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FLEXBOOST™ SALES FAQ

Everything You Need to Know About FLEXBoost™

Purpose

This guide is designed to help Sales, distributor partners, rental companies, and customers better understand FLEXBoost™ technology, operation, performance, and applications.

SECTION 1

PRODUCT OVERVIEW

What is FLEXBoost™?

FLEXBoost™ is the industry's first fully integrated hybrid generator, combining the proven reliability of a diesel generator with intelligent hybrid technology. It was developed to address the evolving needs of temporary power applications by reducing fuel consumption, lowering maintenance requirements, improving operational efficiency, and reducing total operating costs—without sacrificing the dependable performance customers expect from a generator.

By automatically optimizing operation based on real-time load demand, FLEXBoost™ delivers power more efficiently while operating and servicing much like a conventional diesel generator.

What makes FLEXBoost™ different?

Unlike a conventional diesel generator that runs continuously whenever power is required, FLEXBoost™ automatically manages engine operation based on load demand and battery state of charge.

Its fully integrated hybrid system intelligently optimizes performance to reduce unnecessary engine runtime, improve efficiency, and lower operating costs—all without operator intervention.

Is FLEXBoost™ replacing diesel generators?

No.

FLEXBoost™ is not intended to replace every diesel generator. It expands ANA's power solutions portfolio by providing a modern alternative for customers replacing aging generator fleets or looking to reduce fuel consumption, maintenance, and operating costs. The best solution depends on the application, load profile, runtime, and operational requirements. Conventional diesel generators remain the right choice for many applications, while FLEXBoost™ offers significant advantages where hybrid operation can improve efficiency and lower total cost of ownership.



Target Industries

FLEXBoost™ is designed for virtually any application where mobile generator power is required, including:



Construction



Equipment
Rental



Industrial
Operations



Telecommu-
nications



Oil & Gas



Government
& Emergency
Response



Events &
Entertainment



Infrastructure



Remote
Power

Best Fit

FLEXBoost™ Delivers the Greatest Value When:

- Generators operate for extended periods
- Electrical loads frequently change
- Fuel costs are a significant operating expense
- Low-load operation is common
- Reducing maintenance costs is a priority
- Sustainability or emissions reduction goals exist
- Customers are evaluating fleet replacement or expansion

Common Application Examples

Common real-world applications where FLEXBoost™ creates the greatest value.



Tower Cranes



Telecommuni-
cations sites



Pumps



Lighting



Temporary
Power



Remote Job
Sites



EV Charging
Support



Emergency
Response



Oil & Gas
Field
Operations



Construction
Projects

SECTION 2

TECHNOLOGY

How does FLEXBoost™ work?

FLEXBoost™ integrates a diesel engine, electric motor, clutch drive system, battery system, alternator, and intelligent controls into one fully integrated generator.

During lower load conditions, stored battery energy powers the load while the engine remains off. When battery capacity reaches approximately **15%**, the engine automatically starts to recharge the batteries. Once the batteries are fully charged, the engine shuts off.

During higher load conditions (above approximately **60%**), the engine powers the load directly while simultaneously charging the batteries. If the load drops below approximately **60%**, FLEXBoost™ automatically transitions back to battery operation, eliminating prolonged light-load engine operation.

This intelligent operating strategy minimizes unnecessary engine runtime, prevents light loading, and reduces fuel consumption and maintenance while maintaining dependable power.

Is FLEXBoost™ an inverter-based hybrid system?

No.

FLEXBoost™ is a fully integrated hybrid generator, not an inverter-based battery storage system.

Unlike systems that rely on external battery packs and inverters to supply power directly to the load, FLEXBoost™ integrates the diesel engine, electric motor, clutch drive system, battery, alternator, and intelligent controls into a single package. This design improves efficiency while maintaining the familiar operation and output characteristics of a conventional generator.

What battery technology is used?

FLEXBoost™ uses Lithium Titanium Oxide (LTO) batteries, selected specifically for demanding industrial applications requiring exceptional durability, rapid charging, and high-power output.

Does the operator need to manage the hybrid system?

No.

Operators simply start the generator. FLEXBoost™ automatically manages engine operation, battery charging, and power delivery without manual mode selection or programming.

What operating modes are available?

FLEXBoost™ automatically manages power by transitioning between three operating modes based on load demand. Additional capabilities, including grid-tie functionality, are available depending on the application.

Battery Power Mode

Stored battery energy powers the load while the engine remains off.

Engine Charging Mode

The engine automatically starts to recharge the battery while continuing to power the load.

Generator Mode

During loads above approximately 60%, power is supplied directly by the generator while maintaining optimal engine loading.

Can FLEXBoost connect to utility power?

Not at this time.

The current FLEXBoost configuration is designed for standalone operation and does not support direct connection to utility power. For questions about future product capabilities, please contact your ANA Sales Representative.

Why isn't FLEXBoost™ a battery-only system?

FLEXBoost™ was designed for demanding mobile power applications where dependable performance, extended runtime, and operational flexibility are essential.

Rather than replacing diesel power, FLEXBoost™ enhances it by intelligently integrating battery technology to improve efficiency, reduce fuel consumption, and lower operating costs while maintaining the performance customers expect from a mobile generator.

Why LTO batteries?

FLEXBoost™ uses Lithium Titanium Oxide (LTO) batteries because they are designed for demanding mobile power applications and offer significant performance and safety advantages, including:

Exceptional safety – LTO chemistry is inherently stable and is highly resistant to thermal runaway, reducing the risk of fire.

Long cycle life – Up to 80,000 charge/discharge cycles.

Rapid charging capability – Accepts high charge rates to quickly restore battery capacity.

High power output – Delivers consistent power for demanding applications.

Excellent thermal stability – Reliable performance across a wide range of operating conditions.

Wide operating temperature range – Reliable operation from -22°F to 104°F (-30°C to 40°C).

These characteristics make LTO batteries an ideal choice for continuous mobile power applications where safety, durability, reliability, and long service life are critical.

What controller does FLEXBoost™ use?

Current FLEXBoost™ units utilize the **Deep-Sea Electronics (DSE7300 Series)** controller, providing a familiar generator interface for operators and technicians.

Controller selection is based on the specific application and system requirements.

Is FLEXBoost™ a battery-powered generator?

No.

FLEXBoost™ is a hybrid diesel generator. The battery supports lower-load operation and provides rapid response during changing load conditions, while the diesel engine provides dependable power during higher-load operation and automatically recharges the battery when needed. This architecture combines the reliability of diesel generation with the efficiency benefits of intelligent hybrid technology.

Does the battery power the load?

The battery supports lower-load operation while the diesel engine provides dependable power during higher-load operation and automatically recharges the battery when needed.

How does the engine know when to start?

The intelligent control system continuously monitors battery state of charge and load demand.

When battery capacity reaches approximately 15%, the engine automatically starts to recharge the battery. Once charging is complete, it automatically shuts off. No operator input is required.

What happens if the battery overheats?

FLEXBoost™ continuously monitors battery temperature and other operating conditions.

If battery temperature exceeds the allowable operating range, the system automatically transitions to Generator Mode (default operating mode), allowing the engine to power the load while reducing demand on the battery. This protective strategy helps maintain reliable operation and protect the battery system.

When operating conditions return to normal, FLEXBoost™ automatically resumes intelligent hybrid operation. No operator action is required.

Will FLEXBoost™ be available in a 600V configuration?

FLEXBoost™ is being developed to support applications and markets where 600V power distribution is commonly required, including industrial, construction, mining, oil & gas, and Canadian applications.

Customers with 600V requirements should contact their ANA Sales Representative to discuss application requirements and available product configurations.

What controls the system?

An integrated intelligent control system continuously manages:

- Engine start and stop
- Battery charging
- Electric motor operation
- Load prioritization
- Power delivery

Everything happens automatically to maximize efficiency while delivering dependable power.

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Does the battery power the load?

The battery supports lower-load operation while the diesel engine provides dependable power during higher-load operation and automatically recharges the battery when needed.

Why LTO batteries?

LTO technology offers several advantages:

- Long cycle life (up to 80,000 cycles)
- Rapid charging capability
- High power output
- Excellent thermal stability
- Reliable operation from -22°F to 104°F / -30°C to 40°C

These characteristics make LTO ideal for continuous mobile power applications.

How does the engine know when to start?

The intelligent control system continuously monitors battery state of charge and load demand. When battery capacity reaches approximately 15%, the engine automatically starts to recharge the battery. Once charging is complete, it automatically shuts off. No operator input is required.

What controller does FLEXBoost™ use?

Current FLEXBoost™ units utilize the **Deep-Sea Electronics (DSE7300 Series)** controller, providing a familiar generator interface for operators and technicians.

For applications requiring advanced generator paralleling and synchronization capabilities, FLEXBoost™ also supports the **DEIF IE250 controller**.

Controller selection is based on the specific application and system requirements.

Will FLEXBoost™ be available in a 600V configuration?

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SECTION 3

CAPABILITY & COMPATIBILITY

What loads can FLEXBoost™ handle?

FLEXBoost™ is designed to handle the same types of electrical loads as an SDG125 equipped with SmartLoad. Customers can continue powering the applications they rely on today while benefiting from improved fuel efficiency, reduced engine runtime, and lower operating costs.

Can FLEXBoost™ connect to an EBOSS® Power Module?

Yes.

FLEXBoost™ can be connected to an EBOSS® Power Module. However, the EBOSS system commands the generator to operate at approximately **95%** engine load. Under these conditions, FLEXBoost™ operates in standard generator mode, so the hybrid system does not provide additional fuel-saving or efficiency benefits compared to a conventional SDG125.

What is the battery capacity?

FLEXBoost™ utilizes a **30 kWh Lithium Titanium Oxide (LTO)** battery system designed for demanding industrial applications. The battery supports lower-load operation, rapid response to changing loads, and intelligent engine start-stop operation to maximize efficiency.

How long does it take to recharge the battery?

Under no-load conditions, the battery can recharge in approximately 30 minutes while the engine operates at approximately 60% load. Charging at this operating point helps maintain efficient engine loading while minimizing short-cycling and wet stacking.

What is the fuel tank capacity?

FLEXBoost™ features a **168-gallon fuel tank**, the same capacity as the SDG125 generator platform.

How long will FLEXBoost™ run on a full tank?

Runtime depends on the application and load profile. Because FLEXBoost™ intelligently reduces unnecessary engine runtime, it can operate significantly longer on a full tank than a conventional generator. For example, at approximately 10% load, FLEXBoost™ can provide up to 144 hours of runtime on a full 168-gallon fuel tank.

Note: Actual runtime, fuel savings, and overall performance will vary based on application, operating conditions, duty cycle, and load profile.

Does FLEXBoost™ require different power connections?

No.

FLEXBoost™ uses the same generator output connections as the SDG125, allowing customers to power the same equipment and applications without changing how loads are connected. The intelligent hybrid technology operates in the background, so using FLEXBoost™ remains familiar for operators and technicians.

SECTION 4

PERFORMANCE

Can FLEXBoost™ handle full load?

Yes. FLEXBoost™ is designed to deliver dependable power across the full operating range while automatically optimizing performance based on load demand.

The system operates on stored battery energy for loads up to 70 kW. When power demand exceeds 70 kW, FLEXBoost™ automatically transitions to engine/generator operation to continue supplying power without interruption. This intelligent energy management helps reduce fuel consumption, engine runtime, and maintenance while delivering reliable power when higher loads are required.

How does FLEXBoost™ improve transient response?

The integrated electric motor provides near-instant support during sudden load changes, helping reduce voltage and frequency fluctuations while maintaining stable power quality.

This provides a significant advantage for applications with frequent motor starts, inrush currents, and changing electrical loads.

How does FLEXBoost™ reduce fuel consumption?

FLEXBoost™ intelligently reduces unnecessary engine runtime. Rather than operating continuously, the system uses stored battery energy during lower-load conditions and automatically starts the engine only when needed. When the engine is running, it operates efficiently while recharging the batteries, eliminating prolonged light-load operation.

By reducing engine runtime and optimizing how the engine operates, FLEXBoost™ can reduce fuel consumption by **up to 84%** compared to conventional generator operation. Reduced fuel consumption also means **extended runtime on a single fuel tank**, fewer refueling events, and lower overall operating costs.

Note: Actual fuel savings and runtime improvements vary based on the application, load profile, and operating conditions.

Does FLEXBoost™ help reduce emissions?

Yes.

By reducing unnecessary engine runtime and optimizing engine operation based on load demand, FLEXBoost™ helps reduce fuel consumption and supports lower overall emissions. It also minimizes prolonged low-load operation, helping maintain more efficient engine operation.

Note: Actual emissions performance will vary based on the application, operating conditions, and duty cycle.

Performance Disclaimers

Fuel savings, maintenance reductions, emissions improvements, and overall performance will vary based on application, operating conditions, duty cycle, and load profile.

Does FLEXBoost™ reduce maintenance?

Yes.

By reducing accumulated engine hours, FLEXBoost™ helps extend service intervals, reduce engine wear, and lower long-term maintenance costs.

Will frequent engine start increase starter wear?

No.

FLEXBoost™ was engineered specifically for automatic start-and-stop operation. The engine is decoupled from the load and is off during unit startup, allowing the system to start and transition power in a controlled manner. The intelligent control system manages engine cycling as part of its normal operating strategy, optimizing efficiency while maintaining dependable performance.

For detailed component-specific questions, contact your ANA Sales Representative or Product Support.

How does FLEXBoost™ eliminate wet stacking?

Traditional generators operating for extended periods at low loads may experience conditions associated with wet stacking.

FLEXBoost™ automatically manages engine operation to maintain a more efficient operating range, helping minimize those conditions while improving overall performance.

Can FLEXBoost™ improve generator sizing?

Yes.

The integrated electric motor assists during transient load events, allowing FLEXBoost™ to better accommodate startup loads and changing power demands.

Depending on the application, this may reduce the need to oversize generators solely to handle temporary peak loads.



SECTION 5

OPERATION & SERVICE

Is FLEXBoost™ easy to operate?

Yes.

FLEXBoost™ was designed to operate like a conventional diesel generator. Operators simply start the unit, and the intelligent control system automatically manages engine operation. Only minimal product familiarization is required.

Can technicians service FLEXBoost™?

Yes.

Routine maintenance procedures remain familiar to generator technicians. The hybrid components are fully integrated into the generator platform while maintaining serviceability.

Does FLEXBoost™ require specialized service equipment?

Routine maintenance can be performed using familiar generator service practices. The hybrid components are fully integrated into the platform, minimizing changes to standard maintenance procedures. For advanced diagnostics or technical support, ANA Product Support is available to assist.

Is maintenance different?

Routine maintenance remains similar to a conventional generator. Because FLEXBoost™ reduces engine runtime, customers may experience fewer engine hours, longer service intervals, and lower maintenance costs. The hybrid system itself requires no additional scheduled maintenance, so service intervals remain the same as a conventional SDG125 generator.

Does it use a standard controller?

Yes.

FLEXBoost™ utilizes a familiar generator control interface while the intelligent hybrid system automatically manages engine operation in the background.

Can it be paralleled?

Paralleling capability is not available at initial product launch and is planned for a future software release, currently targeted for late 2026 or early 2027. If your application requires paralleling, please contact your ANA Sales Representative to discuss your specific requirements and available solutions.

SECTION 6

APPLICATIONS

Where should FLEXBoost™ be recommended?

FLEXBoost™ should be considered whenever a customer is evaluating a mobile diesel generator and is looking to improve operating efficiency, reduce fuel consumption, lower maintenance costs, or decrease total cost of ownership.

What types of applications benefit from FLEXBoost™?

FLEXBoost™ delivers the greatest value in applications where generators:

- Operate for extended periods
- Experience changing or variable electrical loads
- Spend significant time operating at lower loads
- Have high annual fuel consumption
- Require frequent maintenance
- Are being evaluated for replacement or fleet expansion

These operating conditions create opportunities to improve efficiency and reduce total operating costs.

When should a customer consider FLEXBoost™?

FLEXBoost™ is an excellent fit when customers:

- Operate generators for extended periods
- Experience varying electrical loads
- Want to reduce fuel consumption
- Want to lower operating costs
- Want to reduce maintenance
- Have sustainability goals
- Are planning new equipment purchases or fleet replacement

What industries benefit the most?

FLEXBoost™ is ideal for applications across:

- Construction
- Equipment Rental
- Industrial Operations
- Telecommunications
- Oil & Gas
- Government / Military
- Emergency Response
- Events & Entertainment
- Infrastructure
- Remote Power
- Utilities

When should a customer consider FLEXBoost™?

Customers are often strong candidates for FLEXBoost™ if they:

- Operate generators for long periods each day.
- Experience changing or variable electrical loads.
- Want to reduce fuel consumption and operating costs.
- Are looking to extend engine life and reduce maintenance.
- Have sustainability or emissions reduction initiatives.
- Are evaluating new generator purchases or fleet replacement.

What challenges does FLEXBoost™ solve?

FLEXBoost™ is designed to help organizations improve operational efficiency by addressing common generator challenges, including:

- Rising fuel costs
- Increasing maintenance expenses
- Variable power demands
- Extended low-load operation
- Generator oversizing
- Wet stacking concerns
- Total cost of ownership
- Sustainability initiatives
- Pressure to improve equipment utilization



SECTION 7

COMMERCIAL

Is there a demo program?

Yes.

A FLEXBoost™ demonstration program is available for qualified opportunities to help customers evaluate product performance and operational benefits in their own application.

Contact your ANA Sales Representative regarding current eligibility requirements and scheduling.

When will FLEXBoost™ be available?

FLEXBoost™ 125 is available today through our demonstration program, allowing customers to evaluate the system in real-world applications.

Commercial availability and delivery timelines may vary based on production schedules and regional availability. Please contact your ANA Sales Representative regarding current availability and lead times.

What models are planned?

The FLEXBoost™ platform is designed to expand beyond the initial FLEXBoost™ 125 launch.

Additional FLEXBoost™ models are planned to begin in 2027, extending the platform across a broader range of power applications.

Customers interested in future models should contact their ANA Sales Representative for the latest product roadmap updates.

What warranty is offered?

FLEXBoost™ includes a **7-year battery warranty**, reflecting the durability and long service life of the LTO battery system.

Standard ANA warranty coverage also applies to the generator platform. Contact your ANA Sales Representative for complete warranty details and coverage terms.

Who should customers contact for additional product information?

Customers with questions about FLEXBoost™ applications, availability, demonstrations, warranty coverage, or future models should contact their ANA Sales Representative.

If additional technical expertise is required, your Sales Representative will coordinate with the appropriate Product Management or Engineering team.



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Learn More About

FLEX **BOOST™**

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