

## NEW Covered Collector

We are the first in the world, as far as we know, to build a covered collector into a high performance, sliding bench, NFT system. The covered collector is made from coextruded HDPE. Not only does it limit algae growth and evaporative water loss, it insulates nutrient from ambient temperature swings due to double wall configuration as well as quick draining capacity with drains every 10'. This is the first set of instructions... please call us and we will help walk you through installation.

*Read instructions thoroughly before beginning assembly.*

### 10' collector kit:

[1] 10' piece of 4" coextruded pipe

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[2] 4" braces w/ 2 Tek screws each

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[7] Screw 8-32 x 1.75"

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[7] Stainless steel washers #10

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[7] Regular washers #10

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[7] Lock washers #10

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[7] Nuts 8-32

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### Coupler kit:

[1] drain coupler

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[4] Rivets 3/16"

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[4] Rivet washers

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[1] 12" piece of plastic hanger strap

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[1] 12" foam tape

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[1] Black nylon zip tie

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### End Cap kit:

[1] end cap coupler

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[2] Rivets 3/16"

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[2] Rivets washer

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[1] 12" of hanger strap

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[1] 6" piece of foam tape

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[1] Black nylon zip tie

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# Assembly Instructions

*Before installing collector, make sure to introduce the gutter material to your greenhouse environment for a couple days so material can adjust to climate.*

*You will need 2 spring clamps to hold collector to top rail while using top rail as guide for drilling holes in collector pipe.*

## Collector Pre-Assembly

[1] Cut (2) 6" pieces of foam tape (2 per drain coupler, 1 per drain end cap) and attach sticky side down to coupler and end caps as shown in images A through D. Once tape is secure, remove tape backing.

[2] Cut (2) 6" pieces of hanger tape shown in image E (2 per coupler, 2 per end cap) and drill out end holes with a 3/16" bit (drill bit provided). The larger holes allow the rivet and black nylon zip tie to fit.

## Collector Assembly

[1] After table frames are assembled, begin attaching collector from one end of table. As per the table frame instructions, the top rail, to which the collector attaches, is pre-drilled. Take an end cap and a section of collector and assemble as per illustrations.

Rivet goes through hanger strap, end cap, collector than rivet washer (see illustration J). Use rivet gun provided to secure rivot from inside of collector pipe. Repeat on opposite side of end cap.

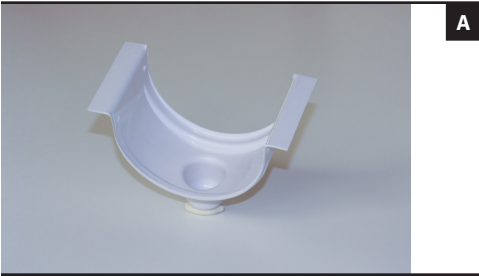
Attach drain coupler to other end of collector pipe and follow the same procedure (Look at images E through G). *Note: the hanger straps attach on opposite sides of coupler as per illustration F.*

[2] Hold collector against top rail with spring-clamps (not provided). Make sure the inner top of collector pipe is flush with top of top rail. Use pre drilled holes in cross bar as pilot holes for drilling 3/16" holes (drill bit provided) in collector. Use stainless steel bolt with washer inside collector and secure to top rail with washer, lock washer and nut. *Note: secure half of the first section of collector with screws. Attach second collector section before finishing attachment of first collector section.*

[3] Once all of the collector pipe sections are attached to top rail, attach 4" braces to each leg (show in figure k). Secure 4" return pipe to legs of table frame with metal plumbers tape. The 4" return pipe (into which the collector drains) must drop a minimum of 1" every 20' to nutrient reservoir. (Look at illustrations K and L)

Once attached, drill 1 3/8" holes with hole saw (provided) in alignment with downspouts on the collector couplers and end caps. Measure distance between 4" return pipe to bottom of coupler/end cap and cut the flex-tubing to fit. Force one end of flex-tubing into 1 3/8" hole and fit the other end over the downspout nipple. Secure black nylon zip tie through the two hanger straps, around the flex tubing as shown in images E through G.

[4] Once collector is installed, pull back collector lids and set growing channels inside of collector. The lids will adjust to the height of the growing channels and rest securely to prevent sunlight exposure.



A



B



C



D



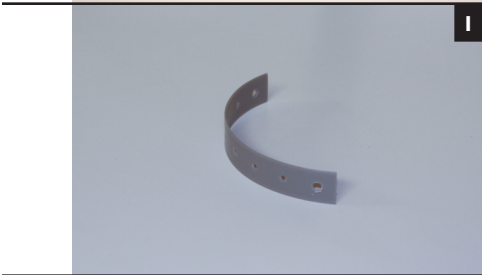
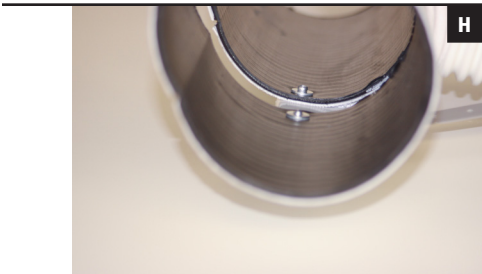
E



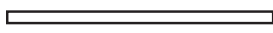
F

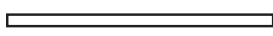


G



 Rivet Washer

 Collector

 Coupler/Endcap

 Hanger Strap

