

# Commercial & Residential Daylighting Systems

Sky Tunnel 





# Sky Tunnel

Introducing clear and comfortable daylight has never been easier. Natural daylight ensures that the people working or living in the environment are happier and healthier.

By making an environmental choice and utilising this renewable energy, you will be helping to reduce the consumption of our environments precious resources, and saving money at the same time.

Available in 3 sizes, 343mm (13.5"), 457mm (18") & 535mm (21") diameters, there is a size to suit any application. Sky Tunnel™ sizes offer more actual light area than a typical 350mm (14"), 450mm (18") or 550mm (22") tubular skylight available on the market.

The manufacturers of the Sky Tunnel™ do not compromise on quality, design, materials or structural integrity. Adhering strictly to the structural requirements set out by both the British Board of Agrément and the Australian Standards. Raw Materials are sourced from all over the globe to ensure only the best quality are incorporated into the Sky Tunnel™ product.

Tested by time these skylights are designed to withstand the rigors of use in commercial buildings, and for this reason builders have been using them for almost 20 years. For commercial buildings, the energy savings can be quite easily calculated, and the return on your investment is often under 2 years.

To provide an extra benefit to your decision, the Sky Tunnel™ includes a 7 Year Manufacturers Warranty!

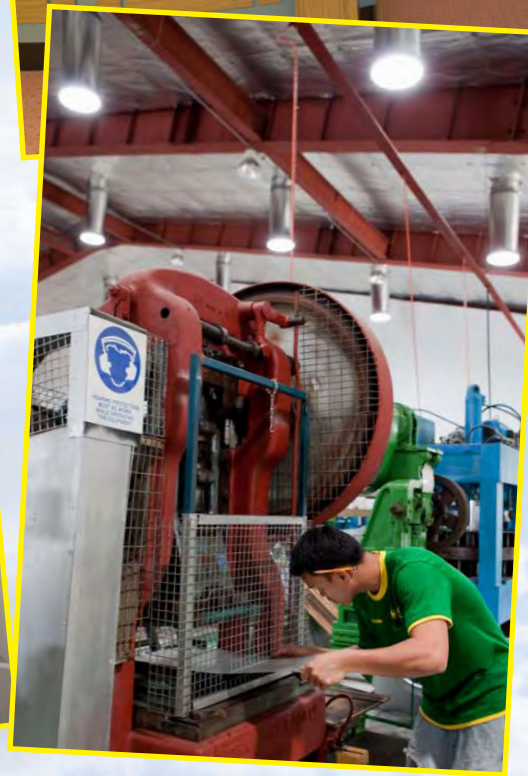
# RESIDENTIAL

Sky Tunnel™ - suitable for any Domestic Application such as Bathrooms, Entrances, Hallways etc



# COMMERCIAL

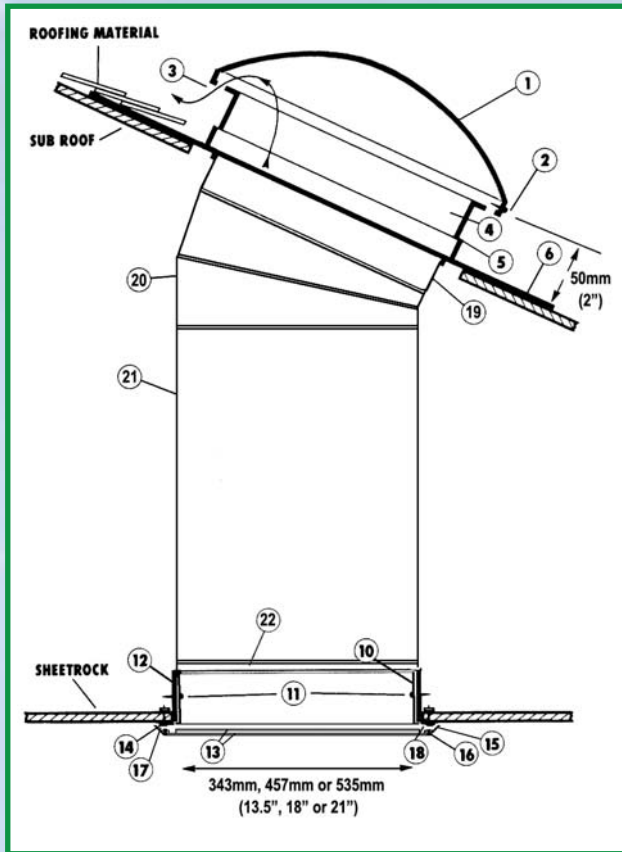
Commercial Applications such as Warehouses, Factories, Reception Areas, Gymnasiums, Retail Shops etc





# Sky Tunnel XL<sup>2</sup> Specifications

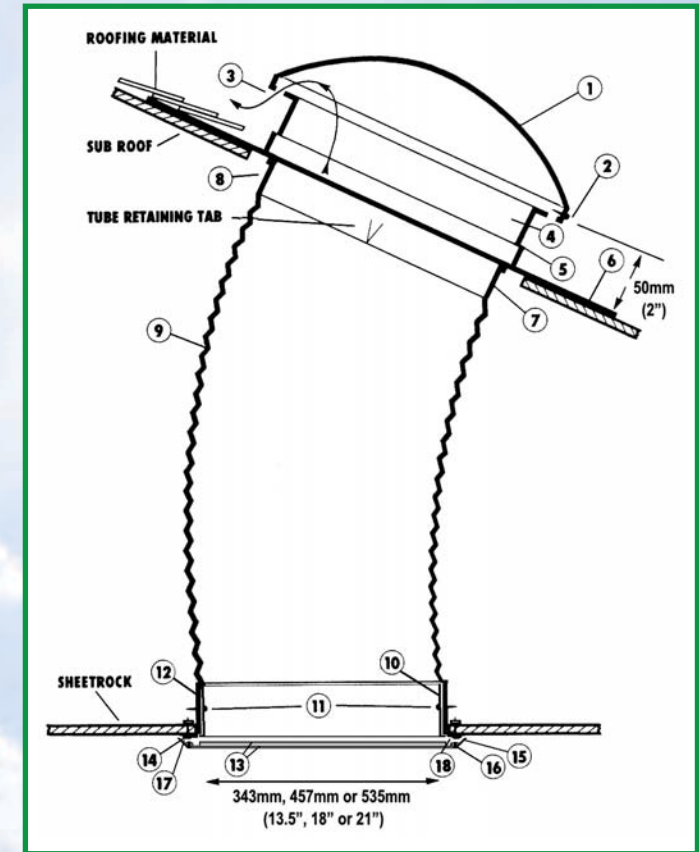
## Sky Tunnel™ with Rigid98 Tube



## Component Materials

- 1) **DOMES** - U.V. Stabilized Grade 1 Acrylic (Altuglas – HF17) or Specialised UV Grade Polycarbonate (Sabic SLX)
- 2) **SCREWS x 8** - to fasten Dome (Class 3 corrosion resistant).
- 3) **VENT/SOLID TABS** - ASA Polymer (Luran S 778 T).
- 4) **BREATHER FRAME** - ASA Polymer (Luran S 778 T).
- 5) **SEAL** - Construction Grade Polyurethane (Bostik Seal'N'Flex 1).
- 6) **SOAKER TRAY** - 0.55mm Corrosion Resistant Steel (Colorbond).
- 7) **REFLECTIVE RING** - 0.45mm 430BA Stainless Steel.
- 8) **TAPE** - PVC ducting tape (TESA 4050).
- 9) **FLEXI-TUBE** - Composite 3 layers including metalized polyester, aluminium foil and spring wire.
- 10) **LOCKING RING** - White ABS Thermoplastic (BASF GP22).
- 11) **SCREWS** - to retain Flexi-tube Locking Ring to Ceiling Frame.
- 12) **CEILING FRAME** - White ABS Thermoplastic (BASF GP22).
- 13) **DIFFUSERS x 2** - 3mm PMMA (Acrylic) with Seadrift texture.
- 14) **SCREWS** - to fasten Ceiling Frame, incl. lock lug and cover cap.
- 15) **DIFFUSER HOLDER** - White ABS Thermoplastic (BASF GP22).
- 16) **MAGNET** - N45 Grade / Rare Earth (Neodymium Iron Boron).
- 17) **SEAL** - 3mm x 6mm Perforated Foam.
- 18) **MAGNET** - N45 Grade / Rare Earth (Neodymium Iron Boron).
- 19) **UPPER RING** - Rigid98 (Miro Silver).
- 20) **ANGLE ADAPTOR: upto 45° or 90°** - Rigid98 (Miro Silver).
- 21) **RIGID LENGTHS: 625mm or 1250mm** - Rigid98 (Miro Silver).
- 22) **LOWER RING** - Rigid98 (Miro Silver).

## Sky Tunnel™ with Flexi-tube™



Due to constant evaluation and improvement in product technology SG Eco Industries reserves the right to alter the materials without notice to improve quality or performance.

### Three Sizes Available

Diameter = Actual Daylight Area

**343mm**  
(13.5")

**457mm**  
(18")

**535mm**  
(21")

### SPECIFYING THE SKY TUNNEL™

- \* The specified Daylighting System shall be the Sky Tunnel manufactured by SG Eco Industries Inc.
- \* The Sky Tunnel shall have a daylight opening of .....mm (343mm [13.5"], 457mm [18"] or 535mm [21"])
- \* The Sky Tunnel dome shall be ..... (Acrylic or Polycarbonate)
- \* The Sky Tunnel tubing shall be ..... (Flexi-tube or Rigid98) material.
- \* The Sky Tunnel tubing shall be a length of .....mm.
- \* The Sky Tunnel shall be to suit a ..... (Tile, CGI, Dek, etc) roof.

# Sky Tunnel XL<sup>2</sup>

Same Great Product...  
Even better Model!

For over 15 years the Sky Tunnel™ has been delivering Free Natural Light to happy customers all over the world.

And with the New Model, the “XL<sup>2</sup>” Installation of the product has been made even easier! The unit comes in 3 boxes, Roof Parts, Attic Parts and Ceiling Parts.

The roof parts are fully assembled and ready to go! The dome is already screwed on and the tabs are installed.

The attic parts are also ready to go, the Flexi-tube has already been taped to the Upper Reflective Ring. Twist it onto the roof parts, and your Sky Tunnel™ is ready to go up on the roof!



We still offer ventilation at no extra charge if required! And the tabs are easier to change, no need to remove the dome to switch between vented and non vented.

A Double Glazed Diffuser is a standard feature, not an optional extra. This provides a more energy efficient unit in all climates.

This Double Glazed Diffuser is held in place by magnets sticking to other magnets in the surface of the ceiling frame. The Double Glazed Diffuser also includes a foam seal, already installed for maximum energy efficiency.



## 9 REASONS WHY YOU NEED SKY TUNNEL™

- **NO Lighting Brownouts**
- **NO Running Costs**
- **NO Heatload on building**
- **100% Color Rendition**
- **Very low maintenance**
- **Fast Return on Investment**
- **Improves occupants comfort**
- **Manufacturers warranty**
- **Environmentally friendly**

## START SAVING ELECTRICITY NOW!



An average 400 Watt Hi Bay Electric Light costs up to Php12,500 (USD270) per year in electricity alone. Add maintenance & repairs and you have an expensive method of lighting your building. Electric lights also run at extreme temperatures, up to 90°C, increasing the overall heat load on the building. This will put extra pressure on Air-conditioning systems, in turn increasing expenditure on electricity even further.

Sky Tunnel™ is available to suit all roof types!



# Sky Tunnel XL<sup>2</sup> Tubing Options

## Rigid98 Tube



SKY TUNNEL's Rigid98 Tubing is fabricated from Miro-Silver, a premium quality aluminium product manufactured by ALANOD in Germany. MIRO - SILVER® the next generation, has a total reflectivity of 98%. Normal anodised aluminum lighting grades have total reflectivity of up to 87%. To increase or enhance this total reflectivity to a higher level, several nanometer-thin optical coatings must be applied to the aluminum surface in a vacuum.

MIRO-SILVER delivers high efficiency with little transmission loss and stays completely white with no colour spectrum shift - even after numerous reflections. It is also extremely durable and will not fade or lose reflectivity.

Rigid98 Tubing is recommended for residential or commercial applications exceeding 3m in length, or where source light is minimal. It is also utilized in commercial applications where general lighting of a large area is required.

## Flexi-tube™



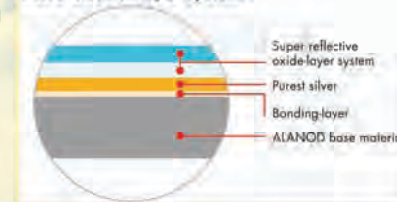
Flexi-tube™ is the standard tubing used in all of our Sky Tunnel™ kits, and suits most applications up to 3m in length. Installation of Flexi-tube™ is very easy, and the performance is outstanding. Flexibility allows the installation of the Roof Parts and Ceiling Parts to be off centre, so avoiding any obstructions in the attic space is simple. With up to 86% reflectivity, Flexi-tube™ is a cost effective and reliable component in the Sky Tunnel™ Kit. Manufactured in house, from the highest quality local and imported materials, you can be sure our Flexi-tube™ will stand the test of time. After all, it already has for 20 years!



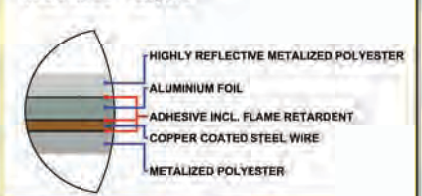
Manufacturing Flexi-tube™.

## Flexi-tube™ & Rigid98 Layers

### MIRO-SILVER® Layer System



### Flexi-tube™ Layers



# Sky Tunnel XL<sup>2</sup> FREQUENTLY ASKED QUESTIONS

**1. How much extra light will a Sky Tunnel™ give me?**

There is no standard answer because of the variables that affect the performance of any skylight. Like time of year, time of day, throat size, length of shaft, dome orientation on the roof, room size, wall colours and general decor. Plus general weather & ambient light conditions always effect the end result.

Our many years of experience has taught us that an assessment of these variables, and your needs, is the most effective way that we can ensure that you get the natural light you're looking for. Your local Sky Tunnel dealer will be able to help you.

**2. Does heat come through a Sky Tunnel™?**

Minimal heat will enter through the Sky Tunnel™, as the unit is double glazed at ceiling level. It also has the dome at roof level, reducing heat transmittance, and none of the tubing components hold heat. Therefore there will be no additional heat load on the building. In fact compared to electrical lighting, or traditional skylights, the temperatures are significantly lower.

**3. Will my Sky Tunnel™ leak?**

No. The Sky Tunnel™ is watertight and guaranteed against leaking. Your installer or dealer will guarantee the the installation against any leaking.

**4. What Warranty will my Sky Tunnel™ have?**

The Sky Tunnel™ includes a 7 year manufacturers warranty.

**5. Where is the Technology from? And where is the Sky Tunnel™ made?**

The Sky Tunnel™ was invented in Australia in 1991, and sold under the name Sola Skylights. It was sold throughout the USA as Sun Tunnel, and the UK as Sky Tunnel™. Since 2007 the product has been sold worldwide as Sky Tunnel™.

Originally manufactured in Australia, the tooling and machinery was transferred to the Philippines in June 2008. All manufacturing now takes place in our factory in the Clark Freeport Zone, Pampanga.

**6. How important is the tubing material?**

Very important as it transmits the outside light into your room. Key factors are the open area of the tubing, the length of the tubing, and that the tubing should be "shiny" and, in the case of a flexible tube, quite taunt. Our Rigid system uses Alanod Miro Silver with a total reflection of 98%. Using inferior products will dramatically reduce the efficiency of the Sky Tunnel™.

**7. Does my interior colour scheme affect the performance of my Sky Tunnel™?**

Yes it does. Light bright colours will tend to reflect daylight around the room while dark colours will tend to absorb daylight. Adjusting the size or quantity will help to solve this problem.

**8. What is the maximum length of tubing?**

For Flexi-tube we recommend a maximum of 3m, which covers over 95% of residential applications. Any longer than this, we recommend using the Rigid98 Tubing system. This can be used effectively over 6m in length, however the longer the tubing, the less light transmittance - regardless of materials used.

**9. What is the coverage area for a Sky Tunnel™?**

Based on years of experience, as a rough guide, using upto 3m (10') of Flexi-tube: 343mm (13.5") dia Sky Tunnel™ is effective for approx 3m x 3m or 9m<sup>2</sup> (10' x 10') 457mm (18") dia Sky Tunnel™ is effective for approx 4m x 4m or 16m<sup>2</sup> (13' x 13') 535mm (21") dia Sky Tunnel™ is effective for approx 5m x 5m or 25m<sup>2</sup> (16' x 16')

Our commercial 535mm (21") unit with 1.5m of Rigid98 tubing is effective for upto 36m<sup>2</sup>.

Certain factors mentioned in Question 1 will affect the overall performance.

**10. Can a Sky Tunnel™ be used on a multi-storey building?**

Yes. As long as the space above the Sky Tunnel™ is clear so the tubing can run as straight as possible. Normally a void, such as a cupboard is placed above the Sky Tunnel so the tubing is not visible in the room it is running through.

The roof components should always be installed on a roof, placing them on a vertical wall is not recommended, as the light performance will not be adequate.

**11. Can I have ventilation with my Sky Tunnel™?**

Yes. The standard Sky Tunnel™ has the option of passive ventilation utilising our Interchangeable Vent System.

**12. Is security an issue with the Sky Tunnel™?**

Our experience has shown us that the Sky Tunnel™ is not used as a method of entering a secure building. There is normally far easier and safer points of entry, with most crimes being opportunistic. For those who are concerned, we can advise several options which can be added to the Sky Tunnel™ to increase its security.



***Daylighting the world for almost 20 years!***

**Manufactured By:**

 **SG Eco Industries Inc.**

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**Authorized Dealer:**



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