

VISCON PLANT TECHNOLOGY

Young plant automation



With plant knowledge
through science
and software,
**we develop
future-proof and
innovative automation**



VISCON PLANT TECHNOLOGY

Young plant automation

Since 1967, Viscon Plant Technology has designed and manufactured machines and complete production lines for both large and small horticultural nurseries.

By maintaining a continuous dialogue with growers, Viscon is able to supply a range of products that is perfectly geared to the needs of the market and effectively meet the most stringent customer requirements. Consequently, as an innovative organization with global operations, Viscon is a leading force in the horticultural sector.

Viscon Plant Technology is part of the Viscon Group. The Viscon organisation consists of a number of companies that has successfully completed automation projects worldwide. The basis for its success is an organisation build up of different divisions, each with its own specialist knowledge.

VISCON PLANT TECHNOLOGY

Integrated platform to help plants thrive

Whether you're a pro or new to the world of young plant production, we offer the complete platform you will require to efficiently and robustly produce healthy young plants.

Since 1967, Viscon Plant Technology has designed and manufactured machines and complete production lines for both large and small horticultural nurseries. Viscon is able to supply a wide range of systems for young plant production. As an innovative organization with global operations, Viscon is a leading force in the horticultural sector.



Validating germination rates

100% Seed detection

Monitoring environmental parameters

Germination chambers

Workorder automation & ERP integration

Production dashboards

Smart irrigation control

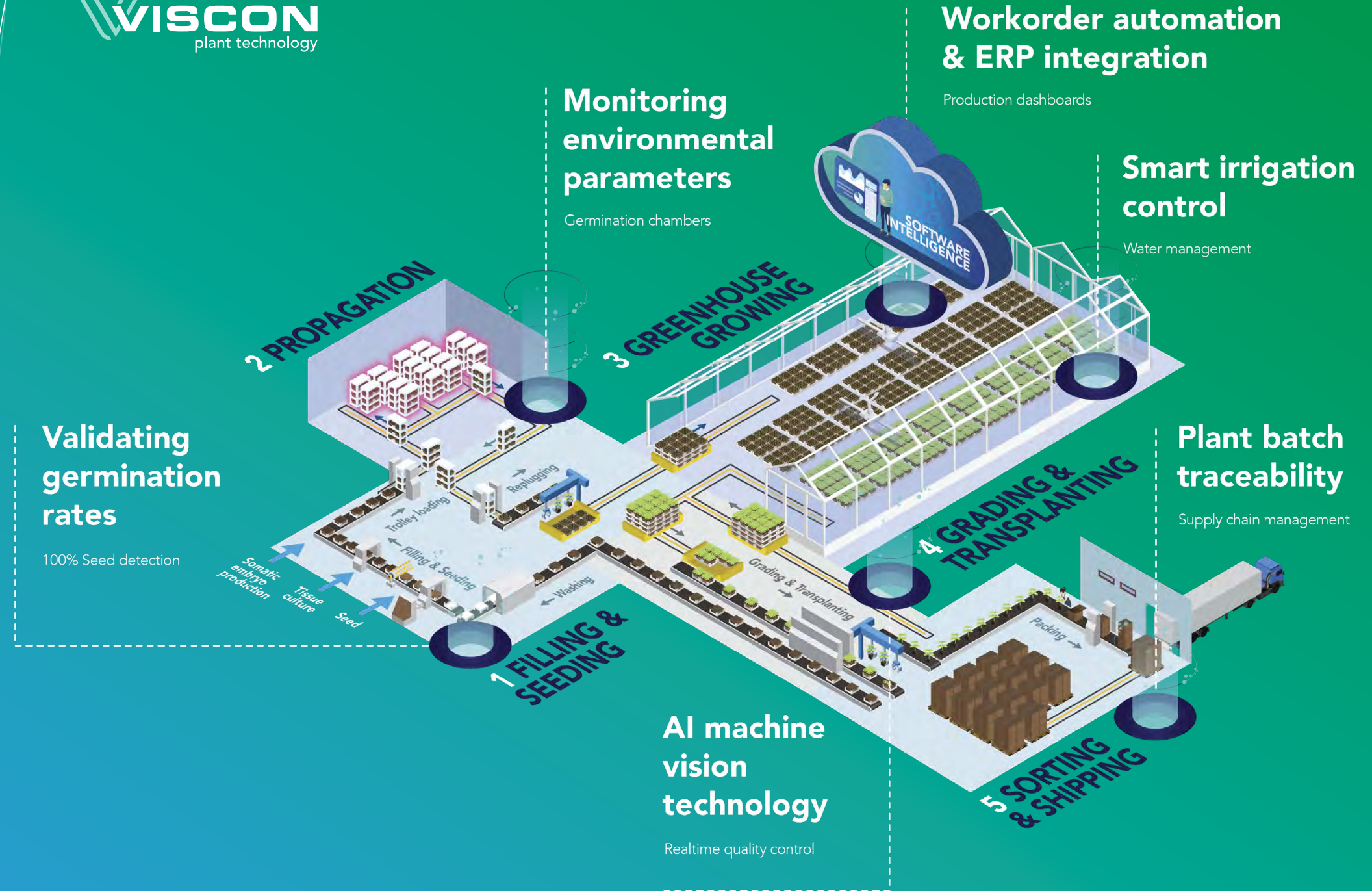
Water management

Plant batch traceability

Supply chain management

AI machine vision technology

Realtime quality control



YOUNG PLANT AUTOMATION

Filling

Prior to all cultivation, pots, trays and other sorts of carriers are filled with a substrate. To achieve a successful growth of the root system of the plant, a tray must be filled with the correct density level.

A dibbled tray ensures perfect positioning of the seed. In designing our machines, we have taken these aspects into careful consideration to ensure optimal growth for your plants.

The composition of the substrate can either be composed out of several components or one single component, for instance peat. The process starts with delivery in bulk, large bags, small bags etc. Viscon has developed a range of modular filling units. These machines are available as stand/alone units as well as units to be installed in a complete production line. In the latter, the machine is part of a seeding and or cutting planting line.

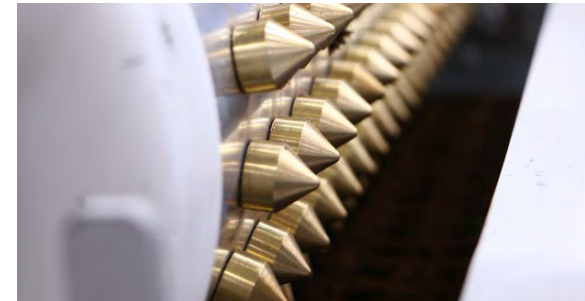
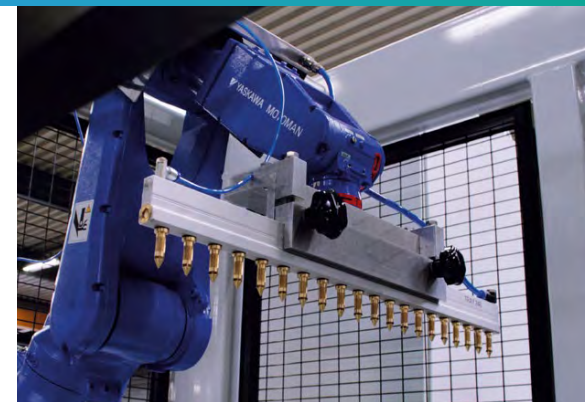


**Ensuring
optimal growth
for your plants**





Seeders for every
type of seed



YOUNG PLANT AUTOMATION

Seeding

Accurate and reliable seeding results are the base for excellent horticultural production. We provide innovative and smart seeding solutions that achieve high capacities and precise results. Our durable seeding machines are maintenance-friendly and allow easy changeovers to different product carriers and seed types.

Seed is valuable and accurate seeding is a substantial saving for every grower. We have designed seeders for every type of seed to guarantee no double seeds, no empty cells, and a precise sowing result. We offer various seeders due to the diversity of nursery operations, the great variety of plants, and the wide variety of carriers, all requiring different automatic seeders.

We offer the right seeding solution for your operation, whether you require a semi-automatic seeder, mechanical plate seeder, volume seeder, drum seeder, or fully robotic seeder. From stand-alone seeding machines to integrated seeding lines with filling-, covering-, watering, dibbling, and transplanting units. The seeders are modularly built, so multiple seeding heads can be added to the same seeding line to reach higher capacities.

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Transplanting

Excellent flexibility, sufficient capacity, ease of operation, and a perfect planting result are the most important characteristics that automatic transplanting machines should have. We have more than 25 years of expertise in automated planting operations. We offer a wide range of models for both small and large nurseries. Low change-over times, a high degree of reliability, and capacities up to as high as 45,000 plants per hour characterize the high quality of our planting machines.

Transplanting plugs is a very delicate business. Due to the advanced operation of our patented plant grippers, damage, even to vulnerable plants, is reduced to a minimum while obviating the need for expensive plant-lifting mechanisms for the trays. Programming a completely new source and destination tray has been smartly simplified to the highest degree imaginable, making it possible for several transplanting models to create any conceivable plant combination with the press of a button.

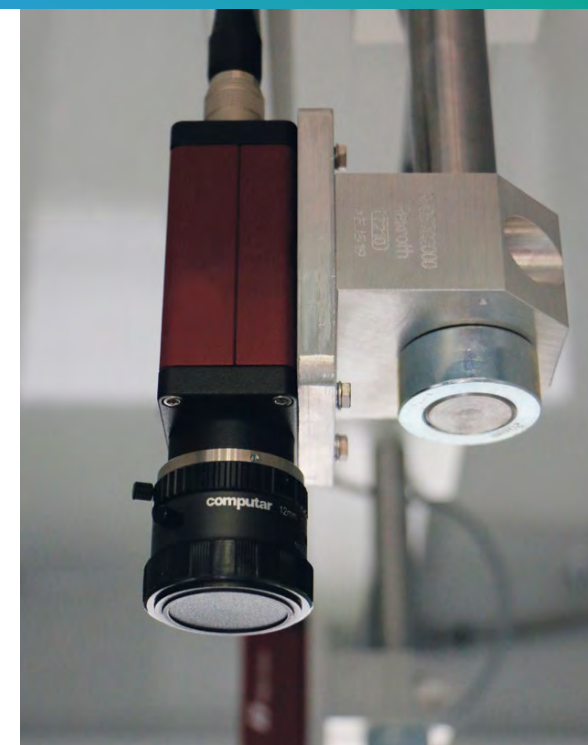
Our transplanters are known for their robustness. Many old-timers still do their job like on the first day. Meanwhile, we have teched up our new transplanters quite a bit. Wireless + grippers, servo-controlled software, and grading systems give our transplanting machines everything you want in a modern-day transplanter. We build our transplanters modularly so they fit into your (existing) machine line.



25⁺ years of experience
in transplanting



**Ensuring plant
uniformity & quality
with grading algorithms**



YOUNG PLANT AUTOMATION

Vision grading

Over the last decade, the use of image recognition techniques has also found its way to the greenhouse industry. Viscons many years of experience in terms of image recognition systems in greenhouse horticulture in virtually all cultivations has resulted in the most versatile line of image recognition systems for the greenhouse industry.

From inspecting trays and making them uniform, grading young plants in trays to grading pot plants. Image recognition systems are equipped with digital video cameras. Grading can be based on many criteria such as volume, height, colour, number of flowers etc., while ensuring that the capacity matches your needs.

AI VISION SOFTWARE

Converting data into value

Our in-house team develops solutions for assessing the properties of young plants. Using high resolution multi-angle cameras, we can effectively and reliably grade plants into categories. From inspecting trays and making them uniform, grading young plants in trays to grading for reforestation projects.

We train our grading algorithms based on various criteria, such as volume, height, color, number of flowers, and any other features you desire, while ensuring that the capacity meets your needs.



Combining innovative tech
with multi-angle vision imagery



Maximizing plant performance

YOUNG PLANT AUTOMATION

Traceability & control software

Data collection & analysis

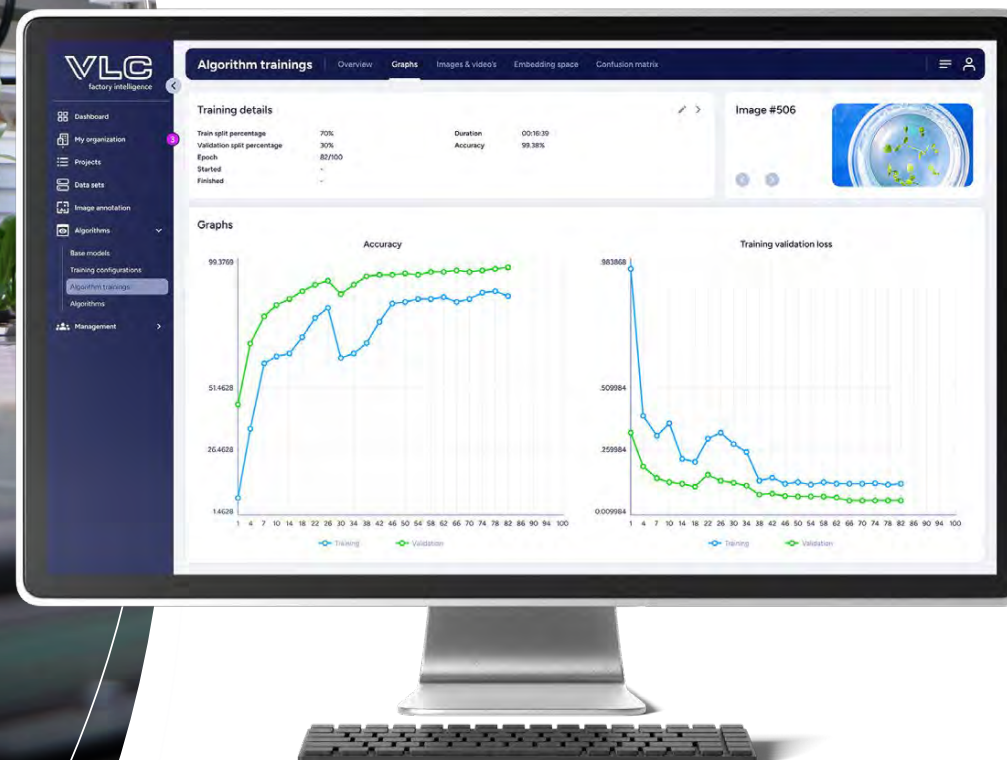
Our dedicated software platform helps to measure your plant performance and identify optimization opportunities across the production process. We focus on data coming from our machines & vision technology. Developments in AI, vision, robotics, and IoT open countless possibilities on validating germination rates and measuring plant batch performance.

As part of our integrated solution, Viscon's Factory Intelligence software gives you optimal control and management of your entire production process.

This next generation of software intelligently integrates all automation equipment. It allows for real-time monitoring to ensure process control across the production floor. A product's location and status are available at any time and data is linked to other systems such as ERP. This gives tremendous benefits for supply chain track & trace management.

Continuous traceability

Our traceability software provides real-time data and a comprehensive view of a product's journey, ensuring transparency, issue resolution, and continuous improvement efforts. In essence, it serves as the cornerstone of accountability, quality assurance, and production efficiency. This valuable data is versatile, offering capabilities for tracking and tracing, issue resolution, recall management, and performance optimization. Additionally, it is readily accessible to empower your data analytics team.





Storage and preparation of soil substrate



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Soil handling

The storage and preparation of soil substrates form the basis of the cultivation of plants. The most suitable system can be chosen according to volume, the number of different substrates and the application required.

For substrate storage, there are digging systems, conveyor equipped bunkers and big bale breakers. For substrate preparation, there are soil mixing, watering and glue systems that have already proved themselves in practice for many years.

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Internal transport

Every product has to be brought into and out of the greenhouse one or several times a year. Many types of transport systems have already been developed for your products, which means that there is a fitting solution for any greenhouse-and product combination.

Viscon can supply any type of internal transport system, from semi automatic such as transport by forklift truck or overhead cranes to fully automatic such as X-Y internal transport or mobile bench systems.



Tray delivery system

Shipping your product is the final step before it reaches the customer. Inaccuracies with order picking, labor costs, and getting orders out the door on time are only a few challenges growers face daily. We have the experience and know-how to design a shipping system catered to each grower's needs.

The Tray Delivery System is a complete solution that can be adjusted to your needs with automatic loading, unloading, watering, scanning, labeling, sorting, palletizing, and rack loading. Complex shipping situations are made simple with our high-speed and space-saving shipping lines. Our in-house programming allows for customized software for each system depending on sorting by variety, color, height, etc. Each shipping system can be designed to be modular for future expansion. This buffering and shipping system comes with many benefits.



Transport, buffering & shipping solutions for any greenhouse



Find out the
definition of clean



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Washing

The industrial washing machines supplied by Viscon are suitable for cleaning trays, buckets, pallets, etc. They are available in a variety of models that can, if required, be integrated with blow off and drying units and automated loading and unloading systems.

Because of the modular cleaning sections, the use of chemicals or high temperatures, solutions for any cleaning problem can be found. The filtration systems increase the life of the tank water contents and ensure a cost-effective and reduction in use of energy.

We know the challenges of horticulture and can even provide you with closed systems for water filtration, to keep your wastewater as low as possible. From stand-alone systems that can be used with a high-pressure cleaner, to a highly advanced washing installation including handling, we are your all-round partner.



Excellence in sustainable young plant production



Viscon Plant Technology

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