

# Applications of Fox Venturi Eductors

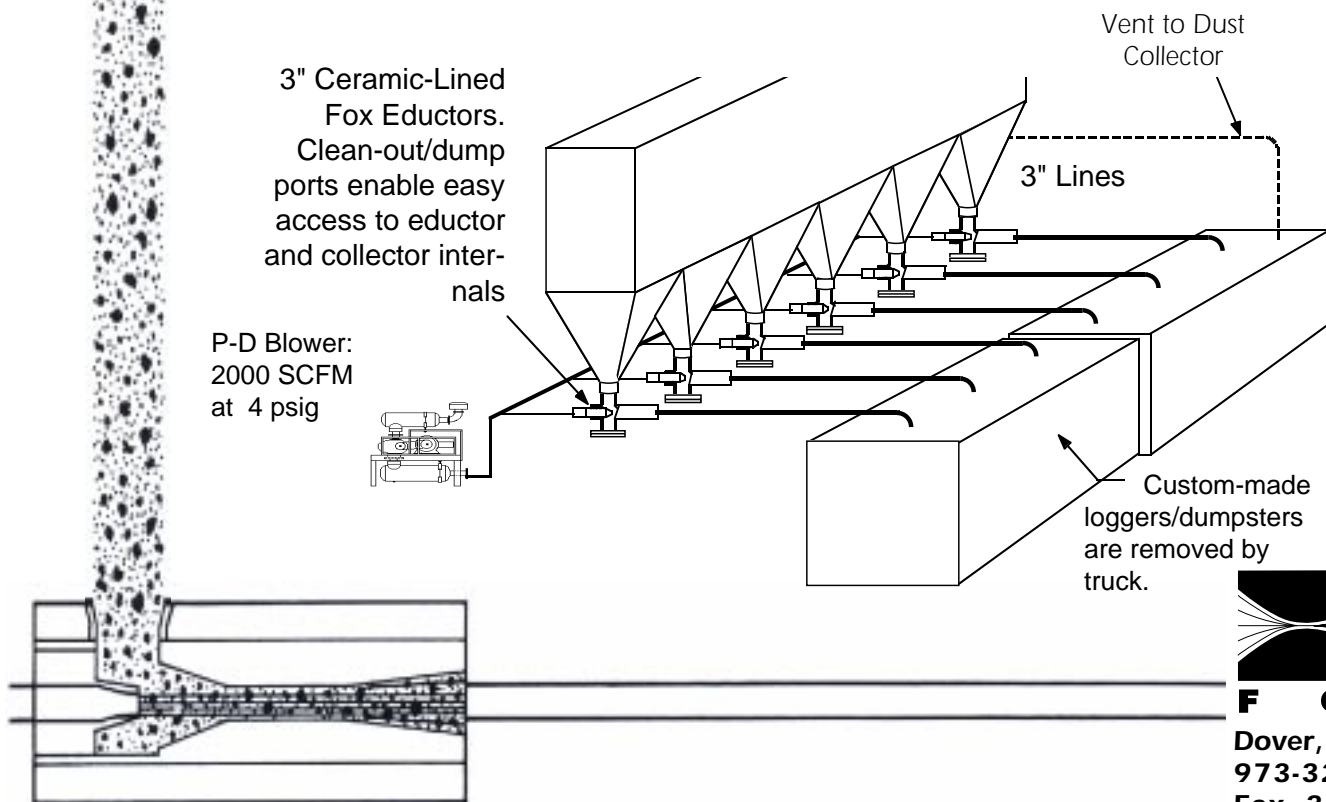
## Case Study No. 61

**Product :** Foundry Dust at up to 350° F  
Extremely abrasive powder, 40 - 50 #/ft<sup>3</sup>

**Problem :** This Southern foundry replaced their old furnace exhaust gas dust collector with a new 30,000 CFM (6) module unit. The original dust collector used standard 1950's technology - an airlock and screw conveyor - to collect the dust from each module. In the high humidity conditions of the South, this approach proved to be inadequate: the bearings and motors needed constant maintenance, and dust would bridge above the airlocks on a regular basis. A blockage in one module could close the furnace down for days..

**Solution :** The plant engineer, already familiar with eductors, approached Fox for their recommendations. The most important feature of the dust handling system was ease of clean-out should a blockage occur. For this reason Fox selected a 3" eductor including a clean-out, or dump port. This design permits easy access to eductor internals without having to unbolt the eductor from the conveying system. The (6) eductors are driven by a single p-d blower through an 8" header. Since start-up, the plant engineer has realized an additional benefit of using Fox eductors: it is now possible to access and repair one module without having to take the entire dust collector off line - something not possible when they were all linked together by a screw conveyor.

### ***Replacing a Screw Conveyor Beneath (6) Baghouse Modules to Eliminate Maintenance using Fox Ceramic-Lined Eductors***



**FOX**  
Dover, NJ USA  
973-328-1011  
Fax 328-3651