



Big Dutchman®

One Stop
Greenhouse
Solutions



One Stop Greenhouse Solutions

HIGH-TECH SYSTEMS FOR GREENHOUSE CONSTRUCTION

Big Dutchman together with Ammerlaan Construction; who has over 75 years experience in greenhouse construction, provides the perfect turnkey solution for glass and foil greenhouses – from designed fertigation rooms and irrigation systems to shading-, lighting- and electrical installations operated by modern climate control systems as well as cooling and heating solutions.





GREENHOUSE CONSTRUCTION

For all types of greenhouses, from design to erection of the complete project.



AIR TREATMENT

Our systems ensure the ultimate climate for greenhouses; good air treatment ensures a homogeneous greenhouse climate – allowing crops to grow uniformly & healthily.



SCREENING INSTALLATION

Various screening systems:

- ✓ **Horizontal screens:** most common, possible in multiple layers. Ideal for energy saving, lighting containment, distribution of lights and more
- ✓ **Gable screens:** best for energy saving and containing or reflecting assimilation lighting
- ✓ **Twin gable:** used to separate the greenhouses in different compartments or to create different climate zones
- ✓ **Insect netting:** keep insects out of the greenhouse

WATER MANAGEMENT

It is very important to have the RIGHT nutrients for your crops; Big Dutchman has system for liquid fertilizers and solution for solid fertilizers. Water Treatment is important to ensure water quality in the greenhouse; monitoring the oxygen level, water quality going into cultivation and return water quality. This includes several solutions for water filtration and decontamination.

- **Sand- & Carbon filtration**
- **Reversed Osmosis**
- **Nano- & Ultra filtration**
- **Ozone- & UV- or Heat decontamination**



COOLING SYSTEM

Fully automated, climate control regulated systems with the right capacity calculated to the needs of the customers crop and requirements are allowing you to battle the climate change in the greenhouse.

- **Low pressure**
- **Self cleaning**
- **Long lifetime**
- **No water carry-over**
- **No chemical / Environmentally friendly**
- **High quality**
- **Low operating costs**

ELECTRICAL

Data-controlled cultivation with our climate computers is essential to control the precise processes in your greenhouse; every equipment within the greenhouse can be controlled and enhance quick and precise decision making. Based on your personal requirements we offer several options for customized Climate Control computers where you are in control of the daily operations.



LIGHTING

Optimizes the use of lights in a greenhouse for optimum production. Good coordination with heating and air treatment enable a year-round harvest.

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**A WIDE RANGE OF DIFFERENT PRODUCT TYPES IS AVAILABLE.
FOR EACH CUSTOMERS' NEEDS THERE IS A SUITABLE SOLUTION.**

		8 M BAYS.		9,6 M BAYS.		12,8 M BAYS		16 M BAYS.	
		Double ventilation	Simple ventilation						
GOTHIC-type	2 m vent								
	3 m vent								
PV-type									
MULTI-type	½ vent								
	¼ vent								

*more available models upon request

STANDARD DIMENSIONS:

- Width of each bay: 6.4m / 8m / 9.6m / 12.8m (Ask for other options).
- Height to the gutter: 3m / 3.5m / 4m / 4.5m / 5m / 5.5m / 6m / 6.5m.
- Height from gutter to ridge. Varies on each model and bay width:
 - Multi-type: 1.4m / 1.6m / 1.8m.
 - Gothic-type: 2.2m / 2.7m / 3.5m.
- Distance between arcs: 2m / 2.5m / 4m (Ask for other options).
- Distance between pillars: 2m / 2.5m / 4m / 5m (Ask for other options).

DOORS:

Double sliding doors / Gable fronts 3x3m.
Gutter walls 2.5x3m.
(Other sizes available upon request)

COVERING:

- Single or double plastic poly film
- Semi-rigid polycarbonate plate.

STRUCTURE:

- Designed as per european norms and standards
 - Hot dip galvanized steel structure (discontinuous process and sendzimir)
 - Extra wide gutters of great resistance that allow an easy and fast erection of the greenhouse while collecting and funneling off big amounts of rain water. The gutters are designed to gather water from condensation that slides down the plastic film. Optionally galvanized + lacquered for higher rust resistance.
 - Internal reinforcements and crop support vary depending on the crops and climate conditions.
- * Arcs in 90 mm Oval tube (130% more resistant) or 65 mm (20% more resistant)

CLIMATE CONTROL:

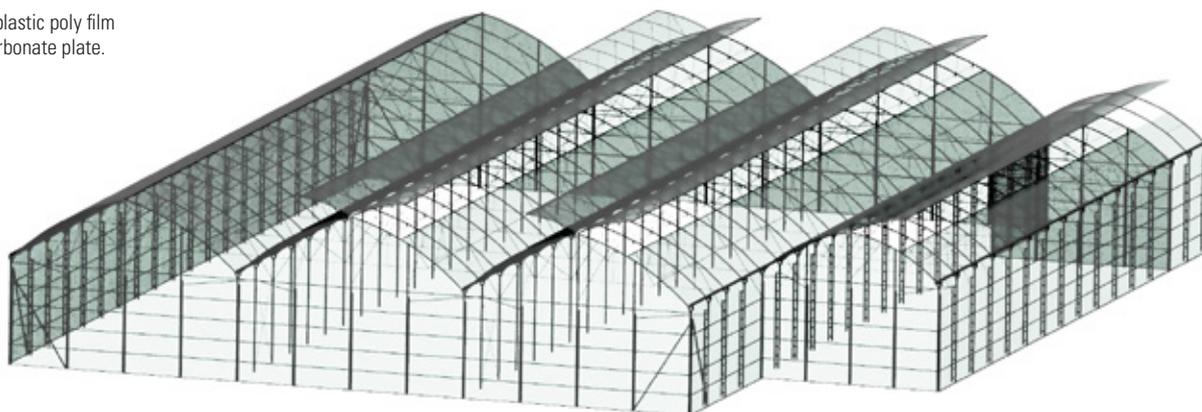
Wide range of controllers and sensors (temperature, humidity, wind, rain, solar radiation, etc.).

VENTILATIONS:

- Roof vents:
- ½ bay.
- Single 37.5% - 31% - 23.5%
- Double 50% - 41.5% - 31%
- Gutter wall curtains
- Gable front vents
- Optional: different types of nets (windbreak, insect, trip).

Plastic film locking system:

Metallic profile with continuous PVC clip





HEATING

Big Dutchman works with PRIVA climate computers for the most efficient energy management. Heating is linked to lighting, air treatment, water and electricity.

- **Boiler house installations;**
- **Electric boilers;**
- **Cogeneration installations (CHP);**
- **Hoist-heating installations;**
- **Gas turbines (biogas, ORC);**
- **Low temperature heating;**
- **District heating & distribution grids;**
- **Horizontal & vertical heat buffers;**
- **Mobile boiler houses & asparagus heating;**
- **Soil-based thermal energy storage & geothermal heat projects;**
- **Greenhouse heating systems;**
- **Ring/transport piping;**
- **Pipe rail, façade & grow pipe heating;**
- **Convection heaters;**
- **Thermal energy storage tanks;**
- **Chillers & heat pumps;**

C-GROW

50 years of experience in installation technology for modern horticulture led to the founding of C-Grow B.V. in 2015. C-Grow B.V. specializes in High-Tech City Farming with which we can provide in turn-key solutions for daylight-free indoor farming.



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