

Production systems for horticulture and sales table systems



Engineering · Construction · Sales · Installation · Service



Sales tables



Twin-axle container moving system

Greenhouse facilities with a system

For more than 80 years, we have been working out solutions for production horticulture together with our customers. What began with the introduction of rolling benches now involves the most modern automatically-controlled bench systems. Optimized work processes will help you to save energy, space and time.

We at OTTE offer you a wide range of modern production and transport systems as well as sales tables which we develop, design and produce in our factory in Barssel-Harkebruegge. Assembly, start-up, as well as mainten-

ce and after sales services are assured on-site by our own teams.

OTTE products are characterized by their high quality and reliability, even after many years of use. Our technical advisors develop individual solutions according to your requirements and wishes - to assure an optimized production process.





Mobile & rolling mobile benches



Mechanical engineering



Rolling benches



Sales tables



Automation and efficiency in production horticulture



Container moving system



Working positions



Foldable bridging pipes



Steel post with concrete slab

Bench systems from OTTE provide optimum work processes in production horticulture. The system was developed specially following increased customers' demands for more extensive automation. In order to increase the efficiency of a bench system, the greenhouse is divided into working / service, cultivation and dispatching areas. Hinged sections provide access to the plants from all sides in all the work area. Various units (container moving system, washing machines, transport units, etc.) and programmes (potting, spacing, sorting, etc.) prepare the benches for the work process.

For this, OTTE offers the mobile and rolling mobile bench systems. The framework constructions with braced corners are customized and are available with a variety of linings and in different sizes. The technical differences between the two types lie essentially in their roller systems and their supports.

Mobile bench systems create a commercially rational foundation, especially for large quantities of the same plant variety. Constant growing conditions guarantee a high throughput with high quality.

The mobile bench from OTTE consists of a

welded aluminium framework system with braced corners, into which the most varied of linings can be integrated according to the customer's requirements. The roller system is composed of two pairs of smooth track rolls and leading rolls, upon which the benches are moved through the cultivation areas on continuous, galvanized tracks.



roller system mobile benches

The benches can be moved into the work or cultivation halls upon tracks as required.

The **rolling mobile bench system** was developed from the mobile bench system at special request. It offers more flexibility in the simultaneous cultivation of different types of plants, as care and marketing can take place directly within the cultivation areas.



Rolling mobile bench onto a working position (hinged sections)



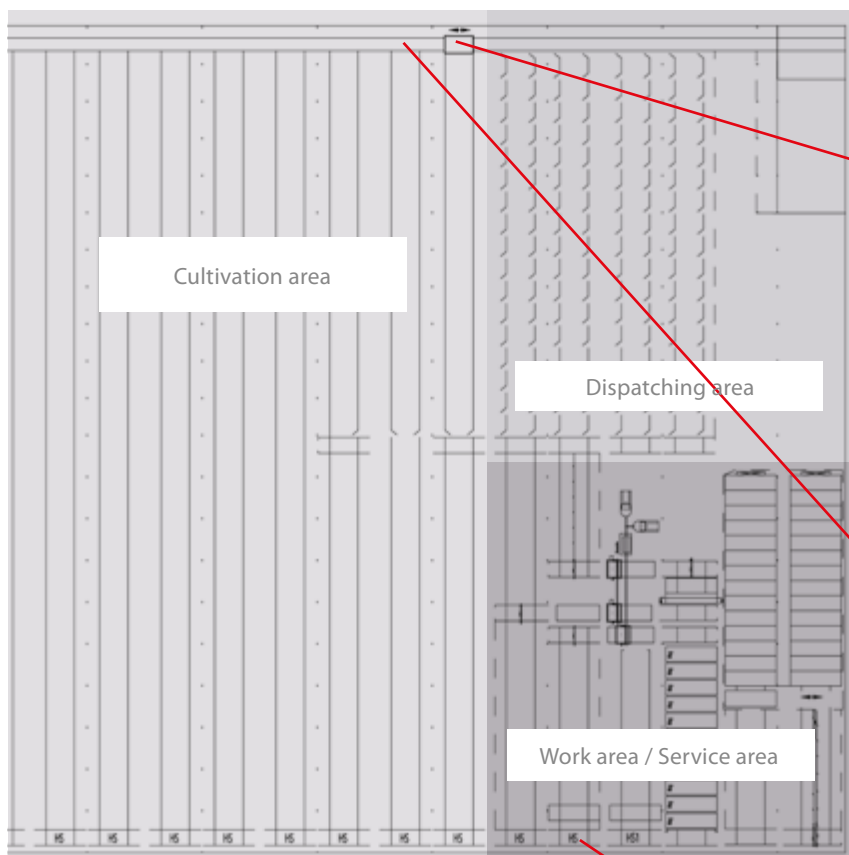
Mobile and rolling mobile bench systems enable maximum utilisation of greenhouse space without losing working areas and passageways.



roller system rolling mobile benches

The rolling system on the benches consists of four pairs of track rolls and leading rolls. There

are two different support designs (see pictures below), which enable access to the plants on all sides in the cultivation area. Short supports offer the possibility of making a passageway without positioning a bench on a transport unit. Long supports create up to four passageways on the respective track. However with long supports a bench has to be pushed on a transport unit.



Automatic single or multi-layer transport robots for the loading and removal of benches



Track-guided, manual transport trolley with interlocking system



Mobile support with working position



Long rolling mobile support with working position



Short rolling mobile support with working position



Stationary transport units with or without pneumatic lifting elements



Pawl conveyor



Fully automatic three-layer transport cart



Germination chamber



Overhead-gantry

Individual optimisation of your work process

OTTE mechanical engineering supplements your mobile and rolling mobile bench systems and complete them to form a fully automatic installation for plant production.

The rail-guided **transport cart** from OTTE transports your benches entirely automatically and continually to exactly where you want them. Each transport cart is designed according to your requirements. Single and multi-layer designs with integrated collection and / or pushing equipment are already successfully in operation. Transport carts from OTTE can push and pick up containers from one or both sides. The power supply takes place by a bus bar. It is also possible to have digital bus connections to a central computer.

Various mobile or stationary **lift systems** (transport units, etc) enable the handling of your containers in the cultivation areas or at particular set points.

The **bufferings stations** enable the short term supply of empty containers to the pot set down and pot take off robots.

These are a kind of magazine position including an automatic conveyor.

Stationary **stackers** from OTTE can be used as an alternative to the container moving system. Their function is the stacking and un-stacking of empty containers.



Stacker



Container moving system

The fully automatic **container moving system** carries out all work hall programmes. It assures the transportation of containers to the required work or storeroom positions (as well as to the washing machine). The container moving system is designed for the transportation of empty containers. Another version for the transportation of full containers can also be supplied.

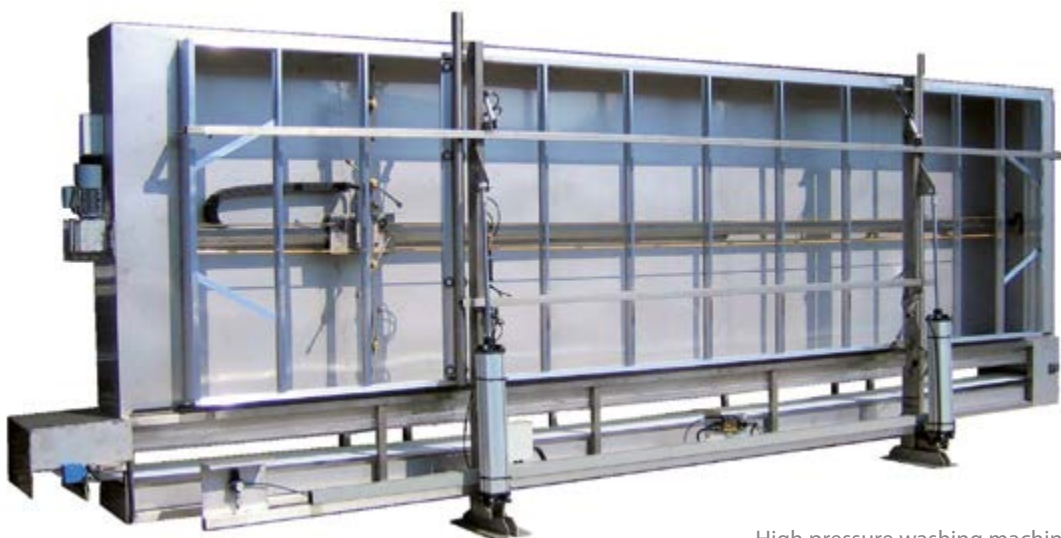
The **washing machine** from OTTE is a high-pressure cleaning plant for the thorough cleaning of the container linings (plastic trays/plates). As an option, the washing machine can also be supplied with a sieve conveyor belt for

troublefree removal of substrate and with a device for disinfection. OTTE also offers a wide range of adapted cleaning solutions for other linings.

After potting, the containers pass through an **irrigation station** which moistens the substrate as required.



Watering / Irrigation station



High pressure washing machine



Container moving system
(Container carrier)

Rolling benches



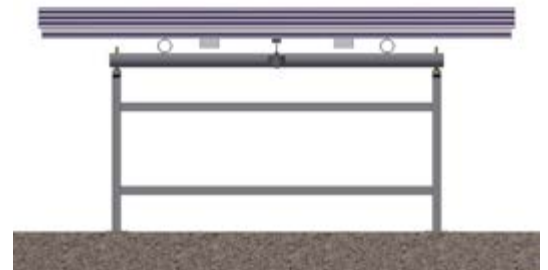
Logical use of space

With rolling benches from OTTE, paths can be created where they are most needed. This ensures an optimized space utilization. The aluminium construction is welded and thus guarantees a long operational life. The table dimensions correspond to the available tray dimensions (standard widths: 1.61m; 1.81m; 1.91m; 2.01m) in almost any length. Special sizes are available upon enquiry.

The sturdy table support consists of galvanized steel posts or from aluminium, depending on the structural conditions. All supports are fitted with variable height adjusters. Two rolling tubes between the support and the bench tray provide the bench with mobility. The rolling movements are between 40 cm and 60 cm depending on the width of the bench. Safety elements ensure the safe handling of the benches (shifting and overtuning protection).



Model "B": galvanized steel posts with or without a traverse for heating pipes, to be mounted into concrete (in the ground)



Aluminium support for mounting on a concrete surface



Shifting protection



Shifting and overturning protection



Optimal lining for every crop

Plastic plate lining / Plastic trays

The plastic plate lining (ebb and flood) offers the ideal solution for irrigation processes. The tray can be irrigated with water or a nutrient solution in accordance with the ebb and flood principle and is thus part of a closed system. With its slight consumption of water and fertiliser, a fully automatic irrigation or fertilisation is achieved with short irrigation times and large savings on energy.

Perforated polystyrene lining

As an alternative to plastic plate lining, the polystyrene linings with irrigation mats also provide a closed water circulation (as flow table with polyethylene, and microperforated capillary mat covers). In this way, the cistern and also the pump facilities can be of smaller dimensions. This not only reduces the consump-

tion of water and the air humidity, but also the investment costs. Without a covering overlay this lining offers optimal air circulation.

Wave grid mesh lining

The wave grid mesh lining allows optimal circulation of heat. Wave grids are available with different mesh sizes and wire thicknesses, depending on the size of the pots, in both galvanized and non-rust steel designs.

Aluminium gutter lining

The aluminium gutter lining promotes a microclimate very conducive to growth because the air can flow past the plants from underneath. The even warming-up of the aluminium sheet ensures swift drying of the root area.

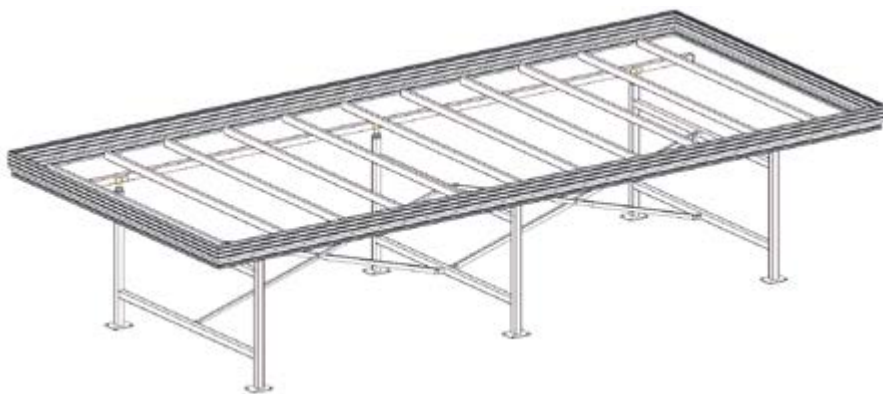


Wave grid mesh lining in use

Sales table systems



Whether indoor... .. or outside – with OTTE sales tables you present your plants in a favourable light.



The perfect stage for your plants!

The OTTE – sales table system offers you not only individual presentation surfaces in many designs and sizes, but also an extensive accessories range with integrated displays and various regulatory elements.

Our entire sales table range is manufactured in our premises from high-quality welded aluminium profiles. In this way we guarantee stable, durable and corrosion-resistant presentation surfaces. OTTE tables do not only have very lightweight structure and ensure easy access to the plants, but they also convince with their aesthetic and discreet design.

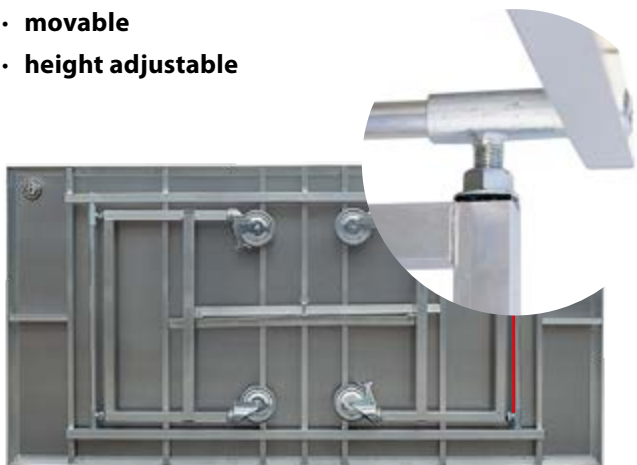
Our trained consultants offer a complete service to ensure optimal adaptation to your design requirements and space availability – from the individual planning to qualified project support though to professional installation.



Precisely welded joints ensure a high stability while maintaining a clean look.

The ideal solution for space-saving storage:

- foldable
- movable
- height adjustable



Individual height adjustment gives you the possibility to flexibly level out uneven floors.

Perfection down to the last detail

For an optimized utilization of your sales area, every sales table is manufactured by us according to your individual requirements. An extremely light aluminium construction as well as various table heights which can be individually adjusted and various finishes, permit an extremely wide range of variants of layout on your action floor - almost in the twinkling of an eye!

Furthermore, you can freely choose your colour design:

We do not only offer sales tables in natural aluminium colour but you can select from the complete RAL colour range to perfectly match your company's corporate identity.



Individual constructions

We are also specialised in individual constructions made to customer's specifications. For this construction we used a centre strut for stabilisation instead of bracing struts.



Length x Width

1,01 m x 1,01 m

2,01 m x 1,01 m

3,01 m x 1,61 m

Further dimensions upon request.



For each plant the right table – so your customers find what they are looking for!



Tables for large plants offer an ideal base for lush habitat.



For the perfect presentation of your plants OTTE offers a variety of sign holders.

Sales table systems



Plastic plate/ tray lining



Aluminium lining with drain hole and plug



Sales tables

A variety of solutions for all cases

Stationary or movable, foldable or even without overhead construction – Sales tables from OTTE allow you to present your range of plants in a professional way, without any additional work.

Our stationary tables are characterized by a particularly robust design, as the tables are provided with cross struts for better stability. The stationary-foldable design is made of an aluminium frame construction with welded aluminium profiles, which offers the advantage of space-saving storage.

To allow more flexibility where frequent modifications are required, both versions are also available in movable design with two braked castors.

All sales tables are height adjustable as standard and depending on the request are either equipped with a waterproof aluminium lining (with water drain and plug) or with a plastic plate/tray for the ebb and flood irrigation.

In the table in the back of this brochure you can find the standard dimensions for sales tables. Of course we also manufacture tables to your individual requirements.



Particularly stable thanks to alu-cross struts – our stationary sales table.



Space-saving while stored – stationary-foldable sales table.



Ideal for frequent modification – the move- & foldable sales table with wheels.

Presenting your plants in a different way



Sales tables

Table size upon request /
Dimension tables in annex



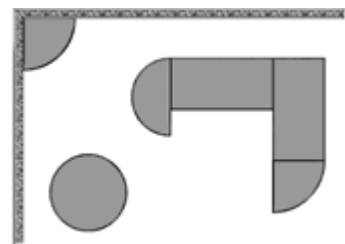
Circular



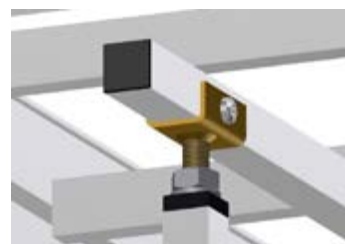
Quadrant



Semicircular



Combinable table arrangement



Including our renowned
height adjustment



Semicircular sales table combined
with normal sales table



Sales table in tiers

Dimension tables in annex



Pyramidal sales table

Dimension tables in annex



Stationary pyramidal sales table
with plastic plate lining (type 2)
and height adjustments at the
bottom.

Table superstructures and accessories

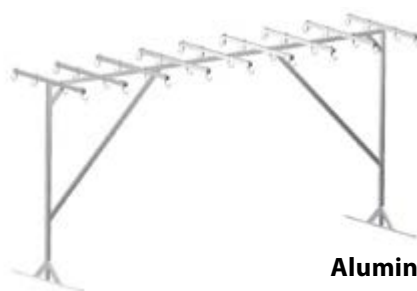


Suspension bracket

Suspension brackets allow the ideal presentation of hanging basket plants.

Thanks to their unique construction they serve as a comfortable and eye-catching display.

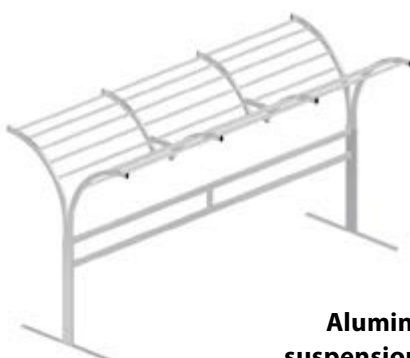
Dimensions upon request



Aluminium rank suspension bracket



Aluminium grid suspension bracket



Aluminium arch suspension bracket



Tier trays

Tier trays offer additional presentation platforms for your plants or accessories. They are fixed stably with clamp arches above the sales table to create a two-tiered table.

Dimensions upon request



Suspended trays

Suspended aluminium trays can be easily mounted on the greenhouse structure. By doing so, you can create additional sales and/or presentation platforms.

The maximum suspension height is 1,80 m.

Dimensions upon request

Accessories



Presentation platform

Our presentation platform offers additional space for accessories of all kinds.

Plattform size: 60 x 40 cm

Total height: 56 cm

base plate size: 51,5 x 37,5 cm



Awning roof

Awning construction for CC-container, incl. PVC-awning with individual imprint, approx. 40 cm height-adjustable



Sign holders

Thanks to our variably usable sign holders you can create easily understandable guideposts.

The large integrated display provides an unobtrusive, but effective orientation.

The flexible, height adjustable, price sign holder simultaneously gives the customer immediate price information.



Price sign holder construction



Display holder



Price sign holder



Accessories



Covering arches

Covering arches enable you to screen selected tables from light by using a special foil. In combination with this foil these arches also support the germination process and growth inhibition.



Aquatic plant table

Consistent quality guaranteed – special sales table for the professional attitude and presentation of aquatic plants.

Dimension tables in annex



With OTTE separation arches you can easily keep your plants in order.



Separation arches

With our separation and mounting arches for sales tables you create a clear and cleanly separated storage for a whole range of plant sizes – quite easily, and always individually adjustable! This also prevents your plants from falling over in a light breeze.



Plant and work tables

Thanks to the ergonomic table top height of 90cm our plant and work tables ensure ideal working conditions. The table top is made of either aluminium sheet or stainless steel.

This table also disposes of height adjusters for perfect height alignment.

Dimension tables in annex

Accessories



Valves

OTTE offers various valves according to the customers' requirements.

No matter if you are using a 1-way or 2-way valve, your plants will always get exactly the amount of water they require.

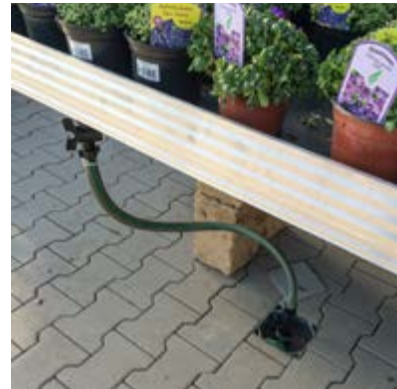
The drain with gate valve is perfectly suitable for a manually controlled irrigation.



Water sockets

Water sockets give you the possibility to flexibly arrange your sales tables without any tangled mass on the floor.

It can be integrated harmoniously in the floor. Close at hand and easily storable – inside view of a water socket.



1-way-valve



2-way-valve



**Gate valve
incl. grommet joint**



Rubber plugs

Rubber plugs in different sizes are usable for the water drain of your sales tables which do not dispose of valves or gate valves.

They are available for almost every kind of drilled hole.

Accessories



Alu angles for pallet rack systems & pallet chair

Powder-coated alu angles (1 set = 4 pcs.) in RAL 7015 color are available in following dimensions:



Single-layer - flat

pallet rack system of 2 euro pallets,
length of angles / pallet rack height = 42,8 cm
Dimension: 100 x 100 x 6 mm



Two-layer – high

pallet rack system of 2 euro pallets,
length of angles / pallet rack height = 72,8 cm
Dimension: 100 x 100 x 6 mm



Three-layer – high

pallet rack system of 3 euro pallets,
length of angles / pallet rack height = 132,8 cm
Dimension: 100 x 100 x 6 mm



Pallet chair

pallet chair consisting of 4 euro pallets,
Length of angles = front 72,8 cm / back 241,7 cm
Dimension: 100 x 100 x 6 mm

Accessories



Plastic trays for CC-container

Dimension (LxW): 1,26 x 0,555 m,
in one piece, without sump



Plastic trays for euro pallets

Dimension (LxW): 1,20 x 0,80 m,
in one piece, without sump



Plank tables

Plank tables of aluminium-angle profile, for 3 pcs. planks each 14,50 cm wd. = 43,50 cm width (internal dimension), plank thickness 28 mm, with 6 aluminium feet

Version "small": (LxWxH) 151 x 44 x 7 cm
for bench width of 151 cm (plank table length),
approx. 7 cm high

Version „special“: (LxWxH) 124 x 44 x 37 cm
for bench width of 124 cm (plank table length),
approx. 37 cm high

Version „large“: (LxBxH) 151 x 44 x 37 cm
for bench width of 151 cm (plank table length),
approx. 37 cm high



Set up trays on euro pallets

For a more sturdy way of presenting your plants, you can choose aluminium trays which are to be set up on euro pallets.

This price-entry option is built for a support made of euro pallets.

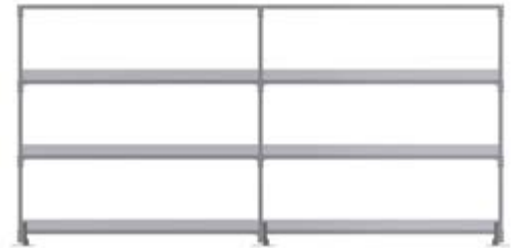
Dimension tables in annex

Rack system



Rack system

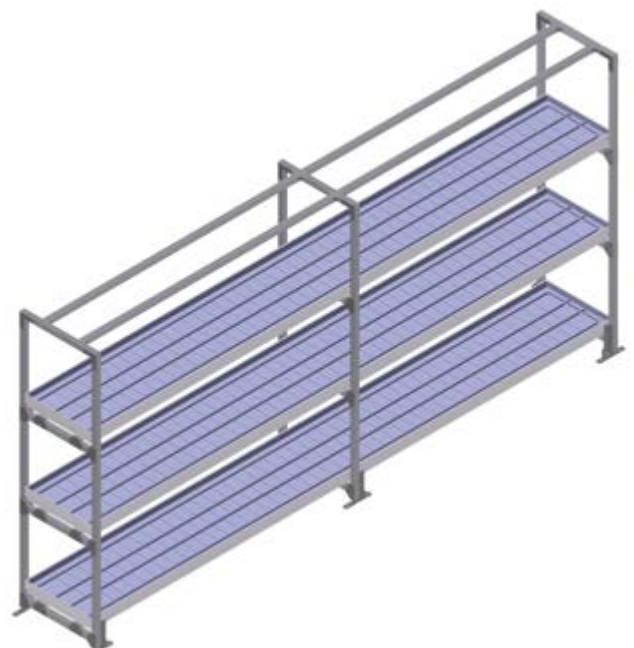
Example illustration
of an alu rack system:



Our aluminium rack system consists of easy-to-assemble aluminum uni-profiles and is equipped with aluminum trays (profile: W6/110) including lining (for example: plastic plates/trays, wave grid mesh, aluminum lining). Within the rack system lamps for a multi-layered cultivation of young and potted plants could be integrated. The multi-layer system uses your cultivation area in an optimal way. The combination of a rack system with an irrigation system offers the possibility of saving water and cost of energy. The aluminum rack systems are produced according to customer requirements.

Dimensions

Length	upon request
Width	from 0,44 m to 1,31 m
Height	3-layer or upon request; approx. to 2,40 m



Sales tables - stationary construction

- welded design
- total height = 75 cm (or according to your request)
- the height of the aluminium support is adjustable and removable (thereby stackable)
- stationary construction is equipped with cross struts

Linings/ covering:

- aluminium lining with water drain, chain and plug (is riveted and glued waterproof)
- plastic plates/ trays are made of 3 mm new material with 1 sump, plastic filter and glue

Recommendation:

1,01 m - if the table can be reached only from one side

1,21 / 1,26 m - for narrow ways and tight space.

1,51 m - if wide ways are possible.

Aluminium lining

	Width		
Length	1,01 m	1,26 m	1,51 m
1,01 m	x	x	x
1,51 m	x	x	x
2,01 m	xx	xx	xx
2,51 m	xx	xx	xx
3,01 m	xx	xx	xx
3,51 m	xx	xx	xx

X = sales table version not foldable

Plastic plate/ tray lining*

	Width			
Length	1,01 m	1,21 m	1,51m	1,61 m
1,01 m	x	x	x	-
1,51 m	x	x	x	-
2,05 m	xx	xx	xx	-
2,51 m	xx	xx	xx	-
3,01 m	xx	xx	xx	xx
3,51 m	xx	xx	xx	xx

XX = sales tables are foldable

For technical reasons, tables under 2.01 m length are not foldable.

Sales tables - movable construction

- welded design
- total height = 75 cm (or according to your request)
- the height of the aluminium support is adjustable and removable (thereby stackable)
- movable design with 4 wheels (2 wheels are fixable)

Linings/ covering:

- aluminium lining with water drain, chain and plug (is riveted and glued waterproof)
- plastic plates/ trays are made of 3 mm new material with 1 sump, plastic filter and glue

Aluminium lining

	Width		
Length	1,01 m	1,26 m	1,51 m
1,01 m	x	x	x
1,51 m	x	x	x
2,01 m	xx	xx	xx
2,51 m	xx	xx	xx
3,01 m	xx	xx	xx
3,51 m	xx	xx	xx

X = sales table version not foldable

Plastic plate/ tray lining*

	Width			
Length	1,01 m	1,21 m	1,51m	1,61 m
1,01 m	x	x	x	-
1,51 m	x	x	x	-
2,05 m	xx	xx	xx	-
2,51 m	xx	xx	xx	-
3,01 m	xx	xx	xx	xx
3,51 m	xx	xx	xx	xx

XX = sales tables are foldable

* The plastic plates/ trays will be delivered in several parts and must be glued by customer.

Overview sizes

Stainless steel sheet

Length	Width		
	1,06 m	1,31 m	1,56 m
2,06 m	x	-	-
2,56 m	-	x	-
3,06 m	-	-	x

Aluminium sheet lining

Length	Width	
	upstand 20 cm	upstand 30 cm
	1,00 m	1,15 m
2,00 m	x	-
2,50 m	-	x
3,00 m	-	-

Length x Width

1,24 m x 0,83 m

Tables for aquatic plants

- welded design, maximum stability
- total height = 75 cm (or according to your request)
- height-adjustable aluminium support
- fixed design; movable design on request
- 30 cm inner height
- stainless steel sheet (V2A) incl. drain and integrated gate valve

Plant and work Table

- welded design, incl. aluminium support
- worktop height = 90 cm (or according to your request)
- worktop made of aluminium sheet-lining or stainless steel
- transverse spacing 33 cm
- height-adjustable support for levelling
- fixed design; movable design on request
- 3 sides with upstand 20 cm, 4. side open

Set up trays on euro pallets

- creates an additional sales area
- welded aluminium construction; light and stable
- stackable trays
- integrated water drain and plug
- including aluminium lining (is riveted and glued waterproof)

Tables in tiers

Pyramidal sales tables

Lining	Length x Width x Height	Tray width (5 pcs.)
Aluminium lining	2,01 x 1,55 x 1,50 m	0,34 m
Plastic plate/ tray	2,01 x 1,55 x 1,50 m	0,34 m

Sales tables in tiers (onesided)

Lining	Length x Width x Height	Tray width (3 pcs.)
Aluminium lining	2,51 x 0,80 x 1,25 m	0,34 m
Plastic plate/ tray	2,51 x 0,80 x 1,25 m	0,34 m

Product range

- Rolling mobile bench systems
- Mobile bench systems
- Rolling benches
- Interior logistic systems
- Bench washing machines
- Special machines
- Sales table systems for garden centers
- Accessories and table superstructures for sales tables
- Special shapes
- Rack systems



Your advantages at a glance:

- Customer-appealing product presentation
- Steady plant quality
- High efficiency
- Solid and durable thanks to welded joints
- Simple handling
- Modularly expandable at any time
- Individual constructions according to your requirements
- All table versions are height adjustable

Smart table systems



OTTE – We have the solution.

We attach particular importance to a good service system and competent consulting services for optimized customer satisfaction. Our specialized consultants would be pleased to see you on-site to find the perfect solution to your requirements.

We are at your disposal at any time. Each installation is planned, constructed and produced by our skilled staff according to your requirements. Our experienced assembly- and start-up teams ensure a professional assembly of our installations throughout the world.

OTTE is your experienced and competent partner at your side! Challenge us!



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