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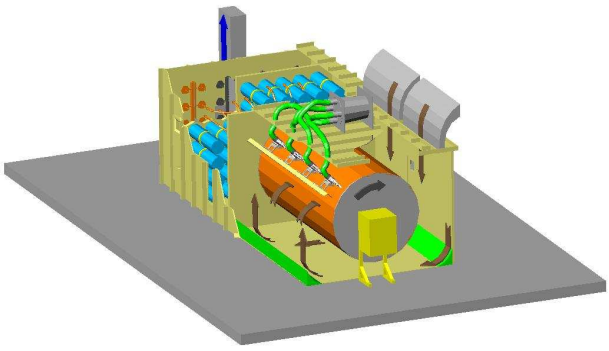
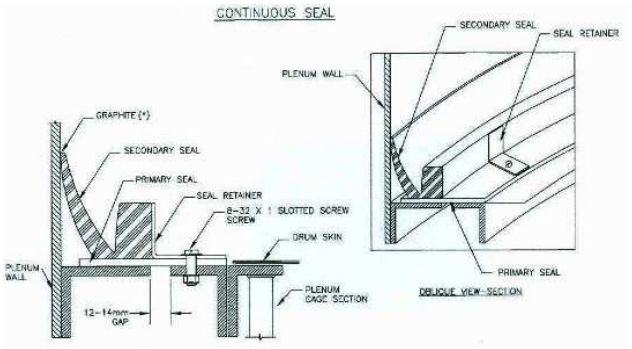
Technical Bulletin 030111

Efficiency & Exhaust Air Quality Troubleshooting:Rotary Drum Filters

The rotary drum filter is a very versatile and forgiving piece of equipment. While simple in design and operation, there are some key areas that require attention in order to achieve maximum performance and efficiency. The electro-mechanical function is simple to define. Is the drum filter rotating at the designed RPM? Are the filter media suction nozzles adequately cleaning the media? Having confirmed these two functions, let's look at some other areas that can improve filtration efficiency.

>Is the capacity (CFM, M3/H) of the drum filter and main fan/motor adequate for the application?
>The filter media must be installed properly with no areas of the drum not covered.
>Have you selected the correct media for your application?
>Maintain a 12mm gap between the rotating drum ring and the stationary/fixed plenum wall ring.
>The primary nylon belting seal must be tight and overlapping with the raw edge "trailing"
>The secondary rubber must be tight and fitted with metal seal retainer clips.
>Consider a drum speed between 1RPM and 3 RPM
>Is the incoming air and particulate entering the chamber as to not blow directly on the drum?
>Have the suction nozzles been adjusted to be about 7-9mm from the media?
>Is the 100mm (4") flex hose in good condition without any splits or kinks?
>Is the pneumatic manifold or rotary valve operating properly to provide suction to each nozzle?
>Are you using the correct nozzle stripper fan & motor? Minimum is 500 CFM (850M3/H)
>Has the plenum/dividing wall between the drum chamber and clean chamber been sealed?
>If you are not using final filters after the drum, place a deflector near the inlet of the main fan.
>If you exhaust to outside, use a stack high enough to direct the discharge away from the roof.





If you are experiencing electro-mechanical problems and/or excessive particulate in the exhaust air, follow the above suggestions in order to better define your problems. Additional assistance is available from Ibis by requesting a technician visit to your facility or by submitting more information and photos to our sales & technical department. sales@ibis-usa.com