

## Technical Information and Components Descriptions

Solatube® 160 DS is conveniently available from the nationwide build shop

The **nbs Special Offer** Solatube® 160 DS features an electric Light Add-On Kit, electric fan Ventilation Add-On Kit for installation complete with Pull-cord ON/OFF switch. The product features super efficient, 250mm Diameter, Solatube® Spectralight® Infinity Tubing.



Designed for windowless bathrooms, toilets, shower rooms and utility rooms, where condensation and fumes can be a problem. The specification also includes a wall/soffit exit vent as standard and a choice of roof flashing suitable for plain and corrugated tiles, slate or slate composites.

The Solatube® 160 DS patented system pipes amazing levels of free light during the day and discreet electric light when it's very dull or dark outside. Highly efficient, cost effective and simple to install, the product can benefit your wellbeing and the efficiency of your home.

### How much light will the Solatube® 160 DS provide?

This specification provides daylight coverage of up to 13m<sup>2</sup> (150ft<sup>2</sup>) The maximum output is 4100 lumen, based on an installed tube length of 1.8m relative to UK daylight levels. (TMY2 weather data). However to give an exact figure for light output would be misleading because a product - indeed any tubular daylight system - works in a similar manner to a window - the brighter the day outside, the more light you receive inside

**The technology incorporated in a Solatube® 160 DS takes the greatest advantage of the available daylight levels at all times of the year. This is where Solatube® products are light years ahead of any other product currently available for home applications.**

### nbs.

To start the purchase procedure, you can simply print out the Order Schedule on page 5 and notate your requirement before ordering the **nbs Special Offer** product.

### How to specify the **nbs Special Offer Solatube® 160 DS**

Refer to Components listed below for detailed descriptions.

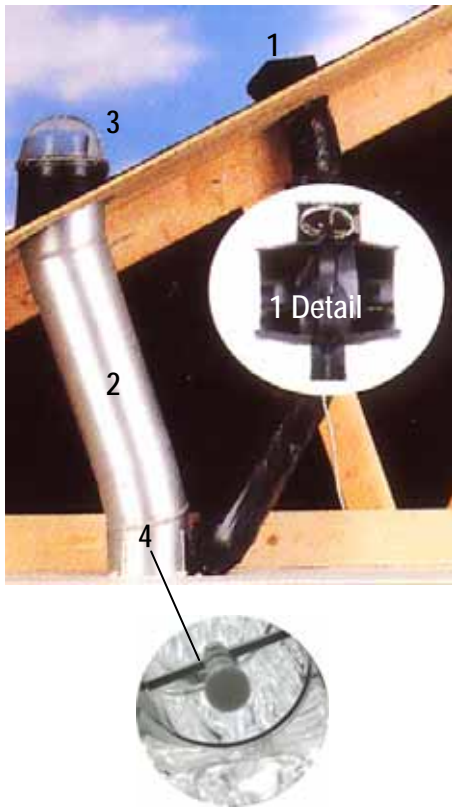
You have a windowless or very dark bathroom, toilet, shower room or utility room; you wish to bring daylight in to brighten the interior...

1. Decide the location of the ceiling bezel assembly that incorporates the extract fan inlet and the Vusion™ Diffuser. Please note the OptiView® Diffuser is optionally available with this nbs Special Offer specification.
2. Go into the attic space and ascertain where the ceiling bezel penetrates the ceiling. Note the position of the ceiling rafters, water pipes, tanks and electrical cables – these may have to be modified or re-routed to ensure they do not obstruct the installation of the light pipe. TIP – From the room or corridor you can drill a small centre hole through the ceiling and push a length of dowelling through into the attic to help ascertain the position of the ceiling bezel assembly – ensure there are no pipes, tanks or cables above this position before drilling the hole. In the attic, measure the distance from the top surface of the ceiling to the under surface of the roof where you expect to fit the roof flashing/dome assembly. This dimension will decide how many extension tubes will need to be specified – see below for detailed explanation. Decide the approximate position of the roof extract vent.
3. Decide the type of flashing required that matches the roofing material – see below for detailed explanation.
4. Decide the position of the electric light switch for the built-in electric Light Add-On Kit - detailed below.

### Optional components offered at additional cost

See table on next page.

## Components and Accessories



1. Ventilation Add-On Kit - Detail, inline extract fan
2. Telescopic Spectralight® Infinity Extension tube(s)
3. Roof flashing/Dome assembly
4. Electric Light Add-On Kit installed within the tubing

Do not place your order or proceed with the installation until you have read and understood the information given in this publication and the installation guidelines from **nbs**. If you have any questions before ordering or require clarification of any installation procedures, please contact nationwide build shop limited

### Components included in the **nbs Special Offer Solatube® 160 DS specification**

Ventilation Add-On Kit complete with ceiling bezel assembly incorporating the Vusion™ Diffuser (double glazed), two extension tubes installed distance 1520mm, extract fan inlet, flexible ducting, inline extract fan unit and wall exit vent complete with Pull-cord switch (Manual ON/OFF)

Telescopic Spectralight® Infinity Extension tube(s) 610mm each.  
As necessary up to four tubes

*Roof Flashings – choice of two.*

Universal pitched roof flashing\* (3b) - as required

Universal parallel roof flashing\*\* (3c) - as required

Flashings 3, 3a and 3d are NOT available as part of the Special Offer

\* For roofs with greater than 30 degree pitch.

\*\* For roofs with less than 30 degree pitch

Electric Light Add-On Kit.

### Optional components offered at additional cost

Up to two additional extension tubes for installed distance of 2640mm

OptiView® Diffuser supplied in lieu of Vusion™ Diffuser.

Universal roof exit vent kit

Spectralight® Infinity 0 to 90 Degree Extension Tube. (Adjustable angle bend)

**Flashing Insulator – recommended where Solatube® 160 DS is installed in an unvented roof space.**

## Component specifications

### Diffuser Choice



▲ Standard supply Vusion™ Diffuser provides a diffuse "soft" lighting effect

#### 1a. Standard supply Vusion™ Diffuser

The Vusion™ Diffuser with White bezel is supplied as standard with every Solatube® 160 DS. It fits neatly to the ceiling with no visible fasteners, and delivers outstanding natural light diffusion through a frosted prismatic lens. This quality double glazed diffuser features a snap on/off facility so it may be removed for occasional light dusting. The diffuser blocks virtually all UV transmission to prevent fading of carpets and soft furnishings.



#### 1b. Optional OptiView® Diffuse

The OptiView® Diffuser with White bezel is optionally available for the Solatube® 160 DS. This diffuser uses a multiple Fresnel lens system with a stunning architectural look to deliver crystal clear daylight. It fits neatly to the ceiling with no visible fasteners and delivers outstanding natural light diffusion.

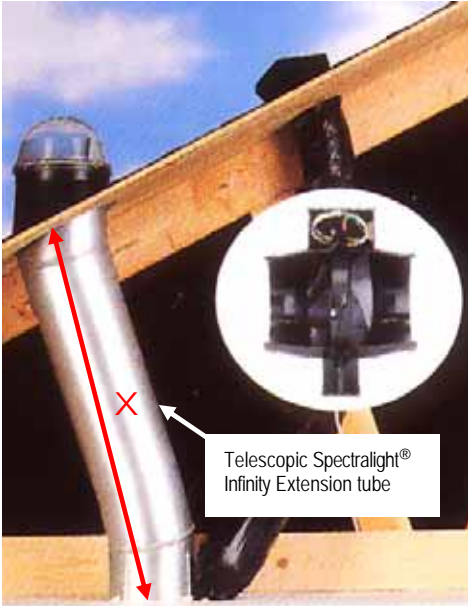
Supplied in lieu of Vusion™ Diffuser when chosen.



## 2. Spectralight® Infinity

### How many tubes are required?

## Extension tube(s)



Telescopic Spectralight® Infinity Extension tube

▲ Installed distance X



▲ Three Spectralight® Infinity extension tubes used here

The Solatube® 160 DS specification is supplied with a top and bottom tube assembly that together give an install distance (ceiling to roof) of up to 400mm (16"). This is generally sufficient for vaulted ceilings or very shallow pitch roofs. For greater install distances you will need to purchase additional Spectralight® Infinity Extension Tubes to meet your required install distance. You can calculate your install distance by measuring the internal distance between your ceiling and roof (see distance X in the picture on left). Use the chart below to calculate the number of extensions. By matching your roof void distance X to the appropriate tube length in the Install distance column. Always go to the next size up – the tubes are telescopic. For example if measurement X is 1650mm you will have to order three Spectralight® Infinity extension tubes. Please contact us for advice for install distances greater than those shown in the table below.

Spectralight® Infinity Extension Tube calculator for Solatube® 160 DS model	
Installed distance X	Extension tubes supplied
Each tube added increases Installed distance by 560mm.	
mm (Inches)	Quantity
Up to 400 (16)	0
Up to 960 (38)	1
Up to 1520 (60)	2
Up to 2080 (82)	3
Up to 2640 (104)	4
<b>PLEASE NOTE, THIS SPECIFICATION CAN HAVE UP TO FOUR EXTENTION TUBES.</b>	



Each Spectralight® Infinity Extension Tube is 610mm long. Each tube added increases the installed distance by 560mm.

See separate Instructions for assembly procedure.

## Roof flashings

The roof flashing range covers virtually all UK pitched and flat roof types. Solatube® flashings are fabricated to ensure leak proof performance and easy installation, with pitched flashings available to provide the optimal dome position on sloped roofs to capture the most daylight possible. No environmentally-unfriendly lead is required to fit the flashings. If you need any advice regarding a suitable flashing for your roof type please contact **nbs**.

The photographs below show the roof flashings normally offered. We are also able to supply flashings for more unusual roof types such as thatch, standing seam and land homes, and can advise on flashings for homes in conservation areas.

### 3b.

Solatube Universal PITCHED flashing – for North, West, and East facing roofs GREATER than 30° pitch.



### 3c.

Solatube Universal PARALLEL flashing – for shallow or South facing roofs with LESS than 30° pitch.



### 3e.

Flashing Insulator – recommended where 160 DS is installed in an unvented roof space.



The Universal flashings are suitable for use with plain flat tiles and contoured tiles as shown

Flashings 3, 3a and 3d are NOT available as part of the Special Offer

4. Electric Light Add-On Kit. Supplied as standard with the nbs Special Offer specification



The electric Light Add-On Kit offers the convenience of a switched electric light for night time use and reduces the need for two separate ceiling fixtures. It is fitted during the installation process.

Wall electric light switch and 60W bulb NOT supplied.

- Rated to 75W.
- Edison screw fitting.
- CE approved.



**ALL electrical wiring must be undertaken by a qualified person.**

### 6a. Ventilation Add-On Kit



Photo showing ceiling bezel with flexible ducting and inline extract fan unit

The ventilation kit is complete with ceiling bezel with Vusion™ diffuser and extract fan inlet, 2.5m noise-reducing flexible ducting, inline extract fan unit and universal roof exit vent. The nbs Special Offer specification also includes the Pull-cord manual ON/OFF switch.

The Solatube® Vusion™ Diffuser is supplied standard. The Diffuser uses a lens system that supplies a soft stunning light. The assembly fits neatly to the ceiling with no visible fasteners and delivers outstanding natural light diffusion with maximum style.

- Complies with Building Regulations on Ventilation (F1 2006), rated to IP44 and tested to comply with EN60 335-2-80:1997 and EN60 335-1: 1994+A1, A11 to A14.
- Fan capacity 3180 litres per min.
- CE approved.
- In-line fan motor may be positioned up to two metres from the ceiling vent with ducting provided.
- High performance motor extracts up to fifty two litres per second.
- Pull-cord ON/OFF switch.

### 6c. Optional universal roof exit vent kit



### 7. Optional Spectralight® Infinity 0 to 90 Degree Extension Tube. (Adjustable angle bend)

The 0-90 degree adjustable angle simply twists to adjust from zero to 90 degrees for easy installation around obstructions and corners. Supplied with aluminium tape. As with all Solatube® angles and tubes, the zero to 90 degree angle is made with 99.7% reflective Spectralight® Infinity to ensure maximum light transmission.



### Warranty and Limitations of Liability

The nationwide build shop limited passes on to its customers the warrants given by Solalighting Limited the manufacturer of Solatube® products namely..

Goods are supplied free from defects of workmanship and/or material for a period of time from the date of purchase as noted below.

*Components 10 years.*

Components consist of Dome WITH Raybender® Technology, roof flashings, bases onto which the Dome is fastened, Vusion™ Diffuser and the ceiling mountings, LightTracker™ Reflector, Spectralight® Infinity Extension Tube(s), plastic, rubber or metal seals, gaskets, tapes and fasteners.

*All other goods including electrical components 1 year*

For full warranty text contact nationwide build shop limited.



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Schedule for ORDER to the **nationwide build shop**

**PLEASE SCROLL DOWN OR CLICK THE PAGES ICON (TAB) ON THE LEFT TO READ THE NBS SOLATUBE® DATA SHEETS BEFORE COMPLETING THIS FORM.**

To print this schedule form, click **File, Print**, in the dialogue box, check **Current page** then click **OK**.



Please complete the printed form, notating your requirement. You can send it for checking by fax. If you do this please state your name and email address below.

Name:

Email:

PLEASE ENSURE YOU IDENTIFY ALL THE COMPONENTS FOR THE PROJECT.

Technical support for this product is available. Please click **contact us** on the **nbs** tool bar, complete your contact details and query.

<b>nbs Special Offer Specification - Solatube® model size required</b>		State quantity		Comment
<b>Solatube® 160 DS</b> starter pack for bathrooms, toilets, utility rooms, and en-suite bathrooms complete with roof flashing, a Vusion™ Diffuser (double glazed), two extension tubes, electric Light Add-On Kit, Ventilation Add-On Kit and Pull-cord switch manual ON/OFF.				
Component selection	Component/accessory	Selection		Comment
		YES	NO	
Ventilation Add-On Kit included in the nbs specification.	Kit complete with ceiling bezel incorporating the Vusion™ Diffuser (double glazed), extract fan inlet, flexible ducting, inline extract fan unit with wall exit vent, Pull-cord ON/OFF switch. A roof exit vent is available – see below*.			
Optiview® Diffuser	Supplied in lieu of Vusion™ Diffuser			
Measure distance from top surface of ceiling to underside of roof - select number of extensions. Installed length per tube 560mm.	Spectralight® Infinity tubing. Extension tube 610mm – see table in the Data Sheet detailing, Technical Information, Components & Accessories. Scroll to Page 3 in this literature set or click Pages Icon (Tab) then click on page 3. State extra extension tubes required here ►	2 tubes as standard plus...		Maximum four tubes with nbs specification
Select roof flashing. Scroll to Page 3 in this literature set or click Pages Icon (Tab) then click on page 3.	Universal PITCHED roof flashing 3b.			Flashing Insulator optional with flashings
	Universal PARALLEL roof flashing 3c.			
	Flashing Insulator 3e (Unvented roof space)			
	Roof flashings 3, 3a or 3d not available with Special Offer			
*Electric light included in the specification.	Electric Light Add-On Kit supplied as standard. <b>(Electric wiring and switch supplies by the installer)</b>			
Optional universal roof exit vent kit.	Provides vent point on pitched roofs.			
Optional 0 to 90 degree angle tube Required where there are obstructions in the attic space.	Required where there are obstructions in the attic space.			
▲ Tick choice as necessary				
Please note, the Solatube® 160 DS nbs Special Offer specification is supplied complete with a Vusion™ diffuser. A Roof Flashing of your choice, (Items 3b or 3c). Ventilation Add-On Kit, Pull-cord with ON/OFF switch, two Extension Spectralight® Infinity tubes and as you specify above, integral electric Light Add-On Kit, screws and sealing tape for the assembly of the unit and Installation Instructions. You can choose an optional roof exit vent or a 0 to 90 degree angle tube. If you require features not offered in the <b>nbs Special Offer</b> specification then please refer to the Solatube® Brighton Up Series Data Sheets.				

