

INSTALLATION GUIDE

# Isodrive 1650

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.

**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.

|                                       |    |
|---------------------------------------|----|
| <b>1. Welcome</b>                     | 2  |
| <b>2. Your Safety</b>                 |    |
| Receiving your rangehood              | 4  |
| Before Installation                   | 4  |
| Electrical Cord                       | 4  |
| Motor Features                        | 5  |
| General Notes on Installation and Use | 5  |
| Recommended Installation Distance     | 5  |
| Minimum Mounting Height               | 6  |
| Avoidance of Back Flow                | 6  |
| Safety of Children                    | 6  |
| Replacement of Supply Cord            | 6  |
| Why Schweigen SteelFlex™ Safety Duct  | 6  |
| <b>3. Description</b>                 |    |
| Isodrive Motor                        | 7  |
| <b>4. Installation</b>                |    |
| Roof Installation                     | 8  |
| Wall Installation                     | 10 |
| Twin Motor Installation               | 12 |
| <b>5. SteelFlex™ Safety Duct</b>      |    |
| SteelFlex™ Safety Ducting             | 13 |
| Assembling SteelFlex™ Safety Duct     | 14 |
| Shallow Roof Space                    | 15 |
| Important Note                        | 15 |
| Securing SteelFlex™ Safety Duct       | 16 |
| <b>6. Maintenance</b>                 |    |
| Roof Restoration or Cleaning          | 17 |
| <b>7. Measurements</b>                |    |
| Measurements for Isodrive 1650        | 18 |
| <b>8. Warranty/Disclaimer</b>         | 19 |

## 2. Your Safety



### RECEIVING YOUR ISODRIVE MOTOR

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 Isodrive motor system after the rangehood has been mounted on the wall or roof. (Refer to rangehood installation manual on how to install the rangehood).

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

### Isodrive® Motor Features

- Roof and wall mounting with IPX4 degree of weather protection.
- **Super quiet**, long vane, backward curved, German-made centrifugal fan.
- Airflow is dependant on installation and the ducting used. The motor has the equivalent performance of a 2000 m<sup>3</sup>/h internal motor rangehood when ducted out to the atmosphere. The result is based on the German DIN and European EN IEC 61591:2020+A11 testing criteria for rangehood performance and is focus on the removal of contaminants from the kitchen to the external atmosphere. **The use of a smaller than 200mm ducting would result in a loss of airflow.**
- **Simple installation:** The motor mounts onto a 200mm metal 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 155W costing around the same as two 70W light globes to run.
- **WARRANTY 10 YEARS.** 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 for external use only, with only ducting from the inlet side using supplied 200mm metal pipe as the initial connection duct to the fan module, and 200mm SteelFlex™ duct.

This fan is suitable for connection to ducting runs with a minimum inlet area of 22,000mm<sup>2</sup> and length up to 10 metres maximum (check with supplier if longer duct length required). Where possible 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 motor must not be put 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 1650 motor, **recommended 5 to 6 metres** of SteelFlex™ ducting and with at least two gentle bends.

**NOTE:** Installations less than 5 to 6 metres will increase extraction power and result in higher noise level. Maximum duct length is 10 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. Exhaust fans may adversely affect the safe operation of appliances burning gas or other fuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation of an exhaust fan such as a partition fan or a duct fan the operation of flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur.

### 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 Ecodrive 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 Ecodrive 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**.



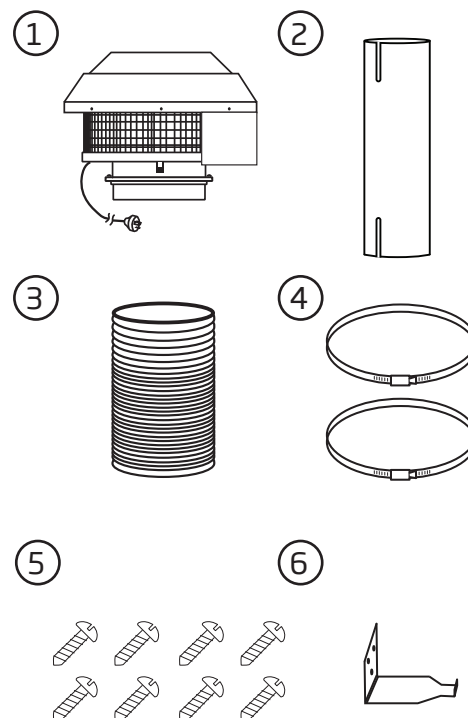
## NOTE

For more SteelFlex™ ducting instructions, refer page 13.

## Isodrive Motor

### Included in the box:

1. Isodrive 1650 motor (400W x 300H mm approx.)  
Approx. 3 metre, 10amp cable and standard plug  
(backdraft shutter and weather shield included)
2. Fire resistant 200mm metal pipe
3. SteelFlex™ safety ducting. Approx. 6 metres,  
200mm (210mm outside dimension) diameter
4. 2 x Steel ring clamps (for attaching ducting to rangehood and motor)
5. 8 x 12mm self-drilling button head screws (for attaching metal pipe to motor and ducting)
6. Wall hanging bracket



### Not included in the box:

- Roof seal kit / Dektite
- Support clamps/straps for pipe which connects to the roof truss
- Aluminium foil tape
- Wall Cover Plate (wall mount only) - optional

## 4. Installation

### Roof Installation

Recommended duct length: 1650 motor – 5 to 6 metres.

Mount 200mm metal 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 (not provided).

Ensure that the pipe **protrudes at least 80mm** past the top of the Dektite, checking that the fan assembly clears the roof cladding at upper edge, refer figure 1 – Roof Mount Option.

Pass power cord and plug through pipe, then out the slotted pipe for connection to the socket 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 6 to 10 metres of SteelFlex™ duct to place the Isodrive motor in an appropriate position.

For more information on environmental noise limit and conditions please contact your local Council.

For installation, we have a list of experienced installers available on the Schweigen website.

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

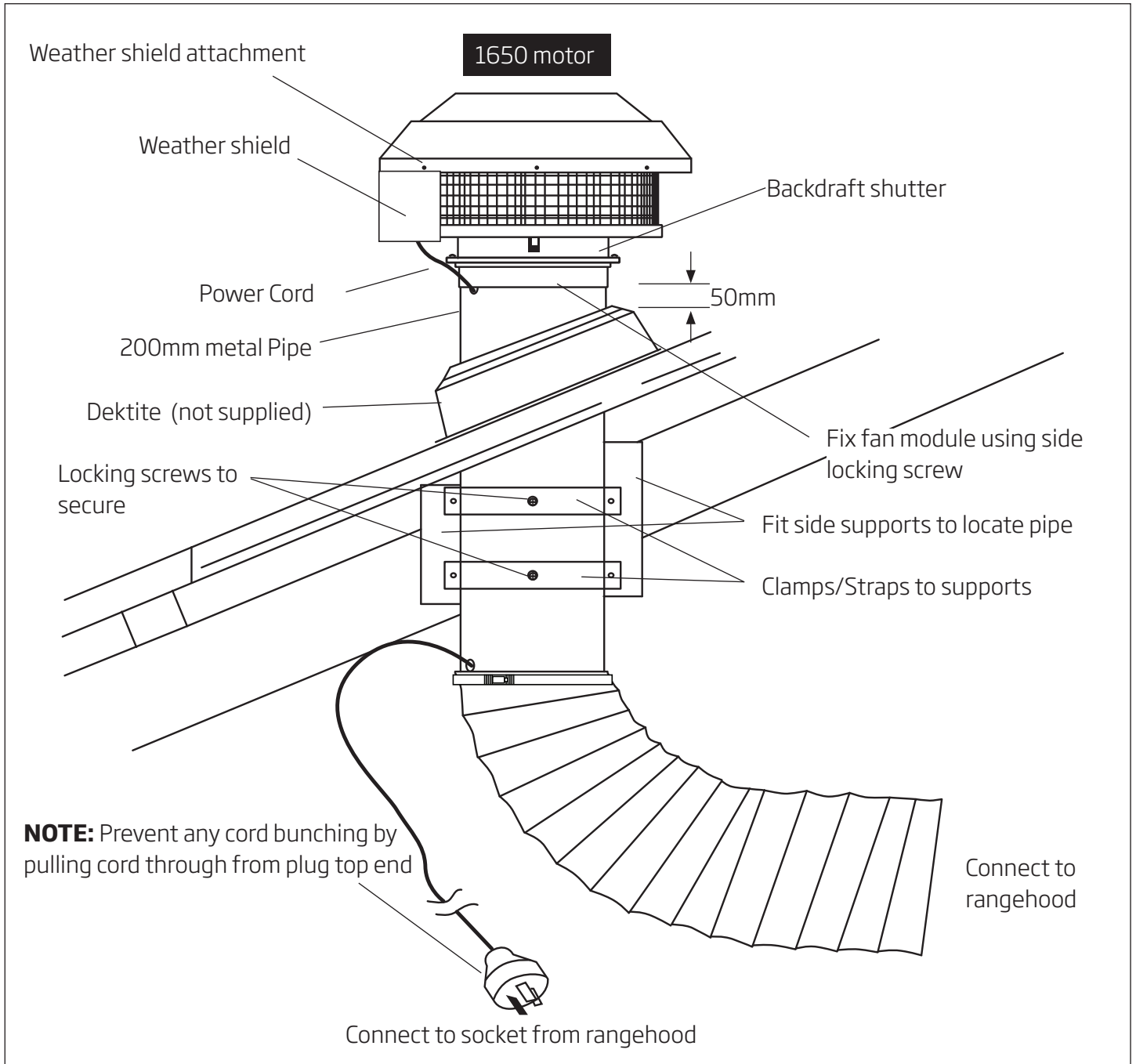
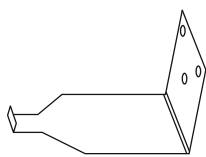


Figure 1: Roof mount option

## 4. Installation



### IMPORTANT

It is a requirement to use the wall hanging bracket for all wall mount installations. Please refer to the illustrations for mounting.

## Wall Installation

This type of installation is similar to roof mounting, ensuring that the pipe extends at least 55mm past the wall surface refer figure 3. If the pipe length is shortened, reproduce the power cord exit slot on the inside of the wall.

**IMPORTANT FOR 1650 MOTOR:** Weather shield must be fitted to the top cover of the side flange using the 3 screws provided. Also, it is required to use the wall hanging bracket for wall mount installation, for more information please refer to page 11.

**NOTE:** By decreasing the length of the SteelFlex™ duct from which specified (refer to installation instructions) there will be an increase in airflow and noise levels as a result. This increase in airflow can cause movement of air to be heard through the system and inhibit the system to run silently.

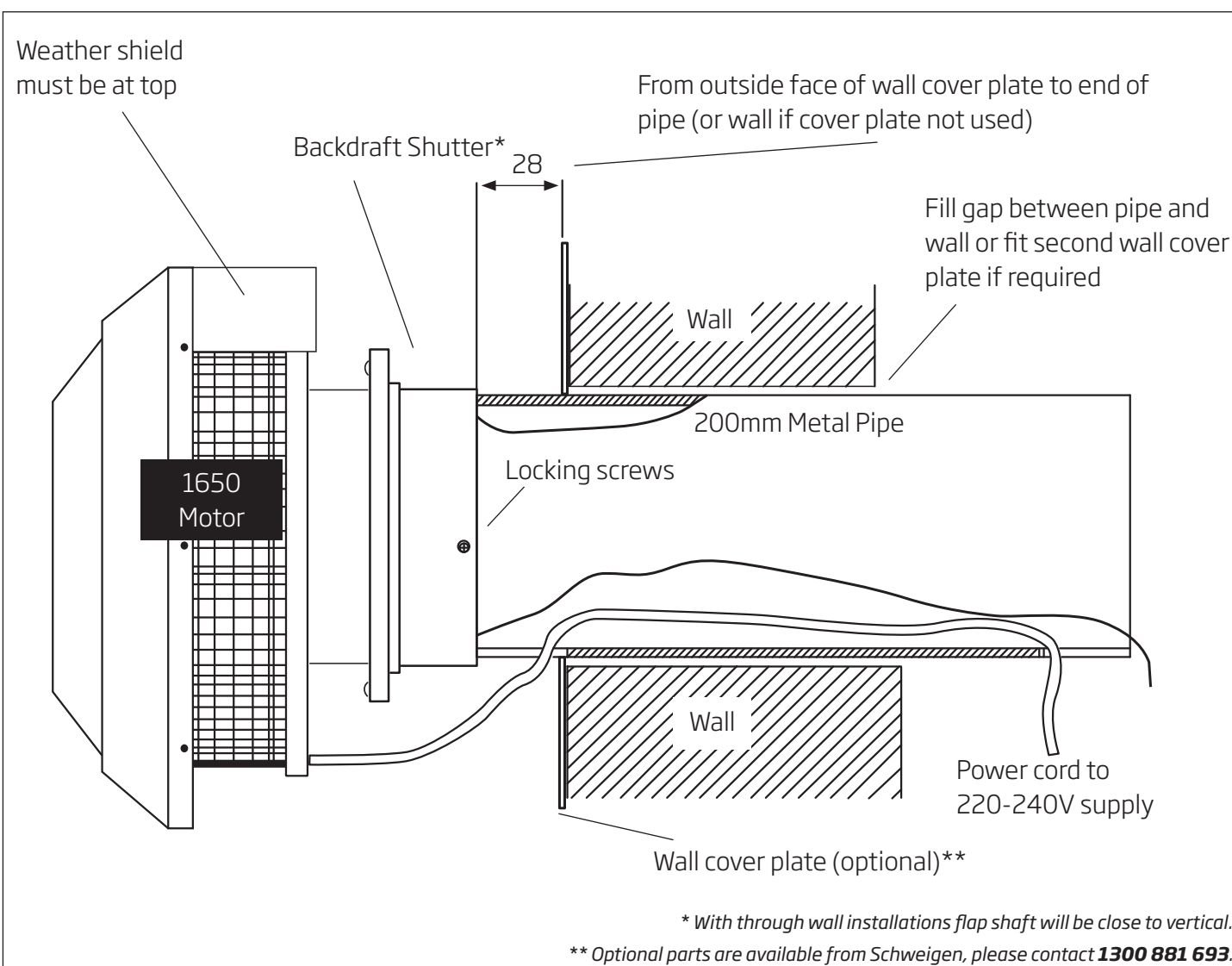
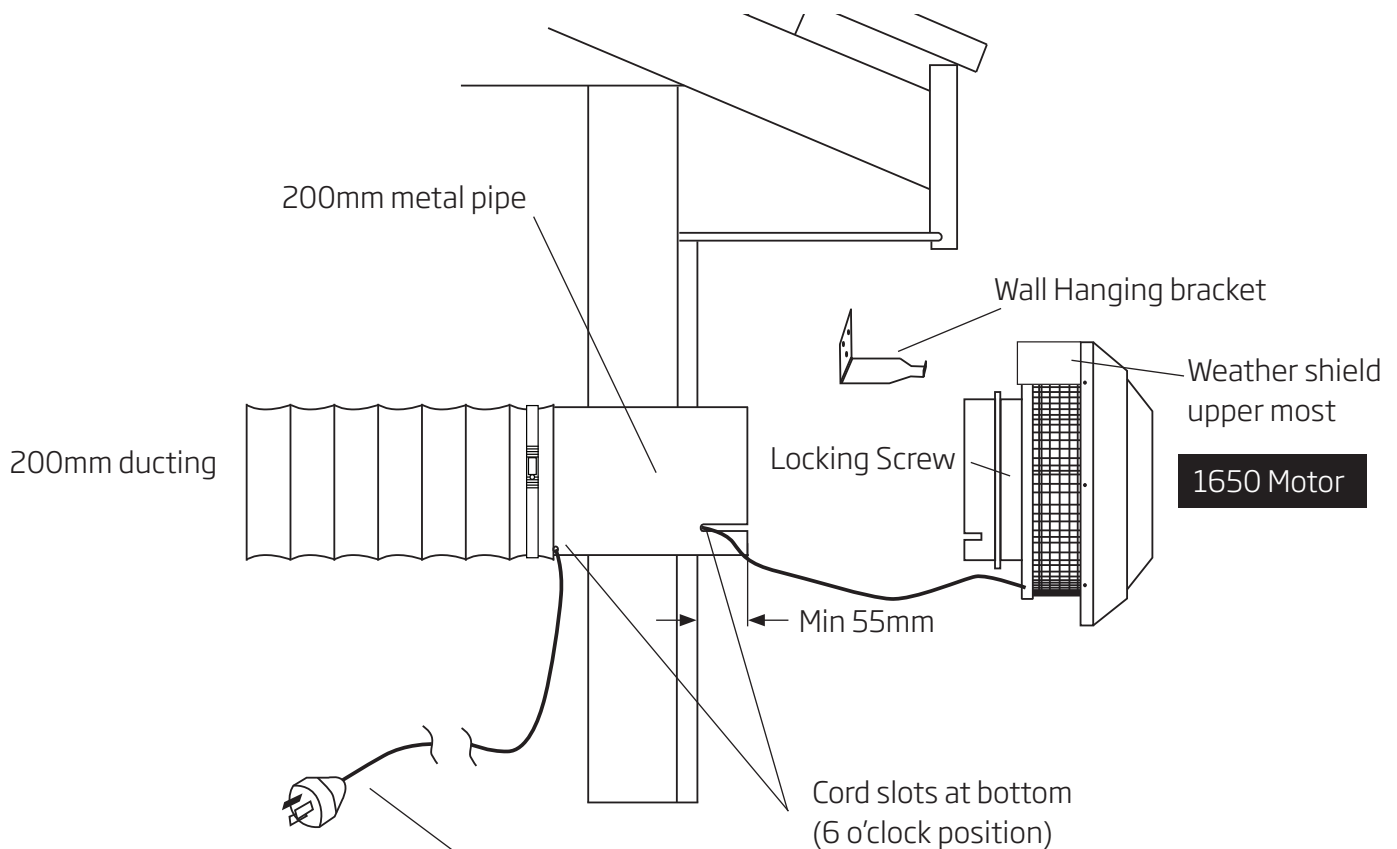
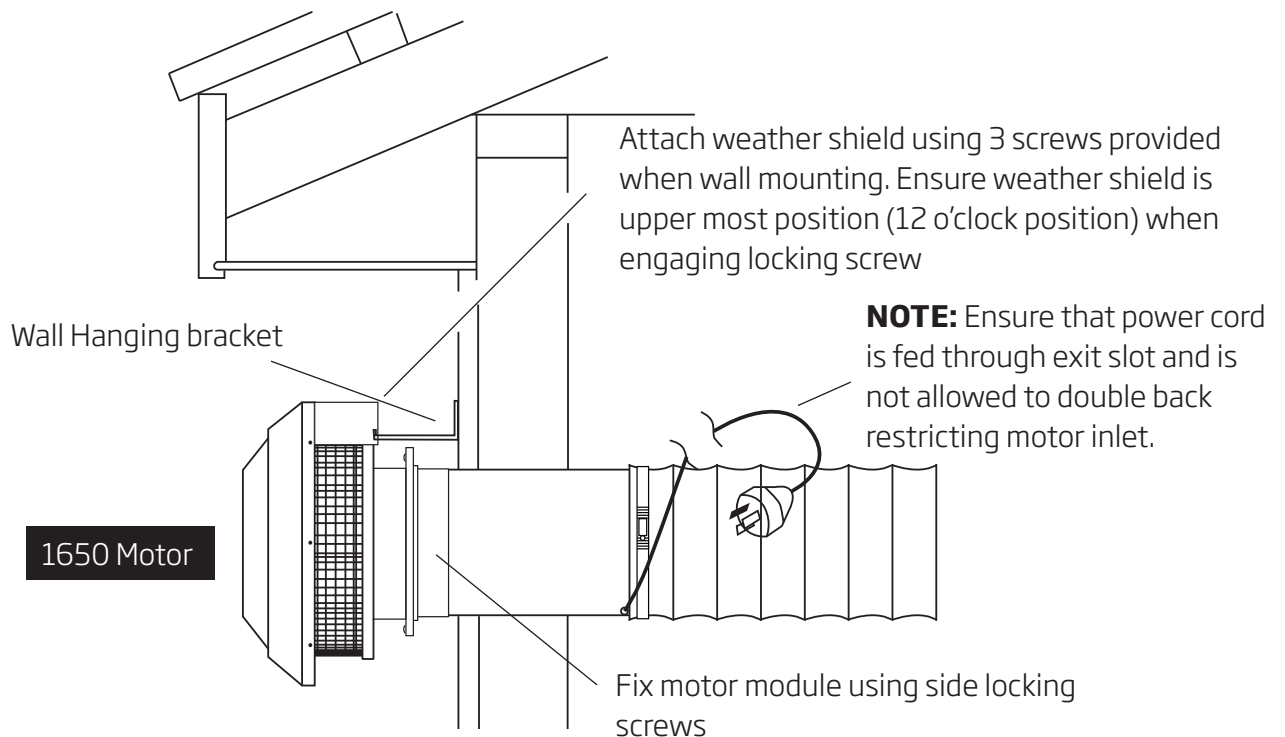


Figure 2: Wall installation



**NOTE:** Ensure that power cord is fed through exit slot and is not allowed to double back restricting motor inlet.



**NOTE:** Due to the weight and to create stability for the Isodrive 1650 motor, it is require to use a wall hanging bracket. Warranty will be void if a hanging bracket is not used.

Figure 3: Wall mount option

## 4. Installation

### Twin Motor Installation (suitable for rangehoods with two 200mm outlets)

Where two motors are to be used, follow the method below. Each motor should have a separate flue pipe. Refer figure 4. The two motors can be wired by an electrician.

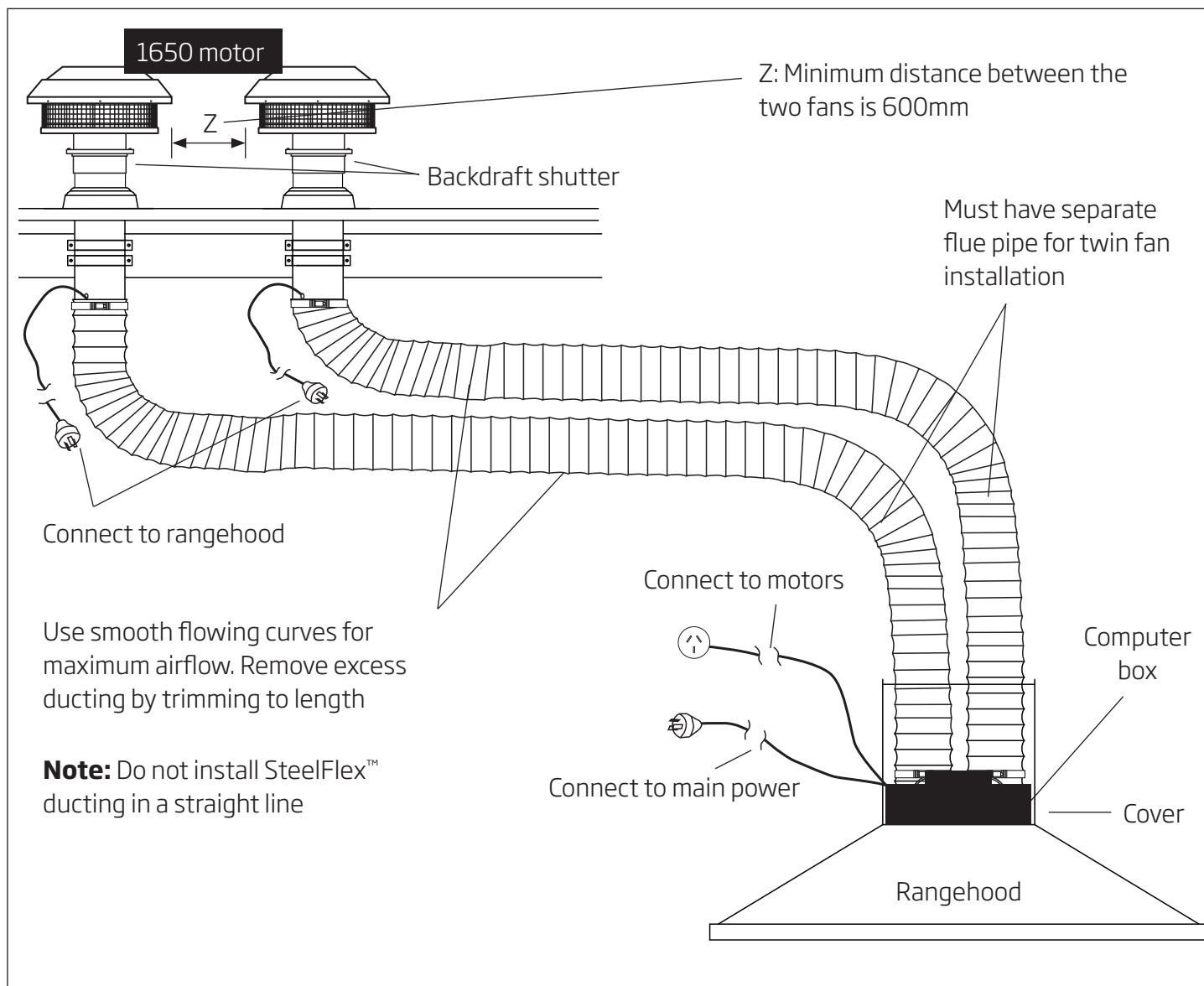


Figure 4: Roof mount option

### 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).**

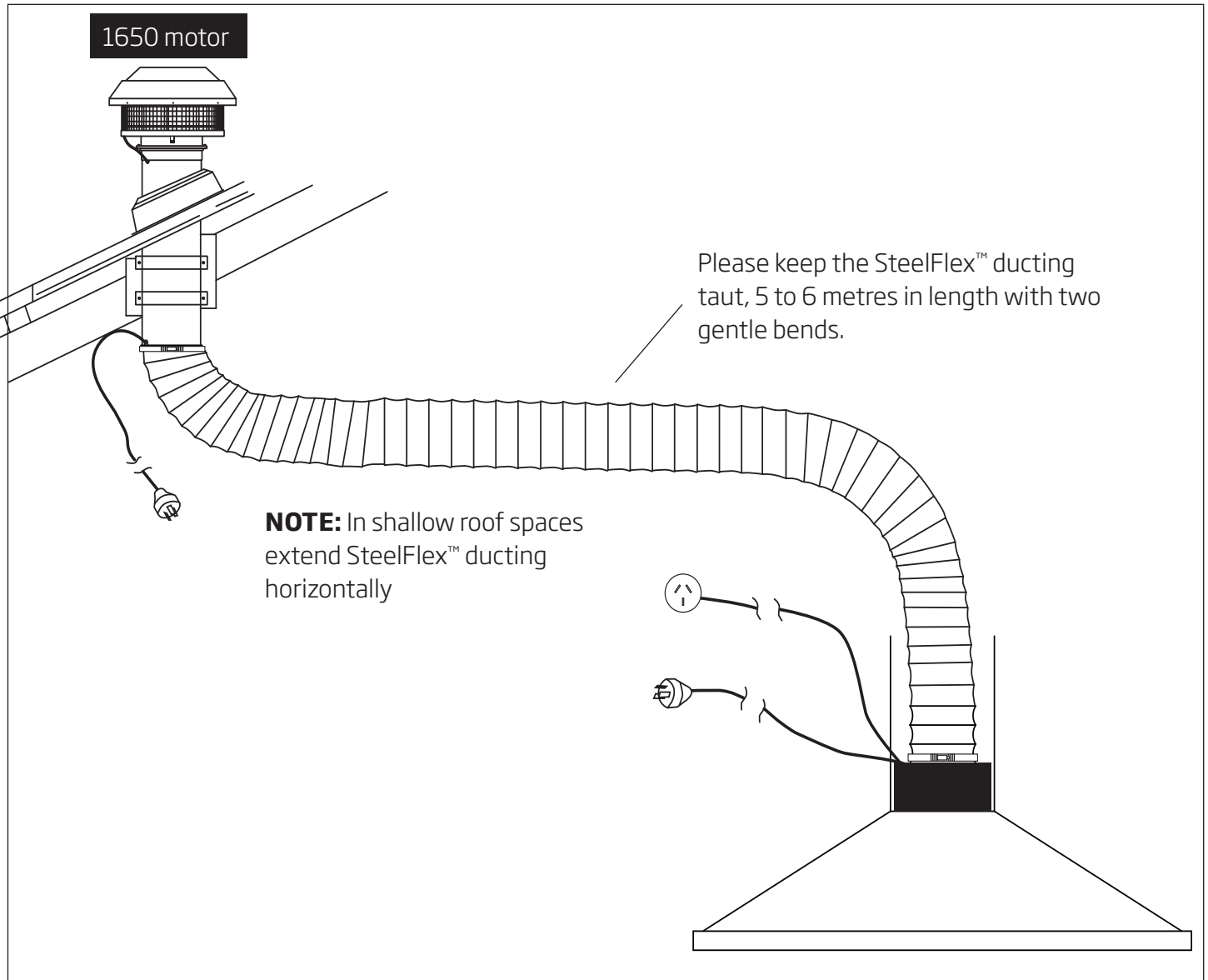


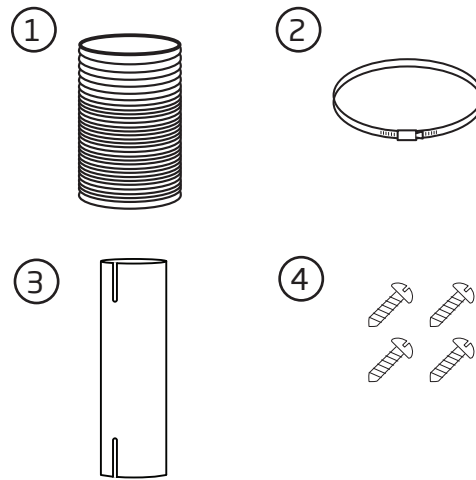
Figure 5: SteelFlex™ Safety Ducting

## 5. SteelFlex™ Safety Duct

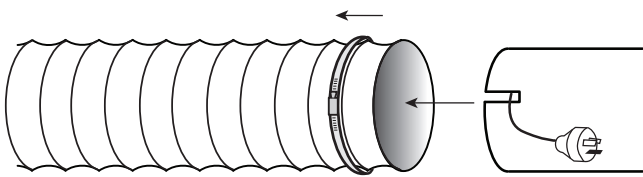
### Assembling SteelFlex™ Safety Duct

#### Parts required:

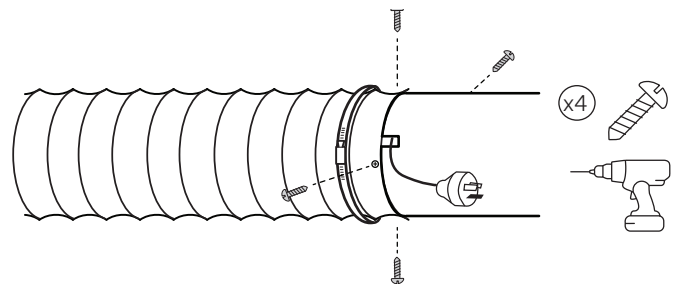
1. SteelFlex™ safety ducting
2. Steel ring clamp
3. 200mm metal pipe
4. 12mm self-drilling button head screws



1. Slide the steel ring clamp over the end of the duct then insert the 200mm metal pipe into the duct end



2. Secure duct to the pipe at regular intervals with supplied 20mm button head screws



3. Slide the steel ring clamp back up and tighten to secure the pipe and the duct

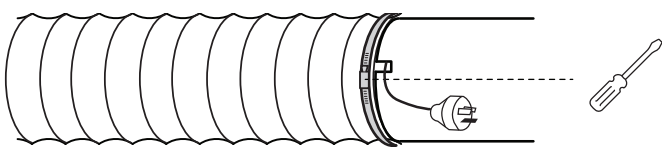


Figure 6: Duct assembling

**NOTE:** Do not use duct tape to fasten the duct – the screws and hose clamp are adequate to secure the duct to the metal pipe.

## 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.

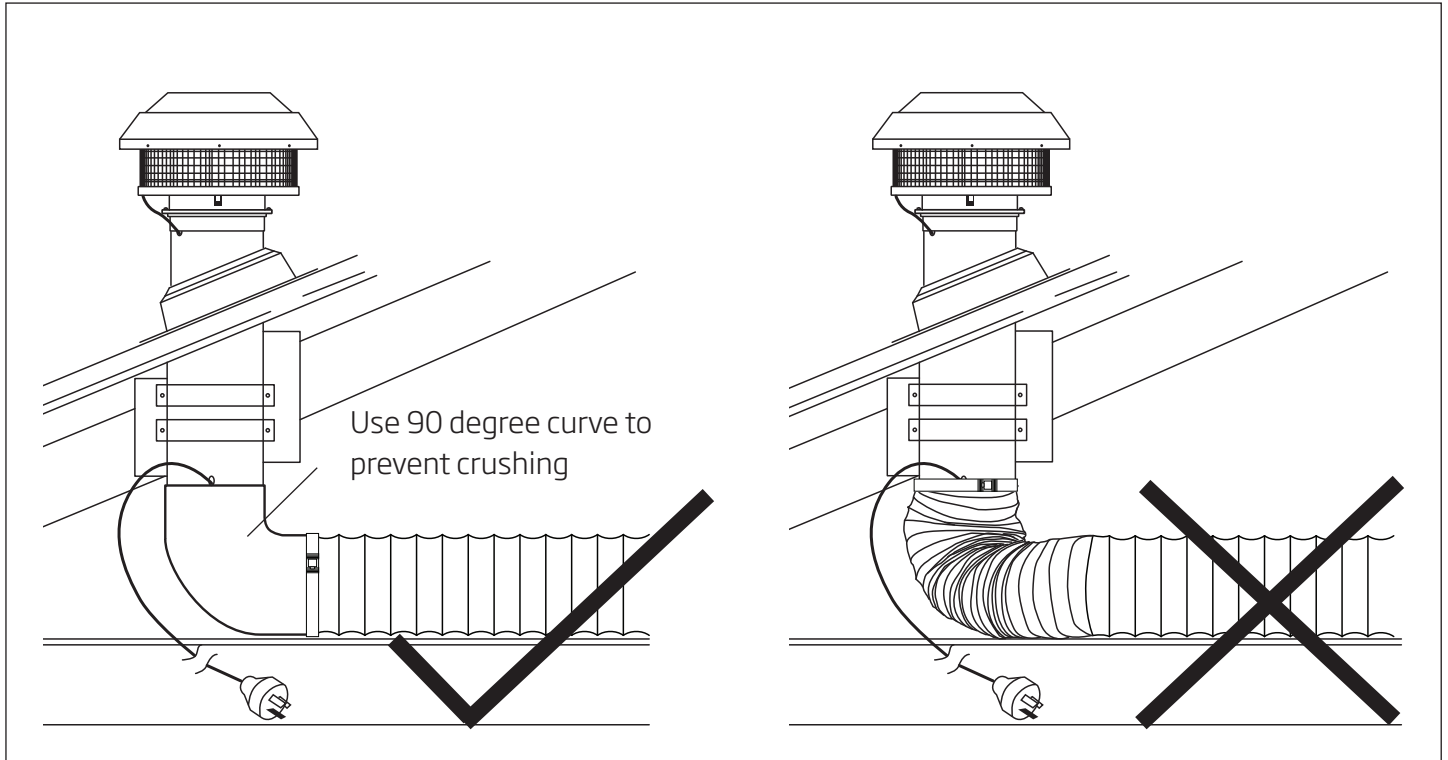


Figure 7: Shallow roof space

## 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.

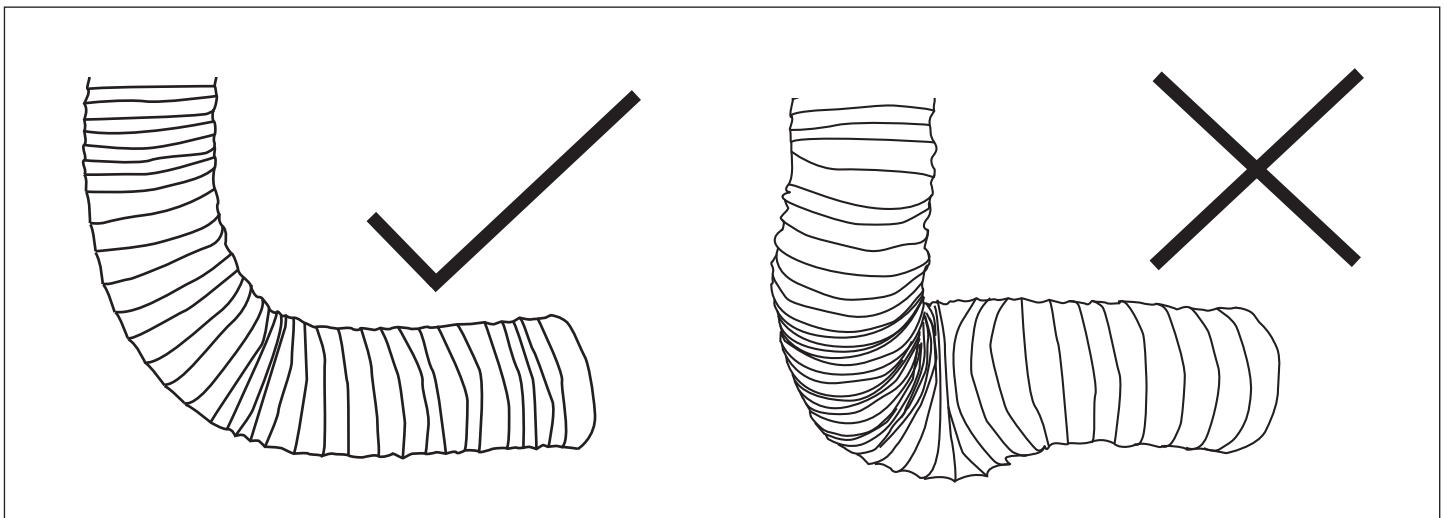


Figure 8: SteelFlex™ duct recommended installation

## 5. SteelFlex™ Safety Duct

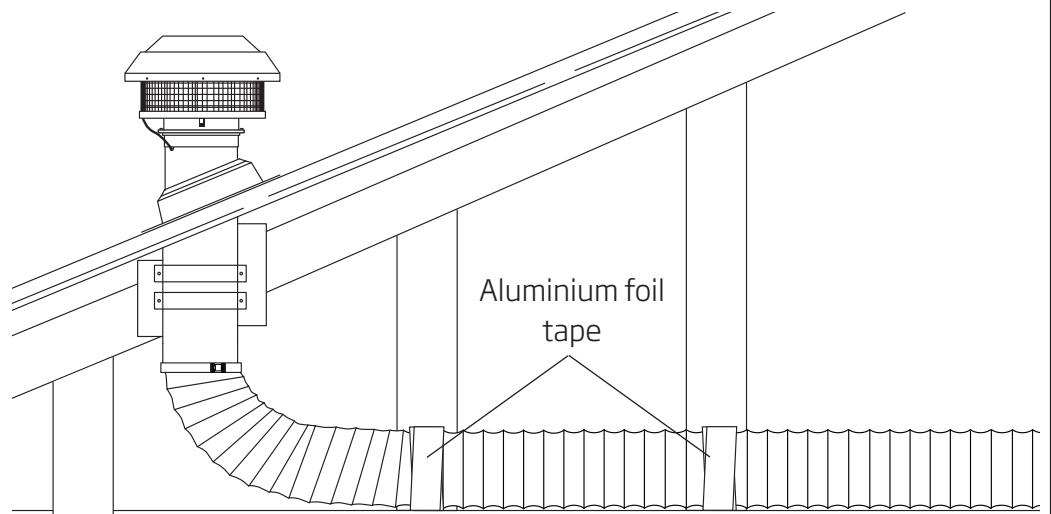
### Securing SteelFlex™ Safety Duct

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 duct to the beam



#### Option 2

Support duct by using hangers.

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

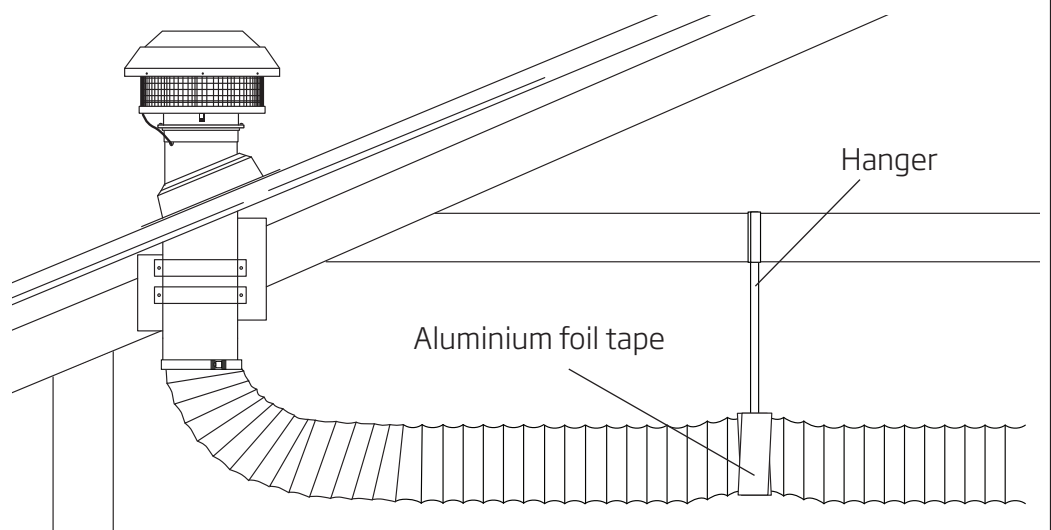


Figure 9: Securing SteelFlex™ Safety Duct

## Roof Restoration or Cleaning

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

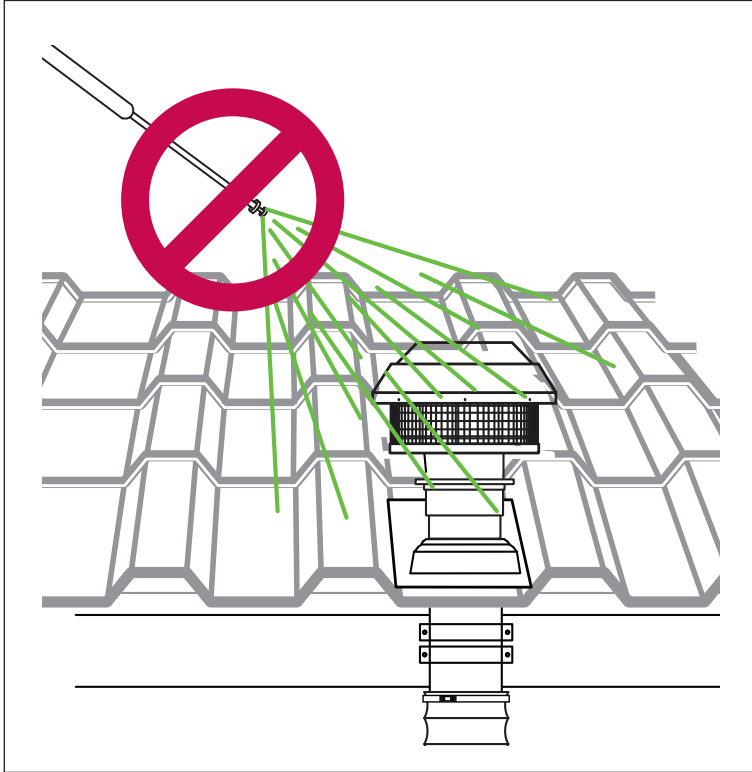


Figure 10: Avoid chemical contact to motor system



### IMPORTANT

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

### Measurements for Isodrive 1650 (Not to Scale)

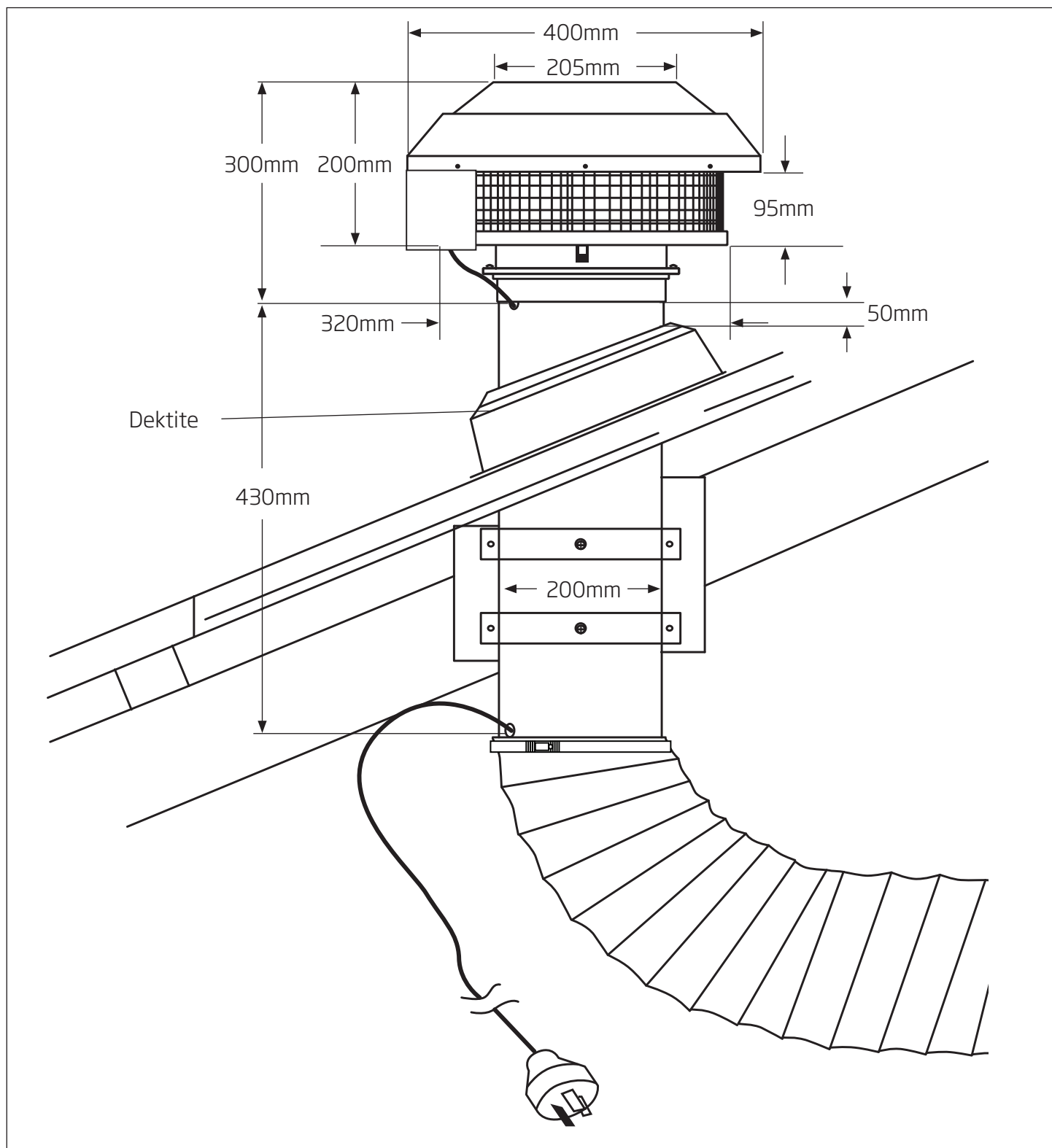


Figure 11: Measurements for Isodrive 1650

### **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.*



**schweigen**

**Australia** Unit 4/1-5 Lake Drive, Dingley Village, Victoria 3172. **Phone** 1300 881 693  
**Email** [sales@schweigen.com.au](mailto:sales@schweigen.com.au) **Web** [www.schweigen.com.au](http://www.schweigen.com.au)

**New Zealand** 5 Tolich Place, Henderson, Auckland 0610. **Phone** 0800 200 510  
**Email** [info.parex@emerson.com](mailto:info.parex@emerson.com) **Web** [www.parex.co.nz](http://www.parex.co.nz)