



FLIGHT

Systems Electronics Group

DIESEL



Your Source for Precision Remanufactured Diesel Components



Fuel Pumps
Fuel Injectors
Turbochargers
Actuators
PMDs
IDMs
FICMs



Engine ECUs
EGR Coolers
Tools & Kits
Harnesses



A Partner You Can Depend On

Flight Diesel provides the assurance that you can rely on to support your business and profit objectives – ***today and in the future.***





Light-Duty & Heavy-Duty Diesel Component Remanufacturing

Flight Diesel is a preferred aftermarket supplier of remanufactured diesel components that meet or exceed the original manufacturers' specifications for performance and service life. Flight Diesel provides many service parts opportunities, using our team of more than 20 full-time, experienced engineers. Our light- and heavy-duty item portfolio includes the following:

- Fuel Injection Pumps
- Turbochargers
- Fuel Injectors
- EGR Coolers
- PMDs
- IDMs
- FICMs
- CDR Valves
- Actuators
- Engine ECUs
- PCMs
- Harnesses

Nobody Does it Better

- Supplier to the Big Three auto manufacturers and to the aftermarket network
- A diesel engineering staff experienced in new development with remanufacturing expertise
- Manufactured in our 200,000 sq. ft. ISO 14001 (Environmental) and ISO/TS 16949 (Automotive) certified facility
- 12- and 24-month warranty with unlimited mileage
- 100 percent of the products checked by dedicated, quality personnel during multiple inspections prior to final shipment





Comprehensive Testing

All products are 100 percent tested on calibration stands that simulate various engine conditions. All electronics are functionally tested at multiple temperatures to verify that your original equipment specifications are met or exceeded. You can be assured that every service part will perform as effectively and accurately as a new unit. It's a quality promise we guarantee.

All Flight Diesel components are backed by either a 12-month or in the case of our Gold Series, a 24-month warranty with unlimited mileage! Our facilities are ISO 14001 (Environmental) and ISO/TS 16949 (Automotive) certified.

Flight Diesel Remanufactured

Chevrolet® & GMC® DS 6.5L Fuel Injection Pump

All injection pumps are fully disassembled and inspected in our ISO/TS16949-driven inspection room. Pumps are then ultrasonically cleaned and reassembled to OE specifications. After assembly, 100 percent of the pumps are calibrated with specific test stands designed to simulate all engine conditions.

Flight Diesel Remanufactured

Common Rail Pumps - Includes 6.4L

Our common rail pumps cover the 5.9L and 6.7L Dodge®, the 6.4L Ford/International® and the 6.6L Chevrolet® and GMC® Duramax applications. Units are 100 percent tested and upgraded with some new features to outlast the originals.





Detroit™ Series 50 and 60 Fuel Pumps

Flight Diesel has expanded our current aftermarket offering with remanufactured fuel pumps for Detroit™ Diesel Series 50 and Series 60 engines.

- All units are completely disassembled and precision cleaned
- Components are recertified to tight tolerance specifications
- Older cores are updated with new outboard bearing supports to ensure drive shaft stability
- All pumps are assembled with new genuine OE drive shafts, seals, bearings and relief springs
- Gears / gear pockets are sized and statically matched to ensure proper operating pressures
- Worn relief valve seats are recovered to eliminate “hung “ relief valves
- All pumps are tested 100% on a certified test stand to O.E. standards prior to packaging.

Flight Diesel Remanufactured

Ford® 6.4L Piezo Injectors

Flight Diesel has now expanded the current common rail injector offering to include Piezo Injectors for 6.4L applications. Each Piezo Injector is subject to a thorough remanufacturing process, utilizing the same successful techniques and test methods common to all injectors remanufactured by Flight Diesel. A new high-pressure fuel line is included with each injector.

Applications:

2008 to 2010 Ford® F250-F550

2007 to 2010 MaxxForce 7





Flight Diesel Remanufactured

Duramax® 6.6L & Dodge® 5.9L & 6.7L

Flight Diesel is committed to building the best common rail injectors. This decision allows us to offer only the Gold Series in this product offering. This is achieved by the highest new replacement rate of components, including control valves and nozzles. This decision also gives us the best two-year unlimited mileage warranty in the business.

Flight Diesel Remanufactured

Ford®/International® 6.0L Gold and Silver Series

The 6.0L injector comes in both a Gold and Silver Series for added value. The 100 percent spool valve rework and a new, updated D-ring eliminate many concerns. Our in-house air-gauging tooling measures up to six decimal places in inches. Gold Series also features additional new components, such as the nozzle and coil/wire assembly. High Performance models are also available.

Flight Diesel Remanufactured

Ford® 7.3L Powerstroke® HEUI™ Injector

Flight Diesel's units are built more to deliver timing along with the proper fuel setting versus calibrating injectors to reach a fuel flow. This highly engineered fuel system provides performance and efficiency and requires an extensive understanding of the unit's operating principles during the remanufacturing process. High Performance models are also available.

Flight Diesel Remanufactured

Premium Heavy-Duty Injectors

- Our EUI injectors are offered only as a premium injector. A new nozzle assembly is replaced 100 percent in both Cummins® Celect and Detroit® units. Extrude honed nozzles are 100 percent used in Caterpillar® and ISX injectors
- All injectors are individually calibrated on test benches repeatable to 0.5 mm³ for delivery, response time, and peak injection pressures
- All injectors are air gauged for tip-seat leakage, valve operation, plunger and barrel leakage, and timing plunger operation
- Electronics are tested to meet all OEM specs
- Tolerance precision is measured to within 0.0001 mm



Caterpillar®

**C-7 C-9
C-12 C-15**



Cummins® Celect



Cummins® ISX



Detroit®



Flight Diesel Remanufactured G2.9 Fuel Injector

Flight Diesel has now expanded the diesel fuel injector lineup with G2.9 injectors covering the International DT466 and Maxx Force medium duty engines.

Each injector is subject to a thorough remanufacturing process utilizing the same successful techniques and test methods applied to our other injectors. Customers can expect the same high quality they have enjoyed in our light-duty fuel injectors.

Flight Diesel Remanufactured

Detroit Diesel® Series 60 EGR Cooler

Flight Diesel has now expanded the product lineup to include remanufactured exhaust gas recirculation (EGR) coolers for the Detroit Diesel Series 60 engine.

Each EGR cooler is pressure tested for leaks, thoroughly cleaned using specialized equipment, pressure tested a second time, and finally performance tested for proper flow. All tests are performed to OE Specifications to ensure a quality product.

- Series 60 applications for model years 1998 to 2009





Flight Diesel Turbocharger Standards

The turbine and compressor wheels are balanced at low speeds, and the assembled cartridge is then balanced at high speeds. The high-speed testing is done on a VSR (vibration sorting rig).

All Flight Diesel turbochargers come with either new or 100 percent remanufactured electromechanical actuators.

All Cummins® Wastegated turbochargers come with new pneumatic actuators.

Light-Duty & Heavy-Duty Turbochargers

Flight Diesel Remanufactured

Cummins® ISX Turbocharger

The Flight Diesel offering includes a pneumatically actuated, variable-geometry Holset® turbocharger, which is fitted to the 15.0L Cummins® ISX engines. All pneumatic actuators undergo a complete remanufacturing process and are tested once mounted onto the turbo.

Flight Diesel Remanufactured

Dodge Cummins® Pickup Turbocharger

The Flight Diesel offering includes five Wastegated turbochargers, which cover the 5.9L diesel engines from 1998.5 to 2007. Also available is the variable-geometry turbocharger for the 6.7L engines from 2007 to 2013.





Light-Duty & Heavy-Duty Turbochargers

Flight Diesel Remanufactured

Ford® 7.3L Powerstroke®

This Flight Diesel offering includes nine turbochargers, which cover the 7.3L diesel engines from 1994 to 2003. These are available with or without pedestals.

Flight Diesel Remanufactured

6.0L Ford/International® VT365

Also available are five turbochargers, which cover the 6.0L diesel engines from 2003 to 2007.

Flight Diesel Remanufactured

6.6L GM® Duramax

This offering includes three turbochargers covering the 6.6L diesel engines from 2004 to 2010. Engines covered are the LLY, LBZ, and LMM.

Flight Diesel Remanufactured**Ford® & Navistar® IDM (Injector Driver Module)**

Remanufactured injector driver modules for Ford® 7.3L engines provide added reliability with solutions to common problems. Ford® IDMs have improved sealing methods that eliminate the OE water-intrusion problems. They are tri-temperature tested.

Flight Diesel Remanufactured**Standard & Cold Start FICM (Fuel Injection Control Module) 6.0L Ford/International® VT365 & 6.6L Duramax**

Flight Diesel offers remanufactured fuel injection control modules for Ford/International® 6.0L and 6.6L Duramax engines. Units are repaired and reassembled using replacement components and reworked to eliminate intermittent failures. All modules are tri-temperature tested to ensure accurate and reliable operation.

- Cold-start FICM voltage increased from 48 to 58 to improve hard starting of cold engines
- Full functional testing using true loads
- 100 percent replacement of components known to cause low FICM voltage issues





Flight Diesel Remanufactured

Cummins® ISB ECUs

Flight Diesel has expanded our ECU offering to include several Light and Medium Duty applications for the Cummins ISB family of engines. These ECUs cover typical fleet vehicles and Light-Duty pickups.

- All ECUs are individually tri-temperature tested under operating loads at thermal extremes
- Early models - No vehicle specific programming required
- Later models - VIN and mileage specific programming required

Flight Diesel Remanufactured

Detroit Diesel[®], Cummins[®] Celect & Celect Plus ECUs

These ECUs are a perfect fit for your customers who service the heavy-duty sector with drive-in bays or direct over-the-counter sales. The ECU has always been one of our product strengths, with a long history of ECU sales to the automotive industry and others.

We now have offerings for both the Cummins[®] Celect and Celect Plus along with the very popular Detroit[®] DDEC 2, 3, 4, and 5 ECU applications. These are fully remanufactured units, not tested OK or working core units being sold, as is in many markets today.





**Flight Diesel Manufactured
GMC® 6.5L PMD
(Pump Mounted Driver)**

A complete redesign and product upgrade has been made for this critical component. This electronic device is mounted on the side of the DS fuel injection pumps for the General Motors® diesel applications. Many features were improved upon from the original OE design. Components were changed to adhere to the harsher environments that caused the OE design to fail.

All Makes Turbocharger Actuators

Flight Diesel remanufactures electronically controlled hydraulic actuators for Garrett turbochargers found on 6.0L Ford/International® VT365 and 6.6L GM Duramax engines.

- Complete disassembly and cleaning
- Replacement of critical wear parts
- Assembled and tested under simulated operation

Flight Diesel remanufactures electromechanical actuators for several Holset, Garrett, and BorgWarner applications including smart actuator models.

- Units are disassembled for cleaning, board repair, and recertification
- Custom test fixtures validate calibration accuracy, ODB communication, and “position at load” holding capability



PCM (Powertrain Control Module)

Flight Diesel Remanufactured

Cummins® PCM R&R Program

- Remanufactured to OE quality level
- Tri-temperature tested
- 100 percent resealed
- Programmed to factory status or VIN and mileage specific
- 100 percent replacement of high-failure components



Crankcase Depression Regulator (CDR)

Flight Diesel builds new crankcase depression regulators for light- and medium-duty truck applications. These fit GM[®], Ford[®], IH[®], and AM General[®]. This valve is similar to a PCV valve on gasoline engines. The purpose of the CDR is to recycle the exhaust gases that get past the piston rings and into the crankcase. Please reference our applications listed on the website, which include light- to medium-duty trucks as well as military applications.





Repair & Replacement Parts

Flight Diesel also supports smaller component sales by offering repair and replacement parts for common-wear items. Here are just a few of the kits and components we offer. Please contact us for a complete list:

- 7.3L Injector Seal Kit and other O-ring kits
- 6.0L Ball Tube Kit
- 6.7L Cummins® Fuel Inlet Tube
- Electrical Connectors
- PMD and Pump Harness Kit
- Glow Plug Control Modules
- Turbo Mounting Kits
- Glow Plug Control Modules
- Installation Tools

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505 Fishing Creek Road
Lewisberry, PA 17339

For all Flight Diesel Sales and Customer service
questions from 8AM to 8PM EDT, call 717-932-7000
and enter Ext 3010. Fax: 717-932-7001

www.flightdiesel.net

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