

# Testing Services

Heavy and Medium-Duty  
EPA and CARB Emissions Certifications Testing



ESW America, a division of ESW Group, is a leading independent emissions testing company based in Montgomeryville, PA. Our state-of-the-art Heavy-Duty and Medium-Duty emissions

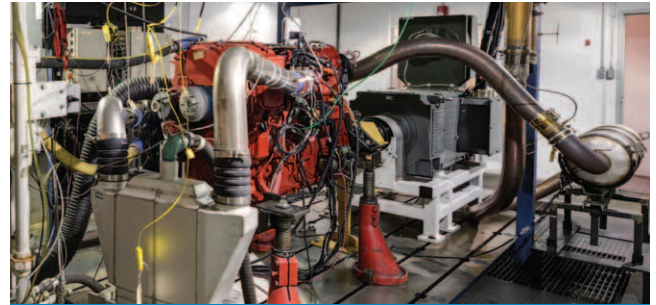
testing facility is equipped to perform a wide variety of EPA and CARB compliant services. Our facility is staffed by an experienced team of highly skilled test engineers, technicians, and fabricators. With a combined total of over 30 years experience, ESW America performs EPA and CARB emissions certification testing, durability testing, performance testing, and fuel economy testing for a wide variety of engines and chassis.

## ESW America Advantages

- Multiple test cells for durability and certification testing
- Multiple chassis and engine dynamometers (200 to 1,000 HP)
- Compliant to EPA and CARB protocols
- Capable of performing EPA and CARB engine emissions verification test protocols
- Computer integrated dynamometer controls
- Quick engine set-up and switch system minimizes time and cost
- Large inventory of MD/HD engines

## Emissions Capabilities

- Full flow CVS & partial flow system
- Gaseous emissions (Horiba MEXA 7200 D, 9200 & CAI): NO<sub>x</sub>, NO<sub>2</sub>, NO, THC, CH<sub>4</sub>, CO, CO<sub>2</sub>
- NH<sub>3</sub> measurement using MKS FTIR
- Real time PM measurement: TEOM
- Celeco smoke meter
- Double dilution gravimetric PM, Horiba MDLT partial flow PM
- PM elemental and organic carbon (EC:OC) speciation
- Wet/dry chemical lab capabilities
- Other capabilities upon request: raw emissions measurement, urea storage and distribution, PM Sulfate, and Nitrate analysis



## HEAVY/MEDIUM-DUTY TESTING

### Heavy-Duty Dynamometers

Certification and verification testing up to 1,000 HP with four (4) different test cells

Typical test programs are from 40 CFR Part 86, 89 Part 1065 and ISO 8178

1,000 HP and 500 HP AC transient engine dynamometers with motoring capabilities

Diesel, gasoline, CNG and dual fuel capabilities

HC, CO, CO<sub>2</sub>, NO<sub>x</sub>, PM & BSFC measurement using FTIR/Raw Emission Sampling Bench

### Medium-Duty Dynamometers

Development and durability testing up to 600 HP

Test programs comprised of variations of the ISO 8178 & CFR test cycle

Full eddy current 600 HP and 200 HP steady state dynamometers

Fully integrated computer interface for ease of switching/selecting of test cycles

Diesel, gasoline, CNG and dual fuel capabilities

HC, CO, CO<sub>2</sub> and NO<sub>x</sub> measurement using FTIR/Raw Emission Sampling Bench



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