



## Pre-Designed Turbocompressors (Blowers)

The comprehensive product range from 600 up to 600,000 m<sup>3</sup>/h

Answers for energy.

**SIEMENS**

## A full range of World Class Turbocompressors

Siemens offers a full range of pre-designed turbocompressors to meet the needs of the metallurgical, oil and gas and chemical industries. Single stage compressors and blowers with separate gearbox or integrated gearbox can be matched with a range of drivers – steam turbine or electric driver – in a solution to match each unique customer. One of the leading turbo machinery manufacturers with over 100 years of experience and continuous development, and a fleet of more than 4,000 installed turbocompressors and blowers; we are a prime partner for your business.

**A wide range of products and a wealth of experience**

With our unrivalled competence in compressor unit solutions from a single source, Siemens offers a comprehensive range of pre-designed turbo compressor up to 600,000 m<sup>3</sup>/h, with the flexibility to address the specific requirements for your application (Siemens Turbo-compressors – STC™).

Our standard units with modular design ensure low investment costs and shortest delivery times.

Metallurgical, chemical and petrochemical plants as well as refineries are amongst the most common applications for our compression solutions.

We strictly adhere to the guidelines laid down in the quality standards ISO 9001 and ISO 14001. Not only the turbocompressors and blowers, but also associated field-proven high-tech products are available in the Siemens range. These include steam turbines and electric drivers, instrumentation and controls, as well as auxiliary and ancillary systems.

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# Pre-designed turbocompressors

The comprehensive Siemens product range from 600 up to 600,000 m<sup>3</sup>/h



## STC-SO

(formerly known as SFO or SFP series)

from 15,000 m<sup>3</sup>/h up to 600,000 m<sup>3</sup>/h

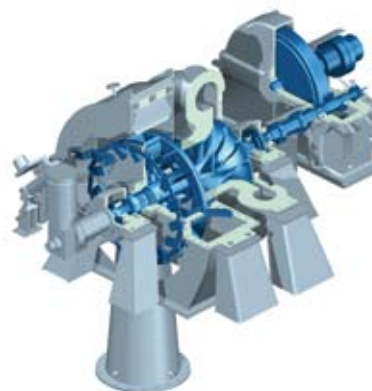
The STC-SO (SFO/SFP) is a single stage centrifugal compressor with open-form, overhung impeller. The rotor is supported in a separate bearing pedestal. If required, this machine type is designed according to API-standards.

### Technical data

- Flow rates from 15,000 up to 600,000 m<sup>3</sup>/h
- Pressure ratio up to 3.5
- Impeller diameter up to 2,240 mm
- Driver of your choice

### Features

- Highest aerodynamic efficiency
- Minimum cooling water requirements
- Modular design principle
- Standardized components
- Wide range of proven aerodynamic impeller designs
- Flow control via inlet guide vane unit, variable diffuser guide vanes, speed control or combinations
- Backward curved impellers or radial tip with three-dimensional blades
- Excellent wear resistance over the complete impeller
- Maintenance friendly design
- OEM packages with Siemens steam turbine (SST™) available



## STC-SO

(formerly known as SL series)

from 15,000 up to 400,000 m<sup>3</sup>/h

The STC-SO (SL) is a single-stage centrifugal compressor with open-form impeller, with radially ending blades. The impeller is mounted between the bearings. Especially designed for coke gas service.

### Technical data

- Flow rates from 15,000 up to 400,000 m<sup>3</sup>/h
- Pressure ratio up to 1.45 (coke gas service)
- Impeller diameter up to 1,800 mm
- Driver of your choice

### Features

- Impeller being mounted between bearings
- Minimal radial loading
- Modular design principle
- Standardized components
- Wide range of proven aerodynamic impeller designs
- Flow control via inlet guide vane unit or speed control
- Maintenance friendly design
- OEM packages with Siemens steam turbine (SST™) available
- Dual drive option available (Electric motor + SST™)





## STC-SO

(formerly known as R series)

from 600 up to 360,000 m<sup>3</sup>/h

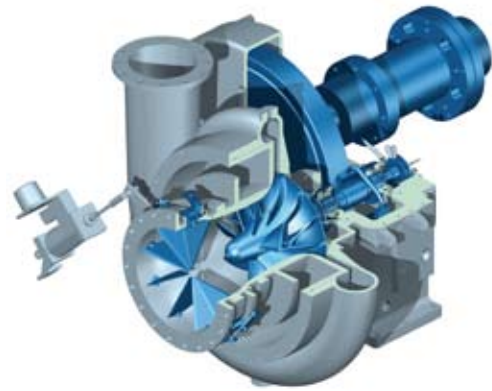
The STC-SO (R) is a single-stage centrifugal turboblower with closed impeller in fabricated, modular design allowing optimum adaption to nearly all process requirements.

### Technical data

- Flow rates from 600 up to 360,000 m<sup>3</sup>/h
- Pressure ratio up to 1.7
- Impeller diameter up to 2,240 mm
- Driver of your choice

### Features

- Large variety of impellers, casings and materials
- Various shaft seal systems
- Different bearing versions and lubrication systems
- Flexibility in direction of rotation and discharge nozzle
- OEM packages with Siemens steam turbine (SST™) available



## STC-GO

(formerly known as SFNG, SFOG or SFPG series)

from 5,000 up to 300,000 m<sup>3</sup>/h

The STC-GO is an integrally geared single-stage centrifugal compressor with open-form, overhung impeller. The impeller is mounted directly onto the high-speed shaft of the gearbox. If required, this machine type is designed according to API-standards.

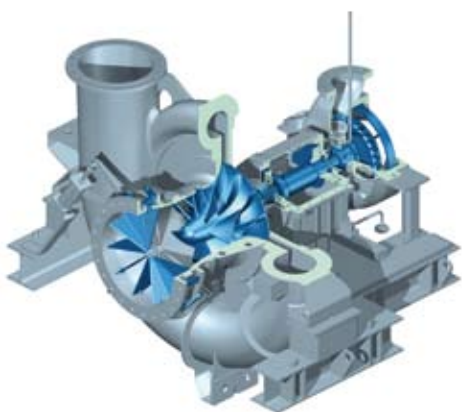
### Technical data

- Flow rates from 5,000 up to 300,000 m<sup>3</sup>/h
- Pressure ratio up to 3.5
- Impeller diameter up to 1,120 mm
- Driver: Electric motor

### Features

- Highest aerodynamic efficiency
- Minimum cooling water requirements
- Modular design principle
- Standardized components
- Integrated lube oil supply system
- Wide range of proven aerodynamic impeller designs
- Flow control via inlet guide vane unit, variable diffuser guide vanes, speed control or combinations
- Backward curved impellers or radial tip with three-dimensional blades
- Excellent wear resistance over the complete impeller
- Maintenance friendly design





## STC-STO

(formerly known as ECM = Expansion Compression Module)

from 15,000 up to 150,000 m<sup>3</sup>/h

The STC-STO is an integral turbocompressor/steam turbine-unit with single shaft design. This compact design – impeller and turbine wheel are supported on a single rotor support stand – ensures very low steam consumption, high efficiency and minimum space requirements.

### Technical data

- Flow rates from 5,000 up to 150,000 m<sup>3</sup>/h
- Pressure ratio up to 3.5
- Impeller diameter up to 900 mm (compressor)
- Driver: integrated Siemens steam turbine (SST™)

### Features

- Very low steam consumption
- Highest aerodynamic efficiency
- Minimum cooling water requirements
- Modular design principle
- Integrated lube oil supply system
- Wide range of proven aerodynamic impeller designs
- Flow control via inlet guide vane unit or speed control
- Backward curved impellers with three-dimensional blades
- Excellent wear resistance over the complete impeller
- Maintenance friendly design



## Fields of application

Siemens pre-designed turbo compressors are designed and manufactured for pretentious industrial applications:

### Petrochemicals and Refineries

- SRU (Sulfur recovery units)
- Evaporation (e.g. Oil Sands – SAGD/Effluent treatment)

### Chemicals

- Fertilizer (Sulfuric Acid)
- Evaporation
- MA/PA
- MMA
- Formaldehyde
- Chlorine gas (wet)
- Various chemical processes

### Metallurgy

- Coke Oven Gas
- Sulfuric Acid
- Converter Blower
- Ore Roasting & Processing

The design of pre-designed turbo compressors meets the Customer's requirements, such as:

- Highest availability
- Lowest operating costs
- Corrosive gases
- Optimized controls



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Siemens AG  
Energy Sector  
Freyeslebenstrasse 1  
91058 Erlangen, Germany

Siemens AG  
Energy Sector  
Oil & Gas Division  
Wolfgang-Reuter-Platz  
47053 Duisburg, Germany

Siemens Industrial Turbomachinery, Inc.  
10730 Telge Road  
Houston, Texas 77095, USA

Siemens Turbomachinery Equipment GmbH  
Hessheimerstrasse 2  
67227 Frankenthal, Germany

Phone: +49 6233/85-1140  
Fax: +49 6233/85-2139  
e-mail: compressors-frankenthal.energy@siemens.com

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