

## **VARIOPLEAT – INNOVATIVE VARIABLE PLEAT HEIGHTS FOR HD ENGINE AIR FILTER ELEMENTS**

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The main drivers in heavy-duty engine air filtration continue to be the demand for higher filtration performance and at the same time more challenging design spaces. The packaging situation can require less volume or complex non-standard shapes or even switch to other concepts like round versus flat or vice versa. This brings up the need for flexible and variable filter element designs.

MANN+HUMMEL's VarioPleat air filter technology was developed to combine high performance with flexible geometry and to offer a solution for complex or narrow installation spaces to which conventional filter designs are not applicable. VarioPleat features a pleated bellow of cellulose filter media with pleat-to-pleat variable pleat height. Additionally, pleat heights far larger than industry standard are possible. This geometrical flexibility allows the utilization of otherwise unavailable space and the integration of functional features such as a secondary element in innovative configurations. Also, the variable shape of the bellow can be used to optimize the air flow and with it system pressure loss and loading characteristics.

We are going to discuss in a technical presentation a comparison of a VarioPleat filter element design versus round or compact/corrugated air filter concepts. We will show how variable bellow geometry enables designs with different functional features. An example will be the IQORON VP having received the New Product Award 2018 of the AFS.