



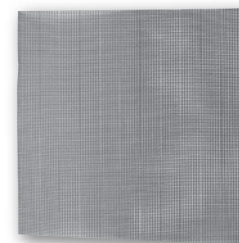
02

**DUCTING &  
GRILLES**

# MANROSE ACCESSORIES

## INSECT MESH

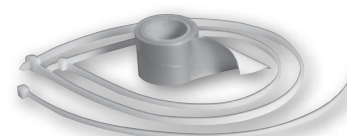
Duct Size (mm)	Description	Order Code
100	For 100mm Grilles	DCT0371
125	For 125mm Grilles	DCT0208
150	For 150mm Grilles	DCT0207
250	For 200mm & 250mm Grilles	DCT0373
150	Bird Mesh	DCT2263



▶ Insect Mesh Accessory

## DUCT STRAPS AND DUCT TAPE

Duct Size (mm)	Description	Order Code
100mm	Ducting Strap	FAN0274
125mm	Ducting Strap	FAN0281
150mm	Ducting Strap	FAN0282
12mm x 3m	Hanging Strap	DCT2299
25mm x 50m	Hanging Strap	DCT0808
48mm x 5m	Duct Tape	DCT0173
48mm x 30m	Duct Tape	DCT0807
48mm x 60m	Duct Tape - *AS4254	DCT1132



▶ Ducting Straps & Duct Tape

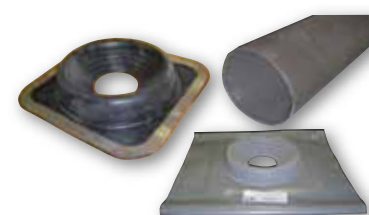


▶ AS4254 Duct Tape

\*AS4254 Duct tape DCT1132  
- Temperature range -37°C - 127°C

## ROOF FLASHINGS

Description	Order Code
Flashing Roof Flashing - fits 110-160mm	DCT0180
Tiledek Roof Flashing - For use on concrete tile, clay tile and slate roofing	DCT0190
0.5m HDPE Tube 150mm	DCT0183
Stitching Screws (for roof fastening)	FAN0400



▶ Roof Flashings

# MANROSE DUCTING KITS

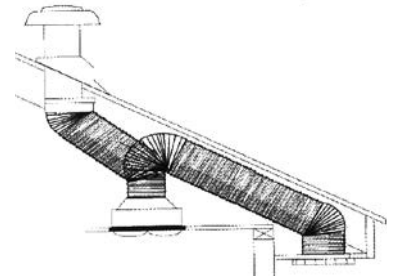
FOR HEAT/FAN/LIGHT UNITS

## 250mm OUTLET FAN

Duct Size (mm)	Description	Order Code
150	Thru-Soffit	DCT0441
150	Thru-Roof	DCT0444
200	Thru-Soffit	DCT0445
250	Thru-Soffit	DCT0072

Suitable for a range of fans including the following models:

- HPM Models: Instant Heat 2 R622/1A, Instant Heat 4 R622/2A.



# MANROSE DUCTING KITS

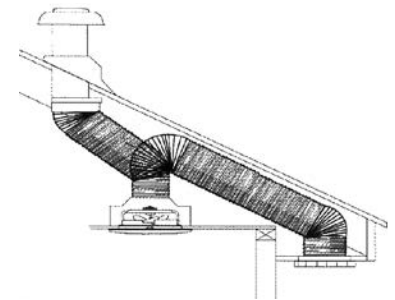
FOR OPEN BACK FANS

## 300mm COWL

Duct Size (mm)	Description	Order Code
150	Thru-Soffit	DCT0201
150	Thru-Roof	DCT0202
250	Thru-Soffit	DCT0200

Suitable for a range of fans including the following models:

- HPM Exhaust Fan R621/1.
- ARLEC 200 Ceiling Fan.
- IXL Vent'n'Lite 100- 10310, IXL Ventair - 10320.
- Mistral 6250-0.



## 340mm COWL

Duct Size (mm)	Description	Order Code
150	Thru-Soffit	DCT0204
150	Thru-Roof	DCT0205
250	Thru-Soffit	DCT0203

Suitable for a range of fans including the following models:

- HPM Models: Exhaust Fan R621/2, Fanlight R620.
- ARLEC 250 Ceiling Fan.
- IXL Ventair - 10325.
- Mistral 6230-0.

### Thru Soffit Kits include:

Adaptor to fit to the rear of the fan, 3 metres of flexible ducting and an exterior louvred grille.

### Thru Soffit Kits include:

Adaptor to fit to the rear of the fan, 3 metres of flexible ducting and an exterior louvred grille.

### Thru Roof Kits include:

Adaptor to fit to the rear of the fan, 1.5 metres of flexible ducting, 0.5 metres of 150mm high density polyethylene (HDPE) tubing, a tube fastening bracket, an aluminium cowl and roof flashing plus approved fastenings.

# MANROSE DRYER DUCTING KIT

REAR VENT THRU WALL

Duct Size (mm)	Order Code
100	DCT1263

Kit Includes:

- 3m Flexible aluminium Aluct duct (rated -30°C to 150°C).
- 0.75m Flat channel duct.
- 2 x Rectangular to Round 90° elbow bends.
- 100mm white eggcrate grille.
- All fixing and fittings.



 Dryer Ducting Kit

## DRYER DUCTING FEATURES

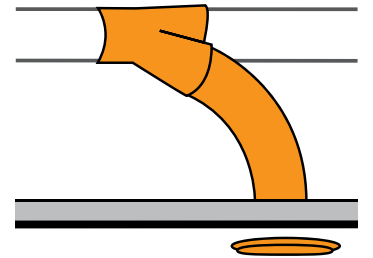
- This ducting kit is designed for inverted and wall mounted dryers.
- Free standing dryers on the floor will require extra rectangular ducting and connector (Order Code: DCT0013 & DCT0014).
- These ducting kits suit dryers with a 100mm outlet. The square to round elbow will fit snugly onto most 100mm dryer outlets.

## PRO SERIES EXTENSION KIT

Duct Size (mm)	Description	Order Code
150	Heat Trans Extension Kit	DCT2101
150	Smart-Vent Extension Kit	DCT2276

Kit Includes:

- Designed to extend your home ventilation or heat transfer systems to additional rooms.
- 1 x Y-Branch.
- 1 x 3 metres - 150mm Acoustic Insulated Ducting.
- 1 x Adjustable Circular Diffuser.
- All fixing and fittings included.



## MANROSE DUCTING KITS

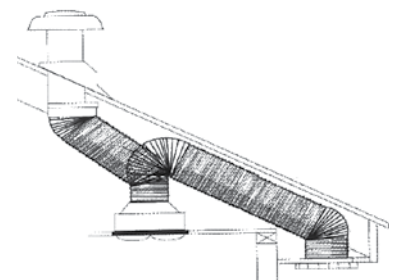
FOR HEAT/FAN/LIGHT UNITS

### 220mm OUTLET FAN

Duct Size (mm)	Description	Order Code
150	Thru-Soffit	DCT0167
150	Thru-Roof	DCT0171
200	Thru-Soffit	DCT0168
250	Thru-Soffit	DCT0169

Suitable for a range of fans including the following models:

- Airflow Sunshine 6600A.



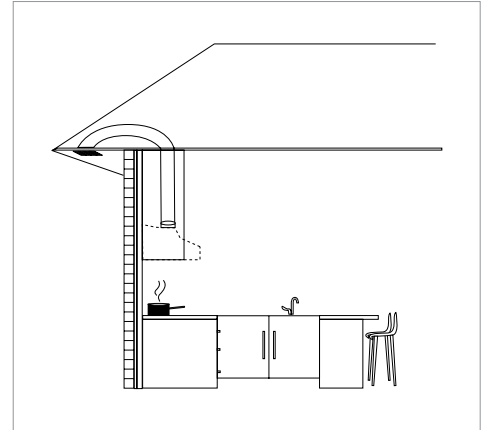
# MANROSE RANGEHOOD DUCTING KITS

- There are three ducting options available, for the kitchen rangehood. Through an adjacent wall, through the soffit (under the eave) or up through the roof.
- Semi-Rigid ducting is used in our top of the range systems to reduce the rangehood system noise and increase air flow performance.
- Fully complies to AS/NZS 60335.2.80.

## THRU WALL RANGEHOOD DUCTING KITS

Duct Size (mm)	Description	Order Code
125	Rear Vent - Gravity Grille	DCT1162
150	Top & Rear Vent - Weatherproof Cowl	DCT2592

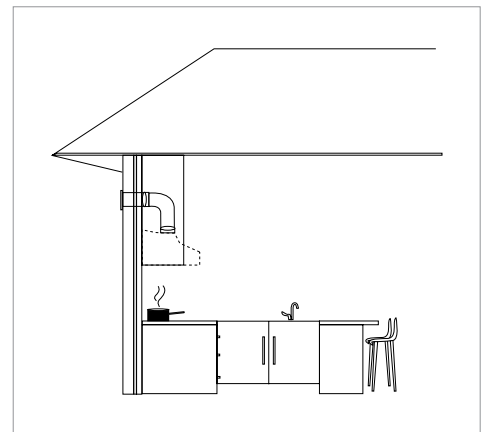
- For added weather protection use the weatherproof cowl as included in DCT2592.



## SOFFIT RANGEHOOD DUCTING KITS

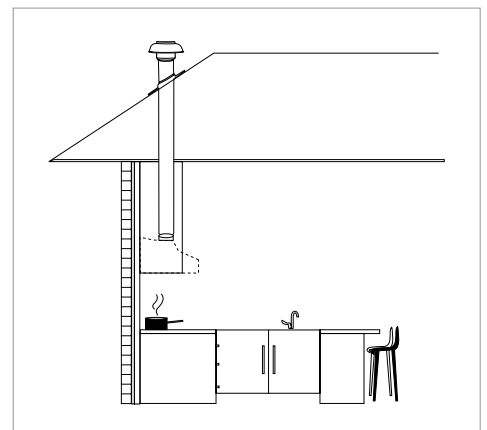
Duct Size (mm)	Description	Order Code
150	Thru Soffit	DCT1161
150	Thru Soffit - Galv Tube	DCT1259
150	Thru Soffit - Semi Rigid	DCT2323

- All systems include 3 metres of Aluminium Duct.
- Galv Tube system also includes 900mm of Solid Tube.



## THRU ROOF RANGEHOOD DUCTING KITS

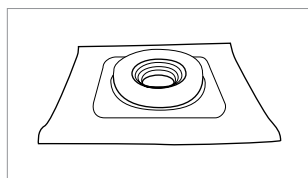
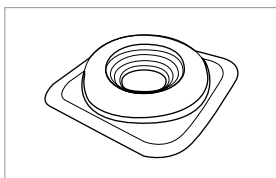
Duct Size (mm)	Description	Order Code
150	Thru Roof - Iron	DCT2324
150	Thru Roof - Tiled	DCT2325



## FLASHING

▶ Iron Roof

▶ Tiled Roof



# ROOF COWL KITS

WITH FLASHING & HDPE TUBE

Duct Size (mm)	Description	Order Code
150	General Purpose Kit	DCT0172
150	Heavy Duty Cowl Kit	DCT0710
150	General Purpose Lead Flashing Kit	DCT1095

- General purpose cowl included.
- 0.5m HDPE Tube included.
- Flashing included (for metal based roofs).
- All fittings supplied.
- Optional lead Flashing available (extra cost - refer to Roof Flashings page 164).

**Note:** Lead Flashing (DCT0190) required for concrete tile roofs.



▶ 150mm General Purpose Kit

## PLASTIC REDUCERS FOR HDPE THRU-ROOF TUBE (FOR THRU-ROOF KITS)

Metric Size (mm)	Description	Order Code
150:125	150:125 reducer	DCT2066
150:100	150:100 reducer	DCT2122

- Reducers fit to the bottom of HDPE tube to adapt to smaller duct diameters where required.

# MANROSE ANGLED ROOF COWL KIT

Duct Size (mm)	Description	Order Code
100	Angled Roof Kit	DCT2205

- General purpose through roof kit for smaller application.
- To be mounted on tile roofs.
- Complete kit - Cowl, 0.5m of tube & weathering slate included.



▶ Angled Roof Kit

# ROOF COWLS

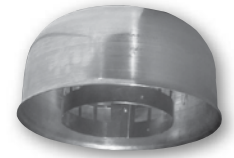
Duct Size (mm)	Description	Order Code
150	General Purpose Cowl	DCT0708
150	Heavy Duty Cowl	DCT0709

- General Purpose Cowl - Low profile.
- Low back pressure.

- Added exhaust aperture area and deep vent coverage.
- Recommended where high winds in exposed locations may drive rain into the vent.
- Also recommended for use in high airflow air intake systems to prevent rain being sucked into the system.



▶ 150mm General Purpose Cowl

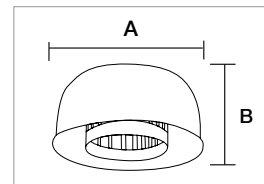
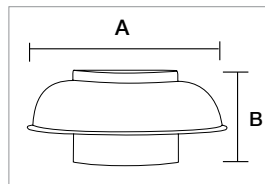
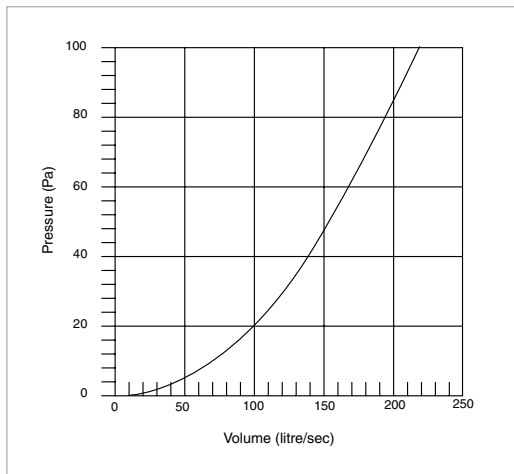


▶ 150mm Heavy Duty Cowl

## DIMENSION INFORMATION (mm)

Models	A	B
DCT0708	275	125
DCT0709	275	140

▶ Performance - DCT0708/DCT0709

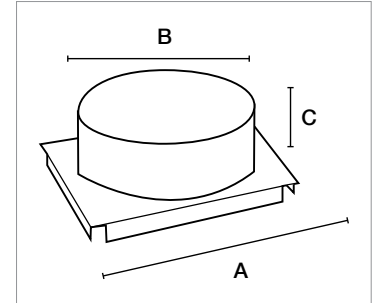


# NECK ADAPTORS CONT.

## DIMENSIONS A

Metric Size (mm)	A Square Neck (mm)	B Spigot Diameter (mm)	C Spigot Length (mm)
225 x 225 - 150	214	146	70
225 x 225 - 200	214	198	70
300 x 300 - 250	287	248	70
300 x 300 - 300	287	298	70
375 x 375 - 250	360	248	70
375 x 375 - 300	360	298	70
375 x 375 - 350	360	348	70
375 x 375 - 400	360	398	70

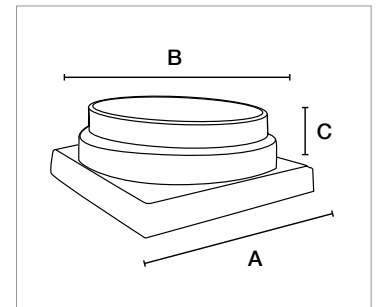
▶ Dimensions A



## DIMENSIONS B

Metric Size (mm)	A Square Neck (mm)	B Spigot Diameter (mm)	C Spigot Length (mm)
450 x 450/300/350	448	295/345	60/60
450 x 450/400/450	448	395/445	60/60
550 x 550/300/350	550	295/345	60/60
550 x 550/400/450	550	395/445	60/60
550 x 550/500/550	550	495/545	60/60

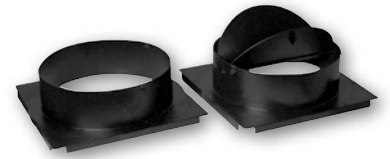
▶ Dimensions B





# NECK ADAPTORS

	NO DAMPER	WITH DAMPER
Metric Size (mm)	Order Code	Order Code
225 x 225-150	DCT0681	DCT0683
225 x 225-200	DCT0545	DCT0741
300 x 300-250	DCT0497*	DCT0498*
300 x 300-300	DCT0509	DCT0499
360 x 360-250	DCT0547*	DCT0557*
360 x 360-300	DCT0549	DCT0559
360 x 360-350	DCT0553	DCT0661
360 x 360-400	DCT0555	DCT0804



▶ Poly Adaptor & Poly Adaptor with Damper

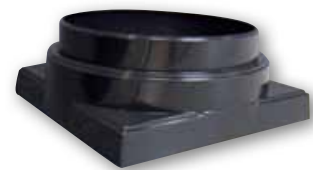
\*TO CONVERT 250mm SPIGOTS

Metric Size (mm)	Order Code
250-150	DCT1142
250-200	DCT0965



▶ 250-150mm Spigot

STEPPED SPIGOT	NO DAMPER
Metric Size (mm)	Order Code
450 x 450 - 300/350	DCT1406
450 x 450 - 400/450	DCT1407
550 x 550 - 300/350	DCT1408
550 x 550 - 400/450	DCT1409
550 x 550 - 500/550	DCT1410



▶ 450 x 450 - 300/350 Stepped Spigot

- Poly Adaptor “Snaps-On” to plastic diffusers, no tools or fixing required.
- Manufactured from high impact polystyrene, positive lock duct tabs.
- Poly neck adaptors to suit UniVents, CD2000 and some aluminium diffusers.

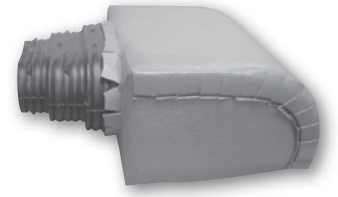
# CUSHION BOX

## SIDE ENTRY

	NUDE	INSULATED	PANEL DUCT
Metric Size (mm)	Order Code	Order Code	Order Code
225 x 225 - 150 Ø	DCT0993	DCT1004	
225 x 225 - 200 Ø	DCT0992	DCT1003	DCT2662
300 x 300 - 200 Ø	DCT0995	DCT1006	
300 x 300 - 250 Ø	DCT0971	DCT0972	DCT2661
300 x 300 - 300 Ø	DCT0994		
375 x 375 - 300 Ø			DCT2663
400 x 400 - 300 Ø		DCT0991	
450 x 450 - 350 Ø			DCT2664
450/435 x 450/435 300/250/200 Ø	DCT1356*	DCT1417*	

\* Cut to suit size required.

- Low profile to suit suspended ceilings or in between floors (double storey).
- Manufactured from HDPE, fits poly and aluminium diffusers.



▶ Cushion Box (Plastic) - Side Entry



▶ Cushion Box (Panel) - Side Entry

## DIMENSION INFORMATION (mm)

Metric Size	A Length	B Height	C Spigot length	D Neck Size	Spigot Size
225 x 225-150	310	196	90	226	115 x 180
225 x 225-200	310	196	90	226	115 x 226
300 x 300-200	395	200	90	304	110 x 226
300 x 300-250	395	200	90	304	110 x 330

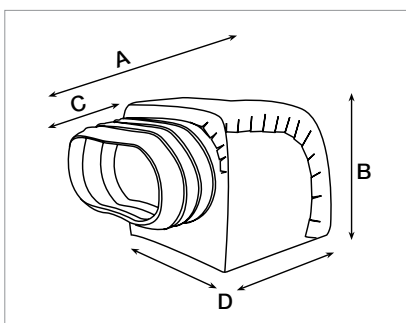
## PANEL CUSHION DIMENSIONS (mm)

Neck Size	D	H	W	L	X	Y
225 x 225	200	290	270	270	35	100
300 x 300	250	340	345	345	35	100
375 x 375	300	390	420	420	35	100
450 x 450	350	440	495	495	35	100

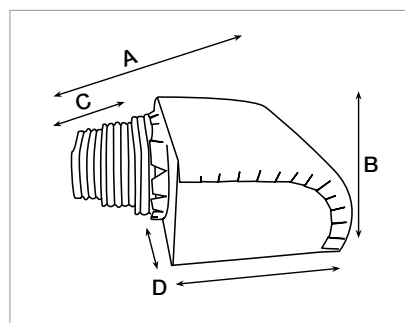
## STEPPED CUSHION BOX

Metric Size	A Length	B Height	C Spigot length	D Neck Size	Spigot Size
450/435x450/435					
-200	540	250	90	450	125 x 235
-250	540	250	90	450	145 x 300
-300	540	250	90	450	190 x 350

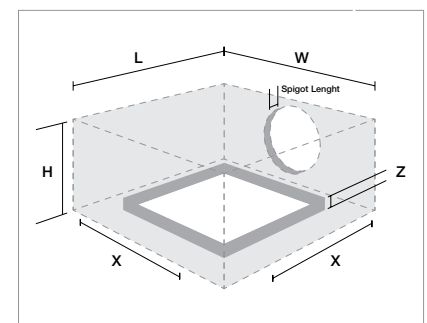
▶ Dimensions for Nude/Insulated



▶ Dimensions For Stepped Cushion Box



▶ Panel Cushion Dimensions



# FLOOR BOOTS

	POLY	METAL	METAL UNIBOOT
<b>Metric Size (mm)</b>	<b>Order Code</b>	<b>Order Code</b>	<b>Order Code</b>
300 x 50 - 150			DCT2215
350 x 50 - 150			DCT2216
300 x 100 - 150	DCT0714	DCT1449	
350 x 150 - 200	DCT0715		
350 x 150 - 250	DCT0716		

- Poly Boot manufactured from high density polyethylene.
- Metal Boot manufactured from Galvanised Steel.
- UV. stabilised.
- Robust, heavy duty with smooth internal lines.
- Complete with collar and damper.
- Positive lock duct tabs, nail holes pre punched.



▶ Poly

▶ Metal Uniboot

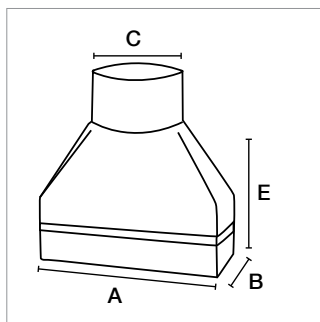
## Recommended Airflow:

- 150mm duct approx. 65 l/s.
- 200mm duct approx. 90 l/s.
- 250mm duct approx. 140 l/s.

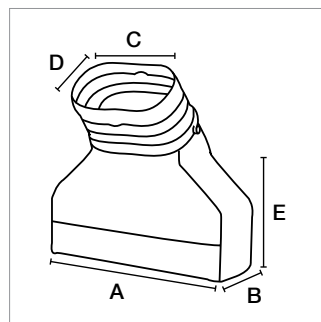
## BOOT DIMENSIONS

Metric Size (mm)	Neck Size (mm) A x B	Spigot Size (mm) C x D	Boot Length (mm) E
300 x 100 - 150 Ø	300 x 100	180 x 90	220
350 x 150 - 200 Ø	355 x 150	250 x 110	250
350 x 150 - 250 Ø	355 x 150	340 x 110	250
300 x 50 - 150 Ø	300 x 50	150 Ø	250
350 x 50 - 150 Ø	350 x 50	150 Ø	250

▶ Dimensions UniBoot



▶ Dimensions POLY



# FLOOR REGISTERS

## FRONT FLOW POLY

Neck Size (mm)	Colour	Order Code
300 x 100	Off White	DCT0747
300 x 100	Slate Grey	DCT0745
300 x 100	Beige	DCT0743
300 x 100	Mushroom	DCT0809
300 x 100	Grey	DCT0746
300 x 100	White	DCT0957
300 x 100	Chocolate	DCT0983
300 x 100	Black	DCT1065
300 x 100	Terracotta	DCT1166
300 x 100	Baltic Pine	DCT1361
350 x 150	Off White	DCT0756
350 x 150	Slate Grey	DCT0754
350 x 150	Beige	DCT0752
350 x 150	Grey	DCT0755
350 x 150	White	DCT1059
350 x 150	Chocolate	DCT0960
350 x 150	Black	DCT0961
350 x 150	Terracotta	DCT1167
350 x 150	Baltic Pine	DCT1165



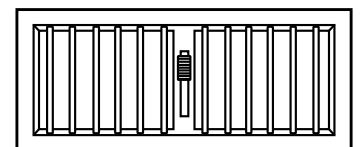
▶ Floor Register - Front Flow Poly

- Manufactured from V2 fire rated high impact polycarbonate.
- Positive shut-off, resistant to scratching and fading.
- Improved air flow control.

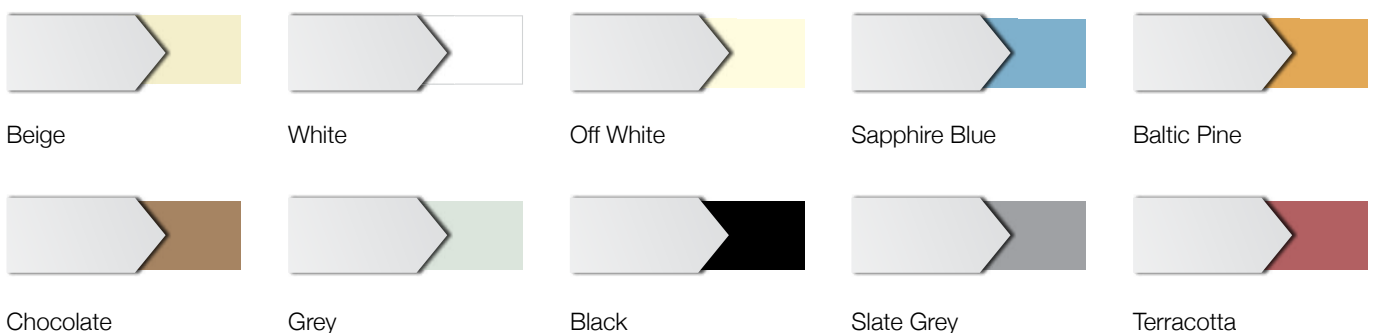
## TECHNICAL DATA

### FLOOR REGISTERS

Description	Metric Size (mm)	Face Size (mm)	Neck Size (mm)	Spigot Length (mm)
Floor Register	300 x 100	345 x 140	298 x 98	50
Floor Register	350 x 150	392 x 190	348 x 148	63
Kick Rail Floor Register	300 x 50	345 x 100	300 x 51	40
Kick Rail Floor Register	350 x 50	395 x 100	348 x 51	46



### FLOOR REGISTERS - COLOUR CHART



# FLOOR REGISTERS

## SIDE FLOW POLY

Neck Size (mm)	Colour	Order Code
300 x 100	Off White	DCT0742
300 x 100	Slate Grey	DCT0913
300 x 100	Beige	DCT0914
300 x 100	Mushroom	DCT0810
300 x 100	Grey	DCT0712
300 x 100	White	DCT0956
300 x 100	Chocolate	DCT1137
300 x 100	Black	DCT0980
300 x 100	Terracotta	DCT1136
300 x 100	Baltic Pine	DCT1428
350 x 150	Off White	DCT0751
350 x 150	Slate Grey	DCT0749
350 x 150	Beige	DCT0713
350 x 150	Grey	DCT0750
350 x 150	White	DCT1052
350 x 150	Chocolate	DCT0958
350 x 150	Black	DCT0959
350 x 150	Baltic Pine	DCT1266

- Manufactured from V2 fire rated high impact polycarbonate.
- Positive shut-off, resistant to scratching and fading.
- Improved air flow control.



▶ Floor Register - Side Flow Poly

# FLOOR REGISTERS

## SIDE FLOW METAL

### STANDARD

Neck Size (mm)	Colour	Order Code
300 x 100	Beige	DCT2213
350 x 150	Beige	DCT2214

### KICK RAIL

Neck Size (mm)	Colour	Order Code
300 x 50	Beige	DCT2210
300 x 50	White	DCT2209
350 x 50	Beige	DCT2212
350 x 50	White	DCT2211

- Powder-coated.
- Positive shut-off.



▶ Standard



▶ Kick Rail

# TECHNICAL DATA

## PERFORMANCE DATA

Neck Area m <sup>2</sup>	Neck Size (mm)	Neck Vel. M/S	2	2.5	3	3.5	4	5	6
		Vel. Press (Pa)	0.25	0.4	0.55	0.75	1	1.55	2.2
		Neg. SP (Pa)	2.6	4	5.7	7	8.2	9.6	13.5
0.025	250x100	I/s	50	62.5	75	87.5	100	125	150
	200x125	NC	18	24	26	30	33	38	44
0.03	170x170	I/s							
	300x100	I/s	60	75	90	105	120	150	180
	200x150	NC	20	26	29	33	36	41	47
0.04	400x100	I/s	80	100	120	140	160	200	240
	250x150	NC	22	28	31	35	38	43	49
0.045	210x210								
	350x125	I/s	90	112.5	135	157.5	180	225	270
	300x150	NC	23	29	32	36	39	44	50
0.05	350x150	I/s	100	125	150	175	200	250	300
	250x200	NC	24	30	33	37	40	45	81
0.06	600x100	I/s	120	150	180	210	240	300	360
	400x150	NC	25	31	34	38	41	46	52
0.075	600x125 350x200	I/s	150	187.5	225	262.5	300	375	450
	500x150 30 x250	NC	26	32	25	39	42	47	3
0.09	290x290								
	290x290 700x125 400x200	I/s	180	225	270	315	360	450	540
	550x150 350x250	NC	27	33	36	40	43	48	54
0.1	330x330 750x125 450x200	I/s	200	250	300	350	400	500	600
	660x150 400x250	NC	28	34	37	41	44	49	55
0.12	900x125 450x250	I/s	240	300	360	420	480	600	720
	750x150 350x300	NC	29	35	38	42	45	50	56
0.128	850x150 500x250	I/s	256	320	383.9	447.78	511.94	640	768.06
	600x200 400x300	NC	29	35	39	43	46	51	57
0.135	1200x125 450x300	I/s	270	337.5	405	472.22	540	675	810
	900x150 400x350	NC	30	36	40	44	47	52	58
0.18	410x410 900x200 600x300	I/s	360	450	540	630	720	900	1080
	750x250 450x400	NC	31	37	41	45	48	53	59
0.27	750x350 600x450	I/s	540	675	809.72	945	1080	1350	1620
	660x400 550x500	NC	33	40	45	48	52	57	62
0.36	1200x300 75x450	I/s	720	900	1080	1260	1440	1800	2160
	900x400 600x600	NC	37	42	47	51	56	61	67
0.48	800x600	I/s	960	1200	1440	1680	1920	2400	2880
		NC	38	44	49	53	57	62	67
0.6	1000x600	I/s	1200	1500	1800	2100	2400	3000	3600
		NC	39	45	50	54	58	63	69
0.72	1200x600	I/s	1440	1800	2160	2520	2880	3600	4320
		NC	40	46	52	55	60	65	70
0.8	1000x800	I/s	1600	2000	2400	2800	3200	4000	4800
		NC	41	47	53	56	60	65	71
0.9	900x1000	I/s	1800	2250	2700	3150	3600	4500	5400
		NC	42	48	53	57	61	66	72
1	1000x1000	I/s	2000	2500	3000	3500	4000	5000	6000
		NC	43	49	54	58	62	67	73

# WEATHERPROOF LOUVRE GRILLE

(WPLG)

Neck Size (mm) (N)	Order Code	Neck Size (W x H)
170 x 170	DCT1401	165 x 165
210 x 210	DCT1402	205 x 205
290 x 290	DCT1403	285 x 285
330 x 330	DCT1404	325 x 325
410 x 410	DCT1405	405 x 405

- High quality natural anodised finish.
- Designed for external ventilation.
- Special sizes made to order, please state neck size required. POA.
- Insect Mesh attached.
- Performance data on the next page.



▶ 410 x 410mm Weatherproof Louvre Grille

## NECK ADAPTOR FOR WEATHERPROOF LOUVRE GRILLE

Metric Size (mm)	Order Code
170 x 170 - 150 Ø	DCT1434
210 x 210 - 200 Ø	DCT1435
290 x 290 - 250 Ø	DCT1436
330 x 330 - 300 Ø	DCT1437
410 x 410 - 350 Ø	DCT1438

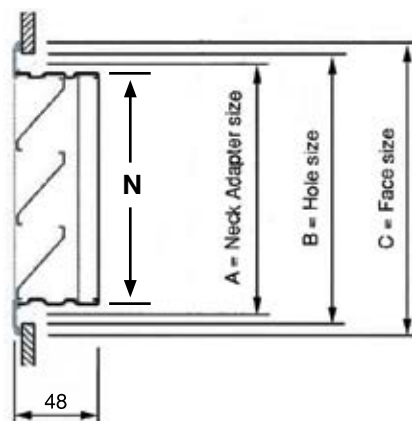
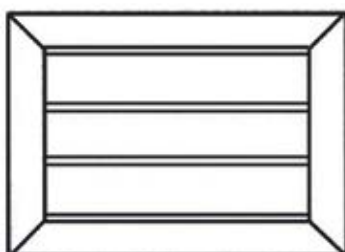
- Manufactured from galvanised steel.
- Neck adaptors to suit WPLG above.



▶ 410 x 410mm Neck Adaptor for Weatherproof Louvre Grille

## DIMENSION INFORMATION

Model	Materials	Thickness		Neck Adapter Size A	Hole Size B	Face Size C
		Frame	Blade			
WPLG	Extruded Aluminium A6063	1.2	1.2	N+10 N+10	N+20 N+20	N+60 N+60



# MANROSE DESIGNER WEATHERPROOF DOME

## STAINLESS DOME COWLS

Duct Size (mm)	Colour	Order Code
100	Stainless Steel	DCT2157
125	Stainless Steel	DCT2158
150	Stainless Steel	DCT2159

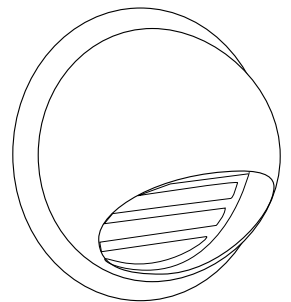
- High quality stainless steel dome cowl for a modern stylish look.
- Designed for exhaust and supply ventilation.
- Generally mounted on an external wall, however they can be mounted internally.
- Manufactured from a Stainless Steel Grade 304.
- Insect mesh included.



▶ 150mm Weatherproof - Stainless Dome Cowl

## DIMENSION INFORMATION

Grille Description	Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
Designer Dome Cowl	100	140	97	52	115
Designer Dome Cowl	125	180	120	52	140
Designer Dome Cowl	150	200	145	62	155





# MANROSE DESIGNER WEATHERPROOF COWLS

## STAINLESS COWLS

Duct Size (mm)	Colour	Order Code
100	Stainless Steel	DCT2151
125	Stainless Steel	DCT2152
150	Stainless Steel	DCT2153

- High quality designer stainless steel finish.
- Designed for use where adverse weather conditions are experienced.
- Manufactured from a Stainless Steel Grade 304.



▶ 150mm Weatherproof Cowl

# MANROSE WEATHERPROOF COWLS

## PLASTIC COWLS

Duct Size (mm)	Colour	Order Code
100	White	DCT0018
100	Brown	DCT0019
125	White	DCT1030
150	White	DCT1031

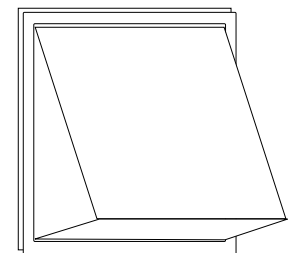
- Used where adverse weather conditions are experienced.



▶ 150mm Weatherproof - Plastic Cowl

## DIMENSION INFORMATION

Grille Description	Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
Designer Weatherproof	100	150 x 150	97	52	115
Designer Weatherproof	125	180 x 180	120	52	140
Designer Weatherproof	150	180 x 180	145	62	160
Standard Weatherproof	100	105 x 105	99	35	105
Standard Weatherproof	125	127 x 127	122	27	125
Standard Weatherproof	150	127 x 127	150	35	152



The Designer Weatherproof Cowl requires a minimum pressure to open.

- 10Pa - 100mm (DCT2151).
- 10Pa - 125mm (DCT2152).
- 10Pa - 150mm (DCT2153).



New Aluminum Grille insert and New Mesh version coming soon.

# MANROSE WALL/CEILING PLATE GRILLES

## FIXED LOUVRE VENT

Plate Size (mm)	Colour	Order Code
245 x 80	White	DCT2194
245 x 80	Chrome	DCT2195
245 x 160	White	DCT2196
245 x 160	Chrome	DCT2197
245 x 245	White	DCT2198
245 x 245	Chrome	DCT2199



Wall/Ceiling Plate Grilles - Fixed Louvre Vent

## ADJUSTABLE VENT

Plate Size (mm)	Colour	Order Code
245 x 80	White	DCT2188
245 x 80	Chrome	DCT2189
245 x 160	White	DCT2190
245 x 160	Chrome	DCT2191
245 x 245	White	DCT2192
245 x 245	Chrome	DCT2193



Wall/Ceiling Plate Grilles - Adjustable Vent

- Manufactured from PVC in either white or chrome.
- Designed for use when make-up air is required.
- Fixed Louvre provides maximum airflow.
- Adjustable Vent can be fully closed off when not required.

# MANROSE WALL/CEILING PLATE GRILLES

## PLATE FACE

Duct Size (mm)	Grille Type	Colour	Order Code
150	Fixed Louvre	White	DCT0352
150	Gravity Shutter	White	DCT0353
230	Fixed Louvre	White	DCT0354

- For situations where no spigot is required.



Wall/Ceiling Plate Grilles - Plate Face

# MANROSE DOOR GRILLE

Model No.	Description	Order Code
Door Vent	Internal Door Ventilator Grille	FAN0159



- This door grille allows make-up air into the room.
- Dimensions: 455mm (h) x 90mm (w) to fit door with depth of 33mm.

# MANROSE DESIGNER WALL GRILLES

## STAINLESS GRAVITY

Duct Size (mm)	Colour	Order Code
100	Stainless Steel	DCT2145
125	Stainless Steel	DCT2146
150	Stainless Steel	DCT2147



# MANROSE WALL GRILLES

## PLASTIC GRAVITY

Duct Size (mm)	Colour	Order Code
100	White	DCT0029
100	Grey	DCT0028
100	Terracotta	DCT0027
125	White	DCT0044
125	Grey	DCT0042
125	Terracotta	DCT0043
150	White	DCT0066
150	Grey	DCT0061
150	Terracotta	DCT0065
230/250	White	DCT2204
300	White	DCT1981

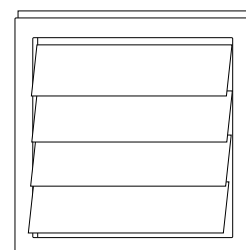
- High quality designer stainless steel finish.
- Stainless Steel Grade 304.



- Prevents back draughts & weather penetration.

## DIMENSION INFORMATION

Grille Description	Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
Designer Gravity Grille	100	150 x 150	97	52	115
Designer Gravity Grille	125	180 x 180	120	52	140
Designer Gravity Grille	150	180 x 180	145	62	160
Standard Gravity Grille	100	140 x 140	100	35	105
Standard Gravity Grille	125	162 x 162	122	25	127
Standard Gravity Grille	150	174 x 174	152	32	157
Standard Gravity Grille	230/250	285 x 285	230	29	240
Standard Gravity Grille	300	350 x 350	285	50	295



The Designer Gravity Grille requires a minimum pressure to open.

- 20Pa - 100mm (DCT2145).
- 30Pa - 125mm (DCT2146).
- 30Pa - 150mm (DCT2147).

# MANROSE WALL/CEILING GRILLES

## FIXED LOUVRE

Duct Size (mm)	Colour	Order Code
100	White	DCT0025
100	Grey	DCT0024
100	Terracotta	DCT0026
125	White	DCT0041
125	Grey	DCT0039
125	Terracotta	DCT0040
150	White	DCT0063
150	Grey	DCT0062
150	Terracotta	DCT0064
200	White	DCT0340
230/250	White	DCT0073
300	White	DCT1979



▶ 150mm Wall/Ceiling Grille  
Fixed Louvre White

- Standard grille with some weather protection.
- Removable insert for easy cleaning.

# MANROSE WALL/CEILING GRILLES

## EGGCRATE

Duct Size (mm)	Colour	Order Code
100	White	DCT0375
125	White	DCT0472
150	White	DCT0473

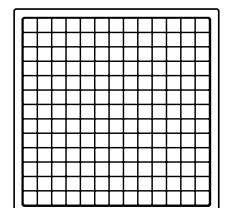
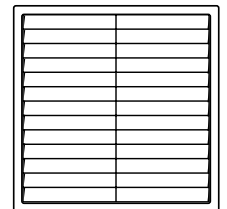


▶ 150mm Wall/Ceiling Grille  
Eggcrate White

- Improved air-flow characteristics.
- Removable insert for easy cleaning.

## DIMENSION INFORMATION

Grille Description	Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
Fixed Louvre Grille	100	140 x 140	100	35	105
Fixed Louvre Grille	125	162 x 162	122	25	127
Fixed Louvre Grille	150	174 x 174	152	32	157
Fixed Louvre Grille	200	285 x 285	199	67	240
Fixed Louvre Grille	230/250	285 x 285	230	29	240
Fixed Louvre Grille	300	350 x 350	285	50	295
Eggcrate Grille	100	140 x 140	100	34	105
Eggcrate Grille	125	162 x 162	122	24	127
Eggcrate Grille	150	175 x 175	152	34	157



# MANROSE WALL/CEILING GRILLES

## LOW PROFILE

Duct Size (mm)	Description	Colour	Order Code
100	Circular	White	DCT1089
100	Square	White	DCT2223
125	Circular	White	DCT1090
125	Square	White	DCT2224
150	Circular	White	DCT1067
150	Square	White	DCT2225

- Low Profile eggcrate design improves airflow in extraction applications.
- Twist lock fascia for easy cleaning.
- Gib fixing clips included.
- Longer spigot for easy duct connection.
- Satin Silver & Chrome fascias available.

## ACCESSORIES

Duct Size (mm)	Description	Colour	Order Code
125	Circular Fascia	Satin Silver	FAN2069
125	Square Fascia	Satin Silver	FAN2068
125	Circular Fascia	Chrome	FAN0757
125	Square Fascia	Chrome	FAN0755
125	Circular Fascia	White	FAN0748
125	Square Fascia	White	DCT1076
150	Circular Fascia	Satin Silver	FAN2070
150	Square Fascia	Satin Silver	FAN2071
150	Circular Fascia	Chrome	FAN0613
150	Square Fascia	Chrome	FAN0598
150	Circular Fascia	White	FAN0750
150	Square Fascia	White	FAN0644
125	Spigot	White	DCT1074
150	Spigot	White	FAN0656



▶ 150mm Low Profile Wall/Ceiling Grille



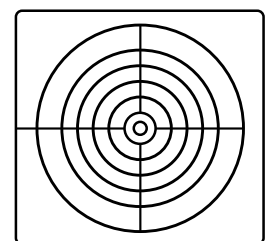
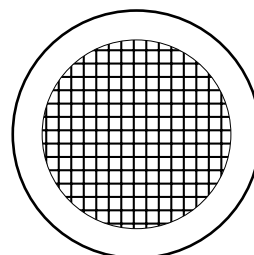
▶ 150mm Low Profile Wall/Ceiling Grille - Square/Circular



▶ Accessories

## DIMENSION INFORMATION

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
100	140	98	49	115
125	170	120	65	135
150	200	150	65	165
100	140 x 140	98	49	115
125	161 x 161	120	65	135
150	191 x 191	150	65	165



# MANROSE DESIGNER WALL/CEILING GRILLES

## SQUARE

Duct Size (mm)	Colour	Order Code
150	White	DCT2236
150	Silver	DCT2237

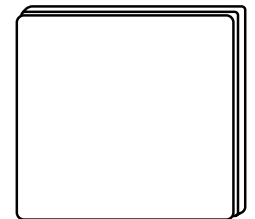
- High quality designer finish available in either white or brushed aluminium silver.
- Designed for bathroom extraction that blends into any decor.



▶ Designer Wall/Ceiling Grilles

## DIMENSION INFORMATION

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
150	191 x 191	150	65	157
150	191 x 191	150	65	157



# MANROSE WALL/CEILING GRILLES

## CIRCULAR

Duct Size (mm)	Colour	Order Code
100	White	DCT2185
125	White	DCT2186
150	White	DCT2187

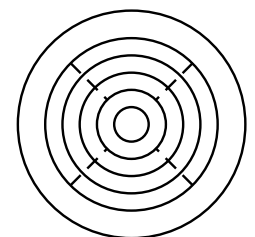
- Concentric circular grille designed for extraction.



▶ 150mm Circular Wall/Ceiling Grille

## DIMENSION INFORMATION

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
100	140	98	49	105
125	170	125	65	125
150	200	150	65	157



# UNIJET CEILING DIFFUSER

Duct Size (mm)	Colour	Order Code
150	White	DCT0500
150	Ice White	DCT2610
200	White	DCT0501
200	Ice White	DCT2611
250	White	DCT0098

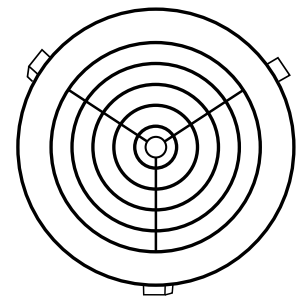


▶ Unijet Ceiling Diffuser

- Manufactured from V Zero fire rated ABS plastic AS/NZ 1530 pt 3.
- Designed to push supply air into the room as shown.
- Spring loaded fixing clips.
- Adjustable 'set and forget' damper blade.
- Resistant to scratching and fading.
- Positive lock duct tabs.

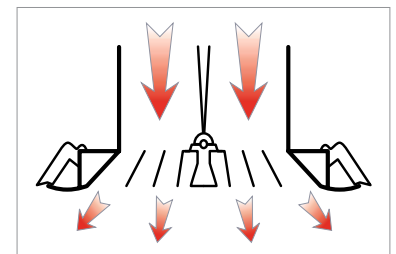
## DIMENSION INFORMATION

Unijets have been designed not to just 'dump' air straight down like other similar diffusers. The Unijet disperses the air over a greater area because its louvres are at different angles. This gives a more even temperature over a greater area.



▶ Unijet Cross Section

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
150	220	145	70	200
200	268	195	70	250
250	338	248	70	305



# MANROSE WALL/CEILING GRILLE

## MULTI-SPIGOT

Grille Type	Colour	Order Code
Fixed Louvre	White	DCT0081
Gravity Shutter	White	DCT0121

- Designed for versatility - simply cut spigot to size.
- Spigots size 125/120/110/100mm.



▶ Multi-Spigot Wall/Ceiling Grille

# CEILING DIFFUSER

## ECO DIFFUSER

Duct Size (mm)	Colour	Order Code
100	White	DCT0020
125	White	DCT0174
150	White	DCT0058
200	White	DCT0068

- Manufactured from A.B.S plastic.
- Designed for either supply or extract ventilation.
- Fixing flange included, screws required.
- Adjustable screw in centre cone.



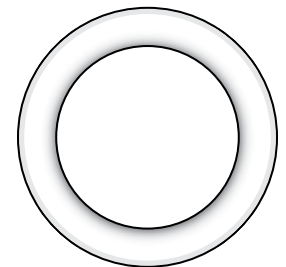
▶ 200mm Ceiling 'ECO' Diffuser

## DIMENSION INFORMATION

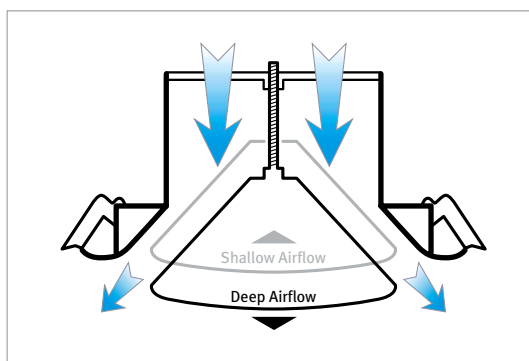
Cone Centres are designed to suit the reverse cycle systems. Cone Centres allow adjustable control of the airflow by moving the centre up or down.

This is achieved by a screwing technique. Clockwise decreases and shallows the airflow while anti-clockwise increases and deepens the airflow.

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
100	149	99	47	98
125	169	125	47	123
150	186	148	50	148
200	235	198	50	198



▶ Cone Centre Cross Section





# CEILING DIFFUSER

## CONE CENTRE

Duct Size (mm)	Colour	Order Code
150	White	DCT1472
200	White	DCT1473
250	White	DCT1474
300	White	DCT1475

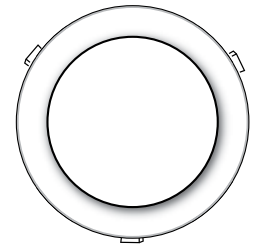
- Manufactured from ABS plastic.
- Designed for either supply or extract ventilation.
- When used to supply, the air will be pushed down into the room.
- These diffusers are used in heat transfer systems.
- Spring loaded fixing clips.
- Resistant to scratching and fading.
- Positive lock duct tabs.
- Adjustable screw in centre cone to ensure a balanced airflow.



▶ 200mm Ceiling Diffuser

### DIMENSION INFORMATION

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
150	266	150	95	232
200	317	200	95	282
250	389	250	102	355
300	400	300	102	405



# EGGCRATE ROUND DIFFUSER

Duct Size (mm)	Colour	Damper	Order Code
150	Ice White	-	DCT2594
200	Ice White	-	DCT2595
150	Ice White	included	DCT2608
200	Ice White	included	DCT2609

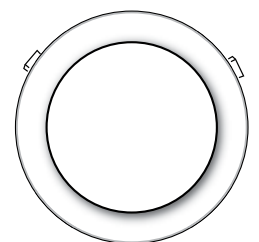
- Manufactured from ABS plastic.
- Designed for either supply or extract ventilation.
- Spring loaded fixing clips.
- Resistant to scratching and fading.
- Positive lock duct tabs.



▶ 150mm Eggcrate Round Diffuser

### DIMENSION INFORMATION

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
150	266	150	95	232
200	317	200	95	282



# MANROSE DESIGNER CEILING DIFFUSER

STAINLESS STEEL

Duct Size (mm)	Colour	Order Code
100	Stainless	DCT2139
125	Stainless	DCT2140
150	Stainless	DCT2141

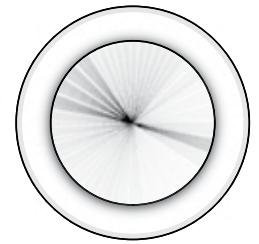
- High quality designer stainless steel finish - grade 304, Designed for internal extraction where a quality finish is required.



▶ Designer Ceiling Diffuser

## DIMENSION INFORMATION

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
100	140	97	52	105
125	172	120	52	130
150	220	145	62	150



# MANROSE FLAT CEILING DIFFUSER

LOW PROFILE

Duct Size (mm)	Colour	Order Code
150	White	DCT2208

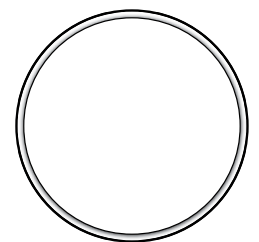
- High quality designer finish.
- Designed to supply air into your home, by pushing the air along the ceiling and down the walls. Included in Smart-Vent Home Ventilation Systems.



▶ Flat Ceiling Diffuser

## DIMENSION INFORMATION

Duct Size (mm)	Face Size (mm)	Spigot Diameter (mm)	Spigot Length (mm)	Cut-Out Size (mm)
150	220	148	80	210



# LOUVRE RETURN AIR GRILLE

(LRG)

	<b>FIXED CORE (LRG)</b>	<b>REMOVABLE CORE (LRGF)</b>
<b>Metric Size (mm)</b>	<b>Order Code</b>	<b>Order Code</b>
400 x 350	DCT1382	DCT1377
400 x 500	DCT1383	DCT1378
400 x 600	DCT1384	DCT1379
400 x 900	DCT1385	DCT1380
500 x 400	DCT1386	DCT1381



▶ Louvre Return Air Grille

- Manufactured in high quality aluminium powder coated white.
- Special sizes made to order, please state neck size required. POA.
- Indent Items.
- Two options available, fixed core (LRG) or filtered removable core (LRGF).

# DOOR RELIEF AIR GRILLE

(DRAG)

<b>Metric Size (mm)</b>	<b>Order Code</b>
450 x 150	DCT1387
450 x 200	DCT1388
450 x 250	DCT1389
450 x 300	DCT1390
450 x 450	DCT1391
600 x 150	DCT1392
600 x 200	DCT1393
600 x 250	DCT1394
600 x 300	DCT1395
600 x 350	DCT1396
600 x 400	DCT1397
600 x 450	DCT1398
600 x 600	DCT1399



▶ Door Relief Air Grille

- Natural anodised aluminium.
- Including backing flange.
- 95% light proof.
- Special sizes made to order. POA.


# UNIFLEX EGGCRATE RETURN AIR GRILLE

Neck Size (mm)	Order Code
360 x 360	DCT0806

See below for actual dimensions.

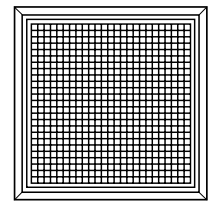
- Manufactured from high impact polystyrene.
- Removable eggcrate paragrid centre.
- Spring loaded fixing clips.
- Snap on neck adaptors see page 157.



 360 x 360mm Eggcrate Return Grill

## DIMENSION INFORMATION

Neck Size (mm)	Face Size (mm)	Neck Size (mm)	Ceiling Opening (mm)	Spigot Length (mm)
360 x 360	465	360	375	40



# UNI LOUVRE RETURN GRILLE

LRG MODEL

WITH FIXING FLANGE	NO FILTER	WITH FILTER MEDIA
Metric Size (mm)	Order Code	Order Code
375 x 550	DCT0729	DCT0805*

- Manufactured from V Zero fire rated ABS plastic AS/NZ 1530.3.
- Easy fit pressed metal fixing flange included.
- With or without filter media, G2 rated.

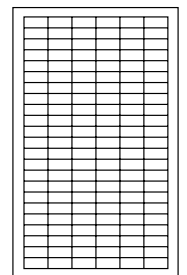
\*Filter media G2 rated where applicable.



 375 x 550mm Uni Louvre Return Grille

## DIMENSION INFORMATION

Neck Size (mm)	Face Size (mm)	Neck Size (mm)	Ceiling Opening (mm)	Spigot Length (mm)
375 x 550	428 x 603	375 x 550	384 x 560	40



# EGGCRATE RETURN GRILLE

FACE ONLY (ERG)

Neck Size (mm)	Order Code
225 x 225	DCT0759
300 x 300	DCT0760
360 x 360	DCT0797
375 x 550	DCT0798

See below for actual dimensions.

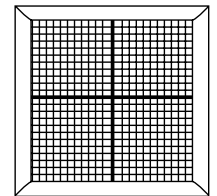
- Manufactured from high impact polystyrene.
- Resistant to scratching and fading.
- Quick fix fixing clips, no tools required.
- Aluminium eggcrate biscuits powder coated white.
- Snap on neck adaptors see page 157.

## DIMENSION INFORMATION

Neck Size (mm)	Face Size (mm)	Neck Size (mm)	Ceiling Opening (mm)	Spigot Length (mm)
225 x 225	278	214	225	40
300 x 300	348	287	300	40
360 x 360	425	360	375	40
375 x 550	422 x 600	360 x 538	375 x 550	40



▶ 300 x 300mm Eggcrate Return Grill - Face Only



# EGGCRATE RETURN GRILLE

WITH FILTER (ERHFG)

Neck Size (mm)	Order Code
300 x 300	DCT0962
360 x 360	DCT1257
550 x 550	DCT0966*
550 x 1150	DCT1113



▶ 375 x 375mm Eggcrate Return Grille with Filter

See below for actual dimensions.

- Manufactured in high quality aluminium extrusion profiles.
- Hinged removable filters.
- Flush face finish.
- Powder coated white.
- Filter media G2 rated.
- Poly neck adaptors see page 157.
- Special sizes made to order, please state neck size required. POA.

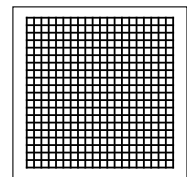
\* 595 x 595mm "lay in" T-rail grille.

## REPLACEMENT FILTER MEDIA

Metric Size (mm)	Order Code
300 x 300	DCT1025
595 x 595	DCT1026
1400 x 1000	DCT1061
Rubber Spline	DCT1062

## DIMENSIONS WITH FILTER

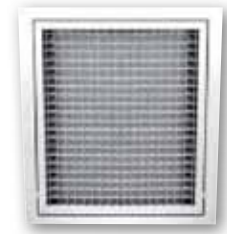
Neck Size (mm)	Face Size (mm)	Neck Size (mm)	Ceiling Opening (mm)	Spigot Length (mm)
300 x 300	340	293	305	40
360 x 360	407	360	370	40
550 x 550	595	548	560	40



# EGGCRATE RETURN GRILLE

FIXED CORE (ERG)

Neck Size (mm)	Order Code
157 x 157	DCT1989*
225 x 225	DCT2002
300 x 300	DCT2003
360 x 360	DCT2004
550 x 550	DCT2005**



▶ 300 x 300mm Eggcrate Return Grill - Fixed Core

See below for actual dimensions.

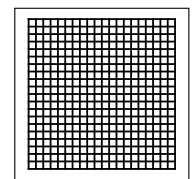
- Manufactured in high quality aluminium extrusion profiles.
- Flush face finish.
- Powder coated white.
- Poly neck adaptors see page 157.
- Special sizes made to order, please state neck size required. POA.

\* DCT1970 (157 x 157) Opposed Blade Damper (O.B.D) to suit see page 129.

\*\* 595 x 595mm "lay in" T-rail grille.

## DIMENSION INFORMATION

Neck Size (mm)	Face Size (mm)	Neck Size (mm)	Ceiling Opening (mm)	Spigot Length (mm)	Damper Fitting (mm)
157 x 157	210	157	167	32	-
225 x 225	275	222	232	32	214
300 x 300	348	295	305	32	287
360 x 360	421	368	378	32	360
550 x 550	595	542	552	32	534



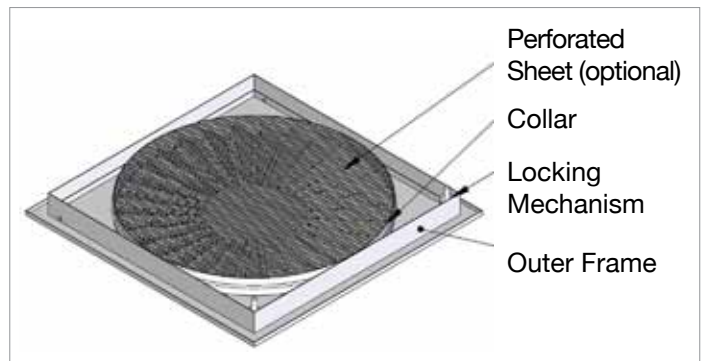
# TECHNICAL DATA

D	C	ID (nom)	PH	I	OC	IC	PL	IL	AH	CH
595	150	150	190	535	515	190	541	75	100	60
	200	200	190							
	250	250	210							
	300	300	230							
	350	350	250							

▶ Isometric Front View



▶ Isometric Back View



## PERFORMANCE DATA

Inlet Diameter (mm)	Collar Neck Vel. (m/s)	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
	Vel. Press (Pa)	2	3	4	6	8	10	13	16	19	23
150	I/s	26	35	44	53	61	70	79	88	97	106
	Tot. Press (Pa)	3	6	9	12	17	22	27	32	39	48
	NR (dB(A))	-	-	-	-	-	-	23	26	30	33
	Throw (m)	0.6 - 1.2	0.9 - 1.5	0.9 - 1.8	1.2 - 1.8	1.5 - 2.1	1.5 - 2.1	1.5 - 2.4	1.8 - 2.4	1.8 - 2.7	1.8 - 2.7
200	I/s	47	63	79	95	110	125	141	156	172	188
	Tot. Press (Pa)	4	7	12	17	23	30	37	48	55	65
	NR (dB(A))	-	-	-	21	27	31	35	38	40	41
	Throw (m)	0.6 - 1.2	0.9 - 1.5	0.9 - 2.1	1.2 - 2.1	1.5 - 2.4	1.5 - 2.7	1.8 - 2.7	2.1 - 3.0	2.1 - 3.0	2.1 - 3.4
250	I/s	74	99	124	149	171	196	220	245	270	294
	Tot. Press (Pa)	6	11	17	29	39	49	61	76	91	108
	NR (dB(A))	-	-	21	28	34	36	40	42	44	46
	Throw (m)	0.9 - 1.8	1.2 - 2.4	1.5 - 2.7	1.8 - 3.0	2.1 - 3.4	2.4 - 3.7	2.7 - 4.0	2.7 - 4.0	3.0 - 4.3	3.0 - 4.3
300	I/s	107	143	179	215	247	282	318	353	388	424
	Tot. Press (Pa)	13	23	35	51	68	90	113	141	170	214
	NR (dB(A))	-	24	30	38	41	44	47	49	51	54
	Throw (m)	1.2 - 2.4	1.5 - 3.0	1.8 - 3.4	2.4 - 4.0	2.7 - 4.3	3.0 - 4.6	3.4 - 4.6	3.7 - 4.9	3.7 - 5.2	3.9 - 5.5



# SW-2T SWIRL DIFFUSERS

Duct Size (mm)	Description	Order Code
250	SW-2T Swirl + 250mm Side Entry Box	DCT2634
250	SW-2T Swirl + 250mm Top Entry Box	DCT2614
300	SW-2T Swirl + 300mm Side Entry Box	DCT2635
300	SW-2T Swirl + 300mm Top Entry Box	DCT2613
	SW-2T Swirl Plate only	DCT2615

SW-2T series is a swirl diffuser with fixed radially arranged air control blades. This unique type of slot provides high induction “vortex” air flow, projecting horizontally from the face of diffuser. This swirling air flow produces a diffuser air distribution, with no stationary air jet resulting in excellent uniformity of temperature in air conditioned spaces.

SW-2T is suitable in area of high heat load where large quantities of cool air must be rapidly mixed with room air; areas which require high air change in a short time. The SW-2T series can also be use as a return and exhaust type device.

## Materials

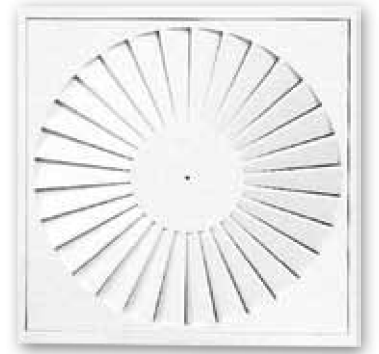
- Diffuser Face: 1.0mm thickness galvanized steel.
- Outer Frame: 1.0mm thickness galvanized steel.

## Surface Finish

White powder coated as standard.

## Features

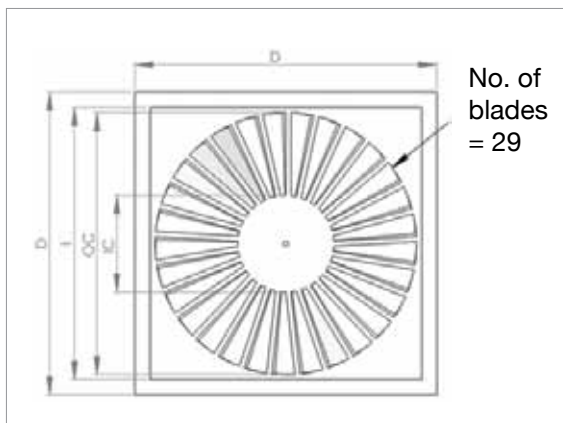
- Diffuser face can be opened without using any tools (option).
- Volume control damper is adjustable without removing ceiling panel.
- Swirl air pattern provides high induction ratio.
- High coanda effect reduces direct-throw of air on occupants.
- Standard sizes available for T-bar ceiling on metric or imperial size.



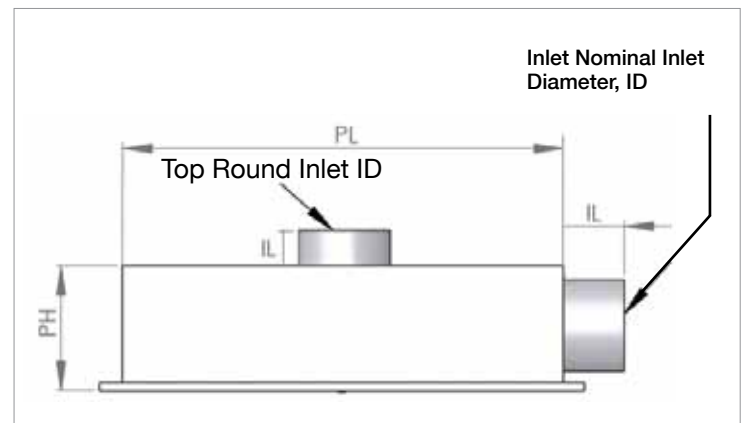
▶ SW-2T

## DIMENSION INFORMATION

▶ Top View



▶ SW-2T with Plenum Box



# TECHNICAL DATA

Neck Adaptor Size (mm)	Face Velocity (m/sec)	1.5	2	2.5	3	3.5	4	4.5	5
	Pa	9	16	26	37	50	62	83	102
300 x 100	I/s	38	51	63	75	90	102	114	129
	M <sup>3</sup> /hr	138	185	228	272	325	371	411	466
	NR (dB(A))	<15	15	23	26	30	35	41	45
300 x 150 400 x 100	I/s	56	75	94	114	133	149	168	189
	M <sup>3</sup> /hr	202	272	342	411	479	541	607	684
	NR (dB(A))	<15	15	24	28	30	35	41	46
500 x 100	I/s	66	88	111	132	155	178	200	223
	M <sup>3</sup> /hr	238	318	403	476	561	643	723	806
	NR (dB(A))	<15	15	24	28	30	35	40	46
400 x 150	I/s	77	102	128	153	178	202	230	256
	M <sup>3</sup> /hr	277	367	462	553	644	731	831	927
	NR (dB(A))	<15	16	24	27	31	35	41	46
400 x 200 500 x 150	I/s	86	128	142	169	197	225	255	284
	M <sup>3</sup> /hr	309	462	515	612	714	813	921	1029
	NR (dB(A))	<15	16	23	27	30	35	40	46
500 x 200 600 x 150	I/s	113	150	188	226	263	301	338	376
	M <sup>3</sup> /hr	408	544	680	816	952	1088	1224	1360
	NR (dB(A))	<15	17	23	27	31	35	40	46
600 x 200 800 x 150	I/s	169	226	282	348	395	451	508	573
	M <sup>3</sup> /hr	612	816	1020	125	1428	1632	1836	2074
	NR (dB(A))	<15	20	23	827	31	35	40	47
500 x 300 600 x 300 800 x 200	I/s	226	301	376	451	526	602	677	752
	M <sup>3</sup> /hr	816	1088	1360	1632	1904	2176	2448	2720
	NR (dB(A))	16	21	24	28	32	37	41	48
800 x 300	I/s	310	414	517	620	724	827	931	1034
	M <sup>3</sup> /hr	1122	1496	1870	2244	2618	2992	3366	3740
	NR (dB(A))	17	22	26	30	35	38	43	51

# DOUBLE DEFLECTION

## WALL DIFFUSER

Neck Adaptor	Fixed Core	Removable Core
Size (mm)	Order Code	Order Code
300 x 100	DCT2020*	DCT1372*
350 x 150	DCT2021*	DCT1373*
400 x 100	DCT2022	
400 x 150	DCT2023	DCT1374
400 x 200	DCT2024	DCT1375
500 x 100	DCT2025	
500 x 150	DCT2026	
500 x 200	DCT2027	
500 x 300	DCT2028	
600 x 150	DCT2029	
600 x 200	DCT2030	
600 x 300	DCT2031	
800 x 150	DCT2032	
800 x 200	DCT2033	
800 x 300	DCT2034	
800 x 400	DCT3035	

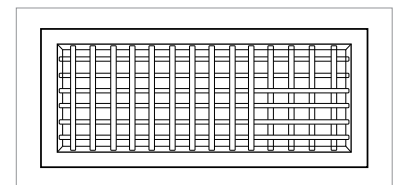
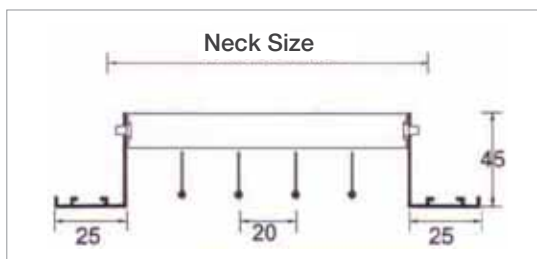


▶ 400 x 100 Double Deflection Wall Diffuser

- Manufactured in high quality aluminium extrusion profiles, powder coated white.
- Designed with nylon bushes for efficient, smooth operation.
- Deflection blades are adjustable individually.
- Standard 20mm blade spacing.
- Opposed blade dampers and removable core are available on request.
- Special sizes made to order, please state neck size required. POA.

\*Suits Poly Floor Boots - DCT0714, DCT0715, DCT0716 see page 155.

## DIMENSION INFORMATION



### Note

1. Products with the order code showing are generally ex-stock lines - other products are available to order.



Swirl Diffuser (see page 133) installed  
in BNZ Christchurch by:

**Beattie Air Conditioning**

# OPPOSED BLADE DAMPER

(O.B.D)

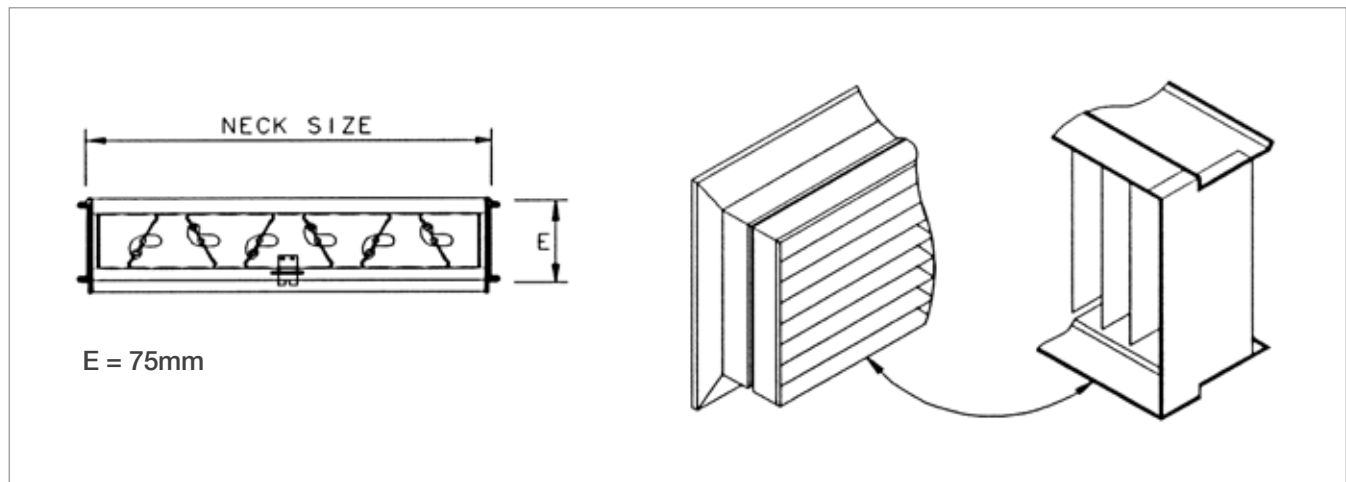
Neck Size (mm)	Order Code
150 x 150	DCT2015
157 x 157	DCT1970
225 x 225	DCT2016
300 x 300	DCT2017
360 x 360	DCT2018
450 x 450	DCT2019



▶ 225mm x 225mm Opposed Blade Damper

- Manufactured in high quality aluminium extrusion profiles.
- Designed with nylon bearings for efficient, smooth operation.
- Clips onto one piece 4-Way aluminium diffusers (see above).
- Powder coated black.
- Opposed blade damper design to ensure regulation of airflow.
- Screw type opening mechanism.
- Special sizes made to order, please state neck size, POA.

## DIMENSION INFORMATION



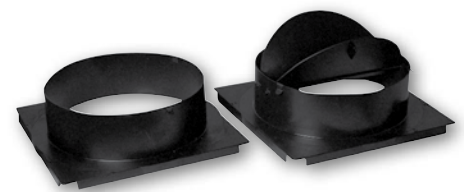
# TECHNICAL DATA

Neck Size (mm)	Neck Vel (m/s)	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
225 x 225	Flow (l/s)	44	66	88	110	132	154	176	198	221	243	265	287
	PD (Pa)	3	7	12	18	26	35	45	57	70	84	100	117
	Throw (m)	-	0.9	1.4	2.5	4.0	5.4	6.7	8.1	9.4	10.7	12.0	13.2
	NR (dB(A))	5	13	19	23	26	29	33	37	40	44	47	49
300 x 300	Flow (l/s)	81	122	162	203	244	284	325	366	406	447	487	528
	PD (Pa)	3	7	12	18	26	35	45	57	70	84	100	117
	Throw (m)	0.8	1.7	3.9	5.8	7.6	9.3	11.0	12.6	14.3	15.9	17.5	19.0
	NR (dB(A))	7	14	20	24	28	31	34	38	41	44	47	50
360 x 360	Flow (l/s)	130	194	259	324	389	454	518	583	648	713	778	842
	PD (Pa)	3	7	12	18	26	35	45	57	70	84	100	117
	Throw (m)	1.0	2.7	5.2	7.3	9.4	11.3	13.2	15.1	16.9	18.7	20.6	22.4
	NR (dB(A))	7	15	21	25	29	32	35	39	42	45	47	50

## UNIVENT ADAPTOR SIZES

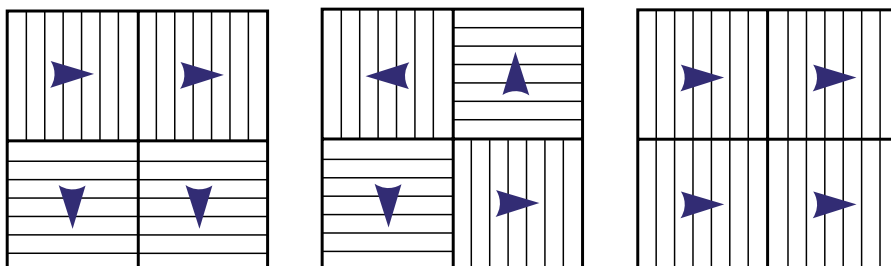
(WITH OR WITHOUT BUTTERFLY DAMPER) (mm)

- |                   |                   |
|-------------------|-------------------|
| 225 x 225 x 150 Ø | 360 x 360 x 300 Ø |
| 225 x 225 x 200 Ø | 360 x 360 x 350 Ø |
| 300 x 300 x 250 Ø | 360 x 360 x 400 Ø |
| 300 x 300 x 300 Ø | 375 x 550 x 400 Ø |
| 360 x 360 x 250 Ø | 375 x 550 x 450 Ø |



▶ Poly Adaptor & Poly Adaptor with Damper

▶ Possible airflow variations



# UNIVENT DIFFUSER

FACE ONLY (MOVING BLADE)

Neck Size (mm)	Order Code
225 x 225	DCT0762
300 x 300	DCT0495
360 x 360	DCT0761
375 x 550	DCT0791

See below for actual dimensions.



▶ Univent Diffuser - Face Only (Moving Blade)

- Manufactured from high impact polystyrene, resistant to scratching and fading.
- Minimises problems associated with cold bridging in high humidity areas.
- Quick fixing clips, no tools required.
- Adjustable airflow patterns, all blades move in unison.
- Poly neck adaptors and side entry cushion boxes see pages 156-157.

## TECHNICAL DATA

### Easier Installation

The UNIVENT simply snaps on to the adaptor, and then with thumb pressure to 4 push clips \* it attaches the diffuser neatly to the ceiling. It takes less than 20 seconds and the only tool you need is your thumb!

### Curved Unison Louvres

Each section has smooth, curved louvres to direct air flow in the chosen direction with low noise and air resistance. Each set of louvres is connected to a cam that keeps them aligned and able to move in unison through to positive shut off.

### Smooth Styling

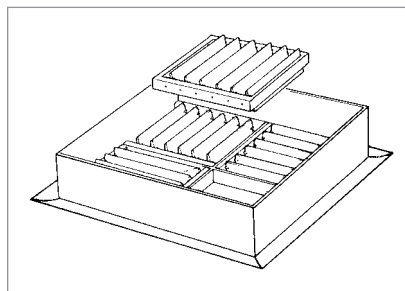
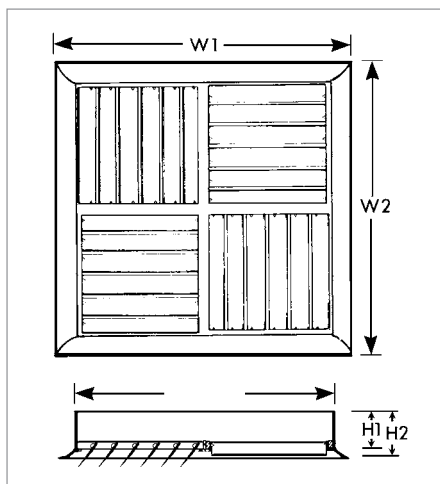
The smooth curve of the outside flange matching the louvres, gives maximum air flow potential and an attractive, unobtrusive finish to the UNIVENT that will suit most current designer colours.

- Other UNIVENT features are:
- Light weight, durable, rust free, colour fast material.
- Snap on adaptor with optional damper.
- Minimises the effects of cold bridging (condensation).
- Easy selection and setting of air flow using each assembly to direct air where you want it.
- Models to fit high demand outlet sizes.
- \*UNIVENT Clips - Reg Design No.113 120.

Nominal Size (inch)	W1	W2	Neck Size (mm)	H1	H2
9 x 9	280	280	213	52	60
12 x 12	350	350	287	52	60
15 x 15	425	425	361	57	65
15 x 22**	604	425	536x359	57	65

\*\* Consists of six adjustable blade modules.

### DIMENSION INFORMATION



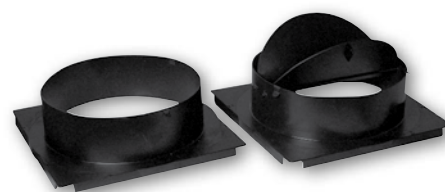
# TECHNICAL DATA

Neck Size (mm)	Neck Vel (m/s)	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
225 x 225	Flow (l/s)	-	66	88	110	132	154	176	198	221	243	265	287
	PD (Pa)	-	5	9	14	20	26	34	43	53	64	76	88
	Throw (m)	-	1.0	2.5	4.3	5.6	6.6	7.5	8.5	9.6	10.7	11.8	13.1
	NR (dB(A))	-	8	15	20	24	28	31	35	39	43	46	49
300 x 300	Flow (l/s)	-	122	162	203	244	284	325	366	406	447	487	528
	PD (Pa)	-	5	9	14	20	26	34	43	53	64	76	88
	Throw (m)	-	2.4	4.8	6.4	7.8	9.2	10.7	12.3	14.0	15.9	17.8	19.8
	NR (dB(A))	-	7	13	19	23	27	31	35	39	42	45	48
360 x 360	Flow (l/s)	-	194	259	324	389	454	518	583	648	713	778	842
	PD (Pa)	-	5	9	14	20	26	34	43	53	64	76	88
	Throw (m)	-	5.0	7.1	8.7	10.5	12.3	14.4	16.6	19.0	21.5	24.2	26.9
	NR (dB(A))	-	6	13	18	22	26	30	34	38	42	45	48

## UNIVENT ADAPTOR SIZES

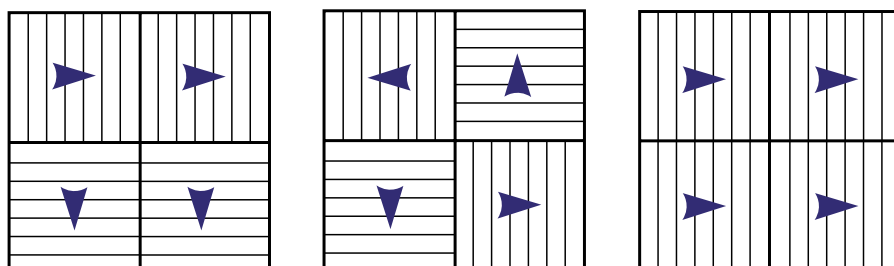
(WITH OR WITHOUT BUTTERFLY DAMPER) (mm)

225 x 225 x 150 Ø	360 x 360 x 300 Ø
225 x 225 x 200 Ø	360 x 360 x 350 Ø
300 x 300 x 250 Ø	360 x 360 x 400 Ø
300 x 300 x 300 Ø	375 x 550 x 400 Ø
360 x 360 x 250 Ø	375 x 550 x 450 Ø



▶ Poly Adaptor & Poly Adaptor with Damper

▶ Possible airflow variations





# UNIVENT DIFFUSER

FACE ONLY (FIXED BLADE)

Neck Size (mm)	Order Code
225 x 225	DCT1022
300 x 300	DCT1019
360 x 360	DCT1023
375 x 550	DCT1024

See below for actual dimensions.

- Manufactured from high impact polystyrene, resistant to scratching and fading.
- Minimises problems associated with cold bridging in high humidity areas.
- Quick fixing clips, no tools required.
- Adjustable airflow patterns.
- Poly neck adaptors and side entry cushion boxes see pages 156-157.



▶ 300 x 300 One Piece 4-Way

## TECHNICAL DATA

### Easier Installation

The UNIVENT simply snaps on to the adaptor, and then with thumb pressure to 4 push clips\* it attaches the diffuser neatly to the ceiling. It takes less than 20 seconds and the only tool you need is your thumb!

### Curved Unison Louvres

Each section has smooth, curved louvres to direct air flow in the chosen direction with low noise and air resistance. Each set of louvres is connected to a cam that keeps them aligned and able to move in unison through to positive shut off.

### Smooth Styling

The smooth curve of the outside flange matching the louvres, gives maximum air flow potential and an attractive, unobtrusive finish to the UNIVENT that will suit most current designer colours.

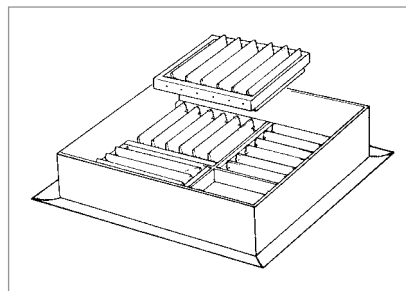
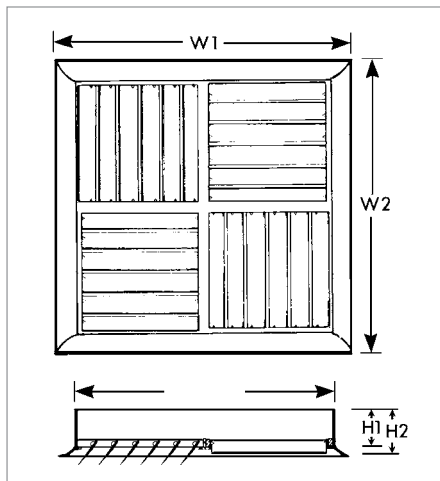
- Other UNIVENT features are:
- Light weight, durable, rust free, colour fast material.
- Snap on adaptor with optional damper.
- Minimises the effects of cold bridging (condensation).
- Easy selection and setting of air flow using each assembly to direct air where you want it.
- Models to fit high demand outlet sizes.

Nominal Size (inch)	W1	W2	Neck Size (mm)	H1	H2
9 x 9	280	280	213	52	60
12 x 12	350	350	287	52	60
15 x 15	425	425	361	57	65
15 x 22**	604	425	536 x 359	57	65

\*UNIVENT Clips - Reg Design No.113 120.

\*\*Consists of six adjustable blade modules.

## DIMENSION INFORMATION



# TECHNICAL DATA CONT.

Neck Adaptor Size (mm)	Neck Vel (m/s)	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7
150 x 150	Flow (l/s)	-	36	46	55	64	73	82	91	100	109	118	128
	PD (Pa)	-	13	19	27	37	47	59	72	86	102	119	136
	Throw (m)	-	0.8	1.2	1.4	2.9	4.4	5.6	6.6	7.6	8.5	9.4	10.2
	NR (dB(A))	-	11	15	19	22	24	27	29	32	36	38	41
225 x 225	Flow (l/s)	66	88	110	132	154	176	198	221	243	265	287	309
	PD (Pa)	7	13	19	27	37	47	59	72	86	102	119	136
	Throw (m)	0.8	2.0	4.9	7.0	8.7	10.2	11.6	12.9	14.2	15.5	16.8	18.1
	NR (dB(A))	9	15	19	23	26	29	33	37	40	43	46	48
300 x 300	Flow (l/s)	122	162	203	244	284	325	366	406	447	487	528	569
	PD (Pa)	7	13	19	27	37	47	59	72	86	102	119	136
	Throw (m)	1.8	5.6	8.0	9.9	11.5	13.1	14.7	16.3	18.0	19.7	21.4	23.2
	NR (dB(A))	12	18	22	26	29	34	38	42	45	48	51	53
360 x 360	Flow (l/s)	194	259	324	389	454	518	583	648	713	778	842	907
	PD (Pa)	7	13	19	27	37	47	59	72	86	102	119	136
	Throw (m)	4.5	7.5	9.6	11.3	13.0	14.7	16.5	18.4	20.4	22.5	24.7	27.0
	NR (dB(A))	14	20	24	28	33	38	42	46	49	52	55	57
595 x 595	Flow (l/s)	290	387	484	581	678	774	871	968	1065	1162	1258	1355
	PD (Pa)	7	13	19	27	37	47	59	72	86	102	119	136
	Throw (m)	6.4	8.7	10.4	12.0	13.8	15.7	17.8	20.0	22.3	24.8	27.4	30.0
	NR (dB(A))	16	22	26	31	37	41	45	49	52	55	58	61

# ONE PIECE 4-WAY

## DIFFUSER

Neck Size (mm)	Order Code
150 x 150	DCT2006
225 x 225	DCT2007
300 x 300	DCT2008
360 x 360	DCT2009
450 x 450	DCT2010*



▶ 300 x 300 One Piece 4-Way

- One piece pressed aluminium, powder coated white.
- Removable core, no joints, smooth airflow.
- Poly neck adaptors and side entry cushion boxes see pages 156-157.

\* 595 x 595mm "lay in" T-rail diffuser

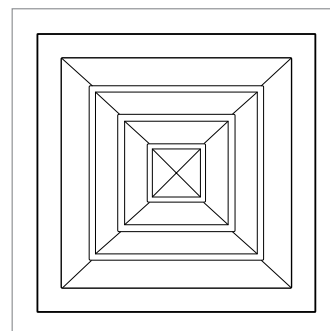
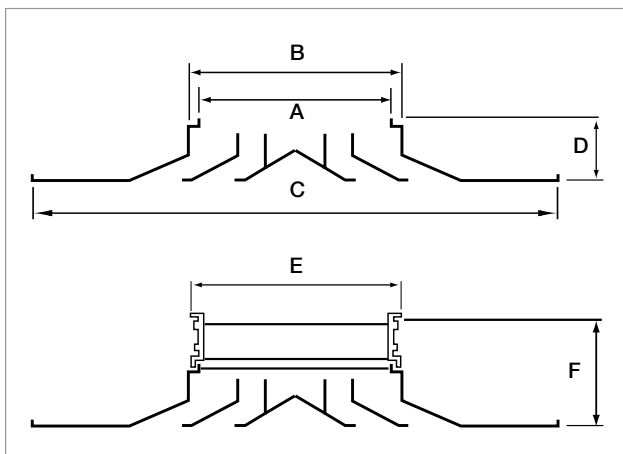
See below for actual dimensions.

## TECHNICAL DATA

- One Piece Diffusers.
- Manufactured from aluminium sheets in one piece, no joints, smooth airflow.
- Easily removable internal core assembly for ease of installation.
- Negligible resistance to airflow.
- Powder coated white.

## DIMENSION INFORMATION

Neck Size (mm)	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	F(mm)
150 x 150	131	144	290	45	137	85
225 x 225	207	220	365	45	212	85
300 x 300	278	294	440	45	285	85
360 x 360	355	369	515	45	360	85
450 x 450	430	444	595	45	435	85



# ONE PIECE PLAQUE DIFFUSER

Neck Size (mm)	Order Code
225 x 225	DCT2012
300 x 300	DCT2013
360 x 360	DCT2014

- One piece pressed aluminium, powder coated white
- Removable core, no joints, smooth airflow
- Poly neck adaptors and side entry cushion boxes see pages 156-157.
- 595 x 595mm "lay in" T-rail diffuser

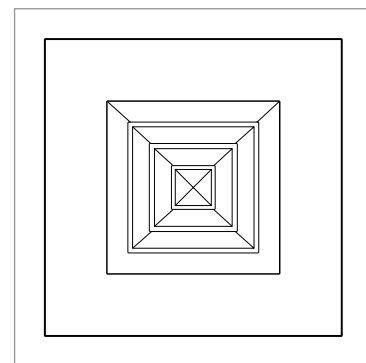
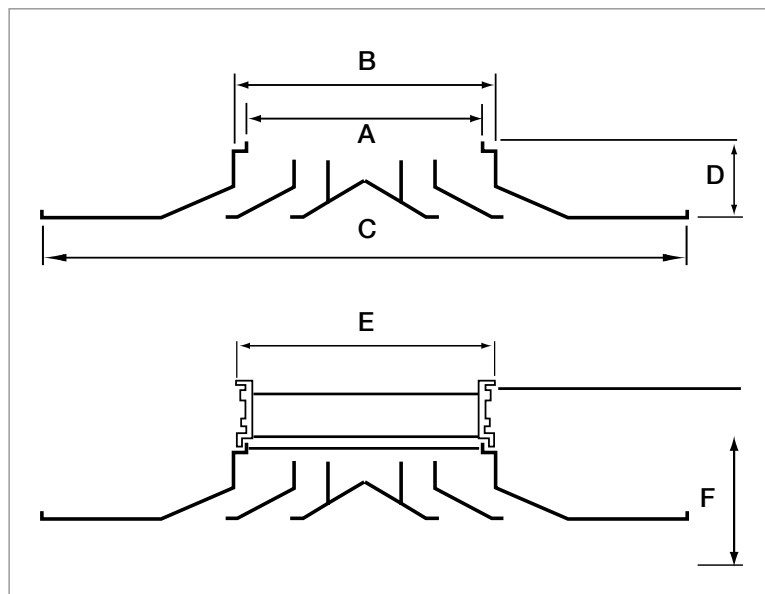
See below for actual dimensions.

## TECHNICAL DATA

### DIMENSION INFORMATION

Neck Size (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
225 x 225	207	220	595	45	212	85
300 x 300	278	294	595	45	285	85
360 x 360	355	369	595	45	360	85

### Dimensions



▶ 300 x 300 One Piece Plaque Diffuser

- For airflow performance see page 124.

# CD2000 ONE PIECE

## 4-WAY DIFFUSER



CD2000 One Piece - 4 Way Diffuser

Neck Size (mm)	Order Code
225 x 225	DCT0792
300 x 300	DCT0468
360 x 360	DCT0793
450 x 450	DCT0794*

\* 595 x 595mm "lay in" T-rail diffuser.

See below for actual dimensions.

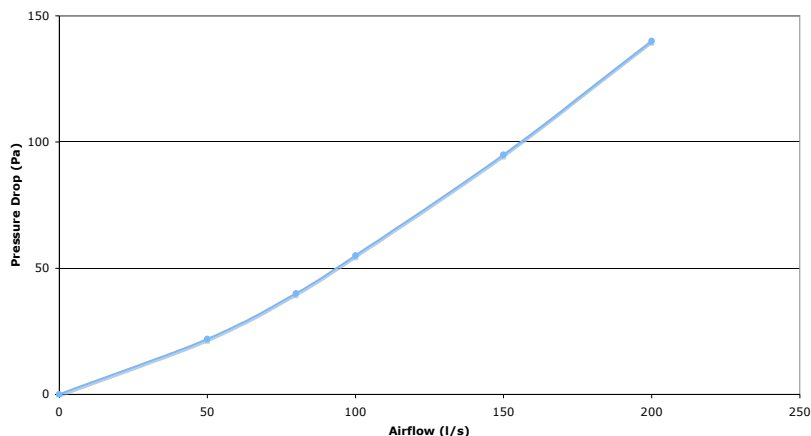
- Manufactured from v-zero fire rated ABS plastic. AS/NZ 1530.3.
- Resistant to scratching and fading.
- Minimises problems associated with cold bridging in high humidity areas.
- Spring loaded fixing clips.
- Poly neck adaptors and side entry cushion boxes see pages 156-157.

## TECHNICAL DATA

Neck Adaptor Size (mm)	Neck Vel (m/s)	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5
225 x 225	Flow (l/s)	-	66	88	110	132	154	176	198	221	243	265	287
	PD (Pa)	-	10	18	27	38	51	66	83	101	121	143	166
	Throw (m)	-	0.8	1.7	3.8	5.7	7.4	8.9	10.2	11.4	12.3	13.1	13.7
	NR (dB(A))	-	< 8	< 15	20	24	29	33	38	41	45	48	50
300 x 300	Flow (l/s)	-	118	157	196	235	274	314	353	392	431	470	510
	PD (Pa)	-	10	18	27	38	51	66	83	101	121	143	166
	Throw (m)	-	1.7	4.4	6.9	9.1	11.0	12.6	13.9	15.0	15.8	16.4	16.9
	NR (dB(A))	-	< 11	< 18	23	27	31	36	40	44	47	50	53
360 x 360	Flow (l/s)	126	189	252	315	378	441	504	567	630	693	756	819
	PD (Pa)	5	10	18	27	38	51	66	83	101	121	143	166
	Throw (m)	1.5	4.8	8.2	11.2	13.7	15.8	17.4	18.7	19.6	20.3	20.8	21.0
	NR (dB(A))	1	13	20	25	29	34	38	42	46	49	52	56
595 x 595	Flow (l/s)	185	277	370	462	555	647	740	832	925	1017	1109	1202
	PD (Pa)	5	10	18	27	38	51	66	83	101	121	143	166
	Throw (m)	3.8	8.2	12.3	15.7	18.5	20.7	22.4	23.7	24.5	25.1	25.4	25.5
	NR (dB(A))	6	15	22	27	31	36	40	44	48	51	54	57

# TECHNICAL DATA

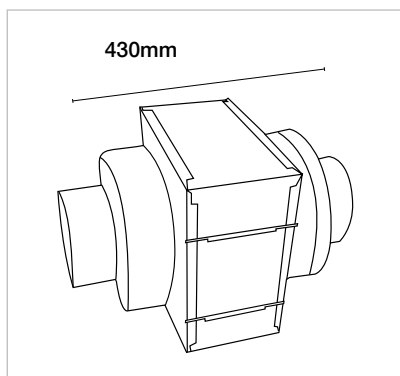
## RESISTANCE CURVE



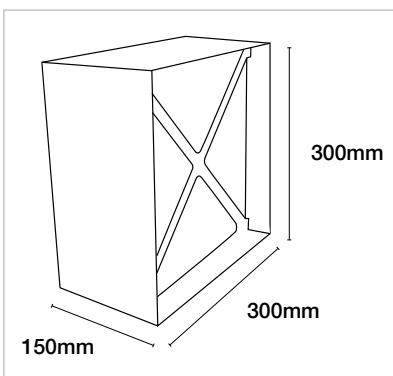
▶ Resistance Curve Graph

The resistance curve has been constructed from numerical and empirical measurements of the pressure drop across the filter for a range of in-line duct flow rates.

▶ F7 In-Line Filter

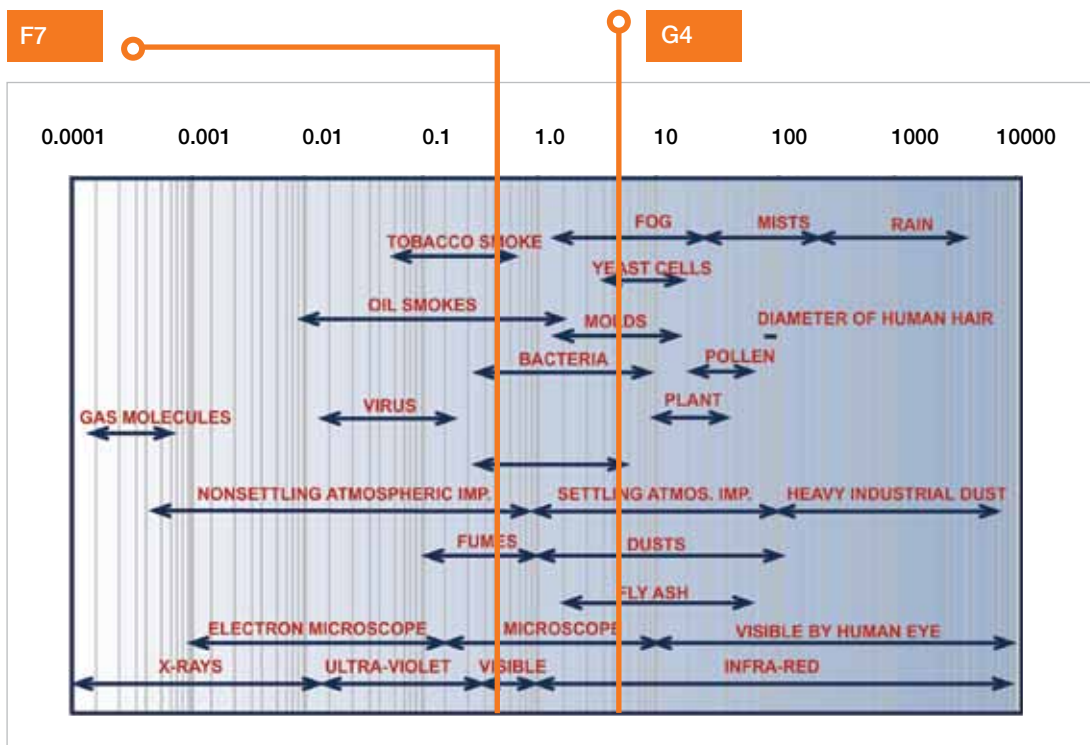


▶ Replacement F7 Filter



## FILTER CLASSIFICATION

▶ Filter Classification of Common Air Contaminants (shown in micrometres)



# IN-LINE FILTERS

FOR SMART-VENT

## IN-LINE FILTERS

Duct Size (mm)	Filter	Order Code	Duct Size (mm)	Filter	Order Code
150	F7	DCT2076	150	HEPA/Carbon	DCT2281
200	F7	DCT2075	200	HEPA/Carbon	DCT2282
150	G4	DCT2073	150	F7/Carbon	DCT2279
200	G4	DCT0009	200	F7/Carbon	DCT2280

## REPLACEMENT IN-LINE FILTER CARTRIDGE

Duct Size (mm)	Filter	Suits Filter Size (mm)	Order Code
300 x 300	F7	150/200	DCT2093
225 x 225	G4	150	DCT2221
300 x 300	G4	200	DCT2222
300 x 300	HEPA/Carbon	150/200	DCT2278
300 x 300	F7/Carbon	150/200	DCT2277



F7 In-Line Filter

This high quality F7 filter captures pollens, dust and allergens from the air. Over its life the filter will, as an average, have an 80-90% arrestance on particles 0.4 microns in size and above.

The filter cassette is held in a frame of silicon impregnated cardboard which is fitted with two plastic neck adaptors to facilitate maintenance and replacement. This design also permits a range of duct sizes for the same filter cassette.

- Other filters available, please enquire.



Replacement F7 Filter

## SOCK FILTER MEDIA

Duct Size (mm)	Filter	Order Code
150	G4	DCT1411

## SOCK FILTER FRAME

Duct Size (mm)	Filter	Order Code
150	G4	DCT1412



G4 Sock Filter

G4 grade sock filter is a quality filter, to filter out dust and pollens from the air. Over its life the filter will, as an average, have 90% arrestance of particles of 5 microns in size and above.

# MOTORISED DIRECTIONAL T-BRANCH DAMPER

Duct Size (mm)	Order Code
150	DCT1495
200	DCT1500

- Standard 240V Drive Open, Drive Close (D.O.D.C) motor attached.
- Manufactured from A.B.S plastic.
- Single damper motor & paddle control to direct airflow into or from selected branch.
- Designed for both dual supply air and extract air applications.
- Aesthetic smooth lines.



▶ 150mm Motorised Directional T-Branch Damper

# MOTORISED BARREL DAMPER

Duct Size (mm)	Order Code
150	DCT1168
200	DCT1123
250	DCT1124
300	DCT1125
350	DCT1126
400	DCT1127

- Standard 240V Drive Open, Drive Close (D.O.D.C) motor attached.
- Other voltages available upon request.
- Manufactured from HDPE.
- Braced for strength with 2 x 6mm steel rod rings.
- 100% positive shut off and positive lock duct tabs.
- Insulation meets AS 1530 part 3.



▶ Note: These are insulated

# MANUAL BARREL DAMPER

Duct Size (mm)	Order Code
150	DCT0787
200	DCT0706
250	DCT0788
300	
350	
400	

- Manufactured from HDPE.
- Complete with hand quadrant.
- Braced for strength with 2 x 6mm steel rod rings.
- Positive lock duct tabs.
- Insulation meets AS 1530 part 3.

**Note**

1. Products with the "order code" showing are generally ex. stock lines - other products are available to order.
2. Nude combination fittings will be supplied in component form. We do NOT assemble.
3. Insulated versions may not be ex-stock but will generally be available within 2-3 days of ordering.
4. Should you have an ongoing requirement for an item that is not a standard stock line - PLEASE discuss with us and we will review stocking the item for you.



▶ Note: These are insulated



# DUCT SILENCERS

Duct Size (mm)	Length (mm)	Order Code
100		
125	600	DCT2617
150	600	DCT2090
160		
200	600	DCT2630
350		
400		



▶ 150mm x 600mm Duct Silencer

- Easily fitted for circular ducts.
- Effectively reduces noise in the duct.
- More than one silencer can be used together in installations, where noise reduction is a particularly strong requirement.
- Other sizes available on request.

## TECHNICAL DATA

Easily-fitted silencer for circular ducts, fitted with a connection that complies with the spiral duct standard. The Duct Silencer effectively reduces noise in the duct.

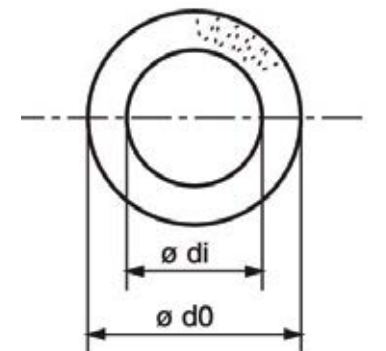
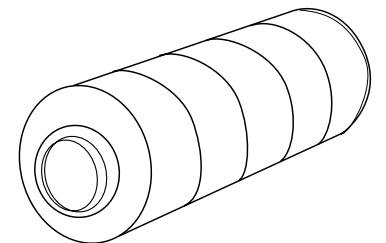
Two silencers can be used together in installations where noise reduction is a particularly strong requirement.

This is very effective for the most effective noise reduction, the silencer should be fitted immediately behind the fan or bend.

The silencer should be used together with an insulated fan where there is a requirement for noise reduction both in the duct and in the surroundings as a whole.

### Noise suppression DB (mid-frequency Hz)

LDC	63	125	250	500	1k	2k	4k	8k
100-300	2	2	6	14	21	25	20	11
100-600	4	3	11	24	36	49	34	17
100-900	5	4	15	34	50	50	48	23
100-1200	6	5	19	45	50	50	50	29
125-600	3	3	9	23	30	40	22	14
125-900	4	4	12	33	45	50	30	17
125-1200	5	5	15	43	50	50	38	21
150-600	-	3	7	20	27	31	16	11
160-600	2	3	7	19	27	29	14	11
160-900	2	4	10	28	42	43	20	15
200-600	2	3	7	16	21	23	9	8
200-900	2	4	8	24	32	34	13	10
250-600	3	2	7	13	17	16	8	6
250-900	3	4	8	20	26	23	10	8
315-600	0	2	6	11	14	9	4	5
315-900	1	3	7	16	22	12	6	7
355-900	-	3	6	13	18	10	6	7
400-900	1	3	5	10	13	7	5	6



# FITTING JOINERS

POLY	
Duct Size (mm)	Order Code
150	DCT1217
200	DCT1218
250	DCT1219
300	DCT1220
350	
400	



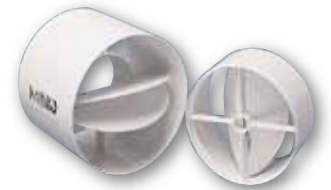
▶ 250mm Fitting Joiner

- Unique joiner - designed to connect one fitting to another fitting.
- Push-on fit.

# MANROSE IN-LINE

## BACKDRAUGHT SHUTTERS

Duct Size (mm)	PVC	METAL
	Order Code	Order Code
100	FAN0213	
125	DCT0036	
150	DCT0511	
200		DCT2092



▶ 150mm PVC In-Line Backdraught Shutter

### Note

1. Products with the "order code" shown are generally ex. stock lines - other products are available to order.
2. Nude combination fittings will be supplied in component form. We do NOT assemble.
3. Insulated versions may not be ex-stock but will generally be available within 2-3 days of ordering.
4. Should you have an ongoing requirement for an item that is not a standard stock line - PLEASE discuss with us and we will review stocking the item for you.

# REDUCERS

	PVC	POLY	INSULATED	METAL
Duct Size (mm)	Order Code	Order Code	Order Code	Order Code
125-100	DCT2067			
150-100	DCT2122			
150-125	DCT2066			
200-125				DCT0084
200-150		DCT0486	DCT0901	
225-150				DCT0078
250-150				DCT0162
250-200		DCT0487	DCT0902	
300-250		DCT0488	DCT0903	
350-300		DCT0489	DCT0904	
400-350		DCT0490	DCT0905	
450-300		DCT0773	DCT0916	



▶ PVC Plastic



▶ Poly/Insulated/Metal

- Poly - High Density Polyethylene (HDPE).
- Heavy duty, robust, positive lock duct tabs.

# DUCT JOINERS/SPIGOTS

	PVC	METAL LONG	METAL SHORT	METAL PLATE SPIGOTS
Duct Size (mm)	Order Code	Order Code	Order Code	Order Code
100	DCT0159			
125			DCT0037	
150		DCT0723	DCT0059	DCT0935
200		DCT0724	DCT0071	DCT0939
250		DCT0725	DCT0339	DCT0940
300		DCT0726		
350		DCT0770		
400		DCT0771		
450		DCT0772		
500		DCT1157		



▶ Metal Long



▶ PVC Plastic



▶ Metal Short



▶ Metal Plate Spigots

- Heavy duty, robust, positive lock duct tabs.

## Note

1. Products with the "order code" shown are generally ex. stock lines - other products are available to order.
2. Nude combination fittings will be supplied in component form. We do NOT assemble.
3. Insulated versions may not be ex-stock but will generally be available within 2-3 days of ordering.
4. Should you have an ongoing requirement for an item that is not a standard stock line - PLEASE discuss with us and we will review stocking the item for you.

# DOUBLE BRANCH TAKE OFF

(D.B.T.O)

	POLY	INSULATED
Duct Size (mm)	Order Code	Order Code
200-150-150-150	DCT0090	DCT0889
250-150-150-150	DCT0467	DCT0890
250-200-150-150	DCT0480	DCT0891
250-200-200-150		
250-200-200-200	DCT1422	DCT0973
250-250-150-150		
250-250-200-150		
300-200-150-150	DCT0466	DCT0892
300-200-200-150		
300-200-200-200	DCT0481	DCT0893
300-250-150-150		
300-250-200-150		
300-250-200-200	DCT0482	DCT0894
300-250-250-150		
300-250-250-200		
300-250-250-250	DCT0722	DCT0895
300-300-150-150		
300-300-200-150		
300-300-200-200	DCT0483	DCT0896
300-300-250-200		
300-300-300-300		
350-250-150-150		
350-250-200-150		
350-250-200-200	DCT0470	DCT0897
350-250-250-150		
350-250-250-200		
350-250-250-250	DCT0469	DCT0898
350-300-150-150		
350-300-200-150		
350-300-200-200	DCT2060	DCT2061
350-300-250-150		
350-300-250-200		
350-300-250-250	DCT0484	DCT0899



▶ 200-200-200 Double Branch Take Off

- Manufactured from HDPE.
- UV stabilised.
- Heavy duty, robust.
- Smooth internal lines.
- No sharp edges.
- Positive lock duct tabs.
- Insulation meets AS1530 part 3.
- Insulation material LDPE, thickness 5mm.

	POLY	INSULATED
Duct Size (mm)	Order Code	Order Code
350-300-300-150		
350-300-300-200		
350-300-300-250		
350-300-300-300		
350-350-150-150		
350-350-200-150		
350-350-200-200	DCT0485	DCT0900
350-350-250-200		
350-350-250-250		
350-350-300-150		
350-350-350-200		
350-350-350-300		
350-350-350-350		

## Note

1. Products with the "order code" showing are generally ex. stock lines - other products are available to order.
2. Combinations of sizes which are not ex. stock can be made up using a suitable body and the relevant reducers and fitting joiners poly.
3. Nude combination fittings will be supplied in component form. We do NOT assemble.
4. Insulated versions may not be ex-stock but will generally be available within 2-3 days of ordering.
5. Should you have an ongoing requirement for an item that is not a standard stock line - PLEASE discuss with us and we will review stocking the item for you.

# BRANCH TAKE OFF

(B.T.O)

	POLY	INSULATED	METAL
Duct Size (mm)	Order Code	Order Code	Order Code
100-100-100	DCT1439		
125-125-125	DCT1501		
150-150-100			DCT0080
150-150-150	DCT0091	DCT0875	
200-150-150	DCT0719	DCT0876	
200-200-150	DCT0460	DCT0877	
200-200-200	DCT0461	DCT0878	
250-150-150	DCT1063	DCT0967	
250-200-150	DCT1064		
250-200-200	DCT0462	DCT0879	
250-250-150	DCT0463	DCT0880	
250-250-200	DCT0720	DCT0881	
250-250-250	DCT0464	DCT0882	
300-200-150			
300-200-200	DCT1129	DCT1130	
300-250-150			
300-250-200	DCT0721	DCT0883	
300-250-250	DCT0730	DCT0884	
300-300-150			
300-300-200	DCT0978	DCT1094	
300-300-250	DCT0979	DCT1015	
300-300-300	DCT0491	DCT0885	
350-250-150			
350-250-200			
350-250-250	DCT0465	DCT0886	
350-300-150			
350-300-200	DCT0915	DCT0945	
350-300-250			
350-300-300	DCT0493	DCT0887	
350-350-150			
350-350-200			
350-350-250			
350-350-300			
350-350-350	DCT0492	DCT0888	



▶ 200-200-200 Branch Take Off

- Manufactured from HDPE.
- UV stabilised.
- Heavy duty, robust.
- Smooth internal lines.
- No sharp edges.
- Positive lock duct tabs.
- Insulation meets AS 1530 part 3.
- Insulation material LDPE, thickness 5mm.

## Note

1. Products with the "order code" showing are generally ex. stock lines - other products are available to order.
2. Combinations of sizes which are not ex. stock can be made up using a suitable body and the relevant reducers and fitting joiners poly.
3. Nude combination fittings will be supplied in component form. We do NOT assemble.
4. Insulated versions may not be ex-stock but will generally be available within 2-3 days of ordering.
5. Should you have an ongoing requirement for an item that is not a standard stock line - PLEASE discuss with us and we will review stocking the item for you.

# 'Y' BRANCH

	PVC	POLY	INSULATED	METAL
Duct Size (mm)	Order Code	Order Code	Order Code	Order Code
100-100-100	DCT2182			
125-125-125	DCT2183			
150-100-100				DCT0079
150-125-125				DCT0707
150-150-150	DCT2184	DCT1233		
200-150-150		DCT0379	DCT0865	
200-200-200		DCT0376	DCT0955	
250-150-150				
250-200-200		DCT0471	DCT0866	
250-250-250				
300-200-200				
300-250-250		DCT0717	DCT0868	
300-300-300		DCT0494	DCT0869	
350-250-250		DCT1433	DCT1034	
350-300-300		DCT0718	DCT0870	
350-350-350		DCT0776	DCT0871	
400-250-250				
400-300-300		DCT0777	DCT0872	
400-350-300		DCT0813	DCT0873	
400-350-350		DCT0778	DCT0874	
400-400-350		DCT1116	DCT1128	
400-400-400				
450-300-300				
450-350-300				
450-350-350				
450-400-300				
450-400-350				
450-400-400				
450-450-300				
450-450-350				
450-450-400				
450-450-450				
500-400-350				
500-400-400				
500-450-400				
500-450-450				



▶ 100-100-100 PVC 'Y' Branch

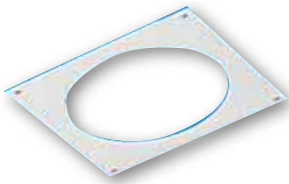
- Manufactured from HDPE.
- UV stabilised.
- Heavy duty, robust.
- Smooth internal lines.
- No sharp edges.
- Positive lock duct tabs.
- Insulation meets AS1530 part 3.
- Insulation material LDPE  
- thickness 5mm.

## Note

1. Products with the "order code" shown are generally ex. stock lines - other products are available to order.
2. Combinations of sizes which are not ex. stock can be made up using a suitable body and the relevant reducers and fitting joiners poly.
3. Nude combination fittings will be supplied in component form.  
We do NOT assemble.
4. Insulated versions may not be ex-stock but will generally be available within 2-3 days of ordering.
5. Should you have an ongoing requirement for an item that is not a standard stock line - PLEASE discuss with us and we will review stocking the item for you.

# MANROSE LOW PROFILE

## DUCT FITTINGS



WALL/CEILING PLATES  
ROUND

Dimension (mm)	Order Code
155 x 155 : 104 ø	DCT0148
170 x 170 : 130 ø	DCT0149
200 x 200 : 160 ø	DCT0150



WALL/CEILING PLATES  
RECTANGULAR

Dimension (mm)	Order Code
155 x 155 : 110 x 55	DCT0016
264 x 118 : 206 x 60	DCT0528



EXTERNAL TUBE GRILLE

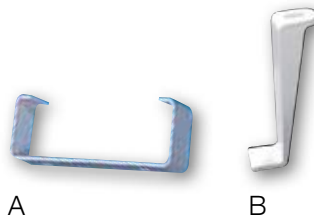
Diameter (mm)	Order Code
100	DCT2206

Designed to fit directly into round solid tube, for systems ducted straight through an external wall.



EXTERNAL LOUVRED  
GRILLES

Diameter (mm)	Order Code
100	DCT2200
125	DCT2201
150	DCT2202



FLAT CHANNEL CLIPS

Dimension (mm)	Order Code
110 x 54 (A)	DCT0134
204 x 60 (A)	DCT0527
220 x 90 (B)	DCT1445*
300 x 25 (B)	DCT1458*

\*2 clips are required to secure ducting.



ELBOW BENDS 100mm

Dimension (mm)	Order Code
110 x 54	DCT0124 (m)
110 x 54	DCT0015 (f)
204 x 60	DCT0521
220 x 90	DCT1444
300 x 25	DCT2095



ELBOW BENDS 125mm

Dimension (mm)	Order Code
204 x 60	DCT0522
220 x 90	DCT1440*
300 x 25	DCT2096

\*Rotating offset spigot



ELBOW BENDS 150mm

Dimension (mm)	Order Code
204 x 60	DCT0523
220 x 90	DCT1441*

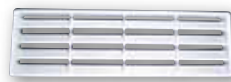
\*Rotating offset spigot

(m) = Male (f) = Female



HORIZONTAL BEND ADJUSTABLE

Dimension (mm)	Order Code
204 x 60	DCT1480



HORIZONTAL AIRBRICK INSERT

Dimension (mm)	Order Code
204 x 60	DCT0137



VERTICAL AIRBRICK INSERT

Dimension (mm)	Order Code
204 x 60	DCT1414

**Duct connection requires the following Reducer or Connector:**

110 x 54: requires: DCT0136

204 x 60: requires: DCT0520

**Comes complete with duct connector DCT0520.**



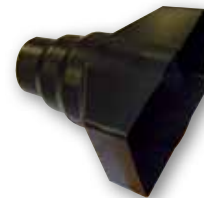
DOUBLE AIRBRICK

Dimension (mm)	Order Code
232 x 138	DCT1450



DOUBLE AIRBRICK ADAPTOR

Dimension (mm)	Order Code
220 x 90:232 x 138	DCT1451



DOUBLE AIRBRICK REDUCER

Dimension (mm)	Order Code
235 x 140	DCT1453



# MANROSE LOW PROFILE

## DUCT FITTINGS



### LOW PROFILE CONNECTORS

Dimension (mm)	Order Code
110 x 54	DCT0014
204 x 60	DCT0520
220 x 90	DCT1442
300 x 25	DCT1459



### HORIZONTAL 90° BENDS

Dimension (mm)	Order Code
110 x 54	DCT0125
204 x 60	DCT0524
220 x 90	DCT1448
300 x 25	DCT2097



### VERTICAL 90° BENDS

Dimension (mm)	Order Code
110 x 54	DCT0126
204 x 60	DCT0525
220 x 90	DCT1447
300 x 25	DCT2099



### HORIZONTAL 45° BEND

Dimension (mm)	Order Code
300 x 25	DCT2098



### VERTICAL 45° BEND

Dimension (mm)	Order Code
300 x 25	DCT1455



### HORIZONTAL T-PIECE CONNECTORS

Dimension (mm)	Order Code
110 x 54	DCT1479
204 x 60	DCT1114



### SHORT ADAPTER RECTANGULAR: ROUND

Dimension (mm)	Order Code
110 x 54 : 100	DCT0127 (f)
110 x 54 : 100	DCT0131 (m)

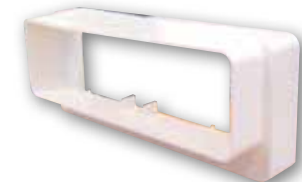
(m) = Male

(f) = Female



### ADAPTERS RECTANGULAR: ROUND

Dimension (mm)	Order Code
110 x 54 : 100	DCT1482
204 x 60 : 125	DCT0526
220 x 90 : 150	DCT1446
300 x 25 : 100	DCT1461



### FLAT CHANNEL REDUCERS

Dimension (mm)	Order Code
110 x 54:204 x 60	DCT0136
204 x 60:220 x 90	DCT1452
300 x 25:204 x 60	DCT1456

Designed to fit 204 x 60mm flat channel or airbrick.

# MANROSE

## SOLID TUBE

### SOLID TUBE - RIGID STEEL

Diameter (mm)	Length (m)	Finish	Order Code
100	0.9	Galvanised	DCT0151
100	0.9	White	DCT0145
125	0.9	Galvanised	DCT0152
125	0.9	White	DCT0146
125	1.2	Galvanised	DCT0953
150	0.9	Galvanised	DCT0153
150	0.9	White	DCT0147
150	1.2	Galvanised	DCT0954



▶ Acoustic Insulated R0.6 (40mm)

### SOLID TUBE - WHITE PLASTIC

Diameter (mm)	Length (m)	Finish	Order Code
100	0.9	PVC	DCT1424
125	0.9	PVC	DCT1425
150	0.9	PVC	DCT1426

# MANROSE LOW PROFILE DUCTING

## FLAT CHANNEL

Dimension (mm)	Equivalent Size (mm)	Length (m)	Order Code
110 x 54	100	1.5	DCT0013
204 x 60	125	1.5	DCT0519
220 x 90	150	1.5	DCT1443
300 x 25	100	1.5	DCT1460



▶ 204 x 60 Low Profile Ducting Flat channel

Low profile ducting enables it to be concealed when installed along the top of wall units. It can also be fitted in ceiling voids and cavity walls, providing versatility whilst remaining unobtrusive. All Manrose system parts and channels are made from flame-retardant material.

#### Four Low Profile System Sizes

##### 110mm x 54mm:

Suitable for applications requiring low extraction rates, such as ventilation of domestic bathrooms and toilets.

With a 5940mm<sup>2</sup> cross-section it provides efficient ducting for short, straight runs connecting to a 100mm round spigot.

##### 204mm x 60mm:

Suitable for ducting of kitchen cooker hoods with 100, 125 or 150mm round exhaust spigots. The flat channel cross section of 12240mm<sup>2</sup> increases efficiency.

##### High Performance 220mm x 90mm:

Suitable for applications requiring high performance extraction or supply. The flat channel cross section of 19800mm<sup>2</sup> makes it highly efficient and higher extraction rates are achieved.

##### Flat Ducting 300mm x 25mm:

Suitable for applications where space is very limited.

# MANROSE PVC

## FLEXIBLE DUCTING

Diameter (mm)	Length (m)	Pack	Order Code
100	1	Header Carded	DCT0936
	3	Boxed	DCT0336
125	1	Header Carded	DCT0937
	4	Boxed	DCT0337
150	1	Header Carded	DCT0938
	5	Boxed	DCT0338

P.V.C Flexible Duct is a product that is extremely versatile in the ventilation industry. It doesn't rot, is non-collapsing, is fire resistant, has an operating temperature of +6° to +50° and is available in a range of sizes from 100mm to 150mm.

- Fully complies to AS1530 Building code.
- **DUCT CORE:** Spiral wire reinforced PVC film construction.
- Non-collapsing/non-rotting.
- Vapour-proof.
- Fire retardant.
- **TEMPERATURE RANGE:** Maximum: +50°C : Minimum: 6°C.
- **COLOUR:** White PVC.
- Ducting installation tips see page 88-93.



▶ 150mm PVC Flexible Ducting

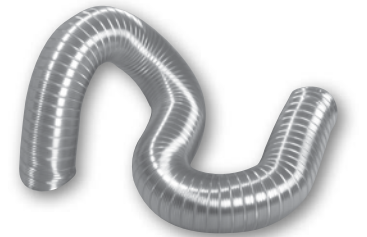
# SEMIDUCT SEMI RIGID

## DUCTING

Diameter (mm)	Length (m)	Pack	Order Code
100	1.5	Boxed	DCT0333
	3	Loose	DCT0114
125	1.5	Boxed	DCT0334
	3	Loose	DCT0115
150	1.5	Boxed	DCT0335
	3	Loose	DCT0116
200	3	Loose	DCT0117
250	3	Loose	DCT0118
300	3	Loose	DCT0119
350	3	Loose	DCT0120
400	3	Loose	DCT0477

SEMIDUCT is also known as semi-rigid aluminium ducting is a lightweight, flexible but strong corrugated aluminium duct. It is spiral wound with a unique interlocked and knotted continuous seam. It is self supporting over longer lengths and generally only needs fittings or mechanics at each end for support.

- Fully complies to the New Zealand Building Code.
- **DUCT Core:** Pure aluminium spiral wound with a unique interlocked and knurled continuous seam.
- Holds shape, self supporting.
- **TEMPERATURE RANGE:** Maximum: +250°C, Minimum: -30°C.
- **COLOUR:** Silver.
- Ducting installation tips see page 88-93.



▶ Semiduct Semi Rigid Ducting

# UNILOK FR1 QUADROFLEX DUCTING

Diameter (mm)	Length (m)	NUDE	INSULATED FR1 R0.6	*ACOUSTIC FR1 R0.6
		Order Code	Order Code	Order Code
200	3	DCT1276	DCT1300	DCT1312
	6	DCT1282	DCT1306	DCT1318
250	3	DCT1277	DCT1301	DCT1313
	6	DCT1283	DCT1307	DCT1319
300	3	DCT1278	DCT1302	DCT1314
	6	DCT1284	DCT1308	DCT1320
350	3	DCT1279	DCT1303	DCT1315
	6	DCT1285	DCT1309	DCT1321
400	3	DCT1280	DCT1304	DCT1316
	6	DCT1286	DCT1310	DCT1322
450	3	DCT1281	DCT1305	DCT1317
	6	DCT1287	DCT1311	DCT1323



▶ Nude



▶ Insulated R0.6 (40mm)



▶ Acoustic Insulated R0.6 (40mm)

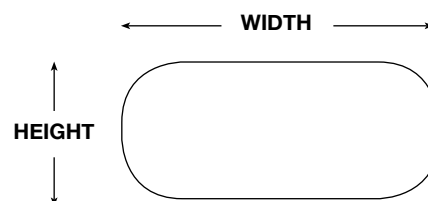
QUADROFLEX has been specifically designed to fit into false ceilings, between floors and low ground clearance applications.

- Special Purpose Ovalised Ducting.
- Fully complies to AS4254 & AS4508 & AS1530 Pt3 and New Zealand Building Code.
- Fully flexible same mechanical construction as standard UNILOK ducting.
- **DUCT CORE:** A UV resilient fire retardant 100µm black low density polyethylene material mechanically locked into an outer metal helix with a copper coated spring steel wire. Acoustic duct's polyethylene material is perforated.
- **DUCT SLEEVE:** Fire retardant 75µm black low density polyethylene and UV stabilised.
- **DUCT INSULATION R0.6:** AS4508 Polyester R0.6 nominal 250 g/m<sup>2</sup> 40mm thick.
- **TEMPERATURE RANGE:** Maximum: +80°C, Minimum: -10°C.
- Acoustic Duct is designed for low air noise transfer.
- **COLOUR:** Black.
- Ducting installation tips see page 88-93.

## TECHNICAL DATA

Equivalent Round Duct Size (mm)	Width (mm)	Height (mm)
200	260	140
250	325	160
300	380	200
350	435	240
400	470	310
450	555	320

▶ Add approximately 80-140mm to these sizes to allow for insulation.

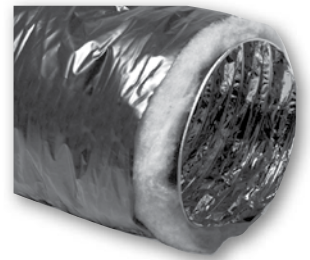


Refer to page 94 for ducting colour coding.

\*R1 Insulated and Acoustic Insulated Quadroflex Ducting available on request .

# V-FLEX FLEXIBLE DUCTING

Diameter (mm)	Length (m)	NUDE	INSULATED R0.6	INSULATED R1.0
		Order Code	Order Code	Order Code
100	3	DCT1051		
	6	DCT1050		
150	3	DCT0662	DCT0601	DCT0849
	6	DCT0663	DCT0602	DCT0850
200	3	DCT0664	DCT0603	DCT0851
	6	DCT0665	DCT0604	DCT0852
250	3	DCT0666	DCT0605	DCT0853
	6	DCT0667	DCT0606	DCT0854
300	3	DCT0668	DCT0607	DCT0855
	6	DCT0669	DCT0608	DCT0856
350	3	DCT0670	DCT0609	DCT0857
	6	DCT0671	DCT0610	DCT0858
400	3	DCT0672	DCT0611	DCT0859
	6	DCT0673	DCT0612	DCT0860
450	3	DCT0674	DCT0613	DCT0861
	6	DCT0676	DCT1107	
500	3	DCT0677	DCT0615	DCT0862
	6	DCT0678		
550	3	DCT0679	DCT0617	
600	3	DCT0680	DCT0618	



▶ Nude



▶ Insulated R0.6 (40mm)



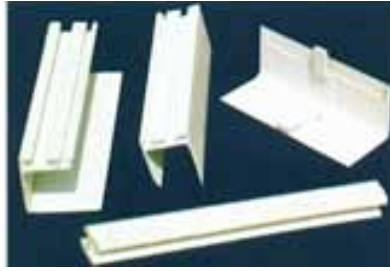
▶ Insulated R1.0 (70mm)

- Fully complies to AS4254 & AS4508.
- **DUCT CORE:** Reinforced multiple layered metallised PET encapsulating copper coated spring steel wire helix. Bonded by fire retardant resin.
- **DUCT INSULATION R0.6:** AS4508 Polyester R0.6 nominal 250 g/m<sup>2</sup> 40mm thick.
- **DUCT INSULATION R1.0:** AS4508 Polyester R1.0 nominal 450 g/m<sup>2</sup> 70mm thick.
- **DUCT SLEEVE:** Fire retardant 75µm black low density polyethylene and UV stabilised.
- **TEMPERATURE RANGE:** Maximum: +80°C, Minimum: -10°C.
- COLOUR: Silver with black sleeve.
- Ducting installation tips see page 88-93.

# PRE-INSULATED PANEL ACCESSORIES



▶ Zinc Coated (90°), Ball Joint Damper, Shaped Disc



▶ Tee Connector, Invisible Flange, Covering Angle, Bayonet



▶ F Section Aluminium, Chair Section Aluminium

## Applications

- Anywhere insulated sheet metal ducting is used.

## Tools

- Cutting Knives - Angled and Straight.
- Manual Bender.
- Cutting Table.

## PRODUCT DESIGNATION

Order Code	Description
DCT2569	B 4000 Pu Board R1.0 4000 X 1200 X 20mm
DCT2568	B 4000 Pu Board R1.0 Blk 4000 X 1200 X 20mm
DCT2567	BI 4000 Pir Board R1.5 4000 X 1200 X 20mm
DCT2566	BI 4000 Pir Board R1.5 Blk 4000 X 1200 X 20mm
DCT2565	IFE Invisible Flange Extrusion PVC 4.0m
DCT2564	CR Corner Reinforcement (Zinc Coated)
DCT2563	SD Shaped Disc Aluminium
DCT2562	RB Reinforcement Bar Aluminium 4.0m
DCT2561	CA Cover Angle PVC
DCT2560	BE Bayonet 4m PVC
DCT2559	IF90E Invisible Flange 90° PVC 4.0m

# SIMX PRE-INSULATED PANEL

Pre-Insulated panel is a double skin pre-insulated sandwich panel composed of three layers. The internal layer is either a PU - Polyurethane or PIR - Polyisocyanurate.

## B4000 (R1.0) 20mm THICK POLYURETHANE

<b>Sheet Size</b>	4000mm x 1200mm
<b>Thickness of Panel</b>	20mm
<b>Outer Layer</b>	75 micron aluminium
<b>Density Of Polyurethane</b>	70.3Kg/m <sup>3</sup> +/- 2
<b>Compressive Strength</b>	200N/mm <sup>2</sup>
<b>Thermal Conductivity</b>	0.021 W/m C
<b>Fire Rating</b>	0,0,0,1
<b>Friction Coefficient</b>	0.0135
<b>Working Temperature</b>	-60 + 80 °C
<b>Humidity Range</b>	0-100%
<b>Max Pressure Drop In Duct</b>	2000pa
<b>Max Airflow</b>	12m/s
<b>Weight</b>	1.4kg/m <sup>2</sup>

## IB4000 (R1.5) 20mm THICK POLYISOCYANURATE

<b>Sheet Size</b>	4000mm x 1200mm
<b>Thickness of Panel</b>	20mm
<b>Outer Layer</b>	75 micron aluminium
<b>Density Of Polyisocyanurate</b>	52Kg/m <sup>3</sup> +/- 2
<b>Compressive Strength</b>	200N/mm <sup>2</sup>
<b>Thermal Conductivity</b>	0.0117 W/m C
<b>Fire Rating</b>	0,0,0,1
<b>Friction Coefficient</b>	0.0135
<b>Working Temperature</b>	-60 + 80 °C
<b>Humidity Range</b>	0-100%
<b>Max Pressure Drop In Duct</b>	2000pa
<b>Max Airflow</b>	12m/s
<b>Weight</b>	1.04kg/m <sup>2</sup>

Simx Pre-Insulated Aluminium Panel is consistent in its density throughout the sheet. The outer foil is applied in the initial manufacturing process. This gives consistency across the whole sheet and ensures the foil does not delaminate.

- Light-weight - Ease of handling and minimizes weight requirements, especially rooftop plant rooms.
- Ease of fabrication - On site adjustments done with ease.
- Corrosion resistant - Minimal effects due to external elements.
- Relative Cost - Overall installation costs are lower than metal ducting.

### SMARTDUCT JOINERS

	SMART4	SMART8
Size (mm)	Order Code	Order Code
150	DCT2412	DCT2418
200	DCT2413	DCT2419
250	DCT2414	DCT2420
300	DCT2415	DCT2421
350	N/A	DCT2422
400	DCT2416	DCT2423
500	DCT2417	N/A

### END CAPS

	SMART4	SMART8
Size (mm)	Order Code	Order Code
150	DCT2424	DCT2430
200	DCT2425	DCT2431
250	DCT2426	DCT2432
300	DCT2427	DCT2433
350	N/A	DCT2434
400	DCT2428	DCT2435
500	DCT2429	N/A

### TAKE-OFFS

SMART4	
Size (mm)	Order Code
150	DCT2554
200	DCT2555
250	DCT2556
300	DCT2557

### 45° BENDS

	SMART4	SMART8
Size (mm)	Order Code	Order Code
150	DCT2436	DCT2442
200	DCT2437	DCT2443
250	DCT2438	DCT2444
300	DCT2439	DCT2445
350	N/A	DCT2446
400	DCT2440	DCT2447
500	DCT2441	N/A

### INSTALLATION TOOLS

Description	Order Code
500mL Glue	DCT2448
22.5° Cutting Tool	DCT2449
Blades	DCT2450
22.5° ABS Square	DCT2451



# SMARTDUCT™ DUCTING

Diameter (mm)	Length (m)	SMART4	SMART8
		Order Code	Order Code
150	1.2	DCT2400	DCT2406
200	1.2	DCT2401	DCT2407
250	1.2	DCT2402	DCT2408
300	1.2	DCT2403	DCT2409
350	1.2		DCT2410
400	1.2	DCT2404	DCT2411
500	1.2	DCT2405	

SmartDuct is a revolutionary way to duct. It is based on unique construction and installation procedures.

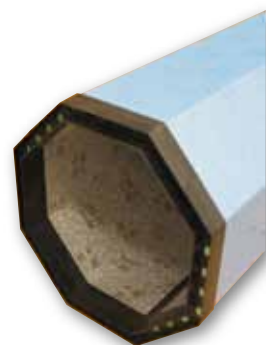
Characterised by simple assembly and fast installation, both of which will ensure cost advantages over standard insulated rigid ducting.

SmartDuct consists of pre-cut panels ready to be assembled with a supplied bayonet to create a labyrinth type joint.

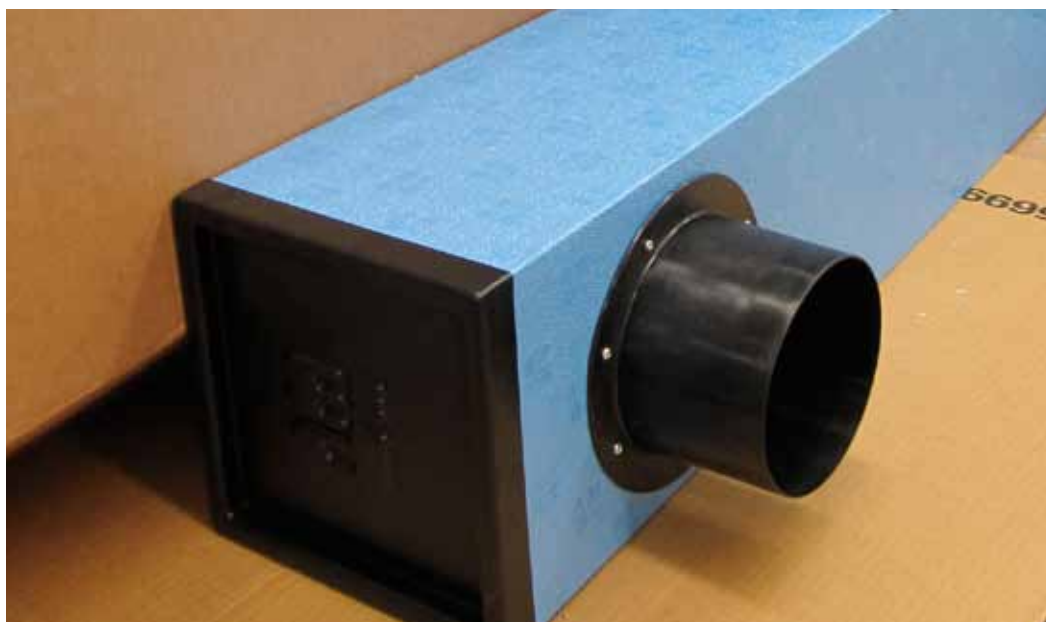
- Pre insulated aluminium ducting.
- Cost effective.
- Light weight.
- Fast assembly.
- Low pressure drop.
- Internal bactericidal coating.
- Green water blown foam.
- R=0.55.
- Fire Rated to AS 1530.3-1999 & UL181.11-2005.



▶ SMART4 with Take Off



▶ SMART8





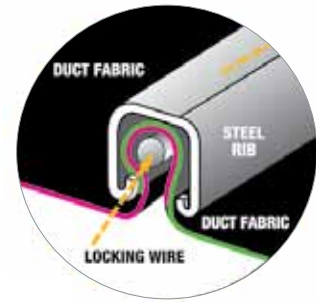
Copies of these reports are available on request



## Unilok-FR1

### The Choice is Yours

No matter what type of unit you purchase, inferior flexible duct with poor quality insulation will severely effect the efficiency and increase the running costs of your system.



### A Few Facts About Ducting and AS 4254

(AUSTRALIAN STANDARD 4254)

- To fully comply to AS 4254 eleven tests must be passed.
- Unilok FR1 passes Australian Duct Standard 4254.
- Unilok FR1 passes Australian Insulation Standard 4508.
- Unilok FR1 is available in acoustic.
- Unilok FR1 is manufactured from a tough Fire Retarded Low Density Polyethylene materials.
- **Unilok FR1** duct core's outer steel rib mechanically locks together see picture, ensuring it's integrity and correct diameter even in the tightest bends. The mechanically formed steel rib is not prone to glue failure or fatigue (sagging or ovalizing) from vibration with age like plastic rib or non ribbed glued duct.\*
- **Unilok FR1** is insulated with a user friendly, safe polyester fibre blanket. Available in two insulation weights and thicknesses - 250 grams per m<sup>2</sup> at 40mm thick as standard.  
- 450 grams per m<sup>2</sup> at 70mm thick on application.  
All insulation used by Westaflex / Uniflex on their flexible duct complies to Australian Insulation Standard AS 4508.
- **Unilok FR1** had further accelerated testing to determine resistance to U.V. (Ultra Violet Lighting) After the equivalent of 10 to 20 years of exposure the plastic duct core material felt like new.
- **Unilok FR1** was exposed to four times the required test weight of AS 4254 with no interference to the integrity of the duct. (Tension test UL 181.9 conducted by C.S.I.R.O)

*The bitterness of poor quality remains long after the sweetness of a low price has been forgotten.*

\*When installed to manufacturers specifications.



www.securimax.co.nz

# UNILOK

## FR1 ACOUSTIC DUCTING

Diameter (mm)	Length (m)	INSULATED R0.6	INSULATED R1.0
		Order Code	Order Code
100	3	DCT1216	DCT1268
	6		
125	3	DCT1164	DCT1176
	6	DCT1224	
150	3	DCT0633	DCT0833
	6	DCT0634	DCT0834
200	3	DCT0635	DCT0835
	6	DCT0636	DCT0836
250	3	DCT0637	DCT0837
	6	DCT0638	DCT0838
300	3	DCT0639	DCT0839
	6	DCT0640	DCT0840
350	3	DCT0641	DCT0841
	6	DCT0642	DCT0842
400	3	DCT0643	DCT0843
	6	DCT0644	DCT0844
450	3	DCT0645	DCT0845
500	3	DCT0647	DCT0846
550	3	DCT0649	
600	3	DCT0650	



▶ Acoustic Insulated R0.6 (40mm)



▶ Acoustic Insulated R1.0 (70mm)

UNILOK FR1 Acoustic Ducting is a flexible duct manufactured “tough” & “whisper quiet” for consumer & installer peace of mind. Unlike other types of flexible duct, UNILOK FR1 has an outer steel rib that ensures the products integrity, and correct diameter, even in the tightest bends. Due to its steel rib, it is not prone to glue failure or fatigue (sagging or ovalisation) from vibration with age like plastic ribbed or non-ribbed glued duct.

- Fully complies to AS4254 & AS4508 & AS1530 Pt3 and NZ Building Code.
- Designed for Low noise air transfer.
- Fully flexible same mechanical construction as standard Unilok ducting.
- **DUCT CORE:** A UV resilient fire retardant 100µm black low density polyethylene perforated material mechanically locked into an outer metal helix with a copper coated spring steel wire.
- **DUCT SLEEVE:** Fire retardant 75µm black low density polyethylene and UV stabilised.
- **DUCT INSULATION R0.6:** AS4508 Polyester R0.6 nominal 250 g/m<sup>2</sup> 40mm thick.
- **DUCT INSULATION R1.0:** AS4508 Polyester R1.0 nominal 450 g/m<sup>2</sup> 70mm thick.
- **TEMPERATURE RANGE:** Maximum: +80°C, Minimum: -10°C.
- Ducting installation tips see page 88-93.

### Insertion Loss, dB Octive Band Centre Frequency

Sample	125	250	500	1000	2000	4000	8000
150mm UNILOK FR1 R0.6 AI	35.5	39.2	36.0	30.3	29.8	31.5	22.5
300mm UNILOK FR1 R0.6 AI	33.3	35.9	27.3	31.0	28.1	17.0	12.2
400mm UNILOK FR1 R0.6 AI	36.1	30.0	20.6	27.2	26.0	12.7	10.5

#### Note:

1. Products with the “order code” shown are generally ex. stock lines - other products are available to order

2. Should you have an ongoing requirement for an item that is not a standard stock line – PLEASE discuss with us and we will review stocking the item for you.

# UNILOK FR1 DUCTING

Diameter (mm)	Length (m)	NUDE	INSULATED FR1 R0.6	INSULATED FR1 R1.0
		Order Code	Order Code	Order Code
100	3	DCT1133	DCT1144	
	6	DCT1198	DCT1202	
125	3	DCT1134	DCT1469	
	6	DCT1143	DCT1204	
150	3	DCT0561	DCT0583	DCT0817
	6	DCT0562	DCT0584	DCT0818
200	3	DCT0563	DCT0585	DCT0819
	6	DCT0564	DCT0586	DCT0820
250	3	DCT0565	DCT0587	DCT0821
	6	DCT0566	DCT0588	DCT0822
300	3	DCT0567	DCT0589	DCT0823
	6	DCT0568	DCT0590	DCT0824
350	3	DCT0569	DCT0591	DCT0825
	6	DCT0570	DCT0592	DCT0826
400	3	DCT0571	DCT0593	DCT0827
	6	DCT0572	DCT0594	DCT0828
450	3	DCT0573	DCT0595	DCT0829
	6	DCT0574	DCT0596	
500	3	DCT0575	DCT0597	DCT0830
	6	DCT0576		
550	3	DCT0577	DCT0599	
600	3	DCT0578	DCT0600	



▶ Nude



▶ Insulated R0.6 (40mm)



▶ Insulated R1.0 (70mm)

UNILOK FR1 is a flexible duct manufactured “tough” for consumer & installer peace of mind. Unlike other types of flexible duct, UNILOK FR1 has an outer steel rib that ensures the products integrity and correct diameter, even in the tightest bends.

Due to its steel rib, it is not prone to glue failure or fatigue (sagging or ovalisation) from vibration with age like plastic ribbed or non-ribbed glued duct.



- Fully complies to AS4254 & AS4508 & AS1530 Pt3 and New Zealand Building Code.
- **DUCT CORE:** A UV resilient fire retardant 100µm black low density polyethylene material mechanically locked into an outer metal helix with a copper coated spring steel wire.
- **DUCT SLEEVE:** Fire retardant 75µm black low density polyethylene and UV stabilised.
- **DUCT INSULATION R0.6:** AS4508 Polyester R0.6 nominal 250 g/m<sup>2</sup> 40mm thick.
- **DUCT INSULATION R1.0:** AS4508 Polyester R1.0 nominal 450 g/m<sup>2</sup> 70mm thick.
- **TEMPERATURE RANGE:** Maximum: +80°C, Minimum: -10°C.
- **COLOUR:** Black.
- Ducting installation tips see page 88-93.

1. Refer to page 94 for ducting colour coding.

2. Products with the “order code” shown are generally ex. stock lines  
- other products are available to order

3. Should you have an ongoing requirement for an item that is not a standard stock line – PLEASE discuss with us and we will review stocking the item for you.

# COMFLEX PREMIUM FLEXIBLE DUCTING

Diameter (mm)	Length (m)	PREMIUM NUDE	PREMIUM INSULATED
		Order Code	Order Code
100	3	DCT0215	DCT0452
	6	DCT0104	
125	3	DCT0216	DCT0453
	6	DCT0160	
150	3	DCT0217	DCT0427
	6	DCT0107	DCT0428
200	3	DCT0218	DCT0429
	6	DCT0109	DCT0430
250	3	DCT0219	DCT0431
	6	DCT0421	DCT0432
300	3	DCT0111	DCT0433
	6	DCT0422	DCT0434
350	3	DCT0112	DCT0435
	6	DCT0423	DCT0436
400	3	DCT0113	DCT0437
	6	DCT0424	DCT0438



▶ Nude



▶ Insulated R0.6 (40mm)

- Fully complies to AS4254 & AS4508 & AS1530 Pt3 and New Zealand Building Code.
- **DUCT CORE:** Polyester film core with aluminium foil laminated onto both sides.
- This composite film is then permanently bonded onto a corrosion resistant coated, spring steel wire helix.
- **DUCT SLEEVE:** Fire retardant 75µm black low density polyethylene and UV stabilised.
- **DUCT INSULATION:** AS4508 Polyester R0.6 nominal 250 g/m<sup>2</sup> 40mm thick.
- **TEMPERATURE RANGE:** Nude Core - Maximum: +150°C, Minimum: -30°C.
- **COLOUR:** Silver with black sleeve.

## Note

Refer to page 94 for ducting colour coding.

No glued/adhesive duct should be installed in a compressed or ovalised state for fear of long term failure.

# ALUDUCT/COMFLEX FLEXIBLE DUCTING

Diameter (mm)	Length (m)	MANROSE ALUDUCT	COMFLEX NUDE	COMFLEX INSULATED
		Order Code	Order Code	Order Code
100	1	DCT0357		
	3	DCT0328	DCT0367	
	6		DCT0409	
125	1	DCT0358		
	3	DCT0329	DCT0368	
	6		DCT0410	
150	1	DCT0359		
	3	DCT0330	DCT0369	DCT0088
	6		DCT0411	DCT0399
200	3	DCT0331	DCT0377	DCT0089
	6		DCT0412	DCT0343
250	3	DCT0332	DCT0370	DCT0400
	6		DCT0413	DCT0344
300	3		DCT0380	DCT0401
	6		DCT0414	DCT0402
350	3		DCT0415	DCT0403
	6		DCT0416	DCT0404
400	3		DCT0417	DCT0405
	6		DCT0418	DCT0406



▶ Nude



▶ Insulated

- Fully complies to AS 4254 & AS 4508 & AS 1530 Pt3 and New Zealand Building Code.
- **DUCT CORE:** Aluminium foil laminated onto polyester film, permanently bonded onto a corrosion resistant coated, spring steel wire helix.
- **DUCT SLEEVE:** Fire retardant 75µm black low density polyethylene and UV stabilised.
- **DUCT INSULATION:** AS4508 Polyester R0.6 nominal 250 g/m<sup>2</sup> 40mm thick.
- **TEMPERATURE RANGE:** Maximum: +80°C, Minimum: -10°C.
- **COLOUR:** Silver with black sleeve.

## Note

All 1 metre lengths are packed in bags with header cards, 3 metre aluduct duct is supplied boxed and all other items are supplied in colour coded bags, see page 94 for colour coding.

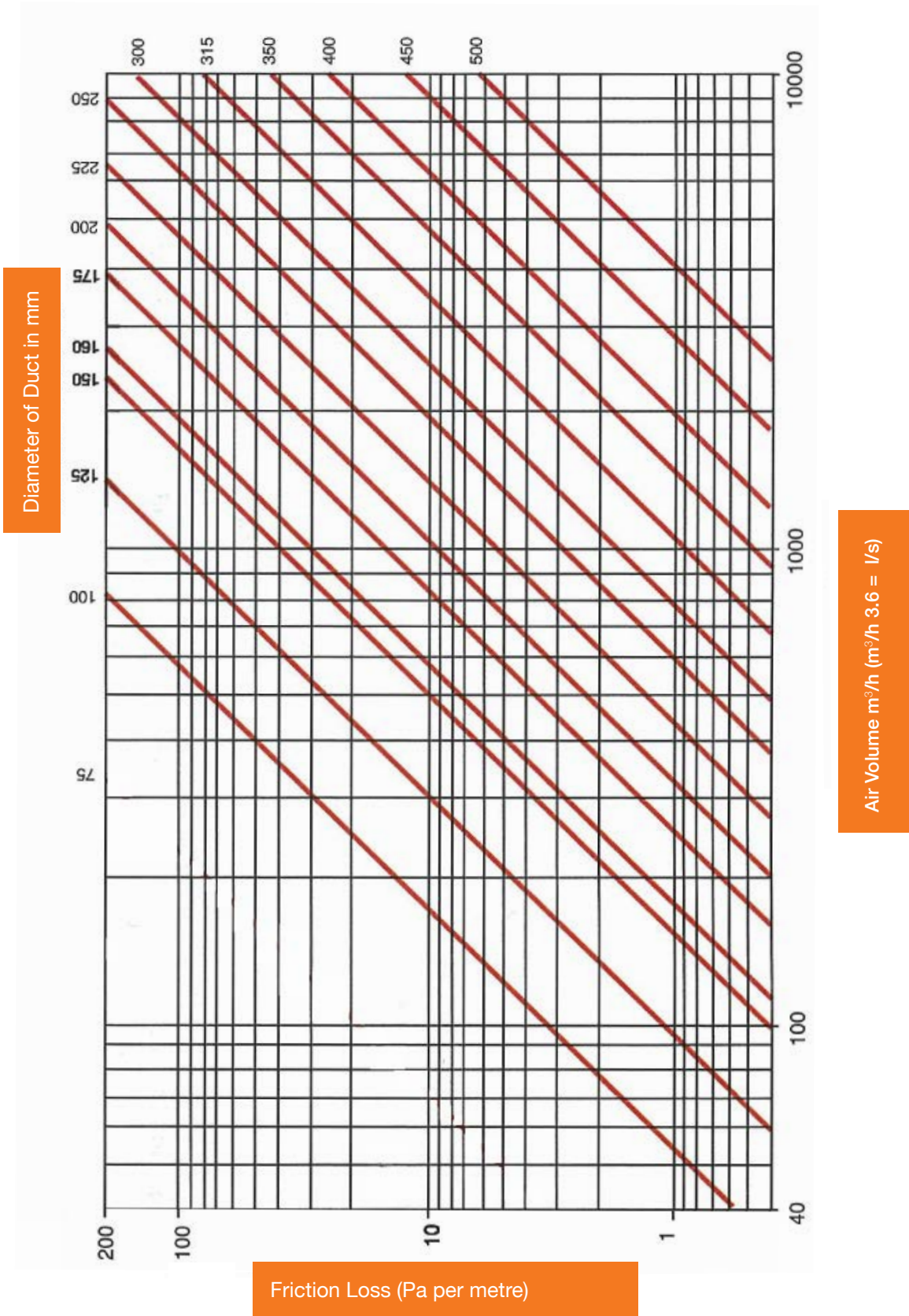
No glued/adhesive duct should be installed in a compressed or ovalised state for fear of long term failure.

Products with the "order code" shown are generally ex. stock lines - other products are available to order.

Should you have an ongoing requirement for an item that is not a standard stock line - PLEASE discuss with us and we will review stocking the item for you.

# FLEXIBLE DUCTING

## FRICITION LOSS GRAPH



# DUCTING

## COLOUR CODE LABEL GUIDE

### General Information

To avoid confusion in the our range of flexible duct sizes and types, we have colour coded labels for each size. The different colours denote the various sizes.

### Labels include:

Type of duct core, insulation type, length of duct and type of sleeve (where applicable).

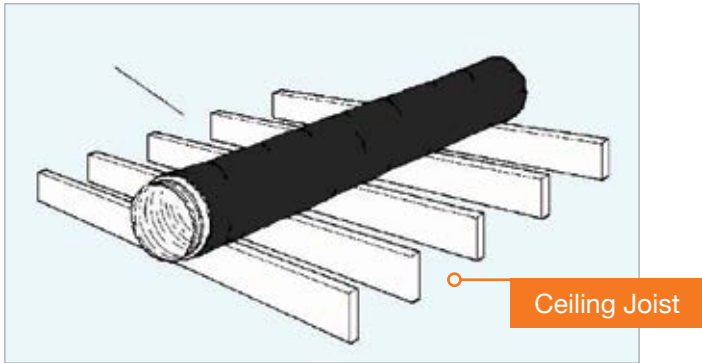
E.g. 'V-Flex RO.6 6m' = V-Flex with thermal resistance of RO.6 and is 6m long.

<b>Black</b> 150mm (6")	<b>Grey</b> 400mm (16")
<b>Yellow</b> 200mm (8")	<b>Orange</b> 450mm (18")
<b>Blue</b> 250mm (10")	<b>Brown</b> 500mm (20")
<b>White</b> 300mm (12")	<b>Green</b> 600mm (24")
<b>Red</b> 350mm (14")	<b>Pink</b> 550mm (22")

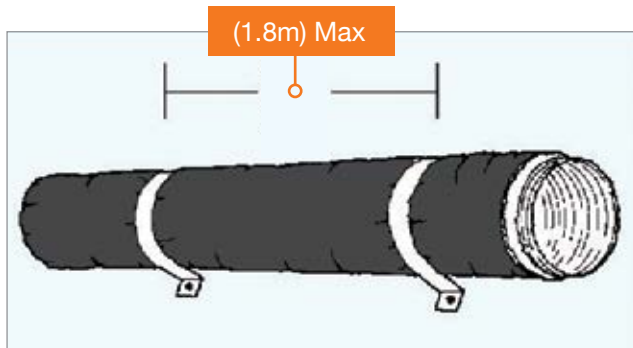


# SUPPORTING

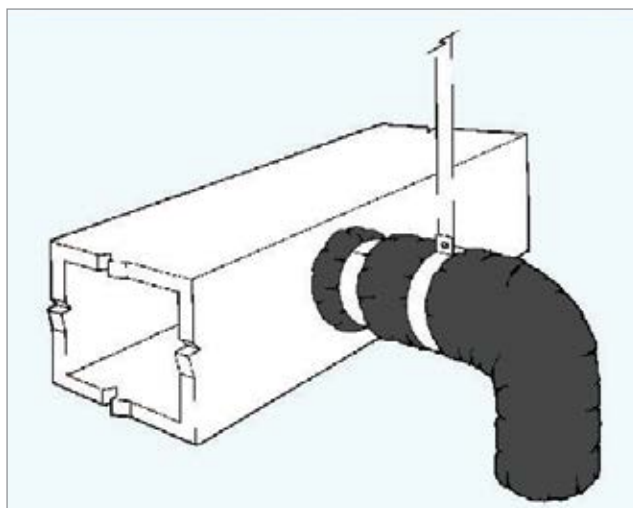
## FLEXIBLE DUCT



Flexible ducts may rest on ceiling joists or truss supports. Maximum spacing between supports shall not exceed 1.5m.



Vertically installed duct shall be stabilised by support straps at a max of 1.8m.



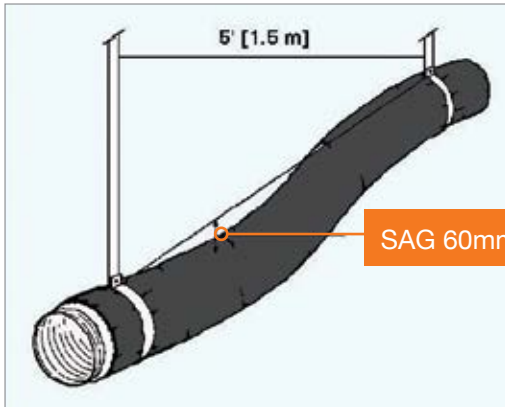
Support the duct between a metal connection and bend by allowing the duct to extend straight for 100mm before making the bend.

This will avoid possible damage of the flexible duct by the edge of the metal collar.

**NOTE:** Upon completion of installation, please test in accordance with 2.8.2 of standard AS4254.

**NOTE:** factory-made air ducts may not be used for vertical risers in air duct systems serving more than two stories.

# SUPPORTING FLEXIBLE DUCT



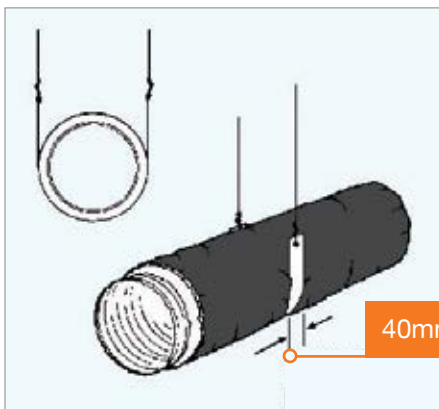
01

Flexible duct shall be supported at intervals, no greater distance than 1.5m. Maximum permissible sag is 60mm per metre of spacing between supports.

A connection to rigid duct or equipment shall be considered a support joint.

Long horizontal duct runs with sharp bends shall have additional supports before and after the bend approximately one duct diameter from the centreline of the bend.

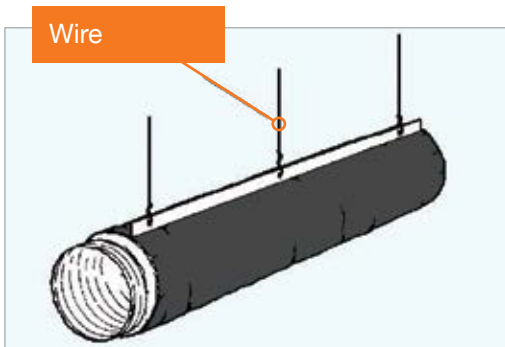
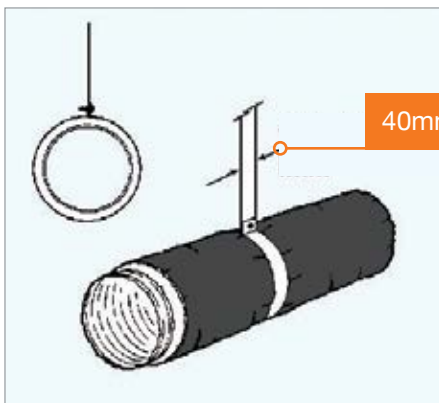
**Recommend Hanging Straps DCT0808.**



02

Hanger or saddle material in contact with the flexible duct shall be of sufficient width to prevent any restriction of the internal diameter of the duct when the weight of the supported section rests on the hanger or saddle material.

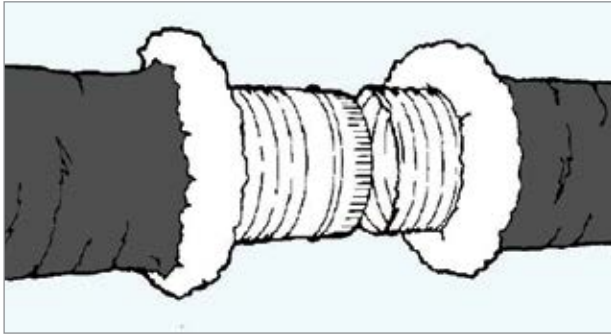
In no case will the material contacting the flexible duct be less than 40mm wide.



03

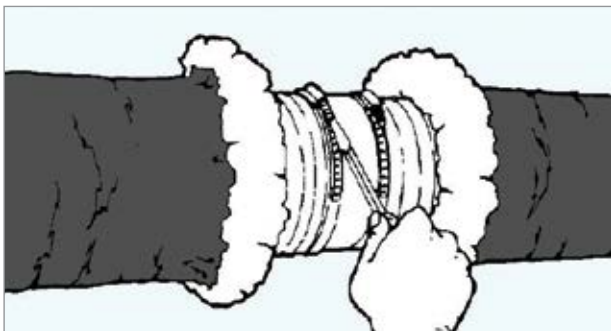
Factory installed suspension systems integral to the flexible duct is an acceptable hanging method.

# JOINS



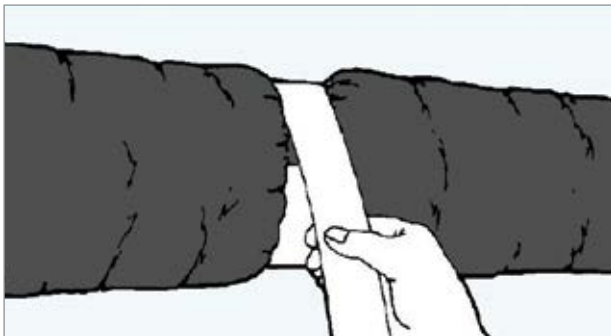
01

Fold back duct jacket and insulation from core. Butt two cores together on a 4" (100mm) length metal sleeve or polymer sleeve.



02

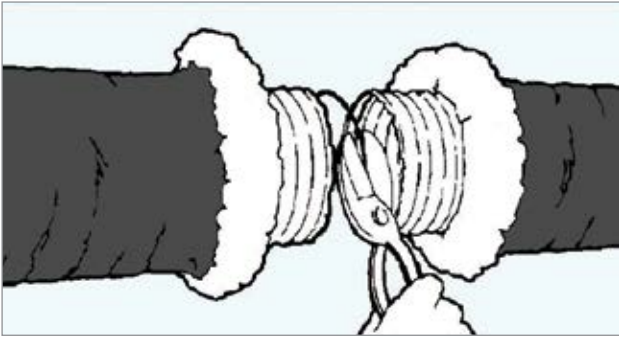
Tape cores together with at least 2 wraps of duct tape. Connection can be secured with 2 cable ties placed over the taped core ends.



03

Pull jacket and insulation back over cores. Tape jackets together with at least 2 wraps of duct tape.

# AIR DUCTS



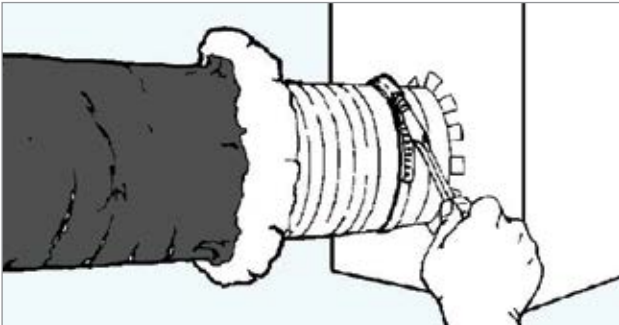
01

Non-metallic with Plain Ends.

After desired length is determined, cut completely around and through duct with knife or scissors.

Cut wire with wire cutters.

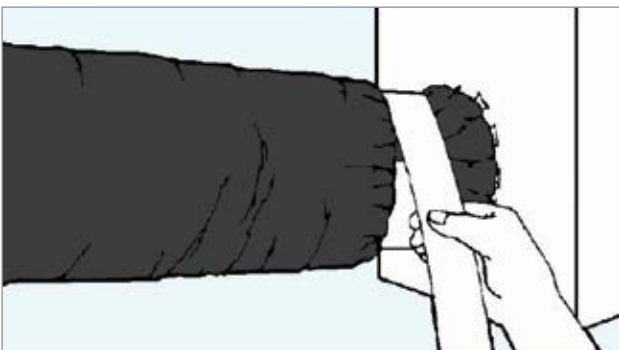
Fold back duct jacket and insulation.



02

Slide at least 1" (25mm) of core over the fitting up to the bead. Seal the core to collar with at least two wraps of duct tape.

Secure connection with cable ties placed over the core and duct tape.

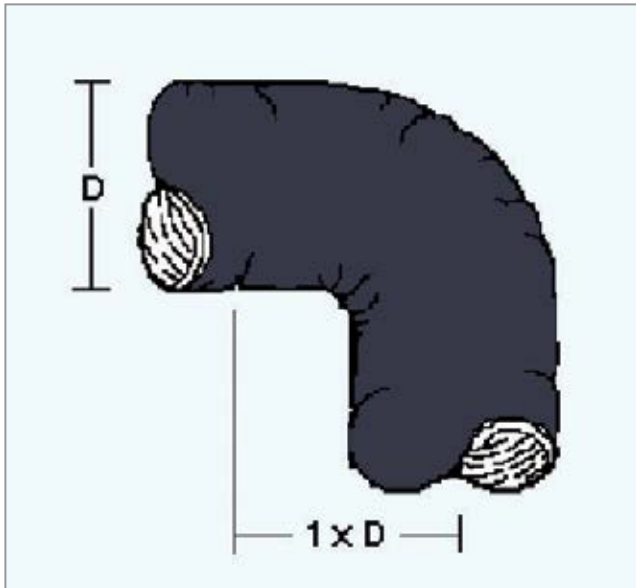


03

Pull jacket and insulation back over core. Tape jacket with at least 2 wraps of duct tape ensuring end of the outer jacket is secured to the spigot.

Cable ties may be used in place of or in combination with the duct tape.

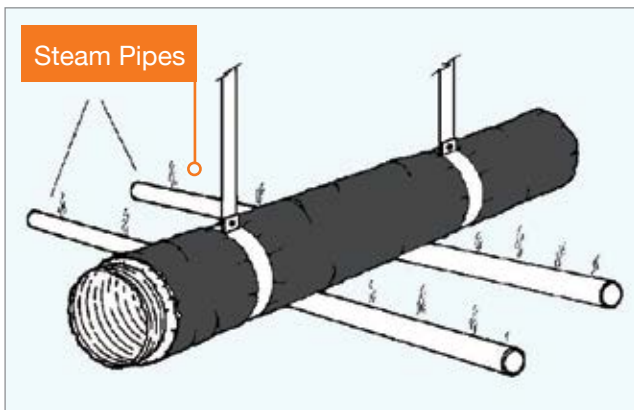
# DUCTING INSTALLATION & USAGE



e.g. Assuming duct velocity of 8m/s

**Duct velocity R/D ratio centerline radius to duct diameter:**

Up to 5m/s x 0.6  
5m/s x 1.0  
Above 8m/s x 1.5



**Wrong Setup**

Do not install near hot equipment (e.g. heaters boilers, steam pipes etc.) that is above the recommended flexible duct use temperature.

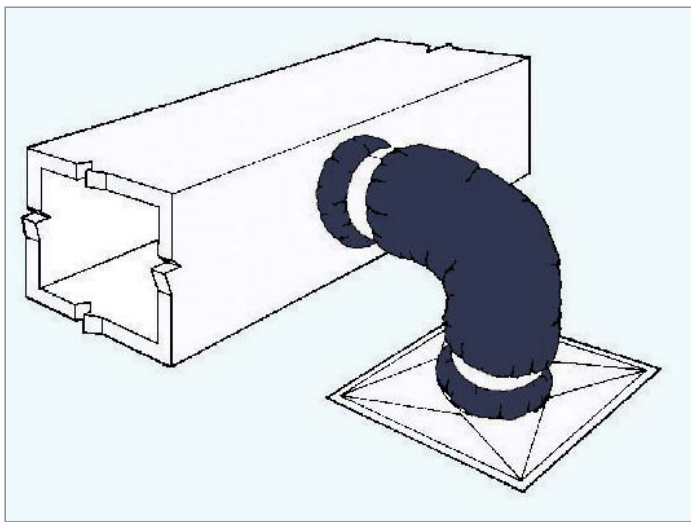
# DUCTING INSTALLATION & USAGE

The layout of flexible duct, the number of bends, the sharpness of the bend and the amount of sag allowed between support joints will have serious effects on system performance due to the increased resistance to airflow each introduces.

Use the minimum length of flexible duct to make connections. It is not recommended that excess length of ducts be installed to allow for possible future relocations of air terminal devices.

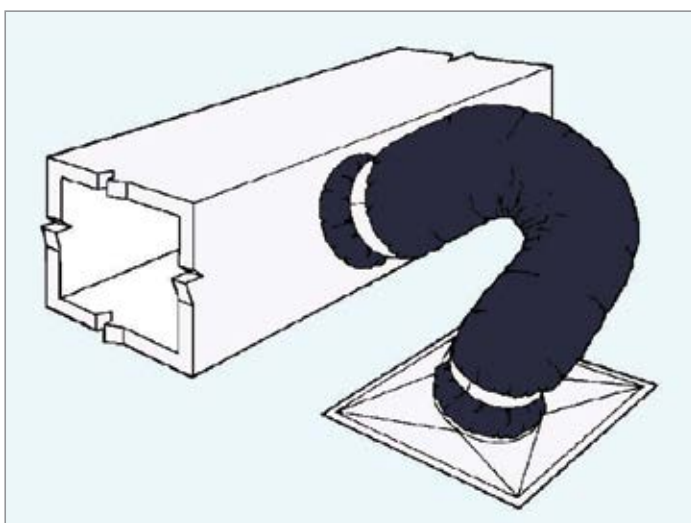
Avoid installation where exposure to direct sunlight can occur e.g: skylight. Grilles and diffusers need to be supported independently of the flexible duct.

Repair torn or damaged vapour barrier/jacket with duct tape listed and labelled to Standard AS4254. If internal core is penetrated, replace flexible duct or treat as a join.



## Right Setup

Install duct fully extended, do not install in the compressed state or use excess lengths. This will noticeably increase friction losses.



## Wrong Setup

Avoid bending ducts across sharp corners or incidental contact with metal fixtures, pipes or conduits.

Flexible ducts shall be installed with a bend radius to duct diameter ratio in accordance with the following info on the next page.

# AUSTRALIAN STANDARDS

AS 4254 COMPRISES OF THE TESTS LISTED BELOW:

(AS) 1530 part 3 - radiant burn test

Underwriters Laboratories

(U.L) 181 part 9 - flaming burn test

(U.L) 181 part 11 - mould growth test

(U.L) 181 part 12.2 - low temperature test

(U.L) 181 part 12.3 - high temperature test

(U.L) 181 part 13 - puncture test

(U.L) 181 part 14 - static load test

(U.L) 181 part 15 - impact test

(U.L) 181 part 17 - positive & negative pressure test

(U.L) 181 part 18 - collapse test

(U.L) 181 part 19 - tension test

## UNILOK™ FR1 CERTIFICATE OF TEST

**Certificate of Test**  
 REPORT NO. FNE754  
 This report may only be reproduced in full.

**SMULTANEOUS DETERMINATION OF IGNITABILITY, FLAME PROPAGATION, HEAT RELEASE AND SMOKE RELEASE**

TRADE NAME: UNILOK FR 1  
 SPONSOR: Westaflex (Australia) Pty Ltd  
 143-152 Bamfield Road  
 WEST HEIDELBERG VIC  
 AUSTRALIA

DESCRIPTION OF TEST SPECIMEN: The specimen described the specimen as a flexible ducting comprising of three layers:  
 Outer sleeve: 75 µm FR1 fire rated LDPE  
 Insulation: 40 mm thick polyurethane fibre insulation (200 g/m<sup>2</sup>)  
 Core: 100 µm thick black intumescent LDPE.  
 Samples were backed by 8.0 mm FR1 calcium silicate boards.  
 Colour: black sleeves, white insulation.

TEST PROCEDURE: Six samples were tested in accordance with Australian Standard 1530. Method for fire tests on building components and structures, Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999. For the test each sample was subjected to one layer of square mesh having 2.5 mm dia. wires at approximately 12 mm centres over the exposed face and was clamped to the specimen holder in four places.

OBSERVATION: Although exposure from the specimen did not ignite under the standard test conditions, it was observed that direct flames contacted with the specimen at the end of the test caused flames to spread across the specimen surface. Samples began to melt after approximately three minutes exposure to the test.

RESULTS: The following means and standard errors were obtained:

Parameter	Mean	Standard Error
Ignition Time (s)	N/A	N/A
Flame Spread Time (s)	N/A	N/A
Heat Release Integral (kWh/m <sup>2</sup> )	N/A	N/A
Smoke Release (kg/m <sup>2</sup> )	~1.702	0.004

For regulatory purposes these figures correspond to the following indices:

Ignitability Index (0-20)	Spread of Flame Index (0-15)	Heat Evolved Index (0-15)	Smoke Developed Index (0-15)
0	0	0	2

The results of this fire test may be used to directly assess the hazard, but it should be recognized that a single test method will not provide a full assessment of the hazard under all fire conditions.

DATE OF TEST: 10 July 1999  
 Issued on the 27<sup>th</sup> day of July 1999 without alterations or additions.

Testing Officer: *Gary E. Collins*  
 Manager Fire Testing and Assessment

This laboratory is accredited by the National Association of Testing Authorities, Australia. The tests reported herein have been performed in accordance with its terms of accreditation.

Improving the Built Environment  
 Building, Construction and Engineering  
 14 Jullia Avenue, Riverside Corporate Park, Dohi Road, North Ryde NSW 2113 AUSTRALIA  
 Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 2020

Report Number: FNE7534

**Certificate of Test**

WESTAFLEX AUSTRALIA PTY LTD  
 143-152 Bamfield Road  
 West Heidelberg,  
 VICTORIA 3081

TESTS ON "UNILOK FR1" DUCTING SYSTEM

Job Number: CZ56BTS2919

The specimen is described as a three layer flexible ducting and consists of the following:  
 Exterior sleeve: Black fire rated LDPE, 75 µm thick.  
 Insulation: Polyester fibre insulation blanket, 200 g/m<sup>2</sup> and 40 mm thick.  
 Core: Black fire rated LDPE, 100 µm thick with a helical encapsulation of a copper coated, spring steel wire rib.

All the tests done, used test methods of UL 181 as called up in Australian Standard AS 4254-1995 Ductwork for air-handling systems in buildings.

Test No.	Description	Result	Comment
1. UL 181-11	Mould Growth & Humidity	Pass	
2. UL 181-12.1	Temperature - Low	Pass	
3. UL 181-12.3	Temperature - High	Pass	
4. UL 181-13	Puncture	Pass	
5. UL 181-14	Static Load	Pass	
6. UL 181-15	Impact	Pass	
7. UL 181-17	Pressure	Pass	
8. UL 181-18	Collapse	Pass	
9. UL 181-19	Tension	Pass	
10. UL 181-19	Extended Tension - 7 day	Pass	At Sponsors request

Tested by: *Geoffrey Farnace*, Laboratory Manager.  
 Issued on 8 October 1999 without alterations or additions.

Project Leader - Structural Engineering.  
 For Chief, BCE.

Improving the Built Environment  
 Building, Construction and Engineering  
 14 Jullia Avenue, Riverside Corporate Park, Dohi Road, North Ryde NSW 2113 AUSTRALIA  
 Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 2020

Report Number: FNE7534

**Certificate of Test**  
 REPORT NO. FND117  
 This report may only be reproduced in full.

**FLEXIBLE AIR CONDITIONING DUCT FIRE TEST IN ACCORDANCE TO UL 81 PART 9**

TRADE NAME: UNILOK FR 1  
 SPONSOR: WESTAFLEX  
 143-152 Bamfield Road,  
 WEST HEIDELBERG VIC

DESCRIPTION OF TEST SPECIMEN: The specimen was described by the sponsor as a flexible ducting comprising of three layers, outer insulation, and outer sleeve:  
 CORE - Black fire rated LDPE (100 µm thickness) with a helical encapsulation of a copper coated spring steel wire rib.  
 INSULATION - Polyester fibre insulation (200 g/m<sup>2</sup>) (40 mm thickness).  
 OUTER SLEEVE - Black fire rated LDPE (75 µm thickness).

TEST PROCEDURE: The samples were tested in accordance with UL 81 Standard For Safety: Factory-Made Air Ducts and Air Connectors, Part 9 - Burning Test, April 1999. For the test, the inside and the outside faces of specimens were exposed to a pilot flame. This was done in three different orientations (Vertical, 45° and Horizontal).

OBSERVATIONS: The material melted away from the pilot flame. The flaming observed was around the metal ribs.

RESULTS: The following results were obtained:

OBSERVATIONS	Horizontal Orientation		45° Orientation		Vertical Orientation	
	Outside Face	Inside Face	Outside Face	Inside Face	Outside Face	Inside Face
Flame or glowing combustion duration after burner extinguished (seconds)	0:17	0:0	0:0	0:0	0:10	0:0
Tip of flame reached other end (YES/NO)	NO	NO	NO	NO	NO	NO
Criteria Satisfied (YES/NO)	NO	N/A	N/A	N/A	N/A	N/A
Criteria Satisfied (YES/NO)	YES	YES	YES	YES	YES	YES

CONCLUSION: The ducting satisfied the performance criteria as specified by UL 81 part 9.

DATE OF TEST: 12 July 1999  
 Issued on the 14<sup>th</sup> day of July 1999 without alterations or additions.

Testing Officer: *Gary E. Collins*  
 Manager Fire Testing and Assessment

Improving the Built Environment  
 Building, Construction and Engineering  
 14 Jullia Avenue, Riverside Corporate Park, Dohi Road, North Ryde NSW 2113 AUSTRALIA  
 Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 2020

Report Number: FND117

**Certificate of Test**

WESTAFLEX AUSTRALIA PTY LTD  
 143-152 Bamfield Road  
 West Heidelberg,  
 VICTORIA 3081

TESTS ON "UNILOK FR1" DUCTING SYSTEM

Job Number: CZ56BTS2980

The specimen is described as a three layer flexible ducting and consists of the following:  
 Exterior sleeve: Black fire rated LDPE, 75 µm thick.  
 Insulation: Polyester fibre insulation blanket, 200 g/m<sup>2</sup> and 40 mm thick.  
 Core: Black perforated fire rated LDPE, 100 µm thick with a helical encapsulation of a copper coated, spring steel wire rib.

All the tests done, used test methods of UL 181 as called up in Australian Standard AS 4254-1995 Ductwork for air-handling systems in buildings.

Test No.	Description	Result	Comment
1. UL 181-11	Mould Growth & Humidity	Pass	
2. UL 181-12.2	Temperature - Low	Pass	
3. UL 181-12.3	Temperature - High	Pass	
4. UL 181-13	Puncture	Pass	
5. UL 181-14	Static Load	Pass	
6. UL 181-15	Impact	Pass	
7. UL 181-17	Pressure	Pass	
8. UL 181-18	Collapse	Pass	
9. UL 181-19	Tension	Pass	

Tested by: *Geoffrey Farnace*, Laboratory Manager.  
 Issued on 18<sup>th</sup> February 2000 without alterations and additions.

Project Leader - Structural Engineering.  
 For Chief, BCE.

Improving the Built Environment  
 Building, Construction and Engineering  
 14 Jullia Avenue, Riverside Corporate Park, Dohi Road, North Ryde NSW 2113 AUSTRALIA  
 Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 2020

Job Number: CZ56BTS2980

# NEW ZEALAND

## STANDARDS

### New Zealand Building Code Compliance to AS/NZ 1530 Part 3

Requirements are:

<b>Internal Surface:</b>	Spread of flame not >0 Smoke Developed not >3
<b>External Surface:</b>	Spread of flame not >7 Smoke developed not >5

### AS/NZS 1530 Part 3

This is the Australian standard 1530, method for fire tests on building materials components and structures.

“Simultaneous determination of ignitability, flame propagation, heat release and smoke release”

# AUSTRALIAN

## STANDARDS

We strive to provide the best possible flexible duct at a competitive and fair price, that complies to all necessary Standards.

### Australian Standards (AS) 4254 & (AS) 4508

Most Commonly Asked Questions:

**Q.** What is AS 4254?

**A.** Australian Duct Fire Standard (AS) 4254. This standard was developed to ensure public safety, that the product tested will not support combustion and will function as designed for its service life.

All heating systems in Australia ignited from a flame source and all commercial class 2 to 9 buildings must **FULLY COMPLY** with AS 4254. In Victoria all Ducting Installations must be fire rated to AS 4254.

**Q.** How do I know if the duct passes AS 4254?

**A.** If a flexible duct passes AS 4254 it has been tested to and passed eleven difficult tests. Ensure the product in the test has been tested in its composite form, just the way you buy it, i.e. duct core, insulation blanket and outer jacket.

Each test should state product name and its componentry make-up. If you cannot be supplied test reports to cover each of the eleven tests or there is a reluctance from duct manufacturers/duct assemblers to produce any or all of these reports it is likely that the duct **DOES NOT** comply to AS 4254.

Manufacturers/duct assemblers are under no obligation to produce AS 4254 compliant product.

If you install flexible duct that does not comply, on a gas fired heating system then **YOU ARE IN BREACH OF AS 4254**, not the manufacturer/duct assemblers.

Ducting that does not comply to AS 4254 may be used on Reverse Cycle and Evaporative Systems except in Victoria. The onus is on you to choose and use compliant product.

**Q.** What is AS 4508?

**A.** Australian insulation Standard (AS) 4508.

Due to poor quality insulation being used on ducting, AS 4508 was developed to create minimum acceptable thermal values for ducting, helping to reduce the greenhouse effect and lower running costs.

This standard specifies how insulation on the ducting must be tested so an overall thermal or “R” value can be achieved consistently throughout all the duct in the system.

**Q.** How do I know if the insulation meets the requirements of AS 4508?

**A.** Ask to see the test report from your duct manufacturer/duct assembler that shows that the insulation had been tested to and complies with AS 4508. To achieve a thermal rating of R0.6 you must use a minimum of 250 g/m<sup>2</sup> polyfibre insulation at 40mm thick.

To achieve an R1.0 you must use a minimum of 450 gram/square metre polyfibre insulation at 70mm thick. Fibreglass thermal values remain the same as they have for years, 25mm=R0.6 and 40mm=R1.0.

There will be variations depending on the manufacturer of the insulation but in general the above rules apply.



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# Securimax continues to maintain its position as the market leader in the New Zealand ventilation market.

**Securimax has been supplying ventilation solutions for over 25 years and credits its success to listening and responding to market feedback with innovative, cost effective solutions.**

The Securimax product development team has consistently developed high quality products with features demanded by the market. Our policy of ongoing investment in product development has been a key force in driving the company to the forefront of the ventilation market.

The MANROSE brand has established itself in the market as the proven, reliable solution and the product range continues to evolve to ensure we lead the way as “your ventilation solution providers”. Securimax and MANROSE have a long-standing relationship, which allows us to develop products specifically for the NZ market and incorporate the features and demands of our customer base.

From acoustic ducting to HVAC swirl diffusers Securimax has continually worked to provide products with additional features and installation benefits. Within the ducting category Securimax has a wide range of options, with acoustic duct for minimal noise air transfer, and the NEW Smart Duct which is a revolutionary way to duct; with a unique construction and installation procedure.

A recent addition to the range is the Simx grille range which includes Swirl Diffusers for uniformity of temperature in air conditioned spaces. Securimax have a solution for every application. Continual development and innovation ensures that future market demands are not only met but exceeded!

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