



FEMA Corporation

Advanced Electro-Hydraulic Solutions for **Automotive & Heavy Vehicle Systems**

FEMA Corporation designs and manufactures **advanced electro-hydraulic proportional valves and custom manifolds** used in safety and performance-critical vehicle systems.

- **Location:** Portage, Michigan, USA
- **Model:** Engineering-led supplier, early development involvement
- **Focus:** Precision control, repeatability, long-life performance
- **Experience:** 50+ years supplying Tier 1 OEMs

▶ **Engineering Integration**

FEMA is an **extension of the OEM engineering team**

- Valve and manifold architectures tailored to specific vehicle architectures
- Compact integration supporting space, weight, and efficiency targets
- Alignment with electronic control units, sensors, and software logic

▶ **Validation & Development Support**

FEMA incorporates **ISO 17025:2017 certified testing** into all our product lifecycles

- Application-specific performance testing
- Iterative design refinement
- Documentation aligned with OEM validation and release processes

▶ **Reliability & Lifecycle Performance**

FEMA products are designed for **continuous-duty vehicle environments**

- Stable performance over long service life
- Robust designs tolerant of vibration, contamination, and temperature extremes
- Emphasis on repeatability, robustness, and lower warranty cost exposure

Vehicle Dynamics & Driveline Control

FEMA’s electro-hydraulic solutions support advanced vehicle systems where fast, accurate, and repeatable control directly affects safety, ride quality, and drivability.

Active & semi-active suspension systems: ride control, stability, and comfort

Clutch, limited slip, & active differentials: torque management and traction control

Power-shift & power-shuttle transmissions: smooth gear changes and durability

Control-by-wire systems: precise electro-hydraulic actuation command

Braking Systems: immediate safety and control



ISO 9001:2015 | ISO 14001:2015 | ISO 17025:2017 | IATF 16949:2016

1716 Vanderbilt Avenue, Portage, MI 49024 | +1-269-323-1369 | fema-corp.com | sales@fema-corp.com

FEMA Corporation delivers **precision, reliability, and disciplined service**

Supporting your engineers from **development through production**

▷ Total Cost of Ownership

FEMA focuses on **overall system-level value**

- Reduced system complexity
- Improved durability and service life
- Lower risk of late-stage design changes
- Fewer quality escapes in the field



▷ Functional Safety & Risk Alignment

FEMA supports OEM programs with awareness of **functional safety and control requirements**

- Designs compatible with safety-oriented system architectures
- Clear documentation, traceability, and change control
- Engineering support during development and series production



▷ Supplier Qualification Alignment

FEMA directly **supports purchasing and supplier quality teams**

- Clear qualification and approval roadmap
- Defined documentation and production change control
- U.S.-based, repeatable processes, long-term supply mindset aligned with multi-year vehicle platforms

▷ Typical Engagement Path

1. Target application discussion
2. Concept and feasibility review
3. Prototype and validation support
4. Supplier qualification
5. Series production and lifecycle support

Where to Begin?

FEMA welcomes a **joint engineering and purchasing discussion** to:

- Review system performance or control challenges
- Align on supplier evaluation and safety expectations
- Identify a focused pilot or development program