

Technical Information, Components and Accessories

Solatube®160 DS Daylighting System conveniently available from the nationwide build shop limited



Solatube® 160 DS

The compact Solatube® 160 DS is ideal for bathrooms, utility rooms, hallways and en-suite bathrooms.

For even larger rooms or long narrow corridors, the 160 DS model can be used in multiples providing for a stunningly effective zero carbon lighting system.

What to Buy

The cost of your specification is determined by the Solatube® 160 DS **nbs** starter pack and the length of Spectralight® Infinity tubing required - below is some advice on how to determine these measurements. If you have any questions or need further advice on how to select your specification please do not hesitate to contact **nbs**.

To help you with your selection and start the purchase procedure, simply print out the schedule form (Page 6 in this PDF literature set) and complete the details. This will make it easier to make your selection of components in the **nbs** shop.

Solatube® size	Area to be illuminated	Suggested applications
160DS 250mm (10") Diameter	up to 13m ² (150ft ²)	Ideal for bathrooms, hallways, small stairways or landings
Select 290DS model for living areas or large stairwells or landings		

How to specify a Solatube® 160DS

Refer to Components and Accessories below for detailed descriptions of the units offered.

You have a dark room or corridor; you wish to bring daylight in to brighten the interior...

First of all, decide how many Solatube® 160DS units are required. Each unit will illuminate up to 13m² (150ft²) at normal ceiling height

1. Decide the position of the Diffuser(s), then decide the type of Diffuser best suited to the application.
2. Go into the attic space and ascertain where the diffuser 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 diffuser – 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 need to be specified – see below for detailed explanation.
3. Decide the type of flashing required that matches the roofing material – see below for detailed explanation.
4. If you wish to incorporate an electric Light Add-On Kit, specify the additional kit detailed below.
5. In bedrooms consider fitting the electric Daylight Dimmer™ – it will block early morning daylight in summer.
6. If you are fitting the Solatube® 160 DS in a bathroom or shower room consider specifying the Ventilation Add-On Kit.
7. You may have to specify a 0 to 90 degree adjustable angle bend to get around immovable obstructions.

Components and Accessories

A full range of accessories that integrate neatly into the Solatube® 160 DS to offer multi-functional systems.



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 given on the **nbs** website. If you have any questions before ordering or require clarification of any installation procedures, please contact **nationwide build shop limited**

Components and accessories shown on the following page	Solatube 160DS
1a. Vusion™ Diffuser – Standard supply	Standard
1b. OptiView® in lieu of Vusion™ Diffuser	Optional
2. Telescopic extension tube(s) 610mm each	As necessary
<i>Roof Flashings – choice of five and Flashing Insulator for 3b,3c,3d</i>	
3. Pitched roof with tile size 420mm x 330mm	As required
3a. Pitched roof with slates/plain tiles	As required
3b. Universal pitched roof *	As required
3c. Universal parallel roof **	As required
3d. Flat roof	As required
3e. Flashing insulator recommended for unvented roof spaces	
* For roofs with greater than 30 degree pitch. ** For roofs with less than 30 degree pitch	
4. Electric Light Add-On kit	As required
5. Electric Daylight Dimmer™	As required
Ventilation Add-On Kits.	
6a. With wall exit vent.	As required
6b. With pull-cord switch with set-run timer.	As required
6c. Universal roof exit vent for pitched roofs	As required
7. Zero to 90 degree adjustable angle bend	As required
Please note, the type of flashing makes a difference to the price paid.	

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.



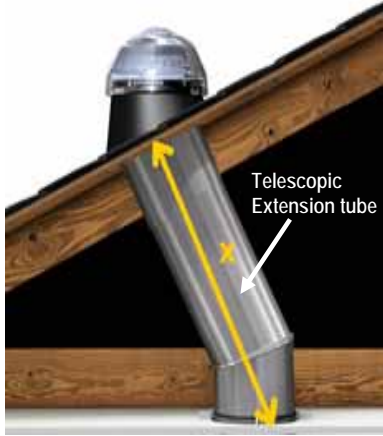
1b. Optional OptiView® Diffuser

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 Tubing



▲ Three telescopic extension tubes used here

How many telescopic extensions are required?

Each Solatube® 160 DS 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 flat roofs, vaulted ceilings, or very shallow pitch roofs. For greater install distances you will need to purchase additional 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 extension tubes are telescopic. For example if measurement **X** is 1650mm you will have to order three extension tubes. Please contact us for advice for install distances greater than those shown in the table below.

Telescopic extension tube(s) Calculator for Solatube® 160 DS	
Installed distance X Each tube added increases Installed distance by 560mm.	Extension tubes supplied
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
Up to 3200 (126)	5
Up to 3760 (148)	6
Up to 4320 (170)	7
Up to 4880 (192)	8
Up to 5440 (214)	9
Up to 6000 (236)	10



Extension tube 610mm long.
Each tube added increases
Installed distance by 560mm.

See separate Instructions for
assembly procedure.

Roof flashings

Our 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 Solatube 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.

3.
Solatube economic flashing - suitable for plain flat and contoured tiles that must be between 300 -330mm wide.



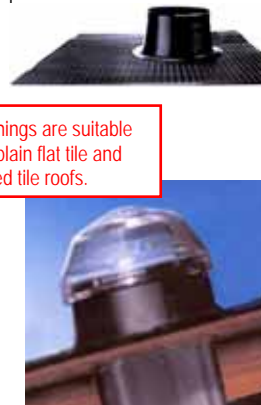
3a.
Solatube slate/plain tile flashing - suitable for plain flat tiles, and slate or slate composites. 30° of more pitched roofs.



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.



3d.
Solatube flat roof flashing - for flat roofs, including felt, hot rolled, fibreglass, and concrete.



Universal flashings are suitable for use with plain flat tile and contoured tile roofs.

3e. Flashing Insulator Solatube recommendation for unvented roof spaces when 3b, 3c or 3d is selected.

4. Electric Light Add-On Kit



An integral electric Light Add-On Kit is available for the Solatube® 160 DS. It offers the convenience of a switched electric light for night time use and reduces the need for two separate ceiling fixtures.

Wall electric light switch and 60W bulb NOT supplied. Electrical wiring must be undertaken by a qualified person.

- Rated to 75W.
- Edison screw fitting.
- Five year electrical component warranty.
- CE approved.



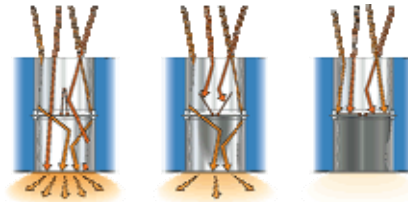
5. Electric Daylight Dimmer™



A low voltage electric Daylight Dimmer™ is available for the Solatube® 160 DS. This daylight dimmer fits into the tube, and the butterfly shutter is controlled via a low voltage wall-mounted pressure switch thus allowing you to regulate the amount of daylight from fully open to fully closed, or any point in between as illustrated below..

Wall rocker switch SUPPLIED as Standard. Electrical wiring must be undertaken by a qualified person

- Variable position butterfly baffle with eight second cycle.
- Perfect for bedrooms, home offices - anywhere you need to reduce or block out the daylight.
- Wall mounted switch provides convenient low voltage control.
- Five year electrical component warranty.
- CE approved.



6a or 6b. Ventilation Add-On Kit for bathrooms, toilets, washrooms etc



Ventilation Add-On Kit 6a includes pull-cord switch (Manual ON/OFF), ducting and wall exit vent as standard.

Ventilation kit 6b includes a pull-cord ON with set-run timer to OFF, ducting and wall exit vent as standard. An integrated Ventilation Add-On Kit is only available for the Solatube® 160 DS. Stylish low profile design with powerful, in-line patented twin blade fan. Ideal for ensuite bathrooms, shower rooms and WCs, and may also be combined with the optional electric Light Add-On Kit for a neat 3-in-1 ceiling fixture.

Note, the images show the Ventilation Add-On Kit with the optional OptiView® Diffuser - the standard unit has a Vusion™ Diffuser.

PLEASE SPECIFY THE EXIT VENT REQUIRED – A WALL EXIT VENT IS INCLUDED IN THE KIT PRICE OR OPTIONAL UNIVERSAL ROOF EXIT VENT (SEE 6c NEXT PAGE) – ADDITIONAL CHARGE WHEN YOU ORDER.

- 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.
- 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.
- Five year electrical component warranty.



Electrical wiring for the Ventilation Add-On Kits must be undertaken only by a qualified person.

See optional component 6c on next page.

6c.
**Optional universal roof
exit vent for pitched roof
applications for
Ventilation Add-On Kit**



7. Zero to 90 degree adjustable angle bend

Available for the Solatube® 160 DS. This 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.

Skylight components 10 years.

Skylight components consist of skylight domes, roof flashings, bases onto which the dome is fastened, diffusers and diffuser ceiling mountings, reflectors, tubing, 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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shop limited www.nbs-home.co.uk

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Solatube® 160 DS Daylighting System



Schedule for ORDER from the **nationwide build shop limited**

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 to 01293 776976 or post to: nationwide build shop limited. PO Box 200, Horley, Surrey RH6 7FU. 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.

Solatube model size required	State quantity	Comment
Solatube® 160 DS for bathrooms, utility rooms, hallways and en-suite bathrooms Light coverage up to up to 13m ² (150ft ²)		

Component selection	Component/accessory	Selection		Comment
		YES	NO	
Vusion diffuser OR OptiView diffuser	1a. Vusion™ Diffuser supplied unless OptiView® is chosen.			
	1b. OptiView® Diffuser in lieu of Vusion™			
Measure distance from top surface of ceiling to underside of roof - select number of extensions. Installed length per tube 560mm.	2. 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 the number of extension tubes required here ►			
Select roof flashing. Scroll to Page 3 in this literature set or click Pages Icon (Tab) then click on page 3.	3. Economic Pitched roof flashing – see Data Sheet			
	3a. Pitched roof flashing for slates/plain tiles			
	3b. Universal PITCHED roof flashing			
	3c. Universal PARALLEL roof flashing			
	3d. Flat roof flashing			
	3e. Flashing Insulator (Unvented roof space)			3b, 3c, or 3d
To include an Electric light	4. Electric Light Add-On Kit			
Recommended for bedrooms	5. Electric Daylight Dimmer™			
Recommended for bathrooms, shower rooms, WC's	6a. Ventilation Add-On Kit with standard wall exit vent			
	6b. Ventilation Add-On Kit with standard wall exit vent			
	6c. Optional universal roof exit vent for pitched roof*			
	*You may choose 6c if wall exit vent not required			
Required where there are obstructions in the attic space	7. Zero to 90 degree angle. Scroll back to Page 5 in this literature set or click Pages Icon (Tab) then click on page 5.			
	6a has pull cord manual ON/OFF switch 6b has pull cord set-run timer	▲ Tick your choice as necessary		

Please note, the Standard Solatube® 160 DS from **nbs** is supplied complete with a Diffuser, (Items 1a or 1b). A Roof Flashing of your choice, (Items 3, 3a, 3b, 3c, or 3d). Extension Spectralight® Infinity tubing as you specify above, (Item 2) screws and sealing tape for the assembly of the unit and Installation Instructions. Where 6a Ventilation Add-On Kit is specified, a WALL exit vent is included in the price. 6b You manually switch on the ventilation fan which then runs for a set time. You can choose 6c the optional universal roof exit vent at extra cost.



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