



VARIABLE INLET GUIDE VANE (VIGV)

Product Description

- Variable Inlet Air vanes help guide inlet airflow to maximize engine performance.
- Assembly located in front of Low Pressure Compressor (LPC), consisting of 43 stationary leading-edge vanes and variable trailing flaps (rotate -10 to +60 degrees).
- Variable Differential Transformers (LVDTs) on actuator ring drivetwin hydraulic actuators.
- LVDTs and VIGV positions are controlled by continuous measurement of LPC inlet temperature and HPC discharge static pressure.
- If turbine has Fixed Inlet Guide Vanes, the upgrade involves adding VIGVs, Hydraulic Control Unit (if applicable), off-engine Cables, hydraulic lines and updating the software.

Customer Value

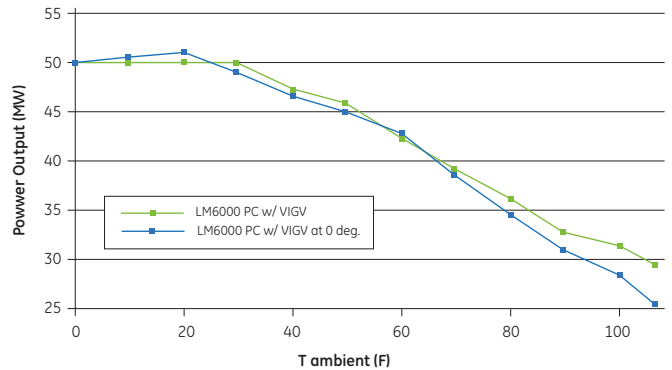
- Increases generator power output by up to 3.25 MW.
- Improves performance for simple and heat recovery cycles at less than full load; reduces engine waste heat.
- Minimizes variable bypass valve (VBV) flow and pressure levels thereby reducing associated flow noise.

For LM6000PC SPRINT Gas Turbine with EFS:

- Average power increase of 2 MW.
- Greater than 2% fuel efficiency increase at 70% power.
- Exhaust energy increase of 3%.
- Flaps close during large power reductions to quickly reduce LPC flow rate, helping maintain LPC stall margin.

Applicable Units	
LM6000**	✓
LM2500	
LMS100	
LM5000	
LM1600	
TM2500	

** Configured for LM6000 PC units only



Variable Inlet Guide Vanes Assembly

Temp. (F)	Power Increase
70	2.0%
80	5.8%
90	7.2%
100	11.5%
110	13.5%

GE Vernova’s global service network provides life cycle support for more than 3,500 aeroderivative gas turbines worldwide to help you meet your business challenges and success metrics – anywhere and anytime. Our global service network connects with you locally for rapid response to your service needs.

To learn more about this product and its applicability to your gas turbine, please contact your GE Vernova Gas Power sales representative.