SIMPSON
A Norican Technology

Sequence of operation

1 The Pro-Claim inlet permits direct connection to a gravity feed from your storage bin, providing simple, continuous operation.

2 The turbine type blower introduces air into a common plenum, providing even air dispersion among the cells. The air accelerates through a nozzle at the bottom of each blast tube to the optimum air/sand mixture for your application.

3 Propelled by air, sand or ceramic is accelerated at a controlled rate up through a blast tube to a conical target. The Pro-Claim blast tubes typically require minimal maintenance, but when maintenance is required, the design makes tube removal easily accomplished through individual cell access doors.

4 Sand or ceramic accelerated through the blast tubes is scrubbed against sand and trapped under the conical target. Since scrubbing is accomplished by sand-to sand contact, maintenance and replacement of wear parts are greatly reduced.

5 As the sand or ceramic curtain falls from the target area it is exposed to exhaust air drawn through a shroud surrounding the target. Residual binder and excess fines scrubbed off the sand grains are removed to dust collection. This controls Loss on Ignition (LOI) and maintains the original sand screen distribution

6 The Pro-Claim throughput is controlled by a series of adjustable deflector plates between the cells. A controlled amount of the sand is recirculated into the same cell and the remainder is diverted to the next cell. If needed, for more intensive scrubbing the sand can be retained in each cell longer. This controls the degree of cleanliness of the reclaimed sand without needing to recycle the sand through the entire unit. The reclamation process is repeated through as many successive cells as needed, depending on your specific application.

7 When the sand or ceramic emerges from the last cell, excess fines are removed in a final dedusting chute. A vibratory classification screen separates and discharges refuse through a horizontal opening, and reclaimed sand enters a discharge hopper below.

"The overall reason we wanted to do this is basically to keep the sand that we purchase within the building, minimize if at all possible anything that we throw away and give us the quality for our customers. From an environmental standpoint our carbon footprint needed to be better."

– Foundry Manager