

### AA-0700

# Bag Dumping System with Glove Box, Bag Compactor, Flexible Screw Conveyor



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## Bag Dumping System with Glove Box, Bag Compactor, Flexible Screw Conveyor

This Bag Dumping System with glove box, bag compactor and flexible screw conveyor (also known as a helix conveyor, screw conveyor, spiral conveyor or auger conveyor), isolates bulk material from the operator and plant environment throughout opening, dumping and compaction of bags, and the conveying of material downstream.

Bags are staged on a stainless steel tabletop and then transferred through a plastic strip curtain into a dumping enclosure comprised of a glove box, empty-bag chute and dust collector atop a receiving hopper.

The dust collector maintains negative pressure within the enclosure, preventing the escape of dust through the curtain, while containing dust generated during bag opening and dumping activities.

A bag infeed chute through the sidewall of the enclosure allows the operator to pass empty bags directly into the bag compactor, causing dust generated from compaction as well as dumping activities to be drawn onto the system's two filter cartridges.

An automatic reverse-pulse filter cleaning system releases short blasts of compressed air inside the filters at timed intervals causing dust build-up on the outer surfaces to fall into the hopper, conserving useable product. Filters are readily accessed by removing the interior baffle, and replaced rapidly using quick-disconnect fittings.

The compactor employs a large pneumatic air cylinder to compress bags into a removable bin that accommodates 50 to 80 bags. The main waste access door, and a flapper door within the bag infeed chute, are equipped with safety interlocks that prevent operation of the compactor unless both doors are closed.

The hopper discharges into an enclosed Flexicon flexible screw conveyor for dust-free transfer of a broad variety of products including free- and non-free-flowing materials from large pellets to sub-micron powders, including products that pack, cake, seize, smear, fluidise, break apart or separate, with no separation of blended products.



Dust generated from bag opening, dumping and compaction is isolated from the operator and plant environment by means of a glove box, dust collector and integral bag compactor with sealed infeed chute. An enclosed Flexicon flexible screw conveyor transfers material downstream at any angle, dust-free.



The operator is isolated from dust by means of a dumping hood comprised of a plastic strip curtain, glove box, empty-bag infeed chute, and dust collector atop a receiving hopper feeding an enclosed flexible screw conveyor.



An operator transfers empty bags from the glove box side of the enclosure through a bag infeed chute in the enclosure sidewall, drawing dust generated from bag compaction as well as dumping activities into the integral dust collection system.