



FEMA Corporation

Advanced Electro-Hydraulic Solutions for **Forestry Equipment Platforms**

FEMA Corporation designs and manufactures **advanced electro-hydraulic proportional valves and custom manifolds** for the most demanding mobile equipment applications

- **Location:** Portage, Michigan, USA
- **Model:** Engineering-led supplier with early development involvement
- **Focus:** Precision control, durability, lifecycle support
- **Experience:** 50+ years supporting off-highway OEM platforms

▶ Engineering Integration

FEMA works as an **extension of the OEM engineering team**

- Valve and manifold architectures tailored to machine and implement functions
- Compact integration to reduce hoses, leak points, assembly time, and potential warranty costs
- Alignment with OEM electronic control units and software strategies

▶ Validation Support

FEMA incorporates **ISO 17025:2017 certified testing** throughout the product lifecycle

- Application-specific performance and durability testing
- Iterative refinement in development to match real duty cycles
- Documentation aligned with OEM validation, release, and change-control processes

▶ Reliability & Lifecycle

FEMA products are designed for **continuous, extreme-duty forestry environments**

- Stable performance over long operating hours
- Robust designs tolerant of contamination, vibration, shock, and temperature extremes
- Emphasis on uptime, serviceability, and long component life
- Reduced downtime risk and lower warranty cost exposure over the platform lifecycle

Forestry Equipment Applications

FEMA solutions are especially relevant where smooth, repeatable hydraulic control under heavy and dynamic loads is critical. In forestry machines such as feller bunchers, harvesters, forwarders, skidders, and loaders, precise proportional control:

- Improves operator control and confidence
- Reduces hydraulic and structural shock
- Supports consistent performance across long duty cycles
- Helps protect surrounding structures, implements, and attachments

The result is predictable machine behavior in environments where variability is the norm.



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

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FEMA Corporation delivers **precision, reliability, and disciplined service**
Supporting your engineers from **development through production**

▶ Total Cost of Ownership

FEMA focuses on **system-level value**, not just individual components

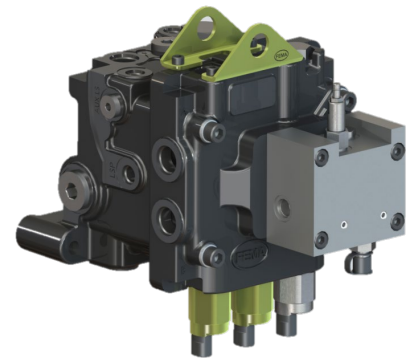
- Reduced system complexity
- Improved uptime and service life
- Lower risk of late-stage design changes
- Fewer quality escapes in the field



▶ Supplier Qualification Alignment

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

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



▶ Typical Engagement Path

- Target application discussion
- Concept and feasibility review
- Prototype and validation support
- Supplier qualification
- Series production and lifecycle support



Where to Begin?

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

- Review control, durability, or integration challenges
- Align on supplier evaluation expectations
- Identify a focused pilot or development application

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