

PIPP®
HORTICULTURE
Elevate. Cultivate. Grow.



GET A QUOTE!



GROWER APPROVED

Pipp is dedicated to providing growers with innovative indoor cultivation solutions that will optimize their grow operations. To help us target the unique needs of growers and offer the highest quality products possible, we have assembled a team of expert growers with **over 60 years** of combined cultivation experience! You will not find a team of more experienced growers in the industry.

MEET TWO OF OUR GROWERS!







Anders
Peterson
Director of
Horticulture

WE ARE **PROUD** TO WORK WITH COMPANIES SUCH AS:



CANNABOR. (SWITZERLAND)



(SWITZERLAND)



HELIUS(NEW ZEALAND)



TRICHOME
Indoor Cannabis Art
(ISRAEL)

THE WORLDWIDE LEADER IN INDOOR CULTIVATION



PIPP SYSTEMS ARE **INSTALLED IN OVER...**

50 STATES & PROVINCES

500 FACILITIES

300 GROW ROOMS



MAXIMIZING YOUR CANOPY

The future of cannabis cultivation is utilizing every inch of space available to **maximize your return.**

Whether you are growing one tier, two tier or higher, Pipp Horticulture is your partner in growing efficiency. **Reducing operating** costs and increasing revenue are all part of the long term success of your cultivation.

The Pipp team has helped hundreds of growers in the U.S. and across the world achieve their horticultural goals. Pipp's expertise and hands-on approach will help you get the job done!





Pipp Horticulture is the worldwide leading provider of Mobile Vertical Grow Racks.

Pipp systems are installed in hundreds of indoor cultivation facilities across North America and Europe! With **over 40 years of experience** serving the nation's top retailers, Pipp has engineered cost-saving solutions that can exponentially increase your production without adding an inch to your footprint. Double or triple your canopy by maximizing your cubic grow space with more efficient workflow.

Not only can you produce more, you'll save more.

Pipp's prices are lower than the industry standard thanks to decades of experience in the price-sensitive retail market, factory direct sales channel, and an efficient team of licensed installers.

Pipp's mobile multi-level rack and tray systems are the most cost-effective investment you can make.

- NSF Certified
- Designed to Help You
 Achieve GMP Certification
- Efficient & Easy to Clean
- Lightweight

- Sustainable
- Safe & Durable
- Includes Full Design & Installation Services





Based in Grand Rapids, Michigan, Pipp serves cannabis and traditional cultivators with the same expertise that forged its dominance in the retail industry. You deal directly with us and we design specifically for you. No wasted resources...no mark-ups...YOU WIN!



MARINE GRADE ALUMINUM

We build our carriages and tracks with non-corrosive high tensile aluminum extrusions and stainless steel rails to provide premium strength in a lightweight durable system.





DEPENDABLE STRENGTH

Pipp systems are designed to withstand earthquakes and other natural disasters. You can count on the longevity and safety of our products.



MOBILE FLEXIBILITY

We do offer fixed racks, however nearly all of our customers enjoy the benefits of going mobile. Choose from our manual or mechanical-assisted systems to easily access all parts of your garden and enjoy a more efficient workflow.



SINGLE LEVEL START

Many cultivators like the idea of starting out single level and evolving into multiple tiers. With the primary infrastructure in place, adding additional supports and trays are relatively easy with minimal down time.



THE GOAL

The facility wanted to...

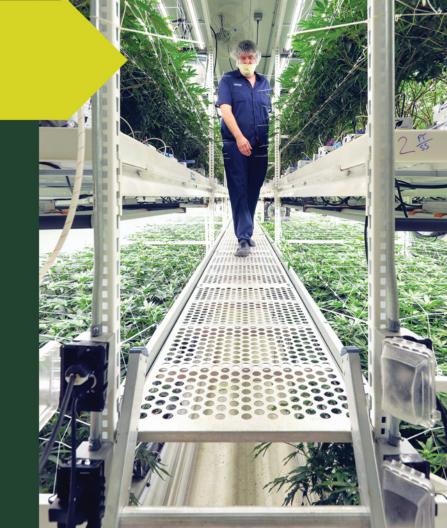
Grow

vertically to maximize canopy space within a set footprint.

Movement

of aisles for a better workflow and efficiency.

Increased Output per square footage.







Pipp's team of in-house designers, engineers, and cultivation experts designed a **mobile cultivation system** that integrated with the other components necessary for successful operation, such as lighting, airflow, irrigation, and drainage systems. These tools help ensure that Sozo can produce the highest quality products possible for their customers.

Solution

Pipp installed Mobile Vertical Racking Systems that created **70% more canopy space** in Sozo's Detroit cultivation facility. To further improve their efficiency, Sozo also added Pipp's revolutionary **ELEVATE® Platform System,** which allows growers to safely access plants on the upper level, as well as their ABS Grow Trays and Drying Carts/Racks.

@ Results

- > 70% CANOPY GAINS
- > 24,824 SQ. FT. of canopy created
- SAFER WORK SPACE with movable aisles and easy access to upper levels





"It has been a pleasure and a huge learning experience working with Pipp. They are always available, friendly, and very understanding. Very organized and with a tremendous capacity to understand the client's side. We feel that we have always been well taken care of with Pipp.

Very professional.

Luis Palmeira, Grupo Armando Alverez



"By transitioning to Pipp Horticulture's vertical farming, we maximized canopy space and more than doubled production per square foot, while increasing efficiency and a streamlined workflow."

Tony Martinez, Cultivation Manager







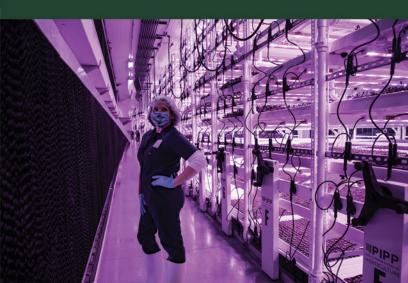
"Pipp has been an absolute blessing, they're the most reliable, and have more than **doubled our grow space."**

Hunter Mishler, Director of Production Science



"We chose Pipp racking because its mobile aisles allow us to grow more of our produce in the same footprint and helps us deliver the best product to our customers."

Planted Detroit Team



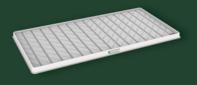




Mobile Carriages



Vertical Racks

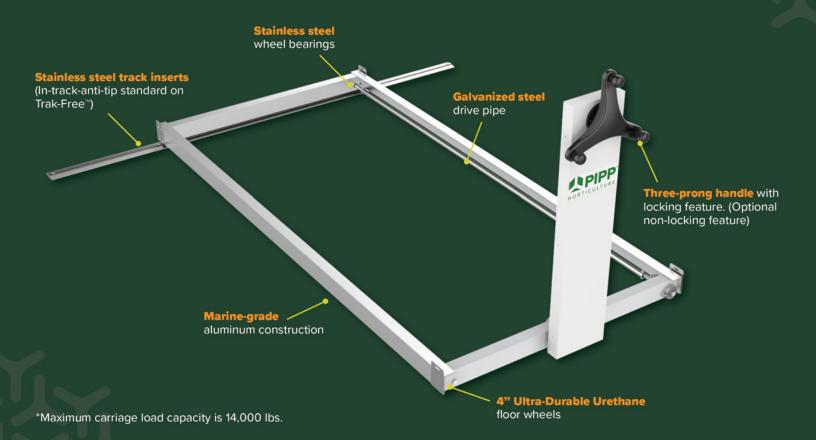


Grow Trays

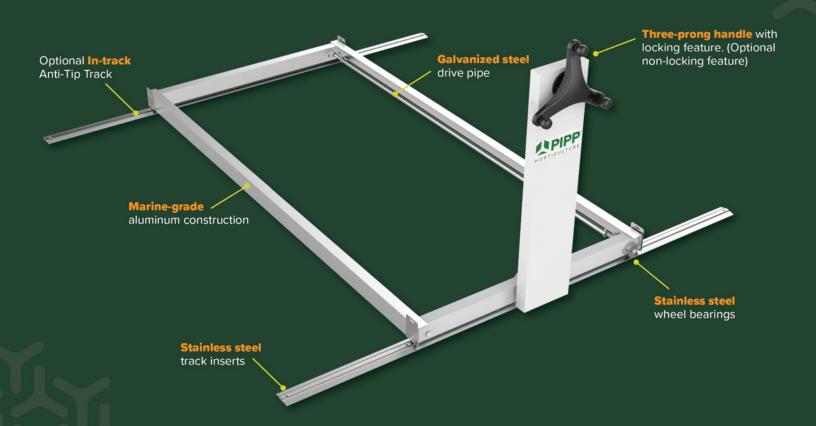


Mobile Carts

TRAK-FREE CARRIAGE



MECHANICAL-ASSIST CARRIAGE



VERTICAL GROW RACK

Racks available up to 16' high. (Racks higher than 16' require engineering approval).

Features a dual coat finish with an E-Coat base layer for corrosion protection and a top layer of white powder coating with anti-microbial and anti-fungal properties.

Beams can support up to 2,150 lbs.

High capacity shelving constructed from high strength steel.

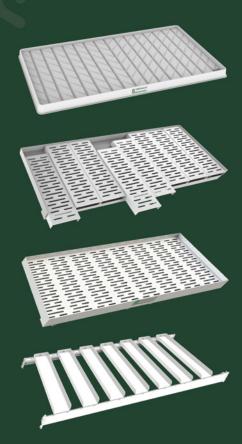
Modular Uprights

allow for a knock-down design and support up to 17,000 lbs.

Supports accommodate a wide variety of grow trays, accessories, mounting equipment for LED lights and other utilities.

GROW TRAYS

Pipp Grow Trays provide connection points for lights, air circulation, and plumbing. They drain effortlessly with HDPE inserts that are fungal-resistant and anti-microbial. Typical tray sizes are 8'x4', 8'x3', 4'x4', and 4'x3' (custom sizes available).



ABS Grow Trays

ABS Grow Trays are used for Drip-to-Drain irrigation styles. Made from a durable ABS plastic, a deep-draw thermoformed process is used to create a 1/2" built-in slope for drainage. The ABS material has a co-extruded acrylic cap for UV stability and anti-microbial/fungal-resistant properties. Tray capacity not to exceed 15 lbs./f².

*U.S. Patent No. D906,876 S | U.S. Patent No. 11,116,148 | Additional U.S. Patent Pending

Drip-to-Drain Grow Trays with optional HDPE Inserts

Drip-to-Drain Trays are perfect for Drip-to-Drain irrigation. They feature optional HDPE Inserts that are fungal-resistant and anti-microbial. Tray capacity not to exceed 20 lbs./f².

*U.S. Design Patent No. D925,392.

*Made to order, longer lead times will apply. Check with sales team for details.

Combination Grow Trays with optional HDPE Inserts

These trays can be used for Drip-to-Drain irrigation or Ebb-and-Flow. They are combined with our Vertical Grow Racking and Mobile Carriages to provide the most efficient indoor grow space. Tray capacity not to exceed 20 lbs./f².

*U.S. Design Patent No. D906,876.

*Made to order, longer lead times will apply. Check with sales team for details.

Airflow Grow Trays

Airflow Grow Trays are designed for Drip-to-Drain irrigation with Rockwool slabs. Traditional pots are also a great option. The sectional trays allow for unobstructed airflow, using a combination of natural convection and improved performance of in-rack airflow solutions. Tray capacity not to exceed 50 lbs.

STATIONARY& ROLLING BENCHES

GGS benches can be **stationary or rolling** and are fabricated in expanded metal covering, ebb & flood trays, or irrigation troughs. The bench assembly is designed for easy installation with snap together aluminum profiles and factory welded stands to make your job easier!

- All aluminum, snap together top frames.
- ▶ All aluminum, adjustable stands for easy leveling.
- Strong yet lightweight for easier assembly.
- Corrosion resistant.
- Customizable height.
- Pre-galvanized steel purlin bracing and roll tubes.
- Rolling benches have 2" roller tubes for easy roll even with freshly watered plants.





MOBILE CARTS

Our high quality manufactured products don't stop at our vertical growing racks. Pipp cannabis drying racks are durable, space-saving and best of all, configurable. Mobile storage carts and drying racks for cannabis allow you to further maximize the space in your facility.



Drying Cart

The Drying Cart is designed to accommodate hanging plants in order to dry and cure them for further processing. It has adjustable cantilever-style finger attachments which allow you to configure the cart as needed.



Shelf Cart

The versatile Shelf Cart can be used for both general storage and transporting goods. The shelf levels are adjustable and additional shelves can easily be added to the cart to customize it to suit your needs.



Combo Cart

The multi-purpose Combo Cart combines our exclusive hanging attachment for drying out plants with adjustable shelves below for general storage and transport needs.



Wire Cart

These durable and highly functional carts are ideal for mobile storage requirements. The open wire construction minimizes dust and dirt accumulation and maximizes airflow as well visibility.

NESTING **DRYING RACKS**

The Nesting Drying Rack delivers ease of use, safety, and long life. Heavy-duty construction combined with standard 5" swivel non-marring casters provides a 1,000 lb. total load capacity. Z-Base allows for nesting when not in use.









Nesting
Drying Rack

4 Drying Racks Nested Together

Optional Fold-Up
Bottom Shelf

Optional Middle Hangrail

SECURED STORAGE



Pipp's Solid Lockers are built to be durable with their heavy duty steel construction and high grade powdercoat finish. These versatile lockers are available in a variety of configuration options and colors. Several accessories are also available.

Secured Storage Systems feature robust pry-resistant doors, fully welded closed tube frame, and a three-point rod locking mechanism. Store any size product with adjustable shelf spacing on 2-1/2" increments.





6'H Single Secured Storage Unit



ELEVATE®PLATFORM SYSTEM

The ELEVATE® Platform System is a robust, lightweight, and portable deck to allow cultivators to access Pipp's Multi-Tier Mobile Grow Racks quickly, efficiently, and most importantly - safely. This patented system was designed to integrate with Pipp's Bulk Rack Shelving Systems without any modifications. The ELEVATE® Platform System can be installed on new or existing mobile vertical grow racks.

- U.S. Patent No. 11.478.079
- Lightweight components allows one person to set up the entire system.
- Aluminum and Galvanized steel components are corrosion resistant.
- Deck sections are 22" x 49" giving ergonomic access to canopy without giving up overall canopy throughout room.
- Galvanized steel support rails hold 650 lbs per pair (tested to 4x capacity per OSHA requirements).
- Purpose built support rails are adjustable and have integrated anti-dislodge protection features to keep beams secure while in use.
- Multiple people can access and work on the platform at once.
- Ladders available to cover deck heights between 30" and 120" A.F.F.
- Mobile Vertical Racking designs that incorporate a 46" or larger mobile access aisle, two separate working rows of the ELEVATE® Platform System may be utilized simultaneously.





AIR CIRCULATION SYSTEMS

Vertical Air Solutions' patented in-rack airflow system provides canopies with uniform, top-down airflow while homogenizing the climate in a multi-layered rolling rack platform. The first purpose-built system of its kind, developed by growers for growers. This cuttingedge product is designed to enhance your cultivation environment with precision and efficiency at a fair price.

- Vertical Airflow: Harness the power of strategic vertical airflow to ensure uniform temperature, humidity, and CO2 throughout your grow space.
- Increased Savings: Enjoy cost savings and sustainability with this energyefficient system that maximizes air circulation while minimizing power consumption.
- Enhanced Crop Health: Promote vigorous plant growth while mitigating the risk of mold and disease by maintaining consistent environmental conditions.
- Customizable Control: Tailor the airflow to meet your plants' unique needs with adjustable fan speeds and a modular system design.
- Space Saving Design: This compact and sleek system is engineered to fit seamlessly into most vertical racking systems with the thinnest form factor on the market while providing superior performance.
- **U.S. Patents**

US Patent No. 10,694,682 B2 US Patent No. 10,806,099 B2 U.S. Patent No. 11,632,915 U.S. Patent No. 11,641,810 *Other US and foreign patents pending



DRY ROOM MOBILE STORAGE

Hang Options:

- ▶ 14 gauge steel Rivet Style Shelving which is adjustable on 1-1/2" increments.
- Rack configuration is fully customizable. Typical rack configuration is 24" wide x 16' high with 3 dry levels and 2 bars per level.
- Round Hang Bars Hang full plants on our hang bar with simple hook attachments for faster trimming.
- Finger Bars Easily hang plants from adjustable cantilever prongs without hooks or wires.
- Grid Hang Hang plants from any position directly on a 4" x 4" wire grid spacing. This allows for greater air circulation with built-in Flue Space.
- *Bulk Rack Patent Pending





The vertical farming industry is growing every day!

Grand View Research estimates that the global vertical farming product market will **grow by 25.7%** by 2027. For indoor cultivation, mobile vertical racks are a vital tool for a successful growth system and can increase both yields and annual revenue.

Here are 6 things to consider when picking a Vertical Rack Provider.



Dedication

Are they dedicated to the horticulture market?



Integration Do they offer

Do they offer integrated tray systems?



Innovation

Do they provide innovative tools that enhance your yields?



Drive System

Is a continuous drive shaft a standard feature?



Lead Times

What are the lead times? Are products sourced in the USA?



Service

Do they put the customer first from sales to service?

With **over 40 years of experience** in the mobile racking industry, Pipp Horticulture is not just a provider, but a partner. Our certified installation team and the most experienced cultivation experts in the industry provide companies with custom solutions that maximize their grow space!



How tall can the racks be?

Mechanical-Assist Cultivation Systems can be built up to 16' high and 56' long. Systems larger than this would require engineering approval.

What kind of track and rails are used? How are they installed?

Our unique track and rail system is marine grade aluminum and stainless steel. It is only ½" high and includes an anti-tip feature to comply with seismic codes. We level and anchor the rails into concrete floors for a high quality, safe installation that performs for decades.

How about irrigation and drainage?

Irrigation and drainage equipment is typically provided by the end user. Our systems can be designed to accommodate a wide range of applications.

Can vertical grow racks tolerate the conditions of a grow room?

Yes. However, prolong exposure to excessive humidity levels (+55% RH) and direct contact with water can eventually cause corrosion and/or oxidation over time. These are merely cosmetic and do not compromise the strength and durability of the grow system. Routine cleaning and maintenance of the system is the best way to mitigate this risk and maximize the system's performance and longevity.

