

Pistons



Federal-Mogul is a market leader in materials technology, application engineering and advanced testing capabilities for pistons in high-performance engines, especially in the light vehicle diesel, heavy-duty and high-end gasoline engine segments.

Our next generation pistons feature optimized gallery locations for maximum cooling along with the latest alloy developments for increased strength and durability. Our pistons are manufactured with state-of-the-art technologies, coatings and engineered surfaces for superior performance.

Aluminum Diesel Pistons

- Optimized gallery locations for maximum cooling result in up to 10% lower bowl rim temperatures
- Advanced side-casting techniques significantly improve structural stability
- DuraBowl® reinforced combustion bowl rim and/or bowl base withstands high mechanical and thermal loads and significantly increases fatigue life
- Two-dimensional ultrasonic and eddy current inspection technique ensures defect-free castings for optimum durability



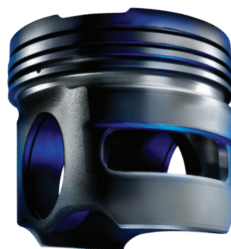
Aluminum Gasoline Pistons

- Designed in low friction, low mass and low NVH architectures
- Patented Elastoal skirt provides the highest strength-to-weight ratio
- Advanced piston technology for up to 20% lower friction
- Innovative EcoTough® coated piston reduces fuel consumption and CO₂ emissions
- Advanced Elastoal II piston for high power engines is light, and can withstand the higher pressures that occur late in the combustion cycle of highly charged downsized engines



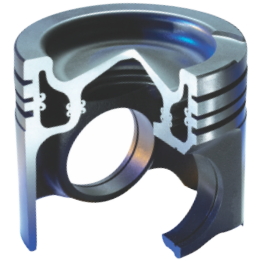
Heavy Duty/Industrial Magnum Monosteel™ Pistons

- Double-band piston skirt design, a first for modern diesel pistons
- Dual friction-welded construction, enabling large cooling galleries for high temperature resistance and strength
- Friction reduction of 17%, when compared to conventional steel piston designs



Heavy Duty/Industrial Monosteel® Pistons

- Innovative Monosteel® diesel piston technology addresses the increasing thermal and mechanical challenges placed on heavy-duty diesel engines resulting from stringent emissions regulations, and the more recent improved fuel economy technology changes to combustion and exhaust systems for waste heat recovery
- A large, closed structural gallery with superior bowl rim and ring groove cooling, reduce groove distortion and improve oil control and gas sealing
- A full-length skirt for stable piston dynamics, reduces risk of liner cavitations and improves ring sealing



Passenger / Light Vehicle Diesel Steel Pistons

- Light vehicle diesel (LVD) piston design based on award-winning Monosteel® piston
- Advanced welding techniques for steel forgings create the strength and cooling potential of large galleries
- Innovative coatings and alternate steels address thermal challenges of small diameter LVD pistons
- Reduced compression height facilitates reduced overall engine height

