



**METEOR
SYSTEMS®**

Growing solutions



Cultivation on water

For the cultivation of leafy greens and herbs Meteor Systems has growing solutions from seed to harvest.

A multi-layer germination rack for the propagation of the seed to a young plant and a Hydroponic Floating Raft for cultivation on water.



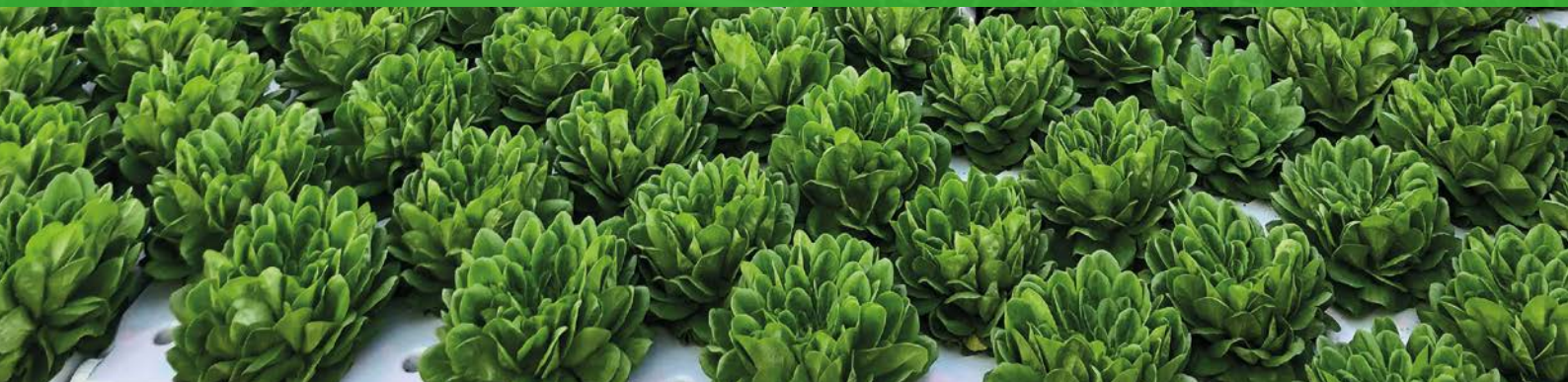
Where experience meets innovation!

Hydroponic Floating Raft

The raft is specially designed to cultivate leafy greens and herbs and is made of food-safe high-density polyethylene (HDPE). The rafts are easy to clean and have a longer lifespan than EPS. Due to the unique shape of the planting hole, the raft is suitable for both traditional substrate plugs as well as substrate-free cultivation. The rafts are suitable for low and high density crops. Please contact one of our experts for the possibilities of your type of cultivation.

Benefits

- Easier to clean than traditional ESP rafts.
- Longer lifespan than EPS rafts.
- All plants are the same distance from the water.
- Plants are easier to remove from the rafts (due to the unique shape of the plant holes).
- Slower increase in temperature on plant side.
- Planting holes can vary in shape and size (on request).
- Can be easily handled, both automatically and manually.
- Suitable for Deep Water Culture (DWC) and vertical farming systems.
- The rafts are suitable for cultivation with and without substrate.
- The rafts can be fully automated due to their design.
- Great insulation capacity.
- Higher yields per m² than EPS.



Specifications

| Number of planting holes* | Holes/m ² | DWC |
|---------------------------|----------------------|-----|
| 15 | 20 | ✓ |
| 16 | 22 | ✓ |
| 30 | 40 | ✓ |



955 x 780 mm
37.60 x 30.71 inch

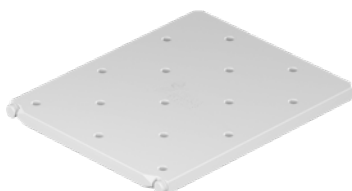


DWC:
50 mm
1.97 inch



Suitable for leafy
plants and herbs

*Standard size planting hole is: top 30 mm | 1.18 inch, tapering to 23 mm | 0.91 inch bottom hole
Other planting hole sizes available on request





Specifications

| Number of planting holes* | Holes/m ² | DWC | Indoor |
|---------------------------|----------------------|-----|--------|
| 12 | 24 | ✓ | ✓ |
| 16 | 32 | ✓ | ✓ |
| 24 | 48 | ✓ | ✓ |
| 48 | 96 | ✓ | ✓ |
| 70 | 140 | | ✓ |
| 96 | 192 | | ✓ |



1200 x 400 mm
47.24 x 15.75 inch



DWC: 50 mm
1.97 inch

Indoor: 43 mm
1.69 inch



Suitable for leafy plants and herbs

*Standard size planting hole is: top 30 mm | 1.18 inch, tapering to 23 mm | 0.91 inch bottom hole
Other planting hole sizes available on request



Washing machine

Excellent hygiene is an important condition for the cultivation of leafy greens and herbs. With our washer we make sure that plant and soil residues, as well as algae, completely disappear. Therefore the chance of fungi, bacteria, and viruses attacking your plant is greatly minimized.

The unique design results in an easy to clean machine inside and out. The rafts are cleaned by means of an automatic infeed in the washing machine. A row of nozzles moisten the surface, the rafts are brushed clean on both sides, rinsed off and discharged on the back side.

Specifications

- Cleaning capacity > 100 rafts per hour
- Suitable for the rafts measuring 955 x 780 mm and 1200 x 400 mm
- Refill tap
- Automatic throughput
- Pre-wash and rinse function
- Brush set & nozzles
- Sewage or drainage connection required
- Manual positioning input-/output

Option

- Clean water tank
- Clean water pipe
- Pump frequency controlled
- Water recycling
- Disinfection



Specifications

| Number of trenches | DWC | Indoor |
|--------------------|-----|--------|
| 7 | ✓ | ✓ |

*6 and 8 trenches available on request

Trench openings available in 3- 5 - 7,5 mm | 0.12 - 0.20 - 0.30 inch



1200 x 400 mm
47.24 x 15.75 inch



DWC: 50 mm
1.97 inch

Indoor: 32 mm
1.26 inch



Suitable for
baby leaves



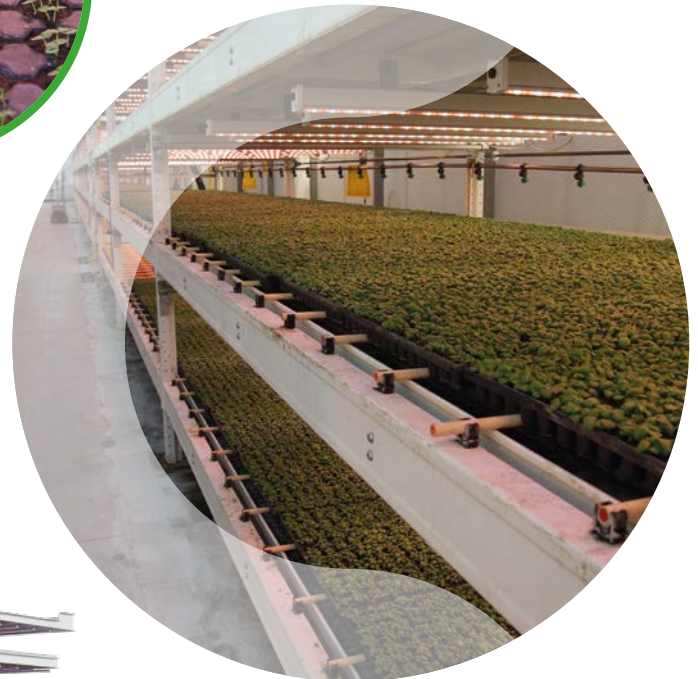
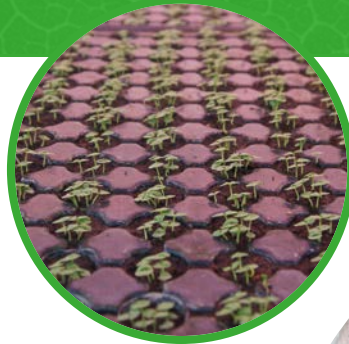
Multi-layer Germination, Propagation and Growing Rack

Meteor Systems designs and produces multi-layer racks that can be placed in a greenhouse or other indoor areas. By installing the multi-layer rack near the growing system in the greenhouse, you can cultivate your plants in the same climate from seed to harvest. This makes it much easier to manage temperature, humidity, CO₂, light intensity and irrigation. An added benefit is that it reduces

Benefits

- Shorter raising period from seed to young plant and suitable for all automated hydroponic growing systems.
- Maintaining a constant climate avoids climate shocks when transplanting.
- High plant density per square metre.
- Growing off the ground ensures high plant uniformity.
- Drain water will be fully re-used.
- The spray boom can be configured specifically to meet the needs of the cultivation schedule and the crop.
- Can be fitted with a climate system.
- Ergonomically designed.

logistics costs. All shelves on our growing racks are fitted with steel growing gutters. This ensures a high load-bearing capacity and means that fewer supports are needed.



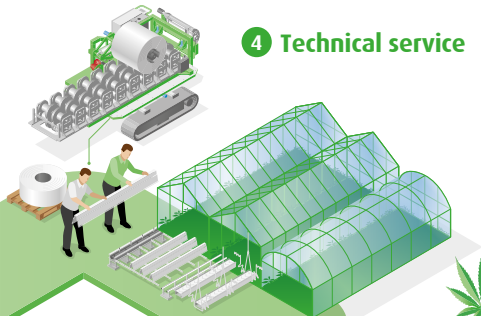
Choose growth, choose Meteor Systems

Meteor Systems produces steel gutters, moveable growing systems, drip irrigation systems, fastening materials, suspension and support systems and fruit covers for businesses that aim to achieve optimum growth and maximum yield.

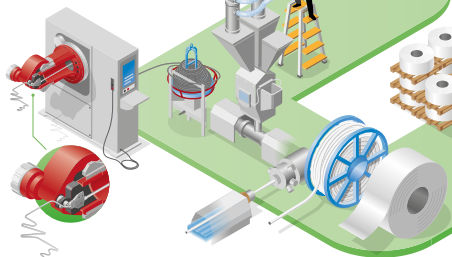
1 Custom Solution



4 Technical service



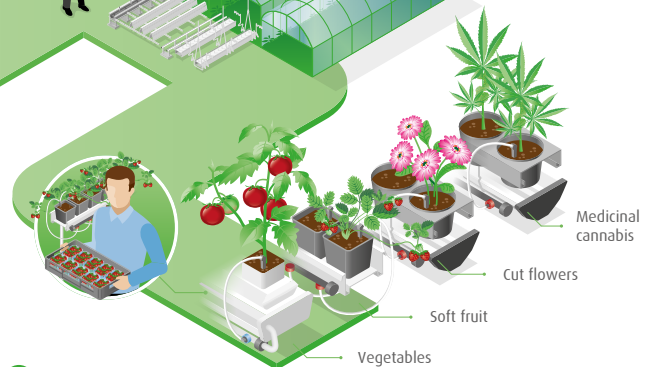
2 Production



3 Transport



5 Final product



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NEW

Water Culture Table Tops

Water Culture Table Tops for growing leafy greens and herbs represent a forward-thinking and efficient approach to hydroponics, combining the power of Deep Water Culture (DWC), Nutrient Film Technique (NFT), and Ebb and Flow (E&F) on a roller container system with hydroponic floaters.

Where experience meets innovation!

Water Culture Table Tops

Why Water Culture Table Tops?

Our integrated cultivation system provides plants with direct access to oxygen and nutrients, resulting in faster and healthier growth. With roller containers moving horizontally through the greenhouse, we maximize space in a controlled environment. Here are some benefits our system offers:

- Efficient space utilization;
- Flexible configuration of water supply and level control adapted to growth stages and plant size;
- Improved labor management for easy care, maintenance, and harvesting;
- Minimal water consumption through circulation and optimal nutrient absorption;
- Prevents water saturation, algae growth, and root diseases;
- Scalability for easy expansion according to needs;



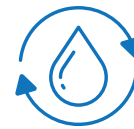
Key Features of Water Culture Table Tops

- Durable and corrosion-resistant
- Temperature regulation due to thermal properties of materials;
- Floats supported by elevations on the bottoms;
- Efficient drainage for excess water during irrigation cycles;
- Optimal air circulation around the root zone;
- Excellent hygiene and disease control;
- Available in various sizes and shapes, suitable for different floats and plant configurations;
- Easy to clean and maintain;
- Additional stability during logistical processes;

In essence, Meteor Systems' cultivation solution with Water Culture Table Tops achieves maximum yield with minimal water usage, contributing to the health and productivity of both plants and the environment.



Sustainable



Water saving



Environmental safety

Want to learn more about our water cultivation technology in your unique cultivation environment?

Contact us now and discover the future of growing with Water Culture Table Tops!

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Cultivation of leafy crops on benches, from seed to harvest

**Looije Agro Technics
Table Tob Hybride Greenhouse**



The challenges of

Nutrient Film Technique (MGS)

- High investment
- Sensitive for system failures
- Maintenance intensive
- No flexibility in crop choice
- Temperature problems

Deep Water Culture (DWC)

- Water quality is hard to maintain
- Hygiene difficult to keep intact
- Difficulty in maintaining oxygen levels
- Harder to automate
- Styrofoam floats damage, wear, are unhygienic



The Table Top System

A revolutionary system consisting of

- (Mobile) bench system
- Bench automation
- Hydroponic crop carriers
- Insert for benches
- Irrigation system
- Automation for Seeding, Transplanting, Harvesting and Washing



Purpose of the system

- Affordable
- Easy to clean – hygienic
- Labor friendly
- Easily maintainable water quality and temperature
- Durable plant carriers that do not heat up
- Flexible, multiple crops on the same system possible

While

- Maintaining the same or higher yields per m² / sq.ft
- Using proven systems and techniques from the horticultural industry



Validation trails with



Commercial projects with



Mobile bench

- Aluminium frame for crop carriers
- Transport manual or automatic
- Standardized and scalable
- Existing technology since the 70's
- Static benches available for low labor countries or trails



Bench automation

- All movements of benches can be automated
- No people in the growing area
- Low labor costs
- Less risk for spreading pests and diseases
- Automation is a proven technology for 25 years
- Benches can be automatically washed each cycle
- Optimum utilization of grow surface
- Multi-level systems possible



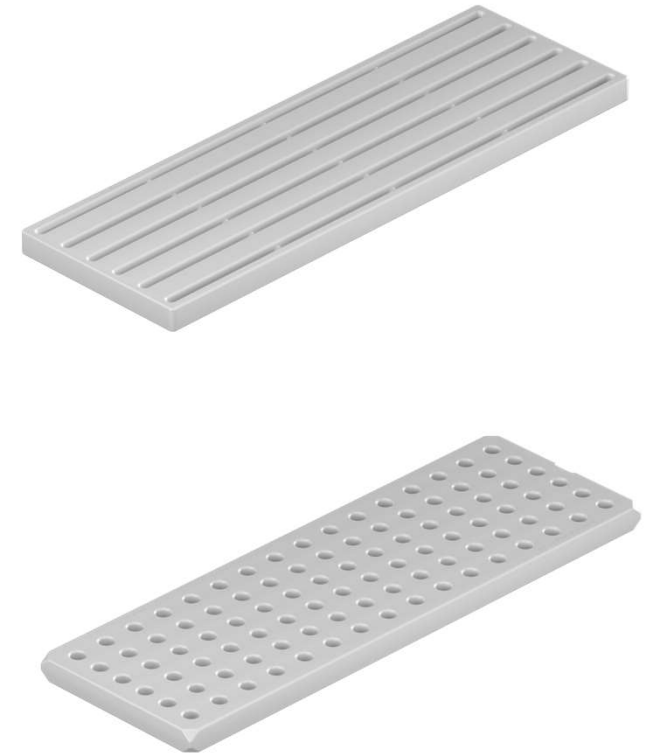
Table inserts for benches

- Special designed support for the hydroponic floating rafts
- The ends prevent algae growth
- Due to the special closed design light is kept out
- Humidity stays below the floating raft
- Multiple irrigation strategies possible such as:
 - Nutrient film technique
 - Deep water culture
 - Ebb and flood
 - Or a combination of these



Hydroponic floating raft

- Hard high density polyethylene (HPDE)
- Easier to clean than EPS
- Longer lifespan
- All plants equal distance from the water surface, high uniformity
- Plants are easier to remove from the raft due to unique plant hole shape
- Slower increase in temperature on plant side
- Can be handled manual or automatically
- Suitable with or without substrate
- Available with different plant holes, slots and densities



Irrigation system

- Irrigation pumps, fertilizer mix units, irrigation water, drain and recycle systems built from standard components used in the horticulture
- Water system designed in a way to bring algae growth down to minimum
- System can be equipped to work with different strategies for several kind of crops, or during different stages
- Optimized and validated systems



Automation

We can provide turn-key automation for:

- Seeding
- Transplanting
- Harvesting
- Floating raft washing
- Bench washing
- And more



Floating raft washer



Harvester

Advantages

- Capex between DWC and MGS
- More resilient system
- Always a correct and stable water quality and temperature
- Hygienic
- Maintenance friendly
- Labor friendly
- Flexible to change crop varieties
- High yields (equal or higher per m2 compared to MGS)
- All used techniques are proven and validated for many years

Possible in

- Greenhouses
- Vertical farming



ROI

- Better ROI compared to MGS
- Lower capex
- Similar or higher yield
- Lower costs of ownership
- More reliable – less yield loss
- Higher crop uniformity
- Flexible in operation (internal logistics)
- Flexible in crop choice





Thank you for your attention!



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