



## APONIX VERTICAL BARREL / 3D-NFT

Vertical cultivation system / soil-less or substrate based

- Assemble ring segments from 6 compact pieces.
- Each piece can provide grow adapters to configure vertical cultivation area.
- Stack any number of ring segments into a vertical cylinder / barrel corpus.
- Add any number of vertical barrels into a production line for your crop.
- Attach irrigation to each barrel, add pump, connect drain to reservoir.
- Grow high density lettuce, herbs and the like >60 plants per sqm.



Aponix provides a usable, flexible, robust and simple vertical platform for setting up high density urban farming solutions based on vertical cylinders.



„WE ENABLE SMALL AND LARGE SCALE EDIBLE PLANT PRODUCTION FOR COMMERCIAL GROWERS AND PROSUMERS!“

Marco Tidona  
Inventor and director at aponix

Web: <https://www.aponix.eu>

Email: [hello@aponix.eu](mailto:hello@aponix.eu)



Substrate-based setup  
Raised bed alternative

Soilless standing setup  
Single or multiple barrels

Soilless hanging setup  
with 2" net pots

aponix GmbH, Im Neuenheimer Feld 583  
69120 Heidelberg, Germany.



## MODULAR STACKABLE SYSTEM

The aponix barrel consists of stacked ring segments. Each ring segment is assembled using 6 of our ring segment pieces that provide different grow adapters.

The reduction to as few parts as possible and basically on repeatable part has many advantages over existing systems (see box Advantages).

Depending on available height, one vertical barrel can be stacked up flexibly to an individual height to maximize the number of available growspaces in your production area.

Example: A barrel with 14 ring segments has a height of 2.30m including lid and base and

provides 168 single growspaces. Each growspace provides an insert for a standard 2-inch netpot carrying one or more seedlings.

## IRRIGATION FROM THE TOP



To provide the nutrients in a soil-less setup for your plants, each barrel is connected to a nutrient circulation system via pump with a central reservoir. Regardless of

the individual barrel height, a sprinkler or the filled waterbuffer distributes the liquid to the inside wall. While running down the



liquid is directed evenly to all root areas by a system of alternating wings. Depending on the purpose and setup the liquid will remain in a closed base and recirculate from there or drain completely back to an external reservoir.

## ADVANTAGES

- Simple and fast assembly.
- No loose parts, screws or dead corners.
- No racks or tables.
- Compact storage / transport.
- Easy integration into existing production systems.
- Robust for handling and high pressure cleaning.
- Flexible height and number of growspaces by stacking ring segments.
- Flexible plant spacing using different grow adapters.
- Standing, hanging or standalone versions possible.
- Integrated irrigation: sprinkler, buffer or individual solution.
- High yield per available sqm/cubic meter, cost effective, durable.
- Greenhouses or indoor growing with growlights.
- Soilless and substrate based setups possible.

