

COOTE SOLUTIONS

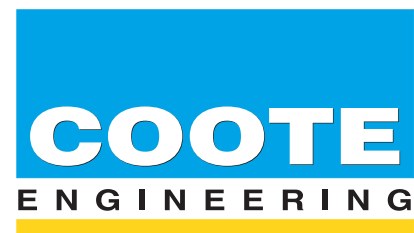
Should you require any information on our decorative wetcast systems, please contact our experienced technical staff.

HEAD OFFICE

Coote Engineering Ltd
12 Lisdoart Road
Ballygawley, Co. Tyrone
Northern Ireland
BT70 2NG

CONTACT

Tel: 028 8556 8123
Int Tel: + 44 28 8556 8123
Fax: 028 8556 8974
Email: office@coote.co.uk
Web: www.coote.co.uk



call us on:
028 8556 8123
www.coote.co.uk

Specification subject to change without prior notification.

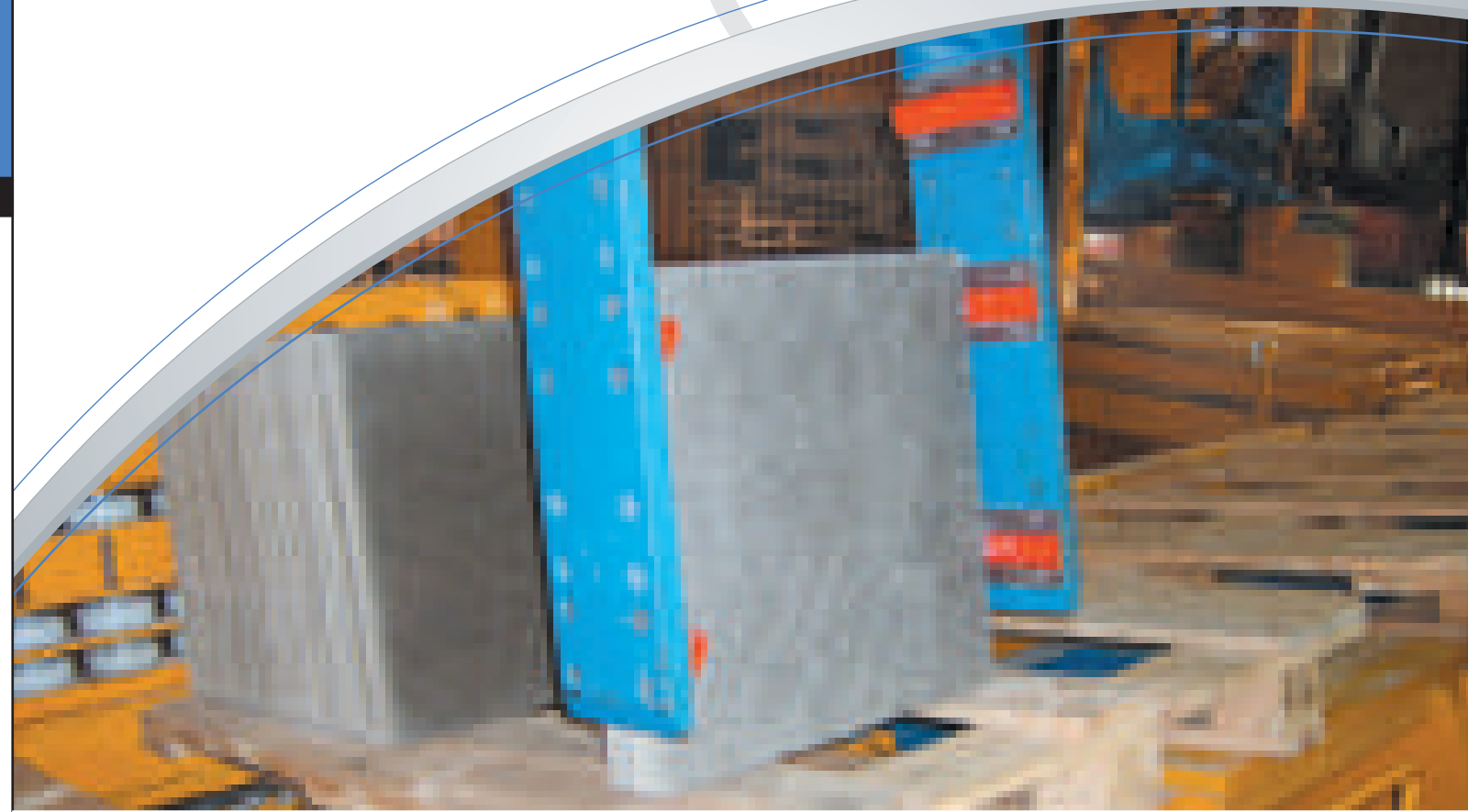
>> manufacturers of machinery & moulds for the concrete industry

>> **Wet Cast Decorative Paving & Products**

Coote wetcast solutions have been designed to reflect the ever changing global concrete marketplace. Garden landscaping is to the fore of the home design & lifestyle revolution and is here to stay. Already well established within the United Kingdom the concept of using landscaping to enhance the home environment is now an accepted practice throughout the rest of the world. Blending the look of stone with flowers, shrubs, grass and water creates an external feature for all the family to enjoy.

The UK manufacturer Coote Engineering Ltd. has for many years been leading the world with its technology to supply producers of both wet-cast concrete and semi-dry cast concrete with mechanical design solutions and creative mould designs.

Coote has worked with many producers of wet-cast concrete, not only throughout the UK but also worldwide - with many installations as far afield as Australia and America, Europe, Africa and Asia.



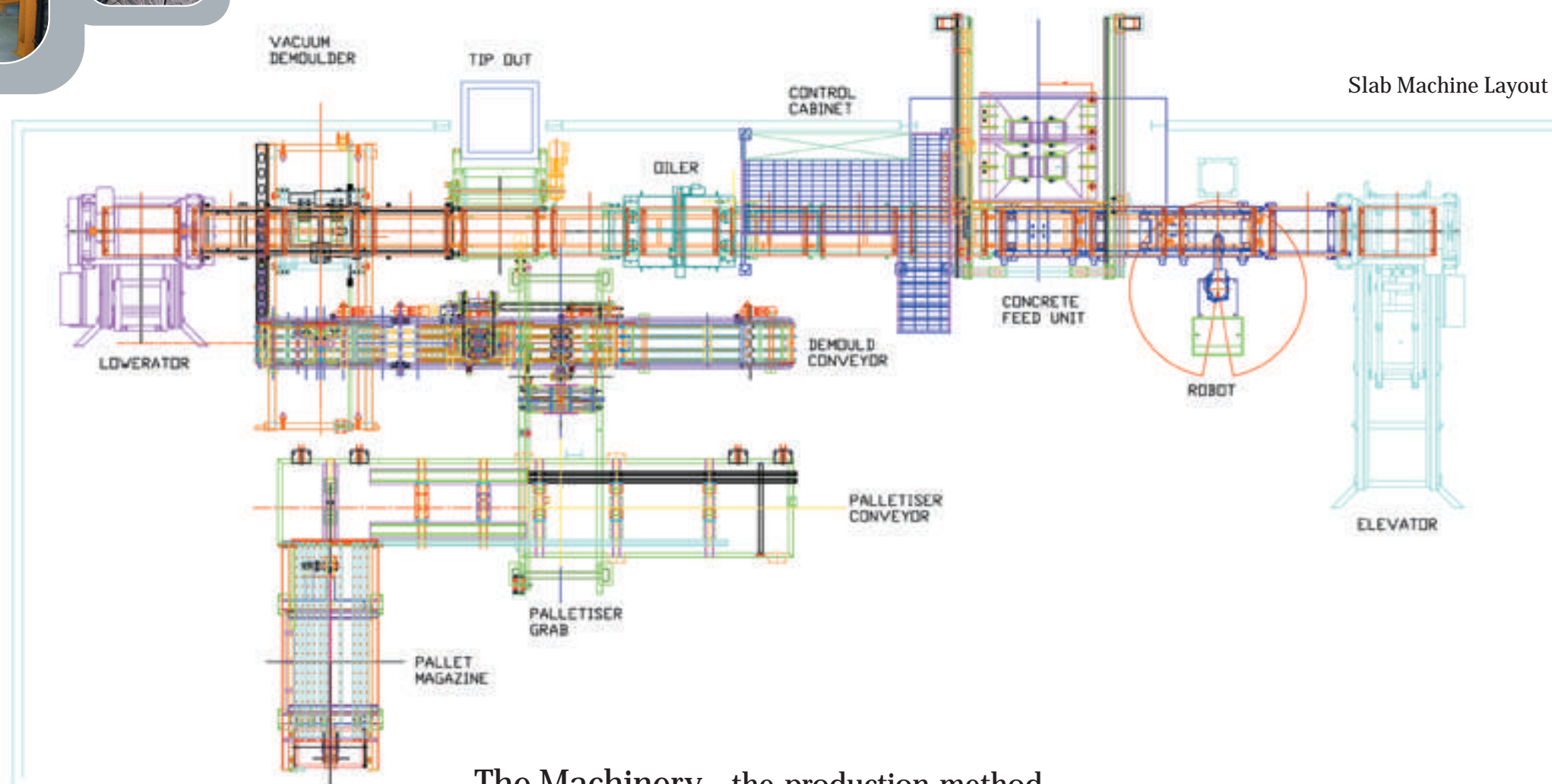
decorative paving & products

decorative wetcast

versatile
concrete
solutions



>> decorative wetcast systems



The Machinery - the production method

The well developed range of Coote equipment available to the producer of wet cast products is extensive and can meet all levels of production - from the one man start up situation where the requirements would be no more than a means of dispensing the concrete mix and a vibration table, to completely automatic plants with raw materials in and palletised product out.

The key decisions relating to equipment choice will cover such factors as volume output required, taking into account mould configuration and product changes per shift and complexity of the product, which includes colour, face and edge designs.

Whilst all semi automatic and automatic plants consist of a means of destacking, processing and restacking moulding boards the level of sophistication is normally found in the dosing, demoulding and product handling arrangements.

The moulding boards used can either be wooden pallets, similar to those on a block making machine with the addition of stacking bars or purpose made steel units, the choice generally being governed by cost and product quality considerations. Moulds are fixed to these boards or carriers, the number of stones produced on each board being a factor of size and machine capabilities with regard to dosing and demoulding.

Moulding boards are normally stacked in packs of 20 by the machine, these packs are stored in curing areas on rails. The curing area can be humidity and temperature controlled.

Most plants work on a 24-hour production cycle. Moulds filled one day will be emptied and refilled the following day. With a medium sized plant capable of handling between a 1000 - 1800 boards per day the area required to store between 50 and 65 packs of boards' needs to be considered. Larger machines may cycle up to 2000 boards per day. The production cycle begins with stacks of cured product being brought to the destacker on the machine by forklift truck or by an auto controlled transfer car, dependant on machine complexity. The moulding boards are destacked one at a time and travel around the track to the demould station. At this point the product is taken out of the moulds by vacuum heads and placed onto a conveyor for either manual or automatic palletisation.

Once the previous day's product has been removed from the moulds they are cleaned, sprayed with a coating of release agent and move to the dosing station. There are a number of systems for the dosing of moulds.

The least automatic and in many respects the most versatile is to manually dose. This involves a full time operative who fills moulds by feeding the mix into the cavities from vibrating feed chutes. When frequent product changes are occurring this is a very simple way of achieving flexibility.

Flexibility can also be achieved by using screw dosers to fill moulds. These can dose on a timed or weighed dosage basis and can handle multi-coloured products. As the dosage is program controlled this type of system can handle

frequent product changes. This flexibility can be used to great advantage when producing product kits, such as circles.

If large quantities of product of the same size are being produced then the use of a dosing box system is preferable, whilst this system loses some flexibility when changing products, the cycle times that can be achieved surpass all other systems. With this method there is a fixed volume box for each mould cavity to be filled. This volume box is filled with mix by means of a paddle arrangement and the mix is released into the mould by the retraction of a slide plate.

After the mould cavities on the moulding board have been filled the board proceeds to the vibration stations to remove air pockets and produce a consolidated product.

Following vibration the moulding boards are restacked into packs to be picked up by the forklift and transported back to the curing area.

Conclusion

Without doubt throughout the world there is a growth in the use of wet cast stone. With Coote Engineering Ltd. being the foremost producer of machinery and moulds - having supplied to every continent throughout the world, Coote are confident they are ideally positioned to be able to provide a solution to any possible wet-cast need.



The Wet Cast Process

The process is to blend together a mixture of cement, aggregates and pigments and deposit this wet mix into a mould which has the decorative surface of the paving slab engraved onto the mould face and side. The wet mix is then allowed to cure in the mould until almost dry and the finished product is then removed and palletised for onward sale.

This process of allowing the wet mix to cure in the mould ensures that on its release the stone maintains a natural effect that when used in the garden or indeed as an indoor feature makes it difficult to distinguish from the real thing. Colours and textures can also be varied by using different combinations of the above additives enabling subtle changes to be made, thus allowing for differing styles and shades to be supplied to different regions.



The Moulds

Mould design and production are obviously a key fundamental in ensuring the final product has the desired look and effect. Coote have the capabilities to supply moulds in either ABS (Acrylonitrile Butadiene Styrene) a rigid plastic or PU (Polyurethane) a flexible medium. The mould itself carries the final surface design of the paving stone or product. A master is produced by using the skills of a pattern maker and from this master are produced the finished moulds. The master can be produced either from copying a natural piece of stone or wood or by creating a design purely using the skills of the pattern maker. With this flexibility the only limit to what can be produced is the imagination of the creator.

Coote with its considerable experience and ability to work with both types of production material has been involved in producing styles and patterns of every description and for every type of use. This variety includes from normal garden and household use, to swimming pool surrounds, wall cladding (veneer) and even to producing moulds used for garage forecourts. Thus showing that with the appropriate design skills, decoration and strength can be brought together into one product.



>> Concrete solutions - designed for the global marketplace