

Mechanical Installation

Mechanised techniques for installing paving blocks have been used increasingly for over 15 years in many countries, although only sporadically in the UK until recently. Machine installation offers much faster laying rates with consequent reductions in labour levels, costs and project duration, making it particularly useful for larger fast-track projects and to minimise operational downtime. Recent independent research in the UK has demonstrated the substantial capital cost savings which can be achieved. Apart from financial and time savings, growing health and safety concerns about manual construction tasks, as well as lifting regulations this will inevitably result in mechanised installation becoming the norm for all but the smallest projects in time. This is already the case in several other European countries.

Machine laying is achieved with either hydraulically operated clamps to contain and lift 'clusters' of blocks, effectively as an articulated unit, or vacuum systems, which attach to the top of each block lifting the 'clusters' as individual items. Clamps are simpler and quicker to operate but are more suited to blocks with better interlock preventing them from falling out of their 'clusters'. Vacuum systems do not rely on interlock and may be needed for block designs which do not inherently interlock. Both clamp and vacuum systems are available on dedicated machines designed specifically for block laying to give good visibility and site manoeuvrability. Alternatively, both systems can be fitted to some general site equipment for more occasional use, although these are usually less efficient. Manually operated trolley clamps are also used, although these do not provide a satisfactory alternative to powered machines.

Compared with a laying rate of about 50m² per man-day for hand laying, dedicated powered machines can easily achieve 400-600m² per day on suitable projects. To make the most of machine laying, good overall site

management and planning are essential, preferably incorporating mechanisation of other related site activities such as laying course preparation and material delivery to the laying face. Mechanised installation techniques are becoming more efficient and accurate with highly manoeuvrable, powered block laying machines.

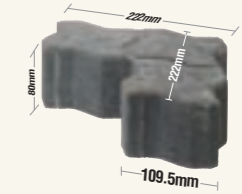
Various proprietary block paving systems are available specifically for machine laying. These are generally based on non-rectangular formats such as the L-shaped Ready-Coloc dentations applied to give greater interlock, so that they stay in place when lifted by simple clamps. These are installed in clusters exactly as supplied to site, in contrast to rectangular based designs requiring manual block relocation to "stitch" laid clusters together. Ready-EcoFlow can be machine laid in the same way.

The benefits of such systems, combined with the latest laying machines, are recognised by contractors as a cost effective solution to a wider range of applications, including industrial paving upgrades carried out during short shut-down periods and major fast-track projects such as airports. The expansion of machine installation for such projects will lead on to its more general use in future.

Ready-Coloc

Features and Benefits

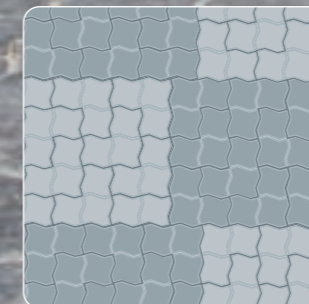
- Unique 'L' shaped format interlocks each block
- Manufactured in clusters of 16.67 blocks (Dunston) and 20.00 blocks (Northfleet) for mechanical installation**
- Compatible with Ready-Loc, Ready-EcoFlow and Kerb-Sett
- Suitable applications; commercial traffic, pedestrianised areas and car parks
- Available in all colours made to order for orders over 2000m²
- Manufactured to BS EN 1338:2003



Ready-Coloc laying patterns

When Ready-Coloc is hand laid the strongest bonding pattern is to fit each individual block in the same orientation as the others. This gives a uniform and fully interlocked pattern.

When machine laying is used the periphery of each cluster will not interlock mechanically with neighbouring clusters. To achieve some degree of interlocking between clusters it is recommended that the clusters are installed into a Herringbone or Stretcher Bond pattern where possible.



Stretcher Cluster*



Herringbone Cluster*

* Stretcher and Herringbone Cluster shown using Northfleet single cluster
 ** Please note the single cluster orientation varies, for further information please contact the Product Support Helpline - 0800 667 827.



Technical Data

Dimensions (mm) (L-shaped)	222x109.5x80
Blocks per m ²	26.3
Weight (kg)	6.69