

Sky TunnelTM XL²

Commercial and
Industrial
Daylighting
Systems



SkyTunnel™ XL²

Introducing clear and comfortable daylight has never been easier. Natural daylight ensures that the people working or living in the indoor 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, 457mm & 535mm diameters, there is a size to suit any application. Sky Tunnel™ sizes offer more actual light area than a typical 350mm, 450mm or 550mm tubular skylight available on the market. A little extra light, can go a long way!

SG Eco Industries is the manufacturer of the Sky Tunnel™ and 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 Australian Standards. Raw materials are sourced from all over the globe to ensure only the best quality materials are incorporated into the Sky Tunnel™ product.

Tested by time, Sky Tunnel™ is designed to withstand the rigors of use in commercial buildings, and for this reason construction companies have been using them for over 20 years. For commercial buildings, the energy savings can be quite easily calculated, and the return on your investment is often under 2 years, when including: Savings in energy costs, increased human productivity and improvement in quality control leading to reduced re-works.

Sky Tunnel™ has a 7 Year Manufacturers Warranty!



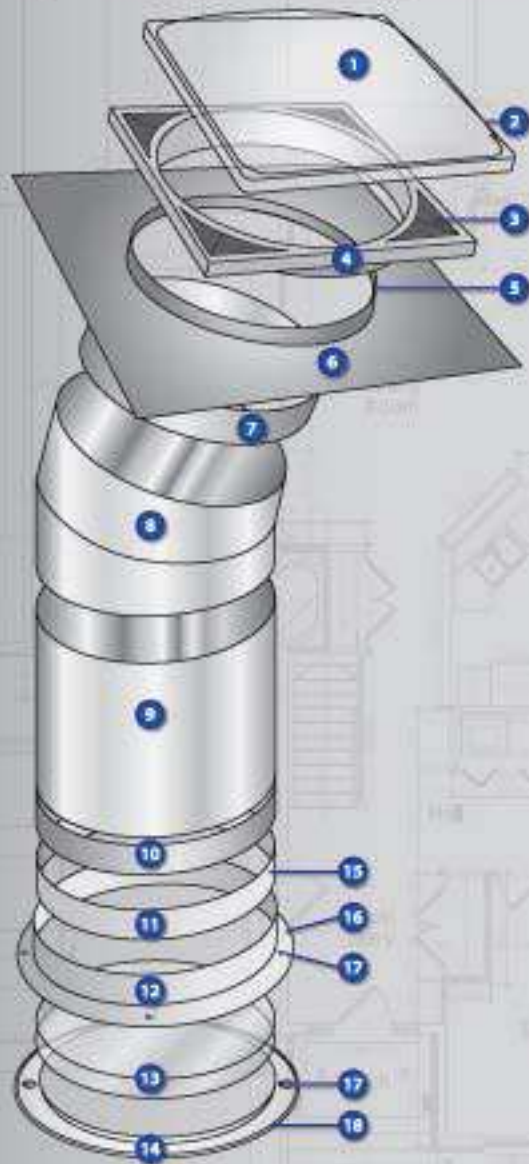
APPLICATIONS

Sky Tunnel™ is suitable for almost any Industrial or Commercial Application where you see electric lights being operated during daylight hours. This includes applications such as Warehouses, Factories, Offices, Reception Areas, Gymnasiums, Retail Shops etc.



COMPONENT SPECIFICATIONS

Sky Tunnel™ with Rigid98



- 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) **UPPER RING** – Rigid98 (Miro Silver).
- 8) **ANGLE ADAPTOR: upto 45° or 90°** – Rigid98 (Miro Silver).
- 9) **RIGID LENGTHS: 625mm or 1250mm** – Rigid98 (Miro Silver).
- 10) **LOWER RING** – Rigid98 (Miro Silver).
- 11) **LOCKING RING** – White ABS Thermoplastic (BASF GP22).
- 12) **CEILING FRAME** – White ABS Thermoplastic (BASF GP22).
- 13) **DIFFUSERS x 2** – 3mm PMMA (Acrylic) with Seadrift texture.
- 14) **DIFFUSER HOLDER** – White ABS Thermoplastic (BASF GP22).
- 15) **SCREWS** – to retain Flexi-tube Locking Ring to Ceiling Frame.
- 16) **SCREWS** – to fasten Ceiling Frame, includes lock lug and cover cap.
- 17) **MAGNET** – N45 Grade / Rare Earth (Neodymium Iron Boron).
- 18) **FOAM SEAL** – 3mm x 6mm Foam.





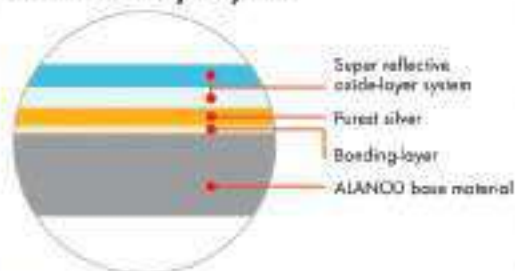
Rigid98 Tube

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.

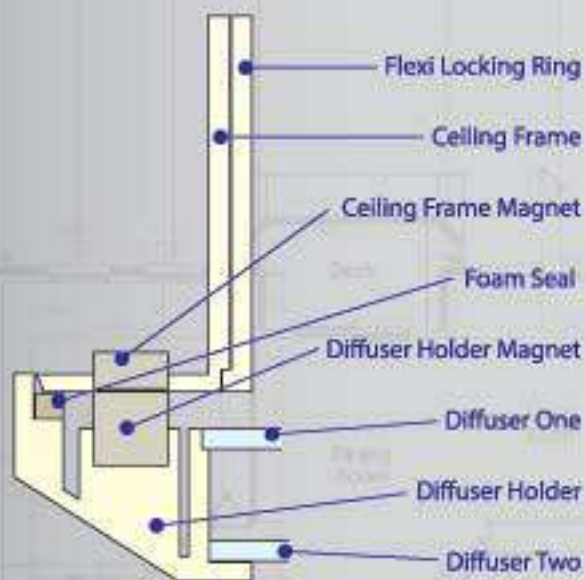


MIRO-SILVER delivers high efficiency luminance with little light transmission loss and the light stays completely white with no colour spectrum shift - even after numerous reflections. It is also extremely durable and will not fade or lose reflectivity.

MIRO-SILVER® Layer System



Sky Tunnel™ XL² CEILING PARTS



With Sky Tunnel™ a double glazed diffuser is a standard feature, not an optional extra. This provides a more energy efficient daylighting unit in all climates.

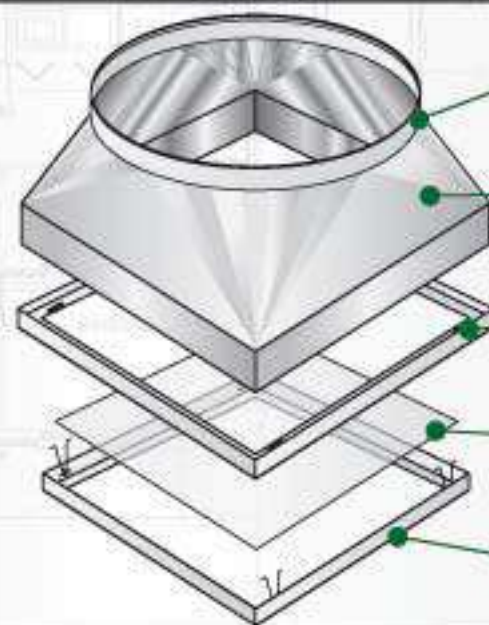
This double glazed diffuser is held in place by magnets sticking to other magnets in the surface of the ceiling frame. The double glazed diffuser also includes a foam seal, already installed for maximum energy efficiency.



CONVERSION BOX

Convert a 343mm, 457mm or 535mm diameter Sky Tunnel™ into a Diffuser System specifically designed for a standard 600mm x 600mm (2' x 2') Grid Ceiling System.

Available with either a single or double glazed diffuser. The aesthetic design allows the system to blend in with the Grid Ceiling System.



Connect your Rigid98 Tube to the Trim.

The Conversion Box is made from Rigid98 Tube to ensure maximum light transmission.

The White Powdercoated Frame is attached to the uprights in the Ceiling Grid

Single or Double Glazed 3mm PMMA Diffusers are held into the Diffuser Holder.

The White Powdercoated Diffuser Holder is connected to the Frame with a unique spring system.





10 REASONS WHY YOU NEED SKY TUNNEL™



No Lighting Brownouts



No Running Costs



No Heat Load on Building



100% Color Rendition



Very Low Maintenance



Fast Return on Investment



Improves Occupants Comfort



Manufacturers Warranty



Environmentally Friendly



Improves Human Productivity

START SAVING ELECTRICITY NOW!

An average 400 Watt Hi Bay Electric Light cost up to DHS 300 per year in electricity alone. Plus maintenance & repairs that could in to another DHS 500 per year. This is 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 system, in turn increasing the running costs.





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. As part of the testing for Australian Standard AS4285, the Sky Tunnel™ was subjected to winds of 16 metres per second and water spray of 3 litres per second. Any water penetration is a failure. Sky Tunnel™ passed this and all other tests in AS4285.

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 strong is the Dome?

The Acrylic Dome on the Sky Tunnel™ was live load tested to 120kg as per Australian Standard AS4285.

7. 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 taut. 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™.

8. 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.

9. What is the maximum length of tubing?

For Flexi-tube we recommend a maximum of 3m, which covers over 95% of residential applications and some commercial 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. For more information look on the Attic Parts page of this brochure.

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. 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.

SkyTunnel™ XL² COMMERCIAL PROJECTS - UAE

Dubai Silicon Oasis Villas, Dubai

Marinascape Development Community Hall, Dubai

Unilever, Jebel Ali FZ, Dubai

Jotun Paints, Abu Dhabi

Sheikh Zayed Desert Learning Centre, Al Ain

Seventhday Adventist Church, Ras Al Khaimah

More information on the projects can be found on our website - www.eco.ph/case-studies





Amercian Plaque Factory



Green Cross



Toyota Motor Corp



Lucena Bus Terminal



JJ Supermarket



Amercian Plaque Factory



Green Cross



Toyota Motor Corp



Lucena Bus Terminal



JJ Supermarket

Sky Tunnel™

Daylighting the world for more than 20 years!



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