Prediction and Simulation
- CAD
- Media modeling
- Fluid mechanics
- Structural analysis
- Thermal analysis

Development and Validation
Filter Durability
- Fabrication integrity
- Environmental conditions
  - Salt spray and cold temperature
- Pressure fatigue
- Flow fatigue
- Hydrostatic burst
- Flow benches
- Filter collapse bench

- Gravimetric analysis
- Filtration performance testing per applicable SAE and ISO standards

Rapid Prototyping
- SLA, SLS
- Investment casting
- RTV molding
Structural Analysis
- Per SAE, ISO, and NFPA standards
- Burst
- Collapse
- Pressure impulse and fatigue

Tensile Compression
- Used to test material, component and assembly properties

Environmental Chambers
- Allows testing at hot or cold temperature, with humidity control

Flow Test Benches
- Allows measurement of static and dynamic flow and restriction for a device
- Allows calculation of device restriction at varying flows and temperatures
- System simulation

Filtration Performance Testing
- ISO, SAE, NFPA
- Customer standards
- Contaminant (particle or water) removal efficiency
- Contaminant capacity

Analytical Chemistry Laboratory
- Optical microscopy
- Scanning electron microscopy (SEM)
- Chemical analysis
- Fourier transform infrared (FTIR)
- Gas chromatography (GC/MS)
- Thermal analysis (DSC, TGA)
- Liquid chromatography