Vortec 3.0L I-4

**Industrial**

*A proven history of performance and durability*

**MPFI Capable Version (LMX):**
- Multi-port electronic fuel injection (MPFI) version for gasoline or dual fuel applications
- Cylinder head targets fuel injectors to back of intake valves for quick response to changing conditions
- Stainless steel MPFI fuel rail resists corrosion

**Gaseous Version (LW6):**
- Customized for gaseous fuels only, taking advantage of the higher octane levels by using a higher compression ratio

**All Versions:**
- Utilizes 58X crankshaft position sensing via either a VR Crankshaft Position Sensor or a Digital Crankshaft Position Sensor (at OEM choice). Digital Crankshaft Position Sensor enables use of and is compatible with GMPT MEFI Control System. All engines equipped with a HVS (High Voltage Switch) and coil ignition system.
- Sintered powder metal exhaust valve seat inserts for enhanced durability
- Nodular iron crankshaft for increased strength and durability
- Designed to use gasoline, propane, and natural gas
- Aluminum heads with premium valve seat inserts and hard faced exhaust valves for extended life on gaseous fuels
- 58X crank-triggered, waste spark ignition system utilizes the coil pack, crankshaft position sensor and available ECM for accurate OEM-defined spark timing which cannot be altered by end user
- Aluminum PFI-style intake manifold can be used for gaseous fuels (LPG or Natural Gas) or can be up-fitted with the optional gasoline fuel system (shipped without throttle body unit)
- Dual takedown cast iron exhaust manifold with heat shield reduces radiated heat to nearby components
- Engine has a badge area on top where OEMs can place their own identifying badge
- 1.4kW starter for faster starts at any temperature
- Thermostat with internal bleed for improved cooling system performance Industrial Engine

**Available Options**
- An electronic control module (ECM) for optimizing fuel and spark requirements is available in kit form (gasoline only).
- Available in low and high compression ratio.
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Feature Focus

The Vortec 3.0L engine, with the longest history of any industrial engine offered by GM Powertrain, has a well-earned reputation for durability and reliability.

The Vortec 3.0L is currently used exclusively in marine and industrial applications. Whether on the water or on the job, the Vortec 3.0L delivers the durable power you need.

All GM industrial engines are Vortec engines. Vortec means uncompromised power — outstanding power with no sacrifice in fuel efficiency or durability and very little required maintenance.

The exhaust valve seat inserts in the cylinder head provide superb durability.

The 8-port version cylinder head casting is used on all versions of the Vortec 3.0L engine. Certain versions of this common casting are machined to accept the MPFI Fuel Injection System.
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Specifications

**Vortec 3.0L Specification Focus**

- **Type:** 3.0L I4
- **Displacement:** 181 cid (2966.59 cc)
- **Engine Orientation:** Longitudinal
- **Compression Ratio:** 10.5:1 (LW6), 9.2:1 (LMX, High CR) 8.3:1 (LMX, Low CR)
- **Valve Configuration:** Pushrod Actuated Overhead Valves (2 valves per cylinder)
- **Assembly Site:** Toluca, Mexico
- **Valve Lifters:** Hydraulic Flat Tappet
- **Firing Order:** 1 - 3 - 4 - 2
- **Bore x Stroke:** 101.60 x 91.44 mm
- **Bore Center:** 112.26 mm
- **Bore Area:** 324.29 cm²
- **Fuel System:** MPFI Capable (LMX) N/A (LW6)
- **Fuel Type:** LMX: Gasoline (MPFI Capable) LW6: Propane, Natural Gas
- **Horsepower:**
  - 94 hp (70 kW) @ 3200 rpm (MPFI: Gasoline (LMX)) Low CR
  - 93 hp (69 kW) @ 3.0L rpm (MPFI: Gasoline (LMX)) High CR
  - 73 hp (54 kW) @ 2200 rpm (Natural Gas: (LW6))
  - 64 hp (48 kW) @ 1800 rpm (Propane: (LW6))
- **Torque:**
  - 188 lb-ft (255 Nm) @ 1800 rpm (Propane: (LW6))
  - 178 lb-ft (241 Nm) @ 1600 rpm (Nat. Gas: (LW6))
  - 172 lb-ft (233 Nm) @ 1800 rpm (MPFI: Gasoline (LMX))
    - High CR
  - 168 lb-ft (228 Nm) @ 2300 rpm (MPFI: Gasoline (LMX))
    - Low CR

  Actual power levels may vary depending on OEM calibration and application.

- **Fuel Shutoff:** OEM defined
- **Shipping Weight:** 363 lb (165 kg)

**Materials:**

- **Block:** Cast Iron
- **Cylinder Head:** Cast Iron with exhaust valve seat inserts
- **Intake Manifold:** Customer Supplied
- **Exhaust Manifold:** Customer Supplied
- **Main Bearing Caps:** 2 -Bolt Cast Iron
- **Crankshaft:** Nodular Cast Iron
- **Camshaft:** Indus. Profile Low Speed, High Torque (8-port)
- **Connecting Rods:** Powdered Metal

Information may vary with application. All specifications listed are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice.
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Specifications

- Vortec 3.0L Specification Focus

2006 Vortec 3000 3.0L I-4 (LW6)

- Gasoline - High CR
- Gasoline - Low CR

Actual power levels may vary depending on OEM calibration and application.

2006 Vortec 3000 3.0L I-4 (LW6)

- Gaseous Fuel

Shown with optional fuel rail and torsional damper.

Actual power levels may vary depending on OEM calibration and application.

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