Versatile technology for ever changing markets

DISCOVER ALSTOM’S GAS PORTFOLIO
Alstom’s gas portfolio at a glance

Clean Power
Clear Solutions™

Gas power technology

Power plant solutions
  • KA24 (60 Hz)
  • KA26 (50 Hz)
  • KA13E2 (50 Hz)
  • Steam tail / add-on
  • Repowering
  • Co-generation / industrial power solutions

Power plant products offering
  • Gas turbines
    – GT24/GT26
    – GT13E2
  • Power plant additional equipment
    – Heat recovery steam generators
    – Steam turbines
    – Turbogenerators
    – Heat exchangers
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    – Power Automation and Controls

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Alstom is helping our customers meet the challenges of energy sustainability. Our offering is based on a deep understanding of power markets and our customers’ needs. It is organised around 3 levers to maximise the return on customers’ assets over their entire lifetime.

**REDUCING COST OF ELECTRICITY**
It takes competitive assets to keep electricity affordable. We enable you to compete successfully in the marketplace and reduce the cost of electricity.

**LOWERING ENVIRONMENTAL FOOTPRINT**
Being environmentally responsible requires clean generation and lower resource usage, visual impact and noise pollution. To help you meet or exceed regulations and environmental standards, we innovate in various business areas.

**INCREASING FLEXIBILITY & RELIABILITY**
Dependable operations are essential to ensuring energy security. That is why we help you meet the demands of intermittent power generation and adapting an installed base to changing market conditions.
Gas power **technology**

Most **flexible, reliable** and cost efficient solution for **eco-friendly** power

Our world has an ever-growing appetite for energy – balanced by an increasing concern for the environment.

From **innovative generation components to entire turnkey power plants**, our versatile offering delivers high efficiency at full and part load at lower cost and with lower environmental impact.
Power plant solutions

Versatile technology for ever changing markets

For both the 50 Hz and 60 Hz markets, in any type of configurations and applications, Alstom provides the most extensive range of gas power plants.
Alstom KA24 combined-cycle power plant offers unrivalled versatility, cost savings, reliability and performance.

Producing significantly lower cost of electricity by way of improved performance and operational flexibility, the KA24 is particularly suited for load balancing energy production.

KA24 (60 Hz)
Reduce electricity cost with improved performance and reliability

Alstom KA24 combined-cycle power plant offers unrivalled versatility, cost savings, reliability and performance.

Furthermore Alstom’s innovative online switchable operation mode between performance optimised and maintenance optimised delivers up to 30% more operation time between scheduled inspections.

Discover GT24/GT26
The KA26 advanced class combined-cycle power plant features Alstom’s innovative gas turbine sequential combustion technology for the ultimate in versatility, performance and emission reduction.

The KA26, based on Alstom upgraded GT26 gas turbine, is ideal for meeting the new challenges of today’s dynamically changing power markets.

- Discover GT24/GT26
KA13E2 (50 Hz)
Best solution for peak demand or backup generation needs

Alstom KA13E2 combined-cycle power plant offers advanced class performance at conventional class temperatures and the highest availability and reliability, including faster power availability.

Using Alstom’s unique operational mode flexibility, plant operators no longer need to make trade-offs between performance and cost, and have the ability to switch between performance optimised and lifetime maintenance optimised modes of operation.

Fuel versatility is another feature of the KA13E2, which can handle wide fluctuations in natural gas composition, improved reliability under changing gas consumption and the ability to handle quick changeovers from fuel gas to fuel oil when needed.

Discover GT13E2
Steam tail / add-on

Converting simple-cycle power plant to combined-cycle power plant

The main equipments of add-on are heat recovery steam generator (HRSG), steam turbine and related generator. An add-on increases power and efficiency of the plant, with no additional emissions and no additional fuel consumption.

With great experience as a manufacturer of customised steam turbines, Alstom offers steam turbines that fit optimally with the characteristics of every gas turbine currently in operation.

Discover HRSG
Repowering
Transforming steam power plant into combined-cycle power plant

Alstom can repower existing steam power plants with turbines from 50 MW (60 Hz) / 80 MW (50 Hz).

Benefit from Alstom’s extensive offering including:

- **Equipment**
  - Gas turbine(s) based on Alstom portfolio
  - Associated turbogenerator and HRSG
  - Retrofit capability of any OEM steam turbine

- **Engineering**
  Integration of new equipment onto existing steam plant components

- **Construction**
  Installation and commissioning, depending on customer requirements
Co-generation / industrial power solutions

All Alstom combined-cycle power plants are suited for co-generation applications, with successful references all over the world.

Co-generation achieves a very high fuel utilisation up to 90% and above, as we use the fuel twice – first to produce power at high efficiency and a second time in the form of heat for district heating or industrial use.

Many industries, such as desalination plants, district heating schemes and refineries require co-generation and could benefit from Alstom solution.
Power plant products offering

Read more ▶

Discover gas turbines additional equipment
Gas turbines

**Competitive and flexible** gas turbines

Alstom gas turbines are adapted to all markets needs, fit all applications (including industry), and for all natural gas compositions, with low environmental impact.

Alstom can provide the **state-of-the-art gas turbines** best fitting your needs.

Select which one you would like to discover:
GT24/GT26
Superior versatility worldwide with maximum returns for customers

Alstom’s high performing advanced class gas turbines are delivering high efficiency, proven availability and lower environmental impact that power providers demand to meet changing power requirements.

The GT24/GT26 gas turbines also incorporate an innovative online switchable operation mode between performance optimisation and lifetime optimisation that creates up to 30% longer operation time between scheduled inspections, resulting in higher availability and lower maintenance costs.

Because of this pioneering operational flexibility, customers can use the GT24/GT26 to balance performance against plant maintenance costs, depending on the daily needs of the grid.

Discover the components
Alstom GT13E2 gas turbine has proven its **class leading efficiency and versatility** to produce reliable, competitively priced electricity across a range of applications.

And due to significant upgrades of every major performance area, the versatile GT13E2 offering gives power producers the flexibility to select the gas turbine that meets their requirements best.

- Discover key features of the GT13E2 2012
- Discover the key features of the GT13E2 MXL2
GT13E2 2012 key features
GT13E2 MXL2 key features

ROLLOVER THE + TO DISCOVER MORE
Power plant additional **equipment**

**Extensive portfolio** for complete gas power plant

From steam turbines, to heat exchangers through PAC, Alstom integrates all the major equipment to **ensure best efficiency and reliability of your power plant.**

Discover our portfolio:
Heat recovery steam generators
Lowering electricity costs while reducing emission outputs

Alstom HRSG solutions offer improved performance in cycling operations, outstanding construction cost effectiveness, and can improve the efficiency of all other operations.

Alstom’s unique Optimised for Cycling and Constructability (OCC™) design provides the unparalleled flexibility needed for reliable high-cycling duty.
Steam turbines
Leading the way in efficiency and reliability

Alstom has the expertise, the technology and the product portfolio to meet customer’s specific requirements.

In combined-cycle power plants with advanced gas turbines, the flexible thermal design of Alstom steam turbine generator sets results in a highly efficient heat recovery cycle and excellent operational flexibility.
Turbogenerators

Precise and robust, showing extensive reliability

Alstom continues to demonstrate its technology leadership, designing highly efficient turbogenerators that help your power plant deliver the electrical power you need.

- **TOPGAS hydrogen-cooled turbogenerator**
  An efficient and dependable option ranging from 300–710 MVA (50 Hz) or 250–450 MVA (60 Hz)

- **TOPAIR air-cooled turbogenerator**
  Enjoy easy maintenance and solid reliability at outputs of 150–400 MVA (50 Hz) or 90–311 MVA (60 Hz)

- **TOPACK air-cooled turbogenerator**
  A plug-and-play turbogenerator with output ranges of 40–165 MVA (50 Hz) or 40–110 MVA (60 Hz)
Alstom offers a full range of services, from consulting and field support to component supply and turnkey retrofit for the following products:

- Condensers
- Deaerator storage tank
- District heaters
- Feedwater heaters
- Once-through coolers
- Water-water coolers

Heat exchangers
Improving efficiency, safety and environmental impact of your gas power plants
Pumps

Proven technology for maximised power station production and availability

With more than 6,000 pumps in service all over the world, Alstom has a proven track record of delivering equipment that will stand up to the most challenging conditions.

We offer a full range of product for your gas power plant:

- Concrete volute pumps
- Vertical turbines pumps
- Condensate extraction pumps
- Vacuum pumps
Alstom helps you in flexible, efficient and safe power generation with **integrated information, automation and controls solutions**.

Alstom’s Power Automation and Controls group is a unique supplier to provide turnkey power plant equipment with control systems built on its OEM experience. Our ALSPA branded products and solutions help plant owners operate and run their plant efficiently.

We can provide **state-of-the-art solutions** for:

- Plant operations systems
- Plant optimisation solutions
- Monitoring and diagnostics packages
Services

Extensive experience coupled with innovation in gas turbine and combined-cycle plant services

We are helping global power producers stay competitive in an ever-changing market, providing tailored services throughout the entire plant lifecycle.

With our full range of services we support you in meeting your cost, flexibility and environmental challenges and we are dedicated in providing you cost-effective maintenance solutions for your gas turbine and combined-cycle power plants, or simply for single components.

- Discover Alstom’s service footprint and offering
We are where our customers are

We service an installed fleet of more than 700 GW across 60 local service centres and 30 service and reconditioning workshops. We are located in 70 countries around the world, ensuring our customers receive a rapid response and excellent service.

What we offer

• Parts
• Reconditioning and repairs
• Field services
• Technical expertise and operational support
• Performance improvement
• Service contracts
• Servicing of other manufacturers’ equipment
References  Extensive and successful experience all around the world
Conclusion

Whether the need is to meet changing fuel requirements, reduce generation costs, respond to increasingly challenging environmental regulations, or a combination of needs, Alstom can provide the highest quality, most reliable products and services that help customers meet changing power needs through the Clean Power Clear Solutions offering.

Through more than 70 years of innovation, Alstom has established a track record of quality, safety, and responsiveness to local market needs.
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