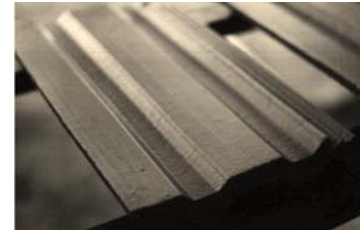


ROOF TILE MAKER



New Dawn Engineering makes a high quality, hand operated machine for producing first class sand-cement roof tiles that can meet SABS standards is available. It does not require electricity.

A typical Installation will have the following equipment

- 1 Roof Tile Maker with Hand Tool
- 400 Moulds (use once per day each)
- 1 4.5 mm Sand Screen (sieve) in frame
- 2 Spades
- 1 Wheelbarrow
- 1 Watering can and drum or else some means of water-curing the tiles

OPTIONAL EQUIPMENT used to study the sand grain size profile to get a "fineness modulus" of 2.25 to get the maximum strength:

- 6 Sand screens:75 μ /150 μ /300 μ /600 μ /1.180mm/2.340mm + Lid and Receiver
- 1 400 Gramme Electronic scale
- 1 Technical information Sheet

EQUIPMENT PACKAGES

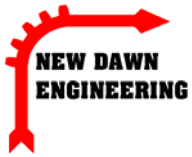
Stand-Alone Machine with 200 Moulds (moulds can be added)

Bench-Top Machine with 50 Moulds (minimum required to start, moulds can be added)

Options

It is necessary to place the tiles into water for some days after they are formed. If the operation is planned to be a portable one it is recommended that steel tanks (1250 x 950 x 400 mm) be used. Each can hold 120 tiles. For a fixed plant it is far cheaper to build small rectangular tanks with cement blocks or bricks. A 2.2 metre square tank is very a convenient size.

Taking Industry In New Directions



Technical Specifications of the NEW DAWN ENGINEERING Roof Tile

Overall Tile Dimensions:

Width	230mm
Length	390mm
Thickness	22mm

Surface Coverage:

Width	200mm
Length	310 to 325 depending on slope
Overlap	65 to 80mm depending on slope

Average tiles per Sq M: 16/m² (It is 15.4/M² with 65mm overlap)

Mass per tile: 2,63 Kg Approx

Mass per Sq M: 40 Kg/M²

Cement content per tile 660 gm (at 1:3 mix) Use O.P.C. when available

Surface Coverage: Tiles per pocket of Cement 75 on average

Production Costs

Cement per tile R24/pocket	1.00
Sand cost @ R100/ton	.25
Depreciation, of the Tile Moulds, the Hand Tool and the Roof Tile Maker	.25
Materials Cost Per tile	<u>R1.50</u>

If a 1.6mm tie-down wire is added to the tile, add 12 cents to the price of a tile.

Tile with wire tie-down R1.62

Materials cost @ 16 tiles per M² R26.92 Per M²

Estimated Production Cost At 400 tiles per day At 200 tiles per day

Notes

At this time production rates are based on 400 tiles per day per station. In some cases production reaches 200 per station and remains there and novices will make less than 100.



A small amount of oil is used per day to coat the moulds. Old engine oil is acceptable. It is wiped on with a rag, then the moulds are left to stand on edge to drain in the mould bin.



Large scale production: 8 machines, 1600 tiles per day.