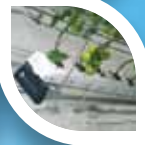
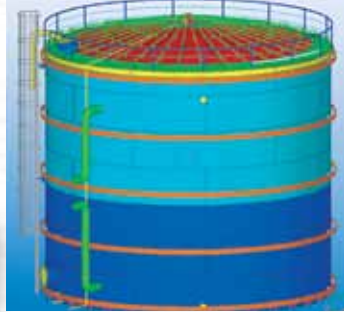




TOTAL GREENHOUSE SOLUTIONS



"Modern Greenhouse System Solutions"



About Us

SERATEK is a company that provides TOTAL GREENHOUSE SOLUTIONS from one hand since 2003, by supplying modern greenhouse systems such as Greenhouse Constructions, Irrigation, Heating and Climate Control Systems suitable for all kinds of climate conditions at home and abroad .

All our projects are designed and analyzed according to International norms and Standards, statistical climate data and construction specifications of project location and manufactured at our factory that is located in Antalya Industrial Zone

SERATEK, which produced hydroponic tomatoes for many years in its own production line and with this experience can also look at agricultural facts with the eyes of the growers. SERATEK is able to supply Stable Greenhouse Systems composed of products that are fully compatible with each other with its accumulated agricultural and technological know-how, human and machine power, use of always best raw material and equipment that are supplied from his domestic and international partners .

Thanks to our practical experience, you may get support in every step of the technological greenhouse investment and production network from selection of project location to growing and marketing

Welcome ...



Greenhouse Construction

A Healthy Mind In A Healthy Body

Greenhouse Construction, that protects and carries the crop and the greenhouse systems is the most important part of modern greenhouse technology. A greenhouse structure that does not be able carry the loads of climate, product and accessory and does not have sufficient coating thickness against corrosion can be short-lived, may cause entire investment be destroyed.

The suitable cross sections and connecting elements of Seratek Greenhouse structures are determined by calculating the most critical design load combinations of construction self-weight, product loads, accessory and covering loads, Ground Snow Load and Wind Load in Steel Building Programs according to the European Greenhouse standards EN 13031-1 .

Greenhouses are manufactured Zinc coated (EN ISO 1461 and DX51-Z275 standard) from S235JR and S275JR quality steels raw material and as standard span width of 9,60m-11,20m-11,50m-12,80m.

Also; greenhouses with demanded span width and closed control center needs like warehouses, boiler room, irrigation and automation center are met with our modular type light steel warehouse and heavy steel construction in wide openings.



Thermal & Shade Screening System

"Don'tWasteYourEnergy"

The thermal and shadow curtain system is designed to save thermal energy by creating an insulation chamber between the roof cover and inside of the greenhouse and also protect the crops against overheating caused by dangerous solar radiation and excessive sunlight. When the curtain system is designed, the heat and light requirements of the product to be trained are taken into account.

The curtain systems, which we have designed in accordance with the requirements of the project and demands of the grower consist of the curtains, movement mechanism and fixing accessories that are designed to gain stable operation and manufactured by us. Apart from the curtain textile and the gearing system, all the other components are manufactured by ourselves.





Greenhouse Heating System

"Key word is balance"

The heating system based on hot water circulation principle is designed in accordance with the greenhouse heat loss depending on outside climate data of the region where the greenhouse installation will be done and the desired inside temperature depending on the crop to be grown, by Seratek Engineers according to Tichelman Principle.

Our heating system design includes Gas Boilers, Boiler Rooms, CO₂ production from fue gas and Hot Water Storage (Buffer) Tank systems and as well as Greenhouse inside installations such as Rail Heating, Grow-pipe Heating, Snow Melting installation and Roof Heating. In order to obtain uniform and quality products, a heating system, properly designed and equipped with the right equipment is required. A correct heating design supplies sufficient and uniform heat distribution that is obtained from heat sources such as natural gas, coal and geothermal water.

Providing such equipment as Boiler, burners, pumps, valves, pipes and all heating installation equipment from partners best in the field, Seratek designs and supplies complete heating systems according to all kind of climate conditions



CO₂ System & Heat Storage Tank

"Increase Your Production Capacity And Quality"

During certain periods of the year, especially when the sun's rays are dense and the days are long, the amount of CO₂ in the air cannot meet the sunlight energy that the product collects during the photosynthesis process. Thanks to the CO₂ system to be installed, the CO₂ released with the fue gas and blown to the air can be obtained from boiler's chimney and dosed into Greenhouse environment according to the measured and desired CO₂ amount to complete this deficit.

The use of CO₂ will not only increase the production quantity but will also increase the product quality and extend the shelf life which is extremely important for the exporting companies especially for the time lost during transportation.

However, During the daytime CO₂ production, there might not be heat demand from the greenhouse or hot water may be produced in excessive amount of the demand. In this case, hot water storage systems are needed to store the generated hot water to save energy and to meet the extra hot water need that is needed at the coldest (peak) time.

Seratek offers cylindrical, vertical hot water tank solutions up to 5000 m³ volume according to project size and location. The tanks which will also serve as expansion vessel are designed and all steel parts are manufactured in Seratek's Factory and delivered as ready to be installed on site together with all accessories such as nitrogen generator, suction and vacuum safety valve, level and temperature sensors, external isolation, sailor stairs.





Irrigation System

"Controlled Nutrition = High Yield & Uniform Fruit"

Balanced Plant nutrition which is the base of crop production is only possible with a properly designed and controlled irrigation system that provides the nutrients at the appropriate quantity, frequency and pH level.

Depending on the crop and its growing method, in his Turnkey Greenhouse Projects, Seratek designs and provides complete irrigation systems from the simplest to the most sophisticated with all the equipment such as stainless steel framed irrigation-fertilizer unit, drippers, pipes, solenoid valves and water tanks.



Greenhouse Automation & Electricity

"Everything is Under Control"

The main target of Greenhouse cultivation method is to grow the crops during the season out of their natural climatic conditions and in uniform structure, high quality and yield and

In addition to being the greenhouse structure and covering resistant to external factors such as rain, snow, hail and wind, the climate control systems such as Heating, Screening, Cooling have to work in full harmony and stability and be resistant to high and low temperature and humidity as to meet the optimum ecological needs of the crop. Stable and compatible greenhouse systems can only be achieved with the right design, the right product and the right application.

In our turnkey greenhouse projects, all greenhouse electrical panels and installations and automation control are designed and manufactured by Seratek supplied as a whole compatible package by providing the Climate control software and hardware from our worldwide well-known partners

Do not forget; Accurate design and stable systems mean optimum investment and minimum operating costs.



Growing Gutters

"Ergonomic, Non-Damaged & Sterile"

Hanging or ground supported type of Gutter Systems, having different cross sections depending on the crop to be cultivated and produced locally in one piece along the Greenhouse Spans, not only make your horticultural production ergonomic and more profitable by reducing your labor cost, but also help to warm up the root environment and achieve better airing of the roots by taking the advantage of the air flow, reduce loss of crops by preventing breakage caused by collision of harvesting and cultural processing trolleys. In addition, the risks of diseases are reduced as a good irrigation and drainage flow is obtained without algae, and pre-season cleaning and disinfection are very easy.

All kinds of gutter systems accessories such as parrot hooks, stem hooks, bracket hooks, Kit head hook, ground supports are manufactured in Seratek Fabric with CNC machines and the systems are supplied as a completed package with the delivery of the final forms in the greenhouse of the gutter sheets which are shipped in rolls.



Fog System

"Protect your plant"

As the relative low humidity in greenhouse environment causes several disease such as powdery mildew, high temperature cause slow plant growth and fruit formation in small and undesired structure.

In addition fog systems, improperly designed and non-equipped with correct material are likely to cause dissipation and fungal disease; as the proper sized water droplets won't be able to produce due to evaporation without dripping.

Our high pressure fogging system working under 70-120 bars, is able to produce water droplets smaller than a micron due to its small nozzles. These water droplets sprayed into greenhouse environment through stainless steel pipes, evaporate without dripping due to their small size cause to cool down 4 to 7 °C also keep relative humidity as desired.





Cultivation Accessories

We provide for turn-key greenhouse projects and also for other greenhouses some cultivation accessories that are manufactured in our factory such as;

- Accessories for hanging and supported gutter systems
- Rail pipe supports, hooks and consoles for heating pipes
- Nursery tables
- Hooks for crop (in standard 18 and 22 cm with free falling)
- Crop clips
- Accessories for screen system
- Structure spare parts
and also we supply from our partners the products such as;
- Cultivation and harvesting trolleys
- PE Film plastic and clips
- Growing media (cocopeat, rockwool)
that you can order from us.



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SeraTek

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