

DEPARTMENT OF MINES
SOUTH AUSTRALIA

REPORT ON COLAC BRICK COMPANY - VICTORIA OPERATION OF
TUNNEL KILN

Reference was made in the January issue of "Clay Products Journal" to the commencement of building brick production utilizing a tunnel kiln, opportunity was taken by the writer whilst recently on leave, to visit the Colac Brick Works, and see the operation of the tunnel kiln, the first of its kind to be operated in Australia.

At the time of this visit, Monday 21st March, the kiln was unfortunately closed down to clear a stoppage which had occurred some days earlier. The stoppage was caused through improper blending and mixing of the clay by inexperienced operators, resulting in cracking and warping of the bricks in the drying stage of the kiln and subsequent stoppage of the brick laden cars.

Preliminary trials during which 50,000 bricks were made, proved quite satisfactory. An excellent very dense, even textured, salmon pink brick, with very sharp arrises was produced. The finished dimensions of which are $8\frac{3}{4}"$ x $2\frac{3}{4}"$ x 4" with three one inch piercings at $2\frac{1}{4}"$ centres through the core of the brick.

The plant is of German design with a continuous capacity of 1,250 solid bricks (a full car load) per hour equivalent to 210,000 bricks per seven day week, or ten million bricks per annum.

Major operating cost items are furnace oil, 26 gallons per 1000 bricks which at £14-0-0 per ton is equivalent to a fuel cost of £1-10- per 1000 bricks and labour approximately 7 man hours per 1000 bricks, equivalent to £3-0-0 per 1000 bricks.

Capital cost of the plant was approximately £23,000

At the present time the clay is mined by a $\frac{3}{8}$ yard diesel shovel from a freshly opened pit 100 yards distant from the plant. Transport from pit to plant is by haulage way in half c. yd trucks.

Installation of a planer and conveyor belt was contemplated instead of the above clay handling equipment, but shortage of funds ruled out the proposal.

Clay, after dumping, from the haulage way passes through an edge runner mill then to a mixer and deairing machine, from which it is extruded and automatically wire cut into green bricks which are fed to a loading belt for hand loading on to the kiln cars (1250 bricks per car) are pushed to a marshalling bay which permits storage of a considerable reserve, of green bricks.

From this bay cars are pushed (hydraulically) into a waste heat dryer utilizing heat from the main kiln. From the dryer, cars are run on to a transfer platform and ingeniously moved across on rail tracks to the kiln, which is located parallel and adjacent to the dryer. The dryer is approximately 130 feet in length and the kiln 300 feet.

The kiln is oil fired, and elaborately fitted throughout with continuous recording pyrometric and draft recording instruments.

The plant was designed and built under the supervision of Mr. Walter Fischbach, a German ceramic engineer, now in charge of operations.

Mr. Fischbach has had lifelong experience of ceramic work on bricks, ceramic ware and tunnel kiln construction in Germany and India.

Managing Director of the company is Mr. Donald Kincaid of Colac Victoria.

Once the initial troubles through inexperienced operatives have been overcome, it is expected that the venture will be most successful, as a very large demand for bricks exists throughout the whole of South Western Victoria, in which Colac is centrally situated.

5.4.55

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