



GREENHOUSES UNIT

www.robinsons-lb.com

OUR MISSION

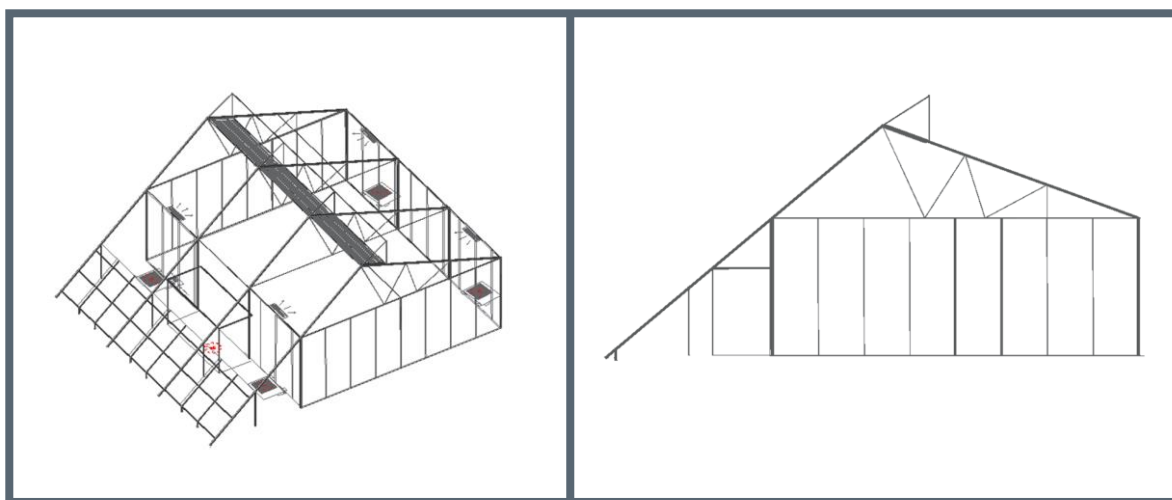
Our mission is to service the agriculture sector and lead regionally and internationally. We aim in supporting farms for optimum production practices and environmental solutions.

OUR VISION

Our customers are our most valuable assets. We maintain open lines of communications in all customer relations. We are able to serve a wide range of needs from standard projects to tailor made technically sophisticated ones.

OUR TEAM

Our team of agronomists and technicians is dedicated to accomplish any required job. We hub the most talented individuals in our different units. Our team's diverse expertise and know how make us excel under any work environment and condition.



OUR HISTORY

Our technical roots and know how goes back to 1966. Since our beginning we have been focused on crop production and protection.

Driven by food security concerns we specialized in greenhouse technology and technical solutions for protected agriculture. Our aim was to secure an all year-round crop and an increased production per surface area.

We were the first to introduce greenhouse technology to Lebanon and we still have the main market share.

We have been, and still are, leaders in introducing new technologies and developments to the field.





1966	First agriculture activity
1973	First greenhouse tested at the ministry of agriculture trial station.
1977	First factory for greenhouse tunnels
1982	Move to a second greenhouse production facility
1985	Move to the current factory location to meet the increased demand
1986	First advanced multi-span model
1987	First export to Australia
2000	First to introduce vegetable grafting to Lebanon
2001	UNDP/FAO/MOA tender for IPM multi-span greenhouses all over Lebanon
2006	UNDP/FAO/MOA tender for greenhouses ventilation upgrading in South Lebanon
2010	Monopoly over the greenhouse market in North Lebanon
2013	Study a Mega High-tech multi-span greenhouse project in Hungary in collaboration with the Hungarian government
2014	Shift Robinsons horticulture business concept from separate trading activities to a full concept provider; from farm design to material supply, execution, management and produce marketing
2017	Build own trial IPM High-tech farms and own brand for produce marketing "Gem fruits"
2023	Establishment of Robinsons Arabia in Riyadh KSA to serve the Kingdom and the Gulf area

OUR MARKETS

Other than our local market we are one of the key players in tunnel and multi-tunnel greenhouses in Australia, where we are currently expanding into multi-spans and high-tech structures.

We had several supply and technical exposures into Russia, Romania, Hungary and Iraq.

Lately we have finalized a greenhouse model designed to perform under extreme climatic conditions (Heat, humidity...).

Most of the emerging countries with these conditions are attracting investments in controlled environment high-tech greenhouses for their food security programs.



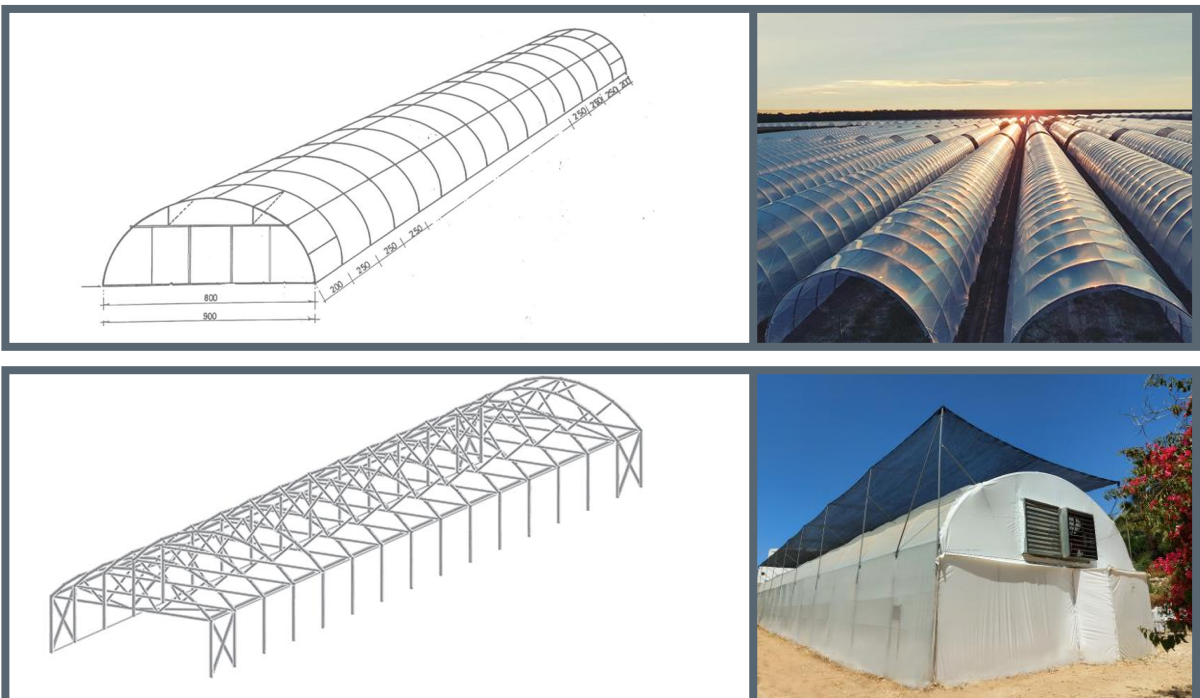
TUNNELS

Robinsons offers a wide selection of standard as well as tailor made tunnel greenhouses with high-performant solutions adapted to any crop. These greenhouses are quick and easy to assemble forming a robust structure highly resistant to prevailing winds.

They feature side openings for improved climate control with side arches designed for an optimal growing surface area and efficient crop handling. This type of greenhouses can be outfitted with all the required equipment for climate control, including heating, cooling and monitoring systems.

With a simple arched frame design, simple tunnels are available in standard 5.0m, 6.0m, 7.0m, 8.0m, 9.0m and 10.0m width with up to a 6.0m ridge height. Tailor-made sizes can also be possible according to target solutions as well as clients request. They allow growers to produce and control their crops with a low-cost greenhouse structure.

Straight sided tunnels on the other hand allow a bigger volume for better climate control therefore a better production. This type of tunnels is used mainly when bigger indoor volume is needed and farmland is on terraces.

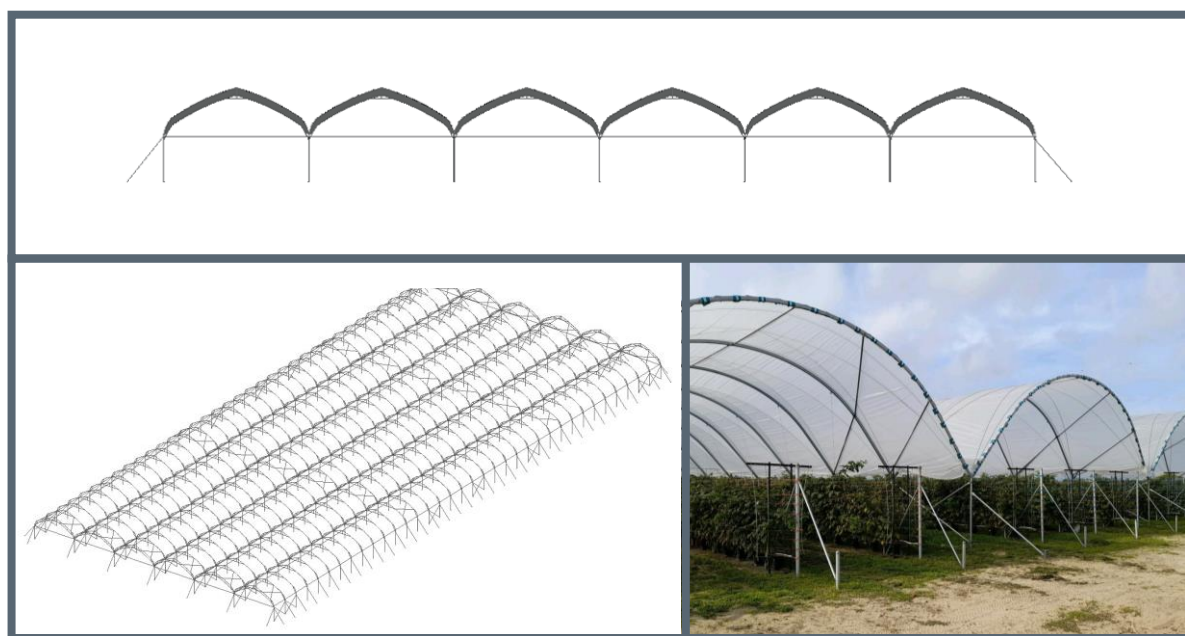


MULTI-TUNNELS

Multi-tunnels are another efficient solution for vegetables and berries. It is economically very feasible. The structure design makes it easy to assemble and highly resistant to prevailing winds.

Standard sizes per tunnel are 7.0m, 8.0m and 9.0m with up to 5.0m ridge height. Tunnels can be interconnected with or without a gutter system. It could also be equipped with a convertible system to easily fold and unfold the plastic cover.

Tailor-made sizes can also be possible according to target solutions as well as clients request.



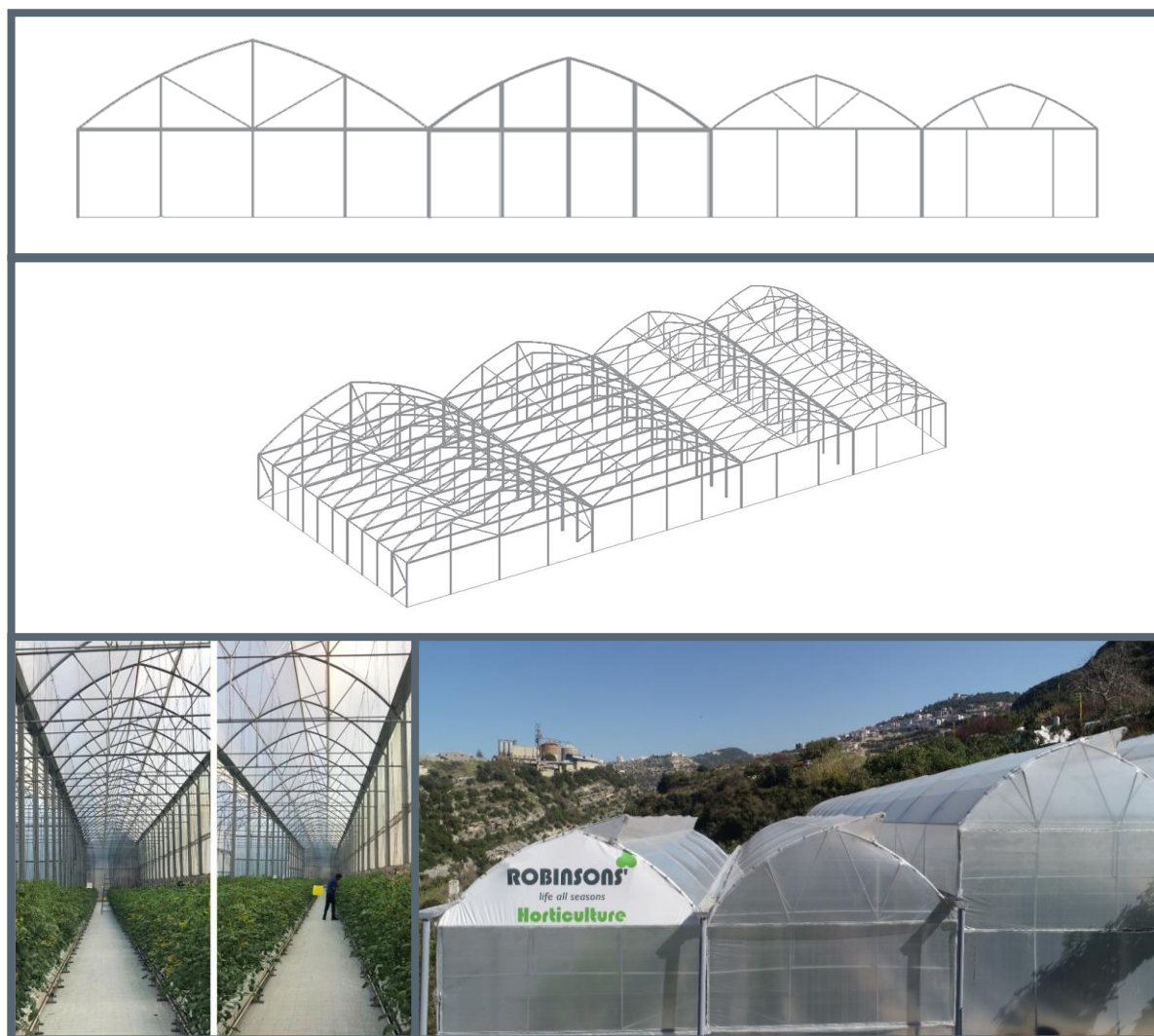
MULTI-SPANS

Robinsons has developed a complete range of multi-spans adapted to the different cultures and crops.

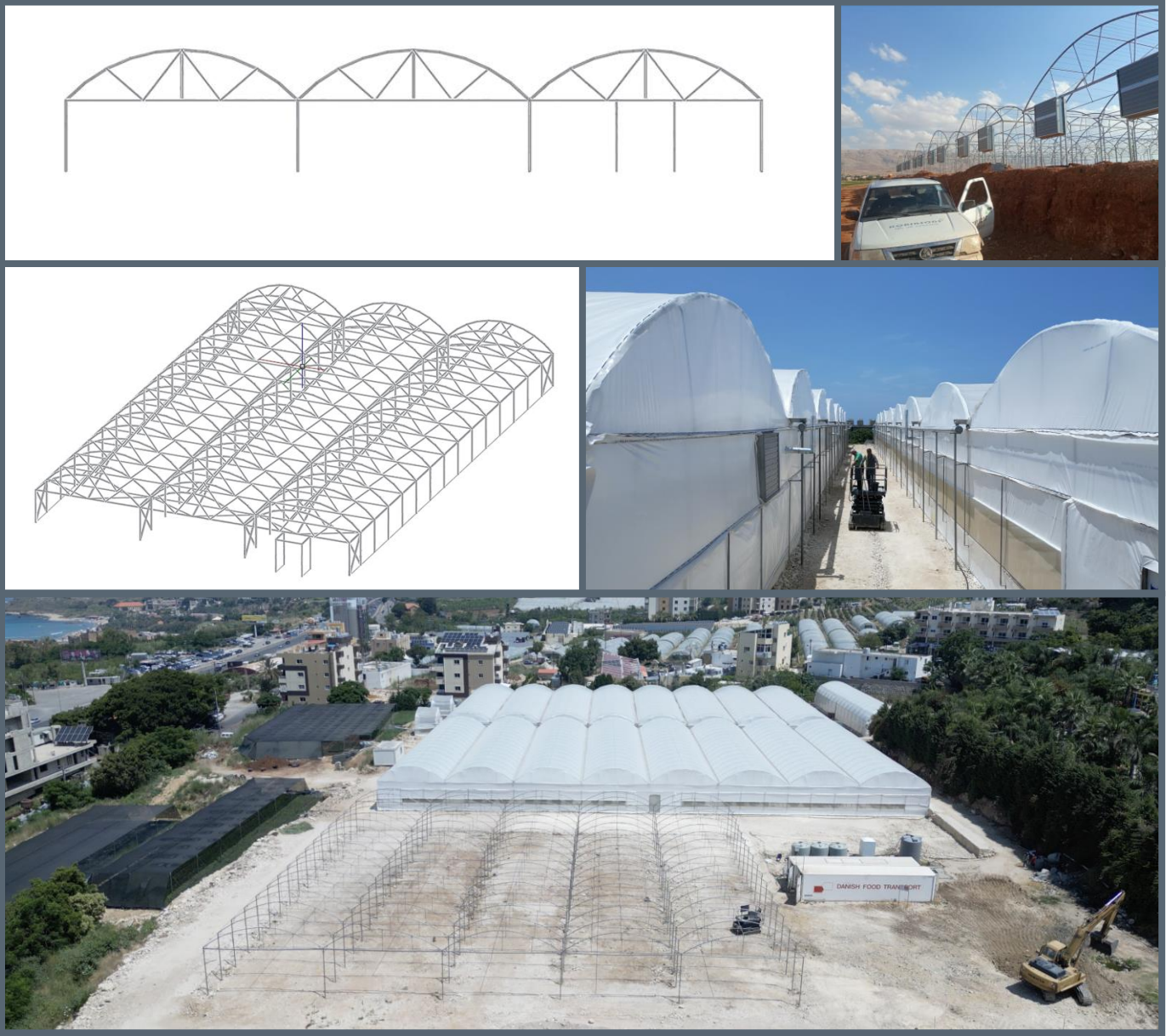
Multi-spans allow farmers to fully control the indoor climate choosing the right volume for their crop.

As per the farmer's aim and needs multi-spans can be supplied with simple economical structures and equipment to high-tech complex ones.

Standard span sizes are 6.0m, 8.0m, 9.0m and 10m for arched types and 6.4m, 8.0m, 9.6m, 12.8m and 16.0m for gothic types. Heights under gutters go from 4.0m to 8.0m with ridge heights up to 11.5m.



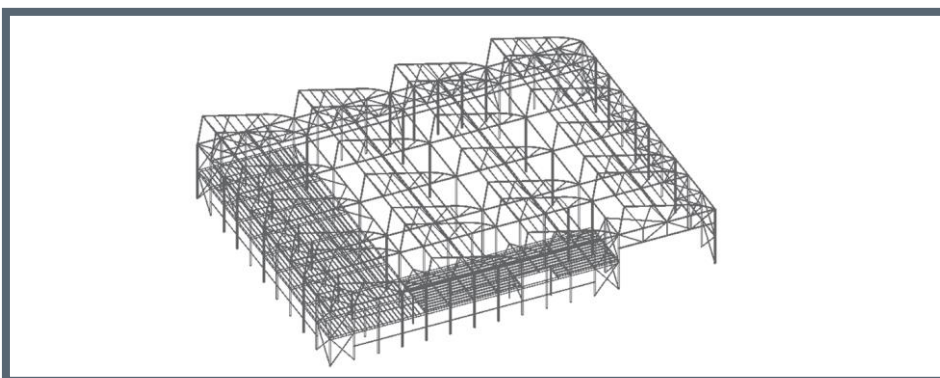
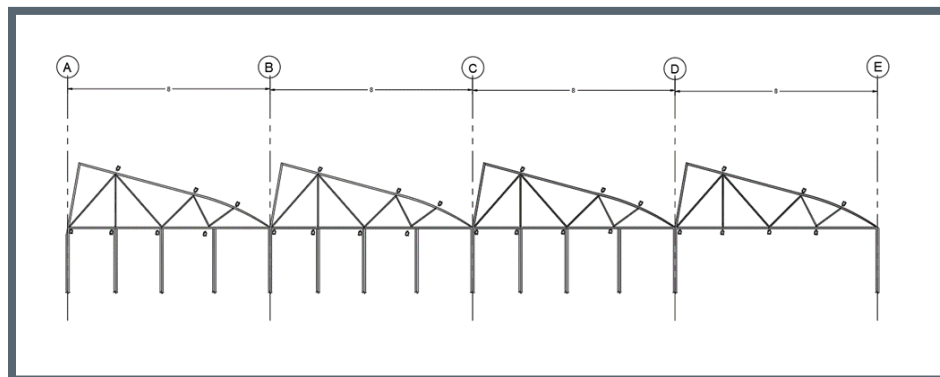
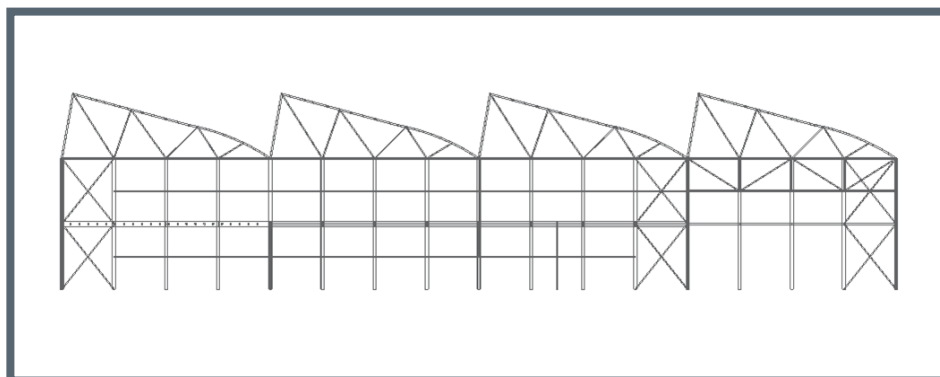
MULTI-SPANS



TAILOR-MADE

Tailor-made steel structures are our specialty, offering versatile solutions to meet specific needs.

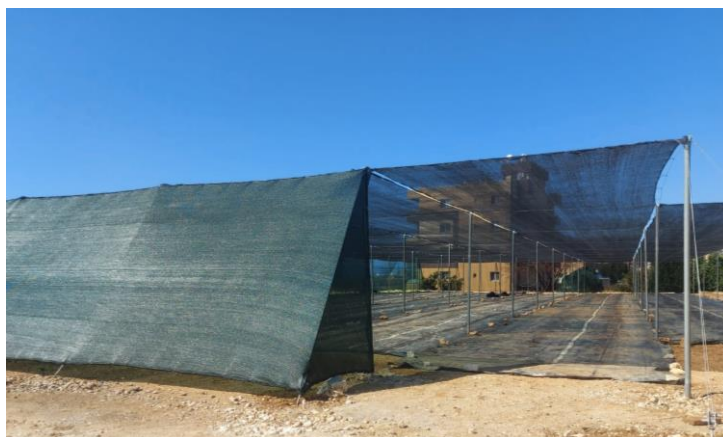
Whether a custom greenhouse, showroom, warehouse, offices, or any other structure is required, we design, build and commission according to the project specifications with high precision and quality.



SHADE AND NET HOUSES

Our Shade and Net Greenhouses are versatile, fitting various terrains and shapes. They offer flexibility in sizing and volume for ornamental or fruits and vegetables production.

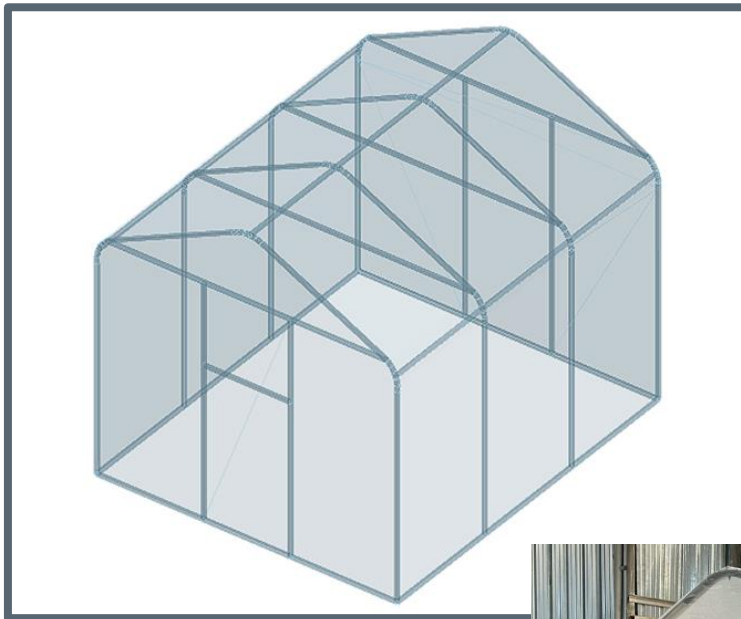
The types of covers vary as per the usage from black or white shade to plastic. With various cover options and a retractable roof feature, these greenhouses are a cost-effective choice, especially in regions where no high tech greenhouses are required.



HOBBY

Hobby greenhouses are a practical and affordable solution for gardening enthusiasts. These structures are easy to assemble and built to withstand various weather conditions.

With different optional sizes, they offer a controlled environment for year-round plant cultivation and experimentation, making them ideal for passionate gardeners.



COOLING

Our cooling systems provide the perfect combination of usability, reliability and low running costs, thus it is the greenest solution to solve the problem of excessive heat in large environments.

The optimal ventilation that looks to efficiency and quality minimizing the environmental impact has always been one of our main targets.

We offer a full range of exhaust fans capable to meet the customers' needs by ensuring excellent and certified performances for different applications.

The evaporative cooling pads work according to the principle of adiabatic heat exchange which is a simple and economical method of humidifying huge air volume by the lowest energy consumption.

The shorter way of this pad's version is meant to be used in high-efficiency cooling system.



SEMI-CLOSED SYSTEM

Our aim is the implementation of a production system with an efficient energy use and low CO₂ emissions.

The closed or semi-closed greenhouse concept is widely accepted as a concept to achieve the targets for energy saving and low CO₂ emissions.

It allows temperature, humidity, and CO₂ concentration to be controlled independently, during heating as well as cooling mode function.

Among others, semi-closed greenhouses offer possibilities for better control of greenhouse environment, for increasing water use efficiency by decreasing the evaporation losses via ventilation and for reducing the pesticide use by decreasing the entry of insects and fungal spores in the greenhouse through the ventilation openings.



HUMIDITY CONTROL

Fogging and misting

In order to provide a perfect micro climate for plants, we offer fogging and misting systems that create a controlled environment and regulate temperatures and humidity levels.

Dehumidification

We design dehumidification systems to efficiently remove air moisture and better control humidity in greenhouses.



SCREENING

Thermal

We offer Thermo-reflective screens for optimal temperature control inside greenhouses. They improve the photosynthetic yield of plants, protect against sunburns, ensure good working conditions, promote effective pollination and water saving.

Blackout

We offer blackout light deprivation nets that provide a total control over day length for sensitive plants, effective cooling and light control.

Shade

Shading nets are available in different textiles patterns to create shading factors suitable and satisfy the various cultivation needs.

They can either be fixed or mobile, external or internal.



PRODUCTION SYSTEMS



When it comes to food security, production under greenhouses has more advantages over open field in terms of climate control (Temperature, humidity...), plant and growth management leading to an all season harvest.

We have been mastering the latest greenhouse production techniques for in soil cultures from soil disinfection and preparation to plant technology as well as IPM farm management systems.



We have been also implementing different soilless substrate based hydroponic solutions. We can also provide other systems as per clients requests (Aeroponic, aquaponic...).



We also offer own tailor made solutions combining different systems for maximum efficiency and higher yield.



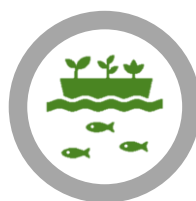
In soil



Hydroponic
(Substrate, NFT..)



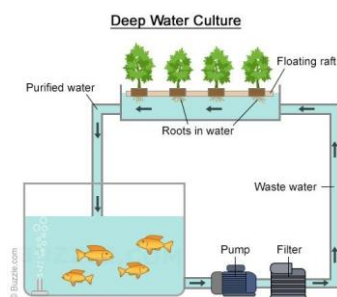
Aeroponic



Aquaponic



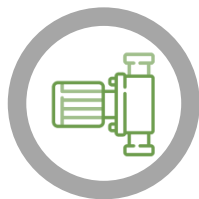
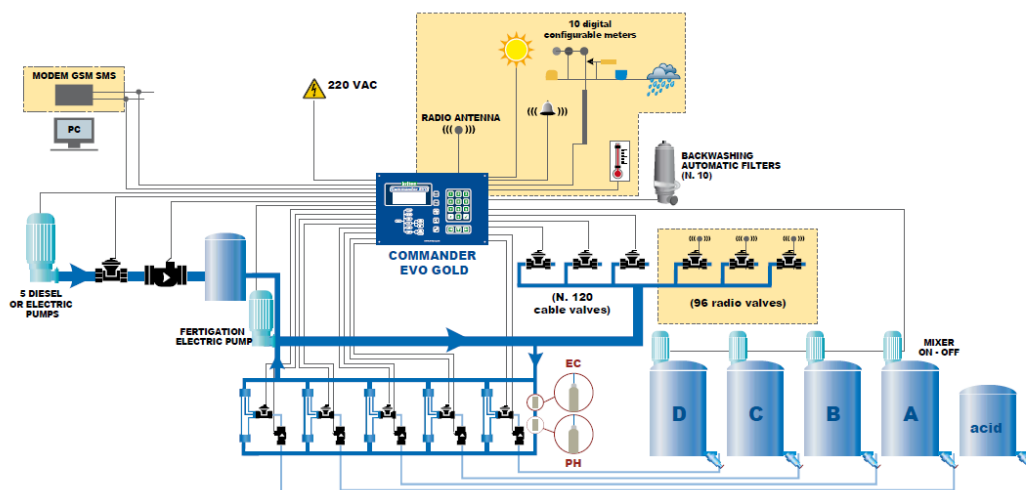
Special
solutions



MIXING TANK UNITS

Our fertigation units are designed to offer a precise and reliable output capable of guaranteeing optimal development of crops and are capable of managing greenhouse irrigation systems in both soil and soilless.

It is easy programmed and embodies advanced functions allowing complete management of the irrigation system and ensuring correct contribution of nutrients based on pH and EC values set by the user or based on the required percentage values.



Dosing
pumps

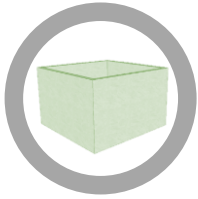


Direct
injection units



Mixing
tank units

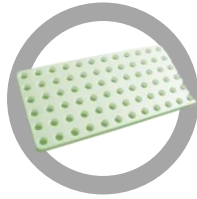
WATER AND SOLUTION STORAGE



Concrete
tanks



Metallic and
plastic tanks



Artificial
ponds



WATER AND SOLUTION FILTRATION



- Sand filters
- Mesh and Disk filters
- Stainless steel filters

IRRIGATION SYSTEM



- Submerge
- Drip
- Spaghetti
- Spray

WATER AND SOLUTION TREATMENT

In order to minimize plant pathologies, root and soil infections, we offer different technologies for water treatment including ultra violet, reverse osmosis, ozonation, hydrogen peroxide and chlorination.

- Ozonation is a type of advanced oxidation process, involving the production of very reactive oxygen species able to attack a wide range of organic compounds and all microorganisms such as protozoa. This technique consist on infusing ozone into water by exposing oxygen to high electric voltage or ultra violet radiation.
- Chlorination is a widely used technology for disinfecting water in greenhouses. Chlorine is very effective for removing almost all microbial pathogens by preventing bacteria from multiplying and is appropriate as both a primary and secondary disinfectant.
- Hydrogen peroxide (H_2O_2), is one of the most versatile, reliable and environmentally friendly oxidizing agents. It is efficient in water treatment by removing organic pollutants and some toxic metals and in destruction of microorganisms.



Ozonation



Chlorination



Hydrogen
peroxide



Ultraviolet



Reverse
Osmosis

CONTROL SYSTEM

Weather Station

Greenhouse weather station is a next level greenhouse thermometer.

It doesn't only predict weather conditions, but it will also give you an extremely detailed view of all parameters that could influence your greenhouse and plants for a better weather conditions monitoring.



- Weather stations
- Sensors and scanners
- Electromechanical controls
- Fertilization controls
- Climate control software
- Feeding software
- Growth management



SERVICES



- Project designs and tailored solutions
- Feasibility studies
- Project management
- Infrastructure works
- Greenhouse and facilities building
- Greenhouse furnishing
- Material and Equipment supply
- Young plants supply
- Crop advisory and technical support
- Produce marketing and logistics



ROBINSONS' 

life all seasons

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