



*The most powerful industrial engine  
offered by GM Powertrain*

## Vortec 8100 Industrial Engine

### Features & Benefits

- High-torque camshaft with hydraulic roller lifters, optimized for low-speed operations on gaseous fuel to achieve increased torque and power for industrial applications
- High-durability cast iron cylinder heads feature replicated ports, induction-hardened intake valve seats and sintered powder metal exhaust valve seat inserts for durability
- Coil-near-plug ignition includes crankshaft sensor, camshaft sensor, ESC sensors, and eight ignition coils
- Industrial torsional damper with integral three-rib pulley to accommodate serpentine accessory drive hardware
- Floating pin pistons feature wrist pins that “float” inside the rod bushing and the pin bores in the piston barrel
- Platinum tip long-life spark plugs
- Positive Crankcase Ventilation (PCV) system is integral to intake manifold (no valve required)
- Coated cast aluminum 8-quart oil pan with full baffle and 12-mm drain plugs on port and starboard sides



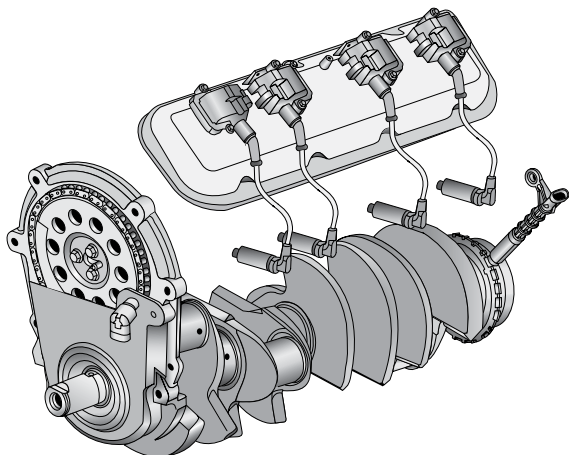
*The 2008 8100 engine has a high-torque camshaft specially suited for low-rpm applications.*

### Available Options

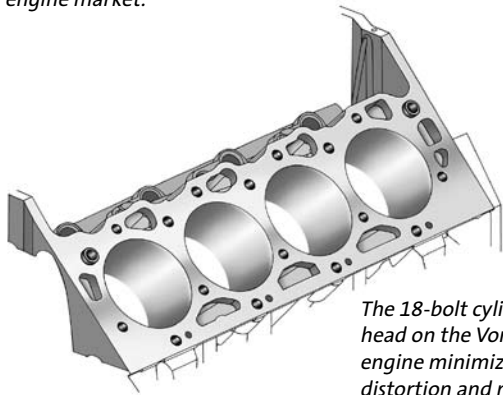
- A fifth-generation electronic control module (MEFI-5) and related parts are available in kit form. The ECM uses state-of-the-art technology.
- Vortec 8100 Sight Shield and related mounting hardware are available in kit form.
- Electronic Throttle Control hardware is available in kit form.
- GM-designed accessory drive components are available in kit form.
- Engine block heater for cold climate operations is available in kit form.
- Special throttle body base gasket required with alternative fuel application is available in kit form.

### Vortec 8100 Feature Focus

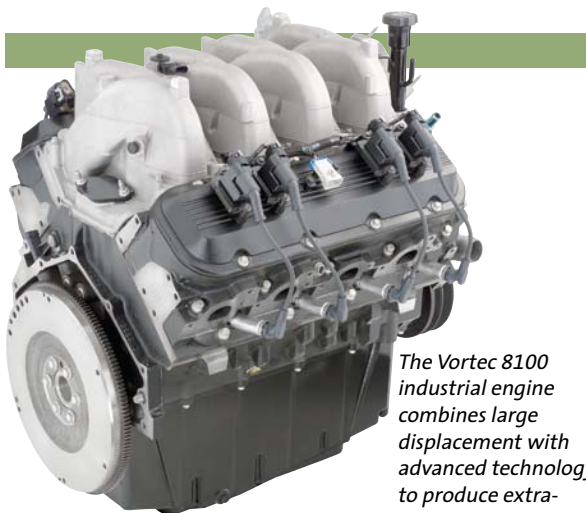
GM Powertrain takes its expertise in designing outstanding Vortec truck and SUV engines and leverages it to make sophisticated yet extremely durable industrial engines. In addition, the well-recognized Vortec brand name by itself has become a valuable selling tool for OEMs.



The coil-near-plug ignition system, with both crankshaft sensor and camshaft sensor, is another example of GM Powertrain bringing advanced automotive technology to the industrial engine market.



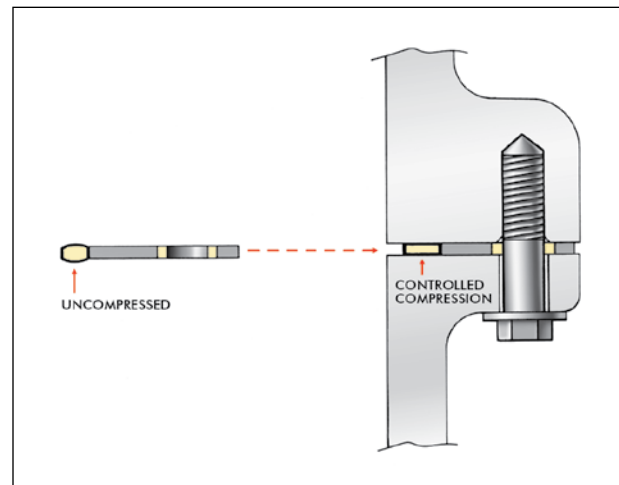
The 18-bolt cylinder head on the Vortec 8100 engine minimizes possible distortion and maximizes durability.



The Vortec 8100 industrial engine combines large displacement with advanced technology to produce extraordinary power.



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 controlled-compression gasket is state-of-the-art technology for long-term protection against oil leaks.

### Additional Features

- Fresh-air port on oil fill tube added as a requirement for alternate fuel applications
- Industrial external water crossover (no coolant in intake manifold)
- Internally balanced engine
- Coated, flat top hypereutectic cast aluminum pistons
- Pan rail quick-connect oil fittings for quick assembly of oil coolers or remote oil systems
- Durable cast-iron case water pump and longer life silicon-carbide shaft seal
- Superior engine sealing system features one-piece rear main seal, one-piece front crankshaft seal, and controlled-compression gaskets on the oil pan, front cover, raised rail rocker arm covers, and intake manifold side gaskets
- High-density nodular iron crankshaft has undercut and rolled fillets for added strength
- Common rear face on all GM industrial engines for easy hookup with flywheel housing
- Metric fasteners used throughout with the exception of some pipe plugs

### Specifications

**Type:** 8.1L V8

**Displacement:** 496 cid (8128cc)

**Engine Orientation:** Longitudinal

**Compression Ratio:** 9.1:1

**Valve Configuration:** Overhead Valve  
(2 valves per cylinder)

**Assembly Site:** Tonawanda, New York

**Valve Lifters:** Hydraulic Roller

**Firing Order:** 1 - 8 - 7 - 2 - 6 - 5 - 4 - 3

**Bore x Stroke:** 107.95 x 111 mm

**Bore Center:** 122.94 mm

**Bore Area:** 732.19 cm<sup>2</sup>

**Fuel System:** Gaseous Fuel

**Fuel Type:** Regular Unleaded

**Horsepower:**

255 hp (190 kw) @ 2800 rpm (Propane)

230 hp (172 kw) @ 2800 rpm (Natural Gas)

**Torque:**

511 lb-ft (693 Nm) @ 1800 rpm (Propane)

466 lb-ft (632 Nm) @ 1800 rpm (Natural Gas)

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

**Fuel Shutoff:** OEM Defined

**Shipping Weight:** 727 lbs (330 kg)

**Materials:**

Block: Cast Iron

Cylinder Head: Cast Iron

Intake Manifold: Cast Aluminum

Exhaust Manifold: Cast Stainless Steel

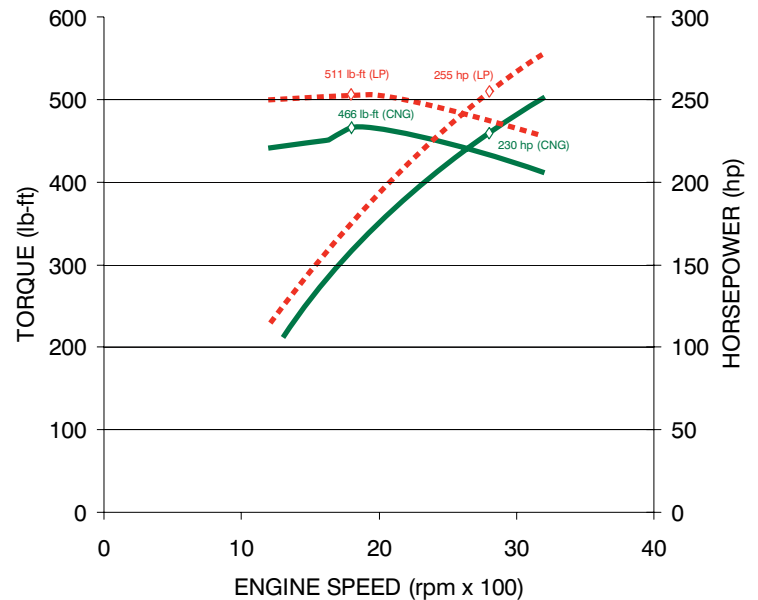
Main Bearing Caps: Cast Nodular Iron

Crankshaft: Cast Nodular Iron

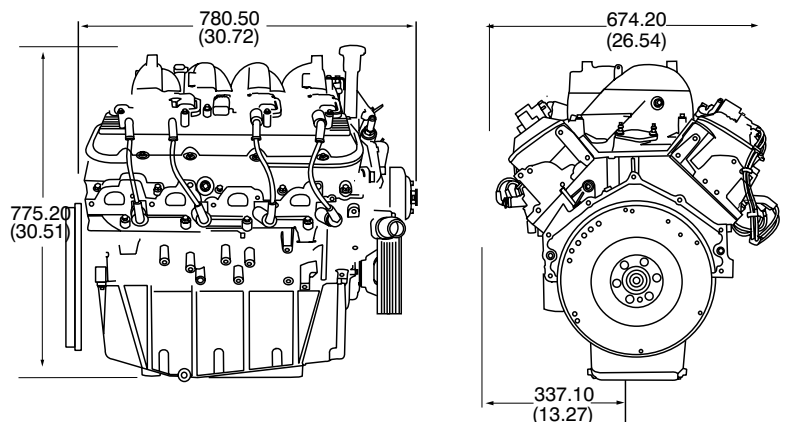
Camshaft: Steel

Connecting Rods: Forged Steel

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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