

and the finished tonnage going to ground storage. A dust collector captures all the dust at key points in the grinding area. An air transport system then transports the dust collection fines onto the finished belt to ground storage or to bulk bags for use in brick coatings.

There are four bins in the ground storage area. These bins provide enough capacity to supply the plant for approximately 1.5 weeks (2-3 days per bin). The material is fed into the bins using a shuttle conveyor which dumps onto a short variable speed shuttle belt for efficient filling of the bins. It is removed from the bins by a Rieter reclaimer with a self supporting boom.

One man oversees and runs the grinding/preparation area. He also drives the front end loader. The operation is clean, quiet, and efficient representing a lot of thought and planning in the design stage.

Extrusion, Texturing, and Setting

The ground mix (14-15% moisture content) is conveyed from the reclaimer to a feeder inside the plant. The belt



(1) Five Deck Scalping Screen (at left) and (4) Triple Deck Finishing Screens

from this feeder first passes under an E. H. Wright Pugmaster. The Pugmaster controls the water addition at the J. C. Steele 300G open pugmill (125 HP). The water is supplied from both a 1,000 gallon fresh water tank and a 1,000 gallon waste water tank working in combination. All waste process water and "wash-down" water from the plant are collected and recycled. There are three additive feeders on the supply belt prior to the pugmill. The first is for soda ash (0.15% by weight), the second is for manganese dioxide, and the third is for fines from the plant dust collector.

After the open pugmill, the material passes through a J. C. Steele 90BD pug sealer (300 HP) and is extruded at 20,000 brick/hour using a J. C. Steele 75 AD extruder (350 HP). Both Steele and Raymond dies are used. The pugmill, the pug sealer, and the extruder are all equipped with variable speed drives. The 88C feeder used for scrap return is also equipped with a variable speed drive. The entire

extrusion process can be balanced in terms of flow rates to achieve maximum quality and efficiency. Sizes made at this time include modular, engineer, closure, and 2 1/4" pavers.

Both wet and dry coatings are applied for texturing and colors. Much of the product line at the new plant is manufactured to match the product lines from the old plants which are now shut down. At the present time, more dry coatings are produced. In the future, the majority of the coatings will be wet applications.

An automated blending system for the dry coatings was designed and installed by Brick & Tile and Pace Projects. This system has three levels. When a particular coating is called for, the system first checks to make sure that it has enough of each ingredient to blend a full batch. If so, it sends the required materials down to an enclosed blender using a loss-in-weight method. Once the batch is blended, the material is discharged into a tote hopper for transferring to the delivery system at the texturing area. There is also an elevator for moving totes from one level to another if necessary. The dry coatings are applied to the column using a system of screws and vibrators.



Air Transport System for Returning Collector Fines to Finished Belt