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**Abstract:** This whitepaper delves into the advantages offered by Universal Air Filter (UAF) as the premier choice for Delta ESOA600-HCU01 series telecom enclosure cabinets' air filtration needs. By combining higher airflow, reduced pressure drop, a dual-stage filtration system, and a focus on domestic sourcing, UAF's solution significantly outperforms OEM filters. The efficiencies gained from domestic sourcing translate to improved availability, reduced landed costs, and enhanced support for the North American install base.

**Introduction:** Efficient cooling of telecom enclosure cabinets, exemplified by the Delta ESOA600-HCU01 series cabinets, is pivotal for maintaining optimal equipment functionality. Recognizing the importance of robust air filtration, Universal Air Filter presents an innovative solution that amplifies performance beyond the limitations of OEM filters.

#### **Advantages of UAF Filters:**

- 1. Optimized Airflow and Pressure Drop Reduction:** The heart of UAF's solution lies in its unmatched airflow properties. Compared to the stock OEM filter, UAF's filter yields a 35-55% increase in airflow, dependent on face velocity. This corresponds to a proportional 35-55% decrease in pressure drop (resistance). This tangible difference mitigates the strain on the cabinet's fans, amplifying cooling efficiency and ultimately promoting the longevity of the entire system.
- 2. Two-Stage Filtration for Enhanced Performance:** UAF's innovative system pairs a 30 PPI Quadrafoam® prefilter with a pleated MERV 15 synthetic filter. This dual-stage setup effectively captures larger particles before they reach the pleated filter, which can be easily cleaned and maintained. The result is a consistently clean environment within the cabinet, safeguarding equipment from potential clogs and preserving optimal airflow.
- 3. Improved Cooling Efficiency and Fan Longevity:** Efficient cooling not only optimizes equipment performance but also extends the lifespan of internal components. UAF's filtration system bolsters cooling efficiency by enhancing airflow while upholding filtration effectiveness. This translates into minimized temperature-induced stress on equipment, directly prolonging component life and mitigating maintenance expenses. UAF's lower resistance extends the useful life of the filter by allowing for a wider range of dust loading before the filter's air flow drops below the acceptable range.
- 4. Domestic Sourcing for Enhanced Efficiency:** UAF's strategy of utilizing domestic sourcing reaps multiple benefits for Delta's North American install base. By sourcing materials and manufacturing domestically, UAF streamlines supply chains, reduces shipping time, and curtails landed costs. These efficiencies translate into better availability of filters and more cost-effective solutions for Delta's customers, thus solidifying UAF's commitment to supporting the North American telecom infrastructure.
- 5. Overall Advantages:** Embracing UAF's superior filtration system for Delta ESOA600-HCU01 cabinets results in multifaceted benefits. From consistently optimized

performance and reduced downtime to extended equipment life, the advantages contribute to increased operational stability and enhanced user satisfaction.

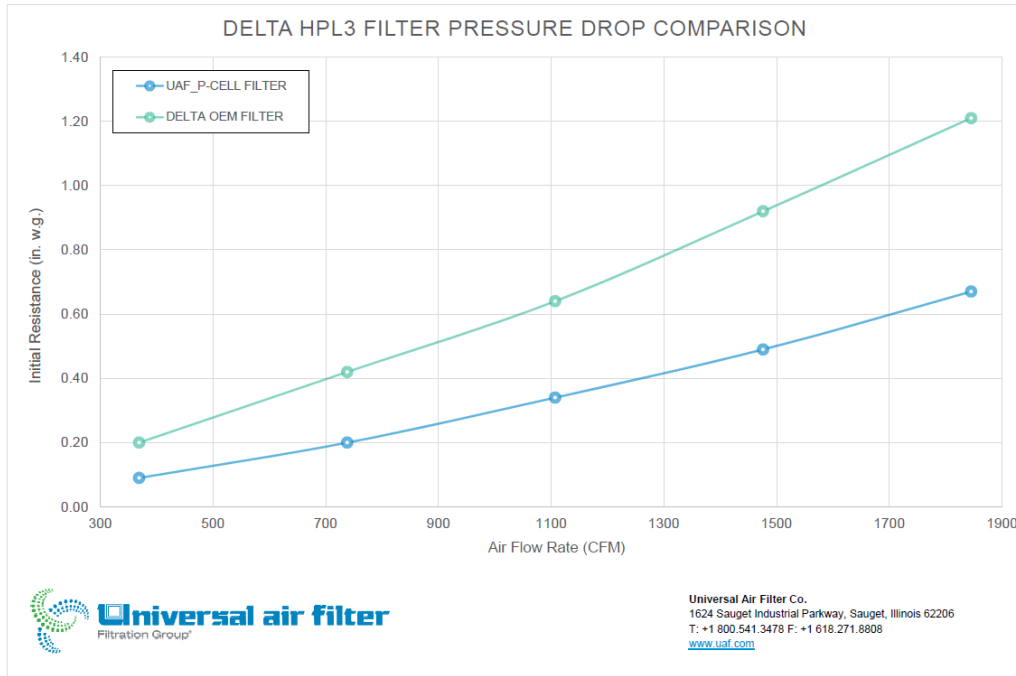


Figure 1: Comparison of Pressure Drop of OEM and UAF Solution

Universal Air Filter's innovative solution stands as the optimal choice for Delta ESOA600-HCU01 telecom enclosure cabinets. By offering increased airflow, decreased pressure drop, a dual-stage filtration system, and a focus on domestic sourcing, UAF significantly surpasses the capabilities of OEM filters. The efficiencies derived from domestic sourcing not only lower landed costs but also ensure better availability, effectively supporting the North American install base's needs. Through UAF's filtration solution, Delta can drive performance, reliability, and cost-effectiveness to new heights.

[Contact Universal Air Filter](#) today to learn more about the ESOA600-HCU01 cabinet filter and other direct air cooled filtration solutions.  
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