

# Deep water cultivation

semi automated







# **About**

The demand for food safe products are worldwide increasing. In China 'Food Safety' is in the governments top priority list in the renowned 5-year plan. In the United States retailers implement stricter requirements regarding food safety. Europe has a great focus on traceability of fresh produce. Solutions that enhance food safety get a lot of attention worldwide.

The Viscon Hydroponics system focuses on the safe production of fresh produce. The Viscon system is a closed growing system on deep water.

Viscon Hydroponics focusses on short cycle crops that can be grown on deep water, like herbs, cabbage and lettuce. The system consist of three important phases:

- 1. Growing of the young plant
- 2. Production on deep water
- 3. Ergonomic harvesting

The Hydroponic Manual systems gives you all the advantages of deep water cultivation without initial high investments. An efficient workflow, a clean system and highly efficient production puts you in a great competitive position.







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Go to www.viscon.eu and be updated on new developments and case stories.



# **Smart Young Plant Production**

The Viscon Hydroponics Manual Seeding Line provides you with an efficient seeding line. This seeding line provides great filling results, accurate seeding and watering & covering and fully prepares your young plants for a great finish! growing cup: the 'grow' cup, which has been specifically designed for an optimal growing result. Several growing aspects have been factored in, like optimal soil content, optimal buffer area and optimal root growth stimulation.

The key of the growing process of the young plant lies in the





# **Production Phase**

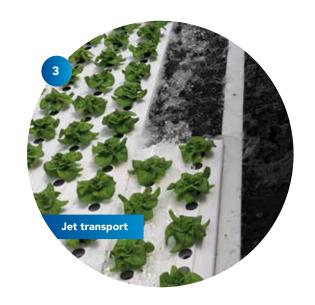
When the grow cups with young plants are finished, they can be planted manually in the floats. When new plants enter the basin, the full floats can be pushed up manually to a new position. The design of the lengthy floats makes for a system that needs little handling, with as little movements as necessary.

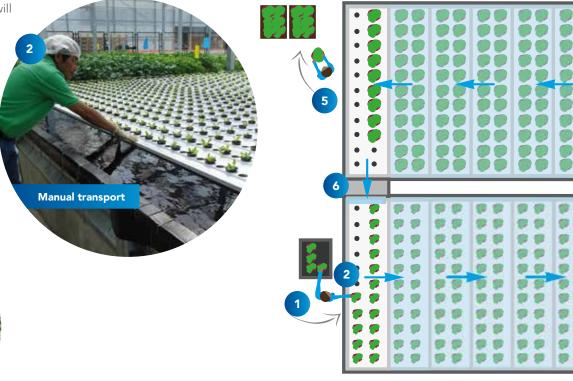
The cups are being placed in a staggered pattern, which results in a 10% higher occupation per float. The float is being designed in plastic, which makes it easy for cleaning. This white plastic reflects well, which generates a higher light

capacity for the plant. The floats will float on the water, which makes it very easy to transport them with a minimal effort. Every time product is harvested, new product will be placed in the ponds. The ponds are continuously covered with floats, which protects the pond from the



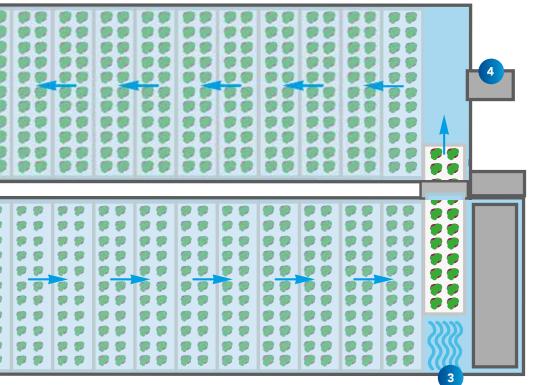
development of algae.















# Greenhouse

Together with our partners we developed a special greenhouse and storage facility. Depending on your requirements we have different options for the selection of your greenhouse.

The greenhouse is sustainable, solid and conform to Dutch standards. The GrowPact container is both your transport and your your storage facility. The storage system contains a special climate control system to optimize the germination process.







### Greenhouse

20 m x 40 m 20 m x 80 m

Standard

Insectscreen

Lock

2 doors

### **Options:**

Double or single foil Ridge ventilation



Watering

Efficient watering is highly important for a uniform crop. The GrowPact watering boom has been designed to provide

uniform watering results and is easy to operate.



- Watering boomFlexible to use
- Controlled by a rail system
- Manual control with uniform irrigation
- Possiblities with nutrition

# Benefits

- Efficient watering
- Flexible and fully manual
- User friendly













Hose



**Dosatron** 

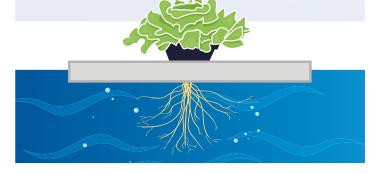
# **Retail Packaging**





### Why choose Viscon Hydroponics?

- Viscon fully organises & automates the growing of the young plants.
- Viscon supplies a vital young plant, which will give good results through the entire process.
- Viscon has designed the system with as little parts as possible,
  so cleaning will be an efficient operation.
- Viscon uses plastic floats, which can be cleaned easily.
- Viscon designed floats which keeps the product in the correct staggered pattern, no matter how you place the floats in your basin. This gives you a better use of your available surface.
- ✓ Viscon moves away from the traditional soil blocks.
- ▼ The soil block was once intended for planting in the field.
- New production methods require matching, well thought out and cleaner growing methods.



# The Advantages

### Why growing hydroponically?

The growing on deep water creates many food safety advantages.

- Controlled Environment: Viscon Hydroponics enables you to leave the open field and produce in a safe an controlled environment. Growing in the greenhouse gives you advantages regarding food safety, considering no faeces can be dropped on the product.
- Food Safety: In the hydroponics system the use of pesticides can be limited, because the environment can be controlled much better.
   Different disease hazards can be excluded from the closed system, which helps you to bring back your use of chemicals.

### Advantages regarding sustainability:

- Savings in fertilizer: Fertilizer stays in the system and isn't being drained out in the field as occurs with the traditional growing method.
- Water efficiency: The system is very water efficient. The water doesn't flush out. The water will be consumed by the crop and needs to be added daily.
- Uniformity: each product has the same water intake, which creates uniform result.
- ✓ **Sustainable:** the soil doesn't need to be processed after every cycle.
- Efficiency: during winter you can still grow product because the water can be heated and artificial lighting can be added. The floats have an isolating effect on the water, which enables you to grow in cold periods as well.
- Automation: this system is a transportation system in itself, because the product is floating: the product can be transported automatically.



## **Viscon Group**

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