



Siemens Steam Turbine SST-6000 series

for subcritical up to ultra-supercritical steam applications

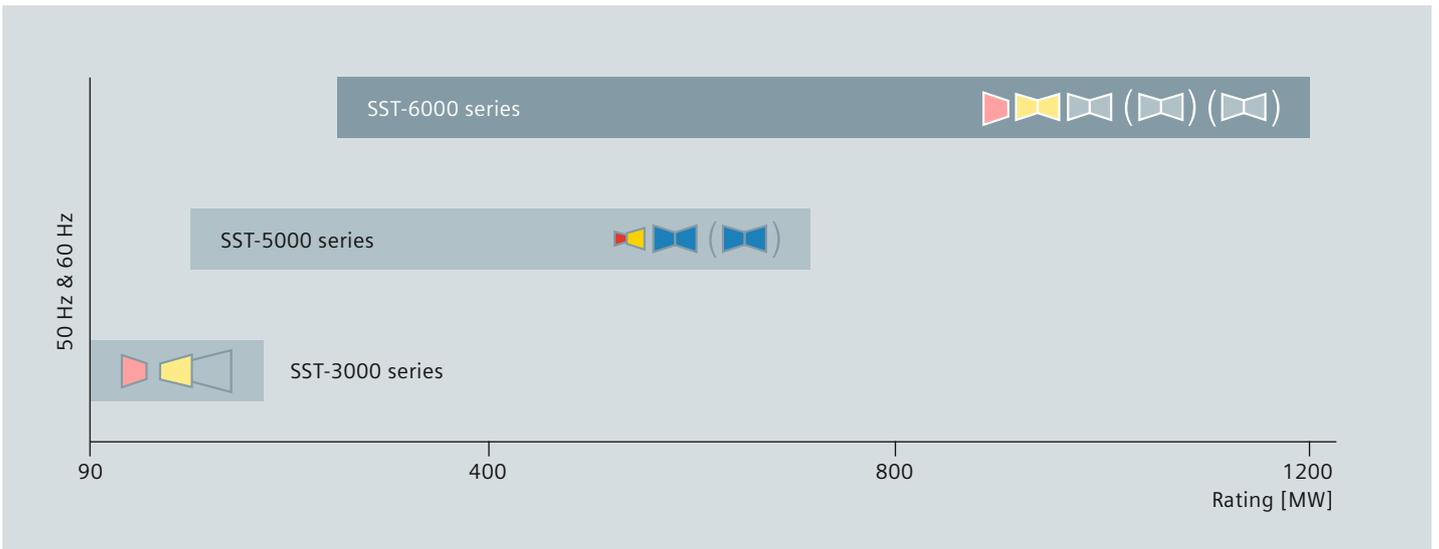
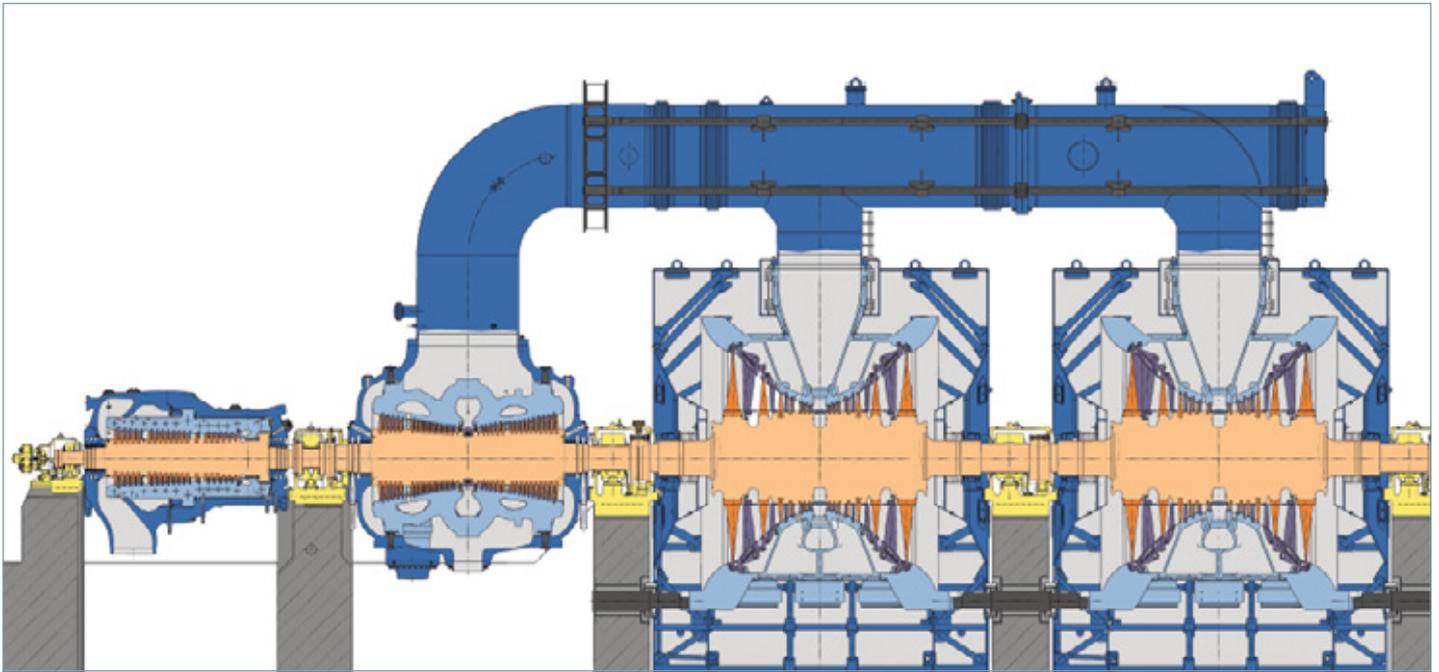


874 MW steam turbine at Schwarze Pumpe lignite-fired power plant

In our Siemens Steam Turbine (SST™) portfolio, we offer the SST-6000 series steam turbine that features a barrel-type high-pressure (H) cylinder, an intermediate-pressure (I) cylinder and up to three low-pressure (L) cylinders.

Turbine modules of different sizes provide a broad range of power ratings. To meet specific project requirements, Siemens selects the appropriate modules and custom engineers the individual blade path.

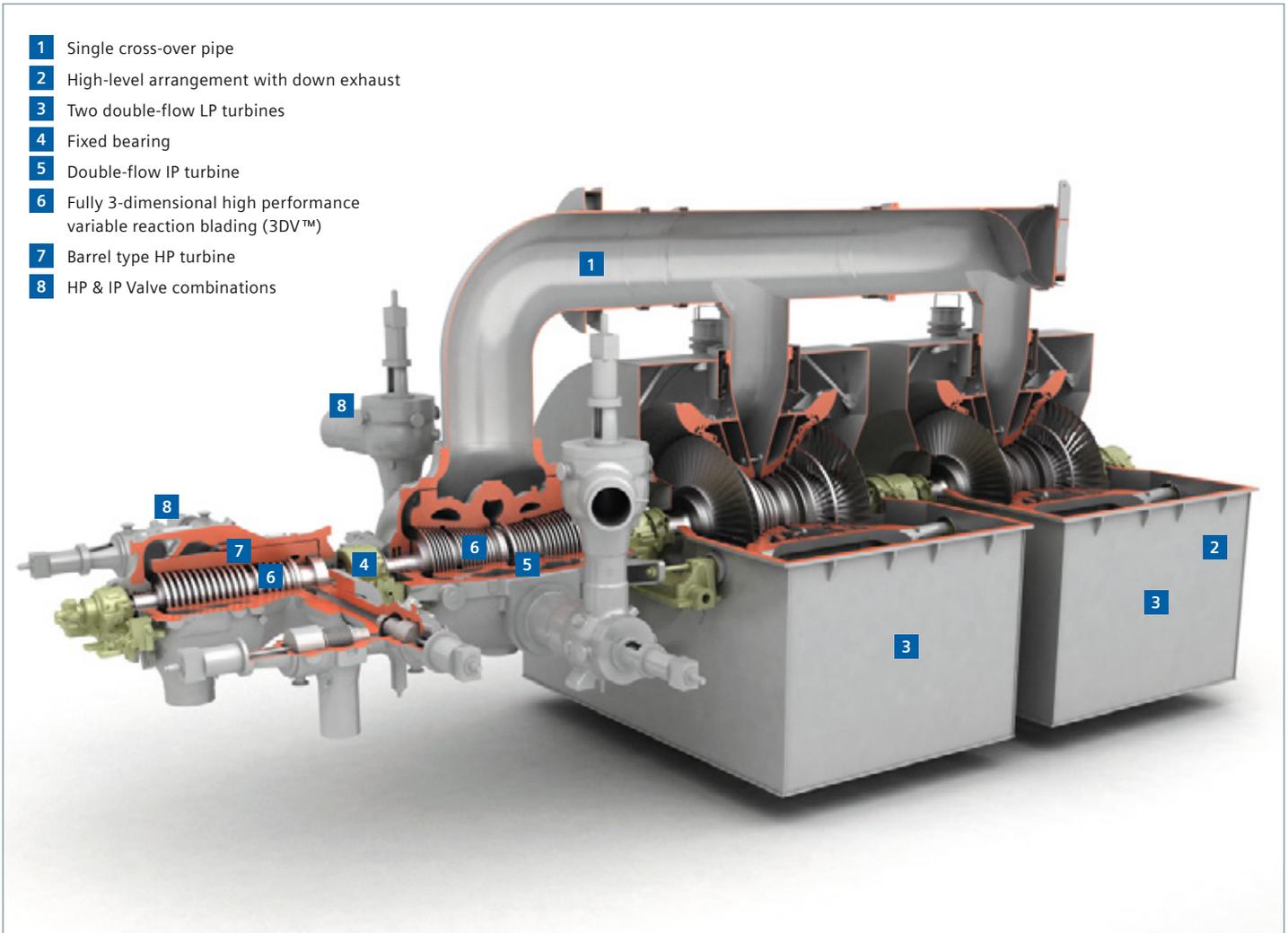
Proven pre-engineered modules reduce site assembly and commissioning times and reduce technical risk. High reliability and availability is demonstrated with a forced outage rate that is less than half of the North American Electric Reliability Council (NERC) average.



Turbine series	Separate high-pressure (H), intermediate-pressure (I) and up to three low-pressure (L) cylinders for 50 Hz and 60 Hz
Plant type	Conventional steam power plant
Output range	300 MW to 1,200 MW for conventional steam applications
Main steam (Typical parameters)	Temperature: up to 600 °C / up to 1112 °F Pressure: up to 300 bar / up to 4351 psi
Reheat steam (Typical parameters)	Temperature: up to 620 °C / up to 1148 °F
Exhaust areas	50 Hz: 5 m ² to 16 m ² 27.5 inches to 56 inches* 60 Hz: 4.4 m ² to 11.1 m ² 24 inches to 47 inches*
* Last blade profile length	

Leading technology for efficient and reliable power generation

The SST-6000 series steam turbine



Customer benefits

- Compact arrangement with single bearing between turbine cylinders
- Highest element efficiencies due to advanced blading technology 3DV™ profiles – variable reaction type blading
- Designed for short start-up times and operational flexibility
- Standardized auxiliary modules for optimized plant layout and short installation times
- High availability and reduced maintenance costs with 10 year major inspection intervals
- Proven design for applications in subcritical to ultra-supercritical steam power plants

SST-6000 series steam turbine: References

With almost 1,000 large scale steam turbine units in operation, the Siemens fleet contributes nearly about 380 GW of power generation capacity, representing 17% of the world's operating fleet. The following references show examples, both for subcritical and ultra-supercritical steam power plant applications.



Isogo, Japan Ultrasupercritical Steam Power Plant

Performance

Net plant output: 600 MW
Commercial operation: 2001

Major components

Steam turbine: SST5-6000
2 x 12.5 m² exhaust (45.1 inches)
Generator: Hydrogen-/water-cooled series

Steam cycle parameters

Main steam: 251 bar / 3,640 psi
600 °C / 1,112 °F
Reheat: 610 °C / 1,130 °F



Waigaoqiao, China Ultrasupercritical Steam Power Plant

Performance

Net plant output: 2 x 1,000 MW
Commercial operation: 2008

Major components

Steam turbine: SST5-6000
4 x 12.5 m² exhaust (45.1 inches)
Generator: Hydrogen-/water-cooled series

Steam cycle parameters

Main steam: 270 bar / 3,916 psi
600 °C / 1,112 °F
Reheat: 600 °C / 1,112 °F



Iskenderun, Turkey Subcritical Steam Power Plant

Performance

Net plant output: 2 x 650 MW
Commercial operation: 2003

Major components

Steam turbine: SST5-6000
4 x 10 m² exhaust (38.5 inches)
Generator: Hydrogen-/water-cooled series

Steam cycle parameters

Main steam: 178 bar / 2,582 psi
538 °C / 1,000 °F
Reheat: 538 °C / 1,000 °F

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Fossil Power Generation Division
Order No. E50001-W210-A140-X-4A00
Printed in Germany
Dispo 34802, c4bs No. 7478
TH 214-100108 431042 DB 03103.0

Printed on elementary chlorine-free
bleached paper.

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