

## INSTALLATION GUIDE

# Isodrive 650

Under our policy of continuous product development, product specifications may change without notice. Please refer to the online version of the manual for the latest updates and specifications.

**Revision V3** 21/04/22



**schweigen**

[www.schweigen.com.au](http://www.schweigen.com.au)

**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.

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 an experienced Home Appliances technician.

Please see our website **[www.schweigen.com.au](http://www.schweigen.com.au)** for experienced 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 motor used in the Isodrive systems after the canopy/rangehood or bathroom extraction grill has been mounted on the wall or ceiling. (Refer to canopy/rangehood or bathroom extraction unit installation manual).

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

### Motor Features

- Universal mounting, all position with IPX4 degree of weather protection.
- Patented anti water intrusion system.
- Super quiet, long vane, backward curved centrifugal fan.
- Airflow is dependant on installation and the ducting used. Using a single 150mm SteelFlex™ duct, you should attain up to 650m<sup>3</sup>/hr depending on the ducting installation. **The use of a smaller than 150mm ducting would result in a loss of airflow.**
- **Simple installation:** The motor mounts onto a 100mm PVC pipe for ultimate strength and allows for easy Dekite 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 57W costing around the same as a 60W light globes to run.
- **WARRANTY 10 YEARS** return to manufacturer. Covers faulty manufacturing or components. It does not cover normal wear and tear, chemical or storm damage etc. (see warranty card for more information).

### General Notes on Installation and Use

This fan unit is designed to be installed using 100mm PVC pipe as the initial connection duct to the fan module, and is supplied with a 100mm PVC pipe to 150mm SteelFlex™ duct bell-mouth adaptor.

This fan is suitable for connection to ducting runs with a minimum inlet area of 11,000mm<sup>2</sup>. Ducting runs should be more than 2 metres away from the unit and no more than 6 metres (check with supplier if longer duct length required). SteelFlex™ ducting must be extended sufficiently to present a smooth air passage with bends of at least the radius of twice the diameter of the duct. **Excessive bends in the ducting will compromised extraction.**

**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 your warranty.

**NOTE:** Fan module and Steelflex™ 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 Schweigen SteelFlex™ Safety Duct'.

### Recommended Installation Distance

Isodrive 650 motor, **recommended 4 metres (approx.)** of SteelFlex™ ducting and with at least two bends.

**NOTE:** Installation closer than this distance may result in higher noise level. Maximum duct length is 6 metres. 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 Schweigen SteelFlex™ Safety Duct

**Schweigen SteelFlex™ is an ultra-strong and flexible high-performance safety ducting made of Shirikon Firemesh® - a tri-layer tear-resistant UV-treated sleeve. Both are developed by Schweigen - the Silent Rangehood specialists, for quiet and efficient high-volume transfers of temperature-sensitive air. Engineered to enhance the health and safety of your home, Schweigen SteelFlex™ is antimicrobial treated, thermally insulated and acoustically dampened. It is fireproof, pest and crush proof with a treated surface that prevents the build-up of grease and bacteria.**

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.

**WARNING:** Installation without the use of at least the minimum recommended length of acoustically matched SteelFlex™ 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. An experienced installer list can be obtained from Schweigen website [www.schweigen.com.au](http://www.schweigen.com.au) or by calling **1300 881 693**.



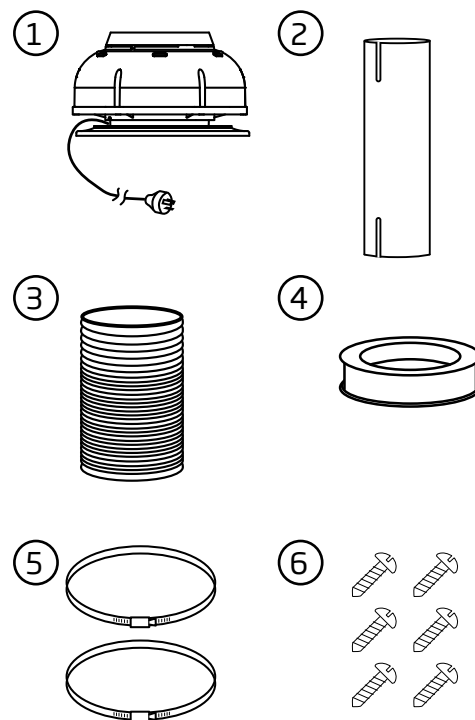
## NOTE

For more SteelFlex™ ducting instructions, refer page 18.

## Isodrive Motor

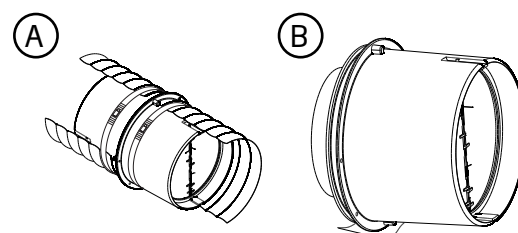
### Included in the box:

1. Isodrive 650 motor (280W x 200H mm approx.)  
Approx. 3 metre, 10amp cable and standard plug
2. Fire resistant 100mm (110mm outside dimension) PVC riser pipe
3. SteelFlex™ safety ducting. Approx. 4 metres, 150mm (160mm outside dimension) diameter
4. Bell-mouth adapter ring  
150mm duct to 100mm riser
5. 2 x Steel ring clamps (for adaptor and rangehood outlet)
6. 6 x 20mm self-drilling button head screws



### Not included in the box:

- A. (Optional) Backdraft shutter for 150mm ducting  
Refer to page 13 for more information.  
Part number 150MMINLINEBDSSBUILD
  - B. (Optional) Backdraft shutter fitment to bell mouth adaptor Refer to page 15 for more information.  
Part number 150MMINBDSSBUILD
- Roof seal kit / Dektite
  - Support straps for poly pipe which connects to the roof truss
  - Gaffer tape / electrical tape
  - 2 x steel ring clamps (for backdraft shutter)



## 4. Installation

### Roof Installation

Recommended duct length: 650 motor – 4 metres.

Mount 100mm rigid PVC pipe securely to beams, trusses or other appropriate structures: refer figure 1. The pipe should be mounted vertically or perpendicular to the roof cladding with the roof penetration being sealed using a Dektite or other appropriate sealing membrane or device.

Ensure that the PVC pipe **protrudes a minimum of 80mm** past the top of the Dektite, checking that the mounting flange clears the roof cladding at upper edge as shown in figure 1 – Roof Mount Option.

Maximum recommended protrusion is 200mm. Fit mounting flange, refer figure 2, to pipe using silicon sealant, then tape in position until sealant has set.

Pass power cord and plug through mounting flange and pipe, then out the slotted end of the PVC pipe for connection to the socket coming from the canopy/rangehood or authorised switching mechanism in bathroom application, refer figure 2.

Fit fan module to mounting flange by placing in position, rotating clockwise to engage bayonet fingers then secure by screwing in locking screw (while holding fan module firmly in the fully clockwise position), refer figure 2.

Do not install the SteelFlex™ in a straight line and minimum of two gentle bends in the ducts is required.



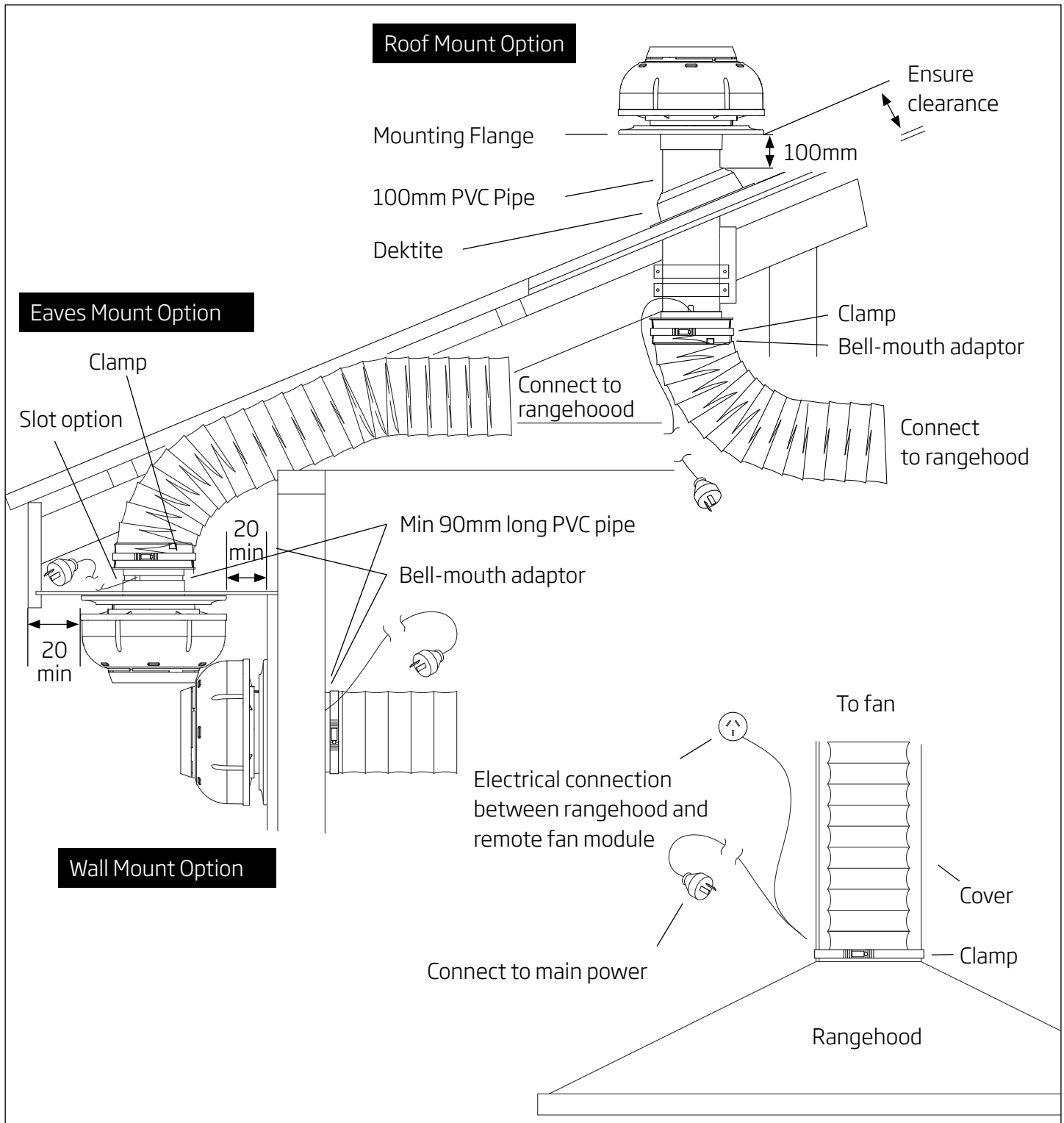


Figure 1: The three options for mounting the unit



## IMPORTANT

For more SteelFlex™ ducting instructions, refer page 18.

## 4. Installation

### Roof Installation

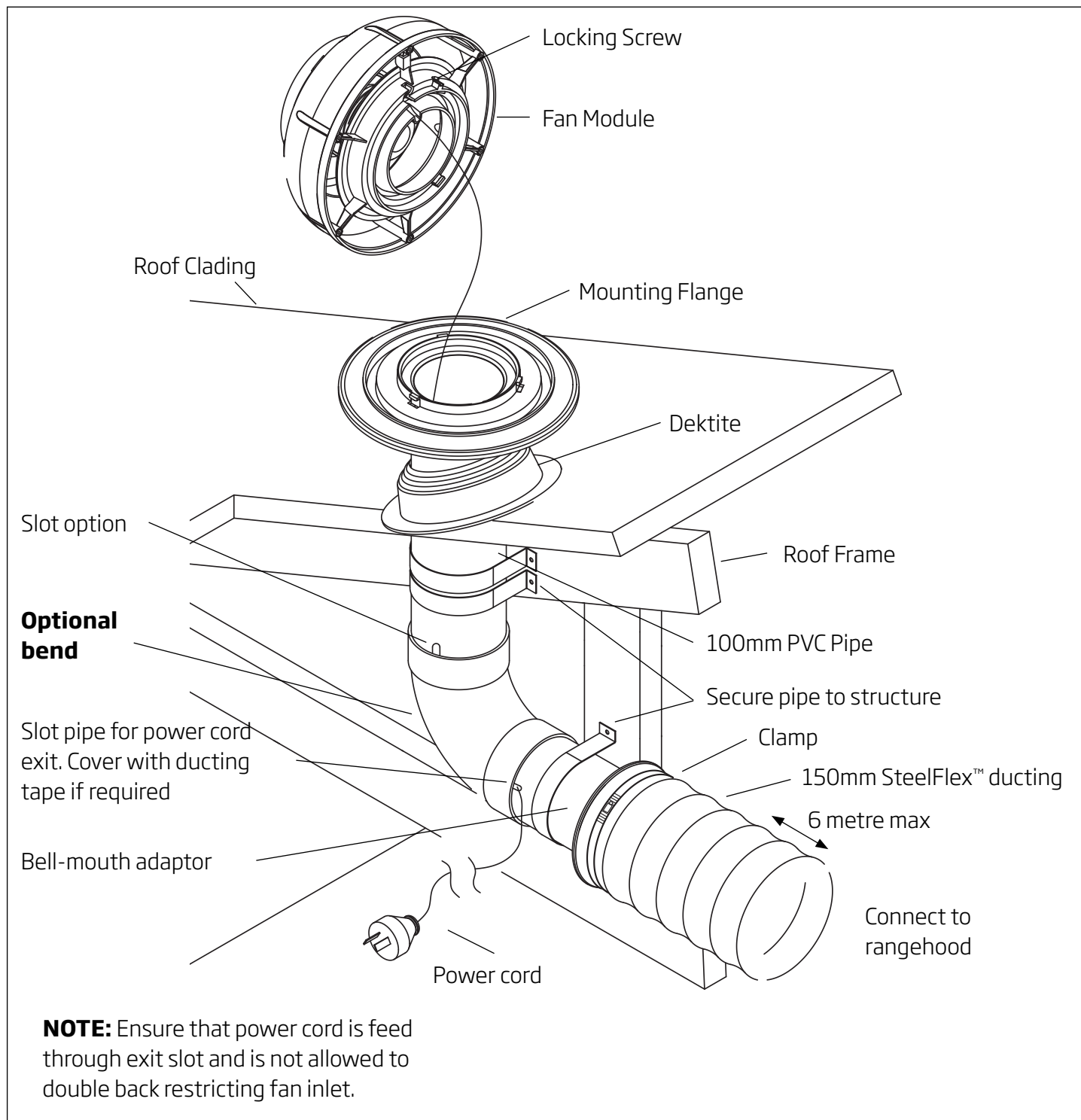


Figure 2: Roof installation



#### IMPORTANT

For more SteelFlex™ ducting instructions, refer page 18.

## Eaves Installation

After ensuring sufficient clearance exists for the mounting flange and ducting, refer figure 1, cut a circular hole 165mm Ø, maintaining adequate clearances. The eaves sheeting should be reinforced.

Pre-drill mounting flange recess. Refer figure 3.

If access to the eaves space is restricted, before fixing mounting flange to eaves, preassemble mounting flange, PVC pipe, bell-mouth adaptor and flexi-duct then feed up into roof space. Remember to run power cord through the assembly and out the slotted PVC pipe wall, refer figure 3.

Fit fan module to mounting flange by placing in position, rotating clockwise to engage bayonet fingers then secure by screwing in locking screw (while holding fan module firmly in the fully clockwise position).

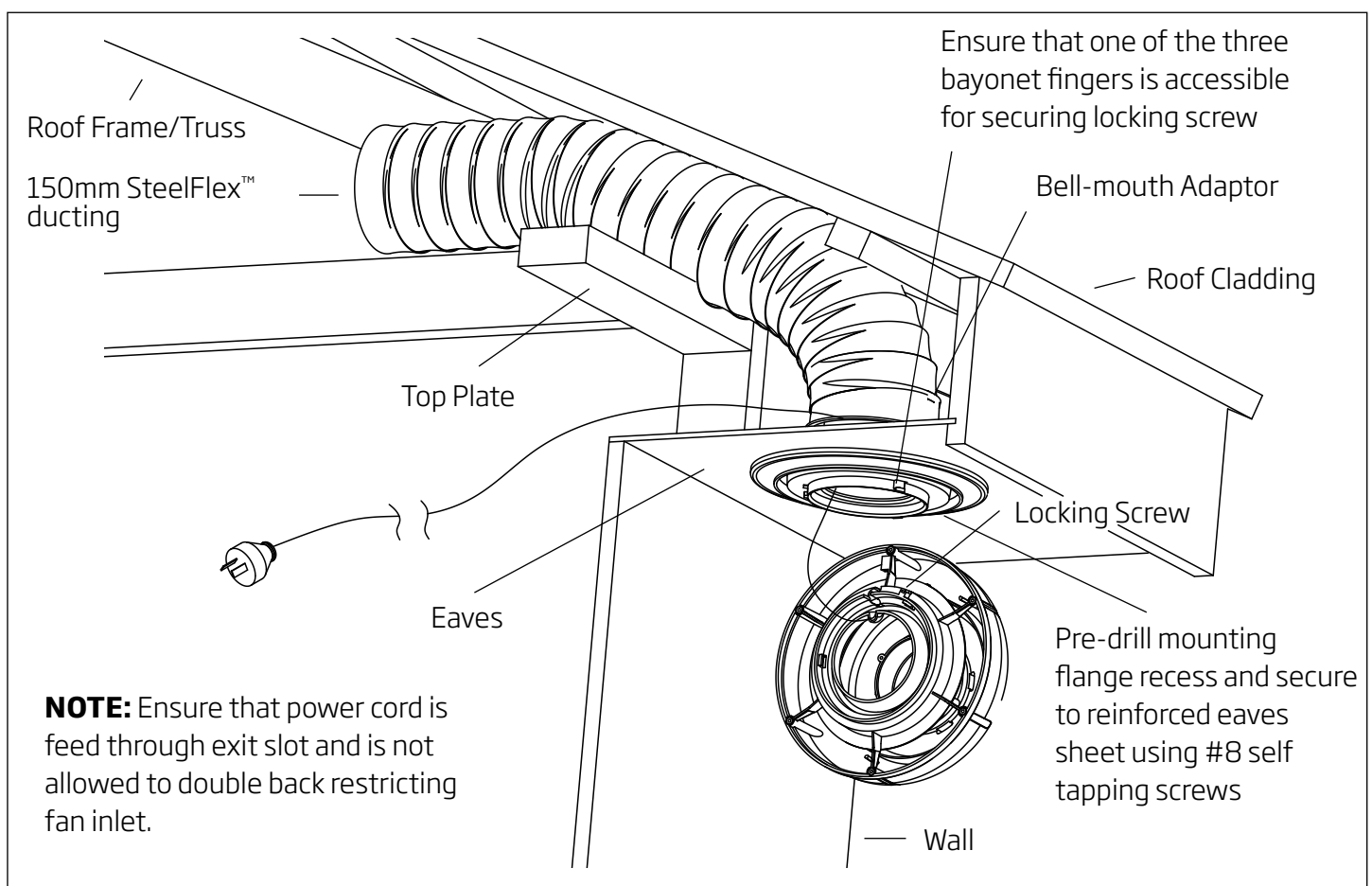


Figure 3: Eaves installation



### IMPORTANT

For more SteelFlex™ ducting instructions, refer page 18.

## 4. Installation

### Wall Installation

The installation should be similar to eaves mounting if access to the inside is limited, but if unrestricted. Refer to EAVES INSTALLATION and figure 4.

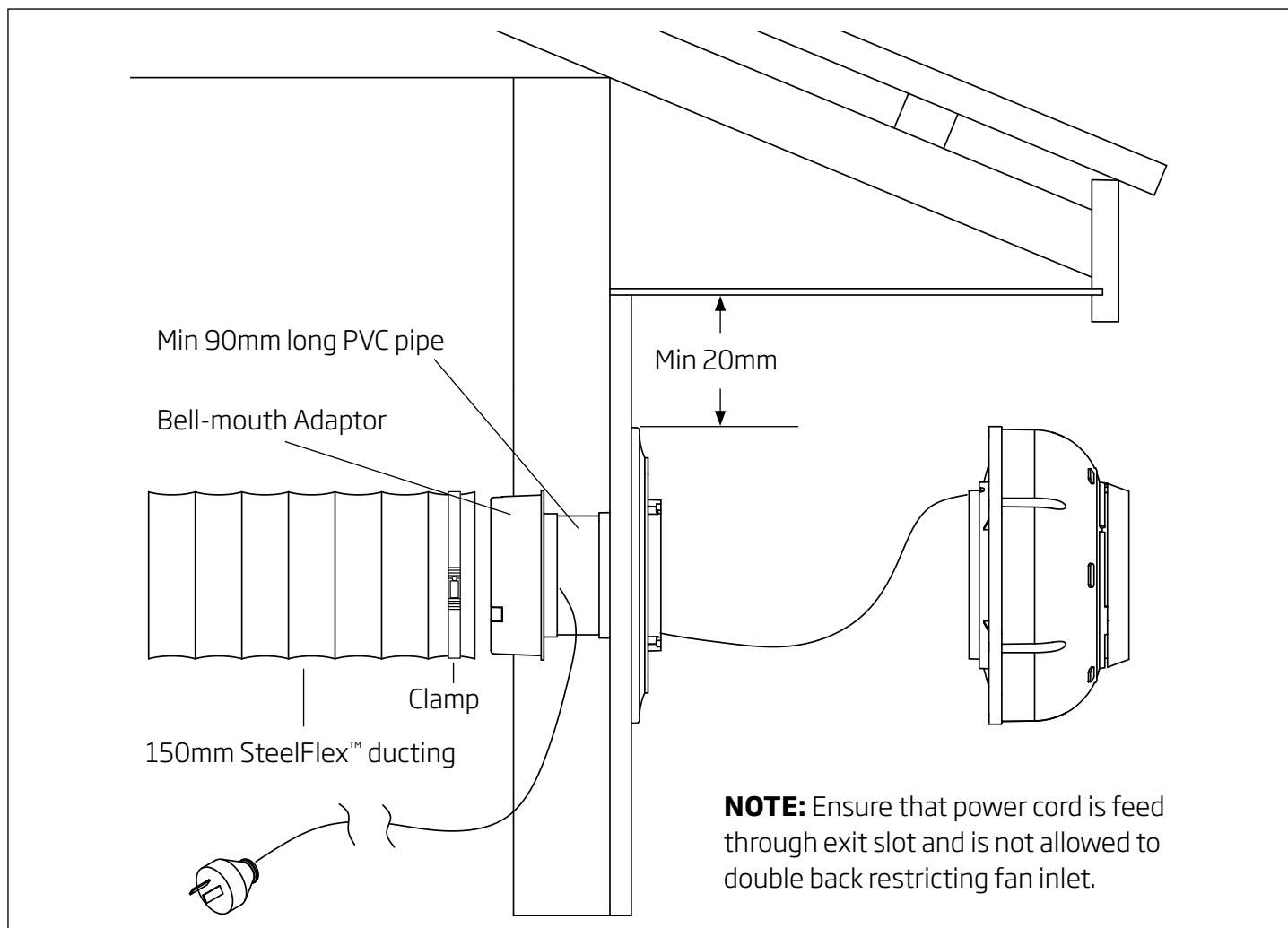


Figure 4: Wall installation



### IMPORTANT

For more SteelFlex™ ducting instructions, refer page 18.

## Backdraft Shutter System for 150mm Ducting (optional)

This backdraft shutter suitable for Isodrive 650 motor only.

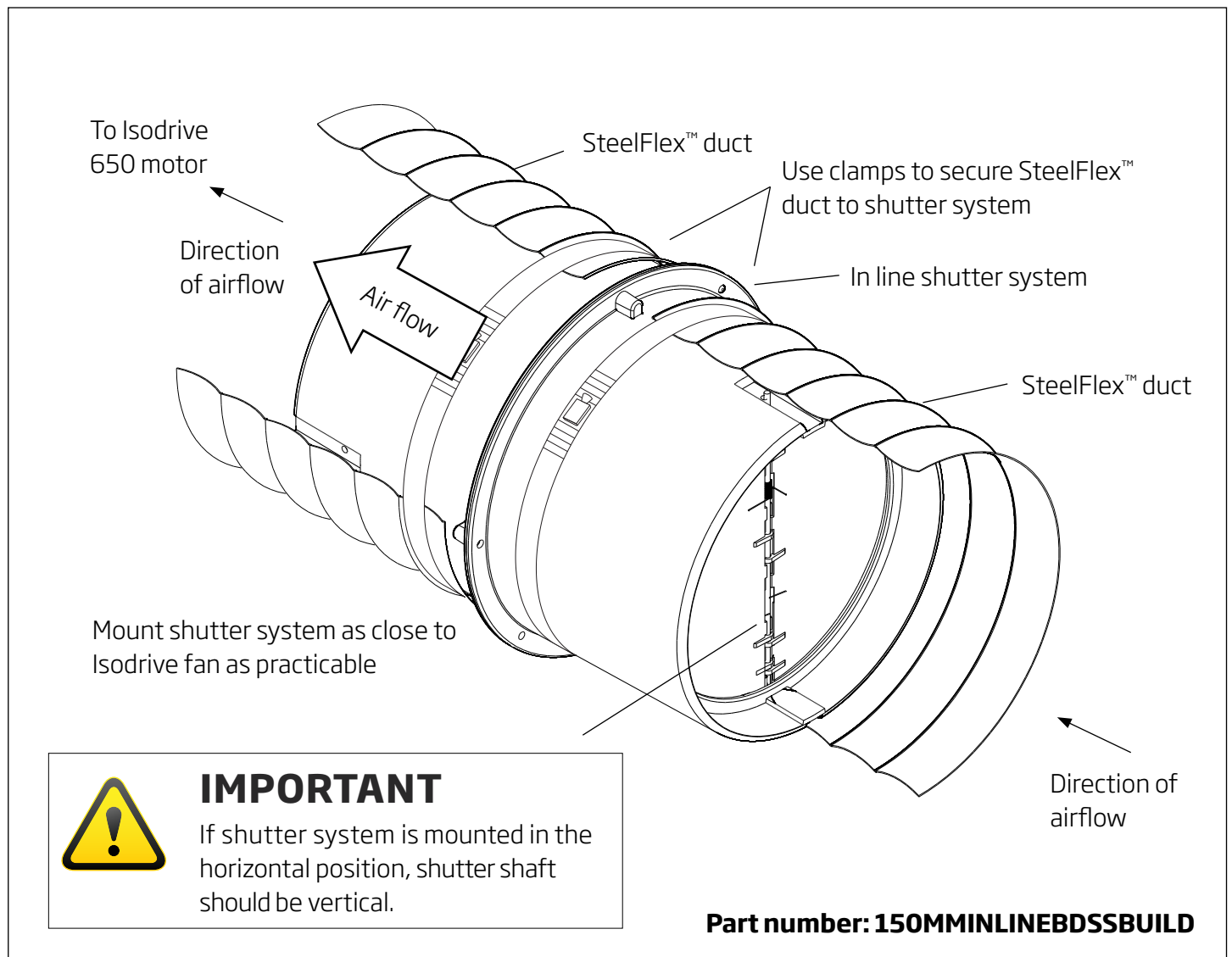


Figure 5: In line shutter system

## 4. Installation

### Installation Example for Backdraft Shutter System (optional) (150mm Ducting, refer to figure 5)

This backdraft shutter suitable for Isodrive 650 motor only.

#### Vertical Installation

Figure 6 shows an example of vertical installation. If space is allowed, it could be installed near the rangehood outlet.

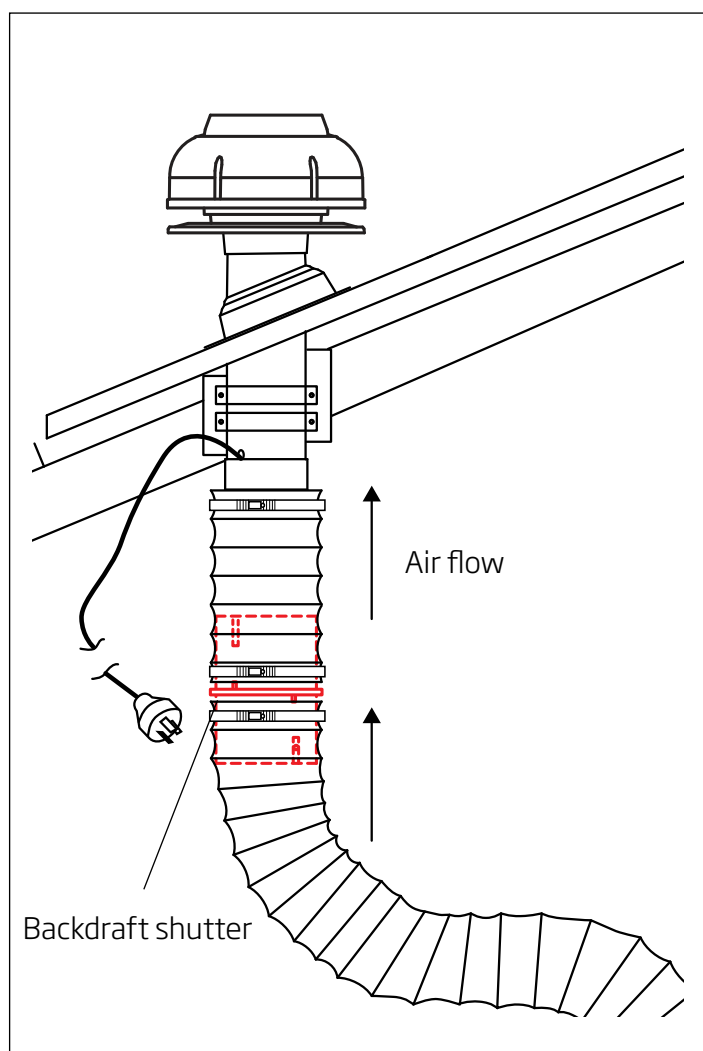


Figure 6: Vertical installation

#### Horizontal Installation

If you have a narrow roof space, you can install the backdraft shutter horizontally, refer to figure 7.

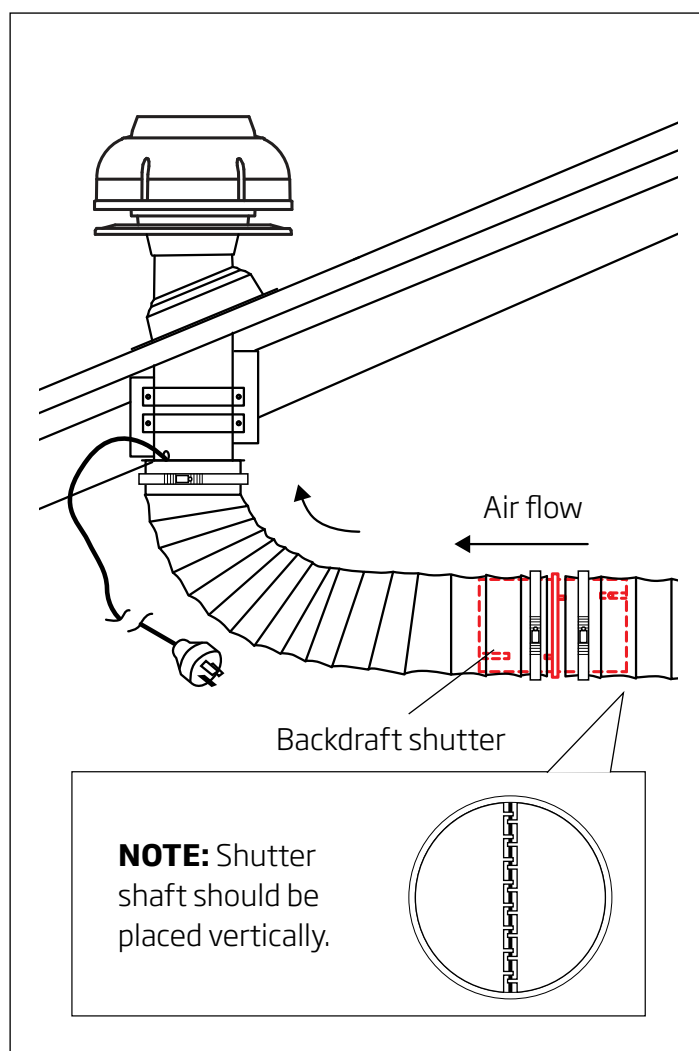


Figure 7: Horizontal installation

## Backdraft Shutter System Fitment to Bell-mouth Adaptor (optional)

This backdraft shutter suitable for Isodrive 650 motor only. This backdraft shutter system cannot be installed in eave type installation.

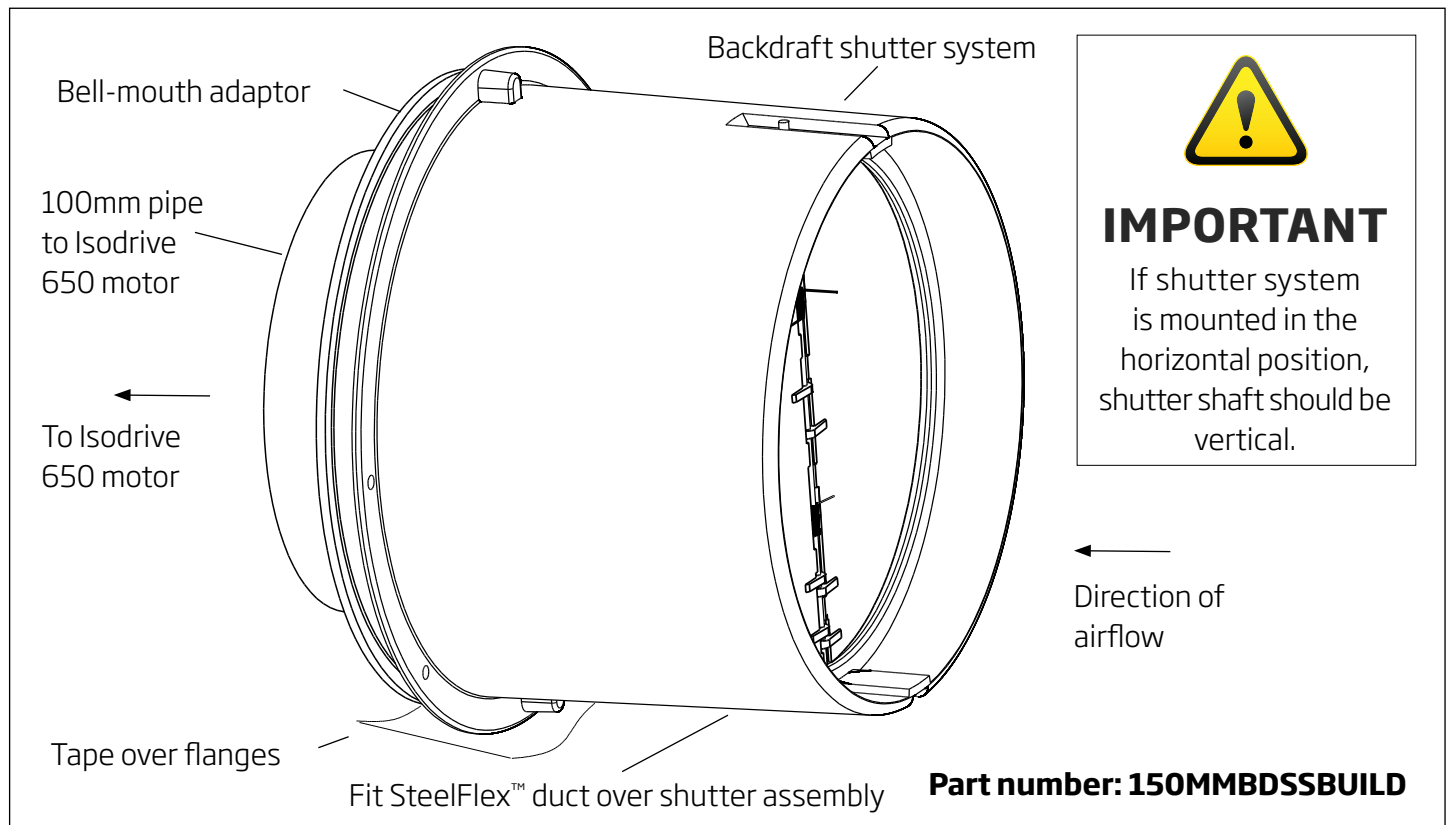


Figure 8: Backdraft shutter

### Vertical Installation

Figure 9 shows an example of vertical installation.

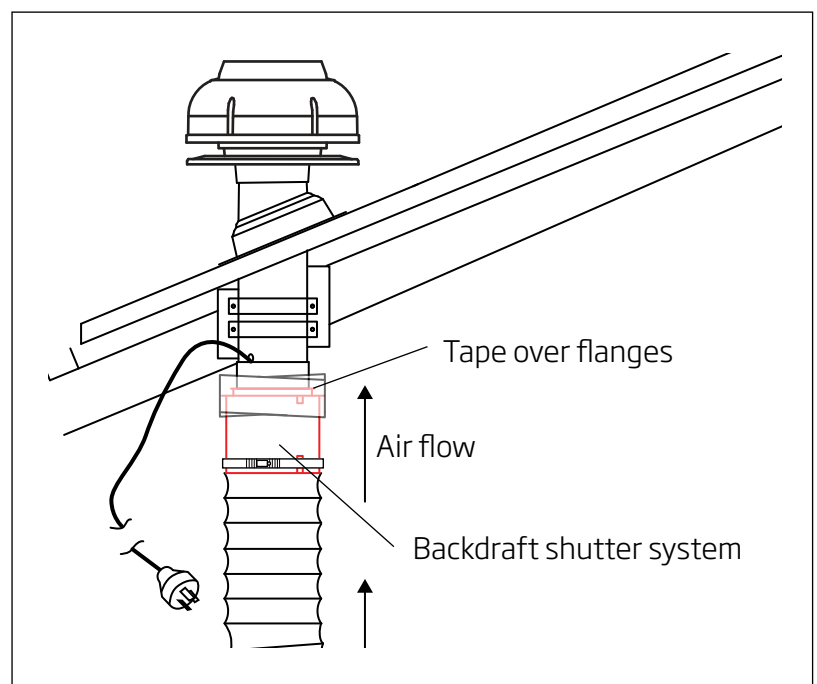


Figure 9: Vertical installation

### Single Motor Installation Example

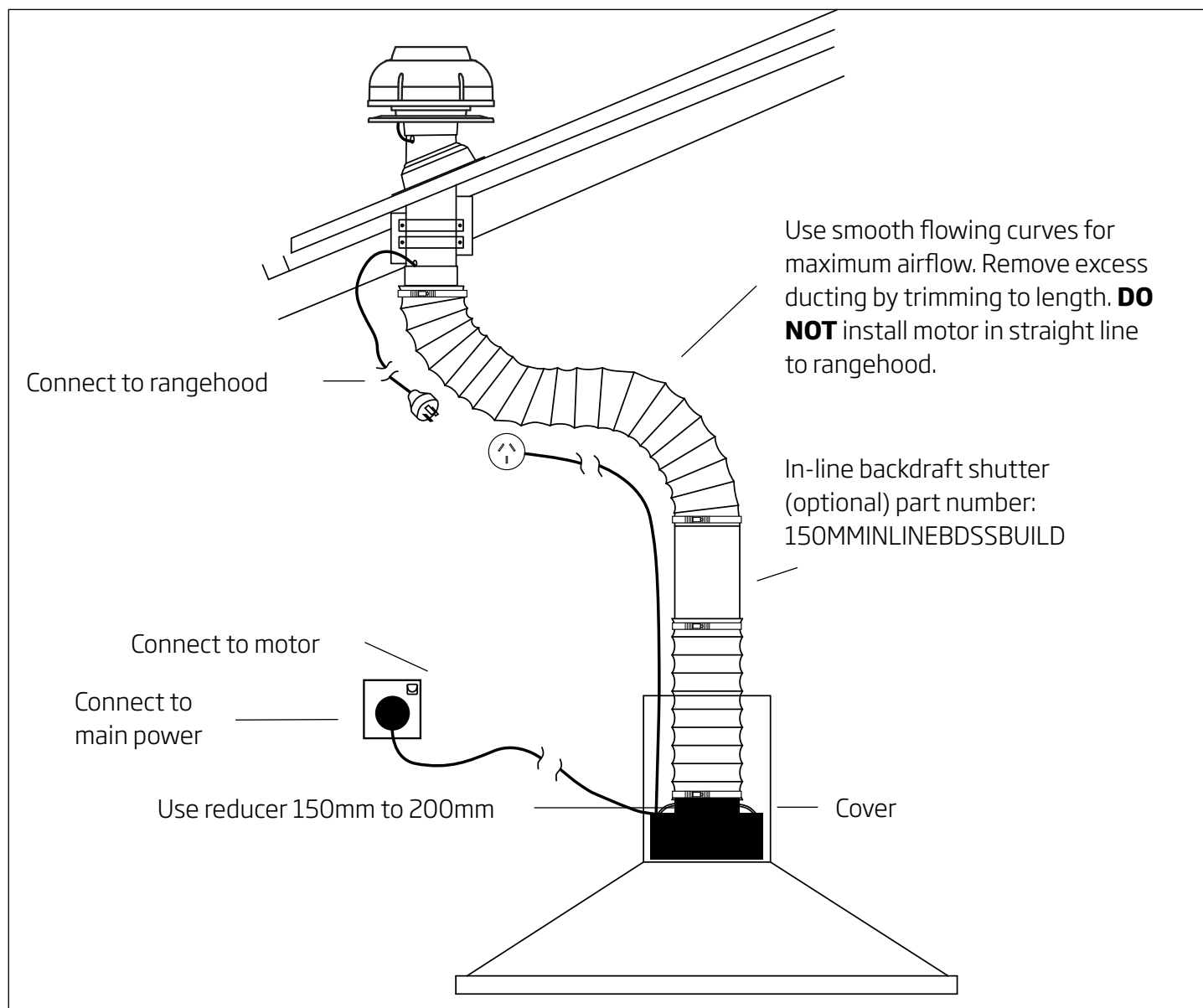
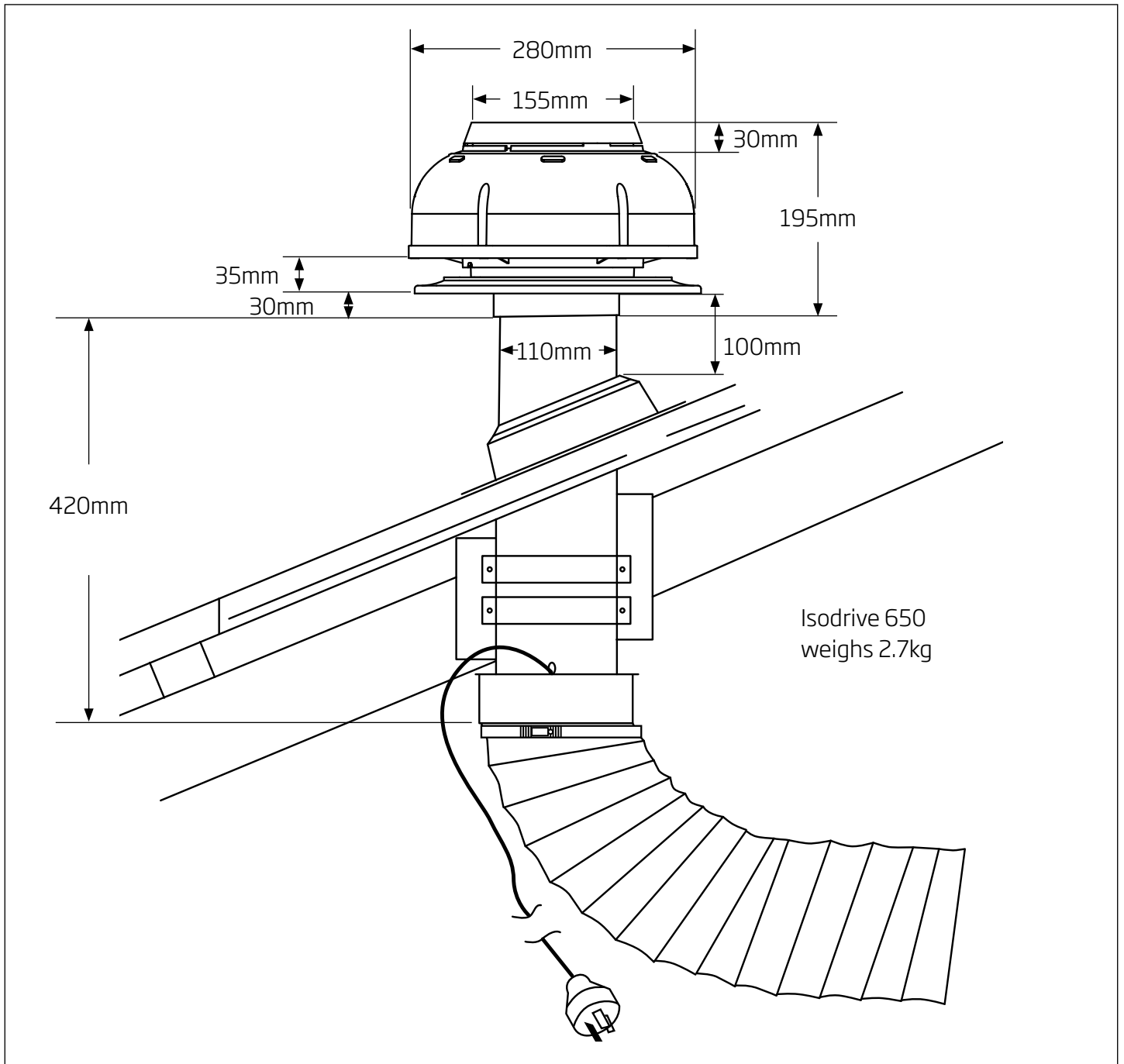


Figure 10: Single motor installation



**Measurements for Isodrive 650** (Not to Scale)*Figure 11: Measurements for Isodrive 650*

## 6. SteelFlex™ Safety Duct

### SteelFlex™ Safety Ducting

SteelFlex™ safety 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 experienced installers can be obtained from the Schweigen website [www.schweigen.com.au](http://www.schweigen.com.au).**

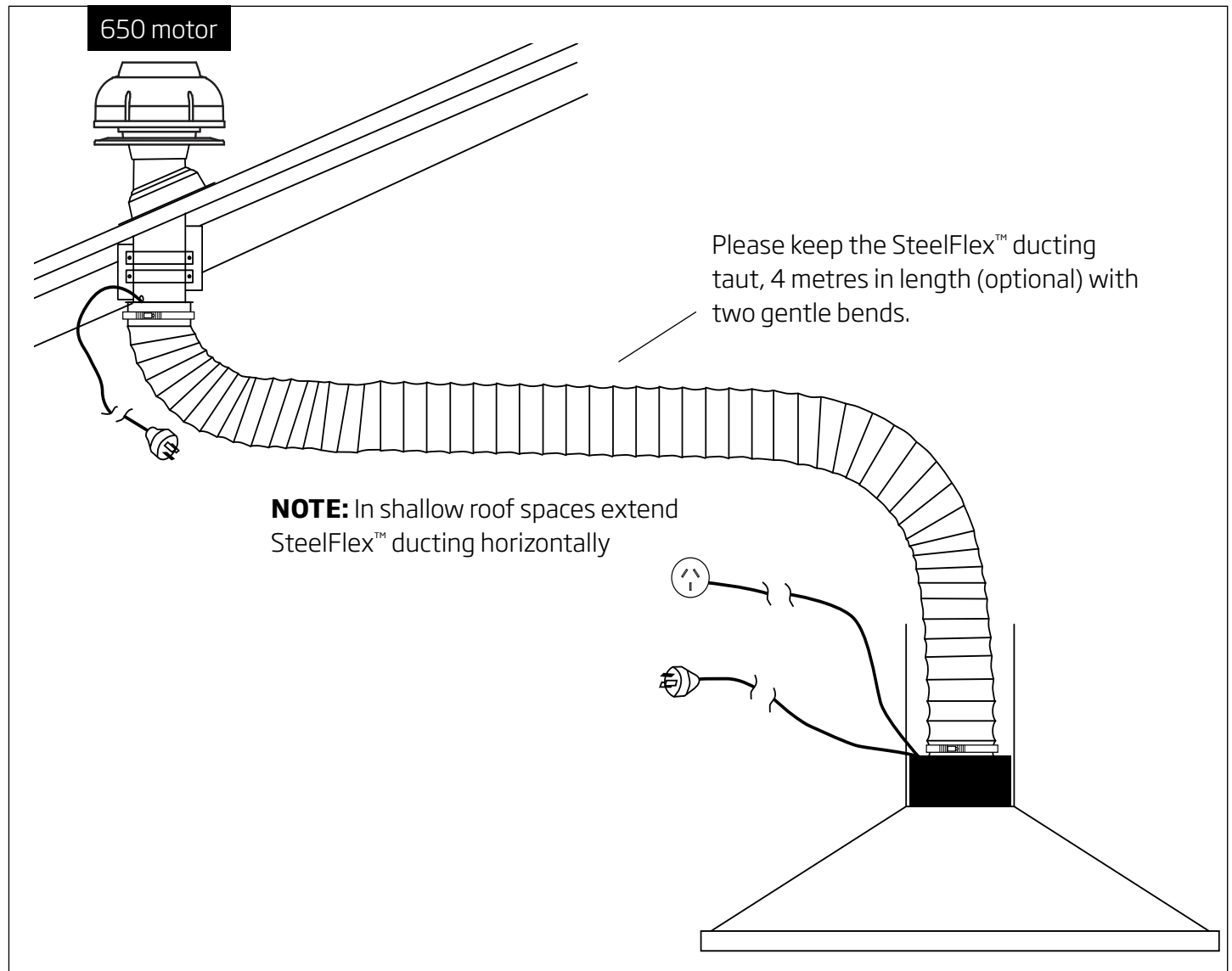


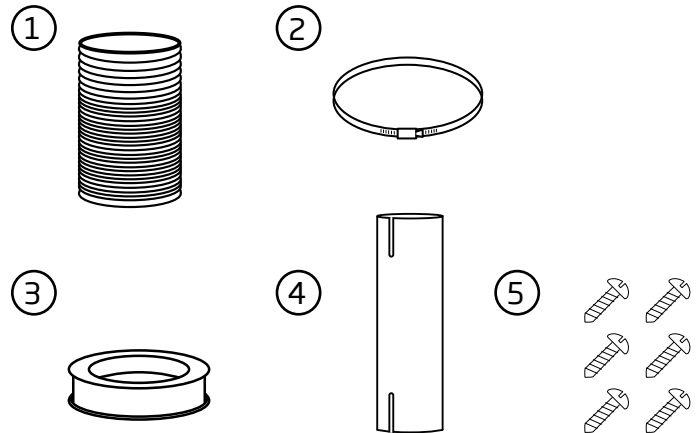
Figure 12: SteelFlex™ Safety Ducting

## Assembling SteelFlex™ Safety Duct

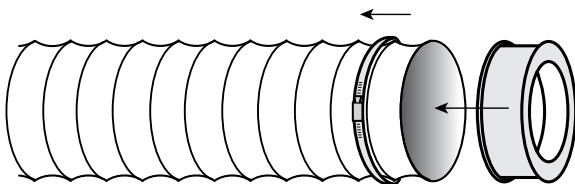
SteelFlex™ safety duct must be secured to either the bell-mouth adapter ring or a 150mm mounting pipe.

### Parts required:

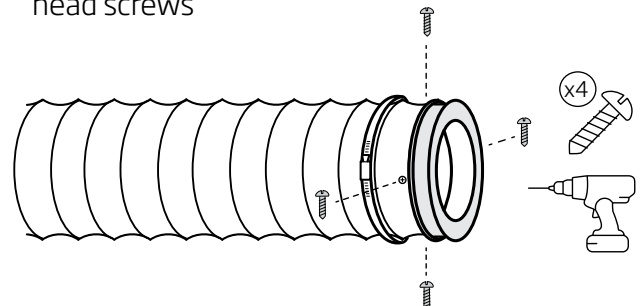
1. SteelFlex™ safety ducting
2. Steel ring clamp
3. Bell-mouth adapter ring 150mm duct to 100mm riser
4. 100mm PVC riser pipe
5. 20mm self-drilling button head screws



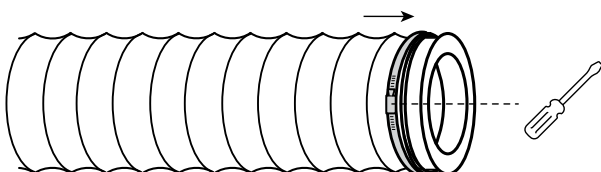
1. Slide the steel ring clamp over the end of the duct then insert the bell-mouth adapter ring into the duct end



2. Secure duct to the bell-mouth adapter at regular intervals with 4 x 20mm button head screws



3. Slide the steel ring clamp back up and tighten to secure the bell-mouth adapter and the duct



4. Attach the mounting pipe to the bell-mouth adapter and secure with 1 x 20mm button head screw

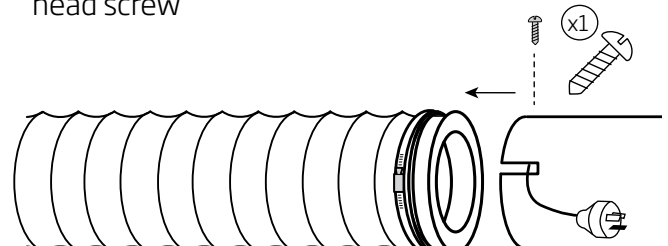


Figure 13: Duct assembling

**NOTE:** Do not use duct tape to fasten the duct – the screws and hose clamp are adequate to secure the duct to the bell-mouth adapter ring.

## 6. SteelFlex™ Safety Duct

### Shallow Roof Space

In shallow roof spaces, do not crush or kink SteelFlex™ 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 13.

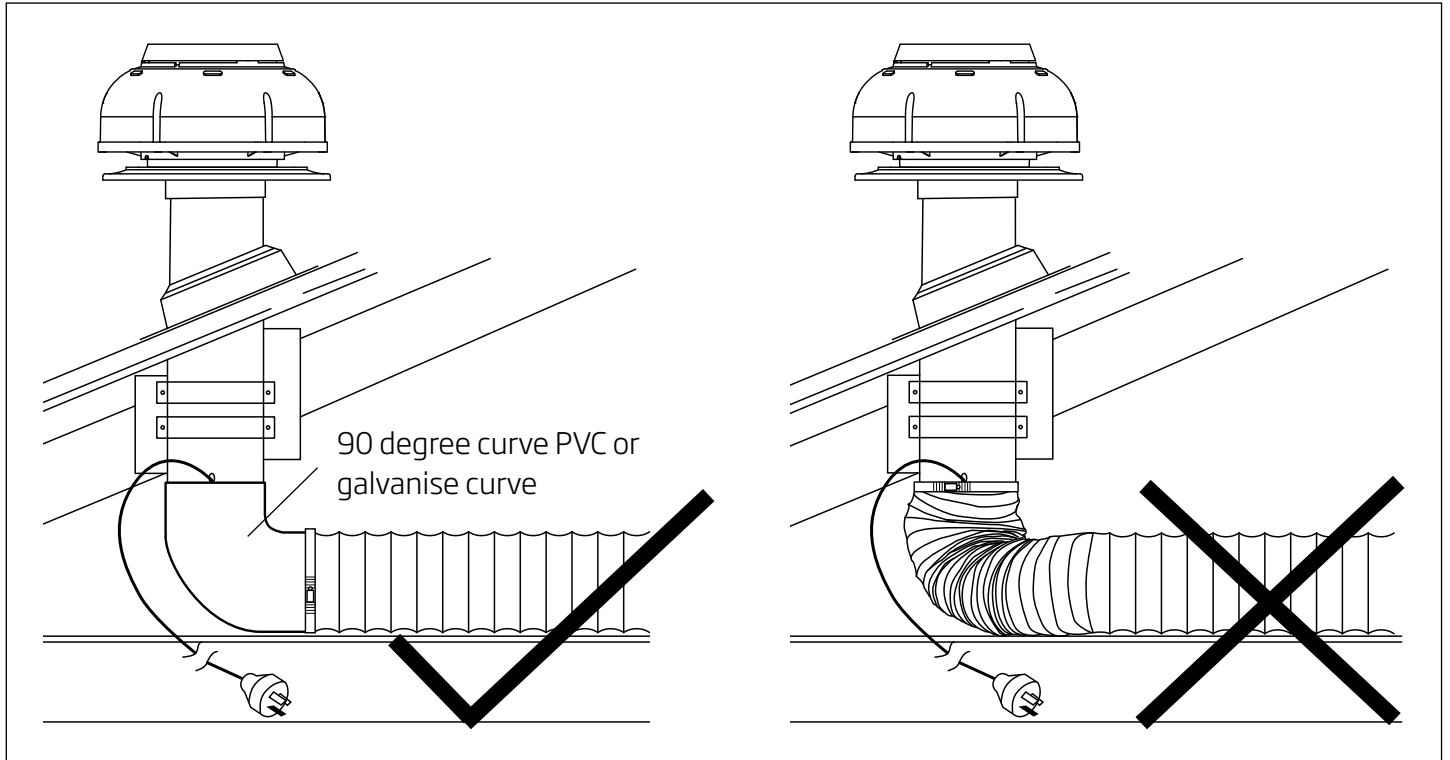


Figure 14: Shallow roof space

### Important Note

Please do not crush or kink SteelFlex™ 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.

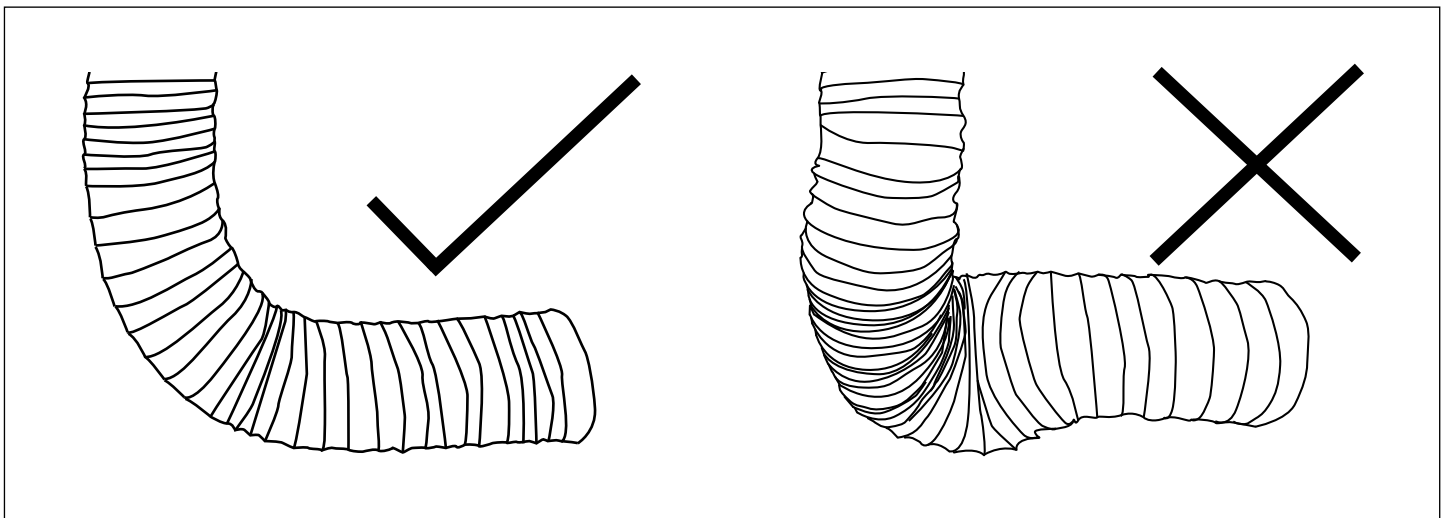


Figure 15: SteelFlex™ duct recommended installation

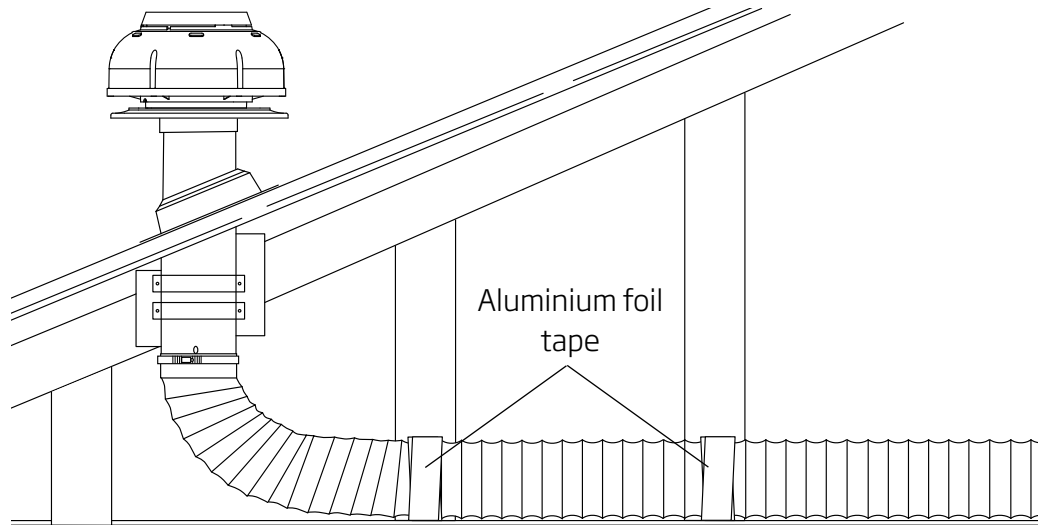
## Securing SteelFlex™ Safety Duct

SteelFlex™ safety duct must be installed with supports at maximum intervals of 1.5 metres. SteelFlex™ safety ductwork can be supported by using good quality gaffer or aluminium foil 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 SteelFlex™ duct to the beam



### Option 2

Support SteelFlex™ duct by using hangers.

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

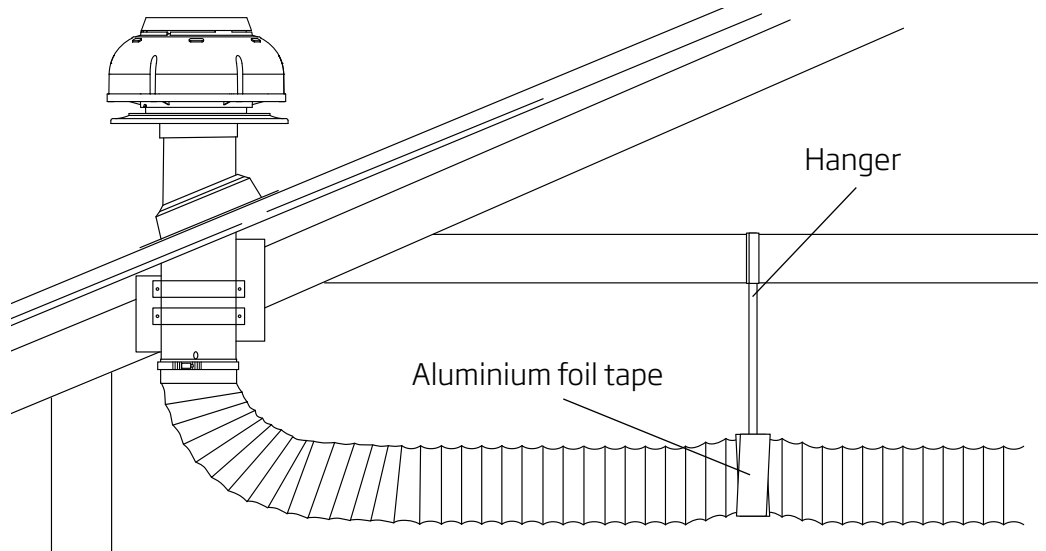
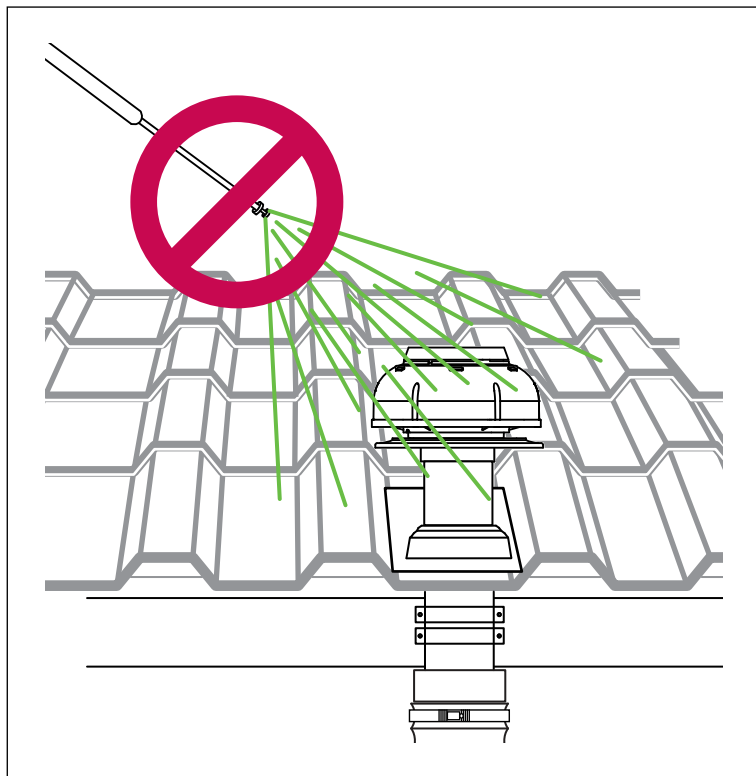


Figure 16: Securing SteelFlex™ Safety Duct

### 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 17: Avoid chemical contact to motor system*

### **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. Schweigen SteelFlex™ comes with a Lifetime Warranty\*.

### **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.

*\*Terms and conditions apply.*



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