

Applications of Fox Venturi Eductors

Case Study No. 56

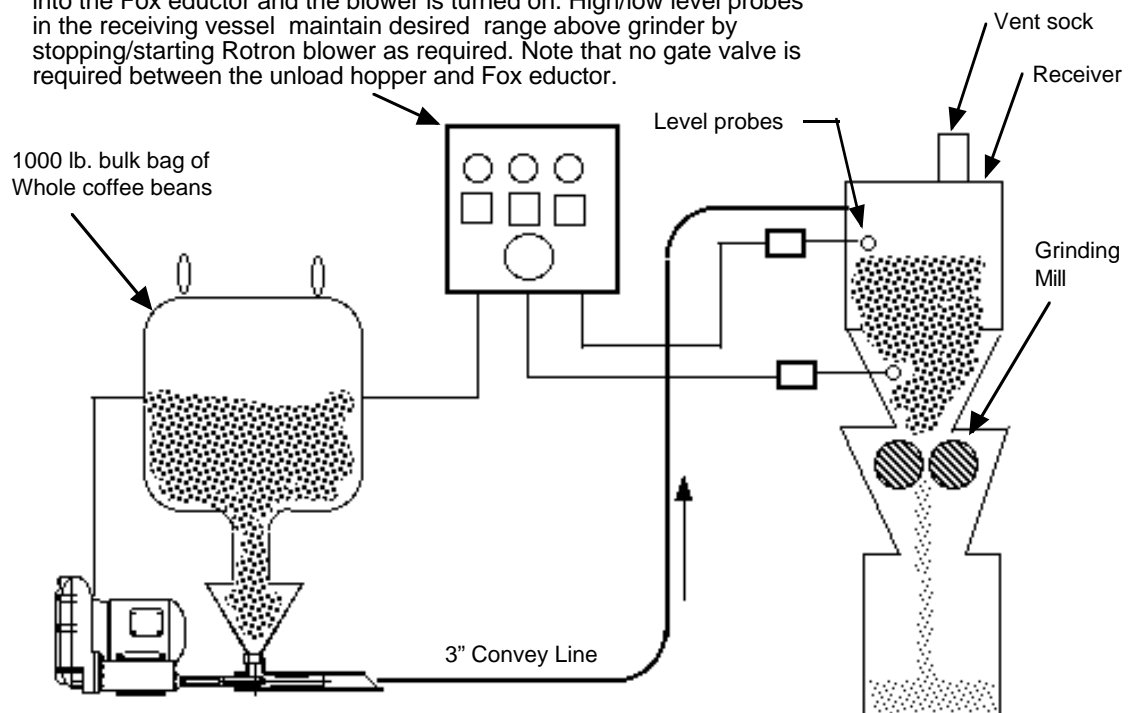
Product : Whole roasted coffee beans, (35 - 40 pcf).

Problem: This custom contract packaging plant needed to increase their output of ground coffee. The current method of manually positioning a 1000-pound bag on the mezzanine directly above the grinders was obviously limiting rate. The plant had to automate and accelerate the process of emptying the bulk-bags and feeding the grinders.

Solution : After considering various options, the customer chose an elegant design solution. The three grinders are each fed by a 3" Fox eductor/Rottron blower combination, which pneumatically conveys the beans in to a receiving vessel above each grinder. A simple control panel, supplied by Fox, maintains a preset level of beans in the receiving vessel and turns the blower off once the bulk bag is empty. Due to the free-flowing nature of coffee beans, a gate valve was not required between the eductor and supply hopper. Max transport rate is about 2400#/Hr of over 65 ft with (5) bends. Blower is only 5HP.

Fox Eductor System with Control Panel

Control Panel : A bulk bag is positioned to feed whole coffee beans into the Fox eductor and the blower is turned on. High/low level probes in the receiving vessel maintain desired range above grinder by stopping/starting Rottron blower as required. Note that no gate valve is required between the unload hopper and Fox eductor.



3" Fox eductor and 5 HP Rottron blower convey whole roasted coffee beans at approx 2400 lbs/hr instantaneous rate.

