

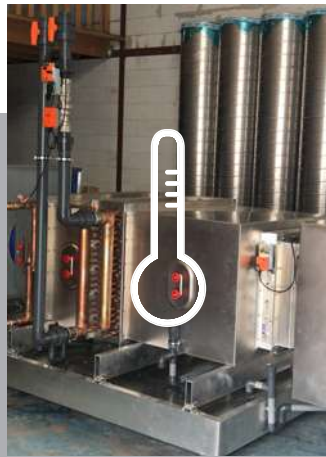


# MUSH COMB

Let's grow together



MACHINERY



CLIMATE



SUPPLIES



ENGINEERING

Thank you for your interest in Mush Comb!  
This brochure is created to give you an idea on how we can help you grow your business.

Are you active in one of these businesses?



MUSHROOMS



EXOTICS



COMPOSTING



MACHINERY



CLIMATE



SUPPLIES



ENGINEERING

Then you are at the right address, because we supply the following solutions:

*"Mush Comb is an innovative company with the mission to support our mushroom, exotics and composting customers by delivery of associated products, knowledge and services such as machinery, climate, supplies and engineering. Customers have to choose us because of our strong knowledge of the market and because we do not treat you as a number, but as number 1"*

Mush Comb is located in Horst, the capital of the mushroom industry. We are proud partner of Mushroom Valley, where we build strong relationships to support you with growing your business in the best possible way.

**mushroom**  
**valley**<sup>®</sup>

### MUSHROOM MARKET

The future of the global demand for mushrooms is looking bright, because there is an ongoing trend of people turning towards organic & healthy foods.

The mushroom industry has turned to technology to meet the increased demand. Improvements in efficiency and working conditions has given the market a boost.

Mush Comb stems from a mushroom farm and wants to grow alongside mushroom growers by offering mechanization solutions such as Machinery, Climate, Supplies and Engineering.

### EXOTICS MARKET

Once exotics were considered too difficult to farm, but nowadays they are commercially cultivated too. In Europe, exotics are more exclusive with interesting margins. Oyster, shiitake, eryngii and enoki are some of the well-known exotic mushrooms.

Beyond the health benefits, exotics are also being rediscovered by the culinary community for their storied tastes.

Mush Comb's history is primarily mushrooms, but in 2015 we were the first supplier in the mushroom industry to give full and professional attention to the exotic mushroom market. The exotic industry requires specific knowledge and high commitment. Mushroom solutions cannot simply be copy-pasted into the exotic industry and expected to be successful.

Our goal is to get the European way of growing exotic mushrooms to a higher level. We have proven to do this by sharing knowledge but also by coming up with innovative solutions which increases functionality, yield and controls.

### COMPOSTING MARKET

Composting is a biological process of stabilizing organic matter under controlled conditions into a product that is rich in humus and provides organic matter and nutrients to the soil. Compost consists of raw materials such as a straw type, a nitrogen source and cast.

**PHASE I:** Fermentation process – Create selective nutrition sources for the mushroom.

**PHASE II:** Pasteurization process - Make the substrate sterile.

**PHASE III:** Growth process – Seed the mushroom mycelium in the substrate.

**PHASE IV:** Budding process – Let the mycelium grow in.

Mush Comb offers Machinery, Climate and Engineering solutions to the composting market.



Starting or scaling up your business?  
We can help you out with the engineering!

Mush Comb can provide you with professional engineering. We supply drawings, electrical plans, steel, panels and supervision for your business. This also gives us the freedom to customize where needed.

We always focus on an ideal set-up based on total production capacity, growing surface, compost volume, climate control and logistics. The most effective design will be used to build the facility.

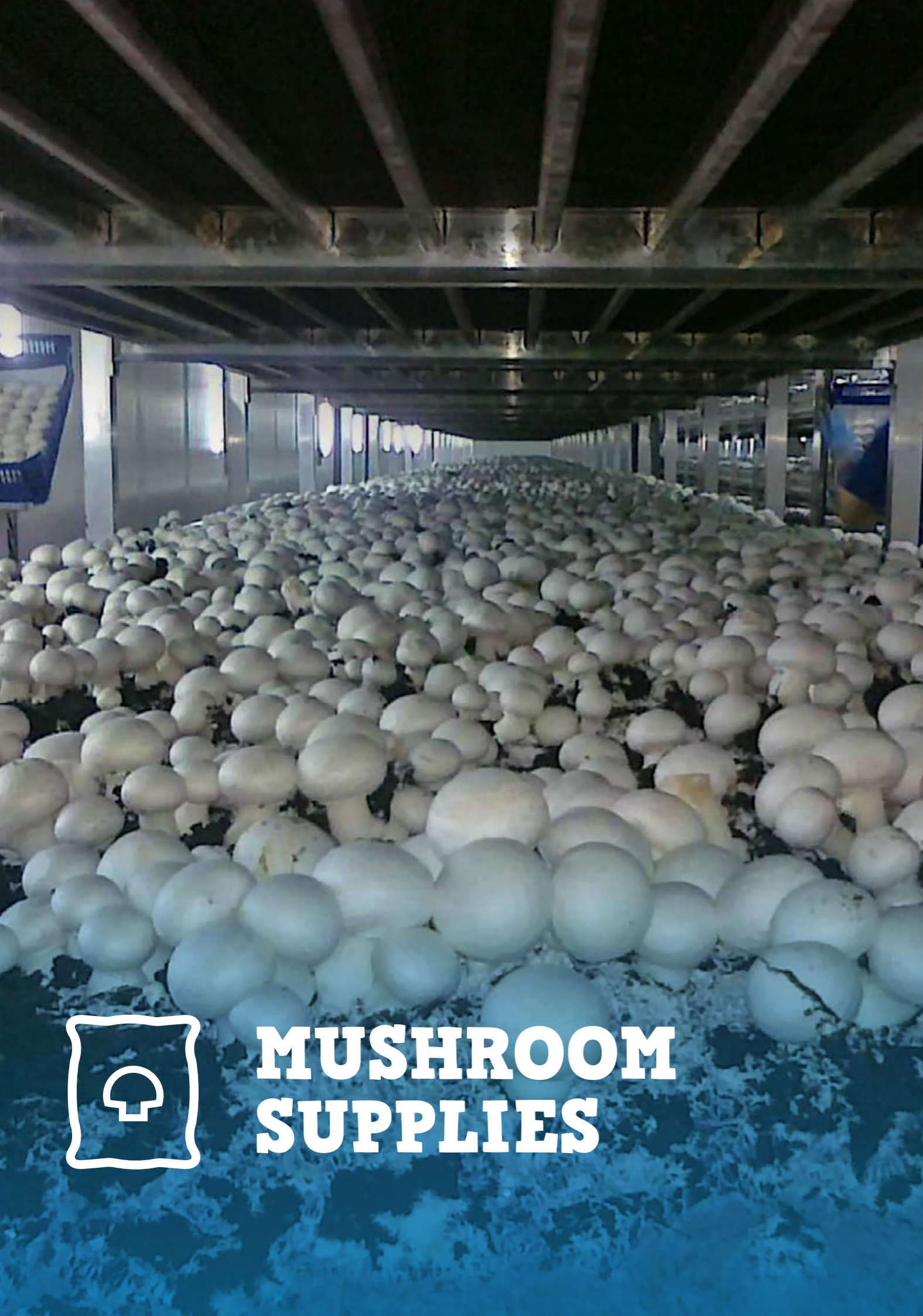


# MUSHROOM ENGINEERING



Pictures shown are from different projects worldwide.





# MUSHROOM SUPPLIES



Receiving value for money... that is our main focus when it comes to supplies. We do no concessions when it comes to quality, because we want to supply our clients with products that have a long lifespan and support your business in a positive functional way.

Mush Comb provides all kinds of supplies such as, but not limited to:

- Shelving
- Picking Lorries
- Growing Nets
- Lights
- Picking Racks

Our new Shelving is completely made from aluminium. This assists us in offering you the best value for money. Therefore, many meters of Shelving has been produced for our customers.

**ROB STEWART**  
**FOREST MUSHROOMS (SOUTH-AFRICA)**

*"I am impressed with the delivery of the shelving. Packing and wrapping was done in a professional manner and the shelving is of a very high standard."*



Pictures shown are from different projects worldwide.





# MUSHROOM CLIMATE



Climate control systems and well insulated growing rooms are main aspects within your growing environment and will determine the quality conditions of growing mushrooms and exotics.

Therefore we have been developing pre-fabricated, easy to install and energy efficient air handling units, air distribution systems and user-friendly climate computers. This climate package is focused on user-friendliness,

because we know that growers want to focus on growing. This provides growers with a short learning curve so they can get on with business right away.

Besides this, we always take the local conditions into account so that we can adapt our climate systems to these variables.



Pictures shown are from different projects worldwide.





Premium



Economy

# HEAD FILLING MACHINE

## SPECIFICATIONS:

- Filling speed 5-11 m / min;
- Lifting with a scissor lift for best stability;
- Whole frame can independently move 30 cm forwards and backwards;
- Belt speeds, swivel timers, chain speed, chain height are all settings which can be made on our machine;
- Completely hydraulic driven;
- Central greasing points;
- Practical cleaning based on experiences of growers for the highest hygiene;
- Extra water protection implementations;
- Items like weighing system, contractor version are also available.

## SPECIFICATIONS:

- Filling speed: 4,5 m / min;
- Lifting with 4 posts, each post contains a hydraulic cylinder;
- Moving with forklift;
- Up to 6 beds high;
- Filling phase III compost and casing at the same time;
- Economy is the price alternative for Premium. Not every customer is looking for extra luxury and actually prefers a machine with as less electrics and hydraulics as possible.



Pictures shown are from:  
 Company: Mercajucar  
 Country: Spain  
 Growing area: 42 rooms of each 422m<sup>2</sup>  
 Filling phase III compost and casing at the same time



Compost Hopper for walking floor trailer.



**SPECIFICATIONS:**

- Complete galvanized frame;
- Stainless steel electric box;
- Including frequency control for automatic speed adjustment;
- Will be matched with the speed of your filling machine;
- Including remote control.

To reach a quality filling with your Head Filling Machine you need a regular supply of compost and casing. To achieve this we offer storage and dosing hoppers which work in combination with the Head Filling Machine. The Casing Hopper is suitable to directly unload Casing Big Bags. The Compost Hopper is suitable to work directly with a compost walking floor trailer.

6-Arm Pulling Winch, also available in 1-arm self lifting version.

# FILLING GROWING ROOMS



Pictures shown are from:  
Company: Ezquerro Vicioso S.L.  
Owner: Mr. Eduardo Ezquerro  
Country: Spain  
Growing area: 8 growings of each 480m<sup>2</sup>  
Filling Phase III compost and casing at same time.  
Automatic harvesting farm.





After harvesting all the mushrooms, the growing rooms need to be emptied to make it ready for a new growing cycle. The spent compost and casing is pulled out with the Growing Nets. Pulling out the nets is done with an Emptying Winch. In general emptying of your growing rooms can be done with one the following solutions:

- Emptying Winch + Emptying Conveyor
- Emptying Winch + Emptying Conveyor combined as Emptying Unit
- Emptying Unit with Casing Separator

# EMPTYING GROWING ROOMS



Pictures shown are from:  
 Company: Champignonkwekerij Peeters-Luyten  
 Owner: Mr. Marcel Peeters  
 Country: The Netherlands  
 Growing area: 4 growing rooms of each 288m<sup>2</sup>



Pictures shown are from:  
 Company: Champas  
 Owner: Mr. Paul van Asseldonk  
 Country: The Netherlands  
 Growing area: 2 farms, new farm has 20 growing rooms of each 554m<sup>2</sup>





Emptying Unit

1-Arm Casing Separator

Separating the compost from the casing during emptying is a development done by Mush Comb. The application areas for separated compost and casing are diverse. Since the first introduction of this new technology the advantages have been:

- Addition for potting plants or seedlings.
- Burning of the separated compost.
- Creating possibilities of re-using the casing in the mushroom sector.
- Less transport costs.
- Fertilizer for agricultural land.

# CASING SEPARATOR

You can get this technology on every desired level.

In general this can be divided in 3 main groups:

- 1-Arm Casing Separator, can be placed between existing Shelving and Emptying Winch.
- Emptying Unit with 1-Arm Casing Separator.
- Contracting machine with multiple Arm Casing Separator.



Pictures shown are from:  
Company: Gesitrans  
Owner: Mr. Gerard Sikes  
Country: The Netherlands  
Contracting company for emptying.  
Emptying and separating 30.000m<sup>2</sup> per week.





A Picking Lorry that is not produced for a grower, but with a grower?  
That is correct! This Picking Lorry is developed together with a Dutch grower who had one simple wish:

*"Make me a Picking Lorry which is worker friendly too."*

# COMPACT+ PICKING LORRY



**JASPER KANTERS**  
**OWNER KANTERS PADDESTOELEN**

*"In 2017 I was in need of Picking Lorries that were actually user-friendly. Up until this moment, we used manual Picking Lorries. Eventually automatic Picking Lorries were needed for ease, increased efficiency and safety in use. We therefore decided to contact Mush Comb. Together we developed these Picking Lorries with as result a high satisfactory level of me and our pickers."*



**MARCEL PEETERS**  
**OWNER MAATSCHAP PEETERS LUIJTEN**

*"We tried, and eventually purchased, the Picking Lorries from Mush Comb, because they are the most user-friendly for our employees. The pickers can operate and move the Picking Lorries completely by themselves. Besides this, more boxes can be transported than before. The abovementioned advantages assist us in working more efficiently!"*





Are you filling phase II compost and casing?  
Or are you filling compost blocks? Then you need  
to fill the compost and casing separately into the  
Shelving. Therefore we developed the Basic Filling  
Machine and Head Filling Machine Phase II.



# SEPARATE FILLING OF COMPOST AND CASING



Pictures shown are from:  
Company: Paccu  
Owner: Carlos Alcantara  
Country: Peru  
Their goal is to select the best mushrooms.  
The company makes its own phase II compost.





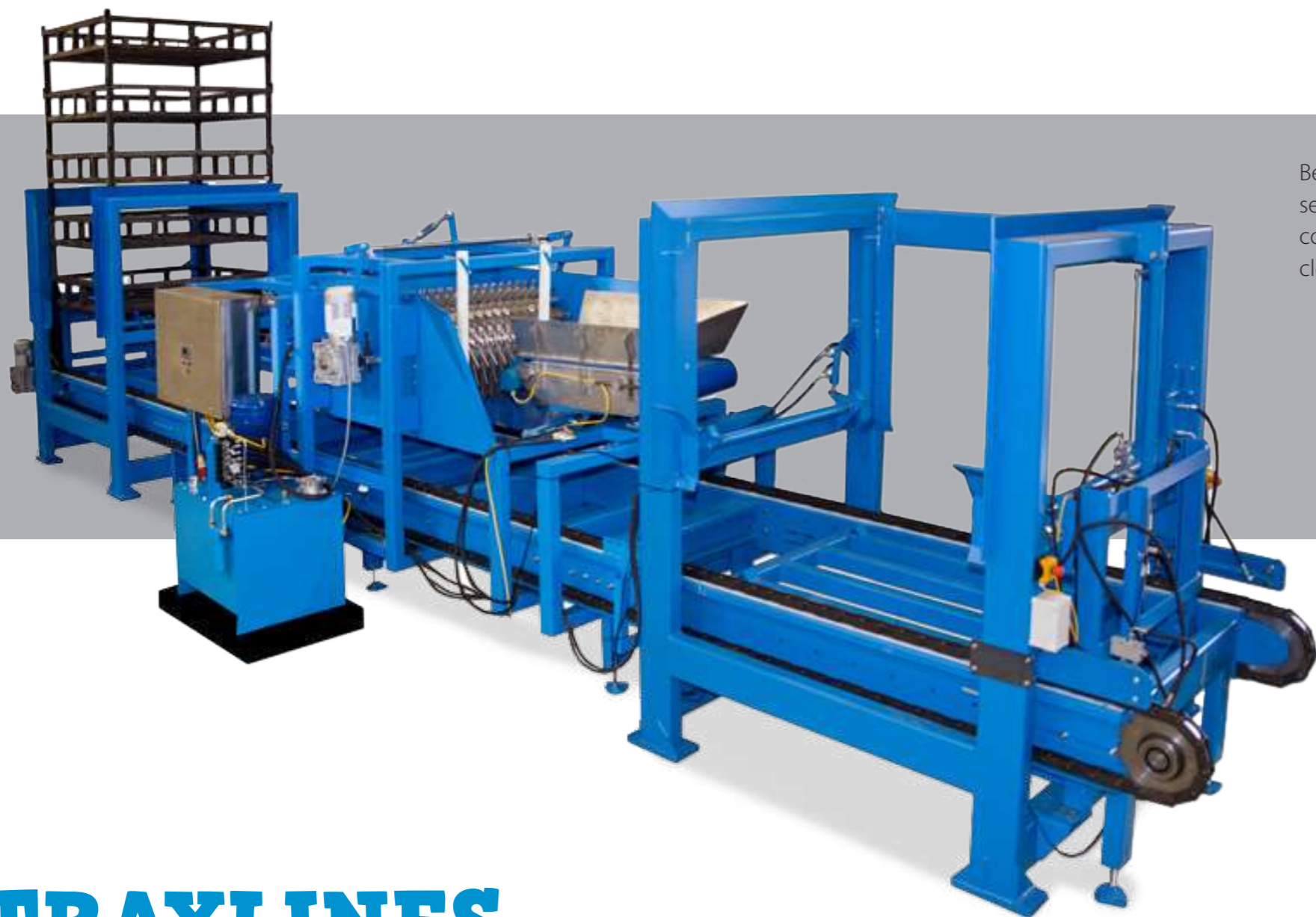
Are you making your own compost? Then you need transportation solutions from your compost facility to your growing rooms. We deliver Compost Wagons which you can hang behind a tractor. The Compost Wagon takes care of transport, storage and dosing. You can prepare the casing 1 day in advance and store it overnight so that you can start filling straight away the next morning.

# COMPOST & CASING TRANSPORT



Pictures shown are from:  
 Company: Adelaide Mushrooms  
 Owner: Costa Group  
 Country: Australia  
 Growing area: 30 growing rooms of each 778m<sup>2</sup>





Besides working with Shelving some customers choose to work with trays. This can be for several reasons. Mush Comb supplies Traylines for filling compost, filling casing or filling compost and casing. We also offer the possibility to supply Traylines for emptying and cleaning the trays.

# TRAYLINES

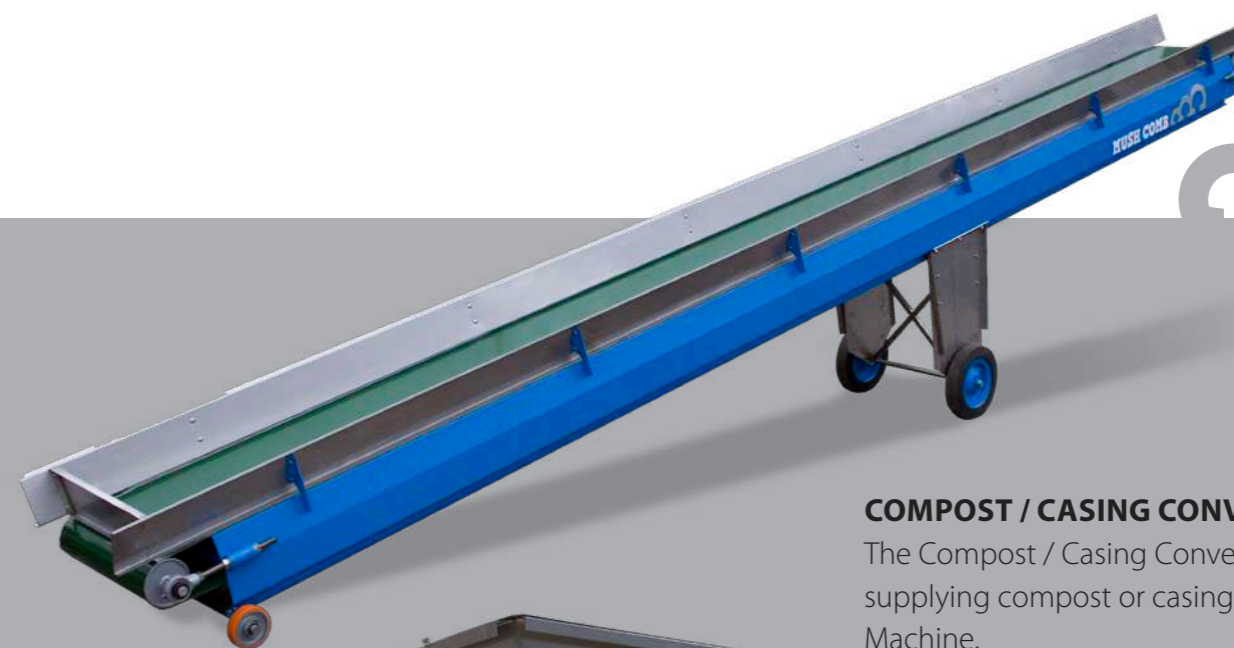


Pictures shown are from:  
Company: Mushroom Place  
Owner: Mr. Enzo Sciacca  
Country: Australia  
Facility: Growing with trays.





**RUFFLING MACHINE**  
This machine is used for mixing the top layer of the compost with the casing soil. The main purpose is to optimize the effectivity of the compost and casing soil.



**COMPOST / CASING CONVEYOR**  
The Compost / Casing Conveyor is used for supplying compost or casing towards the Filling Machine.



**SUPPLEMENTING UNIT**  
The Supplementing Unit is used to store and dose mushroom supplement on your compost.

# MUSHROOM FARM MACHINERY



**NET WASHER**  
The Net Washer is used for cleaning the growing nets, which have been used in the Shelving.



**SPAWNING MACHINE**  
This product is used to press phase II compost after filling it into the Shelving.



**MACHINE LIFT**  
This is a lift with telescopic posts to move the Ruffling Machine or similar from one growing bed to the other.



**CASING MIXER**  
If you want to bring export casing back to structure and mix in the water, you use a Casing Mixer.





# WHY MUSH COMB?

- User-FRIENDLY
- **HONEST** advice based on our strong knowledge of the market
- **CUSTOMIZED**, client specific solutions
- **EXCELLENT** customer service Functional
- products of **HIGH QUALITY**, conceived from the user
- **SAFE** in use







### **PHASE I / II / III BUILDING AND TECHNICAL ENGINEERING**

Most phase I building works will be executed by principal / local companies. This with help of our engineering drawings. The engineering will be based on the latest technologies, and is including practical details as developed in praxis.

Phase II / III tunnels are mostly completely imported from Netherlands, this to guarantee the high quality requirement for this type of construction.

Participating with Mush Comb means that directly the most effective design will be used to build the compost facility. The essential information is available regarding floors, floor slopes, drain systems, door systems, roof system etc.

# **COMPOSTING CLIMATE + ENGINEERING**

### **CLIMATE SYSTEMS**

Composting is the basic for your whole growing process. You can have the most modern mushroom farm but with poor compost you still do not grow quality mushrooms. Therefore a good design and execution of your climate unit in combination with your grid and / or spigot floor are of high importance. Our climate units are calculated according to the required volumes in combination with your local conditions. The climate units are delivered including automatic control system which guides you through the composting process.



Pictures shown are from different projects worldwide.





**BUNKER FILLER**

The Bunker Filler is used for filling phase I compost bunkers.



**COMPOST HOPPER**

The Compost Hopper is used to store and dose compost and / or raw materials towards other composting machinery.



# FILLING COMPOST TUNNELS



**COMPOST FILLING LINE**

The Filling Line is used to fill compost tunnels, compost bunkers and compost containers.



Pictures shown are from:  
Company: KazEcoFood  
Country: Kazakhstan  
KazEcoFood Producing phase III compost





### TUNNEL WINCH

The Tunnel Winch is used for emptying phase II and phase III composting tunnels.

### SPAWN APPLICATOR

The Spawn Applicator is used for adding spawn when emptying your phase II compost tunnel.

### TUNNEL NET WASHER

The Tunnel Net Washer is used for cleaning compost tunnel nets.

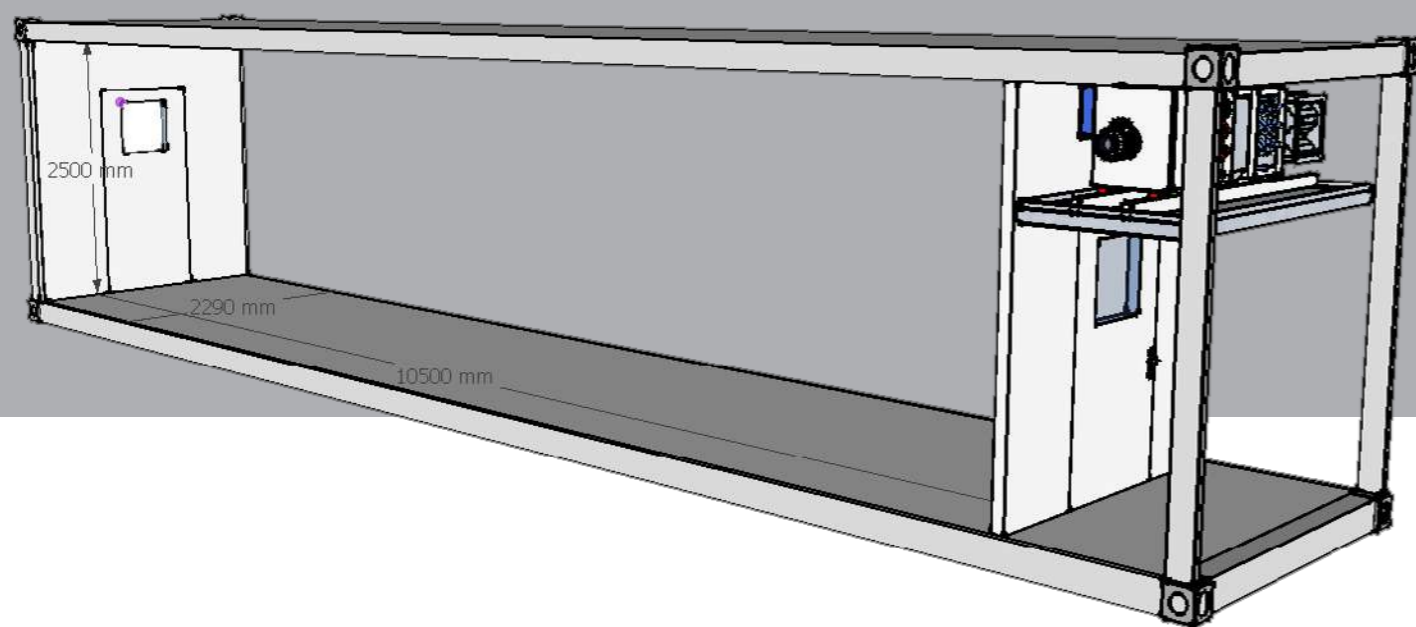


# EMPTYING COMPOST TUNNELS



Pictures shown are from:  
Company: Heereco  
Country: The Netherlands  
Heereco cultivates mushrooms with their own tunnelled substrate





### EXOTICS GROWING CONTAINER

We developed this special growing container, because we spoke with potential exotics growers with the request to start their business on a relatively small scale.

The main benefit of the container is that it provides a low-key opportunity to grow exotic mushrooms. The investment is relatively low and you can start quickly with growing.

Flexibility is another reason why growers choose the container solution; the container can be built today on site A, but after x time easily moved to site B.

In 2015 we were the first supplier in the mushroom industry to give full and professional attention to the exotic mushroom market.

The exotics industry requires specific knowledge and high commitment. Mushroom solutions cannot simply be copy-pasted into the exotic industry and expected to be successful.

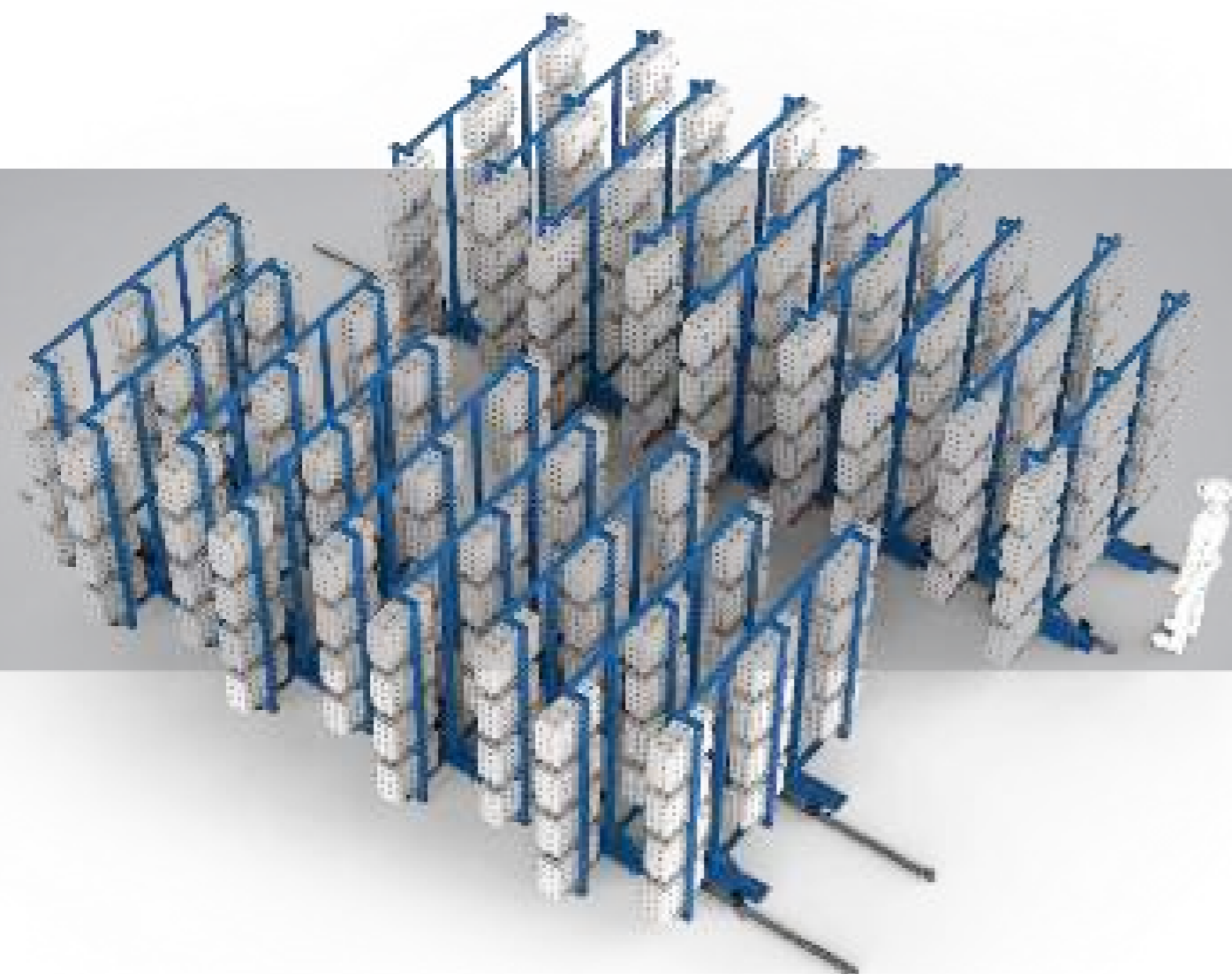
Our goal is to bring standardization in growing exotic mushrooms. We have proven to do this by sharing knowledge, but also by coming up with innovative solutions which increase functionality, yield and controls.

These pages will guide you through current solutions including, but not limited to exotics growing container, exotics growing panel room and oyster growing racks.

# EXOTICS







### **OYSTER GROWING RACKS**

We developed this solution to efficiently grow oyster mushrooms. An optimized quality yield per m<sup>2</sup> is hereby achieved.

### **EXOTICS GROWING PANEL ROOM**

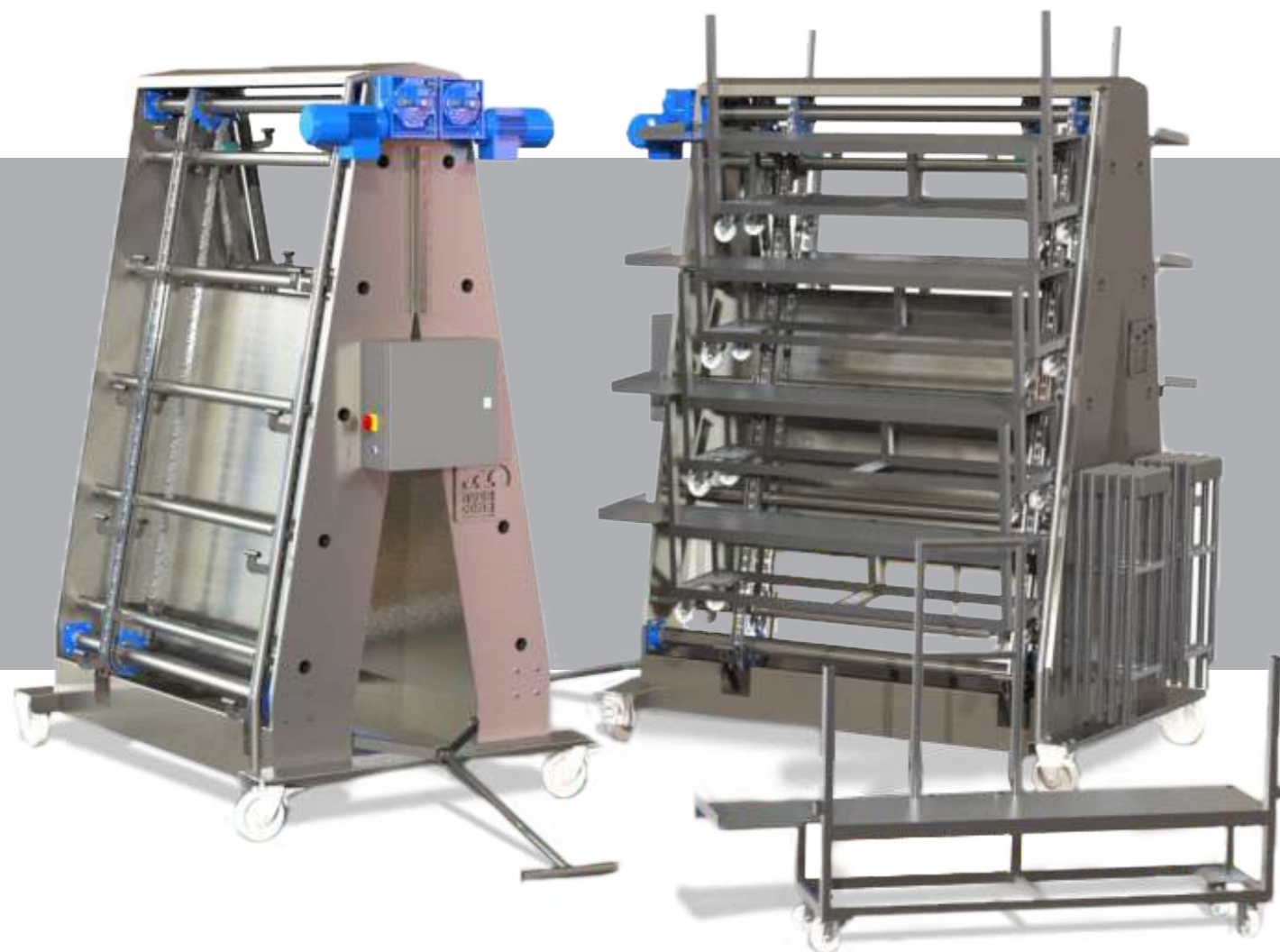
We came up with this solution, because we realized there are also growers with existing buildings and/or have plans to produce on a larger scale.

The main benefit of a panel room is that it can be built to your required dimensions. Therefore you can produce exotic mushrooms on a large scale. This supports an optimal setting for the harvest.



Pictures shown are from different projects worldwide.





We develop custom products to create client specific solutions. We have an engineering team in-house, which takes care of the drawings. All products can be made on request. Feel free to ask us what we can do for you.

## CUSTOM BUILD



Pictures shown are from:  
Company: Suter Champignon  
Owner: Mr. Daniel Suter  
Country: Switzerland



# REFERENCES



**WE ARE ACTIVE IN OVER 50 COUNTRIES.  
ON THE RIGHT, YOU WILL FIND A SHORTLIST  
OF OUR REFERENCES.**

- |                        |                  |                      |               |                         |               |
|------------------------|------------------|----------------------|---------------|-------------------------|---------------|
| • Sikes Champignons    | - Netherlands    | • Suter Champignons  | - Switzerland | • Duke Truong           | - Canada      |
| • Forest Mushrooms     | - South-Africa   | • Ecofarm            | - Romania     | • Quality Mushrooms     | - New Zealand |
| • Mercajucar           | - Spain          | • SC Golo            | - Romania     | • Kanters Paddestoelen  | - Netherlands |
| • Basciani Foods       | - USA            | • Paccu              | - Peru        | • Bulla Mushrooms       | - Australia   |
| • Tas Valley Mushrooms | - United Kingdom | • Champas            | - Netherlands | • Walkowiak             | - Poland      |
| • Tasharukiat          | - Libya          | • Leschenko          | - Ukraine     | • Heereco Compost       | - Netherlands |
| • Wauwiler             | - Switzerland    | • Agari Breizh       | - France      | • Operadora Comercial   | - Bolivia     |
| • Senkokosan           | - Japan          | • Ezquerro           | - Spain       | • North Greek Mushrooms | - Greece      |
| • Champ Funghi         | - Malaysia       | • KazEcoFood         | - Kazakhstan  | • Champag               | - Canada      |
| • Agricola La Lomita   | - Panama         | • Lesage Champignons | - Belgium     | • Sanergy               | - Kenya       |
| • Weiße Köpfe          | - Germany        | • Okechamp           | - Poland      | • <b>Your company?</b>  |               |





 [www.mushcomb.com](http://www.mushcomb.com)

 [facebook.com/mushroommachinery](https://facebook.com/mushroommachinery)

 [linkedin.com/company/mush-comb](https://linkedin.com/company/mush-comb)

 [youtube.com/mushcomb](https://youtube.com/mushcomb)

We hope to have served with this information.  
If you have any further questions feel free to contact us.



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COMB**

Let's grow together

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