

**Scientific and production enterprise, JSC
«Kompensator»**



- 
- History
 - Resources
 - Geography of deliveries
 - Reference list

COMPANY

40 YEARS HON THE BELLOWS EXPANSION JOINTS

Kompensator SPE, JSC was founded.
Conversion of pilot production of bellows equipment to serial production

1981

The pilot samples of expansion joints for heating networks were made

1982

Unique expansion joints for aerospace industry were developed (1981-1991)

1991

The R&D was completed for the development of expansion joints for charge piping of compressor plants of main gasline (1992-1994)

1992

The specifications (TU) for the production of serial products were agreed upon with "Rosenergoatom Concern", JSC

2012

The licenses to design and to manufacture equipment for nuclear power plants were obtained

2001

The R&D was conducted for the development of expansion joints for pipeline system in tank farms of oil loading terminals (1992-1996)

1996

1994

With the close involvement of "SPE "Kompensator", JSC specialists, interstate standard GOST 32935-2014 was developed

2014

With the direct participation of the plant, five editions of the Guidelines were issued under the general name "RD-3_VEP" (1997-2018)

2017

For the first time in Russia, a technology for the production of structural elements for liquefied natural gas (LNG) storage facilities is localized

2018

2020

The factory was granted a product patent for heating networks

The specifications (TU) for serial production of products for heating networks for all types of laying and insulation were developed (1997-2018)

Optimization of business processes has begun through the implementation of the production system "Rosatom"

ПОЛНЫЙ ЦИКЛ ПРОИЗВОДСТВА



15 000 square meter
of own production area



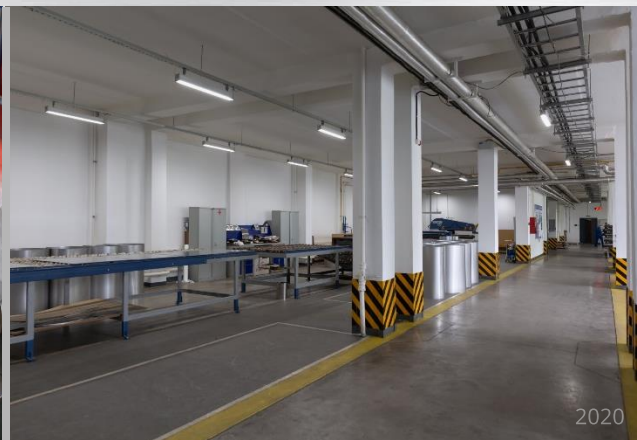
250 people, each of them
in their place



400 units of equipment,
growing machine park



11 000 customers of products
in Russia and abroad



65 REGIONS AND 12 COUNTRIES

The Republic of Belarus

The Czech Republic

The UAE

Ukraine

Kazakhstan

Latvia

Estonia

China

India

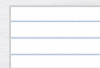
Mongolia



Shipbuilding



Nuclear Power



Metallurgy



Heat supply

MARKET LEADERSHIP



Various bellows forming methods:
hydraulic, elastomer and mechanical



Progressive approach
to design



Professionalism
of each employee



Increased focus on
product quality and safety

The share of SPE
Kompensator in the market
of bellows expansion joints
was **40%** (2019)



11 000 CUSTOMERS TRUST US



Shipbuilding

Admiralty shipyards
Shiprepairing Center
«Zvyozdochka»
Severnaya verf
SEVMACH



Chemical industry

EuroChem
SIBUR
The Electrochemical Plant



Cryogenic industry

PJSC "Cryogenmash"
Techgas



Heat supply

Lenenergo
Mosenergo
MOEK



Energy industry

Interenergo, LLC
Minsk cogeneration plant
Power Machines
Ural turbine works



Mechanical engineering

Zelenodolsk Plant
KubanMashProm
UES-Saturn



Metallurgy

EVRAZ NTMK
Ural Metallurgical Plant
Cherepovets Steel Mill



Nuclear power

Kudankulam NPP (India)
Tianwan NPP (China)
Rosatom



Oil processing

Gasprom
Lukoil
Rosneft
Transneft



Oil and gas transportation

KINEF, LCC
Slavyansk Eco



Heat and Power Plants

Far Eastern Generating Company
TGS



Aerospace industry

reusable space transportation
system "Energiya-Buran"

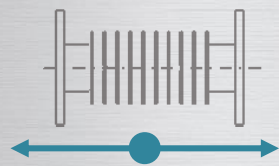


- Bellows expansion joints

- Types of joints
- Technical parameters
- On-site use

PRODUCTS

BELLOWS EXPANSION JOINTS



Axial stroke



Angular movement

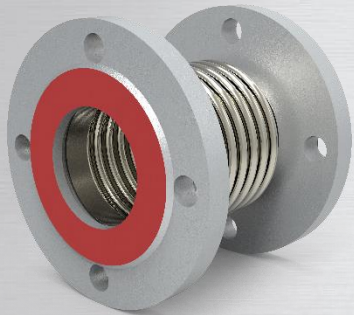


Lateral movement

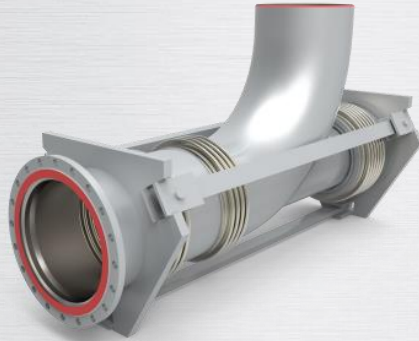
Bellows expansion joints (SC) compensate for pipeline deformations due to a flexible element (bellows) consisting of several layers of formed sheet steel. Such deformations occur due to temperature changes, weather phenomena or external factors.



TYPES OF PRODUCED B.J.



universal



balanced



lateral



angular

The produced types of bellows expansion joints allow solving the problems of compensating for almost any kind of displacement and stress arising in pipeline systems.

SPECIFICATIONS



Nominal diameter
from **50** to **5 000** mm



Temperature of conducted media
from **-250** °C to **+1500**°C



Nominal pressure
from vacuum up to **20** MPa



Velocity of media
liquid up to **8** m/s
gaseous up to **120** m/s



Material of bellows
stainless steels, titanium, nickel-based
alloys, aluminum alloys



Term of service
up to **60** years

Our specialists are ready to consult on bellows expansion joint selection, the material performance and other specifications based on the requirements.

PRODUCT TESTING

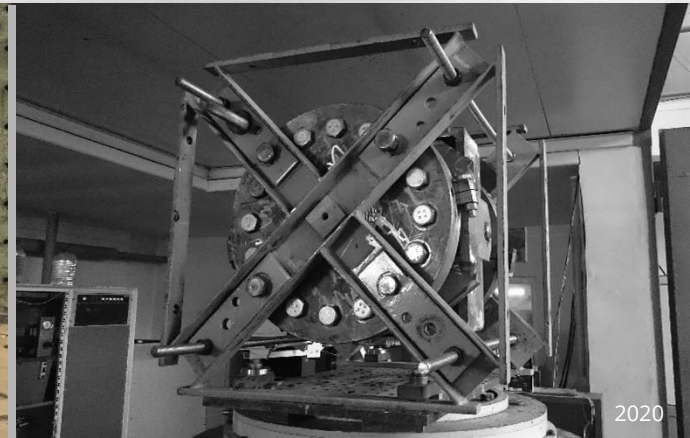
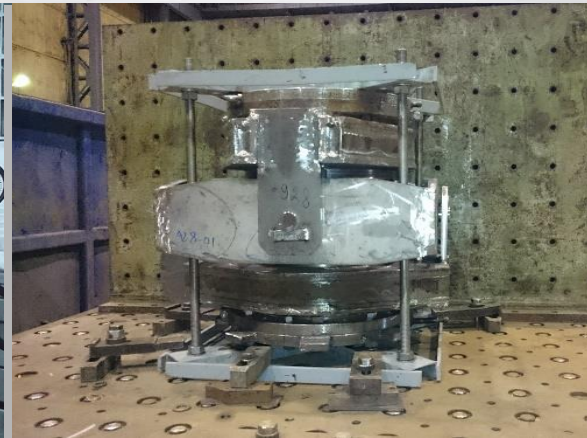
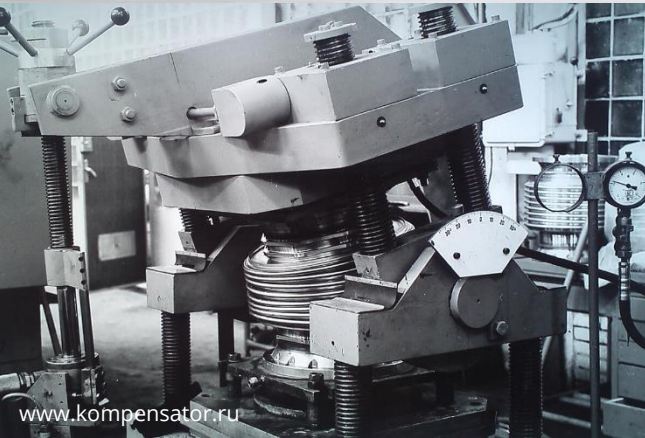
**RADIOGRAPHIC
INSPECTION**

**STRENGTH
TESTING**

**TESTS FOR
INTERLAYER TIGHTNESS**

**ENDURANCE
TESTS**

Each product must pass a set of tests. Acceptance of products is carried out by the quality control department of the enterprise, the Russian River Register, the Russian Maritime Register of Shipping and the military acceptance of the Ministry of Defense of the Russian Federation.



USING AT FACILITIES

for hot blast pipelines of metallurgical enterprises

for pipelines of liquid oxygen and liquid hydrogen of propulsion systems of the "Energia" launch vehicle

in water and steam supply systems, cooling, gas exhaust, life support, depreciation of warships and ships



USING AT FACILITIES

for pipelines of nuclear power plants

at GDS sites, compressor station piping and liquefied natural gas storages, main gas pipelines


for all types of heating networks, as well as for heat and power companies throughout Russia





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