With abradable coatings, steam path aerodynamics and welded rotor construction, GE’s advanced technology steam turbines provide enhanced plant operability, reliability and combined cycle performance. Our axial exhaust A450 steam turbine and double-flow LP D400 steam turbines are ideal for large, high efficiency, reheat, multi-shaft and single-shaft, 50 and 60 Hz applications.

**COMMON FEATURES:**
- All modules utilize HEAT* steam path technology for increased efficiency.
- Flow admission and extractions are available as required for specific process applications.
- Self-synchronizing clutch improves operational flexibility by reducing auxiliary steam requirements during start-up cycles.
- Standard A450 axial exhaust and D400 side exhaust enables a lower equipment foundation height and reduced plant construction costs. Downward facing exhaust is available.
- All models benefit from a large family of last stage buckets that cover a wide range of condenser pressures for any 50 and 60 Hz plant cooling applications.

**A450 COMBINED IP/LP SECTION, AXIAL EXHAUST**
- Fully assembled HP and combined IP/LP sections enable industry leading installation cycles.
- 85–300 MW Output
- Up to 41.5% Efficiency

**D400 COMBINED HP/IP SECTION, DOUBLE-FLOW LP SECTION**
- Available with one or two double-flow LP modules.
- Combined HP/IP section for a compact footprint and high power density.
- 180–700 MW Output
- Up to 42% Efficiency
STEAM TURBINE PRODUCT PORTFOLIO OVERVIEW

Power and Performance
A world leader in the development and application of steam turbine technology, GE has shipped more than 10,000 units totaling over 600 GW since 1901. Our combined cycle steam turbines are specifically configured to contribute to highly efficient and cost effective applications when paired with GE or other OEM gas turbines.

Solutions to Meet Your Power Needs
GE’s combined cycle steam turbines accommodate a broad range of site conditions and operational needs while providing the performance needed in today’s demanding energy environment. GE works with customers from the earliest stages of the project, through construction, commissioning, and operation to provide a highly efficient and cost effective turbine that integrates smoothly with the gas turbine and overall plant operations.

Experience, Strength, and Stability
Built upon more than a century of steam turbine experience, GE’s steam turbines are manufactured with high quality materials and craftsmanship. Modular product configurations deliver customization options with reliable, proven components.

Advanced Technology Features

High Efficiency Steam Paths
- High reaction steam path technology allows for the proper application of high efficiency technology for the steam conditions.
- High reaction 3D airfoils in both buckets and nozzles increase efficiency; free vortex flow improves aerodynamics.
- Integral cover buckets with continuous contacting surfaces provide superior damping.
- Nozzle construction that provides individually adjustable radial clearances as well as predictable and controllable throat area.
- Shaft and tip brush seals improve leakage control.
- Abradable coatings on stationary seals enable radial clearance reduction, which reduces long-term degradation.

Low Pressure (LP) Section
- Side exhaust configuration significantly lowers turbine centerline height when compared to down exhaust machines.
- Shortened hood and inner casing developed through a comprehensive testing program.

Constructability
- Hardware modifications to reduce labor intensive field activities such as tops-on/tops-off alignment.
- Installation features like standard fixators, a three-piece flanged cross-over pipe and lube oil flush boxes expedite installation.
- Industry leading construction and commissioning cycles.

PRODUCT

**REHEAT**
- Up to 2,400 psi/165 bar
- Up to 1,112°F/600°C

**GE ST-D650**
- Up to 42.5% Efficiency

**GE ST-D600**
- Up to 42.0% Efficiency

**GE ST-A650**
- Up to 41.5% Efficiency

**GE ST-D400**
- Up to 40.0% Efficiency

**GE ST-A450**
- Up to 39.5% Efficiency

**GE ST-D200**
- Up to 37.0% Efficiency

**GE ST-A200**
- Up to 36.2% Efficiency

**NON-REHEAT**
- Up to 1,800 psi/124 bar
- Up to 1,112°F/600°C

**GE ST-D200**
- Up to 37.0% Efficiency

**GE ST-A200**
- Up to 36.2% Efficiency

Relative statements are with respect to GE technology unless otherwise noted.

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GEA31753  (03/2015)