent or suitably qualified person in order to avoid a hazard.

### Why Flexi-duct

**Some internet sites strongly recommend the use of rigid ducting over fully flexible ducting. This may well be the case with conventional rangehoods with internal motor rangehood but not with external motor rangehood.**

Schweigen's unique Isodrive system works in the opposite way to conventional rangehoods, pulling air through the hood and acoustically matched ducting, producing almost silent high volume flow. The use of a complete rigid or semi-rigid ducting system will allow an organ piping effect to occur; like a didgeridoo where a noise is produced at one end of a hollow rigid pipe and the noise is amplified out the other.

The Isodrive system places the noise outside the house and it needs to be kept there.

**WARNING:** Installation without the use of at least the minimum recommended length of acoustically matched flexi-ducting in the system will void performance expectations. Any installation problem must be reported to Schweigen. Call outs relating to incorrect installation will result in a service fee direct to the customer. Schweigen takes no responsibility for problems caused by faulty installation, this may void warranty. A preferred installer list can be obtained from Schweigen website **[www.schweigen.com.au](http://www.schweigen.com.au)** or by calling **1300 881 693**.



## NOTE

For more flexible ducting instructions, refer page 19.

## Isodrive Motor

### Included in the box:

1. Isodrive 3200 motor  
Approx. 3 metre, 10amp cable and standard male plug
2. Fire resistant 250mm OD<sup>1</sup> PVC riser pipe  
**NOTE:** Cable cut-out at the both ends
3. Flexible ducting (250mm)  
Approx. 4 metres, 250mm (260mm OD<sup>1</sup>) diameter
4. Flexible ducting (200mm)  
Approx. 1.5 metres, 200mm (210mm OD<sup>1</sup>) diameter
5. 250-200mm reducer (only use when connecting the Isodrive 3200 motor to a single 200mm opening on a rangehood).

### Included with the 3200 Kit

(for rangehoods with twin outlets only)

1. Flexible ducting (200mm)  
Approx. 1.5 metres, 200mm (210mm OD<sup>1</sup>) diameter
2. Y joint (250 X 200 X 200mm)

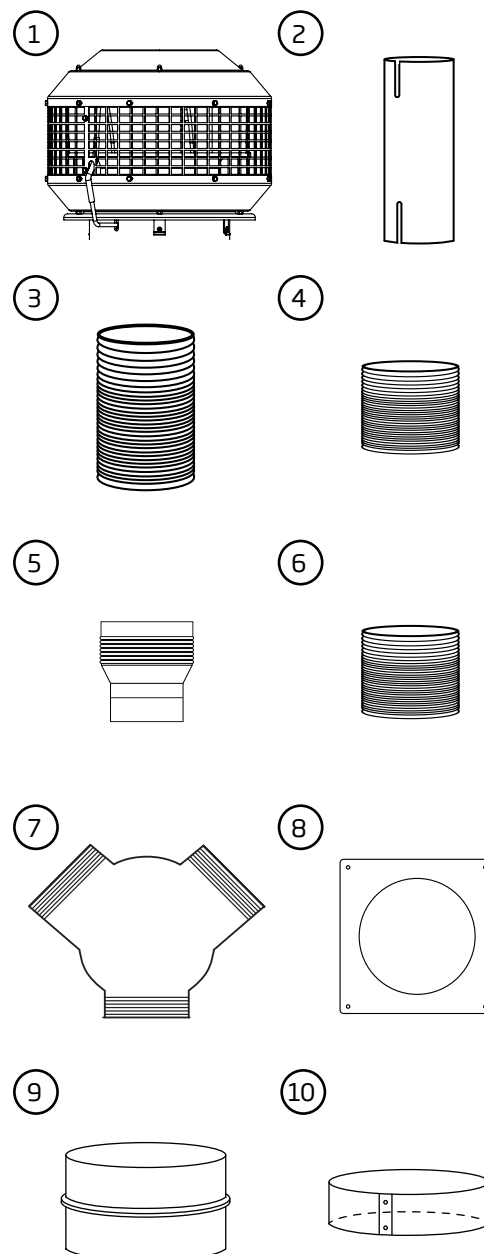
### Not included in the box:

- Roof seal kit / Dektite
- Support straps for poly pipe which connects to the roof truss
- Aluminium Foil tape
- Zip ties
- Wall Mounting Kit

### Optional:

- 250mm back draft stopper
- Weather shield kit
- Wall plate

<sup>1</sup> OD refers to outside dimension.



## 4. Installation

### Roof Installation

*Recommended duct length: minimum 4 metres, optimal 4-5 metres.*

Mount 250mm (ISD) rigid PVC pipe securely to beams, trusses or other appropriate structures: refer figure 1. The pipe should be mounted vertically with the roof penetration being sealed using a Dektite or other appropriate sealing membrane or device when installing through a metal finished roof. **DO NOT** install on a over lapping join.

Ensure that the PVC pipe protrudes at least 50mm past the top of the Dektite, checking that the fan assembly clears the roof cladding at upper edge, refer figure 1.

Pass power cord and plug through mounting flange and pipe, then out the slotted PVC pipe for connection to the female plug coming from the canopy/rangehood. Refer to figure 1.

Do not insert plug into socket outlet or switch on until installation has been completed. Fit fan module to pipe and fix in position using side locking screw.

Certain external installation configurations may cause audible levels of noise to be heard due to the air being expelled from the motor. To minimize external noise disturbance you can use between 5 to 15 metres of flexi duct to place the Isodrive motor in an appropriate position.

Please be aware that the 3200 motor is capable of expelling air at 3200m<sup>3</sup>/hr.

For more information on environmental noise limit and conditions please contact your local Council. We have a list of recommended installers available on the Schweigen website.



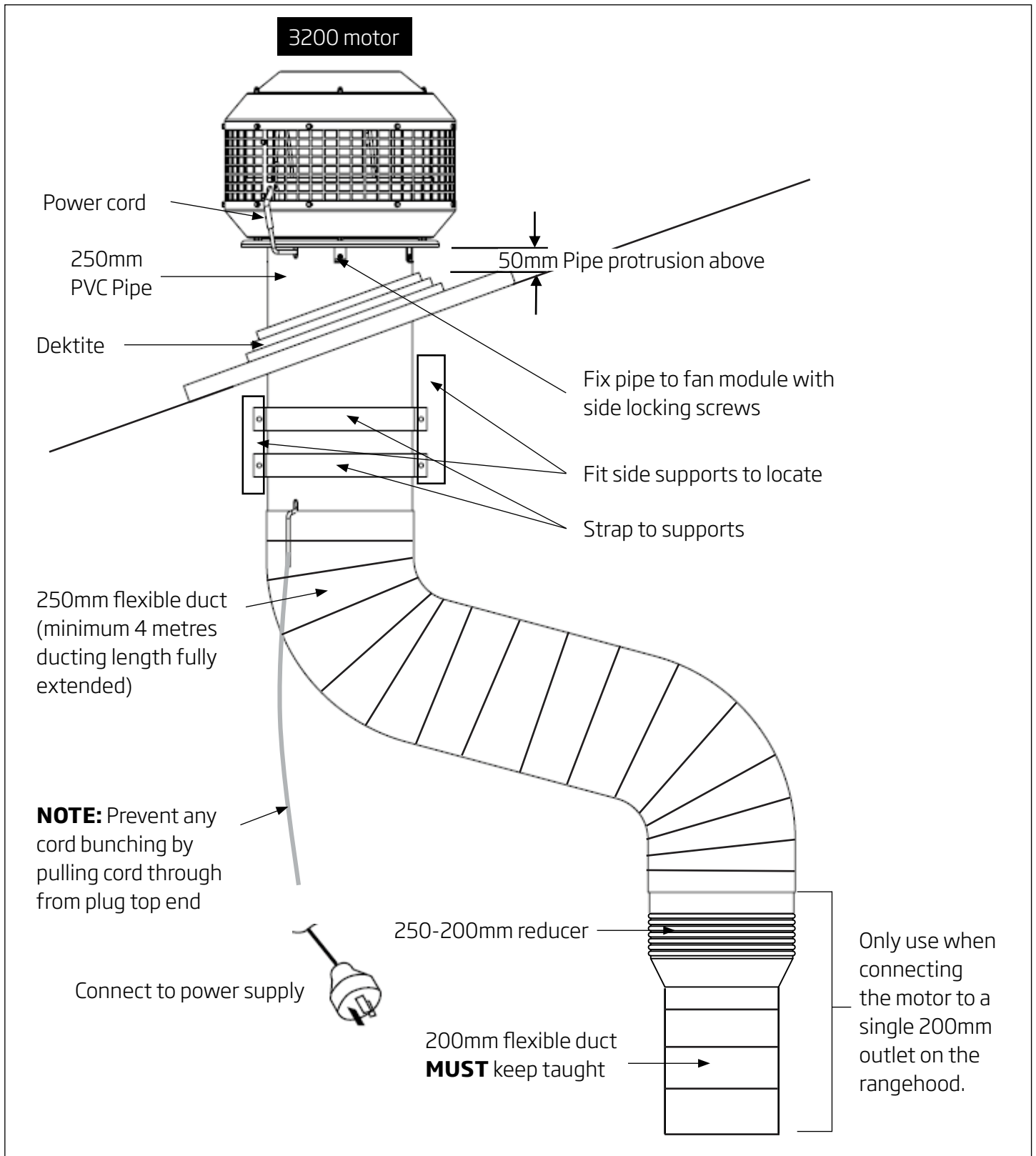


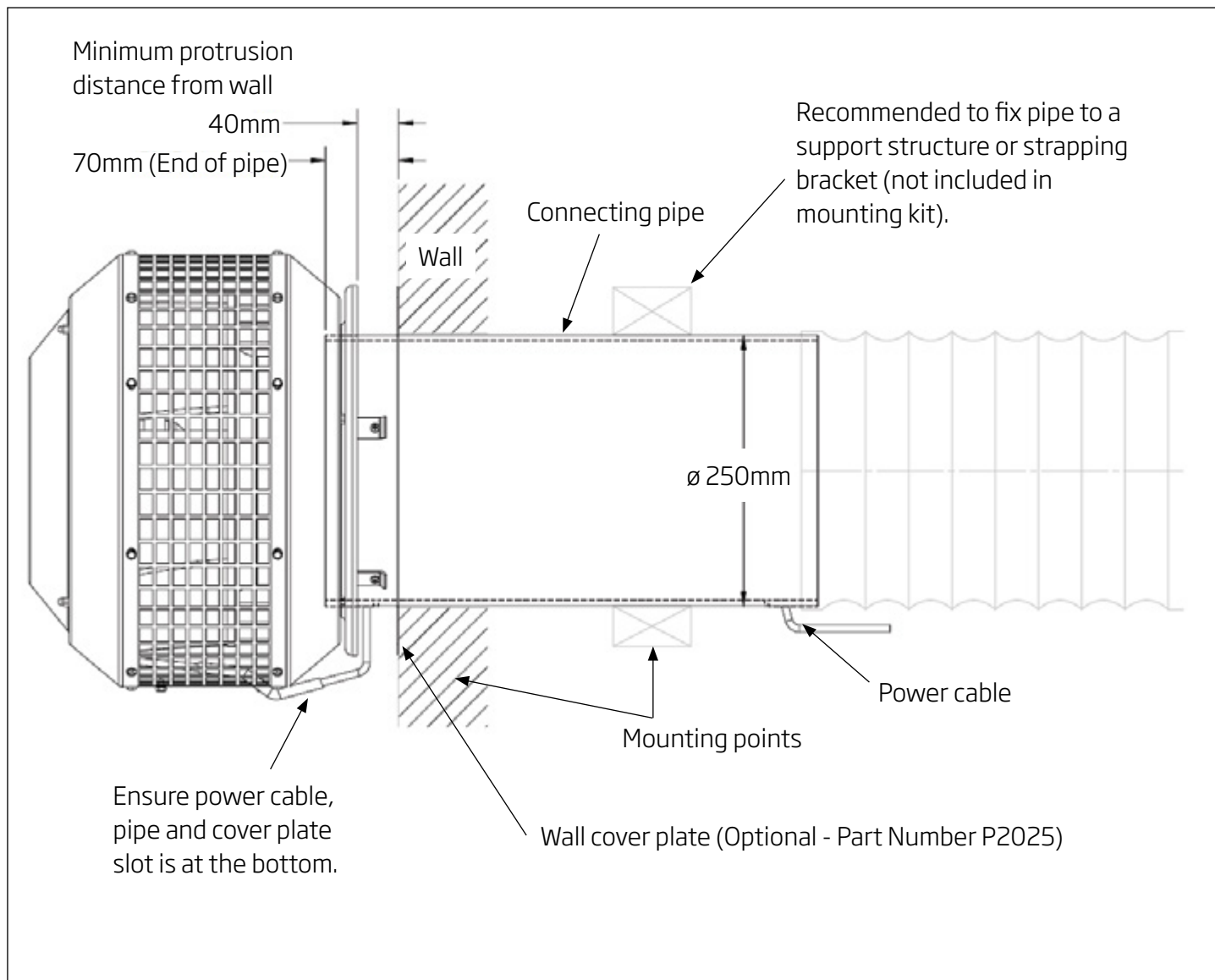
Figure 1 Roof Mount Option



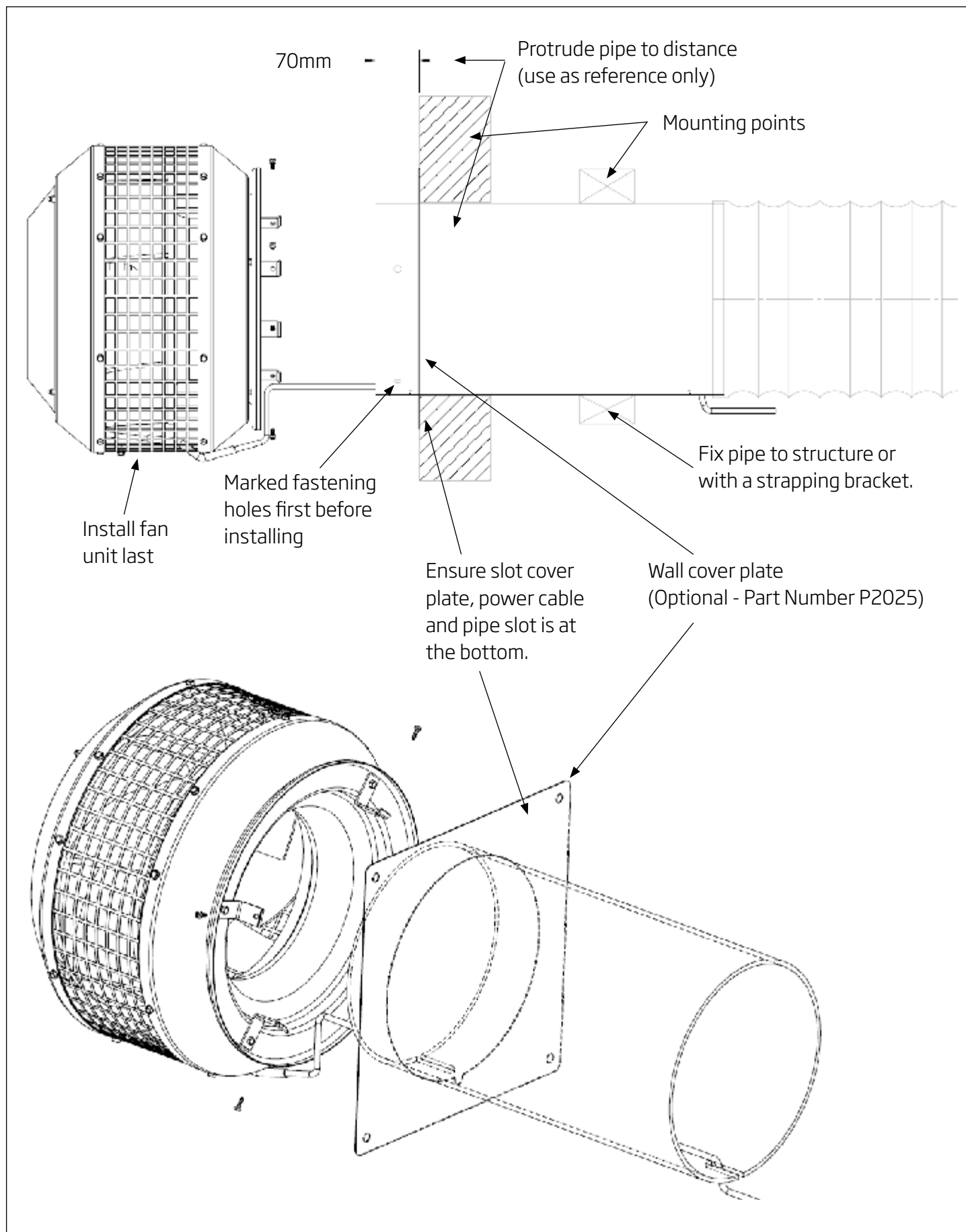
## IMPORTANT

For more flexible ducting instructions, refer to page 13.

### Through Wall Installation



**NOTE:** Make sure that the connecting pipe is well supported, at least 2 mounting points recommended.



## 4. Installation

### Twin 200mm Outlet Installation Example (3200 kit required)

This is for use where one motor is to be used and there are two 200mm outlets.

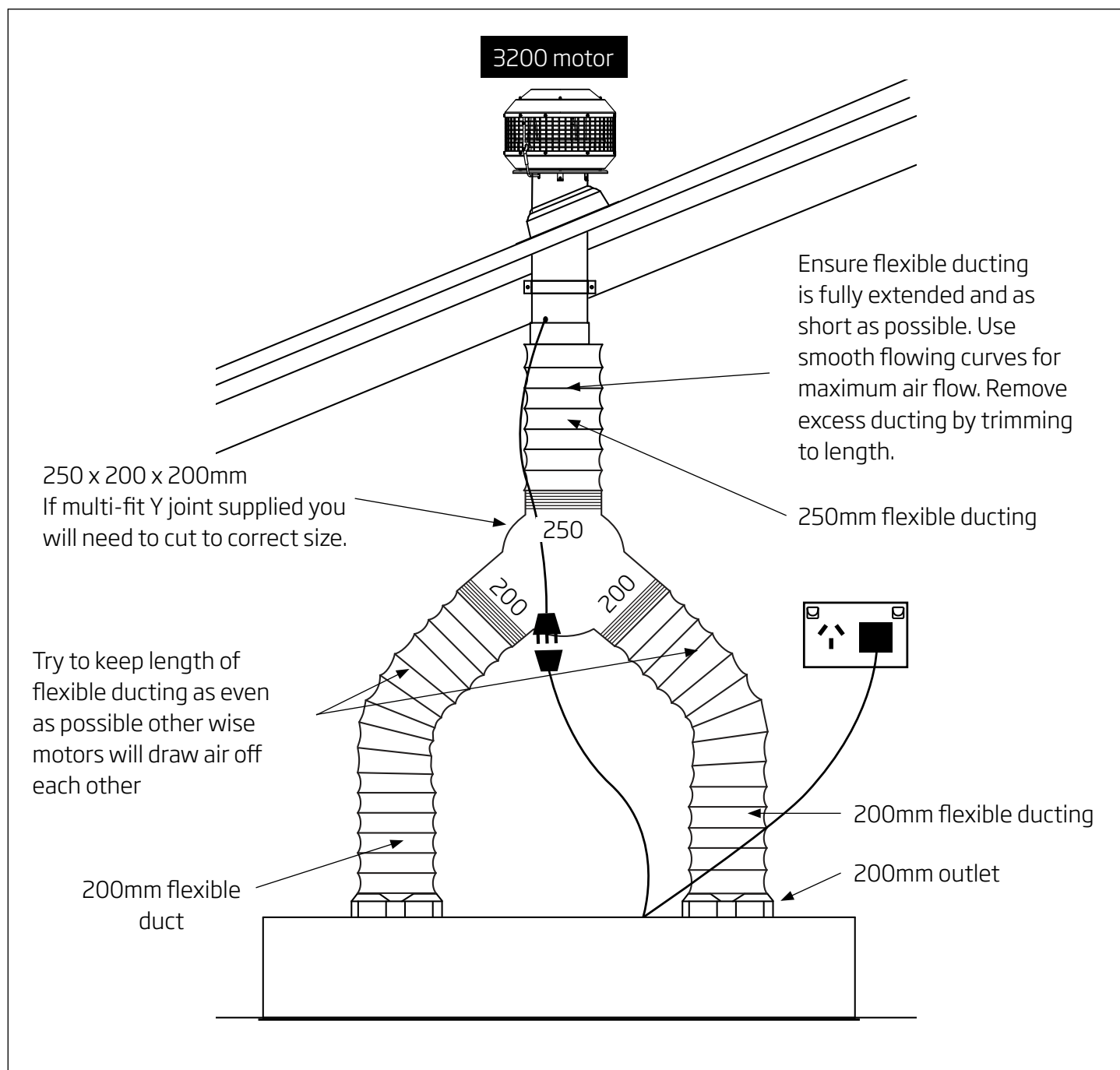
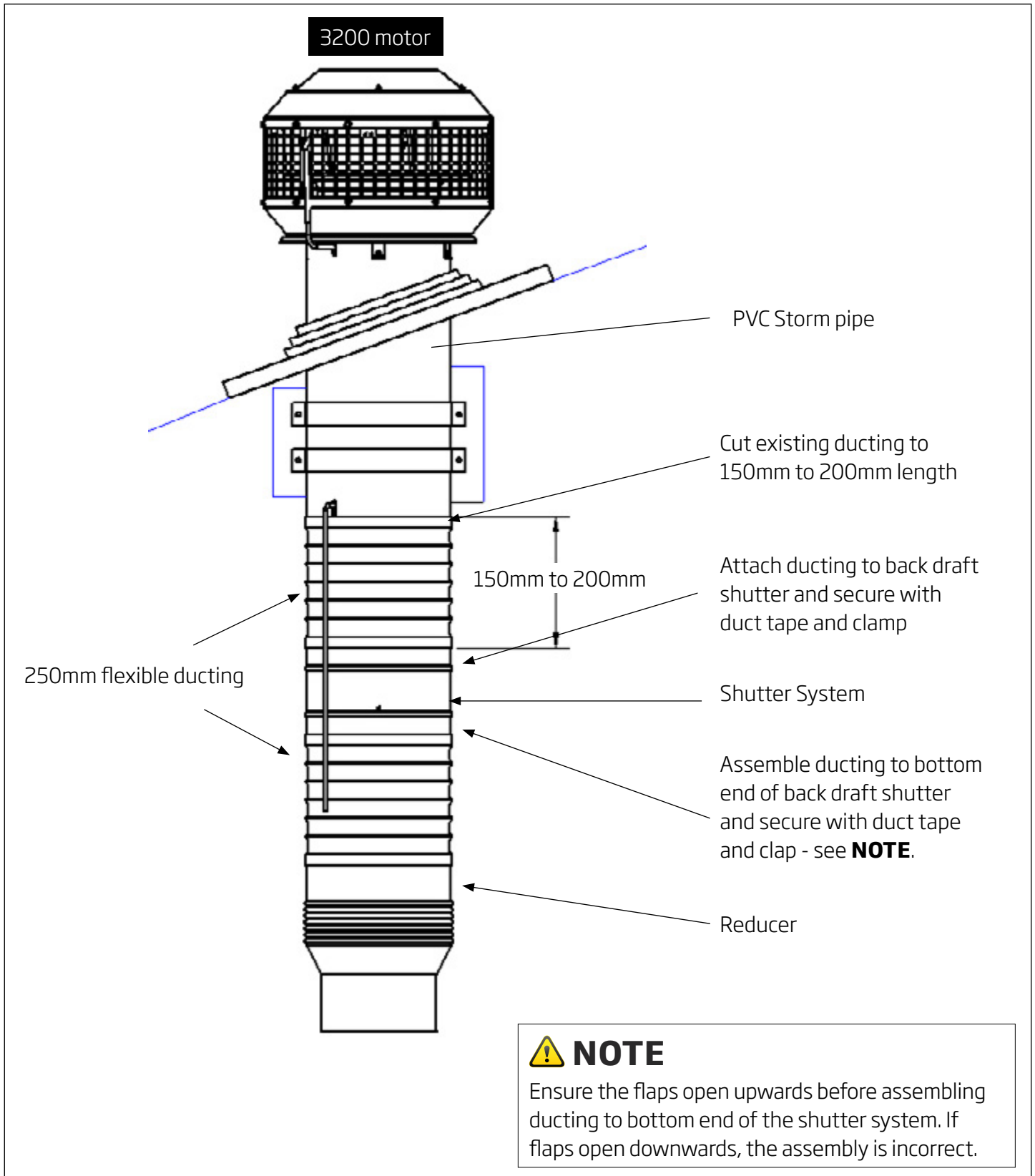


Figure 2 Roof mount option

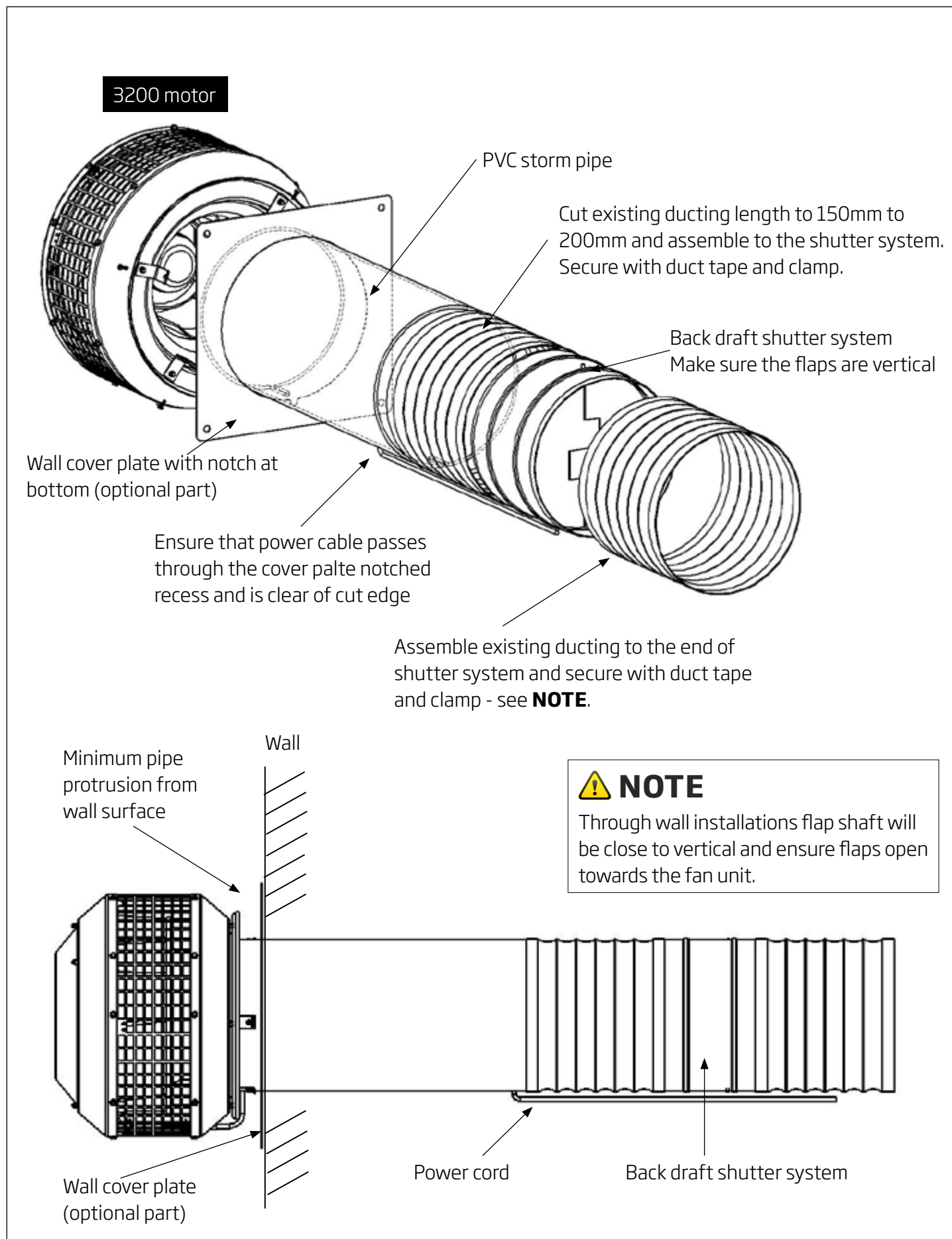
## Optional Back Draft Shutter Installation Through Roof

- Cut 250mm flexible duct length to approximately 150mm to 200mm.
- Assemble by fitting shutter assembly into the ducting.
- Check to ensure the flaps close and open freely before assembling the bottom end of the ducting.



## 4. Installation

### Optional Back Draft Shutter Installation Through Wall



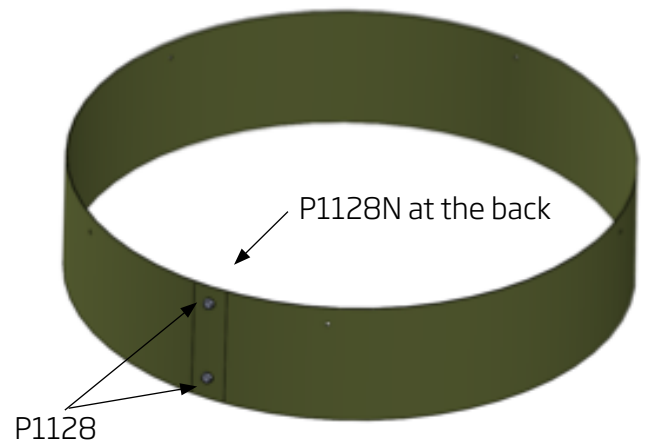
## Optional Weather Shield Installation Guide

### Step 1

Remove Weather Shield (1 pc), P1128 Screws (2pcs) and P1128N Nuts (2pcs), Weather Shield Mounting Bracket (5 pcs) and P1124 Hex Head Screws (15pcs) from packaging.

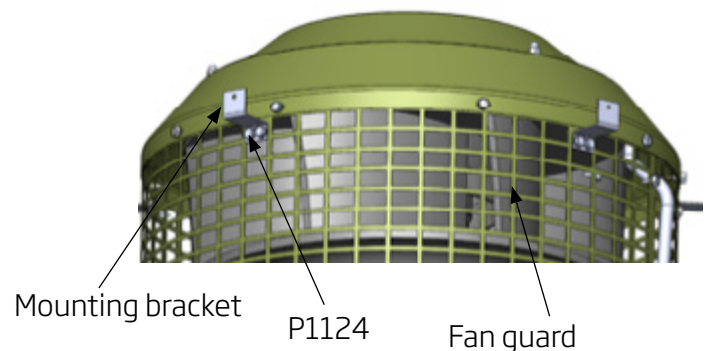
### Step 2

Remove plastic cover from Weather Shield and bend to form a circle. Fasten P1128 Screws with P1128N Nuts at location shown.



### Step 3

Place Mounting Brackets on to Fan Guard, and fasten 2 pieces of P1124 as shown. Ensure orientation of Bracket is mounted as shown.

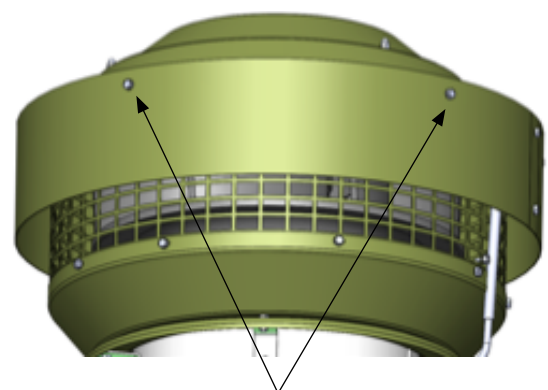


### Step 4

Repeat Step 3 for the rest of the Brackets.

### Step 5

Mount Weather Shield and align mounting holes with the Brackets, and fasten with P1124 (5 areas).



Align mounting holes with the brackets

## 5. Flexible Duct

### Flexible Ducting

Flexible ducting must be fully extended and cut to the required length upon installation. Maximum fan performance will not be achieved unless the ducting is fully extended. Failure to fully extend ducting results in a smaller air passage and lower airflows. Incorrect installation may reduce airflow or increase noise levels. Call outs relating to incorrect installation will result in a service fee directed to the customer. Schweigen will take no responsibility for problems caused by faulty installation. **A list of preferred Schweigen installers can be obtained from the Schweigen website [www.schweigen.com.au](http://www.schweigen.com.au).**

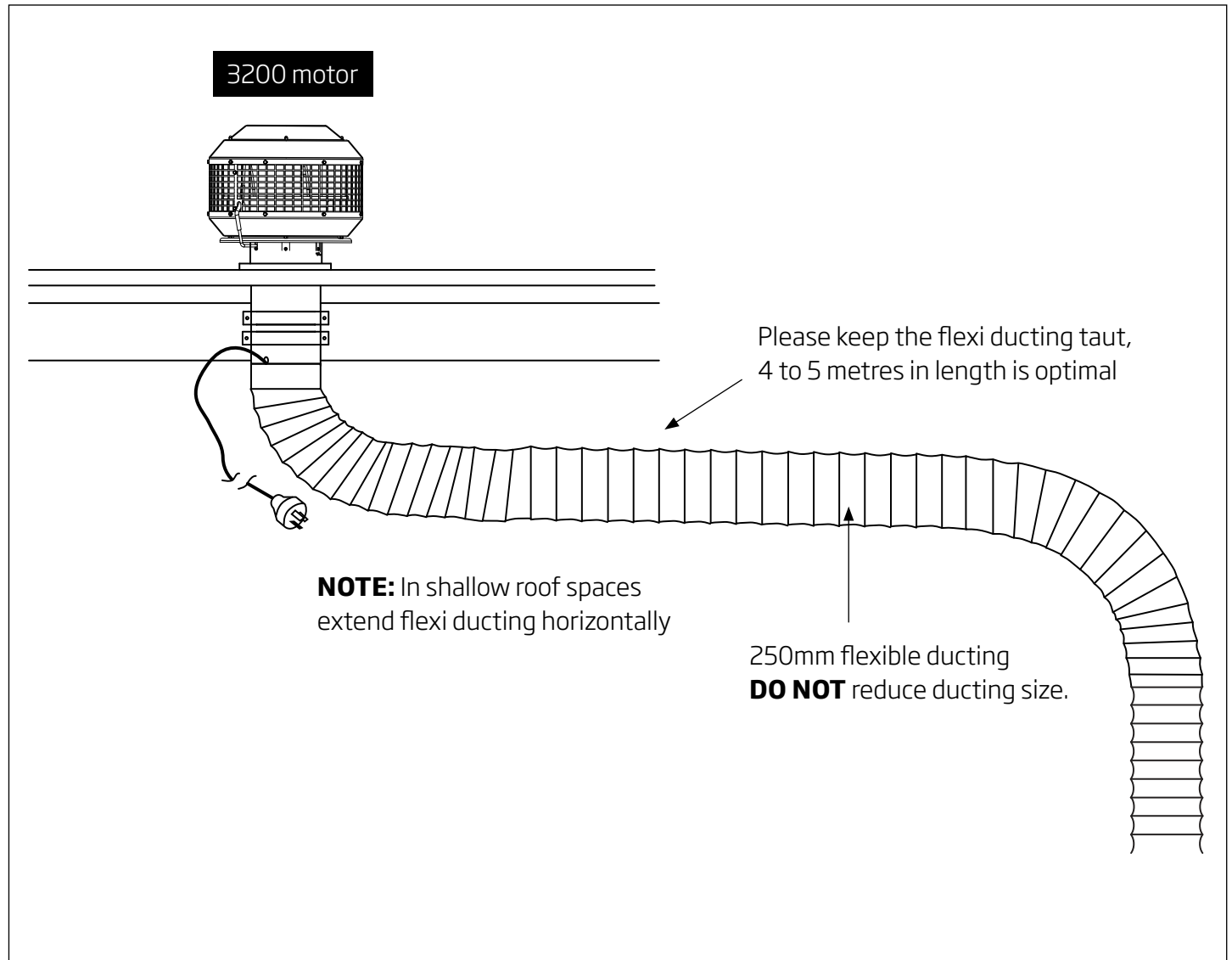


Figure 4



## Shallow Roof Space

In shallow roof spaces, do not crush or kink flexible ducting, as it will reduce air flow severely. 90 degree curve made of PVC or galvanise can be used as a substitute for the bend, refer to figure 5.

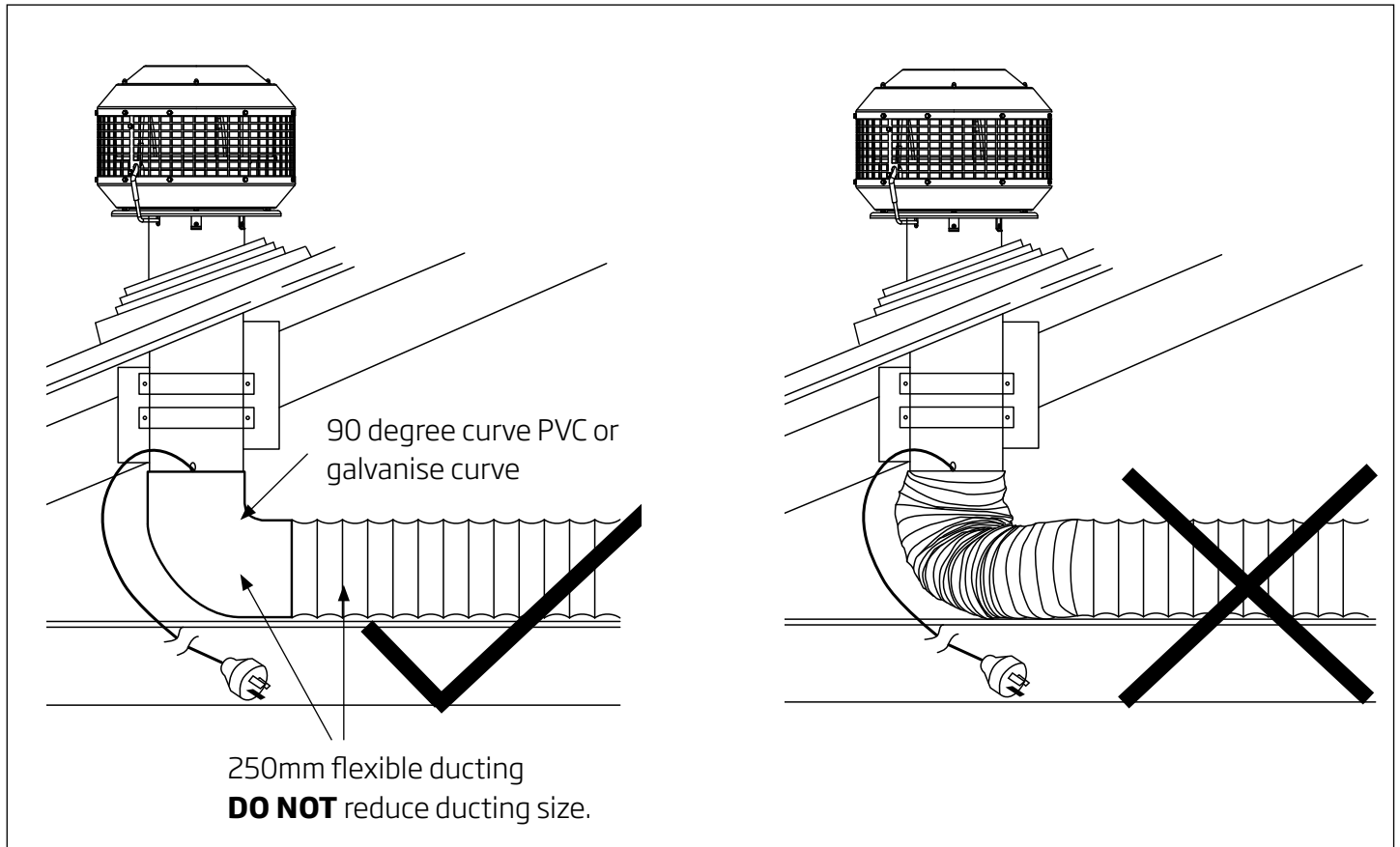


Figure 5

## Important Note

Please do not crush or kink flexible ducting, as it will reduce air flow and may cause noise to occur through the system. Ducting needs to be kept taut at all times.

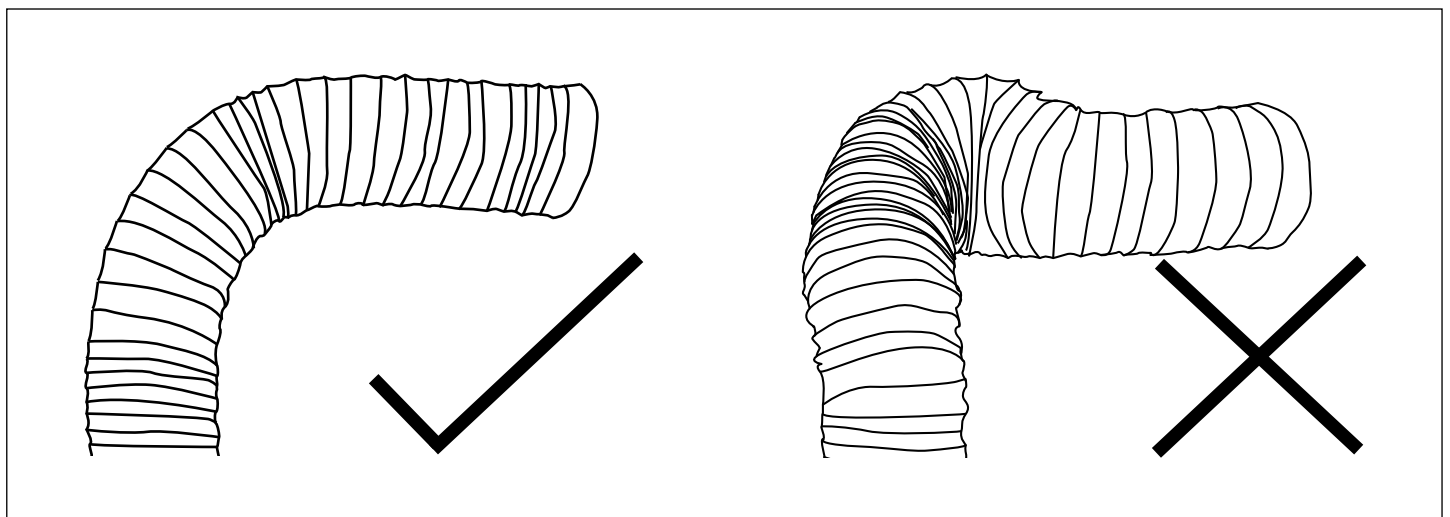


Figure 6

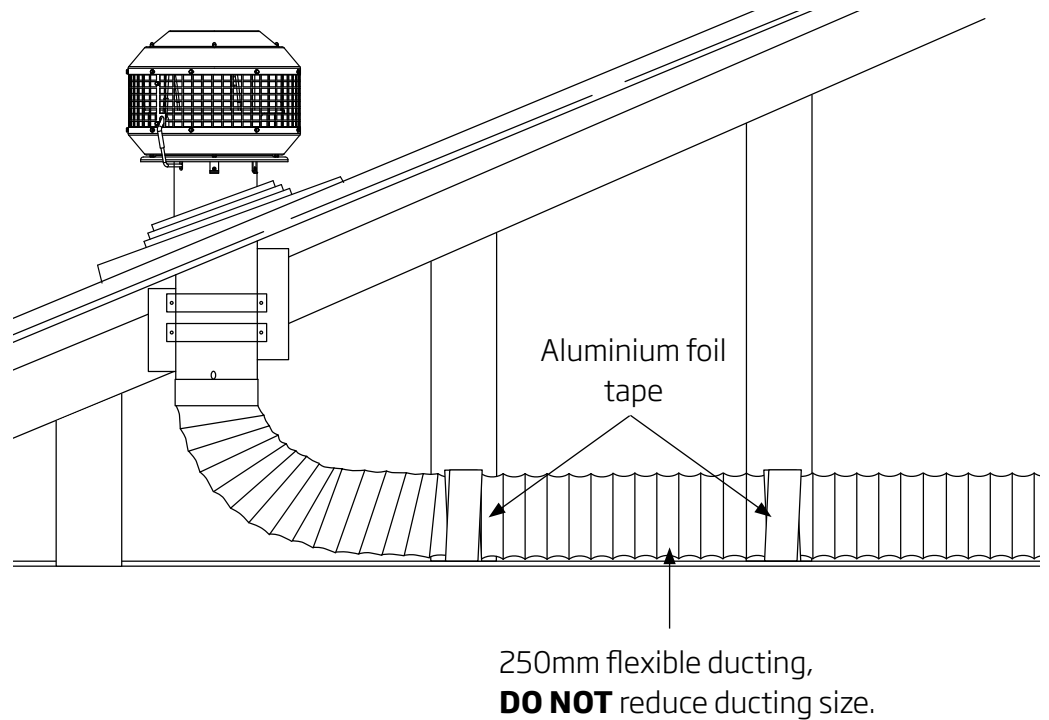
### Securing Flexible Duct

Flexible duct must be installed with supports at maximum intervals of 1.5 metres. Flexible ductwork can be supported by using gaffer or electrical tape. Provided that it does not restrict the internal diameter of the ducting. Ducting installed looped over hanging beams should be installed in such a manner as to ensure the changes of direction are gradual. Support of the ducting with the use of hangers may be required, see option 2.

**NOTE:** Ducting should be kept taut at all times.

#### Option 1

Secure the flexible duct to the beam



#### Option 2

Support flexible duct by using hangers.

**NOTE:** Care shall be taken to minimize sagging or snaking of the duct between supports.

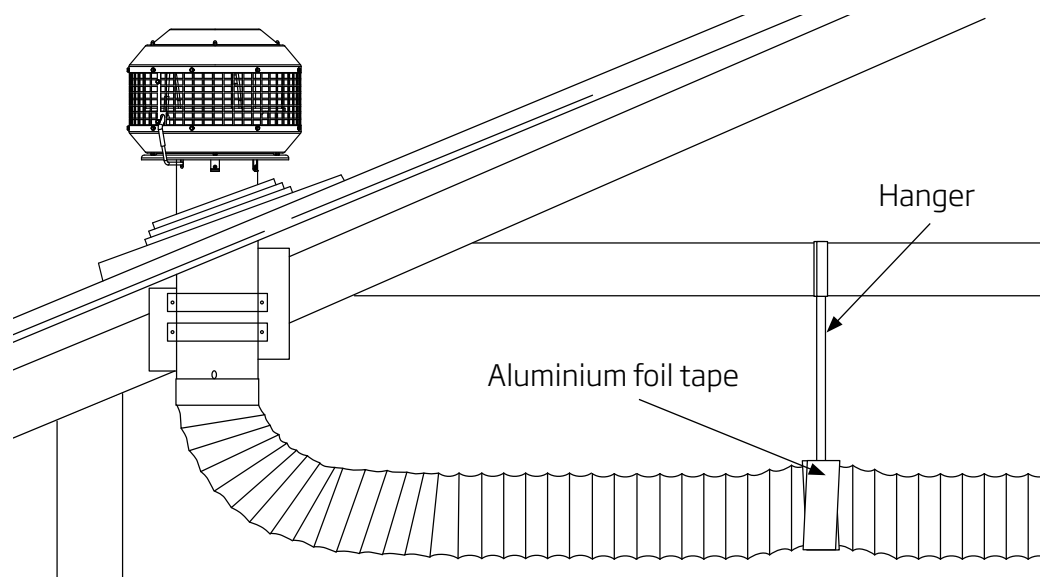


Figure 7 Examples of securing ducting

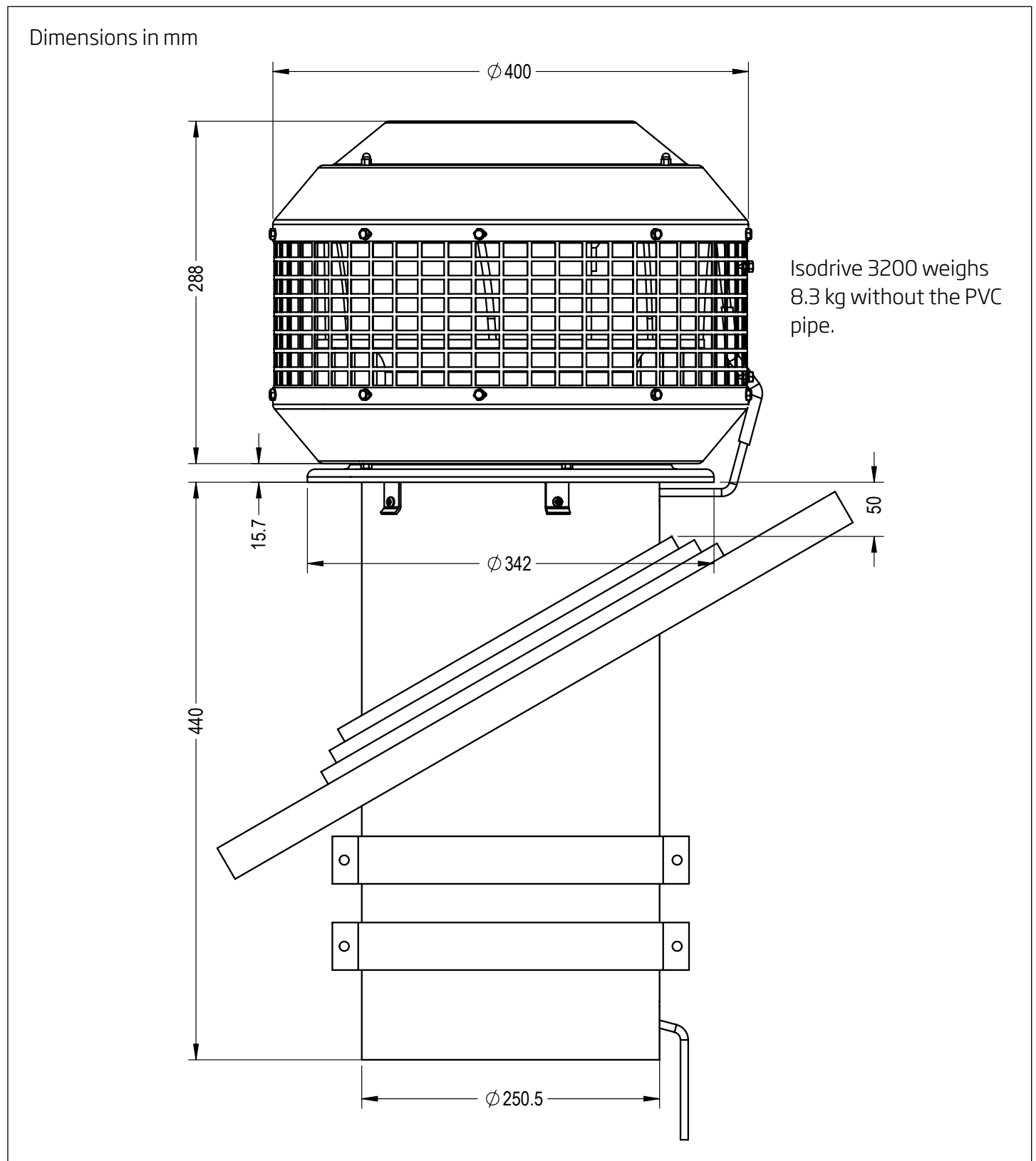
**Measurements for Isodrive 3200** (Not to Scale)

Figure 3

### Parts List for Isodrive 3200

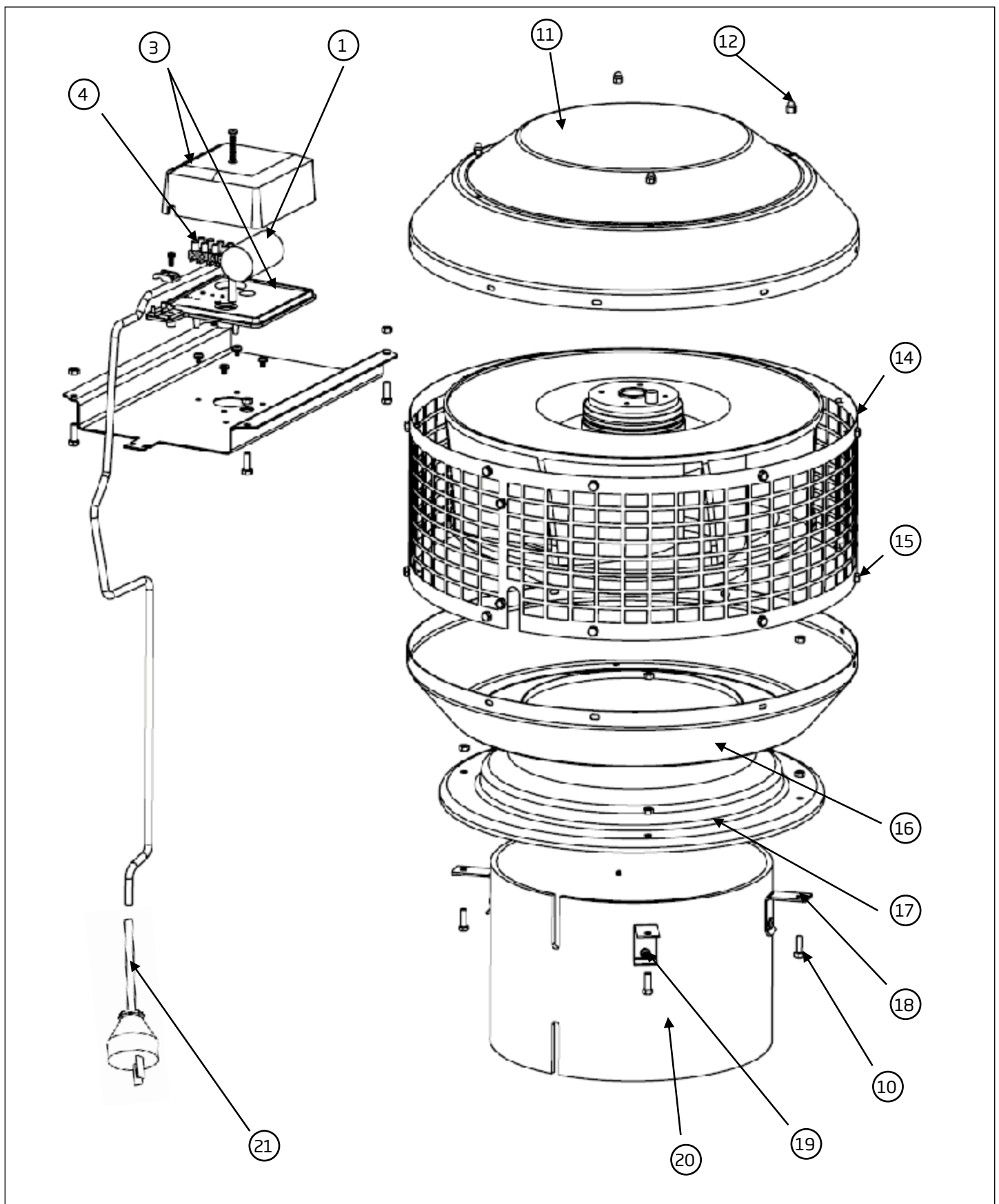


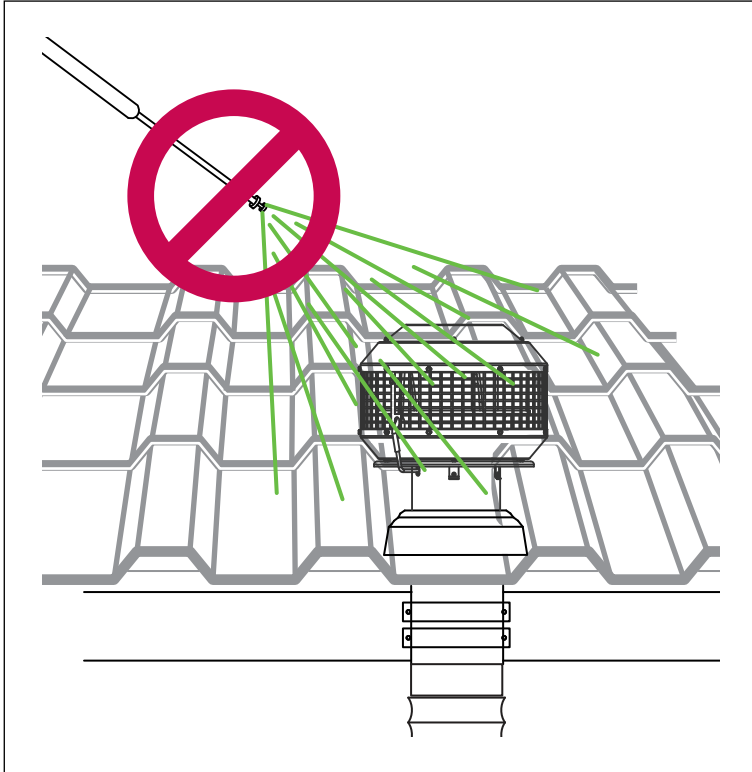
Figure 8

## Parts List for Isodrive 3200

Number	Part Number	Description	Quantity
1	P1114	Capacitor 4 $\mu$ F	1
3	P40112	Terminal Box – Box Base and Lid	1
4	P807	Terminal Block	1
11	P1101	Fan Top Spinning	1
12	P2011	M5X8 SUS Hex Nut Cap	4
14	P2003	Fan Guard	1
15	P1124	M4X12 Hex Washer Head S/S ST	22
16	P2007	Fan Bottom Spinning	1
17	P2004	3200 Inlet Cone	1
18	P2005	Pipe Bracket	4
19	P1125	M4X14 Pan Head S/S TT	4
20	P2006	250mm PVC Pipe	1
21	P301	Power Cable	1
22	P2020	M5X16 Hex Head Machine Screw	4
23	P2023	Cable Protective Grommet (200mm)	1
	P2025	Optional Wall Cover Plate	
		Optional Back Draft Stopper	
		Optional Weather Shield	

### Roof Restoration or Cleaning

Before doing your roof restoration or cleaning, please completely cover the outside motor system and avoid all chemical contact.



#### **important**

Any damages caused by the use of chemical products are not covered by warranty.

*Figure 9 Avoid chemical contact to motor system.*

*\*\*Images for illustration purposes only.  
Applies for all motors.*

### **Warranty** (See warranty for more information)

Isodrive motor has a 10-Year replacement product warranty. The consumer is responsible for any charges associated with removal of the faulty unit and installation of the new unit. The customer is also responsible for any freight charges incurred in this change over process.

### **Disclaimer**

Under our policy of continuous product development, product specifications may change without notice. Prospective purchasers should therefore check with the retailer to ensure this publication correctly describes the products being offered for sale. All information supplied is to be used for general reference purposes only and is on the understanding that Schweigen Home Appliances will not be liable for any loss, liability or damage of whatever kind arising as a result of any reliance upon such information. All pictures used in the guide are for illustrative purposes only.

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