SLS/P-O SERIES

Ovens with forced air circulation

About series

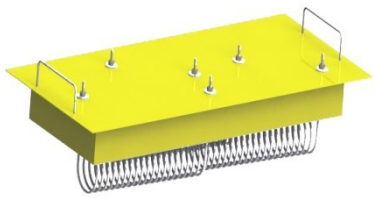
Ovens series SLS/P-O works in factories which needs high quality end product. This series of products meet highest world requirements for powder coating and heat treatment. The best showcase of this series are the customers from all over the world who have the experience of other branded products of this class decide to exchange their units for ROMER. Lightweight design of the furnace, insulation with low thermal transmittance cause rapid heating of the chamber, and energy savings. Aware customers with experience, choose ROMER.

Air circulation

The advantage of ovens Series SLS/P-O is the air circulation system, which type depending on the specifics of production, it is measured individually in order to obtain the best heat treating results. Thanks to developed technology of distribution channels and control of the air flow, each furnace is individually calibrated after the end of the production process. Air circulation is designed to take place with great speed by heating chamber, which increases the life of the heating elements, speeds up the heat process and reduces the inertia of the temperature.

Technical data

Model	Worksize Dimensions	External dimensions	Heat power	Heating panels	Fans count
SLS-9O	W1200 H1800 D1600	W1560 H2410 D1800	9–15kW	1	1
SLS-18O	W1200 H1800 D2500	W1560 H2410 D2700	18kW	2	1
SLS-27O	W1200 H1800 D3000	W1560 H2410 D3200	30kW	2	1
SLS-36O	W1200 H1800 D4000	W1560 H2410 D4200	36-45kW	3	1
SLS-45O	W1200 H1800 D5000	W1560 H2410 D5200	45-60kW	3 – 4	2
SLS-54O	W1200 H1800 D6000	W1560 H2410 D6200	60-75kW	4 – 5	2
SLS-70O	W1200 H1800 D8000	W1560 H2410 D8200	75-90kW	5 – 6	3
SLS-120O	W1200 H1800 D11800	W1560 H2410 D12000	120kW	8	4
MAX	**W2300 H2700 D12000**	**W2660 H3310 D12200**	-	**Trailer size-low bottom**	-



Technical specification

So what makes us different from the competition

Walls

The outer walls of furnaces in this series are isolated using branded products Isover and Rockwool and they reach a total thickness of up to 160mm.
Outer plates are powder-coated.

Inner chamber

The inner chamber is finished with a special galvanized sheet.
The entire internal construction is lightweight, making the items in the chamber quickly achieve the desired temperature. The furnace was designed in a way that allows you to keep most of the heat in the distribution chambers, when the door is opened. As a result, the oven after each time warms the load quicker, without losing the warmth of the previous cycle. The seal of the door frame, is finished with a flexible seal resistant to temperatures up to 250 degrees Celsius. The floor has a reinforced structure, which allows the operator to enter the chamber.

Heating panels

Heating elements are made of high grade Kanthal wire resistive type.
The important part is the body which is annealed nickel chromium alloy with added titanium. This combination ensures long life and reliability.

Modular construction

Ovens of this series have a modular design that allows easy removal of any electric part without interfering with the construction of the furnace. Heating panels, fan panels are removed from the top of the oven, if necessary, their replacement takes just a few minutes. The availability of these units is immediate, and can be provided immediately, which allows us to serve sales all over the world .

Steering

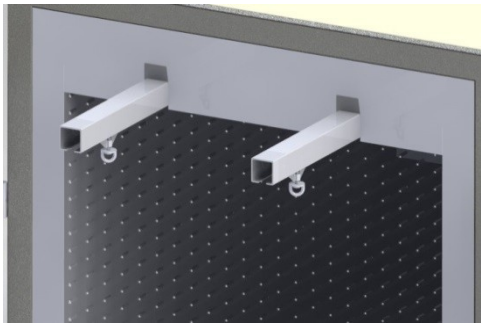
Standard control in furnaces of this series allows you to set the cycle time and the temperature on the digital microprocessor based controllers. The temperature controller is extended by the automatic learning how to control the heaters to maintain the desired temperature. Time controller has a large display that shows the time to the end of the cycle. The motors have thermal protection from damage. Oven prevent the start of the cycle, if it is wrongly connected, which would result in improper air circulation. After the start of the cycle, the oven reaches the desired temperature. When the temperature in the chamber is same with the preset, Oven begins counting down the heating process, at this point, the controller will maintain the desired temperature. After completing the process, the end process alarm turn on and it cut off of the heating circuits, then You have to remove items from the oven. Any change in the process is indicated by a suitable light mounted on the control box.

Standard equipment

Transport types to choose

Standard rail

Option with two carriages, the most popular. Outer trolley with turning rubber wheels. The system is used at low to medium loads. Reduces impurities from the floor in the chamber. Upper trolley frame comes in the form of frame with high-temperature bearings, not painted ready for welding.



Head up rail

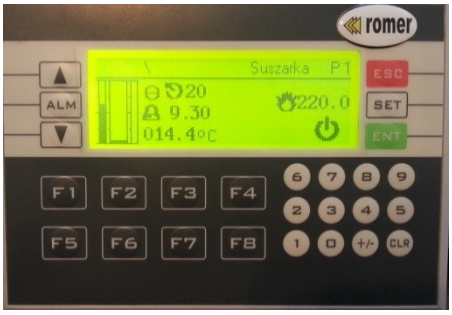
Option with two 70x70x4 rails covered with paint resistant to temperatures up to 500 degrees Celsius. The system is used for medium and heavy-duty large lines. This solution allows a one time hanging element on the rail, and then only pushing it, is quick to use, however, it requires a line extension for system of cross-beam conveyors and the unloading stands.

Rails in the floor

The option of a trailer, used for very heavy loads of several tons. Trolley is equipped with cast-iron wheels on roller bearings. This prevents twisting of the truck only goes back and forth. This causes a decrease in the height of the oven by 10 cm as compared with others. Trolley comes in a frame with wheels. without superstructure, not painted ready for welding.

Optional equipment

Types of optional equipment, extra charge



CNC Steering

ROMER's Ovens with CNC includes microprocessor system of PLC and HMI systems connected to the furnace control mechanisms. Control software allows saving powder curing settings, drying programs with ventilation and heating programs under the curve (up to 10 events). Implemented Smart Heat ™ system with built-in flash memory stores data and controls the furnace heating curve, increasing the stability of the set temperature, the system implemented advanced Proportional Integral Derivative protocol. Intelligent controller indicates an error when opening the door, overheating of the furnace, etc.

Stepless power regulation

ROMER Power control is provided by thyristor regulator mounted in the control box of the furnace. Power control is stepless adjusted by knob on the oven control box. By using the control You can reduce power consumption by the furnace, which is extremely useful when you do not have the proper allocation of power, or we want to temporarily reduce its power consumption. Using this option, you can also install more than the normative amount of heating panels, which will increase our total capacity of the furnace. By reducing the oven power by the regulator it extends the life of the heaters reducing the load on each of them, You also leave space for maneuver when the load is heavy, or just want to quickly warm up the chamber.

Automatic ventilation

Automatic ventilation is the system of fans and motors managed by intelligent controllers extracing smoke from the chamber. Automatic ventilation is an additional ventilation duct fan that forces air exchange. The system is used when the chamber fumes needs to be extracted out of the furnace during the curing process. Ventilation is controlled by entering the following parameters - length of ventilation, aeration interval. The system every set period of time for a set number of seconds opens ducts and exchange the air.