

Diesel Particulate Filters for Large Stationary Engines

March 2011

DPF Validation



Co-ordinate
Measurement
Machine
Dimensional



Ultrasonic
Crack/Flaw



Flow
Restriction Test
(Permeability)



Dilution Tunnel
Efficiency

100% Inspection

DPF Systems for Stationary Engines

- 375-5,000 kW
- > 85% PM efficiency (gravimetric)
- >99% PM efficiency (particle count)
- 90% CO efficiency
- 80% HC efficiency



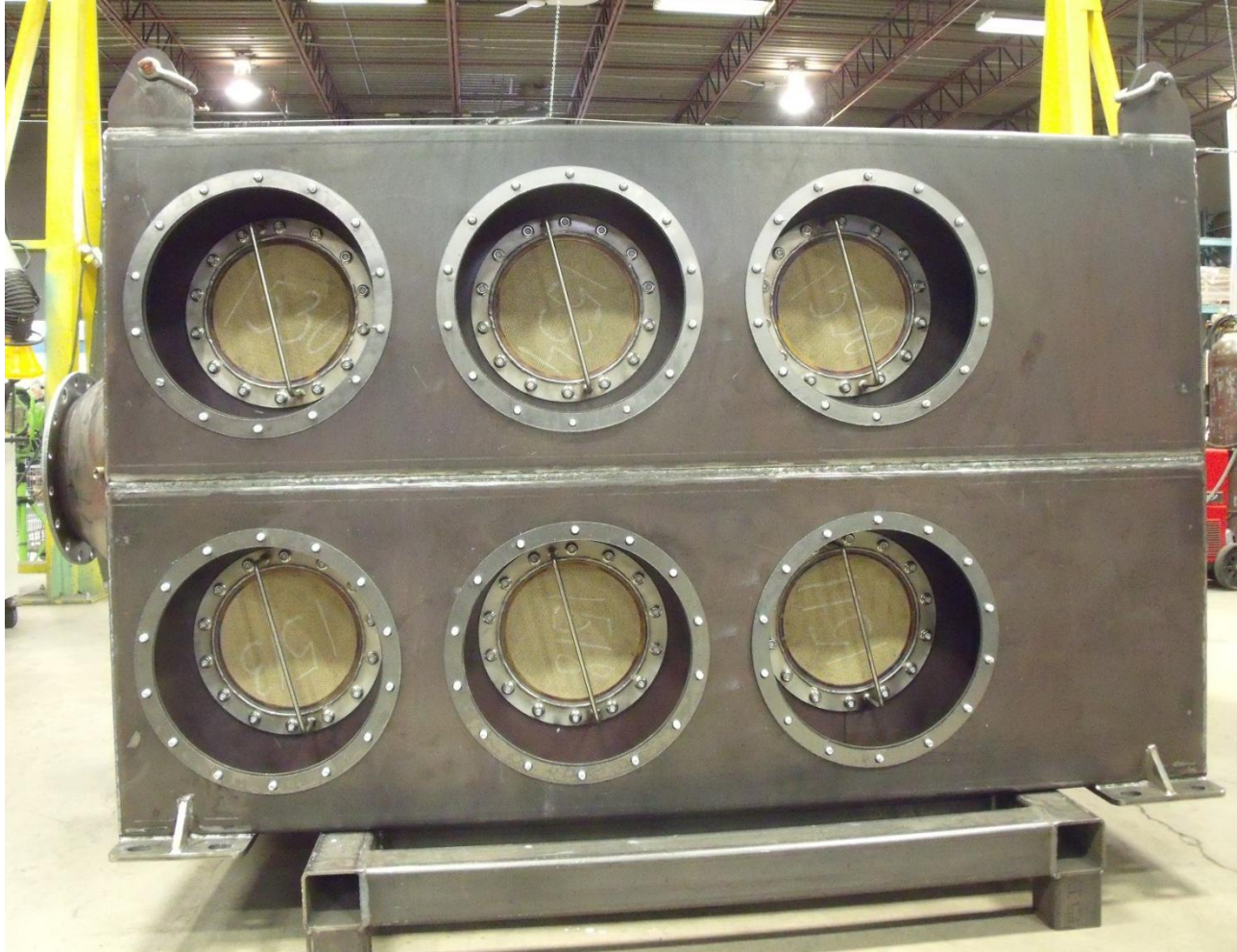
Individual DPF Elements



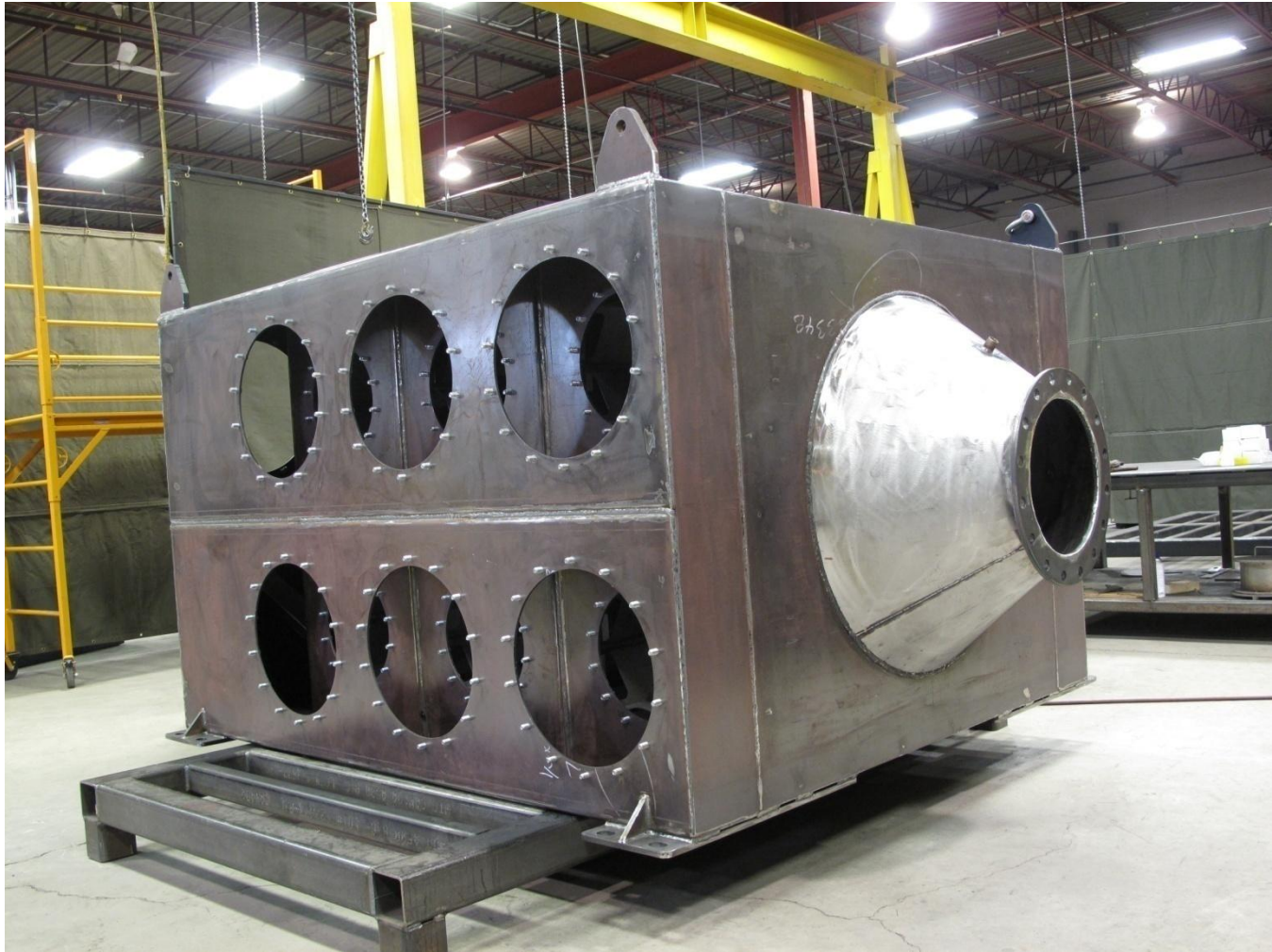
Cordierite
Wall Flow
Filter

Brazed
Metal
Pre-Filter

Installed DPF Elements



Empty Housing



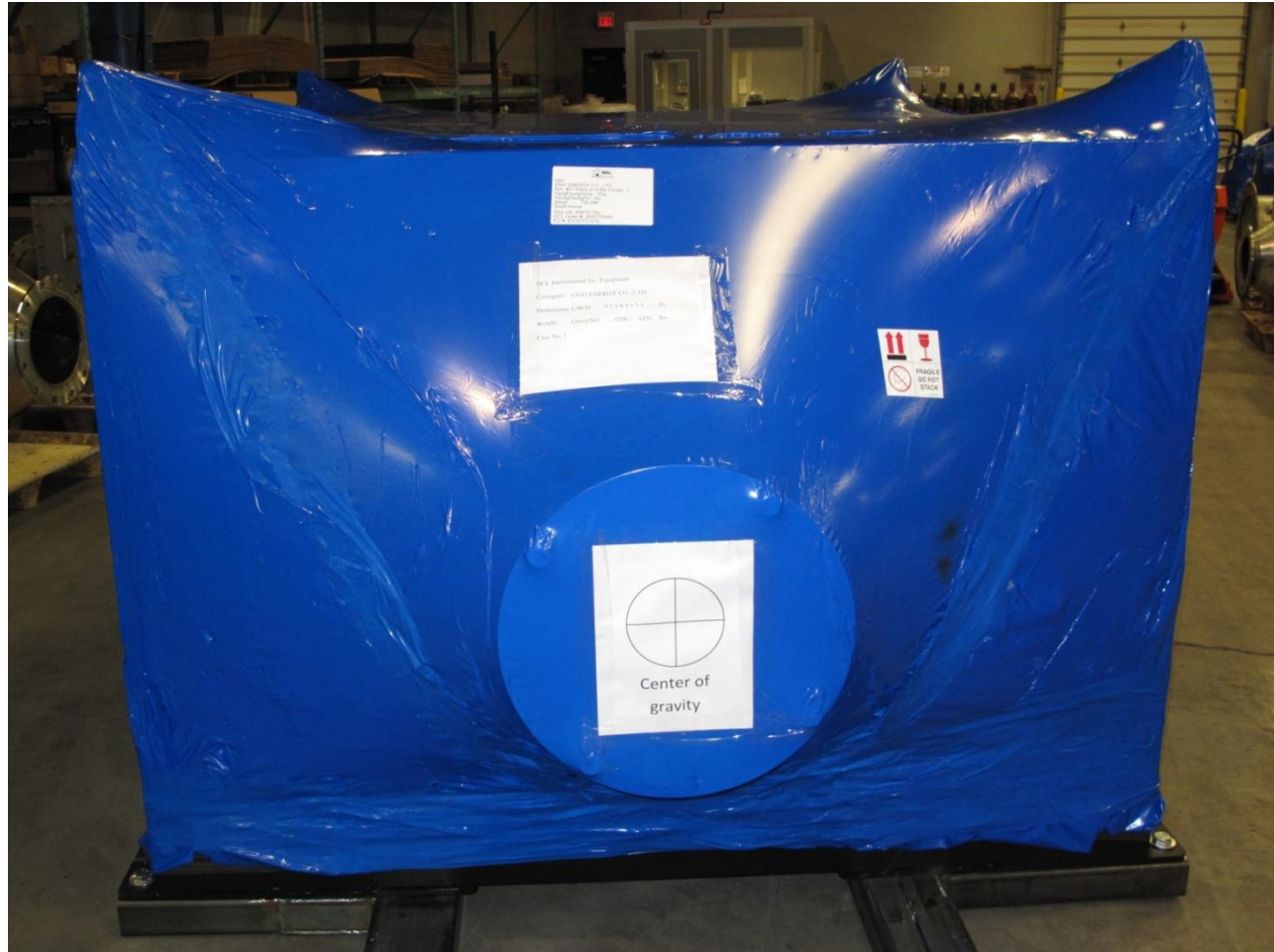
DPF Element Installation



Installed Cover Plates



Packaged for Shipment



Caterpillar XQ1000 Standby Generator

8-DCF 4.9 MINE-X
SOOTFILTER® Caterpillar 3508B
Engine – 1502hp



Mitsubishi Genset

16-DLT 4.9 MINE-XSOOTFILTER®
Mitsubishi S16R-PTA Engine –
2200hp

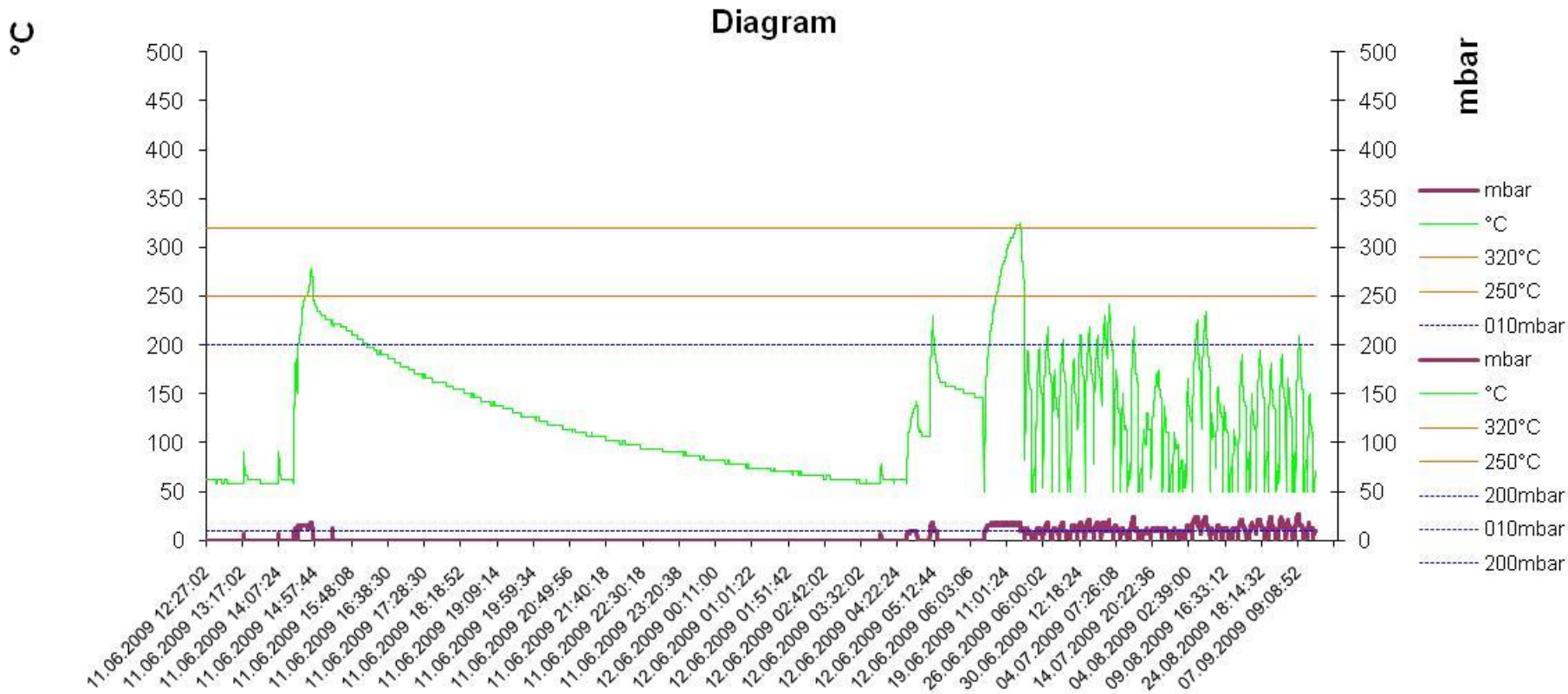


Monitoring System



- Provides operator the visual status of DPF
- Meets CARB/EPA/VERT data monitoring standards
- Records pressure and temperature data >1000 hour memory (at 10 s interval)
- Modbus / SAE J1939 protocol compatible

Mitsubishi Genset Initial 25 Hours



DPF Validation



Verminderung der Emissionen
von Realmaschinen im
Tunnelbau



United States EPA



California Air Resources Board



MLIT

Ministry of Land, Infrastructure, Transport and Tourism

Japan MLIT

