JOA Modular Dust Extraction Filter (JDF series)

Since 1998, JOA has designed and built dust extraction systems. The primary purpose of these systems is providing high performance industrial process and equipment de-dusting, realizing targeted emission control, in accordance with local and federal regulations enacted such as NeR, TA Luft and EPA.

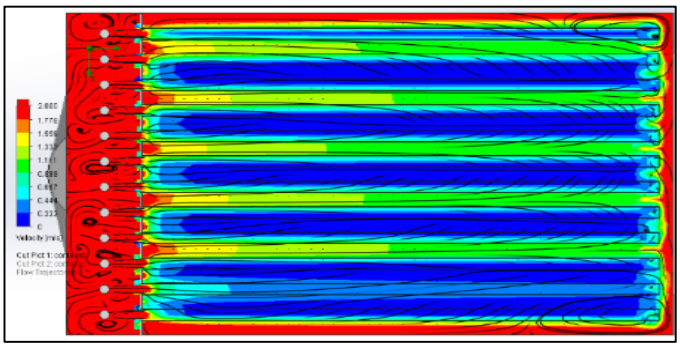
The next generation JDF Envelope Filters provide a standardized modular filter-set up, handling an air capacity range of 1.500 - 50.000 m³/hr. The design of the modular JDF allows for product / dust specific solutions, e.g. handling low specific density dust with a down flow filter principle, or handling extremely high dust loadings by adding the integrated JDF Pre-Separator. By selecting the optimal filter media from a wide range of available JDF media, emission values of < 0.1 mg/m³ are realized. Finally; for all JDF filters, depending on the type of combustible dust (Kst-value and MIE) to be handled, ATEX certification is available.

JDF Dust Filters can be equipped with integrated down-flow and / or pre-separators, providing suitable dust collection for many different applications.

JDF Dust Filter Series; applying CFD based innovation:

Key contributors for effective filter life time and emission control are applying correct dust settling velocity and optimal air to cloth ratio. Next to a large 'experience data base' available for JDF design, JOA provides laboratory testing, to test the hindered settling velocity, filter cake build up and determine the optimal air to cloth ratio.

The JDF Series has a unique design characteristic, created by applying CFD based flow distribution which provides for



equal dust cake loading throughout the entire filter module. By optimizing flow distribution and the directly related envelope spacing, the JDF Dust Filter will operate at: (1) Lower energy consumption due to controlled filter element pressure drop, and (2) Extended filter element life time by precise, balanced dust loading. This is a Win-Win for the customer in Operational Costs.

JDF Dust Filters series have CFD optimized filter spacing for long filter life time at minimized energy consumption.

JOA

SUSTAINABLE SOLUTIONS

Energy Saving Solutions:

Since 1998, JOA has engineered and installed over 450 extraction systems applying our proprietary GCM™ computer modeling. This invaluable design tool applies real-world physics for the design of high performance emissions control systems. By precisely balancing the extraction piping, applying product specific optimal conveying velocity (V0crit), we insure: (1) A reduced risk for fouling of the piping network, and (2) Minimized operating pressure and pressure drop, for energy optimization.

The JDF Dust Filter integrated with JOA Carrousels for system balancing and full system flexibility for energy reduction purposes.

Operating your dust extraction system as a true utility, in many cases production processes will benefit from full scale flexibility (capacity and pressure demand). The advanced JOA Carrousel (spin-off of our pharmaceutical business) provides this full flexibility and turn down ratio, with significant energy savings. Again the GCM™ computer model is available to give accurate energy saving details prior to installing a dust extraction system.

Related JOA Technologies:

JOA has a wide range of filtration and odor abatement products, such as Automated Aerosol Belt Filters, Scrubbers, Ionization Technology and Activated Carbon Filters. For further details, please download the brochures from our website. www.joa.nl

JOA Main Office
Delftechpark 25
2628 XJ Delft
The Netherlands
T +31(0)15 25 72 796
info@joa.nl

JOA North America
8349-M Arrowridge Blvd
Charlotte NC 28273
United States of America
T +1 704 523 0777
info@joa-nam.com

JOA Complex Russia
Donskoy Business Center
5th Donskoy Proezd 15
Building 2 Office 215
117334 Moscow, Russia
T +7 495 955 5107

More information:
www.joa.nl