

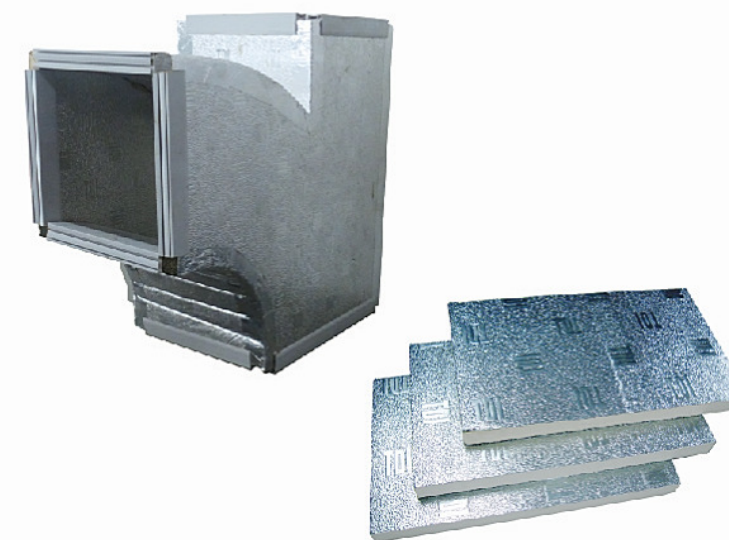
## Pre-Insulated Aluminium Duct



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| <b>01</b> Access door                          | <b>08</b> Grille installation                  |
| <b>02</b> Flexible connection                  | <b>09</b> Section bar for dampers installation |
| <b>03</b> Flexible duct                        | <b>10</b> Hanging bracket                      |
| <b>04</b> Reinforcement bar                    | <b>11</b> Branch connection flange             |
| <b>05</b> Damper quadrant set                  | <b>12</b> Modular damper                       |
| <b>06</b> Section bar for grilles installation | <b>13</b> Tap-in collar                        |
| <b>07</b> Turning vanes                        |  |



## Pre-Insulated Aluminium Duct



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Specification subject to changes without prior notice.

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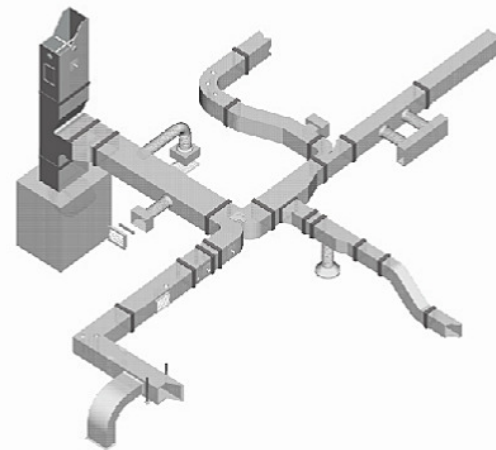
## Pre-insulated Aluminium Duct

### Introduction

GTG pre-insulated aluminium duct is a double skin PIR (Polyisocyanurate) Pre-insulated panel which is composed of 1 layer of high density FIRE RETARDANT RIGID PIR foam panel sandwiched with 2 layers of 80 microns aluminium foil. this panel is specially designed for air conditioning ductwork that requires constant insulation property for energy conservation.

### Specifications

Range	TDI	TD
Type	PIR	PIR
Thickness of panel	20mm	
Compressive strength	200 N/mm <sup>2</sup>	
Friction coefficient	0.0135	
Humidity	0 – 100%	
Density	50 +/- 2kg	52 +/- 2kg
Thermal conductivity – K factor (W/m C)	0.019	0.017
Fire resistant	Class 'O'	
Weight (Kg / m <sup>2</sup> )	1.46	
Working temperature	-60°C to 80°C	
Pressure in duct (Max)	2,000 Pa	
Air flow velocity (Max)	12 m/s	
Green product	Non CFC and Zero ODP	



### Type of finishing on Aluminium Foil

#### Standard

Emboss on both sides of the aluminium foil

#### Optional

- 1) 1 side embossed aluminium foil and 1 side smooth aluminium foil
- 2) 1 side embossed aluminium foil and 1 side smooth aluminium sheet

### Features

#### Fire Retardant

Class 'O' tested in accordance to BS 476 : part 7 : 1997 by Sirim QAS Malaysia and AS/NZS 1530-1999 by AWTA in Australia.

#### Constant Thermal Insulation

Factory pre-insulated panel provides constant thermal insulation throughout the whole ductwork system thereby ensures no water condensation due to poor workmanship in fiberglass insulation on site.

#### Light Weight

In general, it is 5 to 6 times **lighter** than sheet metal duct. GTG panel is 1.46kg/m<sup>2</sup> compares to 9.8 kg/m<sup>2</sup> for 18G GI sheet metal with 2" 2lbs density fiberglass insulation, this feature will reduce building cost and ductwork installation cost.

#### Low Energy Consumption

With constant thermal insulation coupled with **low air leakage** will reduce heat gain that will ensure the air conditioner operating at **lower running cost**.

#### Low Fabrication And Installation Cost

No manpower in duct insulation + light weight + speedy fabrication = **Low ductwork cost**.

#### Low Air Leakage

Very **low air leakage** with special designed duct accessories.

#### Low Noise Operation

With the combination of thickness uniformity and its microporous structure , vibration and reverberation are kept to the minimal level that will result in **low noise operation**.

#### No Noise Pollution On Site

By elimination of the usage of sheet metal will ensure **no noise pollution** on site.

#### Hygienic Environment

NO fiberglass insulation that will ensure a hygienic environment **forever**.

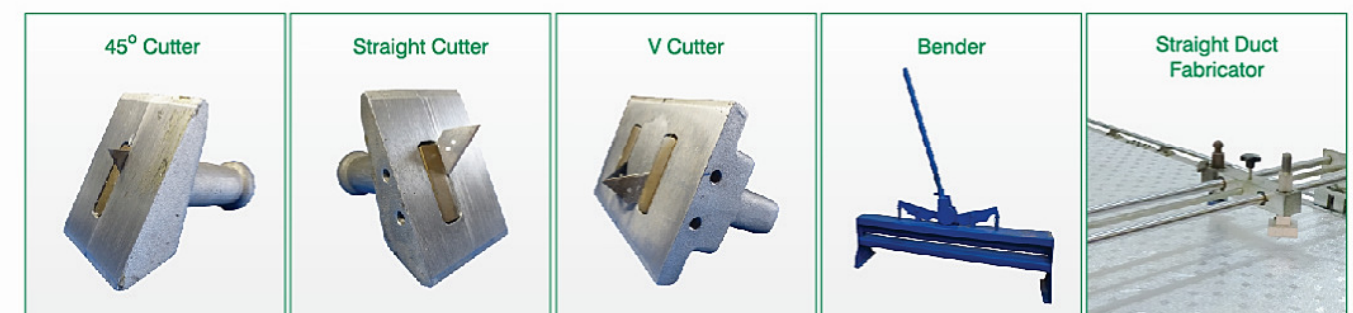
#### Green Product

Non CFC and Zero ODP. **Right choice for green building**.

#### Low Investment Cost

No need investment on expensive CNC duct machine, **only simple toolings are required**.

### Special Tools



### Accessories



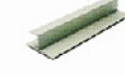
**Bayonet**  
UPVC



**Tee Connector Flange**  
UPVC



**Angle Cover**  
UPVC



**Chair Section Bar**  
Aluminium



**F Section Bar**  
Aluminium



**Invisible Flange**  
UPVC



**Shaped Disc**  
UPVC



**Reinforcement Bar**  
Aluminium



**Damper Ball Joint**  
Aluminium



**Aluminium Tape**  
Aluminium Foil



**Angle Stiffener**  
G.I. Steel