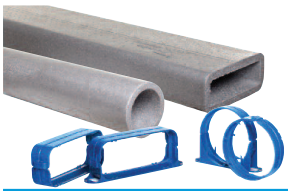


NTD-125/204/220-*

NTD 2 piece lugged connector with Ductmaster Rectangular and circular Thermal Ducting Installation and Maintenance Manual

1.0 INTRODUCTION

Nuaire Ductmaster Thermal Ducting (NTD) is a range of ducting and ancillaries intended for installation in domestic properties.

Nuaire Thermal Ducting is available in three different sizes and profiles, based on the internal dimension: 125 mm Ø or 204 x 60 mm and 220 x 90 mm rectangular.

Unlike other thermal ducting systems Nuaire's unique ducting design negates the need for solid plastic inner ducting to achieve the required thermal properties and leakage rates stipulated by building regulations.

Nuaire's thermal ducting clamps connect system is designed to use with Nuaire Thermal Ducting and allows quick and easy installation without the need for any tapes or sealants.

Using Nuaire thermal ducting will achieve a level of leakage substantially lower than the maximum allowed for a class 'A' duct as defined in DW/143 (Ductwork leakage testing).

2.0 INSTALLATION

Installation must be carried out by competent personnel in accordance with the appropriate authority and conforming to all statutory governing regulations.

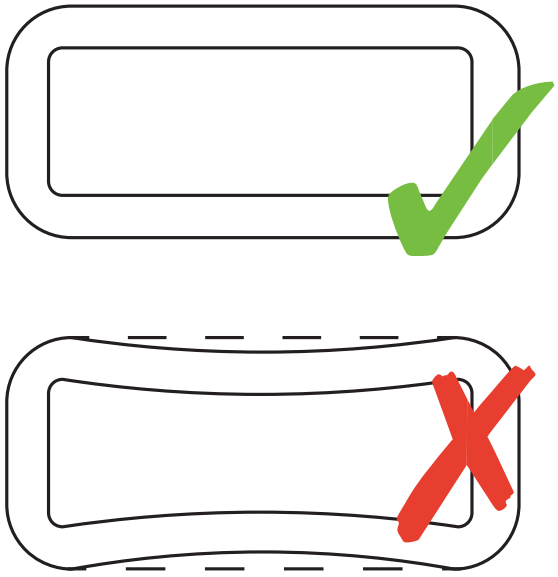
The ducting must be installed indoors, on a suitable vibration free solid surface away from direct sources of frost, heat, and water spray or moisture generation.

Prior to installation a dimensional check of the chosen installation location should be undertaken to ensure suitability.

IMPORTANT

Do not place heavy objects on the ducting as this could cause distortion or breakage. Distorted ducting could result in air flow leakage at the seal joint with the connector.

Figure 1. Rectangular Ducting



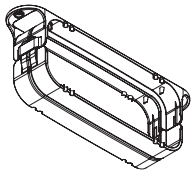
IMPORTANT

Nuaire Thermal Ducting is supplied in 1 meter lengths. If shorter lengths are required the duct can be cut to the desired length (see section 4.0).

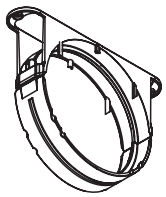
2.1 Thermal Ducting Clamps

Nuaire thermal ducting clamps are available in 2 options to match 125 mm Ø or 204 x 60 mm or 220 x 90 mm rectangular duct. All types are with or without fixing lugs.

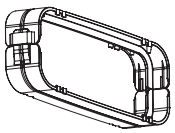
Figure 2. Circular and Rectangular Thermal Ducting Clamps



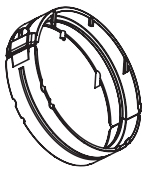
NTD-204-CONL or NTD-220-CONL Rectangular clamp with fixing lugs.



NTD-125-CONL Round clamp with fixing lugs.



NTD-204-CON or NTD-220-CON Rectangular clamp without fixing lugs.



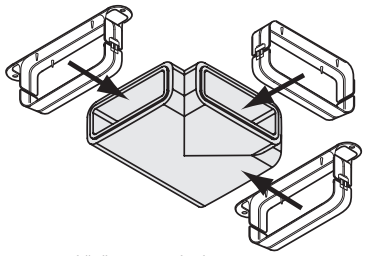
NTD-125-CON Round clamp without fixing lugs.

IMPORTANT

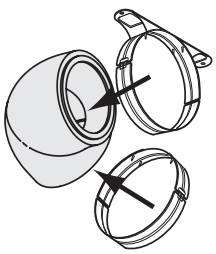
Thermal ducting clamps with and without fixing lugs must be used on the duct bends and T pieces as shown below.

Figure 3. Thermal Ducting Clamp Use

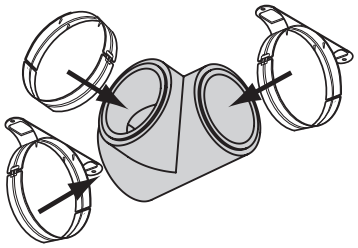
Rectangular "T" Piece with clamps, 2x with lugs, 1 x without.



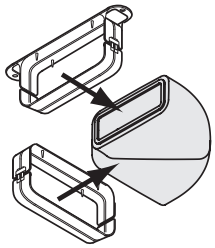
90° Round bend with clamps, 1x with lugs, 1x without.



Round "T" Piece with clamps, 2x with lugs, 1x without.



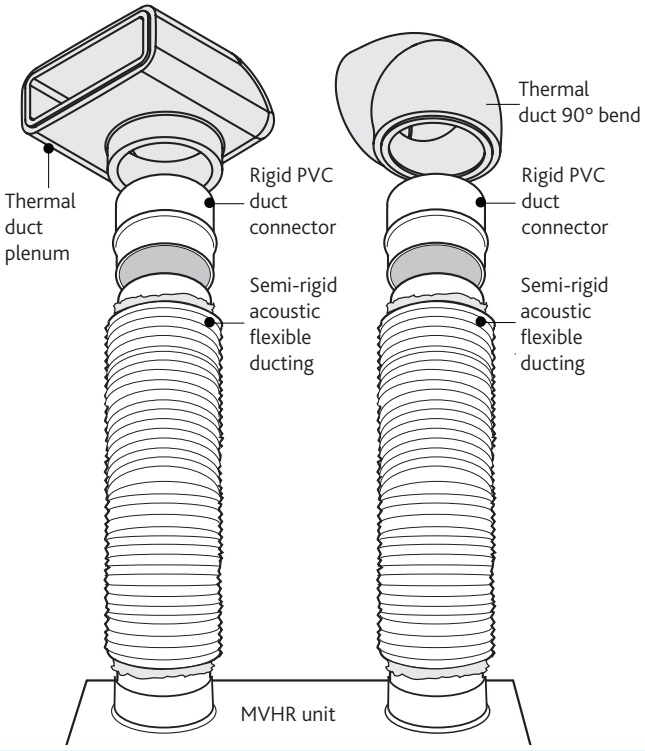
Rectangular 90° bend clamps 1x with lugs, 1x without.



3.0 Use of Flexible Duct Connections with Thermal Plenums and Bends

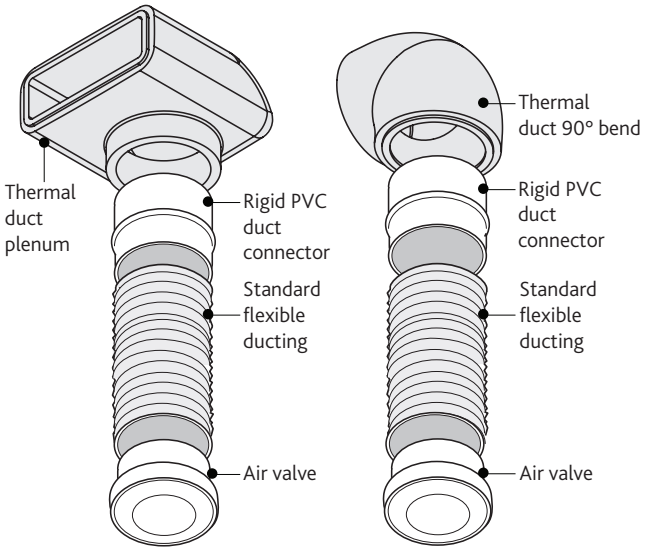
Where it is necessary to use semi-rigid acoustic flexible duct (max length 300mm) between the MVHR unit and a plenum or bend please ensure that a rigid 125mm dia. PVC duct connector is installed into the plenum or bend for successful connection.

Figure 4. Using the PVC duct connector (Part no. PVC593WH)



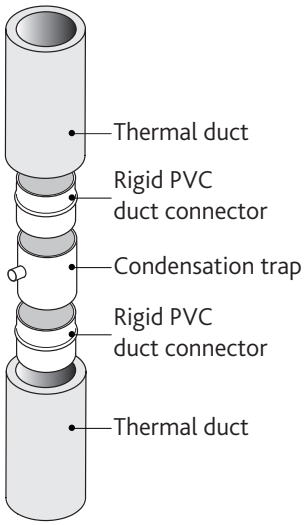
3.1 Use of Flexible Duct Connections Between Air Valves and Plenums / Bends

Figure 5. Use of Standard Flexible Ducting (Max Length 300mm) Between an Air Valve (Part no. VS125) and Plenum or Bend



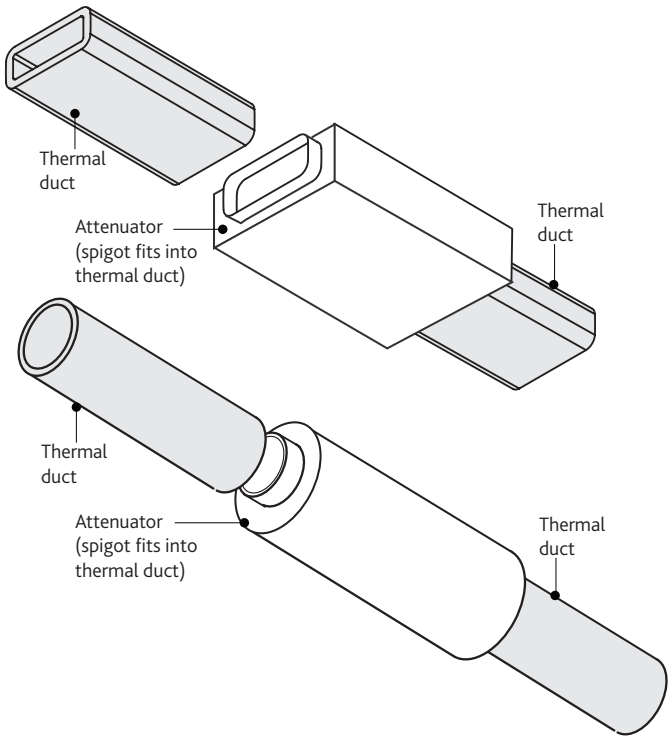
3.2 Installation of a Condensation Trap in Thermal Ducting

Figure 6. Use of Condensate Trap (Code Contrap125) with Rigid PVC Duct Connectors (Code PVC593WH)



3.3 Installation of an Attenuator in Thermal Ducting

Figure 7. Use of Condensate Trap (Code Contrap125) with Rigid PVC Duct Connectors (Code PVC593WH)



4.0 Cutting Ducting Lengths

A flush, square 90 cut is required to ensure that an air tight seal is made with centre ridge in the clamp. If an angled cut is made, this will not allow the duct clamps to create a seal on the duct. We advise that the duct is cut with a very sharp blade or fine toothed saw (we recommend a minimum of 14 teeth per inch). The cutting blade length should be at least the same length as the wall thickness of the ducting.

Ensure duct is placed into Duct Clamp connector prior to installation to check the squareness of the cut ducting.

Figure 8. Square 90° Cut Is Required to Ensure an Air Tight Seal

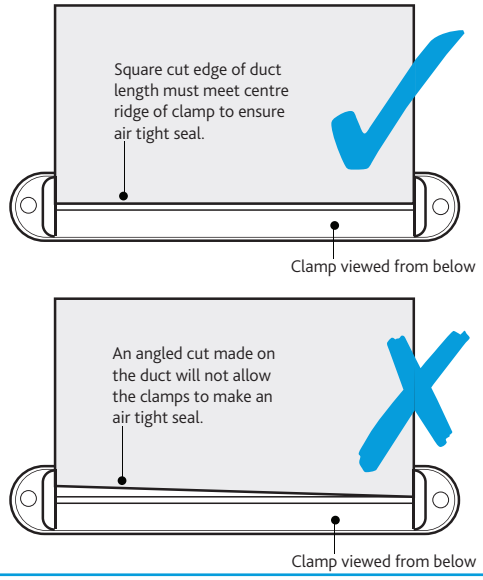
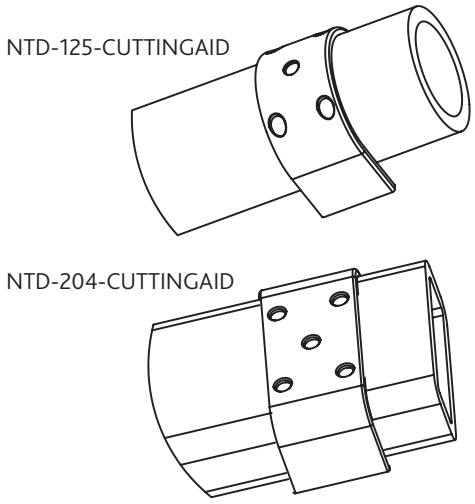


Figure 9. Circular and Rectangular (204 x 60mm) NTD Cutting Aids.



IMPORTANT

Nuaire Thermal Ducting is supplied in 1 metre lengths. If shorter lengths are required the duct can be cut to the desired length with a fine toothed saw. (We recommend a minimum of 14 teeth per inch). Failure to make a square cut may result in air flow leakage when connecting to other ducting pieces. Ensure duct is placed into Duct Clamp connector prior to ins tallion to check the squareness of the cut ducting (figs. 9 and 10).

5.0 Fitting Clamps with Fixing Lugs

IMPORTANT

Only clamps with fixing lugs (NTD-204-CONL) and (NTD-125-CONL) should be used for fitting / securing duct to the installation surface.

1. Establish the installation position for the ducting and clamps with lugs and drill 2 holes to suit the clamp position.

Figure 10. Features of Circular Clamp with Lugs (NTD-125-CONL)

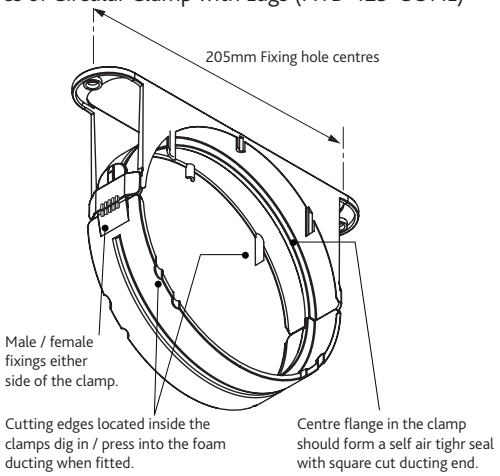


Figure 11. Features of 204 x 60mm Clamp with Lugs (NTD-204-CONL)

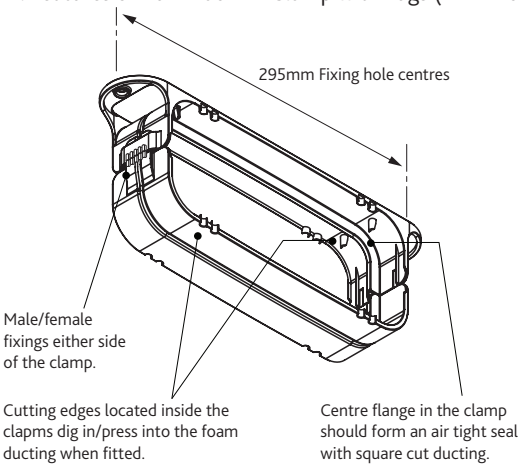
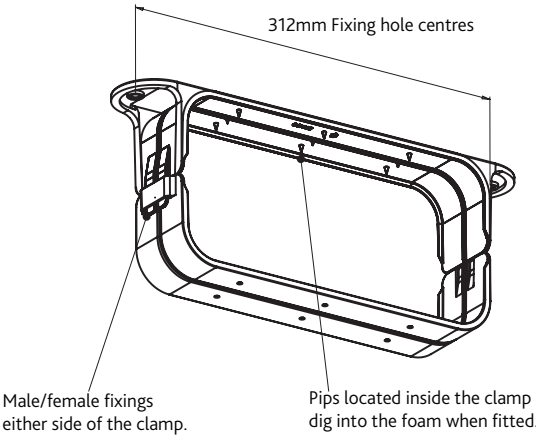


Figure 12. Features of 220 x 90mm Clamp with Lugs (NTD-220-CONL)



2. Having drilled 2 fixing holes to suit the clamp position, remove the top half of the clamp from the bottom half. Using appropriate fixings fix the top half of the clamp to the solid surface (fixings supplied by others).

Figure 13. Hole Centres on Circular Lugged Clamps

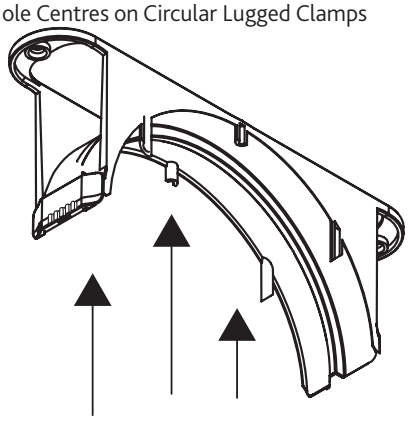
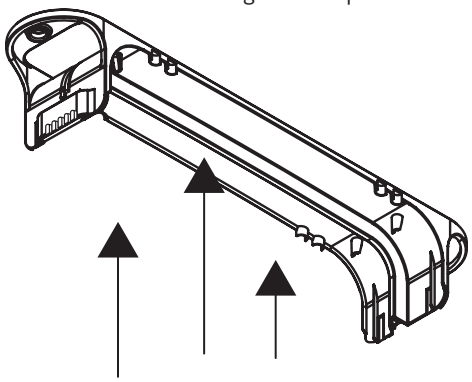


Figure 14. Hole Centres on Rectangular Clamps



3. Having drilled 2 fixing holes to suit the clamp position, remove the top half of the clamp from the bottom half. Using appropriate fixings fix the top half of the clamp to the solid surface (fixings supplied by others).

Figure 15. Joining 2 Lengths of Circular Ducting

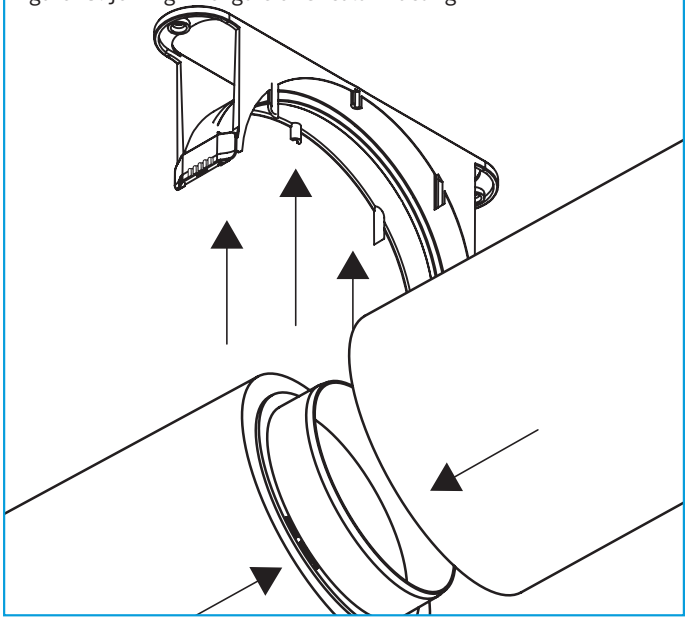
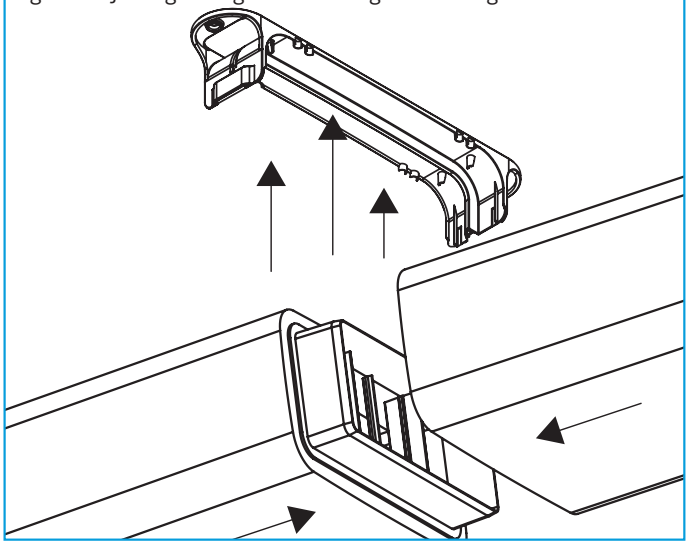


Figure 16. Joining 2 Lengths of Rectangular Ducting



4. For final installation into the clamp, push the duct up into the duct clamp fixed to the solid surface. The centre joint of the 2 duct lengths should be located on the centre ridge of the clamp. Take the bottom half of the clamp and push up so that the fixing tabs on each side fit into the slots on the female half, then press together. Ensure the ducting is fully pressed into the clamp to create an air tight seal. Failing to do so may cause air leakage.

Figure 17. Hole Centres on Circular Clamps

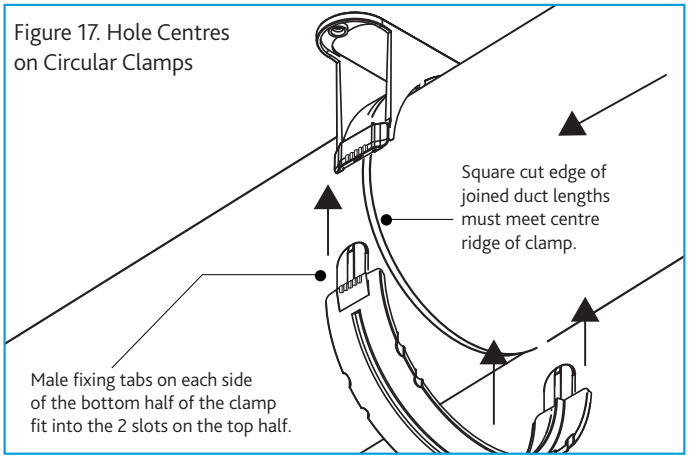


Figure 18. Hole Centres on Rectangular Clamps

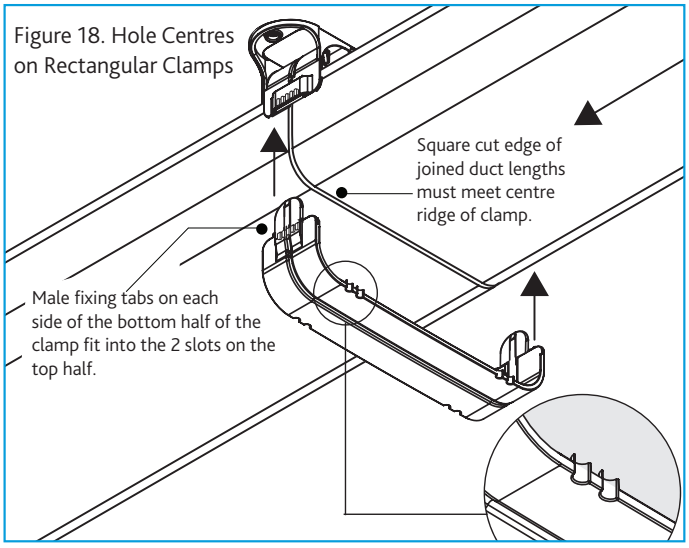


Figure 19. Installed Circular Ducting

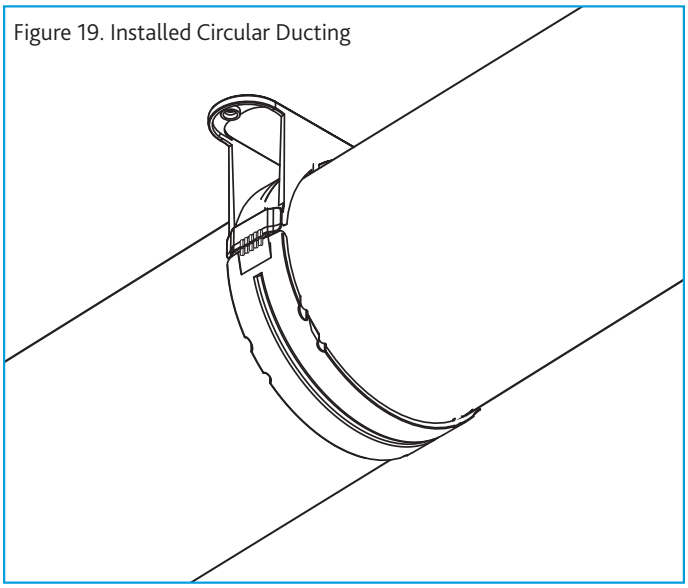
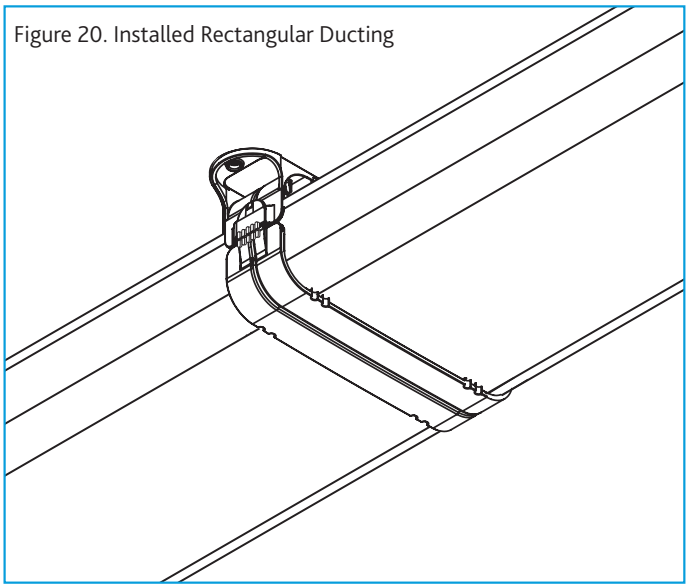


Figure 20. Installed Rectangular Ducting



6.0 Fitting Clamps without Fixing Lugs

The clamps without fixing lugs (NTD-204-CON or NTD-220-CON) and (NTD-125-CON) should only be used to connect two ducting items together; they should not be used for installing duct to any surface.

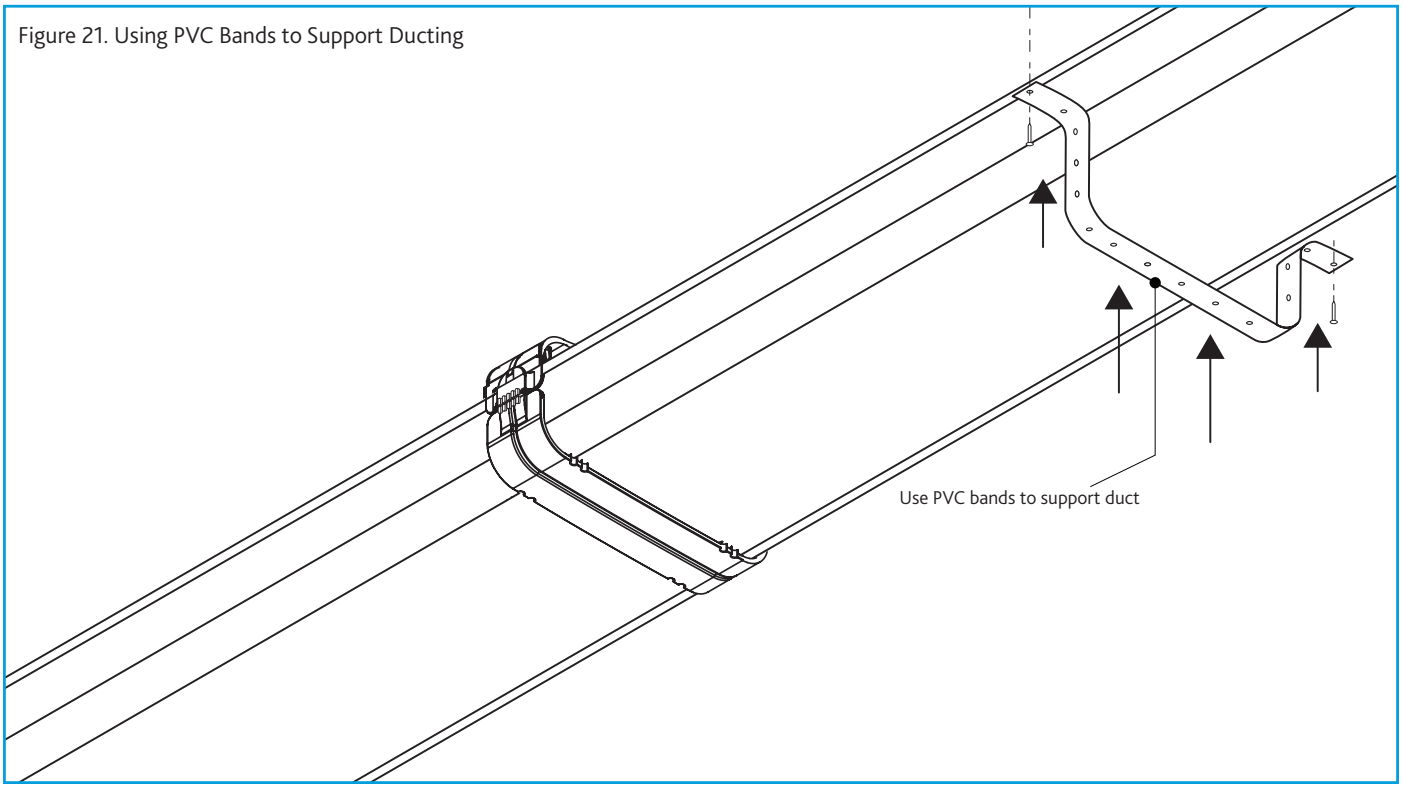
Straight runs of Nuaire white plastic ducting should be supported by either clip type PVC122-5WH or PVC coated steel banding every 1.0m (maximum).

Straight runs of Nuaire Thermal Duct should be supported every 1.0m (maximum) if using PVC coated steel banding or when using Clamps with Mounting Lugs (Types NTD-204-CONL, NTD-125-CONL, NTD-220-CONL).

With both thermal ducting or rigid ducting systems, care should be taken to ensure that bends, T-pieces, transitions, and plenum sections are also adequately supported by at least one lugged clamp/PVC clip/ banding support, as applicable.

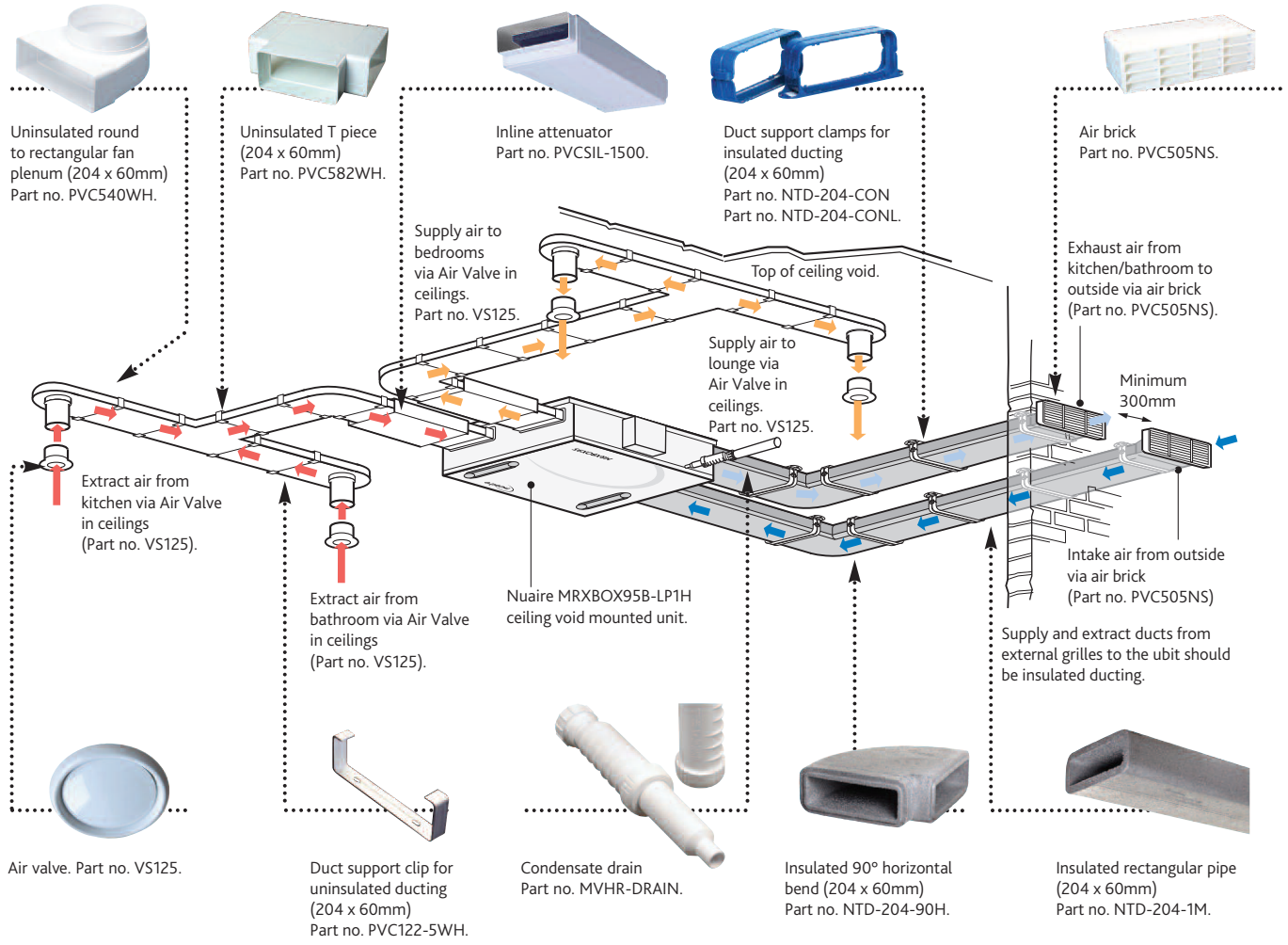
When banding is used, ductwork support locations should ideally be at the midpoint between clamps.

Figure 21. Using PVC Bands to Support Ducting



7.0 TYPICAL MVHR DUCT ARRANGEMENT FOR 204 x 60mm

Figure 22. Example MVHR Duct Arrangement



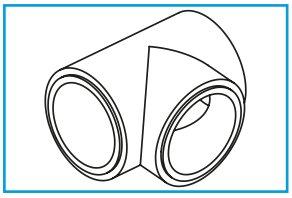
8.0 SPARES & SERVICE ENQUIRIES

Spare parts and replacement components are available from Nuaire. Please contact us for further details.

Our Technical Support department will be happy to provide any assistance required, initially by telephone and if necessary, will arrange for an engineer to call.

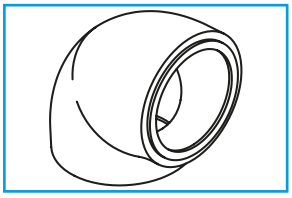
Telephone 029 2085 8400
technicalsupport@nuaire.co.uk

Range Details 125mm dia. Ducting



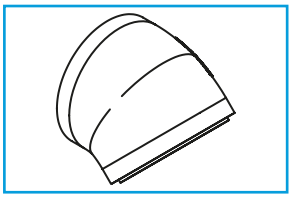
INSULATED "T" PIECE

Part Number	Duct Size	Description
NTD-125-TP	125mm Ø	Insulated T Piece



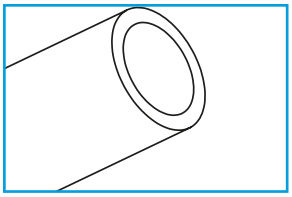
INSULATED 90° BEND

Part Number	Duct Size	Description
NTD-125-90H	125mm Ø	Insulated 90° Bend



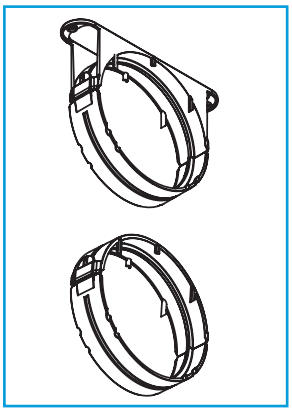
INSULATED 45° BEND

Part Number	Duct Size	Description
NTD-125-45H	125mm Ø	Insulated 45° Bend



INSULATED DUCT 1M LENGTH

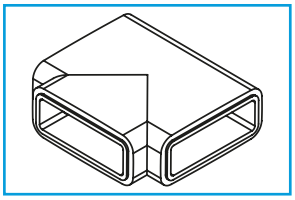
Part Number	Duct Size	Description
NTD-125-1M	125mm Ø	Insulated Duct 1m Length



ROUND DUCT CLAMP FOR INSULATED DUCT

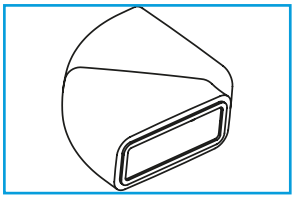
Part Number	Duct Size	Description
NTD-125-CONL	125mm Ø	One Piece Connector & Duct Clamp
NTD-125-CON	125mm Ø	One Piece Connector & Duct Clamp

Range Details 204 x 60 mm Ducting



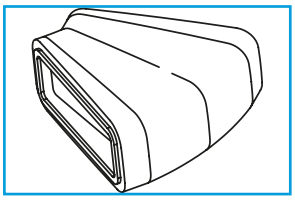
INSULATED "T" PIECE

Part Number	Duct Size	Description
NTD-204-TP	204mm x 60mm	Insulated T Piece



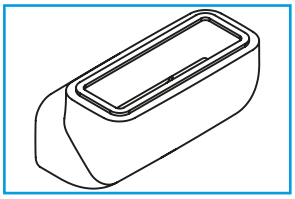
INSULATED 90° HORIZONTAL BEND

Part Number	Duct Size	Description
NTD-204-90H	204mm x 60mm	Insulated 90° Horizontal Bend



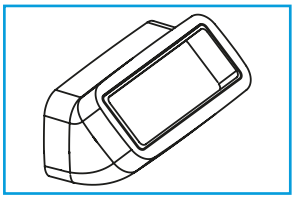
INSULATED 45° HORIZONTAL BEND

Part Number	Duct Size	Description
NTD-204-45H	204mm x 60mm	Insulated 45° Horizontal Bend



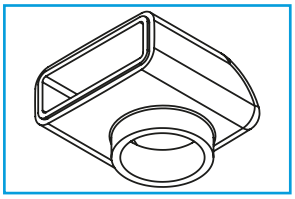
INSULATED 90° VERTICAL BEND

Part Number	Duct Size	Description
NTD-204-90V	204mm x 60mm	Insulated 90° Vertical Bend



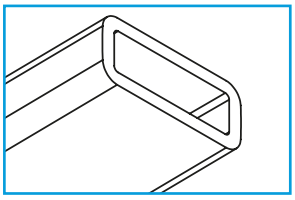
INSULATED 45° VERTICAL BEND

Part Number	Duct Size	Description
NTD-204-45V	204mm x 60mm	Insulated 45° Vertical Bend



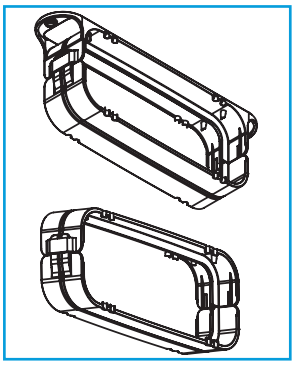
INSULATED PLENUM

Part Number	Duct Size	Description
NTD-204-PL	204mm x 60mm	Insulated Plenum



INSULATED DUCT 1M LENGTH

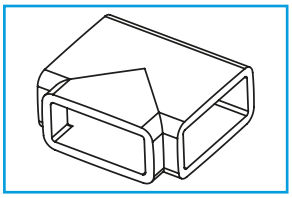
Part Number	Duct Size	Description
NTD-204-1M	204mm x 60mm	Insulated Duct 1m Length



RECTANGULAR DUCT CLAMP FOR INSULATED DUCT

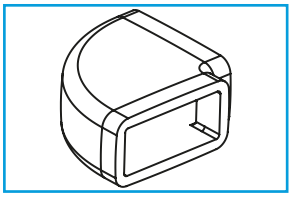
Part Number	Duct Size	Description
NTD-204-CONL	204mm x 60mm	One Piece Connector & Duct Clamp
NTD-204-CON	204mm x 60mm	One Piece Connector & Duct Clamp

Range Details 220 x 90 mm Ducting



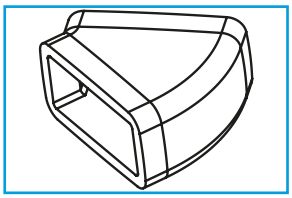
INSULATED "T" PIECE

Part Number	Duct Size	Description
NTD-220-TP	220mm x 90mm	Insulated T Piece



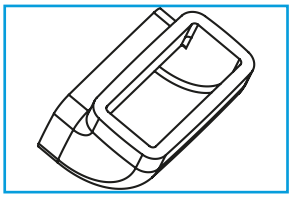
INSULATED 90° HORIZONTAL BEND

Part Number	Duct Size	Description
NTD-220-90H	220mm x 90mm	Insulated 90° Horizontal Bend



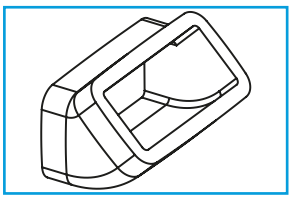
INSULATED 45° HORIZONTAL BEND

Part Number	Duct Size	Description
NTD-220-45H	220mm x 90mm	Insulated 45° Horizontal Bend



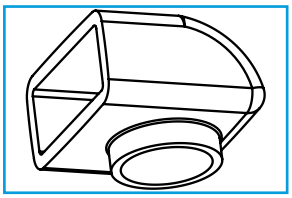
INSULATED 90° VERTICAL BEND

Part Number	Duct Size	Description
NTD-220-90V	220mm x 90mm	Insulated 90° Vertical Bend



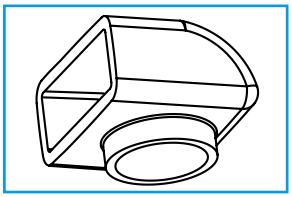
INSULATED 45° VERTICAL BEND

Part Number	Duct Size	Description
NTD-220-45V	220mm x 90mm	Insulated 45° Vertical Bend



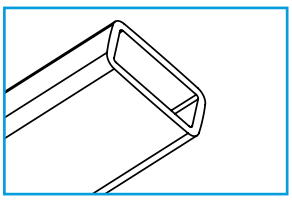
INSULATED PLENUM

Part Number	Duct Size	Description
NTD-220-PL	220mm x 90mm to 125mm Ø	Insulated Plenum



INSULATED PLENUM

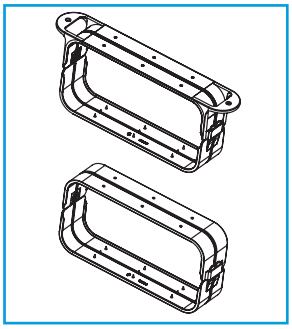
Part Number	Duct Size	Description
NTD-220-PL150	220mm x 90mm to 150mm Ø	Insulated Plenum



INSULATED DUCT 1M LENGTH

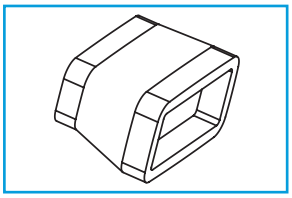
Part Number	Duct Size	Description
NTD-220-1M	220mm x 90mm	Insulated Duct 1m Length

Range Details 220 x 90 mm Ducting



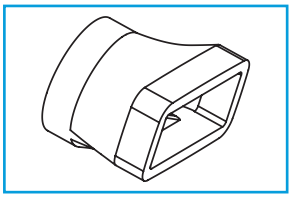
RECTANGULAR DUCT CLAMP FOR INSULATED DUCT

Part Number	Duct Size	Description
NTD-220-CONL	220mm x 90mm	Duct Clamp with Fixing Lugs
NTD-220-CON	220mm x 90mm	Duct Clamp withuot Fixing Lugs



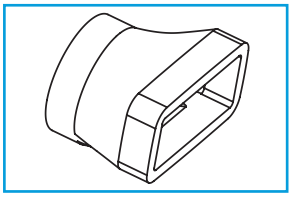
INSULATED 220 x 90 TO 204MM REDUCER

Part Number	Duct Size	Description
NTD-220-RED204	220 90 to 204mm x 60mm	Insulated 220 x 90 to 204mm Reducer



INSULATED 220 x 90 TO 125MM DIAMETER ADAPTOR

Part Number	Duct Size	Description
NTD-220-STR125	220 x 90 to 125mm Dia.	Insulated 220 x 90 to 125mm Rectangular to Round In-line Adaptor



INSULATED 220 x 90 TO 150MM DIAMETER ADAPTOR

Part Number	Duct Size	Description
NTD-220-STR150	220 x 90 to 150mm Dia.	Insulated 220 x 90 to 150mm Rectangular to Round In-line Adaptor

Notes

Notes