

# The *Agra Bench*

Mobil Trays - Rolling Benches - Stationary Benches –  
Ebb & Flow Bench Systems - Caster Benches - T-Rail Benches by:



*"The Agra Tech Benches were easy to build  
and have been a dream to maintain."*

Barry Hayes  
Hayes Wholesale Nursery  
New Zealand

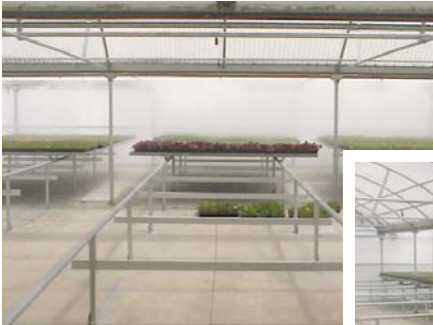
[www.agratech.com](http://www.agratech.com)



## Agra Bench Systems

Attain maximum flexibility and square footage efficiency with Agra Tech's bench systems. Benches are typically topped with a 3/4" 13ga Expanded Metal that has been hot dipped after expansion for the maximum service life.

### Mobil Tray Benches



Galvanized Steel Bench frames are used to create the Agra Tech Mobil Tray Bench System. Bench Trays are capable of rolling from house to house and even outside for their daily dose of hardening .



Mobil Tray Benches are very easy to operate, and have a very long life.

Generally used in production greenhouses to lower cost of production. Yields nice crop uniformity.



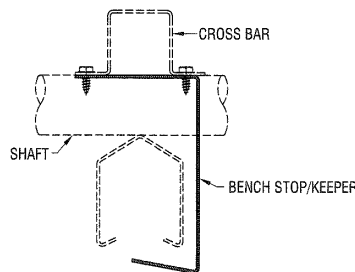
### Rolling Benches

Unique rolling benches have wider aisles to move crops faster and allow better access for workers, and carts. Rolling Benches are constructed using anti-tip retainers. This unique feature prevents the rolling top from tipping while maintaining structural integrity...enough to hold a 200 lb. concentrated load on the cantilevered section.

#### Rolling Bench aisle widths with Operating Load.

- 6'6" Bench = 27" aisle and 10#/sq. ft.
- 6'0" Bench = 24" aisle and 11#/sq. ft.
- 5'6" Bench = 21" aisle and 12#/sq. ft.
- 5'0" Bench = 18" aisle and 13#/sq. ft.

The peaked roll bars allow easier and smoother rolling. The peaks prevent soil, chemical and water build-up that can otherwise interfere with or corrode flat roll bars.



The Rolling Bench has wider aisles for personnel and carts to help move crops faster. The 6'6" Rolling Bench's cantilever is 27" –compare this to the industry standard 18" aisle and you'll see Agra Tech Rolling Benches are simply better.



Generally used in production greenhouses to lower cost of production.



## Stationary Benches

Agra Tech Stationary benches are designed to meet the highest expectations in strength, durability, and ease of construction.

Benches are constructed with galvanized steel 1 ½" wide cross bars, 2" id. "U" shaped legs, and break formed Z-runner's which run the length of the bench and are point fastened to each bench leg.

Side rails and End rails can be either Steel (2 ½" tall) or Aluminum (4" tall).

### Stationary Bench widths and loads.

- 3'0" = 22# / sq. ft.
- 4'0" = 16# / sq. ft.
- 5'0" = 13# / sq. ft.
- 5'6" = 12# / sq. ft.
- 6'0" = 11# / sq. ft.
- 6'6" = 10# / sq. ft.



Generally used in Research and Education Greenhouses where more access to plants is required.

## Ebb and Flow Benches

**Ebb and Flow Benches - Improve production, efficiency and the environment.**



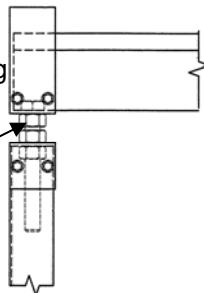
Ebb and flow systems are more cost effective because they reduce water, fertilizer, and labor costs.

With water reclamation requirements and increasing intolerance of contaminating surface or ground water, ebb and flow benches are the irrigation solution for the future. The trays are flooded with water and fertilizer – the excess drains off and is reused, cutting these costs and labor by as much as 50%.

Agra Tech uses top quality European trays made with virgin polystyrene with multi-directional drains to provide vertical fill and draining for flats or individual pots. Tooling is temperature controlled to ensure level trays, thick corners and long life.

Agra Tech Ebb and Flow frames are designed with supporting crossbars 18" on center, legs are set 6' on center, and handsome 4" tall aluminum side extrusion for the extra support necessary to keep the trays from sagging.

Initial leveling and maintenance leveling of the trays is easily accomplished by built-in screw adjustment on every leg.



Generally used in production greenhouses to lower operating costs. Yields nice crop uniformity.

## Caster Benches



Generally used to display plant material and can be rolled back to close spacing for production use.



Agra Tech's Caster Bench is a rolling stackable bench that has a pre-welded frame. Bench tops are bolted to the stackable legs. Simply remove 3 bolts and then the tops can be removed and the bases stacked.

Caster Benches come standard with 2) Free Casters and 2) Locking Casters.

Caster Benches typically have 13 ga. hot dipped galvanized Expanded Metal bench tops.

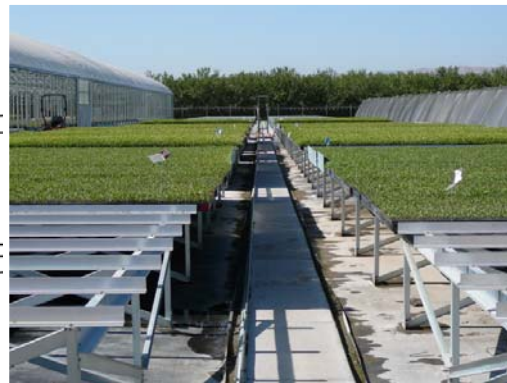
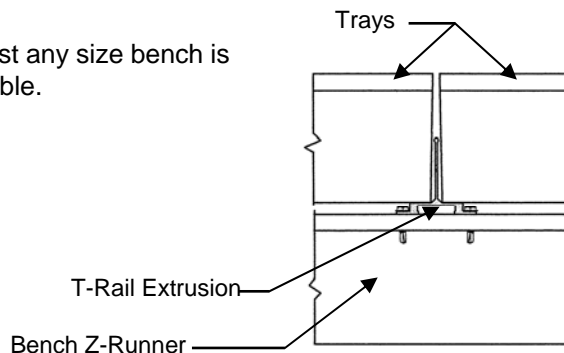
## T-Rail Benches

Galvanized Steel Bench Frame with extruded aluminum T-Rails. Allows practically 100% Greenhouse space utilization.

In the greenhouse one side of the T-Rail bench can be attached to the greenhouse column. This allows flats or trays to be off-loaded through an opening sidewall as well as a center aisle.

Generally used for propagation.

Almost any size bench is possible.



18' x 408' T-Rail bench in a 40' wide Thermolator.

Exterior Benches for hardening off.

## Options

**Stabilizer Assembly** – The stabilizer assembly prevents rolling bench tops from creeping down hill and hitting or escaping from the retainer.

**Leg Anchors** – Used to attach bench legs to concrete slab floor rather than drilling footings.

**Under Bench heating supports** – Agra Tech can take care of the details with under bench support channels.

**Retro-fit** – benches can be outfitted with expanded metal, then retrofitted with ebb and flow tray tops.

**Expanded Metal** – Agra Tech uses 3/4" x 13 gage, hot-dip galvanized after expansion to prevent rust. (Expanded Metal not hot-dipped *after* expansion rusts quickly.) Compare Agra Tech's high quality against any competitor.

**Ultra-heavy weight loads** – Agra Tech can design a bench to accommodate extra heavy weight requirements.

**Integration of Megatube-type bench heating** – Crossbars can be ordered to accept plastic heat tubes with 5/8" diameter holes punched 6" on center. Heating tubes are suspended below the expanded metal and above the shafts.

**Flush side rails** – Upgrade the 2 1/2" side rail with flush "C" side rails, so flats can extend over the bench edge and increase capacity.



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