



S2.1.2 - *Metallic Filtration Media and Materials*

Daniel Wilhelm¹

¹Porous Metal Filters

The workhorse of filter medias are ferrous and non-ferrous materials which have become a standard staple in metallic media design. These materials range from woven to non-woven metal fiber mat, metal powders, expanded foils, photo-etched foils, metal foam, profile wire, and perforated materials. Many of the individual materials can be combined to formulate hybrid composites that are available in sintered and non-sintered construction. Filter medias fabricated from these materials are used in the Oil & Gas, Power Generation, Petrochemical, Pharmaceutical, Polymer, Aerospace, Automotive, Chemical, Water and Air applications just to name a few. These materials are a reliable barrier protecting downstream processes, requiring high-efficiency particle removal. In addition, these materials provide critical properties such as mechanical strength, thermal stability, and retention efficiency. As industrial applications become more demanding and require new technologies for filtration and separation processes, this presentation will introduce you to a broad class of materials that alone or in combination will help you be a part of the solution.

Danny Wilhelm

Danny holds a Bachelor of Science degree and MBA from Sam Houston State University, specializing in Marketing. Inspired to make a difference in the world, at 18 he started his career in filtration and separation to help companies find the best filtration solutions for their process and promote sustainable efforts for a cleaner environment. As a Product Manager for Dorstener Wire Tech and Porous Metal Filter, Danny has led development and design of different woven wire cloth medias and diffusion bonded mesh laminates. His experience is applied to filtration solutions for customers in the Oil & Gas, Power Generation, Petrochemical, Pharmaceutical, Polymer, Aerospace, Automotive, Chemical, Water and Air applications.

Keywords:

Filter Media

Sintered Diffusion

Bonded Mesh Laminate

Wire Cloth