

# Mars India Chooses Solatube for Sustainable Lighting Solution









*Solatube units deliver bright daylight without solar heat gain to this Mars India production area.*

**Company:**

Mars International India Pvt. Ltd. (Mars India)

**Industry:**

Chocolate Manufacturing

**Project Details:**

Install best-in-class daylighting solution in new 18,581 m<sup>2</sup> chocolate factory in Pune, India.

**Project Objectives:**

- Meet corporate sustainability goals
- Produce first-rate chocolate products
- Promote employee well-being and performance

**Solution:**

Solatube Daylighting Systems

**Results:**

- Daylighting helps Mars India reach energy goals
- Natural sunlight creates a healthy work environment that increases staff engagement
- Solatube units help Mars India save over 220,000 kWh and avoid over 200,000 kg of greenhouse gas emissions annually

**CUSTOMER BACKGROUND**

In 2013, Mars International India Pvt. Ltd. (Mars India) announced it would open its first chocolate factory in Pune, India, to meet the growing demand for the company's well-known Snickers™ and Galaxy™ brands.



*The Mars India chocolate factory incorporates many sustainability features such as Solatube Daylighting Systems.*

## CHALLENGES

From the beginning, the plan was to build an eco-friendly, sustainable facility. To do this, Mars India needed to design an 18,581 m<sup>2</sup> building that used minimal energy, operated efficiently, offered a comfortable work environment, and preserved the environment.

Since temperature stability is an important factor in the manufacture of chocolate, Mars India needed to tightly control the heat generated by lighting. This would help assure first-rate product quality and high yields. Through the use of daylighting, the company hoped to turn off all lights and reduce air conditioning use during the day while maintaining a stable temperature.

## SOLUTION

As chief engineer for the Mars India project, Eric van Deijck sought a best-in-class natural lighting solution that minimized solar heat gain and its impact on both cooling load and product quality.

During the planning process, Van Deijck recalled that other Mars facilities had successfully used Solatube Daylighting Systems as their lighting solution. Intrigued by the concept, he contacted Global Enersol Technologies Pvt. Ltd., the Solatube distributor for India, and scheduled a presentation with Director Sanjay Sheth.

When they met, Van Deijck learned that the tubular daylighting devices made by Solatube International, Inc. had been installed in more than 100,000 commercial facilities in over 100 countries. He was also pleased to discover that the Solatube units had worked exceptionally well in food processing production areas, warehouses, and offices—the same spaces he required for his India project.

“The high-quality engineering that goes into making a Solatube Daylighting System what it is, like providing uniform light throughout the day 365 days a year...that is what clinched the deal with Mars,” Sheth said.

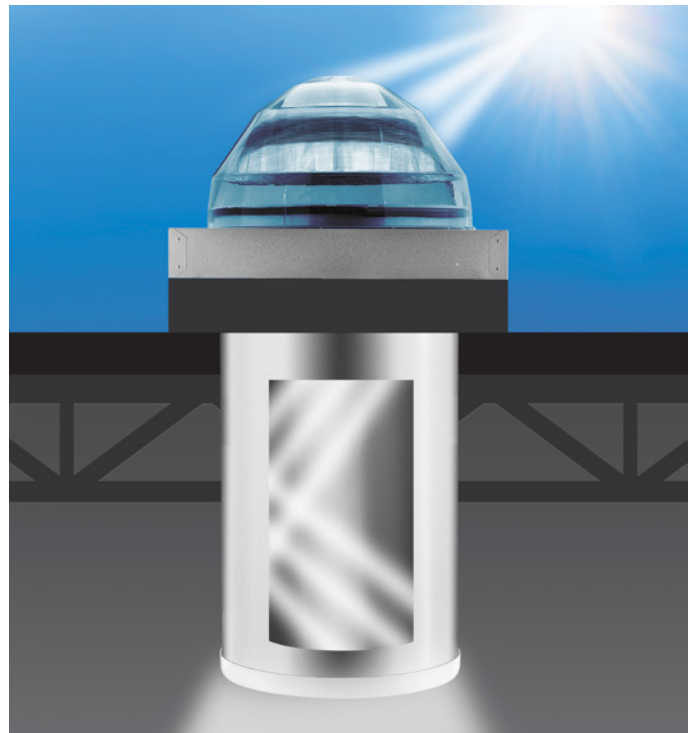
## RESULTS

### A Model Solution for Every Space

About 450 Solatube units were installed during the multi-phase Mars India building project. Sheth's team developed designs for facility areas using different Solatube models—each configuration providing an optimized level of consistent, high-quality daylight.

- Solatube SkyVault® Series M74 DS units in the warehouse
- Solatube SolaMaster Series 330 DS units in production areas
- Solatube SolaMaster® Series 750 DS units in offices
- Solatube Brighten Up® Series 290 DS units in corridors

“He [Sheth] was a great help in making sure we got the right type in every area...how many we would need and where they would have to be positioned,” said Van Deijck. “Solatube provided a total solution.”



*The Mars production area required abundant and consistent lighting with thermal neutrality, which Solatube Daylighting Systems deliver with patented dome and tubing technologies.*

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*“Daylight in a new facility is just a no-brainer. Bring in Solatubes and you start from a good level from day one.”*

- Eric van Deijck,  
Chief Engineer of Mars India

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### **Better Associate Engagement**

As a global manufacturer with more than 75,000 employees across 75 countries, Mars, Inc. places great importance on the health and well-being of its associates. It's a concept they call “associate engagement.” Selecting Solatube products allowed Mars India to champion this idea by creating a pleasant work environment for its employees.

### **Even Lighting Throughout the Day**

To create the ideal work setting, Mars India wanted bright, even lighting for staff in all areas of the building. The goal was to boost the number of hours its employees could work without the electric lights on.

Solatube Daylighting Systems met this need with advanced optical technologies. Built-in Raybender® and LightTracker™ Technologies allow the units to maximize light capture and provide consistent light from dawn to dusk. Reflective Spectralight® Infinity tubing also helps by transferring the most sunlight with minimal solar heat gain.

### **Zero Maintenance**

When designing the Mars India facility, Van Deijck was concerned about how the Solatube units would perform amid Pune's extreme weather conditions—from scorching heat and dust to high humidity and torrential monsoon rains.

The design of the Solatube Daylighting System soon put the Mars India chief engineer at ease. The units are

designed to eliminate debris buildup, so cleaning is not needed. Additionally, the leakproof flashing keeps rain on the outside—where it belongs.

With no light bulbs to change, the units eliminate interior maintenance too. The company's 10-year warranty and 25 years as the global daylighting leader provide further peace of mind.

### **Helping the Environment**

As part of its “Sustainable in a Generation” approach, Mars, Inc. plans to have a zero carbon footprint in all its facilities worldwide by 2040. Since the Solatube units installed at its India factory use natural daylight rather than electricity, they put the company in a good position to achieve this goal.

Based on the success of daylighting at Mars India and other Mars installations in Europe, the chocolate manufacturer plans to continue using Solatube products for future projects.

That's why Van Deijck is hoping to adopt Solatube Daylighting Systems as a company-wide standard.

“Daylight in a new facility is just a no-brainer. Bring in Solatubes and you start from a good level from day one,” said Van Deijck.

### **CONTACT**

To learn how Solatube products can help with your next commercial project, contact Solatube Worldwide Sales.

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