

Question:

I plan to purchase a Donaldson[®] Torit[®] RF Baghouse this summer for a dust control application on a truck feed load out application. The feed is wheat middlings and is quite dusty. Could you please explain the advantages and disadvantages of the "Involute Scroll" inlet and the "High Body" inlet and recommend the appropriate inlet for my application?

Lionel H., Senior Plant Engineer

Answer:

Typical truck feed load out applications produce heavy material loading to the dust collector. Due to the amount of material collected, the Involute Scroll inlet offers you the advantage of a cyclone pre-clean and baghouse all in one collector. The Involute Scroll inlet pre-spins the material so that only a fraction of the material collected actually reaches the filter bags. It's a pre-cleaner stage and, thereby, helps extend the life of the filter bags.

Other critical factors to analyze include the air-to-media ratio and the can velocity. If the dust carries a low bulk density and the can velocity is high, the High Body inlet would be best selection. As the name implies, the High Body inlet brings the dirty air in higher up on the collector to provide more of a down-flow air pattern. This air pattern helps to force lighter, fluffier particles down into the hopper. Although the High Body inlet does not provide as much pre-separation as the Involute Scroll inlet, it is designed in a way to force much of the dust into the hopper before it gets to the bags.

Additional application parameters sometimes have to be considered prior to making the final inlet design determination.

We do know that you are collecting wheat feed, but we do not know the air volume (can velocity and air-to-media ratio) nor do we know the loading (the amount of material the dust collector will be seeing in a given period of time). This information, along with other application parameters, need to be ascertained prior to the final inlet design determination. Our local sales representatives are superb contacts for such insight. To find your local representative, call 800-365-1331 and press 2.

For more information:

Illustration of RF Involute Scroll and High Body Inlet on the 3rd page.

Contact Donaldson Torit to discuss your air-to-media ratio, can velocity, and other factors.