



HEAT TRACING SOLUTIONS FOR INDUSTRY



**INNOVATION • RELIABILITY
QUALITY • DEVELOPMENT**



HEAT TRACING SOLUTIONS FOR INDUSTRY

Foreword

We place significant value on client and partner trust, providing the highest quality and most reliable systems and solutions

A quarter of a century ago, modern technologies seemed like a figment of a sci-fi movie. Today, cutting-edge telecom and digital systems open endless opportunities for communication and information exchange. Innovative materials and automated production lines allow the production of instruments and devices with unlimited lifespan. Smart technologies of the Internet of Things help with daily routine tasks, freeing up time for communication with our loved ones and for self-development. We learned how to spend our resources efficiently and obtain energy from alternative sources.

Just as the world around us has changed significantly, SST Group has evolved at a similar pace with the only thing remaining constant being our values and commitment to excellence. Over the course of 27 years, SST Group has been creating solutions to make the world a better place. Our systems and solutions create a new level of comfort for millions of people and a new level of security for thousands of companies. We are the number one in Russia and one of the world's largest providers of residential and commercial heating cable solutions and industrial heat tracing systems, exporting our products to 47 countries worldwide.

We are open to fostering long-term partner relationships with those who share our values, consider innovation a key driving force within business, and wish to make their customers the number one priority.

We are proud of our achievements and continue to strive towards making our world a better, safer place.

Michael Strupinskiy
CEO of SST Group



SST Group – Competence and Technology Centre

SST Group is the largest electric heating cable manufacturer in Europe

Founded in 1991, SST Group is the largest in Russia and one of the world's largest providers of residential and commercial heating cable solutions and industrial heat tracing systems.

We are a national competence and industry expertise centre in the area of electric heating systems and heating cable based solutions designed for domestic, commercial and industrial use.

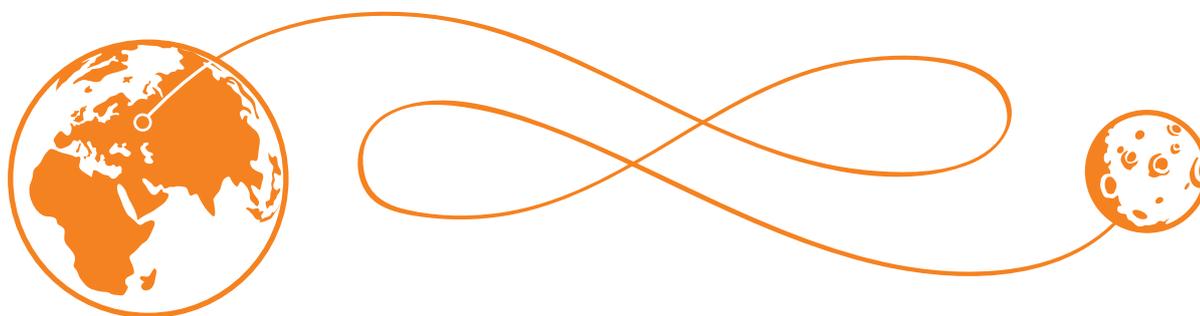
SST Group is a vertically integrated holding that employs over 1300 specialists. The Group encompasses four production plants, an industrial R&D-centre, an engineering company, several distribution companies, and an international branch network.

We accompany each one of our products through every stage of the life cycle: from consulting & project design to serial production, servicing & post-guarantee service.

We provide our partners with competitive advantages by the means of exceptional service quality, innovative products, and comprehensive business development support.

13 200 000
heating systems
installed worldwide are
produced by SST Group

5 500 000
units of temperature
control equipment



Total length of heating cables produced by SST Group –

1 300 000 km,

three times greater than the distance between
the Earth and the Moon



Group Structure



Manufacturing

OKB Gamma

- conductive plastics and self-regulating heating cables
- series-resistance heating cables
- systems based on skin-effect
- Very Long Line (VeLL) systems
- power & control cables
- junction boxes
- cable glands and other accessories for heat tracing systems
- corrugated stainless steel tubing

IWS

- control & automation systems

SST Energomontazh

- control & power cabinets

SST Warm Floors

- underfloor heating
- thermostats
- outdoor electric heating solutions for domestic and commercial applications

Engineering

SST Energomontazh

- consulting
- design engineering and thermal calculations
- installation
- supply & logistics
- start-up and commissioning
- servicing & post-guarantee service
- EPC contracts

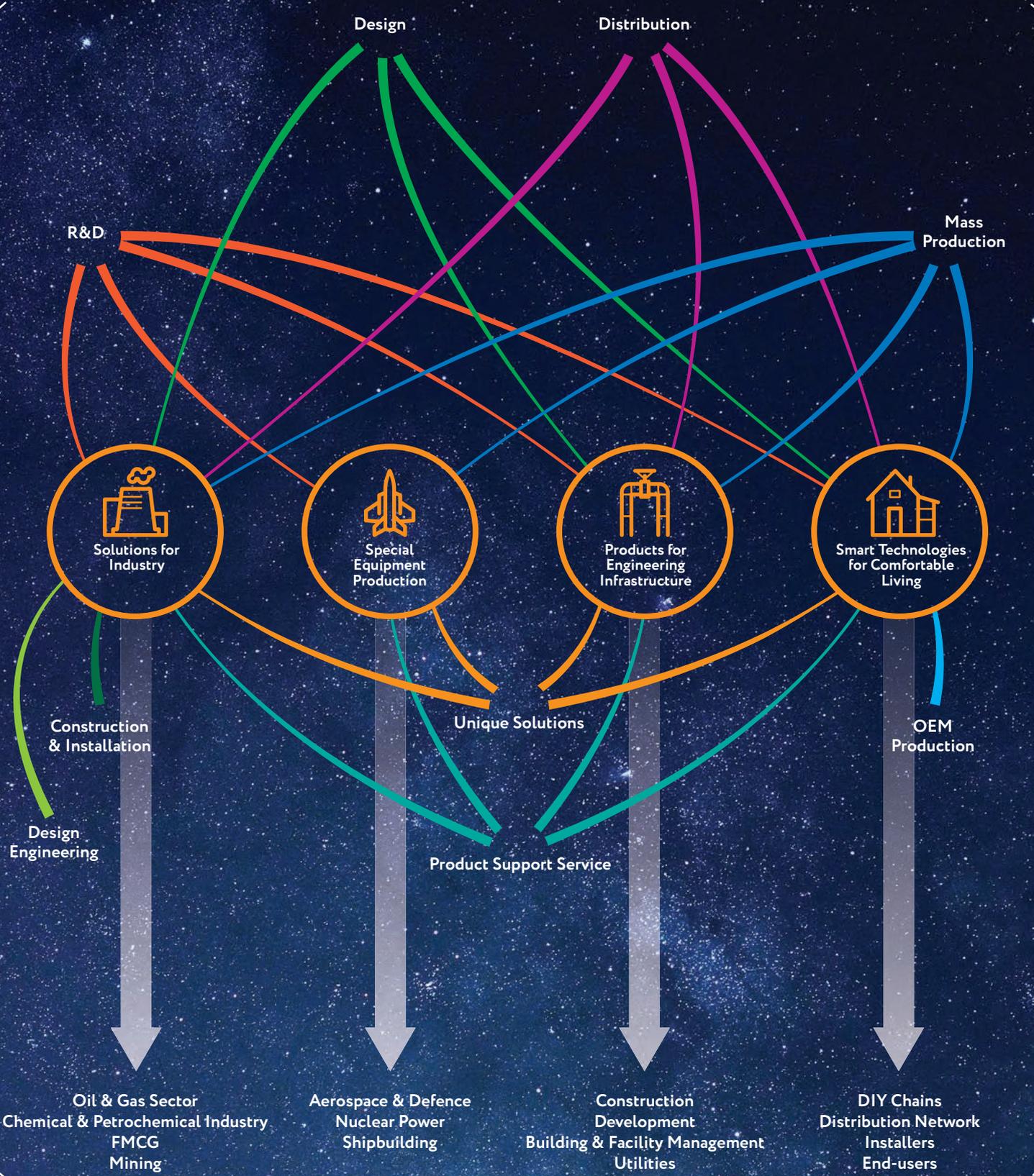
Sales

SST GmbH (Europe)

SST Thermal Solutions (Middle East)

Shanghai PowenTek Company (China)

SST Energomontazh (Russia)



Industrial Expertise

Products manufactured by SST Group exceed their foreign equivalents in terms of quality and reliability, at the same time being competitive in terms of price

SST Group is included in the List of Organisations which pose significant influence on the Russian industrial and trade sectors, and executes the Plan of activities in terms of import substitution within the electric machine building industry, cable and electrotechnical industry of the Russian Federation, as authorized by the Russian

Federation Ministry of Trade and Industry order No. 653 effective as of March 31, 2015.

In accordance with the State Import Substitution Agenda, SST Group launched the first Russian domestic production of conductive plastics and self-regulating heating cables, expecting to displace the majority of such imported products on the Russian market by 2017.

For many years, SST Group design engineering department has been functioning as an industrial design-engineering institute. Our customers are able to access thousands of design and engineering solution templates to use at their own facilities. SST Group specialists act as consultants and technical experts in the design of practically every electric heating system that is developed in Russia.

20 000 km
of pipes are heated
by SST Group systems

1000 km
total length of electric
heating systems based
on skin-effect

10 years
guarantee for SST Group
electric heating systems

Ex-proof heat tracing systems for pipelines, tanks, technical equipment

Inductive-resistive heating systems for long, underwater and underground pipelines (based on skin-effect)

Stream Tracer™: energy efficient heating technology for oil wells

Thermal insulation materials

Junction boxes & cable glands

Thermal shielding membranes for anti-corrosion and heat protection of equipment

Industrial electric heaters

Special purpose cables

VeLL system: electric heating of extra-long pipelines up to 150 km from one feeding point

Automated operating systems for electric heating

Control cabinets & switchboard equipment



Heat Tracing Solutions for Industry

Over the course of many years, SST Group has been successfully collaborating with top Russian and international industrial corporations

SST Group is an international competence centre in the area of heat tracing solutions for oil & gas as well as other industries. Our solutions include a full range of all the necessary elements for cable heating systems, thermal insulation, and thermal protection of equipment. We operate own Design Engineering Centre offering quality service and accompanying each of our systems at all stages of their life cycle.

SST Energomontazh company, a division of SST Group, provides design engineering services, equipment sourcing and installation, startup & commissioning works, and servicing of electric heating systems of any level of complexity. Over many years, we have successfully collaborated with some of the largest Russian and international corporations in the oil and gas industry, such as Total, Gazprom, Rosneft, Lukoil, Transneft.

Our portfolio comprises the following projects:

- Vopak Horizon Fujairah Limited Oil Storage Terminal, UAE;
 - Kumkol Oil Field, Kazakhstan;
 - Urga Gas Field, Uzbekistan;
 - Eastern Siberia-Pacific Ocean oil pipeline (ESPO pipeline), Russia;
 - Yuri Korchagin, Vladimir Filianovsky, and Zhdanov-A fixed offshore drilling platforms in the Caspian Sea, Russia;
 - Taman reloading terminal for liquefied petroleum gas, oil, and petroleum products, Russia;
 - Ust-Luga Complex, Russia;
 - The Zapolyarny, Bovanenkovskoye and Haryaginsky oil fields, Russia
- ...and many other sites of national and international importance.

Pre-project research

Choosing technical solutions

Design of energy efficient systems

Equipment procurement

Modelling, building and customization of ACS (Automated Control Systems)

Specialized construction and installation works

Monitoring of operating systems and technical equipment



Our Projects

More than 10 000 heat tracing projects have been carried out by SST Group professionals for some of the largest Russian and overseas companies.

10 000 +
heat tracing projects
successfully completed



Total
Kharyaga Oil Field



Kumho Mitsui Chemicals
Plant



Lauda-Königshofen

BPS-2

Moscow Mytishchi

Zapolyarye-Purpe pipeline

Kuyumba-Taishet Oil Trunk Pipeline

ESPO oil pipeline

Dubai

Shanghai

ЧИСТОТА КАСПИЯ - ДЕЛО НАШЕЙ ЧЕСТИ

Lukoil
The Yuri Korchagin ice-resistant fixed offshore drilling platform

Our Projects



Vopak Horizon Fujairah Limited Oil Storage Terminal

Total length heated by SST Group is 5 241 m



Dzhygalybeg Field Wellhead Platform Zhdanov-A

Total length heated by SST Group is 3 400 m





Kumkol Oil Field

Total length heated by SST Group is 10 000 m



Ivatsevichdrev Wood Particleboards Plant

Total length heated by SST Group is 4 150 m



Urga Gas Field

Total length heated by SST Group is 9 350 m



Our Projects



Bovanenkovskoye Oil and Gas Condensate Field

Total length of pipelines and networks heated by SST Group
is 542.6 km



Moscow Oil Refinery

Total cable length is 22 500 m





Our Projects



Eastern Siberia – Pacific Ocean Pipeline System

Total cable length is 40.5 km



Kuyumba – Taishet Oil Trunk Pipeline

Total cable length is 28 km





Solutions for Industrial and Civil Construction

SST Group solutions are used at all phases of construction and operation of buildings and infrastructure objects

All SST Group systems and solutions for construction and building operation are reliable and energy efficient. They are compatible with various 'smart building' conceptual formats and can easily be integrated into a unified building automation system. Monolithic construction, power supply, fire suppression systems, making buildings and environments ice-resistant, creating a comfortable environment for pedestrians and vehicles – we provide you with reliable and sustainable solutions at every stage.

SST Group systems are integrated into the majority of large cities' infrastructures. They are installed in thousands of buildings, including those of particular national significance: the Bolshoi Theatre, the Kazan Kremlin, the State Duma of the Russian Federation, the Moscow State Duma, the State Historical Museum, the Pushkin State Museum of Fine Arts and many others.

De-icing systems for buildings and installations

Heating systems for pavements, underground pedestrian crossings, entrance facilities and ramps

Power and control cables

Heating cables for accelerating the setting of concrete

Flexible corrugated stainless steel tubing for heating, water supply, and fire suppression systems

Low-voltage electrical equipment

Water leakage monitoring & control systems

Underground heating systems for football pitches and sports grounds

Systems for measuring snow coverage height



Our Projects

Thousands of buildings and infrastructure objects are equipped with SST Group systems and solutions, including those of national significance.

- Bolshoi Theatre
- Kazan Kremlin
- State Duma of the Russian Federation
- Moscow Duma
- Moscow Mayor's Office
- Central Bank of the Russian Federation
- Old Merchant Court
- State Historical Museum
- Pushkin State Museum of Fine Arts
- Chekhov Moscow Art Theatre
- Vnukovo Airport
- Zaryadye Park



Moscow City



The White House (The House of the Government of the Russian Federation)



Zaryadye Park



Solutions for Rail Transport

*SST Group solutions guarantee
the safe running of rail and urban
transport in all weather conditions*

Rail transport is a strategic industry in most countries. Railroad communications ensure the stable operation of industrial enterprises and timely delivery of vital cargo to the remotest parts of the country.

SST Group has developed a set of technical solutions which provide reliable freight and passenger transportation within all climatic zones, increase comfort and vehicle safety, protection of passengers and service personnel, and efficiency of the railway engineering infrastructure and logistics.

SST Group solutions are employed to ensure the safe operation of urban electric transport. Our electric heating systems for crossover switches on tram routes are an important solution for the transport infrastructure.

SST Group systems and solutions for rail transport are manufactured with additional safety features and are subjected to rigid quality control standards.

Electric heating systems for crossover switches

Electric cable heating systems for heating, water supply, and firefighting systems protection

Protective corrugated stainless steel tubing

Thermal insulation for pipelines, shut-off valves and various equipment

Cables to ensure the functioning of train auto-safety features when going through tunnels between stations, transmission of dispatch signals, and running of centralized electrical crossover switches

Cables for transmission and distribution of electrical energy and electrical signals in fixed electrotechnical installations able to be installed in temperatures up to -60°C

Main switchboards, input switching, control cabinets, and automation for water supply systems

Heating systems for process pipelines and technological equipment, reservoir parks, oil-loading racks

Anti-condensation and anti-rust protection of reservoirs for petroleum products and metal structures

De-icing systems for station platform stairwells, underground and overground crossings, roof coverings of stations and depot buildings, and drain systems in transport tunnels



Ласточка

3С21 РЖД 002

СПб - Мск

Solutions for Aerospace & Defence, Nuclear Power Sector and Shipbuilding

*OKB Gamma (part of SST Group)
develops and produces special technical
solutions and systems for defence
industry facilities, nuclear power,
aviation and shipbuilding*

OKB Gamma, a division of SST Group, focuses on R&D and development of high-tech systems.

OKB Gamma's specialists are highly experienced when it comes to research and deployment of unique customized solutions to ensure the seamless running

of technical equipment and its protection from climatic risks as severe as those found in the Extreme North, in potentially explosive and harmful environments, at ice-resistant fixed offshore drilling platforms, in aircraft parts and components, and flying equipment for various applications.

Technical and informational integration with SST Group allows OKB Gamma to use the full spectrum of SST Group's technical and design engineering solutions, as well as access to all the testing results for materials and systems in extreme conditions. In its work, OKB Gamma uses SST Group's vertically integrated plant manufacturing structure, which allows for efficient production of low-volume and niche products.



1 R&D, creating and testing of prototypes, production of products for defence industry facilities and nuclear power

2 Development and production of secure operating systems for technical equipment and vessel infrastructure for different project types

3 Development and production of secure operating systems for aircraft parts and components, and flying equipment



Innovations

The key development factor of SST Group is a constant search for new technical solutions

Every year SST Group presents new products and solutions to consumers, created through development and research carried out at our own R&D-centre.

SST Group occupies one of the leading positions amongst Russian industrial enterprises in terms of percentage ratio of technical and engineering personnel to that of the company's total workforce. The majority of employees within the Group have higher education, while many of the managers and leading specialists hold degrees in science. Our experts possess a wealth of experience in the area of product development, refinement and deployment, new technologies, evidenced by a multiple number of patents.

The majority of SST Group developments are innovations with an application in domestic and international industry. Our solutions ensure safe operating environments for strategic industries, while also providing a safer environment and favourable living conditions for local residents. SST Group products possess unique technical and operational characteristics, and fulfil all the necessary energy efficiency and ecological requirements.

Our Unique Developments:

Conductive plastics for self-regulating heating cables

Heat tracing system based on skin-effect

InWarm insulation coatings and materials

Heating technology for underwater pipelines based on skin-effect

Ultra-thin heating mats for laminate flooring and carpeting (Teploluxe Alumia)

Stream Tracer™ – energy efficient solution for heating oil wells to prevent formation of heavy oil deposits

Teploluxe Profi electric floor heating with a lifetime guarantee

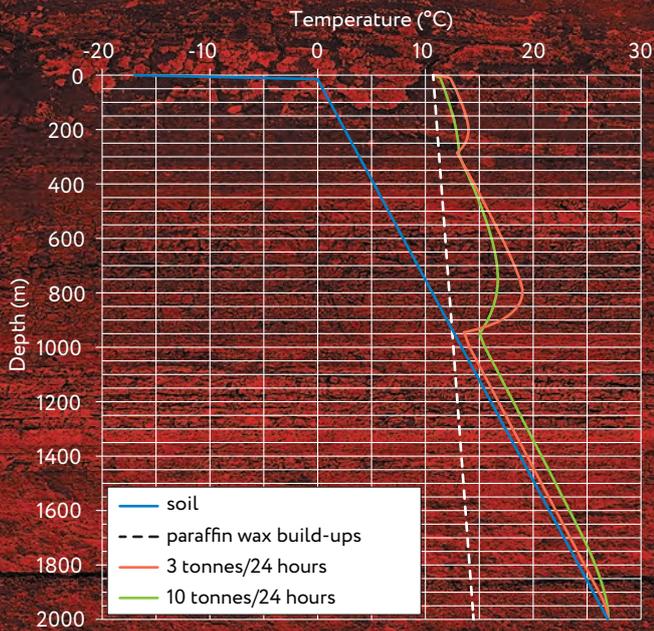
Neptun water leakage protection system

Heating systems management software for mobile devices

VeLL (Very Long Line) heat tracing system for heating pipelines up to 150 km in length from one feeding point

Stream Tracer™

Energy-Efficient Solution for Preventing APRDs Formation in Oil Wells



Self-Regulating Heating Cables

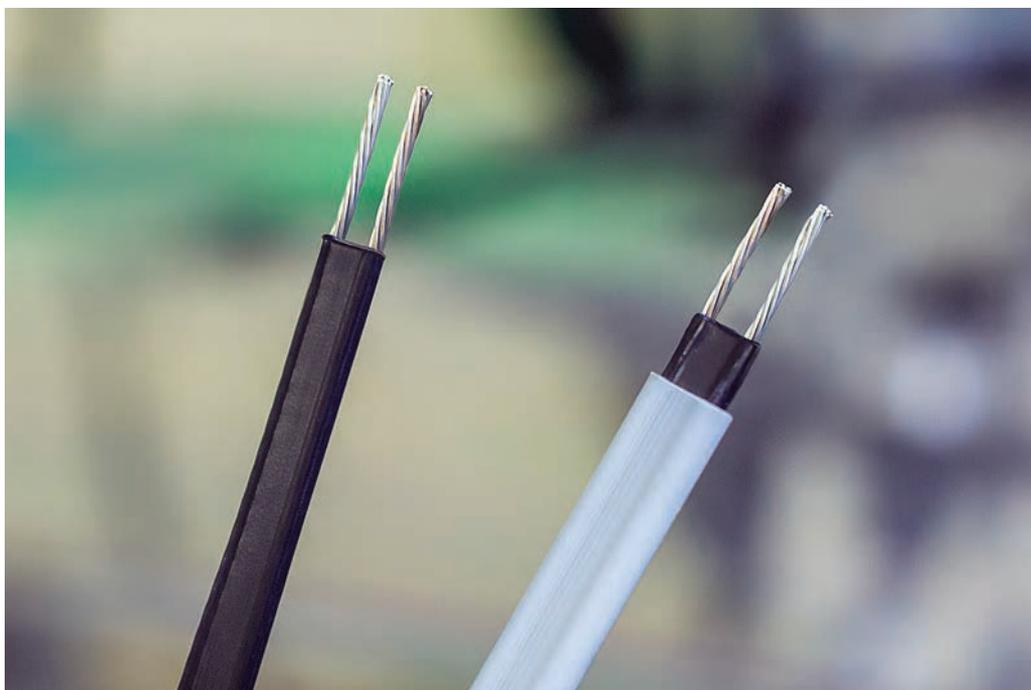
SST Group is the only Russian manufacturer of conductive plastics and self-regulating heating cables

On the basis of OKB Gamma SST Group set up the first production of conductive plastics and self-regulating heating cables in Russia.

The facility produces a matrix for high, medium, and low temperature cables, which is compatible with heating systems of all global manufacturers.

SDB Gamma's production capacities allow for 7 thousand kilometres of self-regulating heating cables to be produced annually using its own matrix.

SST Group's self-regulating heating cables fully comply with international quality and safety requirements and are ATEX & VDE-certified.



7 000
kilometres
of locally manufactured
self-regulating heating
cables per year



+CP1



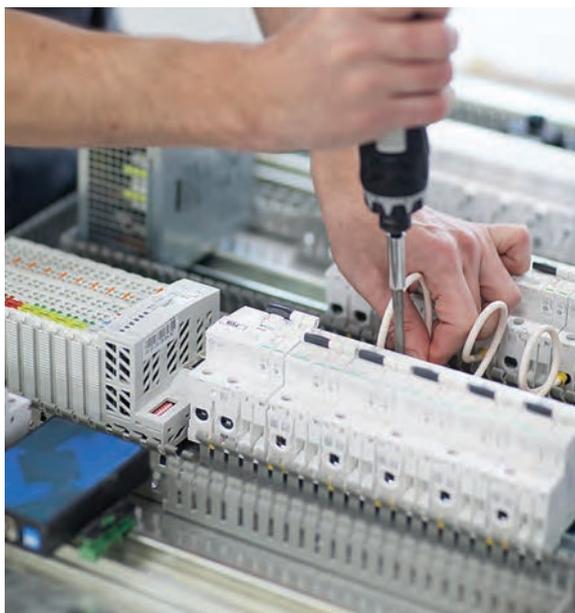
Electric Heating Systems and Electronic Equipment

In 2007, SST Group opened one of the largest manufacturing facilities in the world for the production of electric heating systems and thermostats

SST Group possesses a unique experience in the development and serial production of high-tech devices and systems. The production capabilities of our plants, located in the Moscow Region, allow for the creation of pioneering solutions that make them market leaders both in Russia and worldwide.

Currently, our enterprises produce over 1 500 different types of products. The technological potential of our production facilities allows for a substantial increase in production volumes in a small time-frame. Our plants' operations are fully synchronized, which allows for effective regulation of capacity utilization and prompt launch of new products' serial production. Our equipment stock has been custom-made for SST Group by world's leading machine-tool building companies.

SST Group plant in Mytishchi manufactures radio-electronic equipment and electric heating systems. Annually, we produce four hundred thousand heating systems for different purposes, for the manufacture of which we use more than fifty thousand kilometres of heating cables and three hundred thousand units of electronic equipment.



500 000
electric heating
systems per year

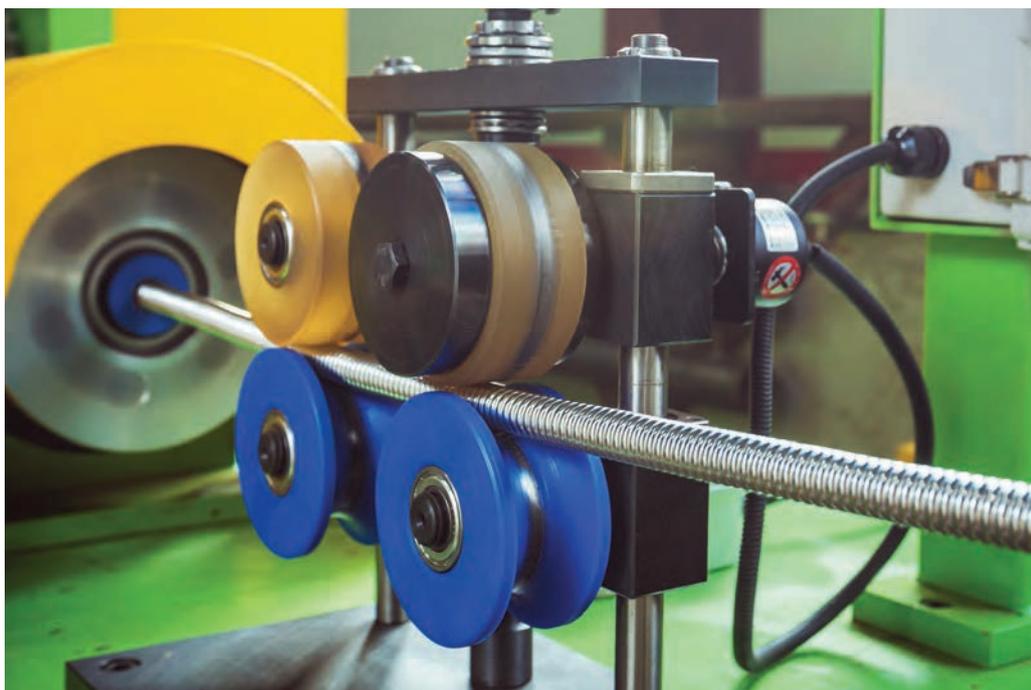
60 000
kilometres of
heating cables
per year



Flexible Corrugated Stainless Steel Tubing

SST Group is the only Russian serial manufacturer of corrugated stainless steel tubes

The production of flexible corrugated stainless steel tubes under the brand name 'IWS' is carried out at OKB Gamma, part of SST Group. The plant produces both annealed and unannealed tubes from AIS1304 high-alloy stainless steel, as well as tubes with special coatings. The plant capacity stands at 3 thousand kilometres of corrugated tubing per year.



3 000
kilometres
of corrugated
tubing per year

IWS corrugated tubes and fittings have passed all testing in accordance with the designated fire safety requirements. In accordance with the test results of IWS tubes and fittings, it is recommended they are used for both water and foam fire-extinguishing installations. Testing was carried out at a certified fire-extinguishing equipment-testing laboratory at the Russian Federation EMERCOM State Firefighting Academy.



World-Class Quality Standards

Ongoing multistage quality control of our products and constant refinement of the manufacturing process allows SST Group-manufactured products to surpass its overseas counterparts

Since 2004, the ISO 9001:2000 international quality management system has been implemented in SST Group.

The company's unified quality management system is certified for compliance with the standards ISO 9001:2015 and GOST R ISO 9001-2015.

SST Group products have been certified in accordance with international standards by some of the largest European certification centres: Sira, VDE, SGS, Demko, and NANIO CCVE. The industrial electric heating systems by SST Group comply with the International Electrotechnical Commission's Standards Relating to Equipment for Use in Explosive Atmospheres (IECEX). Self-regulating electric heating cables and heat tracing system based on skin-effect (IRHS-15000) have the EU certificate ATEX. The production facilities are certified by global EPC contractors.



RoHS



Distribution

We export our products and solutions to 47 countries worldwide and are the global supplier for several of the world's largest distributors and retail chains

SST Group fosters long-term relations with trade companies on the grounds of responsible partnership and creation of optimal conditions for business development. We accompany each one of our products at all stages from production through to end-user. We take full responsibility for all of our products' operational and servicing issues, which allows our partners to focus their efforts on business development.

For each of our partner categories there is a unique pool of services, taking into account the peculiarities of different distribution channels. We propose an optimal format for collaboration, for both international and federal retail chains, as well as for oil & gas equipment suppliers, specialist installation companies, and engineering enterprises.



Handy tools for ordering online and tracking consignments



Tailored warehousing programmes



A network of distribution centres with full product range inventory



Efficient order batching in accordance with European standards



Delivery to stores or partner distribution centres within 24 hours



Hotline and service centre for buyers



Guaranteed customer service throughout all countries where SST Group products are sold



Promotional, marketing and technical support



Education and training for personnel



OEM serial production under the client's brand name



CCI

Social Responsibility

Our responsibility towards social wellbeing and development is not just limited to economic factors. SST Group regularly carries out a number of projects that have a significant positive social impact

SST Group supports and develops social initiatives at municipal, regional, and federal levels. Our initiatives include an environmental awareness project in conjunction with the Moscow Zoo, several art projects in collaboration with the Mytishchi Art Gallery, and humanitarian action for veterans of the Great Patriotic War.

SST Group has devised a career guidance and development scheme for school pupils and university students. We offer support to senior school students aimed at helping them achieve higher technical education qualifications, to undergo practical training and start a career working in one of the Group's enterprises. Since 2013, as part of the SST Group collaboration with the Moscow Energy Institute (MEI) National Research Institute (NRI), student Olympiads have been held at the SST Group Head Office. Over the past four years, around 900 students have competed the Olympiad at our premises. SST Group is actively engaged in collaborating with the Technical University at the Korolyov research and development facility, as part of which it has created a 'Study Zone' where students can carry out their practical studies.

We are proud of our R&D-center developments and innovations, the cutting-edge technical solutions developed by our team, and of our projects implemented on both the national and global scale.

SST Group carries out a range of development programmes aimed at fostering innovation within marketing, technical and operational areas. In order to help employees gain more qualifications we run our own training centre.

We support employee initiatives, aimed at promoting an active and healthy lifestyle. SST Group regularly holds tournaments for various sports; our teams take part in regional and department competitions. In addition, through taking part in comedy show games, drama performances and photography workshops, our employees are able to realise their true creative potential.

One of SST Group's goals is to reduce the ecological footprint by decreasing the waste of our planet's limited natural resources. This is the reason why we pay special attention to environmental protection policies and environmental management systems. We consistently reduce resource consumption by implementing modern technologies and ecologically-oriented business processes. For example, SST Warm Floors company (part of SST Group) decreased electricity consumption by 44 %, water consumption – by 33 %, thermal energy consumption – by 14 % during the period of 2007-2017 while simultaneously increasing production volumes.



ПРАВИТЕЛЬСТВО
МОСКОВСКОЙ
ОБЛАСТИ

ЛЕС
ПОБЕДЫ

ПОСАДИСВОЕДЕРЕВО.РФ
2018

Made in Russia, Delivered Worldwide

*Fully compliant with all international
quality and safety standards,
SST Group products are exported to
47 countries worldwide*



SST Group European Office
Lauda-Königshofen, Germany



SST Group Head Office
Mytishchi, Moscow Region



Novosibirsk

Vladivostok

Shanghai

Regular export supplies

- | | |
|----------------|-----------------|
| Afghanistan | Kyrgyzstan |
| Armenia | Latvia |
| Austria | Lithuania |
| Azerbaijan | Luxemburg |
| Belarus | Moldova |
| Belgium | Montenegro |
| Bulgaria | Panama |
| China | Poland |
| Cyprus | Portugal |
| Czech Republic | Romania |
| Denmark | Serbia |
| Egypt | Slovakia |
| Estonia | Slovenia |
| Finland | South Korea |
| France | Spain |
| Georgia | Sweden |
| Germany | Tajikistan |
| Great Britain | The Netherlands |
| Greece | Turkey |
| Iran | Turkmenistan |
| Italy | UAE |
| Kazakhstan | Ukraine |
| Kosovo | Uzbekistan |
| Kuwait | |

 – SST Group Headquarters

 – Branches



SST Group China Representative Office
Shanghai, China

Head Office

Proiektiruemiy proezd 5274, bld. 7
Mytishchi, Moscow region,
141008, Russia
Phone: +7 495 728-80-80, +7 495 780-70-13
sst@sst.ru

SST Energomontazh (industrial solutions)

Kolpakova street 2,
Mytishchi, Moscow region,
141002, Russia
Phone: +7 495 627-72-55
info@sst-em.ru

European Office

SST GmbH
i_Park Tauberfranken 18,
97922 Lauda-Königshofen, Germany
Phone: +49 9343 98091-00
info@sst-international.com

SST Thermal Solutions Middle East FZCO

2303, HDS Business Centre, Cluster M
Jumeirah Lakes Towers
Dubai, United Arab Emirates
Phone: +971 54444-12-05, +971 56971-22-66
sales-me@sst-international.com

