

# *Thermal processing equipment for industries*



**SNOL**

*Customized for your hot innovations*

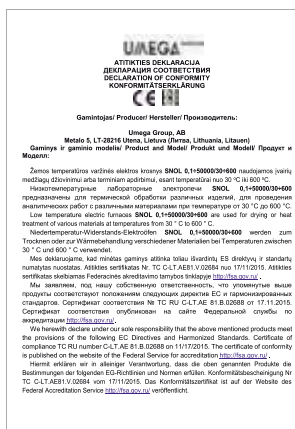
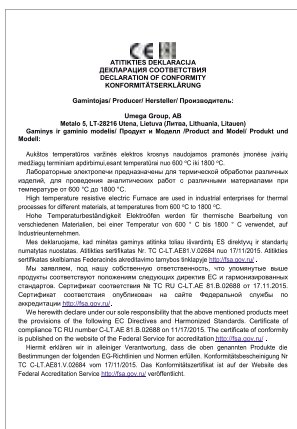
SnolTherm business unit has been producing heat treatment equipment for laboratory and industrial applications since 1960. SnolTherm business unit belongs to Umega Group, AB which is the largest metal processing company in the Baltic States and has more than 700 employees. The company pays particular attention to the product development by using advanced technologies and scientific innovations in order to meet individual user needs. Highly qualified personnel and premium materials result in high quality, reliability, and durability of our manufactured products. Due to the growing SNOL brand awareness, SnolTherm exports 90% of its production and is growing in sales in more than 70 countries, not only in European markets, but also in other regions such as Asia, the Middle East, Africa, North and South America.

## Main product lines:

- Laboratory Furnaces
- Laboratory Ovens
- Industrial Furnaces
- Industrial Ovens
- Custom-built Furnaces and Ovens
- Thermal insulation materials
- Storage constructions (Shelving systems and Pallet racks)

## SnolTherm advantages:

- Developed according to European standards – SNOL products bear the CE mark and the company's Quality Management System is certified by Bureau Veritas Quality International in compliance with ISO 9001:2015 / LST EN ISO 9001:2015 standards.
- We are one of the biggest manufacturers in the world, producing more than 4,000 units per year.
- Short lead time – we keep around 200 of our most popular products in stock.
- Durability – some of our customers have continuously used the same SNOL products for more than 50 years.
- If you require, we can manufacture products in compliance with AMS27025F or CQI-9 standards.
- Our team of professional engineers are always ready to offer customized solutions for your hot innovations!



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# 1. Low-temperature electric ovens

## 1.1 Chamber ovens up to 750 °C

Our universal industrial electric furnaces / ovens with induced air circulation are designed by a group of professional engineers and made from high quality materials, such as heavy-duty metal parts and thermal insulation materials, which are manufactured in our factory. The air circulation ensures an even temperature distribution and achieves great uniformity. Fit with a selection of precise digital controllers and certified heating elements to ensure excellent temperature stability. The application variety ranges from electronic, plastic or metal to other branches of industry, with the possibilities to use this product line for aging, annealing, curing, normalising, primary heating, stress relieving and other thermal processes up to 750 °C. The combination of our knowledge and expertise leads to a high quality and long-lasting product with long-term stable efficiency, no matter the application.

### Base model

- Door opening to left/right side (depending on customer needs)
- Control panel on the left/right side (depending on customer needs)
- Outside casing - metal sheet, powder painted grey (RAL 7035), frame - black
- Heating from 2 sides with tubular (U-shaped) heating elements
- Insulation made from rock wool
- Fitted with standard shelves, 2 pcs.
- Ventilation motor on the top or rear, vertical or horizontal air flow
- Adjustable air supply/extraction
- Equipped with non-programmable PID controller Omron E5CC
- OTP (over temperature protection), Omron K8 relay
- SSR relay
- Door safety switch
- Low power consumption
- Short heating/cooling time
- High level of accuracy
- 1 year warranty

### Optional equipment

- Additional shelves
- Reinforced shelves
- Reinforced bottom
- Automatic air vent control
- Digital timer
- Data recorder
- Data communication/USB
- Calibration and maintenance of temperature measurement system
- Stainless steel oven exterior
- Oven mounting platform
- Additional 1 year warranty



Model	Vol., l	Inner dimensions, mm			Power, kW	Exterior dimensions, mm*		
		Width	Depth	Height		Width	Depth	Height
<b>Up to 250 °C</b>								
SNOL 125/250	125	500	500	500	4	1400	900	1500
SNOL 250/250	250	500	500	1000	4	1400	900	2000
SNOL 420/250	420	700	600	1000	6	1600	1000	2000
SNOL 500/250	500	700	700	1000	6	1600	1100	2000
SNOL 600/250	600	800	800	1000	8	1700	1200	2000
SNOL 700/250	700	800	900	1000	8	1700	1300	2000
SNOL 800/250	800	900	900	1000	12	1800	1300	2000
SNOL 970/250	970	900	900	1200	12	1800	1300	2200
SNOL 1000/250	1000	1000	1000	1000	16	1900	1400	2000
SNOL 1200/250	1200	1000	1000	1200	16	1900	1400	2200
SNOL 1500/250	1500	1000	1000	1500	18	1900	1400	2500
SNOL 2200/250	2200	1000	1500	1500	18	2000	2000	2500
SNOL 2500/250	2500	1000	1500	1700	24	2000	2100	2900
SNOL 3400/250	3400	1000	2000	1700	24	2000	2600	2900
SNOL 4000/250	4000	1200	2000	1700	30	2200	2600	2900
SNOL 4800/250	4800	1200	2000	2000	36	2200	2600	3200



\* Overall dimensions can be adjusted  
Note: Chamber dimensions can be adjusted subject to customer requirements when ordering

Model	Vol., l	Inner dimensions, mm			Power, kW	Exterior dimensions, mm*		
		Width	Depth	Height		Width	Depth	Height
<b>Up to 350 °C</b>								
SNOL 125/350	125	500	500	500	6	1400	900	1500
SNOL 250/350	250	500	500	1000	6	1400	900	2000
SNOL 420/350	420	700	600	1000	8	1600	1000	2000
SNOL 500/350	500	700	700	1000	8	1600	1100	2000
SNOL 600/350	600	800	800	1000	10	1700	1200	2000
SNOL 700/350	700	800	900	1000	10	1700	1300	2000
SNOL 800/350	800	900	900	1000	14	1800	1300	2000
SNOL 970/350	970	900	900	1200	18	1800	1300	2200
SNOL 1000/350	1000	1000	1000	1000	18	1900	1400	2000
SNOL 1200/350	1200	1000	1000	1200	22	1900	1400	2200
SNOL 1500/350	1500	1000	1000	1500	22	1900	1400	2500
SNOL 2200/350	2200	1000	1500	1500	26	2000	2000	2500
SNOL 2500/350	2500	1000	1500	1700	26	2000	2100	2900
SNOL 3400/350	3400	1000	2000	1700	30	2000	2600	2900
SNOL 4000/350	4000	1200	2000	1700	30	2200	2600	2900
SNOL 4800/350	4800	1200	2000	2000	30	2200	2600	3200
<b>Up to 450 °C</b>								
SNOL 125/450	125	500	500	500	8	1500	1000	1700
SNOL 250/450	250	500	500	1000	10	1500	1000	2200
SNOL 420/450	420	700	600	1000	12	1700	1100	2200
SNOL 500/450	500	700	700	1000	12	1700	1200	2200
SNOL 600/450	600	800	800	1000	16	1800	1300	2200
SNOL 700/450	700	800	900	1000	18	1800	1400	2200
SNOL 800/450	800	900	900	1000	18	1900	1400	2200
SNOL 970/450	970	900	900	1200	21	1900	1400	2400
SNOL 1000/450	1000	1000	1000	1000	21	2000	1500	2200
SNOL 1200/450	1200	1000	1000	1200	24	2000	1500	2400
SNOL 1500/450	1500	1000	1000	1500	24	2000	1500	2700
SNOL 2200/450	2200	1000	1500	1500	35	2100	2100	2900
SNOL 2500/450	2500	1000	1500	1700	35	2100	2100	3100
SNOL 3400/450	3400	1000	2000	1700	45	2100	2600	3100
SNOL 4000/450	4000	1200	2000	1700	55	2300	2600	3100
SNOL 4800/450	4800	1200	2000	2000	55	2300	2600	3400
<b>Up to 650 °C</b>								
SNOL 125/650	125	500	500	500	8	1500	1000	1700
SNOL 250/650	250	500	500	1000	12	1500	1000	2200
SNOL 420/650	420	700	600	1000	16	1700	1100	2200
SNOL 500/650	500	700	700	1000	16	1700	1200	2200
SNOL 600/650	600	800	800	1000	18	1800	1300	2200
SNOL 700/650	700	800	900	1000	18	1800	1400	2200
SNOL 800/650	800	900	900	1000	21	1900	1400	2200
SNOL 970/650	970	900	900	1200	25	1900	1400	2400
SNOL 1000/650	1000	1000	1000	1000	25	2000	1500	2200
SNOL 1200/650	1200	1000	1000	1200	30	2000	1500	2400
SNOL 1500/650	1500	1000	1000	1500	32	2000	1500	2700
SNOL 2200/650	2200	1000	1500	1500	45	2100	2100	2900
SNOL 2500/650	2500	1000	1500	1700	45	2100	2100	3100
SNOL 3400/650	3400	1000	2000	1700	55	2100	2600	3100
SNOL 4000/650	4000	1200	2000	1700	65	2300	2600	3100
SNOL 4800/650	4800	1200	2000	2000	75	2300	2600	3400
<b>Up to 750 °C</b>								
SNOL 125/750	125	500	500	500	16	1600	1100	1900
SNOL 250/750	250	500	500	1000	18	1600	1100	2400
SNOL 400/750	400	700	600	1000	24	1800	1200	2400
SNOL 500/750	500	700	700	1000	24	1800	1300	2400
SNOL 600/750	600	800	800	1000	27	1900	1400	2400
SNOL 700/750	700	800	900	1000	27	1900	1500	2400
SNOL 800/750	800	900	900	1000	32	2000	1500	2400
SNOL 970/750	970	900	900	1200	32	2000	1500	2600
SNOL 1000/750	1000	1000	1000	1000	32	2100	1600	2400
SNOL 1200/750	1200	1000	1000	1200	45	2100	1600	2600
SNOL 1500/750	1500	1000	1000	1500	48	2100	1600	2900
SNOL 2200/750	2200	1000	1500	1500	65	2200	2200	3000
SNOL 2500/750	2500	1000	1500	1700	65	2100	2100	3100
SNOL 3400/750	3400	1000	2000	1700	80	2100	2600	3100
SNOL 4000/750	4000	1200	2000	1700	95	2300	2600	3100
SNOL 4800/750	4800	1200	2000	2000	110	2300	2600	3400

\* Overall dimensions can be adjusted

Note: Chamber dimensions can be adjusted subject to customer requirements when ordering

# 1. Low-temperature electric ovens

## 1.2 Ovens with a removable hearth

Industrial electric ovens with a removable hearth are designed for more comfortable loading and built from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. The bogie hearth is manually removable but can be fitted with an electromechanical reducer for effortless removal. Fit with a selection of precise digital controllers and certified heating elements to ensure excellent temperature stability. This range of ovens can be applied for annealing, curing, hardening, primary heating, normalising, stress relieving, and other thermal treatment processes up to 750 °C. Induced air circulation ensures an even temperature distribution and achieves great uniformity.

### Base model

- Manually removable hearth on rails
- Door opening to left / right side (depending on customer needs)
- Control panel on the left / right side (depending on customer needs)
- Outside casing - metal sheet, powder painted grey (RAL 7035), frame - black
- Heating from 2 sides with tubular (U-shaped) heating elements
- Thermal insulation made from rock wool
- Chamber made from mild / stainless steel for ovens up to 350 °C
- Chamber made from stainless steel for ovens above 350 °C
- Ventilation motor on the top or rear, for vertical or horizontal air flow
- Adjustable air supply / extraction
- OTP (over temperature protection), Omron K8 relay
- Equipped with non-programmable PID controller Omron E5CC
- SSR relay
- Door safety switch
- Low power consumption
- Short heating / cooling time
- High level of accuracy
- 1 year warranty

### Optional equipment

- Electromechanically removable hearth on rails
- Automated lift up doors
- Custom control box parts
- Controlled cooling
- Rack with shelves
- Automatic air vent control
- Digital timer
- Data recorder
- Data communication/USB
- Calibration and maintenance of temperature measurement system
- Stainless steel oven exterior
- Additional 1 year warranty



Model	Vol., l	Inner dimensions, mm			Power, kW	Exterior dimensions, mm*		
		Width	Depth	Height		Width	Depth	Height
<b>Up to 250 °C</b>								
SNOL 500/250 BH	500	700	700	1000	8	1600	1100	2100
SNOL 800/250 BH	800	900	900	1000	12	1800	1300	2100
SNOL 970/250 BH	970	900	900	1200	12	1800	1300	2300
SNOL 1000/250 BH	1000	900	1000	1200	16	1800	1400	2300
SNOL 1200/250 BH	1200	1000	1000	1200	18	1900	1400	2300
SNOL 2200/250 BH	2200	1000	1500	1500	20	1900	2200	2800
SNOL 3000/250 BH	3000	1000	2000	1500	25	1900	2700	2800
SNOL 4200/250 BH	4200	1000	2500	1700	30	1900	3200	3000
SNOL 5100/250 BH	5100	1200	2500	1700	30	2100	3200	3000
SNOL 9000/250 BH	9000	1500	3000	2000	45	2400	3700	3300

\* Overall dimensions can be adjusted  
Note: Chamber dimensions can be adjusted subject to customer requirements when ordering

Model	Vol., l	Inner dimensions, mm			Power, kW	Exterior dimensions, mm*		
		Width	Depth	Height		Width	Depth	Height
<b>Up to 350 °C</b>								
SNOL 500/350 BH	500	700	700	1000	8	1600	1100	2100
SNOL 800/350 BH	800	900	900	1000	14	1800	1300	2100
SNOL 970/350 BH	970	900	900	1200	18	1800	1300	2300
SNOL 1000/350 BH	1000	900	1000	1200	18	1800	1400	2300
SNOL 1200/350 BH	1200	1000	1000	1200	22	1900	1400	2300
SNOL 2200/350 BH	2200	1000	1500	1500	28	1900	2200	2800
SNOL 3000/350 BH	3000	1000	2000	1500	32	1900	2700	2800
SNOL 4200/350 BH	4200	1000	2500	1700	38	1900	3200	3000
SNOL 5100/350 BH	5100	1200	2500	1700	45	2100	3200	3000
SNOL 9000/350 BH	9000	1500	3000	2000	55	2400	3700	3300
<b>Up to 450 °C</b>								
SNOL 500/450 BH	500	700	700	1000	14	1700	1200	2200
SNOL 800/450 BH	800	900	900	1000	21	1900	1400	2200
SNOL 970/450 BH	970	900	900	1200	21	1900	1400	2400
SNOL 1000/450 BH	1000	900	1000	1200	21	1900	1500	2400
SNOL 1200/450 BH	1200	1000	1000	1200	24	2000	1500	2400
SNOL 2200/450 BH	2200	1000	1500	1500	37	2000	2300	2900
SNOL 3000/450 BH	3000	1000	2000	1500	37	2000	2800	2900
SNOL 4200/450 BH	4200	1000	2500	1700	45	2000	3300	3100
SNOL 5100/450 BH	5100	1200	2500	1700	50	2200	3300	3100
SNOL 9000/450 BH	9000	1500	3000	2000	60	2500	3800	3400
<b>Up to 650 °C</b>								
SNOL 500/650 BH	500	700	700	1000	18	1700	1200	2200
SNOL 800/650 BH	800	900	900	1000	24	1900	1400	2200
SNOL 970/650 BH	970	900	900	1200	24	1900	1400	2400
SNOL 1000/650 BH	1000	900	1000	1200	28	1900	1500	2400
SNOL 1200/650 BH	1200	1000	1000	1200	28	2000	1500	2400
SNOL 2200/650 BH	2200	1000	1500	1500	48	2000	2300	2900
SNOL 3000/650 BH	3000	1000	2000	1500	55	2000	2800	2900
SNOL 4200/650 BH	4200	1000	2500	1700	65	2000	3300	3100
SNOL 5100/650 BH	5100	1200	2500	1700	78	2200	3300	3100
SNOL 9000/650 BH	9000	1500	3000	2000	90	2500	3800	3400
<b>Up to 750 °C</b>								
SNOL 500/750 BH	500	700	700	1000	27	1800	1300	2300
SNOL 800/750 BH	800	900	900	1000	36	2000	1500	2300
SNOL 970/750 BH	970	900	900	1200	36	2000	1500	2500
SNOL 1000/750 BH	1000	900	1000	1200	42	2000	1600	2500
SNOL 1200/750 BH	1200	1000	1000	1200	42	2100	1600	2500
SNOL 2200/750 BH	2200	1000	1500	1500	72	2100	2400	3000
SNOL 3000/750 BH	3000	1000	2000	1500	80	2100	2900	3000
SNOL 4200/750 BH	4200	1000	2500	1700	95	2100	3400	3200
SNOL 5100/750 BH	5100	1200	2500	1700	117	2300	3400	3200
SNOL 9000/750 BH	9000	1500	3000	2000	135	2600	3900	3500

\* Overall dimensions can be adjusted  
Note: Chamber dimensions can be adjusted subject to customer requirements when ordering

# 1. Low-temperature electric ovens

## 1.3 Walk-in type chamber ovens

Walk-in type industrial electric ovens without bottom insulation are designed to provide the user with various types of loading possibilities and are built from high quality materials, such as heavy-duty metal parts and thermal insulation materials, which are manufactured in our factory. The oven can be loaded using any type of trolley or any other convenient way, that can withstand the processing temperature. Fit with a selection of precise digital controllers and certified heating elements to ensure excellent temperature stability. This range of ovens can be applied for annealing, curing, hardening, primary heating, normalising, stress relieving, and other thermal treatment processes up to 350 °C. Induced air circulation ensures an even temperature distribution and achieves great uniformity.

### Base model

- Doors opening to the left and right sides
- Control panel on the left/right side (depending on customer needs)
- Outside casing - metal sheet, powder painted grey (RAL 7035), frame - black
- Heating from 2 sides with tubular (U-shaped) heating elements
- Insulation made from rock wool
- Chamber made from mild / stainless steel
- Ventilation motor on the top or rear, for vertical or horizontal air flow
- Adjustable air supply/extraction
- Equipped with non-programmable PID controller Omron E5CC
- OTP (over temperature protection), Omron K8 relay
- SSR relay
- Door safety switch
- Low power consumption
- Short heating/cooling time
- High level of accuracy
- 1 year warranty

### Optional equipment

- Automated lift up doors
- Automatic air vent control
- Custom control box parts
- Controlled cooling
- Digital timer
- Data recorder
- Data communication/USB
- Calibration and maintenance of temperature measurement system
- Stainless steel oven exterior
- Additional 1 year warranty







Model	Vol., l	Inner dimensions, mm			Power, kW	Exterior dimensions, mm*		
		Width	Depth	Height		Width	Depth	Height
<b>Up to 250 °C</b>								
SNOL 500/250 Arc	500	700	700	1000	6	1600	1100	1700
SNOL 800/250 Arc	800	900	900	1000	12	1800	1300	1700
SNOL 970/250 Arc	970	900	900	1200	12	1800	1300	1900
SNOL 1000/250 Arc	1000	900	1000	1200	14	1800	1400	1900
SNOL 1200/250 Arc	1200	1000	1000	1200	16	1900	1400	1900
SNOL 2200/250 Arc	2200	1000	1500	1500	18	1900	2000	2300
SNOL 3000/250 Arc	3000	1000	2000	1500	24	1900	2500	2300
SNOL 4200/250 Arc	4200	1000	2500	1750	28	1900	3000	2550
SNOL 5100/250 Arc	5100	1200	2500	1750	32	2100	3000	2550
SNOL 9000/250 Arc	9000	1500	3000	2000	43	2400	3500	2800
<b>Up to 350 °C</b>								
SNOL 500/350 Arc	500	700	700	1000	8	1700	1200	1800
SNOL 800/350 Arc	800	900	900	1000	14	1900	1400	1800
SNOL 970/350 Arc	970	900	900	1200	18	1900	1400	2000
SNOL 1000/350 Arc	1000	900	1000	1200	18	1900	1500	2000
SNOL 1200/350 Arc	1200	1000	1000	1200	22	2000	1500	2000
SNOL 2200/350 Arc	2200	1000	1500	1500	26	2000	2100	2400
SNOL 3000/350 Arc	3000	1000	2000	1500	30	2000	2600	2300
SNOL 4200/350 Arc	4200	1000	2500	1700	36	2000	3100	2500
SNOL 5100/350 Arc	5100	1200	2500	1700	40	2200	3100	2500
SNOL 9000/350 Arc	9000	1500	3000	2000	50	2500	3600	2800

\* Overall dimensions can be adjusted  
 Note: Chamber dimensions can be adjusted subject to customer requirements when ordering

## 2. High-temperature electric furnaces

### 2.1 Chamber furnaces up to 1300°C

High-accuracy industrial electric furnaces are designed by professional engineers and made from high-quality materials, such as heavy-duty metal parts and thermal insulation materials, which are manufactured in our factory. Furnaces are equipped with ceramic or heat resistant steel hearth plates, depending on your application. They can be applied in metal and other branches of industry, and used for hardening, normalising, stress relieving, or other thermal treatment processes up to 1300 °C. Also, the furnace is fit with vents for removal of escaping gases or smoke during the thermal treatment process.

#### Base model

- Door opening to left/right side (depending on customer needs)
- Control panel on the left/right side (depending on customer needs)
- Outside casing - metal sheet, powder painted grey (RAL 7035), frame - black
- Heating elements wrapped on ceramic tubes
- Thermal insulation made from refractory bricks and fibre
- Ceramic bottom plates
- Equipped with non-programmable PID controller Omron E5CC
- OTP (over temperature protection), Omron K8 relay
- SSR relay
- Door safety switch
- Low power consumption
- Short heating time
- High level of accuracy
- 1 year warranty

#### Optional equipment

- Manual door lifting
- Automated door lifting
- Custom control box parts
- Controlled cooling
- Reinforced bottom
- Heat resistant metal hearth plate up to 1150 °C
- Vent on the top
- Digital timer
- Data recorder
- Data communication/USB
- Calibration and maintenance of temperature measurement system
- tainless steel furnace exterior
- Additional 1 year warranty





Model	Vol., l	Inner dimensions, mm			Power, kW	Exterior dimensions, mm*		
		Width	Depth	Height		Width	Depth	Height
<b>Up to 1200 °C</b>								
SNOL 64/1200	64	400	400	400	15	1900	1600	2200
SNOL 125/1200	125	500	500	500	25	2000	1700	2300
SNOL 200/1200	200	500	500	800	30	2000	1700	2600
SNOL 250/1200	250	500	500	1000	30	2000	1700	2800
SNOL 360/1200	360	600	600	1000	40	2100	1800	2800
SNOL 400/1200	400	700	600	1000	45	2200	1800	2800
SNOL 500/1200	500	700	700	1000	45	2200	1900	2800
SNOL 800/1200	800	900	900	1000	50	2400	2100	2800
SNOL 970/1200	970	900	900	1200	70	2400	2100	3000
SNOL 1000/1200	1000	1000	1000	1000	70	2500	2200	2800
SNOL 1200/1200	1200	1000	1000	1200	70	2500	2200	3000
SNOL 1500/1200	1500	1000	1000	1500	85	2500	2200	3300
SNOL 2200/1200	2200	1000	1500	1500	95	2500	2700	3300
SNOL 2500/1200	2500	1000	1500	1700	120	2500	2700	3500
SNOL 3400/1200	3400	1000	2000	1700	140	2500	3200	3500
SNOL 4000/1200	4000	1200	2000	1700	160	2700	3200	3500
SNOL 4800/1200	4800	1200	2000	2000	160	2700	3200	3800
<b>Up to 1300 °C</b>								
SNOL 64/1300	64	400	400	400	25	2300	2200	2600
SNOL 125/1300	125	500	500	500	30	2400	2300	2700
SNOL 200/1300	200	500	500	800	35	2400	2300	3000
SNOL 250/1300	250	500	500	1000	35	2400	2300	3200
SNOL 360/1300	360	600	600	1000	45	2500	2400	3200
SNOL 400/1300	400	700	600	1000	50	2600	2400	3200
SNOL 500/1300	500	700	700	1000	60	2600	2500	3200
SNOL 800/1300	800	900	900	1000	60	2800	2700	3200
SNOL 970/1300	970	900	900	1200	80	2800	2700	3400
SNOL 1000/1300	1000	1000	1000	1000	80	2900	2800	3200
SNOL 1250/1300	1250	1000	1000	1250	90	2900	2800	3450
SNOL 1500/1300	1500	1000	1000	1500	90	2900	2800	3700
SNOL 2200/1300	2200	1000	1500	1500	120	2900	3300	3700
SNOL 2500/1300	2500	1000	1500	1700	150	2900	3300	3900
SNOL 3400/1300	3400	1000	2000	1700	180	2900	3800	3900
SNOL 4000/1300	4000	1200	2000	1700	200	3100	3800	3900
SNOL 4800/1300	4800	1200	2000	2000	200	3100	3800	4200

\* Overall dimensions can be adjusted  
 Note: Chamber dimensions can be adjusted subject to customer requirements when ordering

## 2. High-temperature electric furnaces

### 2.2 Chamber furnaces with a removable hearth up to 1300°C

Industrial electric furnaces with a removable hearth are designed for more comfortable loading and built from high quality materials to withstand heavy loads. The ceramic or heat resistant metal hearth plate is manually removable, but can be fitted with an electromechanical reducer for effortless removal. Fit with a selection of precise digital controllers and certified heating elements to ensure excellent temperature stability. This range of furnaces can be applied for hardening, normalising, stress relieving, and other thermal treatment processes up to 1300 °C.

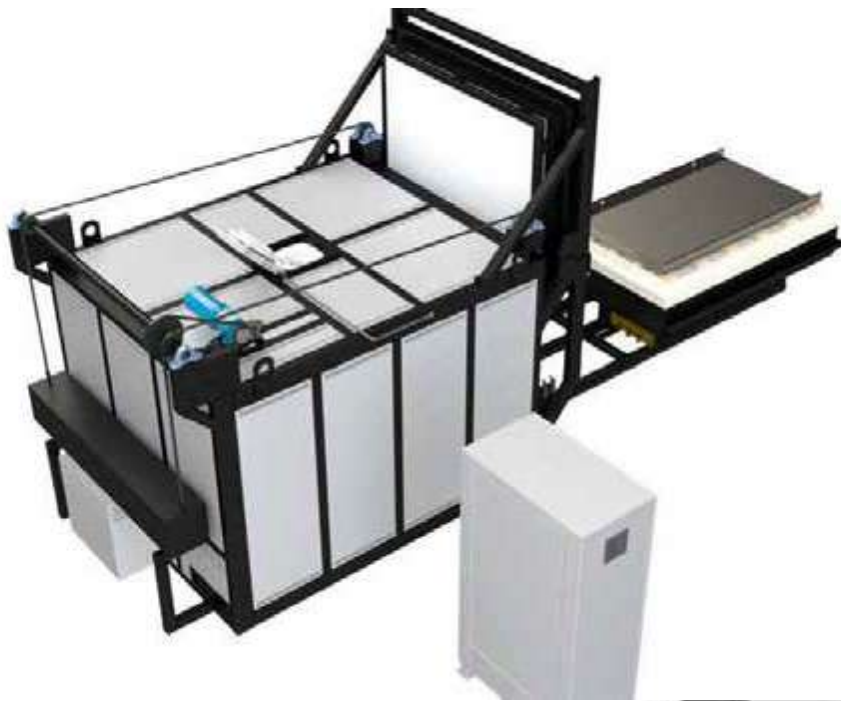
#### Base model

- Manually removable hearth on rails
- Door opening to left/right side (depending on customer needs)
- Control panel on the left/right side (depending on customer needs)
- Outside casing - metal sheet, powder painted grey (RAL 7035), frame - black
- Heating elements wrapped on ceramic tubes
- Thermal insulation made from refractory bricks and fibre
- Ceramic bottom plates
- Equipped with non-programmable PID controller Omron E5CC
- OTP (over temperature protection), Omron K8 relay
- SSR relay
- Door safety switch
- Low power consumption
- Short heating time
- High level of accuracy
- 1 year warranty

#### Optional equipment

- Manually liftable door
- Electromechanically lifting door
- Electromechanically removable hearth on rails
- Custom control box parts
- Controlled cooling
- Heat resistant metal hearth plate up to 1150 °C
- Vent on top
- Digital timer
- Data recorder
- Data communication/USB
- Calibration and maintenance of temperature measurement system
- Stainless steel furnace exterior
- Additional 1 year warranty





Model	Vol., l	Inner dimensions, mm			Power, kW	Exterior dimensions, mm*		
		Width	Depth	Height		Width	Depth	Height
<b>Up to 1200 °C</b>								
SNOL 500/1200 BH	500	700	700	1000	50	2200	1900	2800
SNOL 800/1200 BH	800	900	900	1000	52	2400	2100	2800
SNOL 970/1200 BH	970	900	900	1200	72	2400	2100	3000
SNOL 1000/1200 BH	1000	900	1000	1200	72	2400	2200	3000
SNOL 1200/1200 BH	1200	1000	1000	1200	72	2500	2200	3000
SNOL 2200/1200 BH	2200	1000	1500	1500	100	2500	2700	3300
SNOL 3000/1200 BH	3000	1000	2000	1500	140	2500	3200	3300
SNOL 4200/1200 BH	4200	1000	2500	1700	160	2500	3700	3500
SNOL 5100/1200 BH	5100	1200	2500	1700	200	2700	3700	3500
SNOL 9000/1200 BH	9000	1500	3000	2000	240	3000	4200	3800
<b>Up to 1300 °C</b>								
SNOL 500/1300 BH	500	700	700	1000	55	2500	2600	3400
SNOL 800/1300 BH	800	900	900	1000	55	2700	2800	3400
SNOL 970/1300 BH	970	900	900	1200	80	2700	2800	3600
SNOL 1000/1300 BH	1000	900	1000	1200	80	2700	2900	3600
SNOL 1200/1300 BH	1200	1000	1000	1200	80	2800	2900	3600
SNOL 2200/1300 BH	2200	1000	1500	1500	140	2800	3400	3900
SNOL 3000/1300 BH	3000	1000	2000	1500	160	2800	3900	3900
SNOL 4200/1300 BH	4200	1000	2500	1700	200	2800	4400	4100
SNOL 5100/1300 BH	5100	1200	2500	1700	240	3000	4400	4100
SNOL 9000/1300 BH	9000	1500	3000	2000	240	3300	4900	4400

\* Overall dimensions can be adjusted  
 Note: Chamber dimensions can be adjusted subject to customer requirements when ordering

## 3. Other thermal processing equipment

### 3.1 Customized projects

The company designs and manufactures specialised, technologically advanced thermal processing equipment of various complexity based on customers' requirements. A highly qualified professional engineer team with many years of experience in thermal processing equipment design and manufacturing is capable of producing tailor-made technical solutions for project implementation and ensures high quality and reliability of the unit.

#### 3.1.1 Hardening line

We can offer a separate or combined solution for hardening. Our quenching tank is designed to harden metal components. It can be used with various cooling agents, such as oil, water or polymer substances to cool down metal components and also it can be fitted with a turning platform for raw material transfer from a furnace to the quenching tank. The whole solution can be combined together with multiple furnaces and quenching tanks for the whole process.



Model	Vol., l	Inner dimensions, mm			Weight, kg	Exterior dimensions, mm*		
		Width	Height	Depth		Width	Length	Height
SNOL 1000/-	1000	1345	840	106	320	1630	1460	1070

\* Overall dimensions can be adjusted

Note : Tank dimensions can be adjusted subject to customer requirements when ordering

#### 3.1.2 Conveyor-type oven SNOL 500/100

##### Purpose

For metal product curing after washing process

**Operating temperature** – up to 100 °C

**Productivity** – 3000 kg/h

##### Product features

- Forced air circulation
- Separate zones for adjustable temperature configurations, heating and cooling
- Belt-conveyor with adjustable uniform speed
- Stainless steel rollers
- Automatic control system



## 3. Other thermal processing equipment

### 3.1.3 Shaft electric furnace SNOL 600/900

Shaft electric furnaces are built from high-quality heat insulating materials and covered with a steel exterior. They are designed to be loaded through the top and closed with a lid. This furnace is most suitable for metal component carbonisation (cementation) and hardening processes in oxidation and reduction environment.

#### Purpose

For metal component carbonization (cementation) and hardening processes in oxidation and reduction environment

**Operating temperature** – up to 900 °C

**Capacity** – 600 l

#### Product features

- Forced air circulation
- Adjustable carbonisation agent concentration in the chamber
- Automatic furnace lid opening
- Double sealing
- Retort and diffuser are made of heat – resistant stainless steel
- Additional heating element control



### 3.1.4 Oven for hardening masts SNOL 15840/150

#### Purpose

For hardening sailing boats' masts

**Operating temperature** – up to 150 °C

**Capacity** – 15840 l

#### Product features

- Forced air circulation
- Horizontal airflow
- Controlled cooling process
- Pulling-out load transportation device
- Vacuum pump connector



## 3. Other thermal processing equipment

### 3.1.5 Heating inside of an inert gas atmosphere

Our engineers can offer a solution for heating materials which oxidize or are explosive or flammable during heat treatment, by introducing inert gasses such as Nitrogen or Argon into the chamber or a more air tight option – a gas box. The solution can work automatically, semi-automatically or manually. A gas box can also be fit with an additional thermocouple.



### 3.1.6 Gas heated furnaces

Our engineers can also design gas heated furnaces for quicker temperature ramps and non-flammable thermal processes. Insulated using high quality refractory bricks and fibre for the most efficient processing. Equipped with the most necessary components for liquid gas injection and exhaust fume extraction.





## 3. Other thermal processing equipment

### 3.1.7 Many various options to choose from

Our team can fit the furnace with various options. Even if you do not find a desired option in our catalogue, we can still go out of our way to find what you need and include it in your furnace.

#### Construction

- Stainless steel exterior
- Electric door lock system
- Reinforced bottom
- Removable hearth
- Electromechanically removable hearth rails
- Legs (height can be customized)
- Casters (with/without brakes)
- Heat resistant metal hearth plate up to 1150°C
- Ceramic hearth plate
- Observation window up to 600°C
- Hole for thermocouple
- Light bulb inside chamber
- Air in/outlet system
- Fan speed controller
- Exhaust system
- Automatically opening air outlet valves
- Hepa filter for chimney
- Fast cooling system

#### Control

- Separate heating zone control
- Data communication/USB
- PC connection and software SNOL v2.0
- Signal lights

#### Additional accessories

- Power cable (20 kw and up)
- Hood (for collecting steam and fumes)
- Fork lifter

#### Services

- Calibration of temperature measurement system in 1 point
- Testing protocol
- Packing - included
- Transportation
- Installation service

# 4. Control devices

## 4.1 Temperature controllers

SNOL products are equipped with high-precision digital microprocessor Omron or Eurotherm temperature controllers fitted with self-tuning and manual PID settings. Temperature measurement is supported by thermocouple. The customer can select a basic or programmable temperature controller, which offers up to 32 programming segments (rate of temperature rise or decrease control, maintenance of preset temperature, automatic shutdown). A wide range of devices allows to select the most appropriate controller for your process.

**Omron E5CC**



**Eurotherm 3216**



**Eurotherm 3504**



**Omron E5CC-T**



**Eurotherm 3208**



**Eurotherm Nanodac**



Model	Programmable	Number of programs	Number of steps in a program	Computer port	Control method		Control signal		
					PID	ON/OFF	Type		Number of auxiliary outputs
							Relay	Voltage	
Omron E5CC	○	1	2	●	●	●	●	●	3
Omron E5CC-T	●	8	32	●	●	●	●	●	3
Omron E5AC	○	1	2	●	●	●	●	●	3
Omron E5AC-T	●	8	32	●	●	●	●	●	3
Eurotherm 3216	○	1	8	●	●	●	●	●	2
Eurotherm 3208	●	5	8	●	●	●	●	●	3
Eurotherm 3508	●	50	50	●	●	●	●	●	2
Eurotherm 3504	●	50	50	●	●	●	●	●	5
Eurotherm Nanodac	●	100	25	●	●	●	●	●	5
Eurotherm E+PLC100*	●	-	-	●	●	●	●	●	4

\*PID controller, recorder and PLC in one - designed for elaborate control algorithms.

## 4.2 SNOL controller user interface

We have designed and simplified our own custom user interface for ergonomic daily use without any complex codes and we offer it as an option in addition to our industrial furnace Omron touch screen controller.



# 4. Control devices

## 4.3 Eurotherm data recorders

Eurotherm data recorders are ideal for basic visualisation and recording requirements. They have a full colour display and utilise touch screen technology for clear and intuitive configuration and operation. Also, support of a USB port comes as standard to enable the use of a mouse, keyboard or a bar code scanner. Data can be moved manually or automatically archived to multiple locations: removable media, network servers or the Eurotherm Review database on a PC. These recorders can easily be integrated into a larger system and data files can be transferred across the network.

### Main features:

- Advanced data security and archiving
- 5.5"; 1/4 VGA, Color touch screen display
- Designed for network and stand alone use
- FTP client and server
- Live, remote data viewing and configuration
- 125ms parallel sampling.



## 4.4 Computer software SNOL V2.0

SNOL V2.0 is a computer software for data recording, viewing and configuring the temperature controller running your thermal treatment process. The software is designed for Windows operating system. Computer software allows to simply run, review and display charts on thermal process temperatures and other settings.

### Main features:

- Up to 128 controllers connection
- Supports up to 4 computer ports
- Control of device parameters and programs via computer
- Live, remote data viewing and configuration
- Graphical representation of the data
- Data export to Microsoft Excel format
- Ability to observe the process in a distance by internet
- Connections RS-232 and RS-485.
- Multiple language entry (ability to install necessary language).



## 4.5 Timer

The main function of the timer is to remotely start the furnace. The timer works in real-time. During the operation, the output contact of the timer is operated according to the settings of the dial-switches. However, it is possible to manually override this operation for each channel individually at all times.

### Main features:

- Start and stop 24 hour / 7 day oven operation
- Stores up to 20 programs with up to 1 O ON and 1 O OFF events/day
- Manual 3-way override
- 16 Amp, 277 VAC resistive SPDT output contacts
- Reserve carryover: 3 years (Non-replaceable battery)
- Manual Daylight Time Changeover
- 3 languages option
- Available only with Omron devices.

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