

Duct Sizes for popular manufacturers ducted air conditioners

Model Daikin & Mitsubishi Electric	Model Fujitsu, York, LGE and Panasonic	Capacity KW	2 Ducts	3 Ducts	4 Ducts
20 to 25	7 to 9	2-3KW	200 dia	150 dia	150 dia
30 to 45	12 to 14	3-4KW	200 dia	150 dia	150 dia
50	18	5KW	200 dia	150 dia	150 dia
60 to 71	24 to 28	6-7KW	250 dia	200 dia	150 dia
80 to 90	30	8-9KW	250 dia	200 dia	150 dia
100	34 to 36	10KW	300 dia	250 dia	200 dia
125	42 to 48	12KW	300 dia	250 dia	200 dia
140	50	14KW	300 dia	250 dia	200 dia
200	60 to 72	18-20KW		300 dia	250 dia
250	90	25KW			300 dia

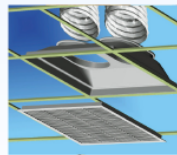
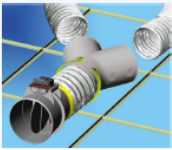
Application Notes

- Do not exceed the manufacturers design resistance for the unit—contact us for details
- Avoid large numbers of bends and do not let the duct collapse
- If your ducted unit is mounted above an expensive ceiling or expensive equipment then use a secondary drain tray with its own separate drain
- Always use an adequately size P Trap to drain ducted air conditioners
- Always ensure you have a drain of at least 1 in 50 for manual drains
- Invest in an anemometer to measure air volume and commission the system correctly
- Clean your filters regularly
- Make sure ductwork is correctly sized for the application
- Make sure all ductwork and fittings are adequately sealed, well insulated and without kinks or obstructions

Normal Component Resistance

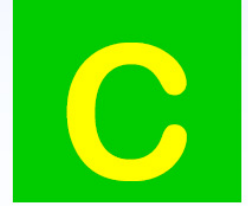
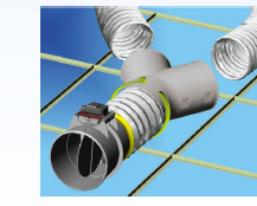
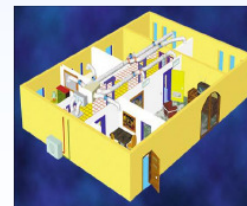
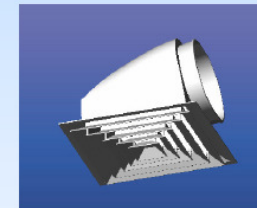
Use for calculating total resistance for a system when using our sizing system if no, more accurate data is available as a guide to system resistance.

- Per metre of straight duct— 3Pa
- Per Bend— 5Pa
- Per 4 Way Diffuser—10 to 20Pa
- Per Return Air Grille—10 to 30Pa—More if filters are dirty
- Per damper (open) - 5Pa



Air Conditioner Duct Design?

Its as easy as



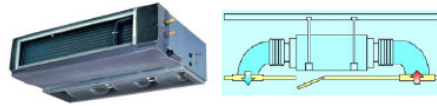
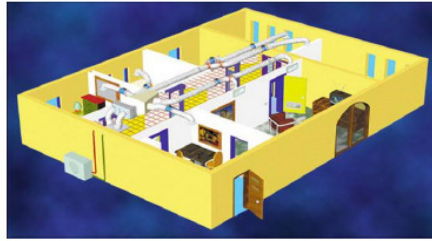
RPW
Delta House
Bridgetown
Cannock WS11 0DJ
Tel 01543 437010
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 **Medal**
The Medal Ducting System
Available from
RPW

Selecting ducting and grilles for your ducted air conditioner can be a nightmare!

What size do I use, what type? How do I connect it? How do I avoid air dumping, excessive noise or condensation?

Our new duct system takes all of these problems away from you and makes ducted air conditioning Childs play!



Flexiduct

- Easy to Select ✓
- No drips ✓
- No heat loss ✓
- Tear Resistant ✓
- 10m lengths ✓
- Easy to Fit ✓



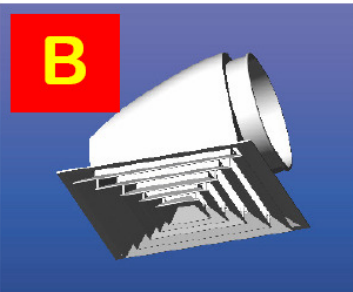
First the duct size, using PVC tear resistant insulated flexible duct.

The table on the next page lets you choose based upon either air volume or KW capacity.

The table on the last page lets you choose based upon the unit capacity for a selection of popular manufacturers systems.

Next the supply diffusers. These all fit into a standard ceiling tile and are made of light, condensation resistant ABS plastic.

All are complete assemblies with a damper to balance the airflow and a duct spigot to suit the duct size selected. No hangers are required and the duct attaches using a tie wrap!



Diffusers

- Fit Standard Tile ✓
- ABS—No drips ✓
- Pre Assembled ✓
- With Damper ✓
- With Spigot ✓
- Easy to Fit ✓

Diffusers

- Fit Standard Tile ✓
- Non Vision ✓
- Light ABS ✓
- With Filter ✓
- With Spigot ✓
- Easy to Fit ✓



Finally the return air. The best solution is to duct the return air and use our non vision tile replacement models with a duct spigot.

Like the diffusers they are light ABS and only require a tie wrap to connect to the ductwork!

As a bonus our non vision ducted grilles have a washable air filter, cleanable from within the room for simple maintenance!

Use this table to select components using duct size, air volume (in m³/s) or quantity of cooling in KW for each duct section.



Cooling Capacity KW	1.5	3.5	5.0	7.0
Airflow in m ³ /hr	250	550	800	1200
Duct Size in Inches	6	8	10	12
Duct Size in mm	150	200	250	300
Duct length per box	10m	10m	10m	10m
Part Number per Box	W115	W116	W117	W118
Four Way Diffuser Size	595mm x 595mm			
Connection Dia mm	150	200	250	300
Includes Damper	Yes	Yes	Yes	Yes
Diffuser Part Number	W119	W120	W121	W122
Return Air Grille Size	595mm x 595mm			
Connection Dia mm	150	200	250	300
Includes Filter	Yes	Yes	Yes	Yes
Connection Box Part Number	W123	W124	W125	W126
Grille Part Number	W127	W127	W127	W127

Additional Components

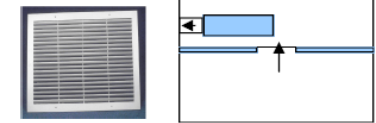
Tie Wrap to connect ducts to spigots—part number W128
Aluminium Duct Tape to Seal your system—part number W151



Optional Accessories

Grilles

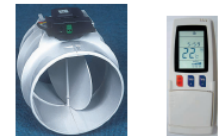
Using the void as a return air plenum?—no problem!
Tile replacement egg crate grille—no filter—part W129
Tile replacement non vision grille—no filter—part W130



Zone Control

Want control in a small office? No problem!
Select a power supply, motorised damper and controller (choice of 3) to give enhanced comfort.

Note—Do not use on more than 20% of unit airflow. The controller controls the damper only, not the unit and can only provide heating or cooling if it is available from the unit at that time.



Duct Size in mm	Required?	150	200	250	300
Power Supply Unit	1 per damper	W131	W131	W131	W131
Damper	Yes	W132	W133	W134	W135
Simple Wired Control	Choose one of these per damper	W136	W136	W136	W136
Surface Mount Control		W137	W137	W137	W137
Wireless Control		W138	W138	W138	W138

Y Pieces & Connectors

Split the airflow from one to two ducts with a Y Piece
Connect two ducts using a connector or reducer
The Universal Reducer is cut to the size required



Main Duct Size in mm	150	200	250	300
Branch Duct Size in mm	2 x 150	2 x 200	2 x 250	2 x 300
Part Number	W145	W143	W141	W139
Branch Duct Size in mm		2 x 150	2 x 200	2 x 250
Part Number		W144	W142	W140
Branch Duct Size in mm		1 x 150	1 x 200	Universal
Part Number		W154	W153	W152
Branch Duct Size in mm	1 x 150	1 x 200	1 x 250	1 x 300
Part Number	W132	W133	W134	W135