Mott's sintered porous metal products are used in many filtration and fluid control applications within the automotive and heavy equipment industry. Emission controls, engine life cycle and power, as well as accurate testing equipment are critical to engine designers and manufacturers. Mott products can also be used to capture unburned hydrocarbons, to protect critical sensors, and pressure sensing in diesel emissions equipment. Our application experience and technical knowledge assists our customers in manufacturing improved products that are more durable and long-lasting.

**Fuel Filtration**
Mott provides porous metal fuel filter assemblies used in diesel engines. These filters have replaced alternatives because they are more robust and can endure the conditions characteristic of diesel engines, such as strong vibrations and extreme conditions.

**Fluid Controls**
Mott porous metal flow restrictors are used in automotive leak testing equipment. The test uses air or nitrogen and the result correlates to a liquid leak rate. The restrictors function as 'calibration leak standards'; they are used to calibrate the component that measures the gas leak. The multi-pore construction of a Mott restrictor gives it an advantage over an orifice restrictor. The Mott restrictor is less susceptible to flow rate variation as a result of clogging by debris that may be in the test gas. Since a Mott restrictor contains thousands of three-dimensional pore pathways, gas can easily flow around an obstructed area. Once calibrated, a porous metal flow device will never deviate from its calibrated flow as long as the supply gas pressure and cleanliness are maintained.

**Sensor Protectors**
The light-weight yet durable attributes of Mott porous metal, along with the ability to withstand high temperatures while maintaining its porous form, allows technical benefits for a number of temperature and pressure sensors throughout the engine. Typical materials would be 316, 304 or 400 series stainless steel.

**Porous Metal Material**
The benefits of Mott's porous metal media are derived from its all-metal and sinter-bonded construction. The alloys offered possess practical corrosion resistance in automotive environments. (As an example, 316L stainless steel is compatible with biodiesel.) These products also provide practical heat tolerance as a result of resistance to oxidation and retention of strength at elevated temperatures. The metal powder compaction, furnace sintering, and diffusion-bonding create a structure with a valuable combination of strength and ductility. Porous metal is far superior to non-metallic products for high stress environments.

**Rapid Response and Technical Expertise**
Mott manufactures products for automotive applications specific to customer and application specifications. Mott has in place an organizational structure centered around an experienced development team that can fast-track requirements such as drawings; development, prototype, and validation work; the production part approval process (PPAP); the design and acquisition of new tooling and equipment; and ramp-up to production. Mott also has a Regional Engineer located in the Detroit area focusing on engine technology applications.

Mott also offers useful design tools including design guides and technical data sheets (including filtration efficiency and permeability information). These items can be found in the Resource Center section of our website:

Mott porous metal products have been proven in various automotive, off road, and heavy equipment applications. Its all-metal construction and durability make it preferred over filter papers, wire mesh, and plastics where ruggedness and the ability to endure extreme operating conditions and environments are required. The use of porous metal technology in this industry is widely accepted and successful. Having the right product for the application and the engineering and development teams to support new challenges makes Mott the engineered solution provider for the automotive industry.