banks to multiple MVA, we can provide a solution for virtually any application. We revolve around your needs, with the expertise and technical knowhow to assemble custom solutions that provide leading power test solutions.

**Technology**
Innovation is at our core, complemented by our commitment to build load banks to the highest standards – ISO9001, UL/CUL, CSA, CE, IEC, NFPA. Technical leadership includes Sigma control which is sector leading in simplicity, ease of use, and accuracy. Sigma brings cost effective solutions to today’s power testing requirements which can require high level instrumentation, data capture and verification with the ability to link multiple load banks of differing capacities or combination and controlled from one hand-held terminal or PC.

**Experience**
Ninety years combined experience in load banks is only matched by the 125 years ASCO has been providing power solutions. Our team of experts has provided countless standard and custom load banks to the industry over the years.

**Global Reach**
A dedicated load bank service department is there when you need them – anywhere in the world. Our customer-centric approach guarantees you receive friendly, knowledgeable advice and support 24/7/365 from a highly trained, technically proficient team.

Learn more by downloading a load bank white paper, calling 800-800-ASCO or visiting our webpage at www.emersonnetworkpower.com/loadbank.
**What is a Load Bank?**

A load bank is a device that develops an electrical load and applies the load to an electrical power source. Avtron and Froment Brand load banks provide consistent, accurate, measurable, and repeatable electrical loads on a power source.

**Why use a load bank?**
- To help prevent lightly loaded conditions (wet-stacking) on your diesel generator set
- Meet the testing requirements of NFPA 110
- Power systems commissioning and acceptance testing
- Long term tests - heat runs
- Transient response tests - block loading
- Test and verification to ISO 8528
- Pass or fail
- Battery capacity testing
- AVR (automatic voltage regulator) and governor set up
- New product research and development

**Who should use a load bank?**
- Anyone involved with insuring the proper operation of gen-sets or UPS systems should be using a load bank for:
  - System set-up
  - Periodic maintenance
  - Continued verification
  - Prolonged product life
- Anyone involved in the design, manufacture, and sale of gen-sets or UPS systems for:
  - Product development
  - Final production sign-off
  - Customer validation

**What types of Load Banks are available?**
- AC up to 690V
  - Resistive
  - Reactive (Inductive or Capacitive)
  - Combined (Resistive, Inductive and/or Capacitive)
- DC up to 600V
  - Battery capacitive testing
  - 28VDC ground power unit testing
- MV from 3.3 - 15kV
  - Direct Connect
  - Step Down Transformer

**Why choose Avtron & Froment Load Banks?**

- We have 90 years combined experience in the load bank industry.
- ISO9001
- UL/CUL
- CSA
- CE
- IEC
- NFPA
- AC up to 690V
- Resistive
- Reactive (Inductive or Capacitive)
- Combined (Resistive, Inductive and/or Capacitive)
- DC up to 600V
- Battery capacitive testing
- 28VDC ground power unit testing
- MV from 3.3 - 15kV
- Direct Connect
- Step Down Transformer

- Enhance reliability of the power source
- Help maintain optimum load levels
- Prevents low loading on the power source
- Reduce downtime
- Improves life of generator
- Reduces generator maintenance
- Proven control systems
- Built for rugged and reliable operation
- No cool-down period required
- Aluminized steel construction
- Widest range of voltage and capacity available
- Accurate load tolerance
- Standard off the shelf components
- Continuous duty

**Why use a load bank?**

- Running an engine with minimal load causes residual fuel buildup, which decreases the efficiency of the engine and reduces the useful life of critical parts.
- - Christopher Wade, Newmark Grubb Knight Frank
Broatest Load Bank Portfolio in the World

Avtron and Frément brand load banks offer the widest range of load testing solutions available today. From a simple 10 kW portable load to multiple megawatt units, our experience and support make us the worldwide leader in the manufacture of rugged and reliable load banks.

Our Load Banks Revolve around Your Needs

Serving Every Application in Every Market

- Power Generation
- Mission Critical
- Rental
- Service
- Oil, Gas, & Nuclear
- Wind Farms
- OEMs
- Government / Military
- Maritime / Shipyards
Prior to building turnover, load bank testing helps ensure that electrical generation systems support loads by maintaining voltages and frequencies that meet design criteria. Generally, if they are going to fail, they will fail quickly.”

- Joshua Gepner, Environmental Systems Design, Inc.
If you need a load bank that is easily transportable and maneuverable but can still provide a high enough load for your needs, than a trailer-mounted load bank is for you. Typically used by rental companies, our trailer mounted load banks use the latest load bank technology combined with its superior versatility.

- Various Voltages and Frequencies Available
- DOT Certified Trailers
- Remote or Local Controls
- Sigma Intelligent Control Available
- Vertical or Horizontal Airflow
- Storage Box, Manual or Electric Cable Reels, and Quick Disconnect Receptacles Available
Inductive/Reactive load banks can be used in conjunction with existing resistive load banks for testing AC supplies at non-unity power factors. Generating sets are rated at 0.8 power factor so both resistive and inductive load are required. The rise of solar energy and wind farms has also led to an increase in popularity in inductive/reactive only load testing.

Additional kVA available upon request.

Combined
200-6000 kVA

Our combined load banks test both resistive and inductive loads within a single load bank. Manufactured with the highest quality resistive elements and inductors the combined load banks will give the precision and longevity you need. Our combined load bank models are available from 200-6000 kVA, so if you need a combined load bank of any size then we have you covered.

• Wide Voltage Range
• Sigma Intelligent Control Available
• Can link with existing resistive load banks to perform combined load test.

Container
2000 - 6000 kW / 2000 - 6000 kVA

For larger load test, the containerized construction of our load banks is perfect. Not only can they provide a very large load capacity, but this construction means it is easily transportable. Our container load banks are available in both resistive only and combined version. Typical containers are available in 10 and 20 foot lengths and specialized control rooms within to keep the components weatherproof and to provide the operator with a safe and secure work area.

• Bespoke ISO Container Construction
• Wide Voltage Range
• 50/60 Hz Frequency
• Sigma Intelligent Control Available

Medium Voltage
3500-7000 kW

We are the leading manufacturer of true medium voltage load banks. Our units operate at the actual output voltage of medium voltage generators and do not require large step-down transformers. We also have available the conventional load bank with step-down transformer designed to mount on common structural skid. Both resistive and resistive/reactive loads are available with a wide voltage range to suit your needs perfectly.

• Direct Connect with NO Transformer
• Voltages of 5-15 kV
• 50/60 Hz Frequency
• Remote or Local Controls
• Rugged Construction
• Automatic Load Controller (Optional)

Direct Current
150-3500 Amps

Direct current load banks are the ideal solution for the customer that need to test DC generating systems, converters, transformer/rectifier units, battery systems, and controls. The rugged, aluminized steel construction ensures a long life and minimal maintenance. We offer a range of both portable and permanent DC load banks from 150-3500 amps with a wide range of voltages available.

• Permanent and Portable
• Aluminized Steel Enclosure for Superior Corrosion Protection

OPS has been buying Froment products for about 8 years. We have over 8 different types across the Froment range from 40kW units to 2.5mVA single units. The quality and reliability of the Froment product has enabled and helped OPS in being the market leader in the UK for load bank testing.

- K. Sullivan, Optimum Power Services
Digital metering is often:

- Ideal for remote and extreme locations
- Simple straight forward
- For basic, resistive load testing.

SIGMA LT Load Bank Controls

SIGMA LT load bank control is the latest product development from Avtron and Froment. It offers a simple and sleek touch screen design and provides consistent and reliable testing for resistive load banks.

- Load bank mounted decade switches for quick and easy load selection
- Perfect for accepting and rejecting load quickly and simply when at the load bank
- Load control automatically preventing the problems associated with light leading
- Maintain minimum load on open set
- Quick response times for unity testing
- Cross platform capability between Sigma LT and Sigma 2
- For Windows tablet and PC
- Daisy chain load banks or control individually
- Multi language
- Link USB interface to link over 50 load banks
- Graphical, chart and individual load test views
- Automatic load control provides multiple timed load steps including cyclic testing
- Transient load tests, results analysed and reported
- Adaptive and Predictive load-correction facility ensures the correct load is applied even if the voltage drops
- No Need for any pre-calculations
- Automatic detection senses the supply-on-test
- Quick start wizard allows easy setup of load via % load, power factor and time
- Automatic and Predictive load correction facility ensures the correct load is applied even if the voltage drops
- Result data can be printed or exported to other software for further analysis
- Certification to ISO8528

SIGMA 2 Load Bank Controls

Sigma 2 load control is the leader in simplicity, ease of use and accuracy. Sigma brings cost effective solutions to today’s power testing requirements which can require high level instrumentation, data capture and verification.

- Enhanced load control with transient speed instrumentation/data acquisition and reporting with graphical displays including real time data such as crest factor, recovery times and % errors
- Customizable front panel windows layouts
- Supply-on-test properties include ratings, alternator, engine, customer and additional notes can be saved with test results for future reference or template creation
- Automatic tests

SIGMA DECADE SWITCHES

SIGMA DECADE SWITCHES offer a wide range of automatic load control.

- Allows integration with PLC, HMI or SCADA systems and proxy remote control
- Can be used over TCP/IP for remote control
- Robust Intelligent Hand-held Terminal (IHT) for remote load control operation with full 3-phase instrumentation
- Membrane keyboard and back-lit graphic LCD housed in an Industrial enclosure providing IP65 protection
- Resistive, inductive and capacitive loading
- Automatic tests

SIGMA IHT

SIGMA IHT is the latest product development from Avtron and Froment. It offers a simple and sleek touch screen design and provides consistent and reliable testing for resistive load banks.

- Full 3 phase instrumentation
- Result data can be printed or exported to other software for further analysis

SIGMA DECADE SWITCHES

SIGMA DECADE SWITCHES offer a wide range of automatic load control.

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- Resistive, inductive and capacitive loading
- Automatic tests
Load Bank Quality at Work

Resistive, Inductive, Combined, Portable, DC, and Medium Voltage models
Custom builds to specifications
Large range of capacities
Huge selection of option adders

Avtron & Froment
Load Banks

Choice

- Professional and creative design engineers
- The best software for superior results
- Innovative problems solving skills
- Unrivaled product knowledge

Experience

- 90 years combined experience in manufacture of load banks
- Manufactured 1000’s of standard & custom load banks
- Worldwide presence in all markets

Design

Build

Avtron and Froment Services are much more than a "service department". We are a self-sufficient organization offering a broad range of services, products, and solutions.
- Commissioning
- Periodic scheduled maintenance of equipment
- Technology upgrades to legacy systems
- Modifications in system operation
- On-going customer training
- Access to the latest development including parts and equipment
Customer centric service puts your needs first

Load Bank Service & Support

24/7/365 Support

- We are there when you need us

Experience

- Commissioning
- Periodic scheduled maintenance of equipment
- Technology upgrades to legacy systems
- Modifications in system operation
- On-going customer training
- Access to the latest development including parts and equipment
Customer centric service puts your needs first

Worldwide Service & Support

We are there when you need us

Help Us to Help You

- Routine load bank testing ensures generator set performance during an emergency. Such testing means facilities executives may uncover system defects that may not be found otherwise until a power outage. Discovering them during testing allows any necessary repairs to be made before the facility has a critical need."
- Kurt Summers, Austin Generator Service

Service

- Dedicated load bank service department
- Global presence
- Friendly advice and support
- 24/7 support

Knowledge

- The latest and greatest construction technology
- Superior quality materials
- Talented and highly skilled engineers
- State-of-the-art production techniques

15