



FAIRBANKS MORSE

FAIRBANKS MORSE PARTS, SERVICE & SOLUTIONS

Powering the World Forward

SUPPORT THAT RAISES THE INDUSTRY STANDARD



OEM PARTS

Maximize uptime, improve fuel efficiency, and extend your engine's life with certified OEM parts from Fairbanks Morse. Our engines and systems are precision instruments, so choosing OEM replacement parts from Fairbanks Morse will deliver top performance and service life to ensure the highest level of reliability.



EXCEPTIONAL SERVICE & SOLUTIONS

Fairbanks Morse offers an extensive portfolio of services to optimize performance, ensure reliability, and extend your engine's life cycle — from the day it's commissioned and for the many years that follow.


FAIRBANKS MORSE SUPPORT



WORLD CLASS SERVICES

With one of the industry's largest and most experienced teams of factory-direct field service technicians, we're able to respond to any issue in the field within 10-24 hours with comprehensive, expert support.


FAIRBANKS MORSE



DIGITAL SOLUTIONS

Take the headache out of power system maintenance with our remote monitoring options. Quickly locate and address issues remotely from your fingertips.


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CONTROLS SOLUTIONS

Add automated controls to your power system to simplify standardization and training. Touch screen display provides ease of use and comprehensive system view.





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PERFORMANCE SOLUTIONS

Our Performance solutions provide qualified OEM lifecycle support to get more from your power system.

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 WORLD CLASS SERVICES	 PERFORMANCE SOLUTIONS	 CONTROLS SOLUTIONS	 DIGITAL SOLUTIONS
10-point Inspection	Air Intake Band Upgrade	Air Temperature Controller	Augmented Reality
Controls Assessment	Dual Fuel Conversion Upgrade	Custom Panel Upgrade	Remote Monitoring
Controls Calibration	Exhaust System Upgrade	Fuel Air Control System	Virtual Technical Support
Engine Analysis & Diagnostics	Flexible Air Start Upgrade	Fuel Transmitter Upgrade	
Factory Certified Training	Fuel Drain Header Upgrade	Main Bearing Temperature Monitoring	
Fuel Injection Services	Fuel System Upgrade	Obsolescence Support	
Generator Assessment	Gas Admission Valve Upgrade	Oil Mist Detector Upgrade	
Governor Overhaul	Gasketless Injection Upgrade	SaCoSone Upgrade	
Long Term Service Agreement (LTSA)	High Pressure Hydraulic Pump	Speed Switch Upgrade	
Low Run Hour Inspection Package	Injection Nozzle Tip Upgrade	Splash Oil Monitoring Upgrade	
Nuclear 10-point Inspection	Injector Test Stand Kit	Standard Control Panel Upgrade	
OEM Recondition Program	Lifter Arm Lubrication Kit	Temperature Scanner Upgrade	
Rebuild Services	Lube Oil Monitoring	Touch Screen Temperature Controller	
Test Stand Services	Pilot Pump Upgrade		
Turbo Charger Services	Turbo-Blower Conversion		
	Turbo Charger Upgrade		

SERVICES



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10-point Inspection

Fairbanks Morse factory-certified technicians will: inspect the crank strain, inspect bearing presses, fuel control rack visual inspection, gear lash reading/inspect teeth wear/pitting, crankcase visual inspection, camshaft inspection, measure base circle clearance and check cam bearing clearance, check/reset rocker lash, rocker arm/cylinder head inspection, review logs, and operate engine.

BENEFITS

- Reduce unplanned downtime
- Optimize operating performance
- Service performed by experienced, OEM factory-certified technicians

BEST SUITED FOR

- Municipality Power Generation
- University Power Generation
- Industrial Power Generation
- Hospital Power Generation



Controls Assessment

A Controls Assessment ensures that plant layout and the location of control panels and sensors are itemized for final design. The engine, engine room, control panel locations, and auxiliary systems will be photographed and documented for inclusion into planning documents for ease of design, installation, and commissioning. Fairbanks Morse handles the design based on the findings of the Controls Assessment.

BENEFITS

- Reduced risk of change orders
- Reduced time for budgetary proposals and quotes
- Reduces non-recurring engineering expense
- Expedites design phase
- Prevents common problems that occur during installation

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- Municipality Power Generation
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- Hospital Power Generation



Controls Calibration

A controls calibration grooms the engine control system and is recommended on an annual basis. This consists of calibrating all pressure sensors and transducers, pressure and temperature switches, and documenting the accuracy of temperature sensors. All adjustable parameters are checked and, if necessary, tuned for optimal performance. The engine and control system will be operated and tuned at full load as well as common load points during normal plant operation.

BENEFITS

- Ensures optimum engine tuning for fuel consumption and emissions
- Ensures accurate measurement of all engine parameters for data logs and monitors
- Early detection of potential auxiliary system failures

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- Industrial Power Generation
- Hospital Power Generation
- Nuclear Power Generation



Engine Analysis & Diagnostics

This engine analysis program balances the engine for peak efficiency and performance. We provide the expertise to analyze the data and provide the necessary recommendations to improve performance or pinpoint potential failure modes. This solution takes approximately one day per engine and is done onsite.

BENEFITS

- Provides visual picture of engine health for easy diagnostics
- Balancing the engine reduces fuel consumption
- Detect worn components that keep the engine from peak performance
- Utilize performance trends to better forecast component overhauls
- Identify small problems before they become a major capital expenditure

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Factory Certified Training

OEM training done at our Beloit training center, onsite during a service visit, or as an add-on to a service agreement. Don't settle for anything less than the experienced OEM training by factory certified experts at Fairbanks Morse. With a long history of in-depth training, these courses will ensure you are ready to get the most out of your power system. We train to a higher standard because we're driven to serve you better.

BENEFITS

- Provide the customer a one stop shop service offer
- Saves time and money
- Enables limited resources to be trained until they are able to make it to the 2-week factory engine maintenance course
- Onsite training completed during service visit or EMP
- OEM expertise

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Fuel Injection Services

The Fuel Injection Service is designed to help provide the fuel efficiency of a new engine. An imbalanced fuel flow resulting from worn, corroded or defective components can drastically impact fuel efficiency. The engine control system will try to add additional fuel, thereby limiting fuel efficiency over time. The Fuel Injection Service removes carbon deposits and replaces defective components by opening, cleaning, and renewing worn or defective components. This service also includes the testing for delivery on injection pumps; holding pressure, opening pressure and spray patterns on fuel nozzles.

BENEFITS

- Improves fuel efficiency
- Improves engine performance
- Emission optimization
- OEM parts and expertise

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Generator Assessment

Generator Assessments include inspections of rotor and stator windings, bearings (single or double), and drive couplings. A megger test is performed on both the stator and rotor windings and an inspection is performed on brushless and belt-driven exciters.

BENEFITS

- Provides early detection of component wear to reduce risk of catastrophic failures
- Can increase generator life and efficiency

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SERVICES



Governor Overhaul

Governor is fully disassembled and inspected. We provide a condition found report to the customer. All worn parts are replaced. Governor is tuned and calibrated for quality assurance. Shipped back to customer in usually less than two weeks. Expedited rebuilds are available depending on schedule.

BENEFITS

- Seamless integration of protection and control products
- Performance to meet demanding applications
- Reliable products for increased uptime

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Long Term Service Agreement

Optimize your engine performance and availability through the customized development of a Fairbanks Morse Long Term Service Agreement (LTSA). The FM LTSA guarantees OEM Service, Technical Support and/or Parts precisely when they are needed. The FM LTSA will keep your engine running longer and at peak efficiency while allowing your organization to better predict maintenance expenses for long term budget planning.

BENEFITS

- Maximize engine uptime
- Peak engine operation
- OEM service
- OEM technical support
- OEM parts

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Low Run Hour Inspection Package

In times of peak demand, you need to know your power systems will be available when you need them the most. That's why we developed a proactive service agreement option, designed specifically for power generation customers with annual engine usage of 500 hours or less. The program consists of two inspections yearly—one in the spring to ensure engines are ready for generation season, and one in the fall to assess the engine's condition post-generation season. With service performed by our factory-certified technicians using genuine OEM parts, you can rest assured your engines are in the best of hands.

BENEFITS

- Preferred pricing
- Inspection mitigates costly capacity fines
- Prevent downtime & maintain optimum efficiency
- Extend the engine life with routine maintenance
- Guaranteed on-time parts delivery
- Remote technical support
- Parts obsolescence management

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Nuclear 10-point Inspection

Fairbanks Morse factory-certified technicians will: record crankshaft web deflections, record crank lead, record fuel injection timing and inspect linkage, visually inspect generator and brush rigging inspection, inspect cams, rollers and bushings, record blower clearances, visually check through intake and exhaust ports, inspect and record pump drive, blower drive, vertical drive, inspect split-line clearance, observe test run and log.

BENEFITS

- Reduce unplanned downtime
- Optimize operating performance
- Service performed by experienced, OEM factory-certified technicians

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- Nuclear Power Generation



OEM Recondition Program

Fairbanks Morse works with your budget and scheduled downtime to replace worn parts with OEM qualified parts at a fraction of the cost. Mindful of time, budgets and resources, FM provides a robust parts program that offers new, factory unit exchange, repair, and return parts supply to meet your power demands. Some unit exchange options can be sent out same day for maximum uptime. Repair and return options can drastically reduce costs.

BENEFITS

- Maximize uptime with shorter parts lead times
- Reduced costs compared to new
- Increased reliability

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Rebuild Services

Rebuild Service includes complete tear down, cleaning, inspection, condition reporting, and rebuild of the engine with new or refurbished components to meet or exceed OEM standards. This service can include the engine block, cylinder components, cylinder heads, attached pumps, blowers and turbochargers, shafts, fuel components, and more.

BENEFITS

- Cost savings over new engine
- Increased performance
- Extend the engine life
- Increased fuel economy
- Decreased oil consumption

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Test Stand Services

Give your engine the most thorough inspection with Fairbanks Morse Test Stand Services. Engine test stand services up to 2 megawatts for an ALCO engine line and 2.7 megawatts for Opposed Piston engine line. Multiple fuels are tested including diesel, dual fuel, natural gas, and biofuel. The engine performance is recorded through data acquisition.

BENEFITS

- Improves engine performance
- Increases fuel economy through tuning

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Turbo Charger Services

Turbo charger services include OEM technical support, parts assistance, and/or a full overhaul. During this service, the turbo charger is opened for a full in-depth inspection. All worn parts are replaced with Fairbanks Morse OEM parts, whether the turbo charger is new, heritage, or obsolete. We will work with your timeline and budget to create a routine maintenance plan that fits your needs.

BENEFITS

- Restore engine efficiency and readiness
- Increase engine performance with effective combustion air
- Combine this with engine maintenance to reduce cost
- Reduce risk of critical failures
- Reliable OEM support for increased uptime

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Augmented Reality

Get Fairbanks Morse services through our new augmented reality options! Fairbanks Morse can now provide training, operational digital twins, parts identification, and guided maintenance procedures virtually! We can virtually look at your asset, identify parts details, IoT sensor data, and recommended maintenance procedures and/or training materials. We can also provide guided procedures, training modules, evidence recording, and virtual support. This technology represents a paradigm shift for the management of your asset.

BENEFITS

- No mobilization costs
- Controls based engine and equipment analysis
- Enables automation throughout your facility
- Instant access to support resources
- Shortened problem resolution times
- OEM expertise oversight



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Remote Monitoring

Remotely monitor your engine with ease! Save time and money when it comes to engine maintenance by having your engine diagnostics at your fingertips at all times. Fairbanks Morse personnel can also remotely monitor your engine performance and condition to walk through troubleshooting. Shorten training times by standardizing maintenance. Subscription payments allow us to work with your budget and financial planning.

BENEFITS

- Increased system visibility creates reliability
- A strategic partnership with a company that understands your equipment needs
- Dedicated Technical Service Monitoring
 - -Proactive maintenance management (24/7)
 - -Factory Certified Technicians
 - -Pre-diagnosis of service & spares needs
 - -Shortens the service outage interval
- Controls based engine and equipment analysis
- OEM training
- Subscription payments to improve financial planning



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Virtual Technical Support

Save time and money by switching your Fairbanks Morse technical support to our virtual option! Fairbanks Morse can provide live and interactive support sessions virtually. Fairbanks Morse can connect with your technician via a live video call using the Microsoft HoloLens which allows our support team to see what a local technician sees and present technical information and guidance in their field of view. Contact us for a demonstration.

BENEFITS

- No mobilization costs
- Instant access to support resources
- Shortened problem resolution times
- OEM oversight ensures first-time fix
- Enables automation throughout your facility



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CONTROLS SOLUTIONS



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Air Temperature Control

This stand-alone, economical option replaces obsolete valve controls for maintaining engine charge air temperature. It integrates seamlessly into legacy control systems, and automatically tunes itself for ease of installation.

BENEFITS

- Replace obsolete components to reduce downtime
- Easily integrates into existing control system to reduce engineering costs
- Automatic tuning reduces setup time

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CONTROLS SOLUTIONS



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Custom Panel Upgrade

The Custom Panel Upgrade includes everything in the Standard Control Panel Upgrade as well as governor, excitation, synchronizing, and load controls. This allows the system to perform automatic starting, loading, and stopping. The system can easily interface with switchgear management systems for total plant automation. Custom controls options available.

BENEFITS

- Replace obsolete components to reduce downtime
- Reduce engineering costs by working with OEM as single point of contact
- Proprietary tuning of fuel air ratio for improved emissions and fuel consumption
- Modernized control panel dramatically reduces personnel training times
- Accurate and reliable parameter measurement to forecast maintenance costs and schedules

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Fuel Air Control System

The Fuel Air Control System (FACS) uses a PLC to maintain accurate control over critical fuel air ratio parameters and is self-contained to provide a stand-alone interface with legacy control systems. This system includes a touch-screen HMI and all the required transducers to measure and control air/fuel ratios.

BENEFITS

- Replace obsolete components to reduce downtime
- Proprietary tuning of fuel air ratio for improved emissions and fuel consumption
- Reduced oil carryover into exhaust system
- Easily integrates into existing control system to reduce engineering costs

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Fuel Transmitter Upgrade

Through the fuel admission transmitter retrofit, the sensor is transmitting the actual fuel rack position to the control unit. Older systems are not available anymore. Spare parts supply is critical. Outdated transmitters can endanger engine operation.

BENEFITS

- FM | MAN retrofit solution safeguards component reliability
- Potential engine stops can be avoided
- Spare part supply is secured
- Retrofit package from FM | MAN suitable for engine type
- Easy installation

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Main Bearing Temperature Monitoring

With a Main Bearing Temperature Monitor, you will be able to see main bearing temperatures in real time and act quickly in the event of increasing temperatures. With this information, you will have the ability to shut the engine down prior to a main bearing failure, or at a minimum prevent further damage to the engine.

BENEFITS

- Reduced risk of critical engine failures
- Increased engine uptime
- Enhanced engine reliability

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Obsolescence Support

Systems and their components are constantly evolving, but oftentimes they evolve to the point at which they are no longer compatible, rendering the previous version of that component obsolete. FM recognizes the uniquely long lifecycle of our power systems and can work to develop a solution to allow continued operation for years to come. From reconditioned electronics to kitted assemblies and unit exchange programs, FM can tailor a solution to meet your needs.

BENEFITS

- Uninterrupted power system operation
- Spare part supply secured
- Extend engine lifecycle
- Increase uptime

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Oil Mist Detector (OMD) Upgrade

This upgrade ensures continuous monitoring of the crankcase for oil mist, which could result from higher friction of engine components. Continuous measurement of oil mist density at each engine compartment. Alarm and engine shutdown will be generated in the event that oil mist density reaches a critical limit. OMD has been a standard for protection of medium speed diesel engines for decades. OMD minimizes the risk of serious consequential damages caused by engine operation with “undetected” component failures.

BENEFITS

- Entire crankcase environment is monitored
- Well-proven technology
- Avoidance of high consequential repair and off-hire costs
- Small investment compared to potential damage
- OMD & Splash Oil Monitoring combined provide maximum operating safety
- Measurement of oil mist density at each engine compartment
- Alarm and engine shutdown generated

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CONTROLS SOLUTIONS



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SaCoSone Upgrade

Older electronic components have a higher probability for malfunctions and breakdowns and are in need of replacement. As these engine control systems become older, their spare parts become more difficult to obtain. As a solution, SaCoSone is a complete replacement of old engine controls and secures engine availability and performance in the future.

BENEFITS

- Built of proven and state-of-the-art hardware modules
- Safeguards maintenance and spare parts for decades
- Complete control system retrofit with customized software application

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Speed Switch Upgrade

Optimize your engine performance by upgrading to a newly redesigned and nuclear qualified Fairbanks Morse Speed Switch. The Fairbanks Morse Speed Switch is nuclear qualified and provides overall speed protection for your power system. The Speed Switch has four relay set points and receives signal input from a passive or active magnetic pickup, shaft encoder, contact closure, flow meter, etc. to provide proportional analog outputs.

BENEFITS

- Field-selectable frequency range
- Field-adjustable sensitivity control
- Field-programmable for many types of sensors, including contact closure input
- Repeater output drives counters and self-powered digital tachometers
- Regulated 14 Vdc output powers active pickups, accessories, and digital meters
- CSA General Classification, CE approved, IEEE-344, IL-STD-461E (CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103, IEC 61000-4-4, 61000-4-5 and 61000-4-12)

BEST SUITED FOR

- Nuclear Power Generation



Splash Oil Monitoring Upgrade

This upgrade ensures continuous monitoring of current oil temperature for each cylinder/running gear by temperature sensor at crankcase covers. Monitors splashing oil from piston and connecting rod bearings against crankcase covers. Alarm and engine shutdown will be generated in the event that oil temperature reaches a critical limit. Control unit includes engine specific alarm values.

BENEFITS

- Immediate detection of failures
- Minimizing the risk of critical failures
- Temperature sensor at crankcase covers
- Control unit with engine specific alarm values

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Standard Control Panel Upgrade

Optimize your engine performance by upgrading to an automated engine control and monitoring system. With automated controls, engine operation is standardized, and training is simplified. Touch screen display provides ease of use and a comprehensive view of all monitored parameters. This includes an Engine Control Panel (ECP), a Control Interface Box (CIB), and a Motor Interface Box (MIB). The ECP is the primary point of control and interface for the operator. The CIB measures and controls engine and auxiliary pressure signals and the MIB controls the existing Motor Control Center (MCC). The ECP interfaces with the CIB and MIB via Ethernet and can connect to the customer network for remote monitoring and access. Custom options available.

BENEFITS

- Replace obsolete components to reduce downtime
- Reduce engineering costs by working with OEM as single point of contact
- Proprietary tuning of fuel air ratio for improved emissions and fuel consumption
- Modernized control panel dramatically reduces personnel training times
- Accurate and reliable forecast maintenance costs and schedules

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Temperature Scanner Upgrade

The Temperature Scanner replaces obsolete exhaust pyrometers and main bearing temperature monitors. It includes a PLC and touch screen HMI in a stand-alone enclosure. The HMI can be mounted on the enclosure or remotely in existing panels. IT can monitor up to 18 cylinder exhausts, 6 preturbine exhausts, 2 post-turbine exhausts, and 14 main bearing temperatures, and includes contacts for alarms to integrate into existing control systems.

BENEFITS

- Replace obsolete components to reduce downtime
- Easily integrates into existing control system to reduce engineering costs
- Pre-programmed to reduce installation and commissioning times
- Accurate measurement of temperatures reduces risk of major failures

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Touch Screen Temperature Controller

The FM | Touch Screen Temperature Controller replaces the obsolete Dicon 501 Temperature Controller. This new controller comes pre-programmed to maintain control of engine lube oil (LO), and high or low temperature fresh water (H/LTFW) fluid temperatures. It fits directly in the place of the existing Dicon 501 and has a touch screen interface for easy use and visibility. The interface allows you to fine-tune reaction times of the control valve to ensure appropriate temperature levels are achieved and maintained quickly.

BENEFITS

- Replaces obsolete components to reduce downtime
- Easily integrates into existing control system to reduce engineering costs
- Pre-programmed to reduce installation and commissioning times
- Accurate control of temperatures reduces risk of major engine failure
- Maximizes engine availability

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Air Intake Band Upgrade

The new air intake band upgrade eliminates nuisance air leaks and can be installed right over the existing O-rings. These improved bands are easy to install and improve the seal instantly. Made with flexible, lightweight 316SS construction, this band upgrade handles pipe-misalignment and vibration with ease. There is no special tooling required for installation.

BENEFITS

- Improved sealing
- Elimination of nuisance air leaks
- Easy to install right on top of existing O-rings
- Couplings handle pipe-misalignment and vibration
- No special tools or pipe-end prep
- Flexible, lightweight, 316-SS construction

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Dual Fuel Conversion

This conversion moves the engine from diesel operation to dual fuel operation, allowing operation on gaseous fuel with a small diesel fuel pilot. Factory Certified technicians replace fuel injection pumps and nozzles. Adds fuel gas valving and piping. Adds upgraded control system. This upgrade can be done onsite or at the service center. This Fairbanks Morse conversion can take about two months.

BENEFITS

- Substantial reduction in fuel costs
- Reduction of NO_x emissions
- Fuel flexibility with ability to run on either natural gas or diesel in the event of a natural gas supply interruption
- Extended engine life cycle
- Increased uptime

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Exhaust System Upgrade

For a variety of reasons, exhaust systems wear out over time and are not as effective at sealing as they were when new. FM can provide solutions ranging from gasket and hardware upgrades up to a new exhaust manifold system. With better modeling and analysis tools than ever before, FM can accurately represent the environment within the exhaust system to better predict the performance of the sealing at the joints and the thermal expansion and contraction of the manifold assembly. This upgrade provides the components necessary to provide a better seal for your exhaust manifold.

BENEFITS

- Eliminate exhaust leaks
- Eliminate premature failures
- Reduce maintenance
- Enhance reliability
- Extended engine life cycle
- Increased uptime

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Flexible Air Start Upgrade

Replace vulnerable copper tubing with a maintainable Fairbanks Morse Flexible Air Start Piping System. According to NRC, EPRI, and INPO, copper tubing has become a vulnerable asset in nuclear power plants. Fairbanks Morse has developed and verified the flexible, stainless steel Air Start Upgrade to replace outdated copper tubing. This upgrade is designed in accordance with and meets the requirements of ASME B31.3 Process Piping Code.

BENEFITS

- Removes vulnerable copper piping
- Flex System allows for easy maintenance
- Regulation approved system
- OEM Part for optimal performance and reliability
- Maximizes availability and engine life
- Stainless Steel, Regulation approved system, OEM parts

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Fuel Drain Header Upgrade

Fairbanks Morse understands the importance of power system reliability and ease of maintenance, which is why we have developed the Fuel Drain Header Upgrade. This improved upgrade features easy-to-install flexible stainless steel lines that prevent leaks by eliminating copper tubing and brazed fittings.

BENEFITS

- Eliminates copper tubing
- Stainless steel flexible lines agile for easy maintenance
- Eliminates brazed-on fittings
- Aesthetically pleasing design

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Fuel System Upgrade

Fairbanks Morse has new fuel system upgrades including high-pressure Common Rail (CR) and Electronic Fuel Injection (EFI) to keep your engine running in peak condition. Our common rail fuel system uses a high-pressure fuel header, high-pressure pumps, electronically controlled fuel delivery, an electronic governing system, and a new control system to deliver the optimal amount of fuel at the optimal time. The system reduces lifetime operation and maintenance costs by increasing fuel efficiency and decreasing emissions. Contact Fairbanks Morse to create a custom fuel system upgrade for your engines.

BENEFITS

- Reduced fuel consumption
- Reduced lifetime maintenance costs
- Increased fuel efficiency
- Reduced emissions

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Gas Admission Valve Upgrade

This upgrade replaces existing valves that can leave pockets of gas which increase fuel consumption and emissions. The new gas admission valve mounts flush to the inside of the cylinder liner which eliminates these pockets of gas. The new design results in superior operation and enhanced fuel economy in dual fuel mode. This upgrade can be performed onsite and takes less than one week.

BENEFITS

- Smooth operation with less risk of misfire and detonation
- Improved fuel economy
- Improved low load performance
- Reduced HC and CO emissions

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Gasketless Injection Upgrade

This upgrade can include the gasketless fuel injection pump assembly or the gasketless fuel injection nozzle assembly. The gasketless fuel injection pump assembly replaces the copper gasket joint with a lapped and O-ring sealed joint. This design allows higher injection pressures to enhance fuel atomization with reduction in smoke and fuel consumed. This upgrade can be done in about one week and can be done onsite.

The gasketless fuel injection nozzle design eliminates copper gasket joints. As a result, the design allows higher injection pressures which enhances fuel atomization and reduces cavitation of tips and fuel lines. This upgrade can also be done in about one week and can be done onsite.

BENEFITS

- Reduced maintenance and enhanced reliability
- Improved fuel efficiency
- Reduced fuel consumption
- Reduced smoke
- Improved emissions
- Extended part lifecycle
- Cost savings on replacement components

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High Pressure Hydraulic Pump

The High Pressure Hydraulic Pump kit includes a pneumatic-over-hydraulic pump and two convenient lengths of hose for use with a bolt tensioner. This upgraded pump eliminates the need for a three-phase electricity source while also conserving space. This portable pump can be used wherever an air source is positioned and the light-weight design makes it easy to move.

BENEFITS

- Eliminates need for three-phase electricity
- Light-weight design for ease of movement
- Compact design can fit in tight spaces
- Maximizes engine availability

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Injection Nozzle Tip Upgrade

This new injection nozzle tip is designed to give superior atomization, which enhances fuel efficiency and reduces incomplete or smoky combustion. Reduced fuel consumption, reduced smoke and noxious exhaust emissions results in longer injection nozzle tip life. This can be done onsite or in our service center within one week.

BENEFITS

- Reduced fuel consumption
- Reduced smoke and noxious exhaust emissions
- Longer injection nozzle tip life
- Gives superior atomization

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- Nuclear Power Generation



Injector Test Stand Kit

The injector test stand kit is designed for FM | Colt-Pielstick PC4.2 model engines for testing, service, and inspection. The injector test stand includes chuck adaptors for securing the injectors, hydraulic fitting adaptors for pop tests, and a pneumatic over hydraulic pump for efficiency. With a quick switch of the receiver blocks and fittings, the test stand can test multiple engine injector lines which eliminate the need for multiple test stands. Fairbanks Morse offers three injector test stand kits to select from depending on your current setup. The NTB3 kit is an ideal replacement of the first generation test stand. The NTB5 is an ideal upgrade if you own the newest model test stand. The NTB5 deluxe package is ideal if you don't currently have a test stand in place.

BENEFITS

- Save time and money by replacing multiple test stands with one
- Save installation time with these fully assembled kits
- No additional engineering or machining required

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Lifter Arm Lubrication Kit

The valve lifter arm forced lubrication kit is an OEM-engineered replacement package that reduces wear to valve lifter arm bushings, rollers, and camshafts. Pressurized oil to the valve lifter arm provides improved lubrication of the bushings and rollers, which reduces wear on the camshaft. This kit includes fully-assembled pump support, tubing, fittings, gaskets, and O-rings. This convenient kit requires no modifications or machining. Simply unbolt the current pump support and replace with this new lifter arm lubrication kit.

BENEFITS

- Reduce wear on camshaft
- Save installation time with these fully assembled kits
- No additional engineering or machining required

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Lube Oil Monitoring

The Lube Oil Monitoring solution is an add-on system that provides real time quality measurement and monitoring of the engine's lube oil condition. This helps detect engine anomalies early and prevents failures that could cost thousands of dollars. The complete solution includes the equipment, installation, and commissioning.

BENEFITS

- Prevent engine failures with early detection
- Save maintenance costs with preventative monitoring
- Retrofitted to existing equipment

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Pilot Pump Upgrade

This set of improvements brings a stronger updated duplex pilot pump that comes with a replaceable plunger and barrel assembly. This upgrade replaces obsolete pilot pumps with a less expensive solution. This involves replacing pilot pumps, adjusting fuel timing, and replacing high pressure lines. This upgrade takes about two weeks and can be done onsite.

BENEFITS

- Reduced maintenance
- Enhanced reliability
- Stronger pump

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Turbo-Blower Conversion

The turbo-blower series conversion converts previous generation turbo-blower parallel operation to turbo-blower series operation. The previous generation operation flowed air to the blower through a diverter valve in parallel with the turbocharger. With this conversion, air flow goes through the turbocharger, then through the intercooler, then through the blower into the engine. This conversion can be done onsite.

BENEFITS

- Enhanced fuel efficiency (up to 8% reduction in fuel usage)
- Increase in rating under some conditions
- Exhaust smoke reduction
- Increase life of cylinder liner, piston, and piston ring
- Single air inlet location

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Turbo Charger Upgrade

This upgrade involves replacing the existing turbo charger with a state-of-the-art high efficiency turbo charger. This new turbo charger design lowers exhaust gas temperatures which means less strain on engine components. An upgraded turbo charger improves load response and renews the warranty on this part.

BENEFITS

- Increased turbo charger and engine efficiency
- Restores engine output and supercharging
- Less strain on engine components
- Improved load response

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