

Spraying Salt in Kosher Food Processing

CASE STUDY No.

24

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Applications of Fox Venturi Eductors

CONVEYING WITH: NO MOVING PARTS - NO BLOWBACK - NO MAINTENANCE

PRODUCT

Salt Flakes

1/8" average, 47 lbs/cu ft, hygroscopic

PROBLEM

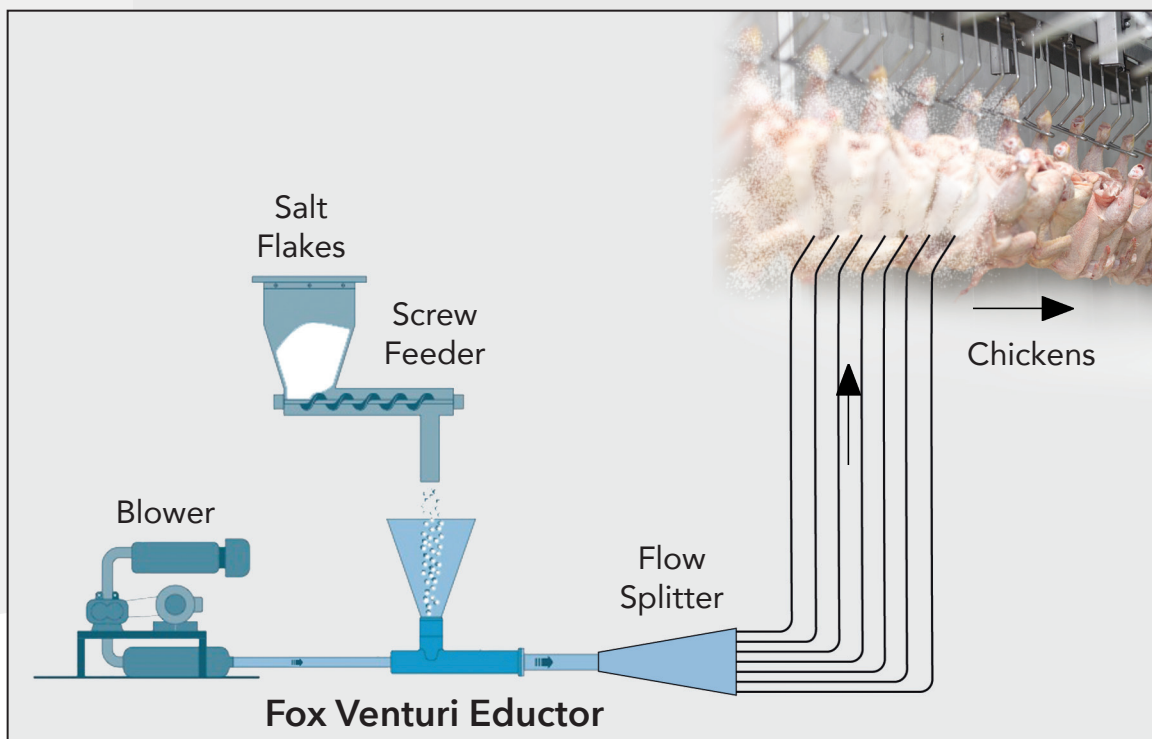
Food processing

A Kosher poultry plant needed to find a way to spray salt onto freshly slaughtered chickens. Prime requirements for the system were that it should deliver an even and homogeneous flow rate, be maintenance-free, and be easy to disassemble for cleaning. In addition, plant engineers hoped that one feed system could be adapted to have several discharge points. The various discharge points would be angled to provide an even coating of salt on the chickens as they passed-by on a mechanical conveyor. Numerous concepts were studied but the plant engineers concluded that only a venturi eductor appeared to meet the stringent requirements.



SOLUTION

Two 3" stainless Fox venturi eductors have been installed in different parts of the plant. Salt from hoppers is gravity fed into each eductor which discharges the air/salt mixture into a flow splitter. The flow splitter divides the flow into 7 separate 1" hoses which direct the salt onto the passing chickens.



FOR MORE INFORMATION:

Video: [Eductor replaces Rotary Valve](#)

Visit Our [Food Web Page](#)

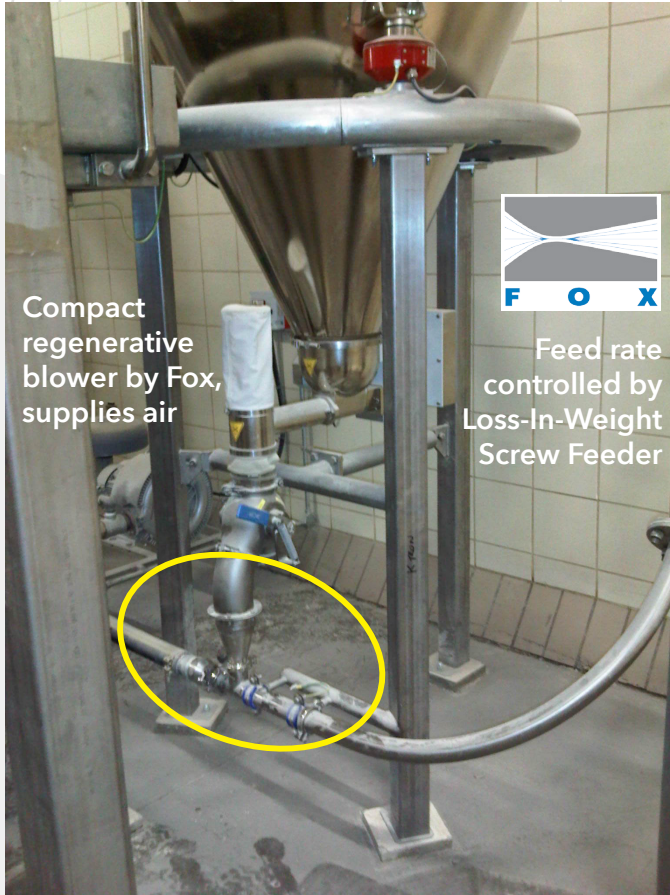
FOX VENTURI EDUCTORS

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Fox Eductors are Used to Spray Salt onto Chicken Carcasses at Kosher Poultry Plant



Compact regenerative blower by Fox, supplies air

Feed rate controlled by Loss-In-Weight Screw Feeder



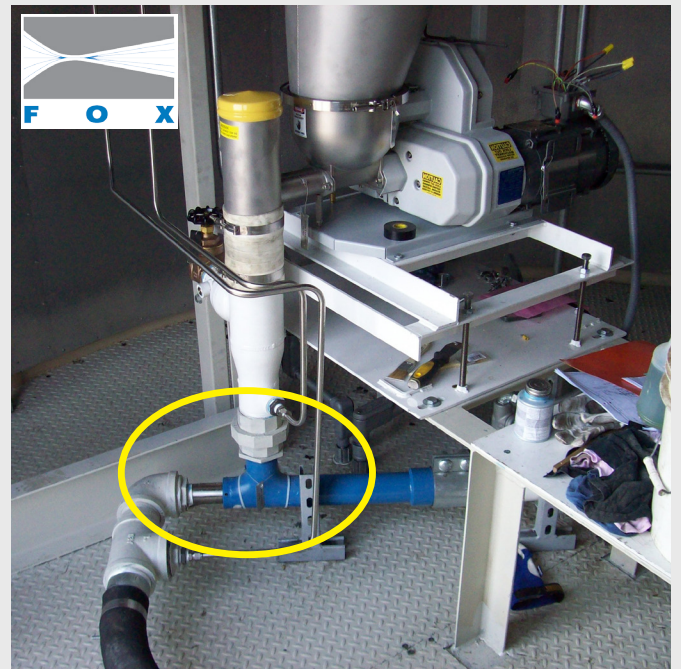
Air supply from p-d blower, 100 ft away

Fox 4" Eductor, conveying dextrose from screw feeder. In service 15 years with no maintenance.

Fox 2" Sanitary Eductor, conveying oatmeal from screw feeder.



A fully sanitary/food-grade Venturi Eductor for use with food products.



Typical installation of Fox Eductor in Activated Carbon Injection System, for mercury adsorption.