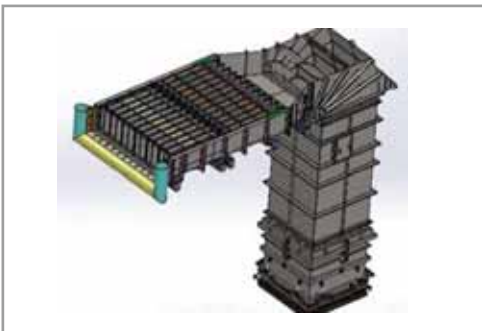
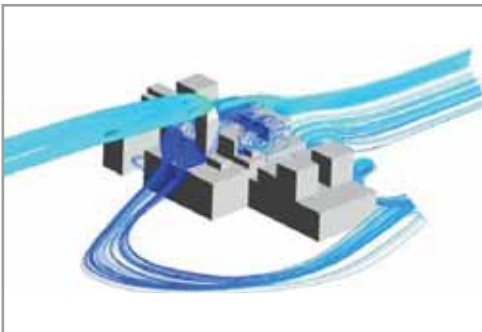
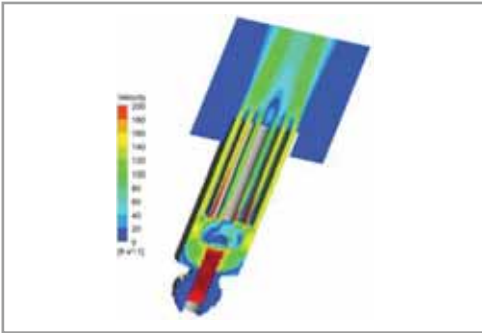




## POWER GENERATION ENGINEERING SERVICES



### SERVICES FOR:

#### **New, Refurbishment, Modification & Upgrade of Power Generation Facilities**

VG Engineering Inc. has a solid reputation for providing engineering services to the power generation industry providing configuration and design validation for gas turbine, diesel, coal, waste to energy and renewable energy power plants.

From system inlet to the exhaust, VG Engineering design and validation engineering services cover acoustic, aerodynamic, thermal, structural and mechanical analysis.

**CFD Analysis** - Flow, Pressure and Thermal analysis is performed by highly experienced engineers using ANSYS CFX and Fluent software operating on high performance networked computing systems. CFD analysis and simulations validate how the design will perform under real-world conditions: flow distribution and stability, system pressure drop and heat transfer. Analysis of this data provides opportunities for design optimization. Improvements in system efficiency results in better flow stability under varying operating conditions, homogeneous mixing of gases for uniform velocity and heat transfer. This results in enhanced efficiency, less energy usage and reduces maintenance.

**Flow Analysis** - evaluates air flow paths and exhaust dispersion surrounding the power plant facilities to ensure the varying regional atmospheric conditions do not affect the performance of the intake, ventilation and exhaust systems or the surrounding areas and local communities.

**Acoustical Analysis** - covers noise and vibration that can impact the surrounding buildings, employees, and local communities. From acoustical analysis sound attenuation requirements can be determined to reduce noise to acceptable levels during equipment operation.

**Enhanced FEA Analysis** - using ANSYS Mechanical software assures structural integrity of VG Engineering designs over a wide range of vibration, pressure and thermal conditions.

Multiframe and SolidWorks software enables our engineers to create mechanical design solutions that incorporate the requirements determined through analysis and visual modelling that confirms interfaces for ease of construction and maintenance.

VG Engineering services also include: **Project Management, Installation Supervision, Commissioning and Support Services**



# POWER GENERATION PRODUCTS

VG Engineering Products are Manufactured in our Breslau, Ontario Facility

## ACOUSTIC, BLAST RESISTANT, FIRE RATED DOORS



BARRIER WALL SYSTEMS

ANCILLARY EQUIPMENT ENCLOSURES

MACHINERY ENCLOSURES



FD / ID FAN SILENCER SYSTEMS

EXHAUST STACKS

VENT AND BLOWDOWN SILENCERS

SILENCERS & BAFFLES



INTAKE FILTER SYSTEMS

FLOW CONTROL DEVICES

GT INTAKE AND EXHAUST SYSTEMS

