

CARO SUPPORT

How to Improve the
Appearance and **Drainage**
of **Paved Areas**

CARO SYSTEMS LTD



Your problem?...

When pavings are laid directly onto a sand/cement bed, the temperature extremes of frost, rain and direct sunlight, can cause the pavings to move over a period of time, and this could eventually lead to them lifting, sinking or cracking. Furthermore, this movement can even lead to damage or puncturing of the water proofing membrane.

...Our solution!

Caro Support is one of the most economical and simple ways of laying roof or terraced areas. This **Block Co-polymer Polypropylene** injection moulding raises the paving 15mm above the supporting surface and its integral spacers ensure a constant 5mm gap between each slab, so all water drains away immediately, leaving an "ever dry" paved area. Add to this the protection the waterproofing membrane is given from Ultra Violet damage and temperature extremes, it is easy to see why this method of laying pavings has become so popular. As the paving is loose laid it's simplicity itself to replace damaged slabs or to inspect for possible waterproofing failure and all drainage outlets, services, manholes, etc., can be covered over to leave a completely unobstructed paved area. Weather delays now become a thing of the past and the ease of using **Caro Support** can return savings in time and labour.

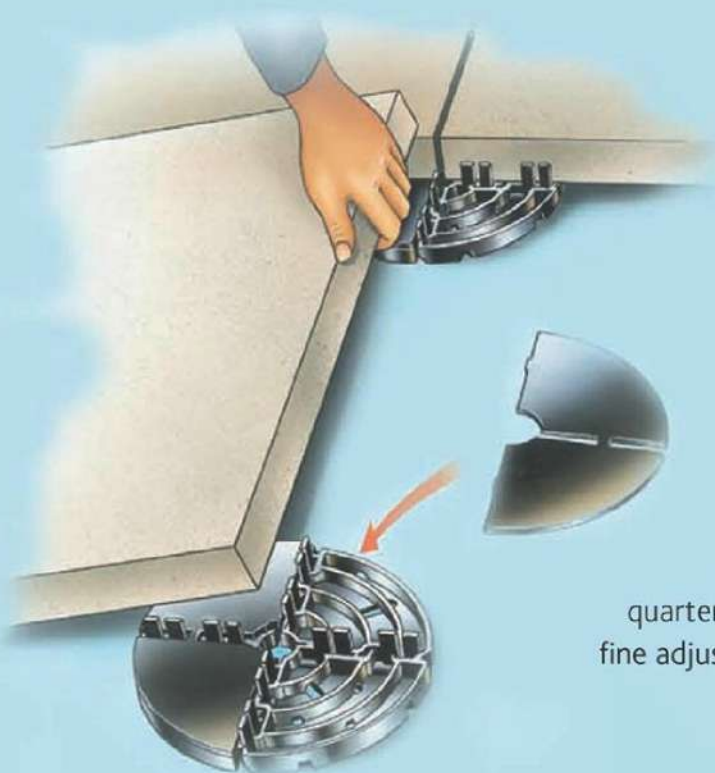


- Immediate drainage between and under slabs - prevents build up of standing water and plant growth.
- Protection of waterproofing membrane from temperature extremes and direct contact damage.
- Simple installation - reduces time and labour.
- All drainage outlets, manholes, conduit covers, etc., concealed beneath slabs leaving a safe, unobstructed paved area.
- All British design and manufacture.
- Levelling shims for fine adjustment to slab heights.
- Simple separation of supports for edge and corner details - no wastage.
- Above average base area - greater weight distribution.
- Instant access to and replacement of damaged slabs.
- Weather delays are no longer necessary.



Simple to install

To actually lay paving using the **Caro Support** system is so simple that skilled labour is now not essential. In the same way as if one was tiling in the home, it is important to ensure that the first row of slabs are laid carefully, and in line, to act as a guide for each subsequent row. Thereafter each new slab is positioned on the supports already laid, with the next support held ready to meet the slab as it is lowered onto it. In this way up to 40m.sq. of paving can be laid in an hour.



Levelling shims for fine adjustment

To ensure adequate strength, and minimal tolerance variation in the pavings, it is recommended that hydraulically pressed or reinforced concrete slabs are used. However, occasions will arise when a combination of unevenness in the supporting surface, or tolerance extremes in the slabs, will require the use of the Levelling Shims. These can easily be broken into halves or quarters and, being only 2mm thick, will give the fine adjustment that may sometimes be necessary.



CAROSYSTEMS



Stackable for extra height

As the **Caro Support** has been designed to fully interlock when stacked, various heights of raised paving can be achieved from 15mm upwards. This is particularly useful when the removal of falls from the paved area is necessary. Combinations of supports and levelling shims will allow the gradual increase in raising heights thereby giving a level finish with all drainage falls under the slabs.

Edge and Corner details

Caro Support is designed to offer the complete solution, with no wastage.

Edge or corner details are easily installed by the separation of **Caro Support** into halves and quarters. Simply flex the support or shim, as illustrated, to achieve a half or quarter unit.



LTD **01763 244446**

Caro Support at work

New Build Cumberland Mills, Isle of Dogs, London

This development of luxury flats and apartments, overlooking the Royal Naval College in Greenwich, has made use of the **Caro Support** system to provide a free draining paved area on each of the private balconies. The purchasers of these quality buildings are now assured of an 'ever dry' balcony, to appreciate the dramatic views along the Thames River, as all water is able to drain away immediately between and under the slabs, eliminating any problems of ponding.



The Gurdon Institute, University of Cambridge, Cambridge

This prestigious building, in the centre of Cambridge, has also made use of the **Caro Support** system for areas that are used by students and staff, all year round. Come rain or shine, everyone can be assured of an 'ever dry' paved area.

Refurbishment The Mall, Dagenham, London

Caro Supports were able to provide the complete solution to the problem of movement in slabs on the Mall's residential areas. It was necessary to lift all the existing slabs and replace the previous support system with **Caro Supports** so that, when using a combination of stacking and levelling shims, it was able to provide a completely flat area, with all falls being taken up under the original re-laid paving. The use of the **Caro Support** in this fashion, ensures that paved areas are safe and level, with all drainage and services under the slabs, to give unobstructed access to the end user.



Description

Caro Support is a Block Co-polymer Polypropylene injection moulding that raises the paving 15mm above the supporting surface and can be easily separated into halves or quarters for edge or corner details. Any unevenness in the supporting surface or difference in the thickness of the slabs, can simply be adjusted out by the use of the 2mm thick Levelling Shims.

Caro Support makes the laying of paving slabs on roof or terrace areas, either directly on the waterproofing membrane or on high density insulation boards, a very simple and efficient operation.

Estimation of quantities

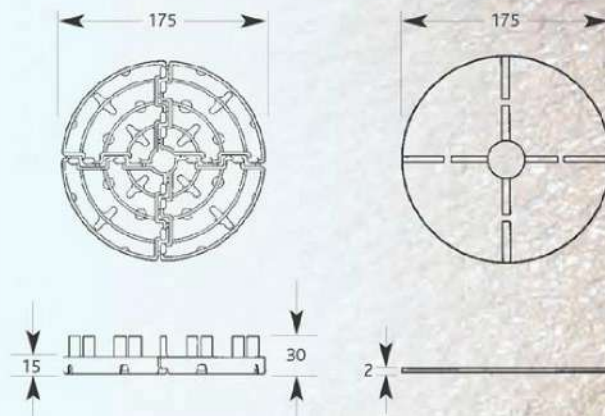
Due to the fact that Caro Support is easily divisible into halves or quarters, ensuring no wastage, it is possible to allow one unit per paving slab for estimation purposes. However as most Bills of Quantities quote paved areas in square metres the table alongside will give a fair indication of the number of Caro Supports required dependant upon the slab size and area.

Slab Size (mm)	Caro Support per m ²
600 x 600	2.8
600 x 300	5.6
500 x 500	4
500 x 250	8
450 x 450	5
450 x 225	10
400 x 400	6.2
300 x 300	11.2

Performance and dimensions

Material: Block Co-polymer Polypropylene – age and weather resistant and fully compatible with all roofing materials.

Height of Base:	15mm
Thickness of Spacers:	5mm
Height of Spacers:	15mm
Thickness of Levelling Shims:	2mm
Diameter:	175mm
Base Area:	22500mm ²
Maximum Loading per Caro Support:	1200kgs



Draft specification

Caro Support Paving Slab Support System, as supplied by CAROSYSTEMS LIMITED, Edge Barn, 11 Market Hill, Royston, Herts, SG8 9JN. Tel: (01763) 244446 to support m²mm xmm paving slabs (elsewhere measured). Unevenness in paved area after installation to be taken out using Levelling Shims available from CAROSYSTEMS.

CAROSYSTEMS LTD

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Technical Assistance

Should you have any queries or require further information not detailed in this brochure then please contact our Technical Information service at the address and telephone number above.