

# SNOL



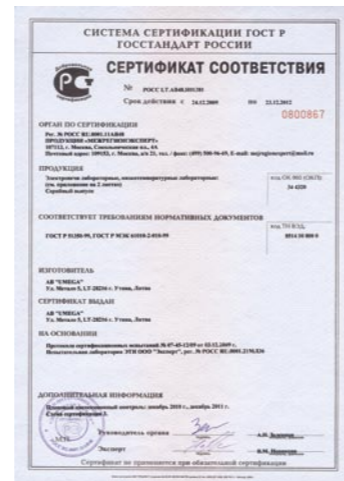
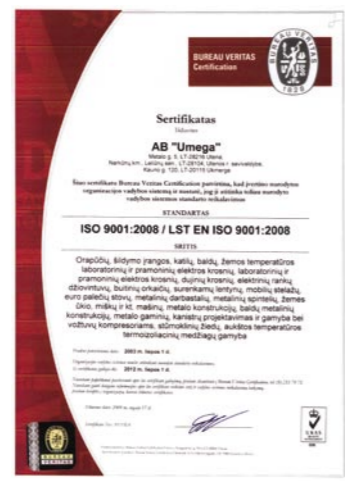
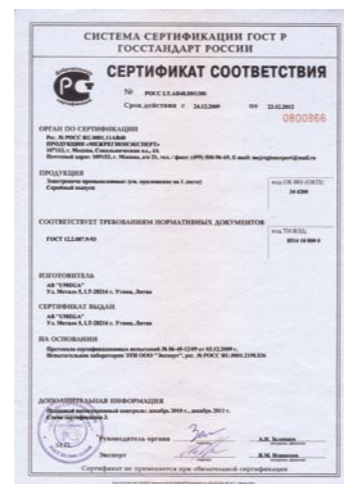
Thermal processing  
equipment  
for laboratories

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The JSC “Umega SNOL” company has been producing thermal processing equipment since 1960. The company designs and manufactures laboratory and industrial electric furnaces and ovens, as well as high temperature thermal insulation materials. The company pays particular attention to the product development by using advanced technologies and scientific progresses in order to meet individual user needs. Highly qualified personnel and premium materials result in high quality, reliability, and durability of our manufactured products.

SNOL products comply with European Union Directives LVD 2006/95/EC, MD 2006/42/EC, ECD 2004/108/EC, and RoHS 2002/95/EC; and therefore bear the CE Mark, and are also certified in Russia and Belarus, thermal insulation materials are certified by Det Norske Veritas. The company's Quality Management System is certified by Bureau Veritas Quality International in compliance with ISO 9001:2000 / LST EN ISO 9001:2008 standards.

JSC “Umega” runs subsidiaries: “SNOL – TERM” Ltd. in Russia, “SNOL Ukraine” Ltd. in Ukraine, and “SNOLBel” Ltd. in Belarus. The company exports a major part of its products (~90%), to markets in the European Union and the Commonwealth of Independent States, where the sales and service network has been developed.



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## 1. Low temperature electric ovens

### 1.1 Chamber ovens

#### 1.1.1. Chamber ovens up to 200 °C

Economical low temperature electric ovens that are intended for the thermal processing of various materials and parts up to a temperature of 200 °C. The products can be used in scientific laboratories, educational institutions, medicine, and industry. Optional forced air circulation assures an even temperature distribution throughout the chamber, and high quality thermal processing occurs quickly.

##### Basic model

- Chamber made of mild steel or stainless steel
- Natural or forced air circulation
- Hermetically sealed doors
- Microprocessor temperature controller (see page 14)
- Includes standard shelves
- High-quality, ecological thermal insulation material
- Low electric power usage for increased energy efficiency
- Short heating up/cooling down period
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- 1 year guaranty on furnace, 2 years controller

##### Supplemental equipment

- Additional standard shelves
- Reinforced shelves
- Shelves for heating fine materials
- Reinforced bottom
- Digital timer
- Fan speed controller (for ovens with forced air circulation)
- End of programme audible signal (for ovens with programmable temperature controller)
- Over-temperature protection
- Data recorder
- Computer connection via RS232/RS-485/USB
- Calibration of temperature measurement system
- Oven exterior made of stainless steel
- Stand for supporting the oven



SNOL 24/200 LSP01



SNOL 200/200 LSN11

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Air flow	Number of shelves		Chamber material	
			Width	Length	Height	Width	Length	Height					sets	max	Stainless steel	Mild steel
<b>up to 200 °C</b>																
SNOL 24/200 LSP01	24	200	300	380	200	400	515	410	1	230	17	○	2	2	○	●
SNOL 200/200 LSN11	200	200	710	610	460	1040	780	775	2	230	77	●	2	5	●	○

## 1. Low temperature electric ovens

### 1.1.2. Chamber ovens up to 300 °C

A new range of laboratory ovens that are intended for the thermal processing of materials up to a temperature of 300 °C. Used for such processes as drying, heating, thermal testing, and aging in an air environment. Forced air circulation allows a homogenous temperature distribution to be achieved during all processes, which ensures optimal results.

##### Basic model

- Forced horizontal air circulation
- Valve control of air extraction (operated via front panel)
- Chamber made of stainless steel
- Hermetically closed doors
- Microprocessor-controlled thermoregulator (see page 14)
- End of programme audible signal
- Protection against overheating
- Fan revolution controller
- Includes standard shelves
- High-quality, ecological thermal insulation material
- Low electric power usage
- Short heating up/cooling down period
- High degree of accuracy
- Exterior painted with powder coating (RAL 1015 and RAL 1017)
- Up to a 24 month guaranty period

##### Supplemental equipment

- Economical version (Ec) without a fan speed controller or end of programme audible signal
- Supplemental shelves
- Reinforced shelves
- Shelves for heating fine materials
- Reinforced bottom
- Digital stopwatch
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Furnace exterior made of stainless steel
- Table for supporting the furnace



SNOL 20/300 LSN11



SNOL 420/300 LSN11

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Air flow	Number of shelves		Chamber material	
			Width	Length	Height	Width	Length	Height					sets	max	Stainless steel	Mild steel
<b>Up to 300 °C</b>																
SNOL 20/300 LSN11	20	300	240	280	340	460	680	640	1	230	34	●	2	5	●	○
SNOL 60/300 LSN11	60	300	380	380	420	600	760	720	2	230	50	●	3	7	●	○
SNOL 120/300 LSN11	120	300	550	400	580	750	780	880	2,2	230	70	●	3	7	●	○
SNOL 220/300 LSN11	220	300	730	500	620	930	880	915	4	230	102	●	3	7	●	○
SNOL 420/300 LSN11	420	300	1000	500	860	1200	930	1200	6,2	400	155	●	3	7	●	○

## 1. Low temperature electric ovens

### 1.1.3. Chamber ovens up to 350 °C

Economical low temperature electric ovens that are intended for the thermal processing of various materials and parts up to a temperature of 350 °C. The products can be used in scientific laboratories, educational institutions, medicine, and industry. Forced air circulation assures an even temperature distribution throughout the chamber, and high quality thermal processing occurs quickly.

#### Basic model

- Natural or forced air circulation
- Regulated air intake and extraction
- Chamber made of regular or stainless steel
- Hermetically closed doors
- Microprocessor-controlled thermoregulator (see page 14)
- Includes standard shelves
- High-quality, ecological thermal insulation material
- Low electric power usage
- Short heating up/cooling down period
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- Up to a 24 month guaranty period



SNOL 67/350 LSP01

#### Supplemental equipment

- Supplemental shelves
- Reinforced shelves
- Shelves for heating fine materials
- Reinforced bottom
- Digital stopwatch
- Audio signal
- Protection against overheating
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Furnace exterior made of stainless steel
- Table for supporting the furnace



SNOL 58/350 LSP11

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Air flow	Number of shelves		Chamber material	
			Width	Length	Height	Width	Length	Height					sets	max	Stainless steel	Mild steel
<b>Up to 350 °C</b>																
SNOL 58/350 LSN11	58	350	390	380	360	685	675	615	2	230	40	•	3	7	•	○
SNOL 58/350 LSP11	58	350	390	380	360	685	675	615	2	230	40	•	3	7	○	•
SNOL 67/350 LSN01	67	350	390	445	390	685	625	615	2	230	40	○	3	7	•	○
SNOL 67/350 LSP01	67	350	390	445	390	685	625	615	2	230	40	○	3	7	○	•

## 1. Low temperature electric ovens

### 1.2 Multi-chamber ovens

Multi-chamber low temperature electric ovens that are intended for the thermal processing, drying, preliminary heating, and other thermal processes of various materials and parts up to a temperature of 200 °C. The products can be used in scientific laboratories, educational institutions, medicine, and industry. Forced air circulation assures an even temperature distribution throughout the chamber, and high quality thermal processing occurs quickly.

#### Basic model

- Within the carcass, two or four chambers made of regular or stainless steel are installed
- Within each chamber, a fan and ventilation hatches are installed
- Forced horizontal air circulation
- Hermetically closed doors
- Microprocessor-controlled thermoregulators for every chamber (see page 14)
- Includes standard shelves
- High-quality, ecological thermal insulation material
- Low electric power usage
- Short heating up/cooling down period
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- Up to a 24 month guaranty period



SNOL 4x80/200 LSN18

#### Supplemental equipment

- Supplemental shelves
- Reinforced shelves
- Shelves for heating fine materials
- Reinforced bottom
- Digital stopwatch
- Fan revolution controller
- Audio signal
- Protection against overheating
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Furnace exterior made of stainless steel
- Table for supporting the furnace



SNOL 2x240/200

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Air flow	Number of shelves		Chamber material	
			Width	Length	Height	Width	Length	Height					sets	max	Stainless steel	Mild steel
SNOL 4x80/200 LSN18	4x80	200	500	400	400	1910	925	1950	24	400	440	•	1x4	7x4	○	•
SNOL 2x240/200	2x240	200	500	400	1200	1500	960	1715	24	400	450	•	2x2	7x2	•	○

## 1. Low temperature electric ovens

### 1.3 Shaft ovens

Top-loading (shaft) electric ovens that are intended for the thermal processing, drying, preliminary heating, and other thermal processes of various materials and parts up to a temperature of 550 °C. The products can be used in scientific laboratories, educational institutions, medicine, and industry.

#### Basic model

- Doors open from the top
- Chamber made of stainless steel
- Hermetically closed doors
- Microprocessor-controlled thermoregulator (see page 14)
- High-quality, ecological thermal insulation material
- Low electric power usage
- Short heating up/cooling down period
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- Up to a 24 month guaranty period

#### Supplemental equipment

- Reinforced bottom
- Digital stopwatch
- Audio signal
- Protection against overheating
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Furnace exterior made of stainless steel



SNOL 75/550 LHP02

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Air flow	Number of shelves		Chamber material	
			Width	Length	Height	Width	Length	Height					sets	max	Stainless steel	Mild steel
SNOL 75/550 LHP02	75	550	340	390	550	870	660	850	6	230	100	o	o	o	o	o

## 2. High temperature electric furnaces

### 2.1 Muffle furnaces with fibre-insulated chambers

High accuracy laboratory electric furnaces with fibre-insulated chambers that are intended for hardening, loosening, normalising, and other thermal processing processes up to a temperature of 1100 °C or 1300 °C. The furnaces include ceramic hearth plates. To eliminate gasses or smoke that are released during thermal processing, ventilation hatches and an exhaust system may be additionally installed in the products. The furnaces are an excellent fit for scientific laboratories, educational institutions, medicine, and industry.

#### Basic model

- One-piece chamber made of fibre thermal insulation
  - Heating elements embedded in vacuum formed fibre (on models up to 1100 °C)
  - Heating elements exposed on ceramic tubes (on models up to 1300 °C)
  - Microprocessor-controlled thermoregulator (see page 14)
  - Ceramic hearth plates
  - High-quality, ecological thermal insulation material
  - Low electric power usage
  - Short heating up/cooling down period
  - High degree of accuracy
  - Exterior painted with powder coating (RAL 7035)
  - Up to a 24 month guaranty period
- Supplemental equipment

#### Supplemental equipment

- Ventilation shaft at the end of the chamber
- Process observation window (Ø 35mm) up to 1100 °C
- Fan-assisted chimney for air extraction
- Supplemental ceramic hearth plates
- Audio signal
- Protection against overheating
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Table for supporting the furnace



SNOL 8,2/1100 LZM01



SNOL 6,7/1300 LHM01



SNOL 8,2/1100 LHM01

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Door opening		
			Width	Length	Height	Width	Length	Height				upwards	sideways	downwards
<b>Up to 1100 °C</b>														
SNOL 8,2/1100 LHM01	8,2	1100	200	300	133	440	620	510	1,8	230	32	•	o	o
SNOL 8,2/1100 LSM01	8,2	1100	200	300	133	440	560	510	1,8	230	28	o	•	o
SNOL 8,2/1100 LZM01	8,2	1100	200	300	133	440	560	510	1,8	230	28	o	o	•
<b>Up to 1300 °C</b>														
SNOL 6,7/1300 LHM01	6,7	1300	160	295	133	440	620	510	2,4	230	39	•	o	o
SNOL 6,7/1300 LSM01	6,7	1300	160	295	133	440	550	540	2,4	230	35	o	•	o
SNOL 6,7/1300 LZM01	6,7	1300	160	295	133	440	560	510	2,4	230	35	o	o	•

## 2. High temperature electric furnaces

### 2.2 Chamber furnaces with fibre-insulated chambers

Highly accurate laboratory electric furnaces with chambers made of thermal insulation fibre plates. The products are intended for hardening, loosening, normalising, and other thermal processing processes up to a temperature of 1600 °C. To eliminate gasses or smoke that are released during thermal processing, ventilation hatches and an exhaust system may be supplementally installed in the products. The furnaces are an excellent fit for scientific laboratories, educational institutions, medicine, and industry.

#### Basic model

- One-piece chamber made of fibre thermal insulation plates
- Vacuumized heating elements (up to 1100 °C)
- Heating elements in grooves (up to 1200 °C)
- Heating elements on tubes (up to 1300 °C)
- Exposed heat strips (up to 1600 °C)
- Microprocessor-controlled thermoregulator (see page 14)
- Ceramic hearth plates
- High-quality, ecological thermal insulation material
- Low electric power usage
- Short heating up period
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- Black furnace frame (on models 7,2/1200 & 7,2/1300)
- Up to a 24 month guaranty period

#### Supplemental equipment

- Ventilation shaft at the end of the chamber up to 1100 °C
- Process observation window (Ø 35mm)
- Chimney for forced air extraction
- Supplemental ceramic hearth plates
- Audio signal
- Protection against overheating
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Table for supporting the furnace



Model	Vol., l	T <sub>max</sub> °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Door opening		
			Width	Length	Height	Width	Length	Height				upwards	sideways	downwards
<b>Up to 1100 °C</b>														
SNOL 30/1100 LSF01	30	1100	300	450	300	640	800	830	3,4	230	100	○	●	○
SNOL 80/1100 LSF01	80	1100	300	450	600	740	880	1250	5,4	400	135	○	●	○
<b>Up to 1200 °C</b>														
SNOL 40/1200 LSF01	40	1200	290	420	290	640	800	830	3,4	230	100	○	●	○
<b>Up to 1300 °C</b>														
SNOL 30/1300 LSF01	30	1300	200	450	290	640	870	830	4,6	230	120	○	●	○
<b>Up to 1600 °C</b>														
SNOL 8/1600 LSF01	8	1600	150	300	150	620	620	1420	8	400	170	○	●	○

## 2. High temperature electric furnaces

### 2.3 Furnaces with ceramic chambers

Highly accurate laboratory electric furnaces with solid ceramic chambers. The products are intended for hardening, loosening, normalising, and other thermal processing processes up to a temperature of 1300 °C. The furnaces include ceramic hearth plates. To eliminate gasses or smoke that are released during thermal processing, ventilation hatches and an exhaust system may be supplementally installed in the products. The furnaces are an excellent fit for scientific laboratories, educational institutions, medicine, and industry.

#### Basic model

- Solid ceramic chamber
- Partially exposed heating elements (in 1100 °C max. and 1300 °C max. models)
- Enclosed heating elements (in 900°C max. and 1200 °C max. models)
- Microprocessor-controlled thermoregulator (see page 14)
- Ceramic hearth plates
- High-quality, ecological thermal insulation material
- Low electric power usage
- High temperature inertness
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- Up to a 24 month guaranty period

#### Supplemental equipment

- Ventilation shaft at the end of the chamber
- Process observation window (Ø 35mm) up to 1100 °C
- Chimney for forced air extraction
- Supplemental ceramic hearth plates
- Audio signal
- Protection against overheating
- Data recorder

- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Table for supporting the furnace



Model	Vol., l	T <sub>max</sub> °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg	Door opening		
			Width	Length	Height	Width	Length	Height				upwards	sideways	downwards
<b>Up to 900 °C</b>														
SNOL 4/900 LSC01	4	900	120	295	100	440	560	500	3,7	230	55	○	●	○
SNOL 4/900 LZC01	4	900	120	295	100	440	615	500	3,7	230	55	○	○	●
SNOL 7,2/900 LSC01	7,2	900	200	300	130	440	575	540	3,3	230	50	○	●	○
SNOL 12/900 LHC01	12	900	210	300	180	560	700	740	4,5	230	120	●	○	○
SNOL 15/900 LHC01	15	900	210	410	160	560	800	740	6	230	130	●	○	○
<b>Up to 1100 °C</b>														
SNOL 4/1100LSC01	4	1100	120	295	100	440	560	500	3,7	230	55	○	●	○
SNOL 4/1100 LZC01	4	1100	120	295	100	440	615	500	3,7	230	55	○	○	●
SNOL 7,2/1100 LSC01	7,2	1100	200	300	130	440	575	540	3,3	230	50	○	●	○
SNOL 12/1100 LHC01	12	1100	210	300	180	560	700	740	4,5	230	120	●	○	○
SNOL 15/1100 LHC01	15	1100	210	410	160	560	800	740	6	230	130	●	○	○
<b>Up to 1200 °C</b>														
SNOL 4/1200LSC01	4	1200	120	295	100	440	560	500	3,7	230	55	○	●	○
SNOL 4/1200 LZC01	4	1200	120	295	100	440	615	500	3,7	230	55	○	○	●
SNOL 7,2/1200LSC01	7,2	1200	200	300	130	580	750	690	4	230	104	○	●	○
SNOL 12/1200LHC01	12	1200	210	300	180	560	700	740	4,5	230	120	●	○	○
SNOL 15/1200LHC01	15	1200	210	410	160	560	800	740	6	230	130	●	○	○
<b>Up to 1300 °C</b>														
SNOL 4/1300LSC01	4	1300	120	295	100	440	560	500	3,7	230	55	○	●	○
SNOL 4/1300 LZC01	4	1300	120	295	100	440	615	500	3,7	230	55	○	○	●
SNOL 7,2/1300 LSC01	7,2	1300	200	300	130	580	750	690	4	230	104	○	●	○
SNOL 12/1300 LHC01	12	1300	210	300	180	560	700	740	4,5	230	120	●	○	○
SNOL 15/1300 LHC01	15	1300	210	410	160	560	800	740	6	230	130	●	○	○

## 2. High temperature electric furnaces

### 2.4 Shaft furnaces

Top-loading (shaft) high temperature electric laboratory furnaces with solid ceramic chambers. The products are intended for hardening, loosening, normalising, and other thermal processing processes up to a temperature of 900 °C. The furnaces include ceramic hearth plates. The furnaces can be used in scientific laboratories, educational institutions, medicine, and industry.

#### Basic model

- Solid ceramic chamber
- Enclosed heating elements
- Doors open from the top
- Microprocessor-controlled thermoregulator (see page 14)
- Ceramic hearth plates
- High-quality, ecological thermal insulation material
- Low electric power usage
- High temperature inertness
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- Up to a 24 month guaranty period

#### Supplemental equipment

- Supplemental ceramic hearth plates
- Audio signal
- Protection against overheating
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Table for supporting the furnace



SNOL 10/900LSN02

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm			Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg
			Width	Length	Height	Width	Length	Height			
SNOL 10/900LSN02	10	900	150	150	450	860	750	800	4,5	230	120

## 3. Other thermal processing equipment

### 3.1 Tube furnaces

High temperature horizontal tube furnaces intended for thermal processing up to a temperature of 1250 °C. The products can be used in scientific laboratories, educational institutions, medicine, and industry.

#### Basic model

- Ceramic tube chamber
- Microprocessor-controlled thermoregulator (see page 14)
- High-quality, ecological thermal insulation material
- Low electric power usage
- Short heating up/cooling down period
- High degree of accuracy
- Exterior painted with powder coating (RAL 7035)
- Up to a 24 month guaranty period

#### Supplemental equipment

- Audio signal
- Protection against overheating
- Data recorder
- Computer connection via RS232/RS-485/USB
- Measuring device verification
- Table for supporting the furnace







SNOL 0.2/1250 LXC04

Model	Vol., l	T <sub>max</sub> , °C	Chamber dimensions, mm		Overall dimensions*, mm			Power, kW	Voltage, V	Weight, kg
			Diameter	Length	Width	Length	Height			
SNOL 0.2/1250 LXC04	0,2	1250	35	200	470	340	480	1,8	230	19



## OTHER PRODUCTS

-  **Thermal processing equipment for industries**
-  **Thermal processing equipment for ceramics**
-  **Electrode dryers**
-  **Thermal insulation materials**

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