



# WET CAST MANUAL

Start your own Business and

CAST YOUR FUTURE IN  
CONCRETE



# **PAVING MOULDS MANUFACTURING MANUAL**

## **MOULD SELECTION.**

We manufacture a variety of different shapes and sizes of moulds, for different purposes. With our moulds you can manufacture paving bricks, flagstones, pool copings, floor tiles and maxi building bricks.

For DIY applications you will need to assess what you want to do at your property, for paving of driveways, use the smaller sized moulds(100x100 or 150x150 or the double cobble). These moulds are designed to produce bricks that can handle heavy traffic.

If you want to produce stepping stones for a pathway or flagstone pavers for an outdoor entertainment area or pool area, you can make use of our larger sizes(400x400, 200x400 or 200x200). These sizes are all engineered to complement each other giving you a huge variety of design options.

Should you want to start your own business we always recommend starting with larger quantities of fewer products. If a client wants to order 100m<sup>2</sup> of a specific size, you would want to be able to produce and deliver in the shortest time possible. The popularity of products varies, depending on the area you are based in. Our best selling products, and a great option to start with, would be the hexagon, octagon, 100x100, 400x400 and 3D moulds.

The quantities which we recommend to start manufacturing for re-selling is between 20m<sup>2</sup> -50m<sup>2</sup> of moulds.



## MOULD RELEASE OIL.

We stock and supply mould release oil in 1l, 5l and 25l containers. Mix 1 part mould release oil to 4 parts of water and mix vigorously. Use a sponge to apply the mould release oil both inside and outside of the mould (makes for easy cleaning). The application must in no way be excessive, if there is too much mould release oil it could cause pin holes in your finished product and cause the corners of your pavers to chip. When oiling your moulds, do so over a bucket or tray to catch all of the excess mould release oil so that it could be used again.

## AGGREGATES AND MIXING.

The most important factor is sourcing quality local aggregates, to keep your costs low. The best option would be, to go to your nearest builders supply store and ask for assistance, alternatively try and find a local crusher plant in your area.

You would need the following:

Washed river sand,  
Either 6mm or 13mm stone,  
Bags of Cement.

Mixing Ratios:

2 parts washed river sand,  
2 parts stone,  
1 part cement,  
Water.



## AGGREGATES AND MIXING CONTINUED...

NB: Some areas only supply crusher run, if this is the case then mix 4 parts crusher run to 1 part cement.

After preparing your moulds, mix all of the aggregates together and add water until you get the texture of thick porridge. Always remember that the quantity of water will vary and may take some trial and error depending on the temperature and humidity. Hotter days will require more water to compensate for fast evaporation. Extremely cold days require less water to speed up the curing time and prevent freezing.

Place the mixture into your oiled moulds and give a vigorous shake, you can do this by lifting each corner one by one (only a few cm) and dropping on a flat surface. This eliminates pinholes from the surface of your product and removes air bubbles inside the mixture which will make your product more dense (stronger).

Place the mould on a flat surface to cure and use a trowel to level out any inconsistencies. It is very important that the surface the mould is on, is level and that the mould is filled to the top.

Leave to cure for at least 24 hours and then you can simply flip the mould upside down and the end product will pop out. We recommend packing the freshly cast bricks on pallets and wrapping them with pallet wrap, this will keep the moisture from evaporating too fast and give you a stronger product.





## OXIDES/ COLOURING AND MIXING.

We do supply a variety of colors of oxides to add to your products, you can alternatively purchase from your local hardware. The coloring of your products will take a bit of experimenting to get your personal preference right. Use between 3-10% of oxide to the cement volume in your mix.

Eg: If you are using 10l buckets to make your concrete mix, your mix would be composed of the following:

20l of washed river sand

20l of stone

10l of cement

600ml of oxide

water (as required)

The oxide binds with and colors the particles of cement, so it is very important to get the ratio right with your CEMENT VOLUME. When you start adding more than 10% of oxide to the cement volume, the cement becomes 'saturated' and will not get any more stained than what it already is. While this does not affect the strength of your products, it will cause wastage and manufacturing costs will go up.



## CURING.

When leaving your products to cure, always make sure that they are on a flat, level surface. If you do not have a paved/concrete surface, then put down some river sand and level out the moulds by working them into the sand.

Curing time varies depending on the humidity and temperature. If you are casting in extremely hot conditions, it is advised to put up shade netting to slow down evaporation. Should your products look as if they are curing too fast (within 5-8 hours) then take either a bucket or a hosepipe and gently spray water on the products. Concrete loves water in hot temperatures and you will gain higher strength and prevent hairline cracks should you follow the above guidelines.

In extremely cold areas where the temperature drops to below 2 degrees celsius, it is advised to use the following strategy:

Cast your products first thing in the morning and leave to cure in the sun immediately. By doing this you are giving the concrete a chance to bind before any freezing can occur. If your concrete freezes, the chemical reaction will not take place and your products will not reach their maximum strength.

## DEMOULDING AND PACKING.

Simply flip the mould upside down and your paver will pop out. Work carefully with the products, remember that your concrete has not yet reached its maximum strength and it will continue to get stronger every day until approximately 28 days when it will reach 90% of its maximum strength.



## DEMOULDING AND PACKING CONTINUED...

Pack your pavers on a wooden pallet or on the ground and stack them no more than 4 bricks high.. If you want to gain even more strength (not entirely necessary though) you can wrap your bricks in pallet wrap. This retains the moisture and allows your pavers to gain strength a whole lot faster.

## LABOURORS.

Your laborers will be the heart of your business and once you have them trained, you can start focusing on other areas of your business. Once you are manufacturing 40m<sup>2</sup> or more per day, as a general rule we recommend hiring 1 female laborer to grease the moulds (light duty work) and 1 male laborer for every 10m<sup>2</sup> of paving that gets manufactured.

Eg: you are making 50m<sup>2</sup> per day you will need:

1 female laborer

5 general laborers

It must be explained to them that you pay them their daily wage on condition that the production targets are met. As they gain more experience, you will see that this type of production will be able to be completed within a 7 hour shift.



## CONCRETE MIXERS AND VIBRATING TABLES.

When your daily production gets up to 30m<sup>2</sup> or more we suggest making use of a large concrete mixer and a vibrating table. This will speed up and streamline the manufacturing process. For more information please enquire with one of our sales consultants, with regards to these products.

## IMPORTANT TIPS TO REMEMBER.

Never take shortcuts on your manufacturing process or 'skimp' on aggregates. Take pride in what you are manufacturing, make sure that you are using the correct aggregates, the correct cement and use the correct ratios. If you manufacture high quality products, you will be able to charge the correct, premium price and you will have returning customers.

Look after your laborers, always make sure that they have the right tools to complete their job. Invest time in teaching them and always speak to them with respect and in return they will look after the important responsibilities that they have.

If you at any stage have difficulty please contact any one of our staff for free, unconditional advice. We want you to succeed and grow your business!



## MARKETING YOUR PRODUCTS.

Marketing is one of the most important aspects of turning your business into a successful one. If you do not advertise, do not expect to sell anything!

Word of mouth is the best form of advertising, the best way to achieve this is to offer 'out of this world service' and make sure that your products are of the best quality, and they will sell themselves. Ask your happy customers for reviews on online platforms such as facebook, google, etc. and ask your happy clients for referrals, do they have an uncle or a brother who might be interested in your products?

A great location for your business is difficult to acquire and may cost a premium in paying rent. Though its not entirely necessary, being on a busy road or intersection helps with walk in clients who will spot your business from the road.

Get in contact with your local hardwares and garden nurseries, physically go there with your products and show the owner/manager. Offer a discount to re-sellers so that they can have an incentive to push your products and make a decent markup.

A simple way to sell stepping stones is to park on the side of the road over the weekend with a big sign reading "STEPPING STONES FOR SALE" have about 20-30 stepping stones with you so that when someone stops you are able to provide them immediately.



## MARKETING YOUR PRODUCTS CONTINUED...

Facebook and instagram advertising is free and must definitely be used to market your business to your local community. Ask your friends and family to like and share your facebook or instagram business page, and make daily posts promoting your products. If you want to invest an extra amount in marketing, facebook and instagram have options to boost your posts to your direct local community, you can target your clients by selecting people who like gardening, home improvement, construction, etc. Be sure to take original photographs of all the work you complete, as these can be used on your social media pages and your website, and shows your customers what you are capable of.

A website is the most important feature for marketing your business, I cannot emphasize on how important it is to have a website which is designed properly and showcases all of the products that you manufacture. Whenever people search for something they do so on their smartphones (make sure that your website is mobile friendly).

Once your business is established, make use of google adwords to target your local community. Set a daily budget and be ready for an influx of interested customers!

## SERVICE IS EVERYTHING!

If you give great service, your customers will talk about it and recommend you.

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