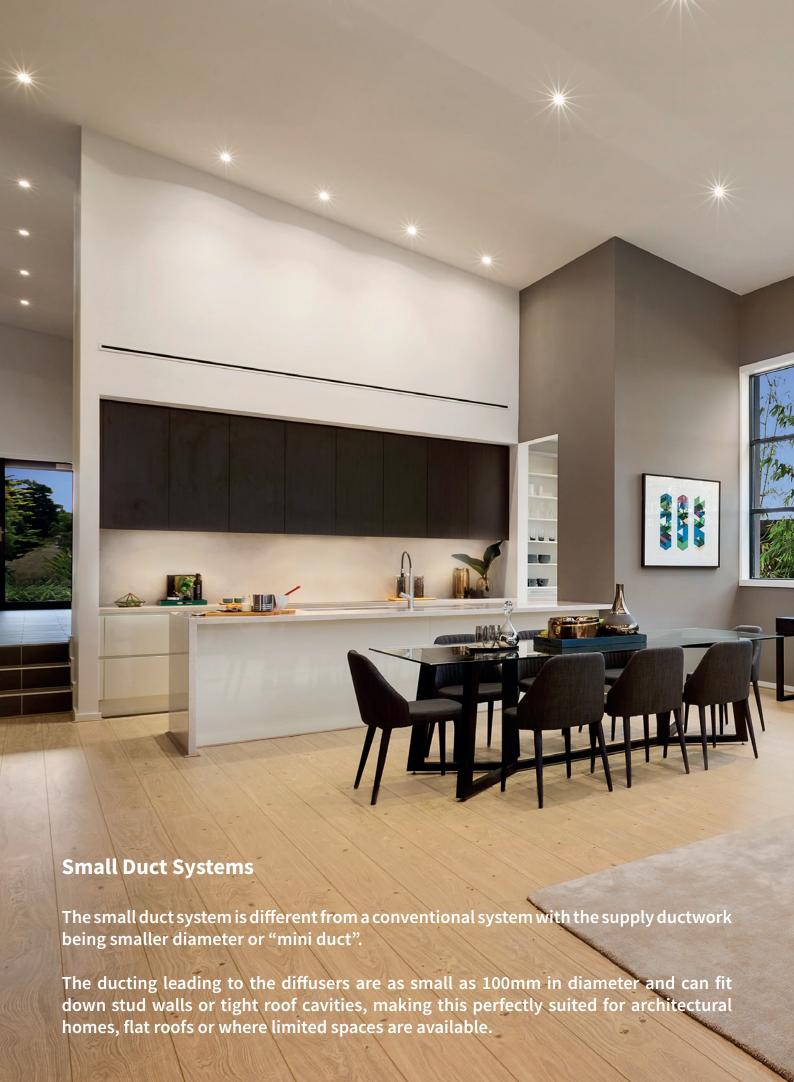
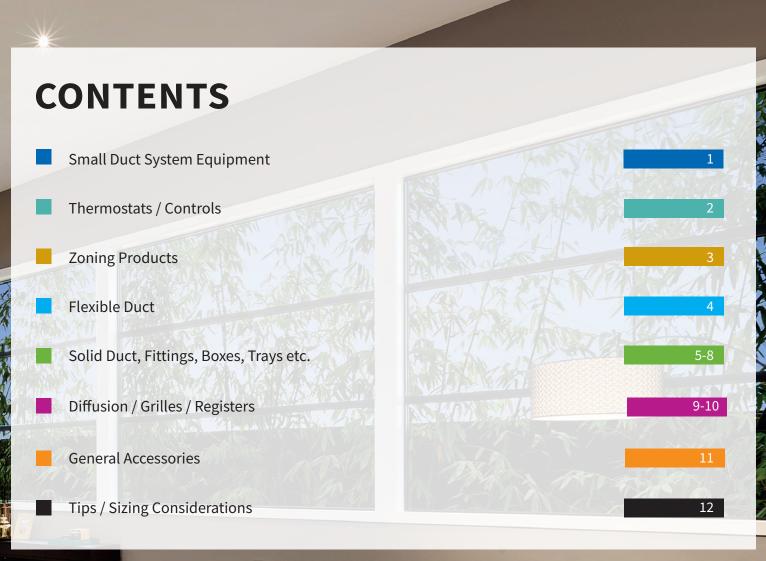




Product Catalogue







# **EQUIPMENT**

DESCRIPTION	ORDER CODE
Airsmart 700 Delivery Blower	FAN6072
Airsmart 500 Delivery Blower	FAN6073
Airsmart 1250 Delivery Blower	FAN6681
Forward Curved EC Fan 700	FAN6683
Mega Fan 1250 Backward Curved EC	FAN6682
Condensor Unit 5.3/10.3/12kW	FAN6078
Condensor Unit 8.5/17.0/19.0kW	FAN6080
Water Coil Module 42kW Hot/17kW Cold	FAN6074
Water Coil Module 24kW Hot/12kW Cold	FAN6075
Cooling Coil Module 12.0 - 19.0kW	FAN6120
Cooling Coil Module 5.0 - 12.0kW	FAN6121
In-Duct Hi Velocity Air Purification System, inc MERV-11 Filter, Twin Lamps & Titanium Catalyst	FAN6122
Air Purification Service Kit, inc 2 MERV-11 Filters & 2 UV Lamps	FAN6123
SDS Inverter Interface Module	FAN6125

#### HEZ-Fancoil



SDS Condenser



Chilled Water Coil Module



Hot Water Coil



Air Purification System



### **THERMOSTATS & CONTROLS**

#### **Smart Temp Thermostats**

DESCRIPTION	ORDER CODE
6 Connector Flat Modular Cable - 100m Roll	FAN6151
Smart Temp Apollo - 7 Day Programmable Thermostat	FAN6162
Smart Temp Zone Card - 4 Zones	FAN6142
Smart Temp Expansion Zone Card - 4 Zones	FAN6143
Smart Temp Zone Power Supply - Plug Pack	FAN6144

#### Smart Temp Apollo



Smart Temp Zone Card - 4 Zones



#### White Rodgers Thermostats

Whether you're in need of a Wi-Fi programmable or premium touchscreen thermostat, our thermostats by White-Rodgers lead the industry in innovating thermostat function and design.

DESCRIPTION	ORDER CODE
White Rodgers "Big Blue" Thermostat - Model IF97-1277	FAN6164
White Rodgers "Emerson Blue" Thermostat - Model IF97-1277	FAN6165
White Rodgers Basic Thermostat - Model CTB=20849	FAN6166

White Rodgers IF97-1277



White Rodgers IF80-0471



White Rodgers CTB-20849



### **ZONING PRODUCTS**

#### Zone Dampers with Actuators

DESCRIPTION	ORDER CODE
SDS Zone Damper with Belimo 5nM 24 volt RJ-12 Drive Open Drive Close (DODC) Actuator - 150mm	DCT3895
SDS Zone Damper with Belimo 5nM 24 volt RJ-12 Drive Open Drive Close (DODC) Actuator - 200mm	DCT3896
SDS Zone Damper with Belimo 5nM 24 volt RJ-12 Drive Open Drive Close (DODC) Actuator - 250mm	DCT3897
SDS Zone Damper with Belimo 5nM 24 volt Drive Open Drive Close (DODC) Actuator - 150mm	DCT3968
SDS Zone Damper with Belimo 5nM 24 volt Drive Open Drive Close (DODC) Actuator - 200mm	DCT3969
SDS Zone Damper with Belimo 5nM 24 volt Drive Open Drive Close (DODC) Actuator - 250mm	DCT3787
SDS Zone Damper with Siemens 1.5nM 24 volt RJ-12 Drive Open Drive Close (DODC) Actuator - 200mm	DCT3789
SDS Zone Damper with Siemens 1.5nM 24 volt Drive Open Drive Close (DODC) Actuator - 200mm	DCT3792

SDS Zone Damper with Belimo Actuator



SDS Zone Damper with Siemens Actuator



### **FLEXIBLE DUCTING**

#### TRADEFLEX SDS DUCT (Supply Air)

**Tradeflex SDS** has been specifically designed for Small Duct Systems with a wire rib that has closer configuration to standard spacing to ensure that the duct will maintain its integrity when put under the extra pressure that a Small Duct System can produce.

**Tradeflex SDS** is constructed from a twin layered clear PET core with black fire rated resin, a polyfibre insulation with thermal ratings of either Rm0.6, Rm1.0 & Rm1.5, and a Grey Metallised PET twin layered outer jacket..

DESCRIPTION	ORDER CODE
Tradeflex SDS - 4" (100mm) Rm 0.6 6m	DCT3718
Tradeflex SDS - 4" (100mm) Rm 1.0 6m	DCT3719
Tradeflex SDS - 4" (100mm) Rm 1.5 6m	DCT3802
Tradeflex SDS - 5" (125mm) Rm 0.6 6m	DCT3800
Tradeflex SDS - 5" (125mm) Rm 1.0 6m	DCT3801
Tradeflex SDS - 5" (125mm) Rm 1.5 6m	DCT3803

#### GREENDUCT (Return Air)

**Greenduct** is our "top of the line" flexible duct used in all applications (commercial, domestic etc). **Greenduct** is constructed from a black, UV Stabilised, fire resistant, metal helix core with polyfibre insulation with thermal ratings of Rm1.25 and a Green Metallised PET twin layered outer jacket.

DESCRIPTION	ORDER CODE
GREENDUCT - 12" (300mm) Rm 1.25 6m	DCT3808

#### UNILOK (Return Air)

**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. It is available with or without a perforated acoustic core.

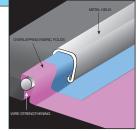
DESCRIPTION	ORDER CODE
UNILOK - 12" (300mm) Rm 1.0 6m	DCT0824
UNILOK - 14" (350mm) Rm 1.0 6m	DCT0826
UNILOK - 16" (400mm) Rm 1.0 6m	DCT0828
UNILOK - 18" (450mm) Rm 1.0 3m	DCT0829
UNILOK - Acoustic - 12" (300mm) Rm 1.0 6m	DCT0640
UNILOK - Acoustic - 14" (350mm) Rm 1.06m	DCT0642
UNILOK - Acoustic - 16" (400mm) Rm 1.0 6m	DCT0644
UNILOK - Acoustic - 18" (450mm) Rm 1.0 3m	DCT0645

#### Tradeflex



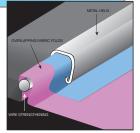
#### Greenduct





Unilok





#### SDS SOLID DUCT (Supply Air)

SDS Solid Duct has been developed over a number of years especially for the Small Duct System. SDS Solid Duct is constructed from a twin layered 0.45 Galvanised Steel and is crimped one end to allow easy slip joint assembly.

DESCRIPTION	ORDER CODE
SDS Solid Duct - 6" (150mm) Rm 1.0 - 1800mm long	DCT3835
SDS Solid Duct - 8" (200mm) Rm 1.0 - 500mm long	DCT3840
SDS Solid Duct - 8" (200mm) Rm 1.0 - 1800mm long	DCT3841
SDS Solid Duct - 10" (250mm) Rm 1.0 - 500mm long	DCT3846
SDS Solid Duct - 10" (250mm) Rm 1.0 - 1800mm long	DCT3847

#### **SDS Smart Duct**

DESCRIPTION	ORDER CODE
Smartflow Duct R0.6 (2m x 150mm x 20mm)	DCT4213
Smartflow Duct R0.6 (2m x 200mm x 20mm)	DCT4214
Smartflow Duct R0.6 (2m x 250mm x 20mm)	DCT4215
Smartflow Duct R1.0 (2m x 150mm x 32mm)	DCT4216
Smartflow Duct R1.0 (2m x 200mm x 32mm)	DCT4217
Smartflow Duct R1.0 (2m x 250mm x 32mm)	DCT4218
Smartflow End Cap for DCT4213	DCT4219
Smartflow End Cap for DCT4214	DCT4220
Smartflow End Cap for DCT4215	DCT4221
Smartflow End Cap for DCT4216	DCT4222
Smartflow End Cap for DCT4217	DCT4223
Smartflow End Cap for DCT4218	DCT4224

#### SDS 90 & 45 Degree Bends (Supply Air)

DESCRIPTION	ORDER CODE
SDS 45 Degree Bend 150mm Rm 0.4 Crimped One End	DCT3854
SDS 45 Degree Bend 200mm Rm 0.4 Crimped One End	DCT3856
SDS 45 Degree Bend 250mm Rm 0.4 Crimped One End	DCT3858
SDS 90 Degree Bend 150mm Rm 0.4 Crimped One End	DCT3848
SDS 90 Degree Bend 200mm Rm 0.4 Crimped One End	DCT3850
SDS 90 Degree Bend 250mm Rm 0.4 Crimped One End	DCT3852

#### SDS Starting Spigots (Supply Air)

DESCRIPTION	ORDER CODE
SDS Starting Spigot 100mm with Gasket	DCT3816
SDS Starting Spigot 125mm with Gasket	DCT3817

SDS Solid Duct



**Smartflow Duct** 



SDS 45 Degree Bend



SDS 90 Degree Bend



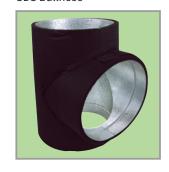
**SDS Starting Spigot** 



#### SDS "T" Piece (Bullnose) (Supply Air)

DESCRIPTION	ORDER CODE
SDS Bullnose (T-Piece) 200 x 200 x 200mm - Rm 0.4	DCT3825
SDS Bullnose (T-Piece) 250 x 250 x 250mm - Rm 0.4	DCT3827
SDS Bullnose (T-Piece) with 2 Even Angled Take Offs 250 x 250 x 250mm - Rm 0.4	DCT3829
SDS Bullnose (T-Piece) with 1 Even Angled Take Offs 250 x 250 x 250mm - Rm 0.4	DCT3831

SDS Bullnose



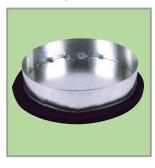
SDS Bullnose Angled



SDS End Caps & Reducing Caps (Supply Air)

DESCRIPTION	ORDER CODE
SDS End Cap 150mm Rm 0.4	DCT3822
SDS End Cap 200mm Rm 0.4	DCT3823
SDS End Cap 250mm Rm 0.4	DCT3824
SDS Reducing Cap 200mm > 150mm Rm 0.4	DCT3819
SDS Reducing Cap 250mm > 150mm Rm 0.4	DCT3820
SDS Reducing Cap 250mm > 200mm Rm 0.4	DCT3821

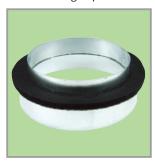
SDS End Cap



SDS Duct Transition (Supply Air)

DESCRIPTION	ORDER CODE
SDS Duct Transition 350 x 120mm > 250 round - 2 Pieces Rm 0.4	DCT3861

SDS Reducing Cap



**SDS Duct Transition** 



### SDS Coil Plenum Box (Return Air)

DESCRIPTION	ORDER CODE
SDS Coil Plenum Box - 655 x 470 x 625mm with 470 x 185mm Extra Opening, Drip Tray& Cover Plate (Horizontal Install Only) to Suit HEZ70	FAN6138
SDS Coil Plenum Box - 470 x 485 x 650mm with Drip Tray, Cover Plate & Coil Holder (Vertical Install Only) to Suit HEZ70	FAN6139
SDS Coil Plenum Box - 470 x 485 x 650mm with Drip Tray, Cover Plate & Coil Holder (Vertical "L" Install Only - eg: Under Stairs) to Suit HEZ70	FAN6140
SDS Coil Plenum Box - 655 x 470 x 625mm with 470 x 185mm Extra Opening, Drip Tray& Cover Plate (Horizontal Install Only) to Suit HEZ100	FAN6081
SDS Coil Plenum Box - 470 x 485 x 650mm with Drip Tray, Cover Plate & Coil Holder (Vertical Install Only) to Suit HEZ100	FAN6082
SDS Coil Plenum Box - 470 x 485 x 650mm with Drip Tray, Cover Plate & Coil Holder (Vertical "L" Install Only - eg: Under Stairs) to Suit HEZ100	FAN6141

#### SDS Coil Plenum Box



#### SDS Drip Trays (Supply Air)

DESCRIPTION	ORDER CODE
SDS Drip Tray Small Version - For Vertical Installs	DCT3862
SDS Drip Tray Large Version with Strengthening Braces - For Horizontal Installs	DCT3863

#### SDS Adaptors to suit Diffusers (Supply Air)

DESCRIPTION	ORDER CODE
SDS Induction Linear Slot Adaptor - One 100mm POP - Vertical	DCT3864
SDS Induction Linear Slot Adaptor - One 125mm POP - Vertical	DCT3865
SDS Induction Linear Slot Adaptor - One 100mm POP - Angular	DCT3794
SDS Induction Linear Slot Adaptor - One 125mm POP - Angular	DCT3795
SDS Square Diffuser Adaptor Rm 0.4 - One 100mm POP - 90 x 90mm	DCT3866
SDS Square Diffuser Adaptor Rm 0.4 - One 125mm POP - 90 x 90mm	DCT3867
SDS Floor Register Adaptor Painted Black Internally 300 x 100 $$ with one 100mm POP	DCT3868
SDS Floor Register Adaptor Painted Black Internally 300 x 100 $$ with one 125mm POP	DCT3869
SDS Floor Register Adaptor Painted Black Internally 350 x 150 with one 100mm POP	DCT3870
SDS Floor Register Adaptor Painted Black Internally 350 x 150 with one 125mm POP	DCT3871
SDS Floor Register Adaptor Painted Black Internally 350 x 150 with two 100mm POP	DCT3872
SDS Floor Register Adaptor Painted Black Internally 350 x 150 with two 125mm POP	DCT3873

SDS Drip Tray Large



SDS Drip Tray Small



#### Metal Return Air Grille Box (Return Air)

DESCRIPTION	ORDER CODE
Metal Return Air Grille Box - Ext insulated Rm 0.4 400 x 600 - 200mm Deep	DCT3890
Metal Return Air Grille Box - Ext insulated Rm 0.4 400 x 750 - 200mm Deep	DCT3891
Metal Return Air Grille Box - Ext insulated Rm 0.4 400 x 900 - 200mm Deep	DCT3892
Metal Return Air Grille Box - Ext insulated Rm 0.4 400 x 1000 - 200mm Deep	DCT3893
Metal Return Air Grille Box - Ext insulated Rm 0.4 400 x 1200 - 200mm Deep	DCT3894

#### **Starting Collars**



#### SDS Unit Return Air Box (Return Air)

DESCRIPTION	ORDER CODE
SDS Unit Return Air Box Rm 0.4 - 25mm Turn Out on Opening Side	DCT3860

Note: Used on heating coil only systems

#### **Castellated Starting Collars**

DESCRIPTION	ORDER CODE
Metal Castellated Starting Collars - 100mm	DCT3874
Metal Castellated Starting Collars - 125mm	DCT3875
Metal Castellated Starting Collars - 150mm	DCT3876
Metal Castellated Starting Collars - 200mm	DCT3877
Metal Castellated Starting Collars - 250mm	DCT3878
Metal Castellated Starting Collars - 300mm	DCT3879
Metal Castellated Starting Collars - 350mm	DCT3880
Metal Castellated Starting Collars - 400mm	DCT3881

**Starting Collars** 



#### **Metal Joiners**

DESCRIPTION	ORDER CODE
Metal Joiner - 100mm	DCT3882
Metal Joiner - 125mm	DCT3883
Metal Joiner - 150mm	DCT0723
Metal Joiner - 200mm	DCT0724
Metal Joiner - 250mm	DCT0725
Metal Joiner - 300mm	DCT0726
Metal Joiner - 350mm	DCT0770
Metal Joiner - 400mm	DCT0771

**Metal Joiners** 



# **DIFFUSERS / REGISTERS**

### Supply Air Diffusers

DESCRIPTION	ORDER CODE
SDS Induction Linear Diffuser / Single Slot Frame. Supplied in 1700mm long lengths / Powder coated White as standard	DCT3904
SDS Induction Linear Diffuser / Single Slot Frame. Supplied in 3400mm long lengths / Powder coated White as standard	DCT4236
SDS Induction Linear Diffuser / Backing Frame Supplied in 1700mm long lengths	DCT4235
SDS Induction Linear Diffuser / Backing Frame Supplied in 3400mm long lengths	DCT3905
SDS Induction Linear Diffuser End Caps (Note: 2 required per grille)	DCT3906
SDS Induction Linear Clip - Small	DCT3907
SDS Round Plastic Diffuser 125mm 90 Degree	DCT3902
SDS Plastic Reducer 125 - 100mm for DCT3902	DCT3903
Poly Straight Jet Diffuser - White	DCT3898

Supply Air Diffusers



Induction Linear Backing Frame



SDS Round Plastic Diffuser 125mm 90 Degree



SDS Plastic Reducer 125-100mm



Poly Jet Diffuser White



# **DIFFUSERS / REGISTERS**

#### Grilles

DESCRIPTION	ORDER CODE
SDS Linear Bar Grille - Floor Type - Natural Aluminium Finish 300 x 100mm	DCT3909
SDS Linear Bar Grille - Floor Type - Aluminium / Black Finish 300 x 100mm	DCT3910
SDS Linear Bar Grille - Floor Type - Aluminium / Beige Finish 300 x 100mm	DCT3911
SDS Linear Bar Grille - Floor Type - Natural Aluminium Finish 350 x 150mm	DCT3912
SDS Linear Bar Grille - Floor Type - Aluminium / Black Finish 350 x 150mm	DCT3913
SDS Linear Bar Grille - Floor Type - Aluminium / Beige Finish 350 x 150mm	DCT3914
Filtered Eggcrate Return Air Grille - 400 x 600mm	DCT3915
Filtered Eggcrate Return Air Grille - 400 x 750mm	DCT3916
Filtered Eggcrate Return Air Grille - 400 x 900mm	DCT3917
Filtered Eggcrate Return Air Grille - 400 x 1000mm	DCT3918
Filtered Eggcrate Return Air Grille - 400 x 1200mm	DCT3919
Bar Return Air Grille - 400 x 750mm	DCT3921
Bar Return Air Grille - 400 x 900mm	DCT3922
Bar Return Air Grille - 400 x 1000mm	DCT3923
Bar Return Air Grille - 400 x 1200mm	DCT3924
Bar Return Air Grille - 300 x 1000mm	DCT3920

#### Return Air Grille



Return Air Bar Grille



Supply Air Bar Grille



### **GENERAL ACCESSORIES**

#### Kwik-Flex Support System

Kwik-Flex is a flexible duct hanging / support system designed to meet the installation requirements of Australian Standard (AS/NZS) 4254.1 (2012) for use in all Commercial / Domestic and Industrial applications.

Commonly used hanging products like 25mm blue strap or metal perforated strapping with or without various mesh products, can strangle the flexible duct or even cut the outer jacket of the flexible duct. This leads to poor performance of your system, increasing running costs.

Studies in both Australia and the USA show that there can be up to 40% thermal energy loses in flexible ducting due to poor installation practices. Kwik-Flex ensures the efficient operating of your ducted air-conditioning, heating or evaporative cooling system.

DESCRIPTION	ORDER CODE
Kwik-Flex Support System - Box of 40 Kwik-Flex Straps	DCT3979
Kwik-Flex Support System - Individual Kwik-Flex Straps	DCT3980
Kwik-Flex Support System - Kwik-Klip - Bag of 100 Kwik-Klips	DCT3981
Kwik-Flex Support System - Kwik-Klip - Bag of 100 Kwik-Klips	DCT3982

#### Kwik-Flex Support System



#### Anti Vibration Support System

DESCRIPTION	ORDER CODE
Anti Vibration Support System - Individual - Suits Sizes 100 to 200mm	DCT3984
Anti Vibration Support System - Pair - Suits Sizes 100 to 200mm	DCT3985
Anti Vibration Support System - Individual - Suits Sizes 225 to 350mm	DCT3986
Anti Vibration Support System - Pair - Suits Sizes 225 to 350mm	DCT3987

Anti-Vibration Support System

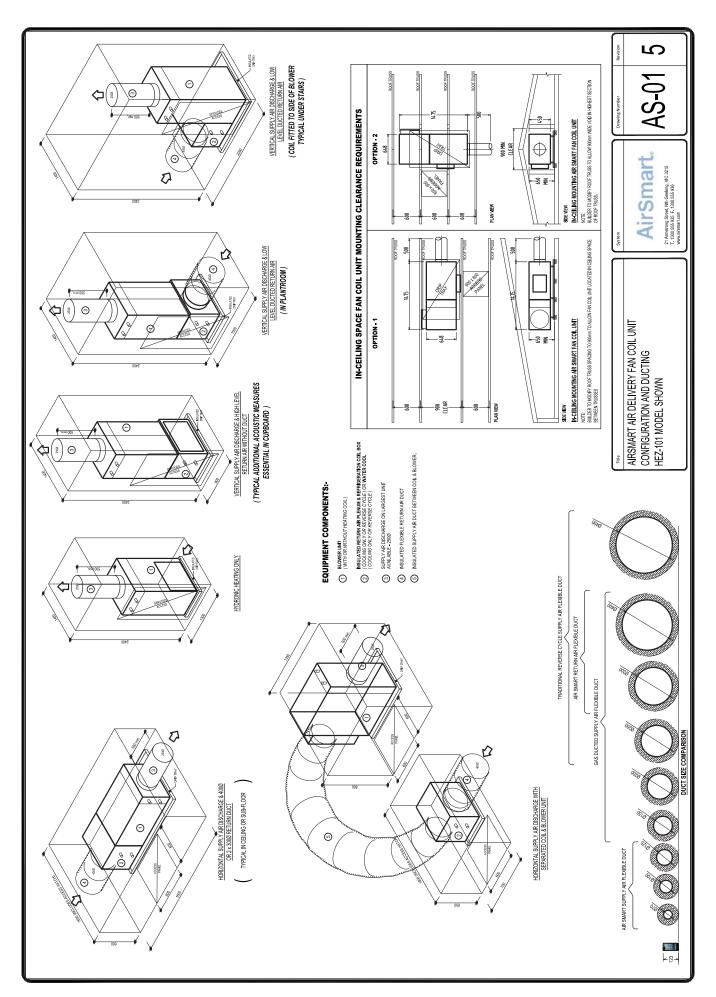


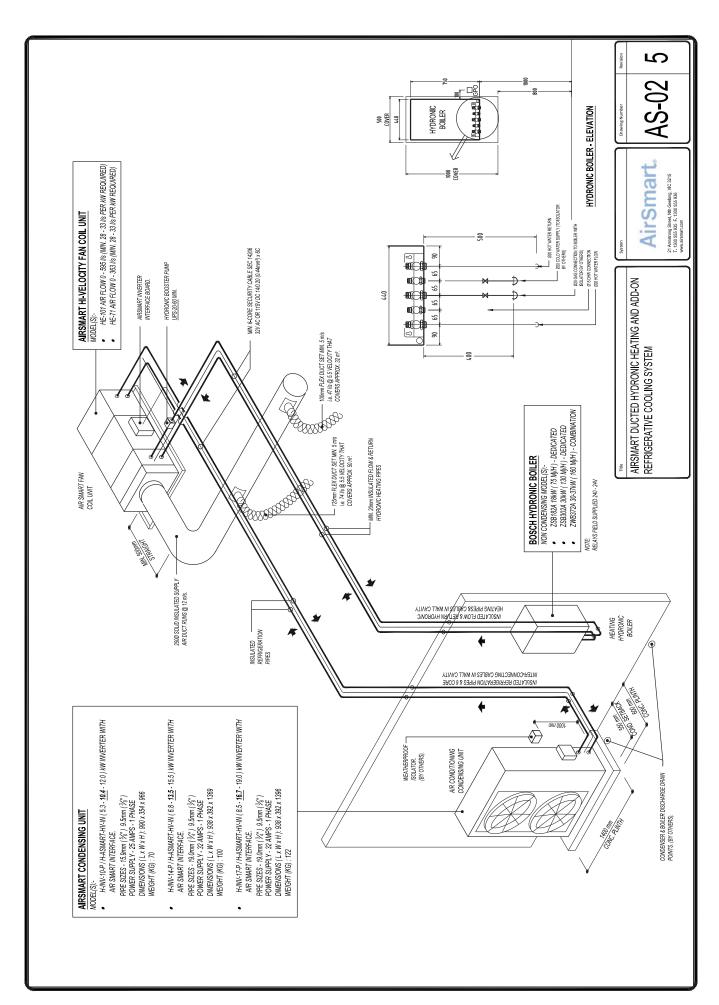
# Below are considerations that need to be taken into account when sizing a Small Duct System (SDS).

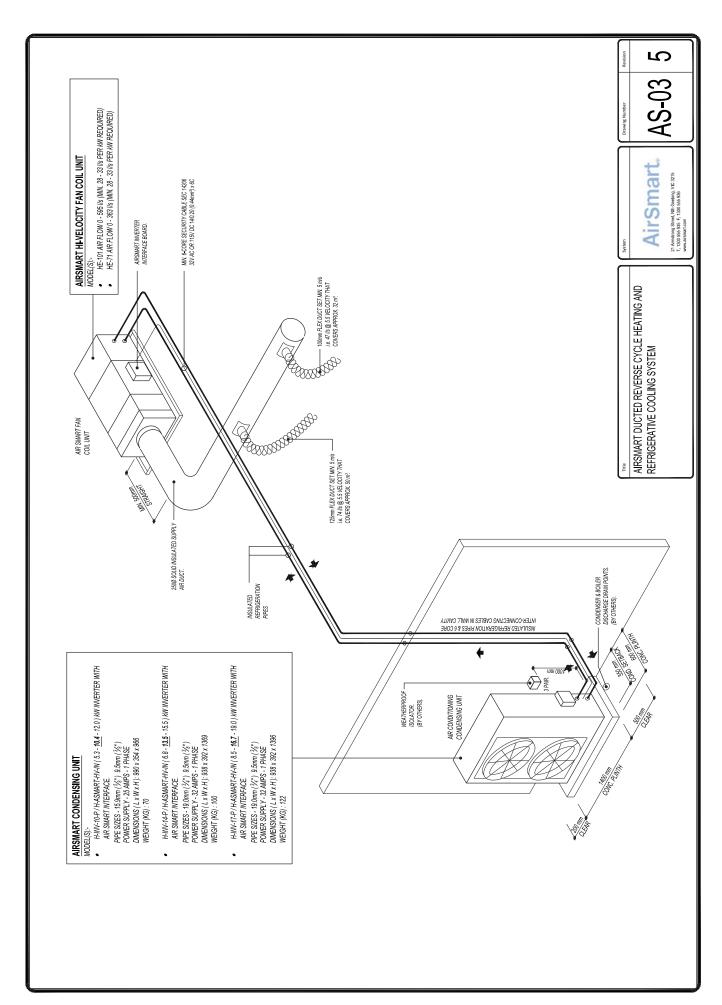
- Minimum of 33 litres / second is required for each kW of cooling. E.g. 17kW of refrigeration x 33 litres / second = 561 litres / second. This is compared with typically 55 to 60 litres / second for traditional ducted split systems.
- With 561 litres / second required for a 17kW cooling system, and each 100mm duct is commissioned to 40 litres / second, this means the maximum number of 100mm supply runs would be 14. Thus each supply run would deliver 17kW divided by 14 supply runs or 1.21kW per run.
- Venturi effect occurs at 5mtrs / second or above. All final air grille velocity is to be commissioned at this rate. 100mm flex delivers 39 litres / second however for ease of sizing we calculate at 40 litres / second.
- As quantity of ducts is based on heat loads / minimum airflow per kW of refrigeration and airflow pressure is commissioned to maintain 5mtrs / second at air grilles typically.

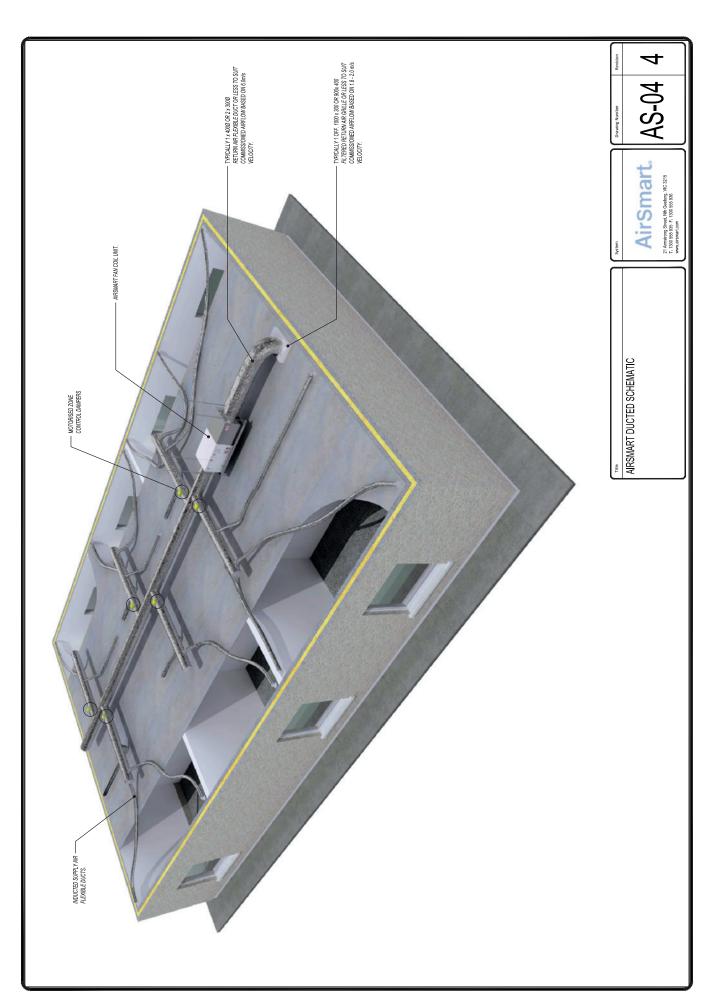
**Note:** The same principles apply when sizing up a traditional ducted refrigeration system. I.e. Calculate the heat load per room, which provides kW system required. kW relates to airflow / quantity of air grilles required. The added benefit of the Hi Velocity fan coil is that you can set the airflow rate on commissioning based on the varying sizes of the refrigeration plant selected for each application. For example: If a 12kW condensing unit is called for, unit commissioned at 396 litres / second compared with 561 litres / second on the same unit to suit a larger 17kW capacity condensing unit.

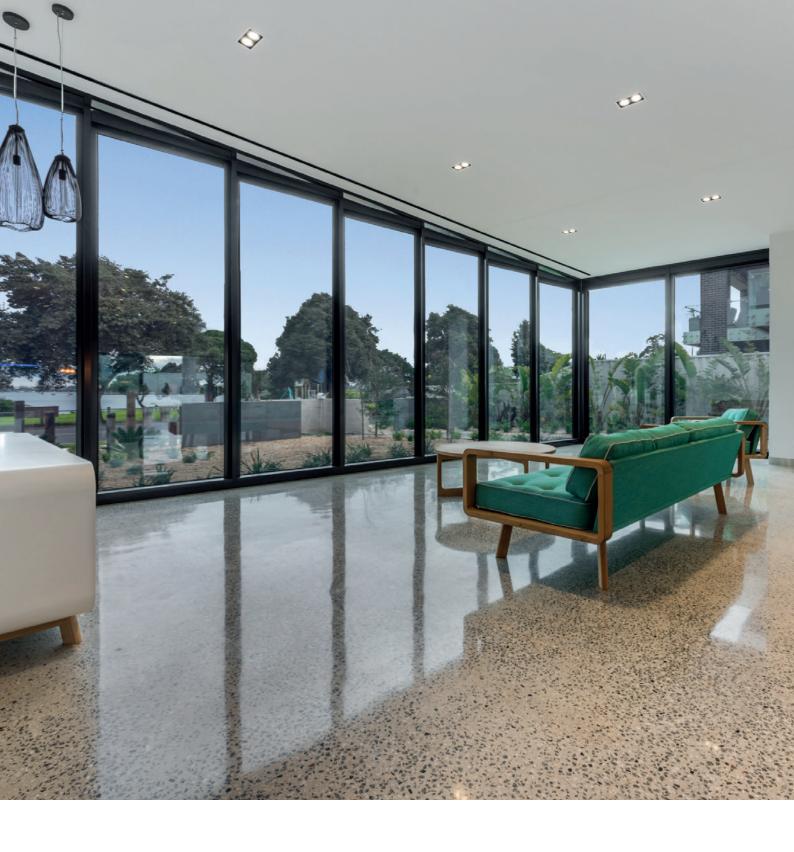
We hope the above assists you with sizing of Small Duct Systems.













Enquiries p: (09) 916 2099 | e: hvac@simx.co.nz | smartvent.co.nz/air-smart

Distributed by Simx Limited.

Simx reserves the right to alter technical specifications without prior notice.  $PUB1372\,iss02\,06/17$