

Abstract

Improvements in active field polarized media air cleaner include an aerodynamic front cowling to reduce static air resistance, a rear double hinge to reduce blow by, a resistive center screen permitting the sharing of high voltage power supplies while reducing the tendency to arc and allowing for a higher operational voltage, a dielectric media support frame to produce a more uniform electrostatic field and reduce blow by, while at the same time reducing the tendency to spray corona and/or arc at the edges of the center screen, a substantially flat conductive outer screen to produce a more uniform electrostatic field throughout the filter media and a high-voltage shield to reduce high-voltage arcing and the spraying of corona where the high-voltage probe contacts the center screen.